Monday, February 01, 2010

REQUEST NUMBER: 10-1511

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1511

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples

according to the schedule indicated:

SHIP DATE: 2/1/2010

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:AM-241	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:ISOPU	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:ISOU	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:6020	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	
	SW-846:6850	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	
	SW-846:7470A	1	RE15-10-7326	W	1/28/2010	
	SW-846:7471A	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:9012A	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	

Final Page of REQUEST NUMBER 10-1511

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1511C

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-1511

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc.,
Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7309	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7309	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7308	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7308	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7315	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7315	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7317	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7317	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7319	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7319	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7312	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7312	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7313	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7313	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7314	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7314	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7316	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7316	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7318	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7318	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7326	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-7326	1	POLY	SW-846:6850	Ice	W
RE15-10-7326	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-7324	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7324	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
	2/1/10	3:00			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7329 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		0846	SUB-MEDIA:	OTHER	
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610559	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / (NO) / NA		

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

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

# 12m 1/28/10	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2	Normal	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE15-10-7308

SAMPLE COMMENTS:

FTB

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7314 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alluvium
TIME COLLECTED (HH:MM)		0906	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610562	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Frozen brown silty sand

SAMPLE COMMENTS: NA

LOCATION DESC: 5c-2

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 11 dpm

βγ ≤ 1734 dpm

PID ambient reading 0.1 / 0.1 ppm

HE negative

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7308 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610559	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+8270+NMED-EXP	500 ML AMBER GLASS	Ice	Y	
1	↓	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RE	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty sand, numerous rocks, some roots

FTB RE15-10-7329

SAMPLE COMMENTS:

NA

LOCATION DESC: 5c-3

FIELD SCREENING/MEASUREMENT RESULTS:

HE NEG

$\alpha \pm 11$ dpm

$\beta\gamma \pm 1976$ dpm

PID ambient reading 0.0 / 0.0 ppm

HE neg

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7318 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		0943	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610564	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, numerous rocks, grass roots

SAMPLE COMMENTS: NA

LOCATION DESC: 5c-5

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 5$ dpm

$\beta\gamma \leq 2080$ dpm

HE negative

PID ambient reading 0.1 / 0.4 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7309 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610559	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+8270+NMED-EXP	500 ML AMBER GLASS	Ice	Y	
1	↓	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: light brown sandy silt

FD : RE 15-10-7324

SAMPLE COMMENTS: NA

LOCATION DESC: 5C-3

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq$ 16 dpm PID ambient reading 0.0 / 0.0 ppm

$\beta\gamma \leq$ 1824 dpm

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) L. Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7317 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Milh
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610563	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+C N	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt, white tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: 5c-6

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \pm 22$ dpm

$\beta\gamma \pm 1935$ dpm

ambient reading 0.0 / 0.3 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7315 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Ash
TIME COLLECTED (HH:MM)		0920	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610562	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+C N	1 ~~GAL~~ POLY liter 1/11/10 KC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt, white tuff fragments
Field duplicate collected with this sample RE15-10-7326

FR : RE15-10-7326

SAMPLE COMMENTS: NA

LOCATION DESC: 5C-2

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 27$ dpm PID ambient reading 0.0 / 0.0 ppm

$\beta\gamma \leq 1637$ dpm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7324 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alluvium
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610559	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	3.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+8270+NMED-EXP	500 ML AMBER GLASS	Ice	Y	
1	↓	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7309

Light brown sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC:

5c-3

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq$ 16 dpm

$\beta\gamma \leq$ 1824 dpm

PID ambient reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1358
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7316 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alluvium
TIME COLLECTED (HH:MM)		0930	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610563	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown frozen silty sand

SAMPLE COMMENTS: NA

LOCATION DESC: 5c-6

FIELD SCREENING/MEASUREMENT RESULTS: PID ambient 0.0 / reading 0.5

α ≤ 0 dpm

ßγ ≤ 1513 dpm HE negative

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature) Geyluky.	1358
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7313 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alluvium
TIME COLLECTED (HH:MM)		0918	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610561		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/u/10 RC	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: light brown sandy silt, white tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: SC-1

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 5$ dpm PID ambient reading 0.0 / 0.0 ppm

$\beta\gamma \leq 1790$ dpm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7319 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		0945	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610564	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, white tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: ~~5c-6~~ 5c-5
77m 1/28/10

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \pm 5$ dpm PID ambient reading 0.0 / 0.2 ppm

$B\gamma \pm 1686$ dpm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7312 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610561	"	FIELD QC TYPE:	NA	"
LOCATION TYPE:	GENERIC	"	FIELD PREP:	NA	"
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	"
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	"	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	"	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	"	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	"	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty sand, some pebbles

SAMPLE COMMENTS:

NA

LOCATION DESC: SC-1

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq$ 5 dpm PID HE NEG

$\beta\gamma \leq$ 1845 dpm ambient reading 0.0 ppm 0.1

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7326 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0933	SUB-MEDIA:	OTHER	
PRS ID:	15-005(c)	OK ~~OK~~ SC-2 TJm 1/28/10	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610562 ~~OK~~ TJm 1/28/10	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

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

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

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

SAMPLE DESC: QC Sample of RE15-10-7315

SAMPLE COMMENTS:
Field Rinsate

LOCATION DESC:
SC-2

FIELD SCREENING/MEASUREMENT RESULTS:
α ≤ NA
~~B/β~~ NA TJm 1/28/10 NA

COLLECTED BY (PRINT) Larry A. Lopez **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY R Saunders	**Date/Time** ~~01/28/2010~~ 1/28/10 1350	**RECEIVED BY**	**Date/Time** 1/28/10 1350
(Printed Name) ~~Larry A. Lopez~~ LA 1/28/10		(Printed Name)	
(Signature) ~~Larry A. Lopez~~ LA 1/28/10 R Saunders		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1511 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

☐ OTHER (DESCRIBE):

Section II. Completeness Check

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

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

1. The MS/MSD %R calculations were performed incorrectly. The parent sample results were < the MDLs and, thus, a result of 0 µg/kg or 0 µg/L should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentrations. The %Rs were within the acceptance limits when calculated correctly. In addition, the parent QC samples were from other LANL RNs and raw data for the parent QC samples were not included in the data package. No sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: [signature] DATE: 03/10/10

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

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

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

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

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

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7309

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960001

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.555	2.22	0.892	ug/kg	J	1	21-FEB-10 02:06	per0220091a
	Perchlorate Isotope Ratio			3.13			1	21-FEB-10 02:06	per0220091a
14797-73-0	Perchlorate-101	.555	2.22	0.905	ug/kg	J	1	21-FEB-10 02:06	per0220091a
	Perchlorate-O(18)			5.68	ug/kg		1	21-FEB-10 02:06	per0220091a

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

*Concentration =

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

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3/10/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7308

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960002

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.644	2.57	0.644	ug/kg	U	1	21-FEB-10 02:16	per0220092a
	Perchlorate Isotope Ratio						1	21-FEB-10 02:16	per0220092a
14797-73-0	Perchlorate-101	.644	2.57	0.644	ug/kg	U	1	21-FEB-10 02:16	per0220092a
	Perchlorate-O(18)			6.42	ug/kg		1	21-FEB-10 02:16	per0220092a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7315

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960003

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 91.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.549	2.2	0.549	ug/kg	U	1	21-FEB-10 02:25	per0220093a
	Perchlorate Isotope Ratio						1	21-FEB-10 02:25	per0220093a
14797-73-0	Perchlorate-101	.549	2.2	0.549	ug/kg	U	1	21-FEB-10 02:25	per0220093a
	Perchlorate-O(18)			5.68	ug/kg		1	21-FEB-10 02:25	per0220093a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7317

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960004

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	21-FEB-10 03:03	per0220097a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:03	per0220097a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	21-FEB-10 03:03	per0220097a
	Perchlorate-O(18)			5.53	ug/kg		1	21-FEB-10 03:03	per0220097a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7319

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960005

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.618	ug/kg	J	1	21-FEB-10 03:13	per0220098a
	Perchlorate Isotope Ratio			3.31			1	21-FEB-10 03:13	per0220098a
14797-73-0	Perchlorate-101	.56	2.24	0.594	ug/kg	J	1	21-FEB-10 03:13	per0220098a
	Perchlorate-O(18)			5.47	ug/kg		1	21-FEB-10 03:13	per0220098a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7312

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960006

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 71

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.708	2.83	0.708	ug/kg	U	1	21-FEB-10 03:23	per0220099a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:23	per0220099a
14797-73-0	Perchlorate-101	.708	2.83	0.708	ug/kg	U	1	21-FEB-10 03:23	per0220099a
	Perchlorate-O(18)			6.70	ug/kg		1	21-FEB-10 03:23	per0220099a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7313

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960007

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.22	0.928	ug/kg	J	1	21-FEB-10 03:32	per0220100a
	Perchlorate Isotope Ratio			3.18			1	21-FEB-10 03:32	per0220100a
14797-73-0	Perchlorate-101	.554	2.22	0.927	ug/kg	J	1	21-FEB-10 03:32	per0220100a
	Perchlorate-O(18)			5.41	ug/kg		1	21-FEB-10 03:32	per0220100a

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

*Concentration =

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

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7314

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960008

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.742	2.97	0.742	ug/kg	U	1	21-FEB-10 03:42	per0220101a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:42	per0220101a
14797-73-0	Perchlorate-101	.742	2.97	0.742	ug/kg	U	1	21-FEB-10 03:42	per0220101a
	Perchlorate-O(18)			6.84	ug/kg		1	21-FEB-10 03:42	per0220101a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7316

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960009

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.776	3.11	0.776	ug/kg	U	1	21-FEB-10 03:51	per0220102a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:51	per0220102a
14797-73-0	Perchlorate-101	.776	3.11	0.776	ug/kg	U	1	21-FEB-10 03:51	per0220102a
	Perchlorate-O(18)			7.68	ug/kg		1	21-FEB-10 03:51	per0220102a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7318

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960010

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.587	2.35	1.49	ug/kg	J	1	21-FEB-10 04:01	per0220103a
	Perchlorate Isotope Ratio			3.21			1	21-FEB-10 04:01	per0220103a
14797-73-0	Perchlorate-101	.587	2.35	1.48	ug/kg	J	1	21-FEB-10 04:01	per0220103a
	Perchlorate-O(18)			5.42	ug/kg		1	21-FEB-10 04:01	per0220103a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7324

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960011

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.946	ug/kg	J	1	21-FEB-10 04:11	per0220104a
	Perchlorate Isotope Ratio			3.01			1	21-FEB-10 04:11	per0220104a
14797-73-0	Perchlorate-101	.557	2.23	0.998	ug/kg	J	1	21-FEB-10 04:11	per0220104a
	Perchlorate-O(18)			5.41	ug/kg		1	21-FEB-10 04:11	per0220104a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-7326

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511-1

GEL Sample ID: 245965001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 20:53	per0208065a
	Perchlorate Isotope Ratio						1	08-FEB-10 20:53	per0208065a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 20:53	per0208065a
	Perchlorate-O(18)			0.465	ug/L		1	08-FEB-10 20:53	per0208065a

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

*Concentration =

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

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST.1943

Section I.

REQUEST NUMBER: 10-1511 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

☐ OTHER (DESCRIBE):

Section II. Completeness Check

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

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

1. In the soil MB, Cr, Fe, Mn, and Zn were detected. The Cr result for sample RE15-10-7318 was a detect >5X but ≤50X the MB concentration and, thus, was qualified J,I4a. The remaining associated sample results were detects >50X the MB concentrations and, thus, were not qualified based on professional judgment.
2. In the aqueous CCB, Tl was detected. The associated sample result was a ND and, thus, was not qualified.
3. In the FR blank, sample -7326, associated with all the soil samples, K and Na were detected. The Na results for samples -7312, -7314, -7316, and -7318 were ≤5X the FR blank concentration and, thus, were qualified U,I4d. The remaining associated sample results were >5X the FR blank concentrations and, thus, were not qualified.
4. The soil MS %R for Ca was < the laboratory LAL but ≥10%. The associated sample results were detects and, thus, were qualified J-,I6a. The soil MS %Rs for Al and Mg were > the laboratory UAL. The associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %R for Fe was also > the laboratory UAL. However, the parent sample concentration was >4X the spike concentration and, thus, the associated Fe sample results were not qualified, based on professional judgment.
5. The soil duplicate RPDs for Ba and Cr were >35%, and both the parent and the duplicate sample results were ≥5X the PQLs. The associated sample results were detects and, thus, were qualified J,I10a.
6. It should be noted that the parent QC samples were from other LANL RNs. In addition, the raw data for the ICP and the ICP-MS parent QC samples were not included in the data package. No sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: _____ DATE: 03/10/10

Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

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

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

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

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

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

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

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960001 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7309 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	13600000	ug/Kg		7290	21500	21500	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-36-0	Antimony	664	ug/Kg	J	354	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-38-2	Arsenic	1.92	mg/kg		0.22	1.1	1.1	2	MS	RMJ	02/26/10 23:40	100226-3	948748
7440-39-3	Barium J,I10a	205000	ug/Kg		107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-41-7	Beryllium	1.15	mg/kg		0.022	0.11	0.11	2	MS	RMJ	02/27/10 02:08	100226-4	948748
7440-43-9	Cadmium	536	ug/Kg	U	107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-70-2	Calcium J-,I6a	2810000	ug/Kg		8580	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-47-3	Chromium J,I10a	10700	ug/Kg		161	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-48-4	Cobalt	5820	ug/Kg		161	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-50-8	Copper	8300	ug/Kg		322	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-89-6	Iron	14200000	ug/Kg		8580	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-92-1	Lead	13800	ug/Kg		268	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2290000	ug/Kg		9120	32200	32200	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-96-5	Manganese	364000	ug/Kg		215	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-97-6	Mercury	7.97	ug/kg	J	4.17	12.3	12.3	1	AV	JXL1	02/18/10 12:01	021810S1-5	951512
7440-02-0	Nickel	9.06	mg/kg		0.11	0.439	0.439	2	MS	RMJ	02/27/10 02:08	100226-4	948748
7440-09-7	Potassium	1840000	ug/Kg		6870	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.549	1.1	1.1	2	MS	RMJ	02/26/10 23:40	100226-3	948748
7440-22-4	Silver	536	ug/Kg	U	107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-23-5	Sodium	94700	ug/Kg		7510	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-28-0	Thallium	0.240	mg/kg		0.0659	0.22	0.22	2	MS	RMJ	02/26/10 23:40	100226-3	948748
7440-61-1	Uranium	0.908	mg/kg		0.0145	0.0439	0.0439	2	MS	RMJ	02/26/10 08:53	100225-2	948748
7440-62-2	Vanadium	27900	ug/Kg		107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-66-6	Zinc	27900	ug/Kg		354	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.517	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.505	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.542	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960002 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7308 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,l6b	9550000	ug/Kg		8750	25700	25700	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-36-0	Antimony	542	ug/Kg	J	425	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-38-2	Arsenic	1.92	mg/kg		0.239	1.2	1.2	2	MS	RMJ	02/26/10 23:44	100226-3	948748
7440-39-3	Barium J,l10a	161000	ug/Kg		129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-41-7	Beryllium	0.901	mg/kg		0.0239	0.12	0.12	2	MS	RMJ	02/27/10 02:11	100226-4	948748
7440-43-9	Cadmium	644	ug/Kg	U	129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-70-2	Calcium J-,l6a	2110000	ug/Kg		10300	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-47-3	Chromium J,l10a	10300	ug/Kg		193	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-48-4	Cobalt	6570	ug/Kg		193	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-50-8	Copper	11900	ug/Kg		386	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-89-6	Iron	14000000	ug/Kg		10300	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-92-1	Lead	63800	ug/Kg		322	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-95-4	Magnesium J+,l6b	1660000	ug/Kg		10900	38600	38600	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-96-5	Manganese	312000	ug/Kg		257	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-97-6	Mercury	4.79	ug/kg	J	4.38	12.9	12.9	1	AV	JXL1	02/18/10 12:07	021810S1-5	951512
7440-02-0	Nickel	8.38	mg/kg		0.12	0.478	0.478	2	MS	RMJ	02/27/10 02:11	100226-4	948748
7440-09-7	Potassium	1710000	ug/Kg		8240	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7782-49-2	Selenium	1.2	mg/kg	U	0.598	1.2	1.2	2	MS	RMJ	02/26/10 23:44	100226-3	948748
7440-22-4	Silver	644	ug/Kg	U	129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-23-5	Sodium	91100	ug/Kg		9010	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-28-0	Thallium	0.167	mg/kg	J	0.0718	0.239	0.239	2	MS	RMJ	02/26/10 23:44	100226-3	948748
7440-61-1	Uranium	7.73	mg/kg		0.0158	0.0478	0.0478	2	MS	RMJ	02/26/10 08:59	100225-2	948748
7440-62-2	Vanadium	23000	ug/Kg		129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-66-6	Zinc	39700	ug/Kg		425	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.538	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.6	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960003 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7315 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 91.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	13300000	ug/Kg		7330	21600	21600	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-36-0	Antimony	1220	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-38-2	Arsenic	2.16	mg/kg		0.22	1.1	1.1	2	MS	RMJ	02/26/10 23:48	100226-3	948748
7440-39-3	Barium J,I10a	205000	ug/Kg		108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-41-7	Beryllium	1.15	mg/kg		0.022	0.11	0.11	2	MS	RMJ	02/27/10 02:20	100226-4	948748
7440-43-9	Cadmium	539	ug/Kg	U	108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-70-2	Calcium J-,I6a	2460000	ug/Kg		8630	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-47-3	Chromium J,I10a	11700	ug/Kg		162	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-48-4	Cobalt	6310	ug/Kg		162	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-50-8	Copper	8010	ug/Kg		324	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-89-6	Iron	15000000	ug/Kg		8630	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-92-1	Lead	14900	ug/Kg		270	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2400000	ug/Kg		9170	32400	32400	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-96-5	Manganese	422000	ug/Kg		216	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-97-6	Mercury	11.3	ug/kg	J	3.93	11.6	11.6	1	AV	JXL1	02/18/10 12:09	021810S1-5	951512
7440-02-0	Nickel	9.63	mg/kg		0.11	0.439	0.439	2	MS	RMJ	02/27/10 02:20	100226-4	948748
7440-09-7	Potassium	1960000	ug/Kg		6900	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.549	1.1	1.1	2	MS	RMJ	02/26/10 23:48	100226-3	948748
7440-22-4	Silver	539	ug/Kg	U	108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-23-5	Sodium	60800	ug/Kg		7550	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-28-0	Thallium	0.229	mg/kg		0.0659	0.22	0.22	2	MS	RMJ	02/26/10 23:48	100226-3	948748
7440-61-1	Uranium	1.59	mg/kg		0.0145	0.0439	0.0439	2	MS	RMJ	02/26/10 09:04	100225-2	948748
7440-62-2	Vanadium	30000	ug/Kg		108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-66-6	Zinc	30300	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.509	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.57	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960004 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7317 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	14500000	ug/Kg		7340	21600	21600	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-36-0	Antimony	1080	ug/Kg	U	356	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-38-2	Arsenic	2.07	mg/kg		0.223	1.12	1.12	2	MS	RMJ	02/27/10 00:00	100226-3	948748
7440-39-3	Barium J,I10a	216000	ug/Kg		108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-41-7	Beryllium	1.32	mg/kg		0.0223	0.112	0.112	2	MS	RMJ	02/27/10 02:23	100226-4	948748
7440-43-9	Cadmium	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-70-2	Calcium J-,I6a	3530000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-47-3	Chromium J,I10a	10300	ug/Kg		162	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-48-4	Cobalt	5250	ug/Kg		162	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-50-8	Copper	7520	ug/Kg		324	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-89-6	Iron	14100000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-92-1	Lead	13900	ug/Kg		270	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2280000	ug/Kg		9180	32400	32400	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-96-5	Manganese	354000	ug/Kg		216	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-97-6	Mercury	10.8	ug/kg	J	4.51	13.3	13.3	1	AV	JXL1	02/18/10 12:11	021810S1-5	951512
7440-02-0	Nickel	10.6	mg/kg		0.112	0.447	0.447	2	MS	RMJ	02/27/10 02:23	100226-4	948748
7440-09-7	Potassium	1740000	ug/Kg		6910	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7782-49-2	Selenium	1.12	mg/kg	U	0.558	1.12	1.12	2	MS	RMJ	02/27/10 00:00	100226-3	948748
7440-22-4	Silver	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-23-5	Sodium	78500	ug/Kg		7560	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-28-0	Thallium	0.235	mg/kg		0.067	0.223	0.223	2	MS	RMJ	02/27/10 00:00	100226-3	948748
7440-61-1	Uranium	1.1	mg/kg		0.0147	0.0447	0.0447	2	MS	RMJ	02/26/10 09:10	100225-2	948748
7440-62-2	Vanadium	27500	ug/Kg		108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-66-6	Zinc	27000	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.519	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.507	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960005 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7319 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	13300000	ug/Kg		7580	22300	22300	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-36-0	Antimony	905	ug/Kg	J	368	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-38-2	Arsenic	2.17	mg/kg		0.218	1.09	1.09	2	MS	RMJ	02/27/10 00:04	100226-3	948748
7440-39-3	Barium J,I10a	205000	ug/Kg		111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-41-7	Beryllium	1.48	mg/kg		0.0218	0.109	0.109	2	MS	RMJ	02/27/10 02:26	100226-4	948748
7440-43-9	Cadmium	557	ug/Kg	U	111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-70-2	Calcium J-,I6a	2860000	ug/Kg		8910	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-47-3	Chromium J,I10a	9850	ug/Kg		167	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-48-4	Cobalt	4720	ug/Kg		167	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-50-8	Copper	6720	ug/Kg		334	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-89-6	Iron	13000000	ug/Kg		8910	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-92-1	Lead	14400	ug/Kg		279	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2160000	ug/Kg		9470	33400	33400	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-96-5	Manganese	310000	ug/Kg		223	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-97-6	Mercury	11.7	ug/kg	J	4.41	13	13	1	AV	JXL1	02/18/10 12:12	021810S1-5	951512
7440-02-0	Nickel	11	mg/kg		0.109	0.437	0.437	2	MS	RMJ	02/27/10 02:26	100226-4	948748
7440-09-7	Potassium	1760000	ug/Kg		7130	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7782-49-2	Selenium	1.09	mg/kg	U	0.546	1.09	1.09	2	MS	RMJ	02/27/10 00:04	100226-3	948748
7440-22-4	Silver	557	ug/Kg	U	111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-23-5	Sodium	96900	ug/Kg		7800	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-28-0	Thallium	0.268	mg/kg		0.0655	0.218	0.218	2	MS	RMJ	02/27/10 00:04	100226-3	948748
7440-61-1	Uranium	1.5	mg/kg		0.0144	0.0437	0.0437	2	MS	RMJ	02/26/10 09:28	100225-2	948748
7440-62-2	Vanadium	25400	ug/Kg		111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-66-6	Zinc	26000	ug/Kg		368	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.503	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.513	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.519	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960006 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7312 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 71

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	10500000	ug/Kg		9360	27500	27500	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-36-0	Antimony	611	ug/Kg	J	454	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-38-2	Arsenic	2.15	mg/kg		0.27	1.35	1.35	2	MS	RMJ	02/27/10 00:08	100226-3	948748
7440-39-3	Barium J,I10a	214000	ug/Kg		138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-41-7	Beryllium	0.981	mg/kg		0.027	0.135	0.135	2	MS	RMJ	02/27/10 02:29	100226-4	948748
7440-43-9	Cadmium	688	ug/Kg	U	138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-70-2	Calcium J-,I6a	2520000	ug/Kg		11000	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-47-3	Chromium J,I10a	13900	ug/Kg		207	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-48-4	Cobalt	9870	ug/Kg		207	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-50-8	Copper	9580	ug/Kg		413	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-89-6	Iron	14200000	ug/Kg		11000	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-92-1	Lead	19100	ug/Kg		344	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2050000	ug/Kg		11700	41300	41300	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-96-5	Manganese	693000	ug/Kg		275	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-97-6	Mercury	6.27	ug/kg	J	5.46	16.1	16.1	1	AV	JXL1	02/18/10 12:14	021810S1-5	951512
7440-02-0	Nickel	8.66	mg/kg		0.135	0.539	0.539	2	MS	RMJ	02/27/10 02:29	100226-4	948748
7440-09-7	Potassium	2310000	ug/Kg		8810	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7782-49-2	Selenium	1.35	mg/kg	U	0.674	1.35	1.35	2	MS	RMJ	02/27/10 00:08	100226-3	948748
7440-22-4	Silver	688	ug/Kg	U	138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-23-5	Sodium U,I4d	52700	ug/Kg		9640	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-28-0	Thallium	0.205	mg/kg	J	0.0809	0.27	0.27	2	MS	RMJ	02/27/10 00:08	100226-3	948748
7440-61-1	Uranium	17.4	mg/kg		0.0178	0.0539	0.0539	2	MS	RMJ	02/26/10 09:34	100225-2	948748
7440-62-2	Vanadium	29100	ug/Kg		138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-66-6	Zinc	38200	ug/Kg		454	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.514	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.529	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960007 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7313 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	15200000	ug/Kg		7500	22100	22100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-36-0	Antimony	660	ug/Kg	J	364	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-38-2	Arsenic	2.32	mg/kg		0.221	1.1	1.1	2	MS	RMJ	02/27/10 00:12	100226-3	948748
7440-39-3	Barium J,I10a	193000	ug/Kg		110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-41-7	Beryllium	1.24	mg/kg		0.0221	0.11	0.11	2	MS	RMJ	02/27/10 02:32	100226-4	948748
7440-43-9	Cadmium	552	ug/Kg	U	110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-70-2	Calcium J-,I6a	2650000	ug/Kg		8830	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-47-3	Chromium J,I10a	13000	ug/Kg		165	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-48-4	Cobalt	7060	ug/Kg		165	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-50-8	Copper	7850	ug/Kg		331	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-89-6	Iron	16000000	ug/Kg		8830	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-92-1	Lead	15500	ug/Kg		276	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2770000	ug/Kg		9380	33100	33100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-96-5	Manganese	440000	ug/Kg		221	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-97-6	Mercury	10.3	ug/kg	J	4.51	13.3	13.3	1	AV	JXL1	02/18/10 12:16	021810S1-5	951512
7440-02-0	Nickel	10.9	mg/kg		0.11	0.441	0.441	2	MS	RMJ	02/27/10 02:32	100226-4	948748
7440-09-7	Potassium	1910000	ug/Kg		7060	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.552	1.1	1.1	2	MS	RMJ	02/27/10 00:12	100226-3	948748
7440-22-4	Silver	552	ug/Kg	U	110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-23-5	Sodium	82900	ug/Kg		7720	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-28-0	Thallium	0.288	mg/kg		0.0662	0.221	0.221	2	MS	RMJ	02/27/10 00:12	100226-3	948748
7440-61-1	Uranium	1.14	mg/kg		0.0146	0.0441	0.0441	2	MS	RMJ	02/26/10 09:40	100225-2	948748
7440-62-2	Vanadium	30100	ug/Kg		110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-66-6	Zinc	31800	ug/Kg		364	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.501	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960008 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7314 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 67

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	10700000	ug/Kg		9670	28400	28400	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-36-0	Antimony	503	ug/Kg	J	469	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-38-2	Arsenic	2.33	mg/kg		0.297	1.48	1.48	2	MS	RMJ	02/27/10 00:16	100226-3	948748
7440-39-3	Barium J,I10a	205000	ug/Kg		142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-41-7	Beryllium	1.09	mg/kg		0.0297	0.148	0.148	2	MS	RMJ	02/27/10 02:36	100226-4	948748
7440-43-9	Cadmium	711	ug/Kg	U	142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-70-2	Calcium J-,I6a	2450000	ug/Kg		11400	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-47-3	Chromium J,I10a	10500	ug/Kg		213	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-48-4	Cobalt	5770	ug/Kg		213	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-50-8	Copper	11100	ug/Kg		426	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-89-6	Iron	13300000	ug/Kg		11400	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-92-1	Lead	15800	ug/Kg		355	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2030000	ug/Kg		12100	42600	42600	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-96-5	Manganese	418000	ug/Kg		284	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-97-6	Mercury	15.1	ug/kg	U	5.15	15.1	15.1	1	AV	JXL1	02/18/10 12:18	021810S1-5	951512
7440-02-0	Nickel	9.31	mg/kg		0.148	0.594	0.594	2	MS	RMJ	02/27/10 02:36	100226-4	948748
7440-09-7	Potassium	1930000	ug/Kg		9100	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7782-49-2	Selenium	1.48	mg/kg	U	0.742	1.48	1.48	2	MS	RMJ	02/27/10 00:16	100226-3	948748
7440-22-4	Silver	711	ug/Kg	U	142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-23-5	Sodium U,I4d	53600	ug/Kg		9950	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-28-0	Thallium	0.227	mg/kg	J	0.089	0.297	0.297	2	MS	RMJ	02/27/10 00:16	100226-3	948748
7440-61-1	Uranium	8.52	mg/kg		0.0196	0.0594	0.0594	2	MS	RMJ	02/26/10 09:46	100225-2	948748
7440-62-2	Vanadium	27400	ug/Kg		142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-66-6	Zinc	33900	ug/Kg		469	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.522	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.588	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960009 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7316 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	11200000	ug/Kg		10400	30700	30700	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-36-0	Antimony	869	ug/Kg	J	506	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-38-2	Arsenic	2.31	mg/kg		0.296	1.48	1.48	2	MS	RMJ	02/27/10 00:20	100226-3	948748
7440-39-3	Barium J,I10a	185000	ug/Kg		153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-41-7	Beryllium	1.16	mg/kg		0.0296	0.148	0.148	2	MS	RMJ	02/27/10 02:39	100226-4	948748
7440-43-9	Cadmium	767	ug/Kg	U	153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-70-2	Calcium J-,I6a	2320000	ug/Kg		12300	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-47-3	Chromium J,I10a	10800	ug/Kg		230	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-48-4	Cobalt	6240	ug/Kg		230	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-50-8	Copper	8110	ug/Kg		460	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-89-6	Iron	12900000	ug/Kg		12300	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-92-1	Lead	13500	ug/Kg		384	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-95-4	Magnesium J+,I6b	1900000	ug/Kg		13000	46000	46000	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-96-5	Manganese	405000	ug/Kg		307	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-97-6	Mercury	17.2	ug/kg	U	5.83	17.2	17.2	1	AV	JXL1	02/18/10 12:20	021810S1-5	951512
7440-02-0	Nickel	9.45	mg/kg		0.148	0.592	0.592	2	MS	RMJ	02/27/10 02:39	100226-4	948748
7440-09-7	Potassium	2100000	ug/Kg		9820	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7782-49-2	Selenium	1.48	mg/kg	U	0.739	1.48	1.48	2	MS	RMJ	02/27/10 00:20	100226-3	948748
7440-22-4	Silver	767	ug/Kg	U	153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-23-5	Sodium U,I4d	62600	ug/Kg		10700	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-28-0	Thallium	0.217	mg/kg	J	0.0887	0.296	0.296	2	MS	RMJ	02/27/10 00:20	100226-3	948748
7440-61-1	Uranium	6.4	mg/kg		0.0195	0.0592	0.0592	2	MS	RMJ	02/26/10 09:52	100225-2	948748
7440-62-2	Vanadium	25100	ug/Kg		153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-66-6	Zinc	28300	ug/Kg		506	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.506	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.543	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960010 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7318 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	5960000	ug/Kg		7610	22400	22400	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-36-0	Antimony	895	ug/Kg	J	369	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-38-2	Arsenic	1.34	mg/kg		0.235	1.17	1.17	2	MS	RMJ	02/27/10 00:24	100226-3	948748
7440-39-3	Barium J,I10a	102000	ug/Kg		112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-41-7	Beryllium	0.590	mg/kg		0.0235	0.117	0.117	2	MS	RMJ	02/27/10 02:42	100226-4	948748
7440-43-9	Cadmium	560	ug/Kg	U	112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-70-2	Calcium J-,I6a	2590000	ug/Kg		8960	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-47-3	Chromium J,I4a	5940	ug/Kg		168	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-48-4	Cobalt	2930	ug/Kg		168	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-50-8	Copper	10800	ug/Kg		336	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-89-6	Iron	7940000	ug/Kg		8960	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-92-1	Lead	69600	ug/Kg		280	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-95-4	Magnesium J+,I6b	1120000	ug/Kg		9520	33600	33600	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-96-5	Manganese	224000	ug/Kg		224	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-97-6	Mercury	6.52	ug/kg	J	4.54	13.4	13.4	1	AV	JXL1	02/18/10 12:22	021810S1-5	951512
7440-02-0	Nickel	5.37	mg/kg		0.117	0.469	0.469	2	MS	RMJ	02/27/10 02:42	100226-4	948748
7440-09-7	Potassium	1290000	ug/Kg		7170	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7782-49-2	Selenium	1.17	mg/kg	U	0.587	1.17	1.17	2	MS	RMJ	02/27/10 00:24	100226-3	948748
7440-22-4	Silver	560	ug/Kg	U	112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-23-5	Sodium U,I4d	52000	ug/Kg		7840	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-28-0	Thallium	0.117	mg/kg	J	0.0704	0.235	0.235	2	MS	RMJ	02/27/10 00:24	100226-3	948748
7440-61-1	Uranium	7.65	mg/kg		0.0155	0.0469	0.0469	2	MS	RMJ	02/26/10 09:58	100225-2	948748
7440-62-2	Vanadium	14300	ug/Kg		112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-66-6	Zinc	27200	ug/Kg		369	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.524	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.527	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960011 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7324 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	14200000	ug/Kg		7340	21600	21600	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-36-0	Antimony	1260	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-38-2	Arsenic	1.85	mg/kg		0.22	1.1	1.1	2	MS	RMJ	02/27/10 00:28	100226-3	948748
7440-39-3	Barium J,I10a	213000	ug/Kg		108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-41-7	Beryllium	1.18	mg/kg		0.022	0.11	0.11	2	MS	RMJ	02/27/10 02:45	100226-4	948748
7440-43-9	Cadmium	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-70-2	Calcium J-,I6a	3280000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-47-3	Chromium J,I10a	10900	ug/Kg		162	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-48-4	Cobalt	5530	ug/Kg		162	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-50-8	Copper	7470	ug/Kg		324	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-89-6	Iron	14500000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-92-1	Lead	13800	ug/Kg		270	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2390000	ug/Kg		9180	32400	32400	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-96-5	Manganese	367000	ug/Kg		216	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-97-6	Mercury	10.9	ug/kg	J	4.42	13	13	1	AV	JXL1	02/18/10 12:24	021810S1-5	951512
7440-02-0	Nickel	9.46	mg/kg		0.11	0.44	0.44	2	MS	RMJ	02/27/10 02:45	100226-4	948748
7440-09-7	Potassium	1880000	ug/Kg		6910	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.55	1.1	1.1	2	MS	RMJ	02/27/10 00:28	100226-3	948748
7440-22-4	Silver	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-23-5	Sodium	101000	ug/Kg		7560	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-28-0	Thallium	0.223	mg/kg		0.066	0.22	0.22	2	MS	RMJ	02/27/10 00:28	100226-3	948748
7440-61-1	Uranium	0.896	mg/kg		0.0145	0.044	0.044	2	MS	RMJ	02/26/10 10:04	100225-2	948748
7440-62-2	Vanadium	28400	ug/Kg		108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-66-6	Zinc	28700	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.516	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.507	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.514	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245965001 **BASIS:** As Received **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7326 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/25/10 04:38	100224-2	948740
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/25/10 15:28	100225-3	948740
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/25/10 04:38	100224-2	948740
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 19:55	021110B-1	948737
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/11/10 19:55	021110B-1	948737
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/25/10 15:28	100225-3	948740
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 19:55	021110B-1	948737
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	02/25/10 15:28	100225-3	948740
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:01	020510W1-6	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-09-7	Potassium	164	ug/L		50	150	150	1	P	HSC	02/11/10 19:55	021110B-1	948737
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-23-5	Sodium	100	ug/L	J	100	300	300	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/28/10 14:30	100228-5	948740
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/25/10 16:20	100225-4	948740
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 19:55	021110B-1	948737

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948737	948730	SW846 3005A	50	mL	50	mL	02/10/10	FGA
948740	948739	SW846 3005A	50	mL	50	mL	02/10/10	FGA
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3

SEB
3/10/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1511 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

☐ OTHER (DESCRIBE): total cyanide only

Section II. Completeness Check

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

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

1. In the soil CCB, total cyanide was detected. The total cyanide results for samples RE15-10-7314 and -7316 were detects ≤5X the blank concentration and, thus, were qualified U,I4b. The remaining associated samples were NDs and, thus, were not qualified.
2. It should be noted that the parent QC samples for one of the soil total cyanide batches and the aqueous parent QC sample were from other LANL RNs. No sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: [signature] DATE: 03/10/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

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

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

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

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

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

Certificate of Analysis

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7309	Project:	LANL01004
Sample ID:	245960001	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.84%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.2	243	ug/kg	1	AXC2 02/11/10	1342	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/10/10

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Certificate of Analysis

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7308	Project:	LANL01004
Sample ID:	245960002	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	22.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.4	277	ug/kg	1	AXC2 02/11/10	1343	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7315	Project:	LANL01004
Sample ID:	245960003	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	8.92%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.7	245	ug/kg	1	AXC2 02/11/10	1344	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7317	Project:	LANL01004
Sample ID:	245960004	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.3	269	ug/kg	1	AXC2 02/11/10	1345	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7319	Project:	LANL01004
Sample ID:	245960005	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	65.7	242	ug/kg	1	AXC2 02/11/10	1346	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/10/10

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7312	Project:	LANL01004
Sample ID:	245960006	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	29.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	92.5	340	ug/kg	1	AXC2 02/11/10	1347	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7313	Project:	LANL01004
Sample ID:	245960007	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.72%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	63.8	235	ug/kg	1	AXC2 02/11/10	1353	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7314	Project:	LANL01004
Sample ID:	245960008	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	32.6%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	J	209	U,I4b	91.7	337	ug/kg	1	AXC2 02/11/10	1356	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7316	Project:	LANL01004
Sample ID:	245960009	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	35.6%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	J	230	U,I4b	96.0	353	ug/kg	1	AXC2 02/11/10	1400	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7318	Project:	LANL01004
Sample ID:	245960010	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.3	277	ug/kg	1	AXC2 02/11/10	1401	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7324	Project:	LANL01004
Sample ID:	245960011	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.9	268	ug/kg	1	AXC2 02/11/10	1405	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/10/10

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Certificate of Analysis

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

Report Date: February 12, 2010
Client SDG: 10-1511-1

Client Sample ID:	RE15-10-7326	Project:	LANL01004
Sample ID:	245965001	Client ID:	LANL010
Matrix:	W		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1509	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/10/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1511 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

☐ OTHER (DESCRIBE):

Section II. Completeness Check

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

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

1. The gamma spec results that were rejected by the laboratory due to interference and low abundance were qualified R,R5a. In the QC samples, several results were also rejected by the laboratory. No sample data were qualified as a result.
2. The alpha spec Am-243 tracer %R for the LCS was > the laboratory UAL but ≤ 125%. Because the LCS was a QC sample, no sample results were qualified.
3. It should be noted that the parent QC sample for alpha spec was from another LANL RN. No sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: DATE: 03/10/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

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

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

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

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

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Certificate of Analysis

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7309
Sample ID: 245960001
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 9.84%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00144		0.0241	+/-0.00162	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00108		0.023	+/-0.00185	0.050	pCi/g		HAKB	02/13/10	2134	949824	3
Plutonium-239/240	U	-0.00282		0.0174	+/-0.00263	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.07		0.0919	+/-0.098	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236	U	0.0405		0.0586	+/-0.0165	0.100	pCi/g						
Uranium-238		1.07		0.0628	+/-0.0984	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.033		0.0844	+/-0.0256	0.200	pCi/g		MXR1	02/12/10	1444	948717	5
Bismuth-211	UI	4.74	R,R5a	0.318	+/-0.329		pCi/g						
Bismuth-214		1.41		0.132	+/-0.129	0.200	pCi/g						
Cadmium-109	UI	4.01	R,R5a	0.734	+/-0.399		pCi/g						
Cerium-139	U	0.00731		0.044	+/-0.0124	0.050	pCi/g						
Cesium-134	U	0.0869		0.122	+/-0.0463	0.100	pCi/g						
Cesium-137	U	-0.0133		0.0798	+/-0.025	0.100	pCi/g						
Cobalt-60	U	-0.0193		0.0808	+/-0.0256	0.100	pCi/g						
Europium-152	U	-0.0479		0.153	+/-0.0489	0.200	pCi/g						
Lanthanum-140	U	-0.0369		0.181	+/-0.0694		pCi/g						
Lead-212		1.95		0.0877	+/-0.115	0.100	pCi/g						
Lead-214		1.65		0.111	+/-0.122	0.100	pCi/g						
Mercury-203	U	0.0289		0.0654	+/-0.0206	0.100	pCi/g						
Potassium-40		22.5		0.713	+/-1.38	1.00	pCi/g						
Radium-223	U	0.0234		1.09	+/-0.371		pCi/g						
Radium-224	UI	5.48	R,R5a	1.00	+/-0.545		pCi/g						
Radium-226		1.41		0.132	+/-0.129		pCi/g						
Radium-228		1.72		0.266	+/-0.197	0.500	pCi/g						
Ruthenium-106	U	-0.224		0.589	+/-0.196	0.800	pCi/g						

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7309
Sample ID: 245960001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Sodium-22	U	0.0324	0.103	+/-0.0299	0.080	pCi/g						
Strontium-85	U	0.0221	0.0667	+/-0.0212		pCi/g						
Thallium-208		0.543	0.0709	+/-0.0594	0.080	pCi/g						
Thorium-227	U	0.0974	0.587	+/-0.171		pCi/g						
Thorium-231	U	0.0234	1.09	+/-0.371		pCi/g						
Thorium-234		1.01	0.775	+/-0.430	2.00	pCi/g						
Tin-113	U	-0.0445	0.081	+/-0.0271	0.100	pCi/g						
Uranium-235	U	0.147	0.305	+/-0.0921	0.500	pCi/g						
Yttrium-88	U	0.0151	0.0875	+/-0.0253	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	100	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7308
Sample ID: 245960002
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 22.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0029		0.0234	+/-0.00214	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00		0.0231	+/-0.00151	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.00751		0.0174	+/-0.00338	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		3.62		0.102	+/-0.285	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.215		0.0652	+/-0.0363	0.100	pCi/g						
Uranium-238		4.59		0.0699	+/-0.354	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.235		0.377	+/-0.119	0.200	pCi/g		MXR1	02/12/10	1445	948717	5
Bismuth-211	UI	3.58	R,R5a	0.425	+/-0.282		pCi/g						
Bismuth-214		1.26		0.131	+/-0.102	0.200	pCi/g						
Cadmium-109	UI	3.47	R,R5a	1.61	+/-0.615		pCi/g						
Cerium-139	U	0.00945		0.0588	+/-0.0176	0.050	pCi/g						
Cesium-134	UI	0.107	R,R5a	0.106	+/-0.0301	0.100	pCi/g						
Cesium-137		0.223		0.0674	+/-0.0486	0.100	pCi/g						
Cobalt-60	U	-0.015		0.0729	+/-0.0235	0.100	pCi/g						
Europium-152	U	-0.0814		0.179	+/-0.0641	0.200	pCi/g						
Lanthanum-140	U	-0.159		0.0984	+/-0.0458		pCi/g						
Lead-212		1.50		0.101	+/-0.0807	0.100	pCi/g						
Lead-214		1.24		0.141	+/-0.103	0.100	pCi/g						
Mercury-203	U	-0.00814		0.0794	+/-0.0233	0.100	pCi/g						
Potassium-40		20.0		0.519	+/-1.14	1.00	pCi/g						
Radium-223	U	-0.917		1.14	+/-0.429		pCi/g						
Radium-224	UI	4.25	R,R5a	1.14	+/-0.728		pCi/g						
Radium-226		1.26		0.131	+/-0.102		pCi/g						
Radium-228		1.41		0.186	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.126		0.572	+/-0.180	0.800	pCi/g						
Sodium-22	U	-0.0441		0.0699	+/-0.0243	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7308
Sample ID: 245960002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0664	0.0751	+/-0.0205		pCi/g						
Thallium-208		0.576	0.0613	+/-0.0455	0.080	pCi/g						
Thorium-227	U	0.00271	0.703	+/-0.215		pCi/g						
Thorium-231	U	-0.917	1.14	+/-0.429		pCi/g						
Thorium-234		6.32	2.99	+/-1.56	2.00	pCi/g						
Tin-113	U	-0.0534	0.0742	+/-0.0239	0.100	pCi/g						
Uranium-235		0.421	0.409	+/-0.168	0.500	pCi/g						
Yttrium-88	U	-0.00168	0.057	+/-0.0175	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	88.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7315
Sample ID: 245960003
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 8.92%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00131		0.0274	+/-0.00226	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00106		0.0227	+/-0.00182	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.00739		0.0172	+/-0.00333	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.07		0.0857	+/-0.0962	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.0714		0.0547	+/-0.018	0.100	pCi/g						
Uranium-238		1.25		0.0585	+/-0.110	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0949		0.213	+/-0.0658	0.200	pCi/g		MXR1	02/12/10	1547	948717	5
Bismuth-211	UI	4.51	R,R5a	0.273	+/-0.334		pCi/g						
Bismuth-214		1.30		0.101	+/-0.104	0.200	pCi/g						
Cadmium-109	UI	3.13	R,R5a	1.17	+/-0.459		pCi/g						
Cerium-139	U	0.000265		0.0484	+/-0.014	0.050	pCi/g						
Cesium-134	UI	0.132	R,R5a	0.077	+/-0.0337	0.100	pCi/g						
Cesium-137	U	0.0375		0.0606	+/-0.0173	0.100	pCi/g						
Cobalt-60	U	0.00324		0.0458	+/-0.0137	0.100	pCi/g						
Europium-152	U	0.0788		0.154	+/-0.0562	0.200	pCi/g						
Lanthanum-140	U	-0.116		0.108	+/-0.0386		pCi/g						
Lead-212		1.79		0.0798	+/-0.129	0.100	pCi/g						
Lead-214		1.57		0.095	+/-0.123	0.100	pCi/g						
Mercury-203	U	0.032		0.068	+/-0.0201	0.100	pCi/g						
Potassium-40		20.5		0.417	+/-1.12	1.00	pCi/g						
Radium-223	U	0.557		0.988	+/-0.319		pCi/g						
Radium-224	UI	5.02	R,R5a	0.907	+/-0.649		pCi/g						
Radium-226		1.30		0.101	+/-0.104		pCi/g						
Radium-228		1.63		0.181	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	0.127		0.480	+/-0.140	0.800	pCi/g						
Sodium-22	U	-0.0332		0.0547	+/-0.0178	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7315 Project: LANL01004
Sample ID: 245960003 Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.175	R,R5a	0.0711	+/-0.0215		pCi/g						
Thallium-208		0.509		0.0521	+/-0.0433	0.080	pCi/g						
Thorium-227	U	0.299		0.605	+/-0.178		pCi/g						
Thorium-231	U	0.557		0.988	+/-0.319		pCi/g						
Thorium-234		1.79		1.77	+/-0.816	2.00	pCi/g						
Tin-113	U	-0.00411		0.0678	+/-0.0203	0.100	pCi/g						
Uranium-235	U	0.100		0.331	+/-0.096	0.500	pCi/g						
Yttrium-88	U	-0.0101		0.041	+/-0.0133	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	69.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7317	Project:	LANL01004
Sample ID:	245960004	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00455		0.0238	+/-0.00271	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00106		0.0172	+/-0.00149	0.050	pCi/g		HAKB	02/18/10	1842	949824	3
Plutonium-239/240	U	0.00211		0.013	+/-0.0015	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.09		0.0794	+/-0.0962	0.100	pCi/g		HAKB	02/13/10	2124	949825	5
Uranium-235/236		0.0777		0.0506	+/-0.0182	0.100	pCi/g						
Uranium-238		1.17		0.0542	+/-0.102	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.00338		0.0777	+/-0.0253	0.200	pCi/g		MXR1	02/12/10	1547	948717	6
Bismuth-211	UI	4.22	R,R5a	0.301	+/-0.317		pCi/g						
Bismuth-214		1.25		0.125	+/-0.113	0.200	pCi/g						
Cadmium-109	UI	4.08	R,R5a	0.773	+/-0.418		pCi/g						
Cerium-139	U	0.00339		0.0416	+/-0.0122	0.050	pCi/g						
Cesium-134	UI	0.159	R,R5a	0.103	+/-0.0385	0.100	pCi/g						
Cesium-137	U	0.0122		0.0691	+/-0.0315	0.100	pCi/g						
Cobalt-60	U	-0.000929		0.0702	+/-0.0219	0.100	pCi/g						
Europium-152	U	0.0242		0.148	+/-0.0483	0.200	pCi/g						
Lanthanum-140	U	0.00201		0.174	+/-0.0522		pCi/g						
Lead-212		1.90		0.122	+/-0.124	0.100	pCi/g						
Lead-214		1.47		0.105	+/-0.117	0.100	pCi/g						
Mercury-203	UI	0.0703	R,R5a	0.0599	+/-0.0247	0.100	pCi/g						
Potassium-40		20.8		0.542	+/-1.16	1.00	pCi/g						
Radium-223	U	0.276		1.03	+/-0.331		pCi/g						
Radium-224	UI	3.66	R,R5a	1.05	+/-0.499		pCi/g						
Radium-226		1.25		0.125	+/-0.113		pCi/g						
Radium-228		1.67		0.213	+/-0.191	0.500	pCi/g						
Ruthenium-106	U	0.0466		0.553	+/-0.161	0.800	pCi/g						
Sodium-22	U	0.0175		0.0797	+/-0.0233	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7317 Project: LANL01004
Sample ID: 245960004 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0254	0.0639	+/-0.0211		pCi/g						
Thallium-208		0.598	0.0595	+/-0.0569	0.080	pCi/g						
Thorium-227	U	-0.246	0.587	+/-0.189		pCi/g						
Thorium-231	U	0.276	1.03	+/-0.331		pCi/g						
Thorium-234		1.78	0.732	+/-0.471	2.00	pCi/g						
Tin-113	U	-0.0176	0.0681	+/-0.0209	0.100	pCi/g						
Uranium-235	U	0.0801	0.302	+/-0.0885	0.500	pCi/g						
Yttrium-88	U	-0.022	0.0495	+/-0.0177	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	101	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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BD Results are either below the MDC or tracer recovery is low
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D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7319
Sample ID: 245960005
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 10.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0102		0.0256	+/-0.00422	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00583		0.0222	+/-0.00311	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.00433		0.0167	+/-0.00251	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.38		0.0898	+/-0.120	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.0924		0.0573	+/-0.0212	0.100	pCi/g						
Uranium-238		1.49		0.0613	+/-0.128	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0423		0.253	+/-0.078	0.200	pCi/g		MXR1	02/12/10	1548	948717	5
Bismuth-211	UI	4.43	R,R5a	0.308	+/-0.262		pCi/g						
Bismuth-214		1.35		0.117	+/-0.0926	0.200	pCi/g						
Cadmium-109	UI	3.98	R,R5a	1.29	+/-0.470		pCi/g						
Cerium-139	U	-0.000378		0.0468	+/-0.0141	0.050	pCi/g						
Cesium-134	UI	0.125	R,R5a	0.0977	+/-0.0354	0.100	pCi/g						
Cesium-137	U	-0.0125		0.0625	+/-0.0194	0.100	pCi/g						
Cobalt-60	U	-0.0188		0.0603	+/-0.0196	0.100	pCi/g						
Europium-152	U	-0.0246		0.148	+/-0.0463	0.200	pCi/g						
Lanthanum-140	U	0.0476		0.168	+/-0.0542		pCi/g						
Lead-212		1.70		0.0911	+/-0.0814	0.100	pCi/g						
Lead-214		1.54		0.107	+/-0.0995	0.100	pCi/g						
Mercury-203	U	0.00869		0.0682	+/-0.0197	0.100	pCi/g						
Potassium-40		19.0		0.578	+/-1.05	1.00	pCi/g						
Radium-223	U	-0.345		1.07	+/-0.374		pCi/g						
Radium-224	UI	4.94	R,R5a	1.04	+/-0.676		pCi/g						
Radium-226		1.35		0.117	+/-0.0926		pCi/g						
Radium-228		1.60		0.209	+/-0.169	0.500	pCi/g						
Ruthenium-106	U	-0.0347		0.506	+/-0.151	0.800	pCi/g						
Sodium-22	U	-0.0225		0.0758	+/-0.0241	0.080	pCi/g						

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7319 Project: LANL01004
Sample ID: 245960005 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0483	0.0664	+/-0.0211		pCi/g						
Thallium-208		0.552	0.0529	+/-0.0459	0.080	pCi/g						
Thorium-227	U	0.269	0.628	+/-0.177		pCi/g						
Thorium-231	U	-0.345	1.07	+/-0.374		pCi/g						
Thorium-234		2.27	2.09	+/-1.05	2.00	pCi/g						
Tin-113	U	0.0066	0.0715	+/-0.0212	0.100	pCi/g						
Uranium-235	U	0.00721	0.345	+/-0.104	0.500	pCi/g						
Yttrium-88	U	-0.0285	0.0501	+/-0.0181	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.0	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7312	Project:	LANL01004
Sample ID:	245960006	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	29.4%		

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00509		0.022	+/-0.00267	0.050	pCi/g		CXM2	02/20/10	1337	955380	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00183		0.0219	+/-0.00227	0.050	pCi/g		HAKB	02/13/10	2135	949824	5
Plutonium-239/240	U	0.0133		0.0166	+/-0.00469	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		7.59		0.0951	+/-0.565	0.100	pCi/g		HAKB	02/13/10	2124	949825	6
Uranium-235/236		0.405		0.0606	+/-0.0521	0.100	pCi/g						
Uranium-238		7.64		0.0649	+/-0.568	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.00654		0.125	+/-0.0396	0.200	pCi/g		MXR1	02/12/10	1548	948717	7
Bismuth-211	UI	4.20	R,R5a	0.395	+/-0.340		pCi/g						
Bismuth-214		1.32		0.148	+/-0.120	0.200	pCi/g						
Cadmium-109	UI	2.11	R,R5a	1.34	+/-0.445		pCi/g						
Cerium-139	U	-0.0234		0.0562	+/-0.0175	0.050	pCi/g						
Cesium-134	U	0.111		0.118	+/-0.0473	0.100	pCi/g						
Cesium-137		0.348		0.0764	+/-0.0519	0.100	pCi/g						
Cobalt-60	U	0.0248		0.0902	+/-0.0253	0.100	pCi/g						
Europium-152	U	-0.000504		0.197	+/-0.060	0.200	pCi/g						
Lanthanum-140	U	-0.103		0.167	+/-0.0606		pCi/g						
Lead-212		1.69		0.0986	+/-0.107	0.100	pCi/g						
Lead-214		1.46		0.138	+/-0.124	0.100	pCi/g						
Mercury-203	U	-0.0187		0.0798	+/-0.0237	0.100	pCi/g						
Potassium-40		19.9		0.509	+/-1.29	1.00	pCi/g						
Radium-223	U	-0.261		1.24	+/-0.426		pCi/g						
Radium-224	UI	4.50	R,R5a	1.12	+/-0.552		pCi/g						
Radium-226		1.32		0.148	+/-0.120		pCi/g						
Radium-228		1.54		0.254	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	0.156		0.701	+/-0.209	0.800	pCi/g						
Sodium-22	U	-0.03		0.082	+/-0.0274	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7312
Sample ID: 245960006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0042	0.0766	+/-0.0264		pCi/g						
Thallium-208		0.570	0.0694	+/-0.0534	0.080	pCi/g						
Thorium-227	U	-0.263	0.682	+/-0.222		pCi/g						
Thorium-231	U	-0.261	1.24	+/-0.426		pCi/g						
Thorium-234		8.43	1.16	+/-1.04	2.00	pCi/g						
Tin-113	U	-0.00517	0.0912	+/-0.0273	0.100	pCi/g						
Uranium-235		0.549	0.369	+/-0.232	0.500	pCi/g						
Yttrium-88	U	0.0029	0.0745	+/-0.0226	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	66.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.0	(50%-105%)

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

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> Result is greater than value reported
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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7313
Sample ID: 245960007
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 9.72%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00181		0.0232	+/-0.00155	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00		0.0218	+/-0.00142	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.000793		0.0164	+/-0.00247	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.984		0.091	+/-0.0917	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.102		0.058	+/-0.0226	0.100	pCi/g						
Uranium-238		1.17		0.0621	+/-0.105	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.16		0.261	+/-0.0862	0.200	pCi/g		MXR1	02/12/10	1549	948717	5
Bismuth-211	UI	3.64	R,R5a	0.234	+/-0.213		pCi/g						
Bismuth-214		1.16		0.083	+/-0.0813	0.200	pCi/g						
Cadmium-109	UI	2.59	R,R5a	1.13	+/-0.434		pCi/g						
Cerium-139	U	0.0103		0.0406	+/-0.0113	0.050	pCi/g						
Cesium-134	U	0.064		0.0661	+/-0.0207	0.100	pCi/g						
Cesium-137	U	0.00697		0.0474	+/-0.0137	0.100	pCi/g						
Cobalt-60	U	-0.0152		0.0488	+/-0.0156	0.100	pCi/g						
Europium-152	U	0.0302		0.122	+/-0.0443	0.200	pCi/g						
Lanthanum-140	U	-0.0221		0.0936	+/-0.0351		pCi/g						
Lead-212		1.57		0.0723	+/-0.0723	0.100	pCi/g						
Lead-214		1.27		0.0814	+/-0.081	0.100	pCi/g						
Mercury-203	UI	0.0601	R,R5a	0.0487	+/-0.0207	0.100	pCi/g						
Potassium-40		19.2		0.347	+/-0.912	1.00	pCi/g						
Radium-223	U	-0.0218		0.835	+/-0.289		pCi/g						
Radium-224	UI	4.21	R,R5a	0.822	+/-0.552		pCi/g						
Radium-226		1.16		0.083	+/-0.0813		pCi/g						
Radium-228		1.57		0.147	+/-0.151	0.500	pCi/g						
Ruthenium-106	U	0.083		0.407	+/-0.121	0.800	pCi/g						
Sodium-22	U	-0.00867		0.0504	+/-0.0156	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7313 Project: LANL01004
Sample ID: 245960007 Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.0899	R,R5a	0.0554	+/-0.0161		pCi/g						
Thallium-208		0.480		0.0448	+/-0.0361	0.080	pCi/g						
Thorium-227	U	-0.0212		0.517	+/-0.153		pCi/g						
Thorium-231	U	-0.0218		0.835	+/-0.289		pCi/g						
Thorium-234		2.31		2.08	+/-0.930	2.00	pCi/g						
Tin-113	U	-0.00883		0.0544	+/-0.016	0.100	pCi/g						
Uranium-235	U	-0.172		0.289	+/-0.0924	0.500	pCi/g						
Yttrium-88	U	-0.00487		0.0397	+/-0.0125	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.6	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7314
Sample ID: 245960008
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 32.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00281		0.0183	+/-0.0018	0.050	pCi/g		CXM2	02/20/10	1337	955380	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.000397		0.0218	+/-0.00175	0.050	pCi/g		HAKB	02/13/10	2135	949824	5
Plutonium-239/240	U	0.00567		0.0164	+/-0.00285	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		2.47		0.0968	+/-0.203	0.100	pCi/g		HAKB	02/23/10	2117	954007	6
Uranium-235/236		0.166		0.0617	+/-0.0305	0.100	pCi/g						
Uranium-238		2.99		0.0661	+/-0.241	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0119		0.302	+/-0.0999	0.200	pCi/g		MXR1	02/12/10	1553	948717	9
Bismuth-211	UI	4.07	R,R5a	0.386	+/-0.339		pCi/g						
Bismuth-214		1.21		0.119	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	3.10	R,R5a	1.46	+/-0.507		pCi/g						
Cerium-139	U	0.0111		0.0598	+/-0.0171	0.050	pCi/g						
Cesium-134	U	0.0437		0.107	+/-0.031	0.100	pCi/g						
Cesium-137		0.271		0.0681	+/-0.0347	0.100	pCi/g						
Cobalt-60	U	0.0239		0.0773	+/-0.0217	0.100	pCi/g						
Europium-152	U	-0.00967		0.182	+/-0.063	0.200	pCi/g						
Lanthanum-140	U	-0.0192		0.149	+/-0.0482		pCi/g						
Lead-212		1.64		0.107	+/-0.105	0.100	pCi/g						
Lead-214		1.41		0.139	+/-0.123	0.100	pCi/g						
Mercury-203	U	0.0362		0.0838	+/-0.024	0.100	pCi/g						
Potassium-40		22.0		0.554	+/-1.30	1.00	pCi/g						
Radium-223	U	-0.283		1.30	+/-0.398		pCi/g						
Radium-224	UI	4.84	R,R5a	1.22	+/-0.661		pCi/g						
Radium-226		1.21		0.119	+/-0.107		pCi/g						
Radium-228		1.59		0.228	+/-0.180	0.500	pCi/g						
Ruthenium-106	U	-0.168		0.601	+/-0.185	0.800	pCi/g						
Sodium-22	U	-0.0113		0.0825	+/-0.0253	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7314 Project: LANL01004
Sample ID: 245960008 Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.0988	R,R5a	0.0872	+/-0.0266		pCi/g						
Thallium-208		0.566		0.0609	+/-0.0548	0.080	pCi/g						
Thorium-227	U	-0.274		0.748	+/-0.229		pCi/g						
Thorium-231	U	-0.283		1.30	+/-0.398		pCi/g						
Thorium-234		3.12		2.47	+/-1.27	2.00	pCi/g						
Tin-113	U	-0.0293		0.0841	+/-0.0266	0.100	pCi/g						
Uranium-235	U	-0.0861		0.406	+/-0.120	0.500	pCi/g						
Yttrium-88	U	-0.0122		0.0634	+/-0.0209	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.6	(50%-105%)

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

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

SEB
3/10/10

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

Certificate of Analysis

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7316
Sample ID: 245960009
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 35.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00352		0.0243	+/-0.003	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00254		0.0207	+/-0.00802	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.00888		0.0156	+/-0.00383	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		2.05		0.101	+/-0.172	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.108		0.0641	+/-0.0244	0.100	pCi/g						
Uranium-238		2.95		0.0686	+/-0.237	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.149		0.361	+/-0.115	0.200	pCi/g		MXR1	02/12/10	1554	948717	5
Bismuth-211	UI	4.03	R,R5a	0.414	+/-0.316		pCi/g						
Bismuth-214		1.28		0.138	+/-0.112	0.200	pCi/g						
Cadmium-109	UI	2.82	R,R5a	2.03	+/-0.617		pCi/g						
Cerium-139	U	0.0017		0.0605	+/-0.0182	0.050	pCi/g						
Cesium-134	UI	0.186	R,R5a	0.115	+/-0.057	0.100	pCi/g						
Cesium-137		0.260		0.0733	+/-0.0485	0.100	pCi/g						
Cobalt-60	U	0.0285		0.0699	+/-0.0193	0.100	pCi/g						
Europium-152	U	-0.0635		0.193	+/-0.0682	0.200	pCi/g						
Lanthanum-140	U	0.0626		0.189	+/-0.0525		pCi/g						
Lead-212		1.61		0.119	+/-0.0865	0.100	pCi/g						
Lead-214		1.40		0.144	+/-0.116	0.100	pCi/g						
Mercury-203	U	0.0255		0.0885	+/-0.0253	0.100	pCi/g						
Potassium-40		18.7		0.557	+/-1.03	1.00	pCi/g						
Radium-223	U	-0.822		1.33	+/-0.420		pCi/g						
Radium-224	UI	4.80	R,R5a	1.36	+/-0.706		pCi/g						
Radium-226		1.28		0.138	+/-0.112		pCi/g						
Radium-228		1.68		0.258	+/-0.222	0.500	pCi/g						
Ruthenium-106	U	0.0585		0.604	+/-0.182	0.800	pCi/g						
Sodium-22	U	-0.0131		0.0782	+/-0.0249	0.080	pCi/g						

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7316 Project: LANL01004
Sample ID: 245960009 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0668	0.0874	+/-0.0275		pCi/g						
Thallium-208		0.553	0.0693	+/-0.0496	0.080	pCi/g						
Thorium-227	U	-0.0604	0.772	+/-0.239		pCi/g						
Thorium-231	U	-0.822	1.33	+/-0.420		pCi/g						
Thorium-234		4.91	2.98	+/-1.17	2.00	pCi/g						
Tin-113	U	-0.00475	0.0902	+/-0.027	0.100	pCi/g						
Uranium-235	U	-0.0472	0.414	+/-0.125	0.500	pCi/g						
Yttrium-88	U	0.0194	0.0699	+/-0.0193	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	83.1	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7318	Project:	LANL01004
Sample ID:	245960010	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.8%		

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0136		0.0231	+/-0.00467	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00264		0.0216	+/-0.00264	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.0145		0.0162	+/-0.00444	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		4.65		0.0859	+/-0.349	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.252		0.0547	+/-0.0371	0.100	pCi/g						
Uranium-238		7.77		0.0586	+/-0.568	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0199		0.213	+/-0.0708	0.200	pCi/g		MXR1	02/12/10	1624	948717	5
Bismuth-211	UI	4.26	R,R5a	0.399	+/-0.341		pCi/g						
Bismuth-214		1.30		0.132	+/-0.117	0.200	pCi/g						
Cadmium-109	UI	3.32	R,R5a	1.33	+/-0.528		pCi/g						
Cerium-139	U	-0.019		0.0545	+/-0.0176	0.050	pCi/g						
Cesium-134	U	0.0886		0.0999	+/-0.0417	0.100	pCi/g						
Cesium-137		0.259		0.0751	+/-0.0529	0.100	pCi/g						
Cobalt-60	U	-0.000576		0.0728	+/-0.0223	0.100	pCi/g						
Europium-152	U	-0.0389		0.182	+/-0.0652	0.200	pCi/g						
Lanthanum-140	U	0.0676		0.171	+/-0.0536		pCi/g						
Lead-212		1.86		0.100	+/-0.111	0.100	pCi/g						
Lead-214		1.48		0.139	+/-0.125	0.100	pCi/g						
Mercury-203	U	0.00503		0.0782	+/-0.0234	0.100	pCi/g						
Potassium-40		23.6		0.518	+/-1.35	1.00	pCi/g						
Radium-223	U	-0.132		1.30	+/-0.400		pCi/g						
Radium-224	UI	5.99	R,R5a	1.14	+/-0.966		pCi/g						
Radium-226		1.30		0.132	+/-0.117		pCi/g						
Radium-228		1.74		0.258	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	-0.135		0.576	+/-0.179	0.800	pCi/g						
Sodium-22	U	-0.00621		0.0736	+/-0.0228	0.080	pCi/g						

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3/10/10

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7318 Project: LANL01004
Sample ID: 245960010 Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.089	R,R5a	0.0839	+/-0.025		pCi/g						
Thallium-208		0.553		0.0654	+/-0.0521	0.080	pCi/g						
Thorium-227	U	0.143		0.730	+/-0.215		pCi/g						
Thorium-231	U	-0.132		1.30	+/-0.400		pCi/g						
Thorium-234		9.31		1.88	+/-1.32	2.00	pCi/g						
Tin-113	U	0.0183		0.0849	+/-0.0255	0.100	pCi/g						
Uranium-235		0.492		0.376	+/-0.169	0.500	pCi/g						
Yttrium-88	U	-0.0405		0.040	+/-0.0176	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	105	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7324
Sample ID: 245960011
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 10.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00316		0.0248	+/-0.0023	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00249		0.0203	+/-0.00249	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.00248		0.0153	+/-0.00176	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.04		0.0995	+/-0.0977	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.0682		0.0634	+/-0.0189	0.100	pCi/g						
Uranium-238		1.06		0.0679	+/-0.0996	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0971		0.355	+/-0.102	0.200	pCi/g		MXR1	02/12/10	1631	948717	5
Bismuth-211	UI	4.14	R,R5a	0.303	+/-0.268		pCi/g						
Bismuth-214		1.20		0.103	+/-0.0822	0.200	pCi/g						
Cadmium-109	UI	2.71	R,R5a	1.36	+/-0.517		pCi/g						
Cerium-139	U	0.00232		0.046	+/-0.0136	0.050	pCi/g						
Cesium-134	UI	0.096	R,R5a	0.0959	+/-0.0286	0.100	pCi/g						
Cesium-137	U	-0.0302		0.0604	+/-0.0187	0.100	pCi/g						
Cobalt-60	U	0.00303		0.0635	+/-0.0188	0.100	pCi/g						
Europium-152	U	0.0866		0.154	+/-0.0473	0.200	pCi/g						
Lanthanum-140	U	-0.106		0.127	+/-0.0472		pCi/g						
Lead-212		1.65		0.0865	+/-0.0866	0.100	pCi/g						
Lead-214		1.44		0.106	+/-0.100	0.100	pCi/g						
Mercury-203	U	0.00405		0.0661	+/-0.0189	0.100	pCi/g						
Potassium-40		19.8		0.603	+/-1.06	1.00	pCi/g						
Radium-223	U	-0.576		1.05	+/-0.324		pCi/g						
Radium-224	UI	4.64	R,R5a	0.985	+/-0.654		pCi/g						
Radium-226		1.20		0.103	+/-0.0822		pCi/g						
Radium-228		1.68		0.194	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	-0.00296		0.474	+/-0.146	0.800	pCi/g						
Sodium-22	U	0.00202		0.0696	+/-0.0206	0.080	pCi/g						

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3/10/10

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7324 Project: LANL01004
Sample ID: 245960011 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0123	0.0576	+/-0.0193		pCi/g						
Thallium-208		0.504	0.0557	+/-0.0458	0.080	pCi/g						
Thorium-227	U	0.0518	0.588	+/-0.167		pCi/g						
Thorium-231	U	-0.576	1.05	+/-0.324		pCi/g						
Thorium-234	U	1.38	2.99	+/-0.828	2.00	pCi/g						
Tin-113	U	-0.0291	0.0646	+/-0.0202	0.100	pCi/g						
Uranium-235	U	-0.0498	0.314	+/-0.0939	0.500	pCi/g						
Yttrium-88	U	0.0162	0.0546	+/-0.0151	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.7	(50%-105%)

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

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D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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3/10/10

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1511C

REQUEST NUMBER: 10-1511

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc.,
Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 245960, 245965

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7309	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7309	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7308	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7308	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7315	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7315	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7317	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7317	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7319	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7319	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7312	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7312	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7313	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7313	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7314	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7314	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7316	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7316	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7318	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7318	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7326	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-7326	1	POLY	SW-846:6850	Ice	W
RE15-10-7326	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-7324	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7324	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
	2/1/10	3:00	Dionne Francis	2/2/10	0910

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-1511
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:AM-241	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:ISOPU	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:ISOU	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:6020	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	
	SW-846:6850	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	
	SW-846:7470A	1	RE15-10-7326	W	1/28/2010	
	SW-846:7471A	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:9012A	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	

Final Page of REQUEST NUMBER 10-1511

GEL Laboratories LLC

a member of **The GEL Group** INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

February 04, 2010

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

Re: LANL ER Project
Work Orders: 245960 245965
SDG: 10-1511

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 02, 2010, and analyzed for General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1511
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245960 and 245965
SDG: 10-1511

Table of Contents

Case Narrative **1**

Chain of Custody and Supporting Documentation **5**

Data Review Qualifier Flag Definition Sheet **19**

LC/MS/MS Perchlorate Analysis **21**
Sample Data Summary 26
Quality Control Summary 38
Sample Data 70
Standards Data 93
Quality Control 122
Miscellaneous Data 127

LC/MS/MS Perchlorate Analysis **136**
Sample Data Summary 141
Quality Control Summary 143
Sample Data 170
Standards Data 173
Quality Control 195
Miscellaneous Data 200

Metals Analysis **208**
Case Narrative 209
Sample Data Summary 215
Quality Control Summary 227
Standards 287
Raw Data 299
Miscellaneous 664

Metals Analysis **709**
Case Narrative 710
Sample Data Summary 715
Quality Control Summary 717
Standards 770
Raw Data 782
Miscellaneous 1099

General Chemistry Analysis **1146**
Case Narrative 1147
Sample Data Summary 1152

Quality Control Summary 1165
Instrument QC Data Summary 1168
Cyanide, Total 1170
Miscellaneous 1188

General Chemistry Analysis 1191
Case Narrative 1192
Sample Data Summary 1197
Quality Control Summary 1200
Instrument QC Data Summary 1203
Cyanide, Total 1205

Radiological Analysis 1219
Sample Data Summary 1236
Quality Control Data 1271
Raw Data 1279
Background and Efficiency Data 1986
Standards Data 2150
Runlogs 2182

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245960 and 245965
SDG # : 10-1511

February 04, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 02, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 13-15,19C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
245965001	RE15-10-7326

Case Narrative

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

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

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

Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 04 February 2010

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

Chain of Custody and Supporting Documentation

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1511C

REQUEST NUMBER: 10-1511

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc.,
Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245960, 245965

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7309	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7309	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7308	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7308	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7315	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7315	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7317	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7317	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7319	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7319	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7312	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7312	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7313	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7313	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7314	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7314	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7316	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7316	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7318	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7318	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7326	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-7326	1	POLY	SW-846:6850	Ice	W
RE15-10-7326	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-7324	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7324	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
	2/1/10	3:00	Dionne Francis	2/2/10	0910

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1511

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples

according to the schedule indicated:

SHIP DATE: 2/1/2010

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:AM-241	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:ISOPU	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:ISOU	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	

Monday, February 01, 2010 REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:6020	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	
	SW-846:6850	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	
	SW-846:7470A	1	RE15-10-7326	W	1/28/2010	
	SW-846:7471A	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:9012A	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	

Final Page of REQUEST NUMBER 10-1511

GEL | Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL			SDG/ARCOC/Work Order: 10-1511
Received By: Dionne Francis			Date Received: February 2, 2010
Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 80 CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-5C 13-15,19C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7978 0C	7209 7849 7886 2C	7209 7849 7967 3C	7209 7849 7739 19C
7209 7849 7772 1C	7209 7849 7901 2C	7209 7849 7945 4C	
7209 7849 7934 1C	7209 7849 7853 2C	7209 7849 7810 5C	
7209 7849 7831 1C	7209 7849 7875 2C	7209 7849 7897 5C	
7209 7849 7783 1C	7209 7849 7956 2C	7209 7849 7728 13C	
7209 7849 7864 1C	7209 7849 7794 2C	7209 7849 7706 13C	
7209 7849 7923 1C	7209 7849 7820 2C	7209 7849 7717 14C	
7209 7849 7761 1C	7209 7849 7809 2C	7209 7849 7750 15C	
7209 7849 7842 1C	7209 7849 7912 3C	7209 7849 7740 15C	

PM (or PMA) review: Initials P. LD-LD. Date 2/3/10

TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

0c

FedEx Express

TRK# 0201 7209 7849 7978

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR3A052VA00

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2 of 2
MPS# 0263 7209 7849 7772
Mstr# 7209 7849 7761 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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CHS

Part # 156148-434 NRIT V3 04-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2449

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TRK# 0201 7209 7849 7934
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PRIORITY OVERNIGHT

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SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

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TUE - 02FEB A1
PRIORITY OVERNIGHT

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

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1 of 2
TRK# 0201 7209 7849 7783
MM MASTER MM

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
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CHS

XX CHSA

Part # 158148-434 NRITV3.04-05

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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(843) 556-8171
REF: 6B010AMR1A015AGWK0

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MPS# 0263 7209 784[illegible] 7864
Mstr# 7209 7[illegible] 7853 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 158148-434 NRITV3.04-05

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
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2 of 2
MPS# 0263 7209 7849 7923
Mstr# 7209 7849 7912 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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XX CHSA

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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1 of 2
TRK# 0201 7209 7849 7761
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TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR3A052VM00

1 of 2
MPS# 0263 7209 7849 7842
Matr# 7209 7849 7831 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGMKO

2 of 2
MPS# 0263 7209 7849 7901
Matr# 7209 7849 7897 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
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ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 67.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGMKO

2 of 2
MPS# 0263 7209 7849 7886
Matr# 7209 7849 7875 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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FedEx Express

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGMKO

1 of 2
TRK# 0201 7209 7849 7853
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGMK0

2C

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1 of 2
TRK# 0201 7209 7849 7875

TUE - 02FEB A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
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Part # 158148-434 NRT 0804

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR3A052VA00

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2 of 2
MPS# 0263 7209 7849 7794
Mstr# 7209 7849 7783 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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FedEx Express

1 of 2
TRK# 0201 7209 7849 7956

TUE - 02FEB A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US
CHS

Part # 158148-434 NRT 0804

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

3 of 3
MPS# 0263 7209 7849 7820
Mstr# 7209 7849 7809 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
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TA00 BLDG 1237A DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

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1 of 3

TUE - 02FEB A1

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TRK# 0201 7209 7849 7809

TUE - 02 FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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Emp# 133998 01FEB10 SAFA

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

3C

FedEx Express

2 of 2

MPS# 0263 7209 7849 7961

Mstr# 7209 7849 7956 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

3C

FedEx Express

1 of 2

TUE - 02FEB A1

TRK# 0201 7209 7849 7912

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PRIORITY OVERNIGHT

XX CHSA

29407
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Part # 156148-434 NRIT V3 09-08

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

3C

FedEx Express

2 of 2

MPS# 0263 7209 7849 7967

Mstr# 7209 7849 7956 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR1A015AGWL0

4C

FedEx Express

2 of 2

MPS# 0263 7209 7849 7945

Mstr# 7209 7849 7934 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

5c

FedEx Express

2 of 3
MPS# 0263 7209 7849 7810
Mstr# 7209 7849 7809 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 04-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

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1 of 2
TRK# 0201 7209 7849 7728
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TUE - 02FEB A1
PRIORITY OVERNIGHT

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CHS

XX CHSA

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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REF: 6B010AMR 1A015AGHK0

5c

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1 of 2
TRK# 0201 7209 7849 7897
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 04-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 71.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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CHARLESTON SC 29407
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REF: 6B010AMR2A0515BYD0

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FedEx Express

2 of 3
MPS# 0263 7209 7849 7706
Mstr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

04-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

14c

FedEx Express

3 of 3
MPS# 0263 7209 7849 7717
Mstr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
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CHS

XX CHSA

Part # 156143-434 NRIT V3 04-08

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR2A0515BYDO

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2 of 2
MPS# 0263 7209 7849 7750
Mstr# 7209 7849 7740 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156143-434 NRIT V3 04-08

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

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1 of 2
TRK# 0201 7209 7849 7740
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TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

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REF: 6B010AMR2A0515BYDO

19c

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2 of 2
MPS# 0263 7209 7849 7739
Mstr# 7209 7849 7728 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

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

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1511

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950054
Prep Batch Number:	950053

Sample Analysis

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202035635	Interference Check Sample (ICS)
1202035631	Method Blank (MB)
1202035632	Laboratory Control Sample (LCS)
1202035633	245938002(RE46-10-11964) Matrix Spike (MS)
1202035634	245938002(RE46-10-11964) Matrix Spike Duplicate (MSD)

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

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Preparation/Analytical Method Verification

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

Calibration Information

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

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

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

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

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

Quality Control (QC) Information

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

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

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

QC Sample Designation
Client sample 245938002 (RE46-10-11964) from SDG 10-1506 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

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

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

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

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

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

Technical Information

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

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

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

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

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

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

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

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

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

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

System Configuration

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

Chromatographic Columns

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

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Herbert K. Mews **Date:** 01/25/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7309

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960001

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.555	2.22	0.892	ug/kg	J	1	21-FEB-10 02:06	per0220091a
	Perchlorate Isotope Ratio			3.13			1	21-FEB-10 02:06	per0220091a
14797-73-0	Perchlorate-101	.555	2.22	0.905	ug/kg	J	1	21-FEB-10 02:06	per0220091a
	Perchlorate-O(18)			5.68	ug/kg		1	21-FEB-10 02:06	per0220091a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7308

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960002

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.644	2.57	0.644	ug/kg	U	1	21-FEB-10 02:16	per0220092a
	Perchlorate Isotope Ratio						1	21-FEB-10 02:16	per0220092a
14797-73-0	Perchlorate-101	.644	2.57	0.644	ug/kg	U	1	21-FEB-10 02:16	per0220092a
	Perchlorate-O(18)			6.42	ug/kg		1	21-FEB-10 02:16	per0220092a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7315

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960003

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 91.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.549	2.2	0.549	ug/kg	U	1	21-FEB-10 02:25	per0220093a
	Perchlorate Isotope Ratio						1	21-FEB-10 02:25	per0220093a
14797-73-0	Perchlorate-101	.549	2.2	0.549	ug/kg	U	1	21-FEB-10 02:25	per0220093a
	Perchlorate-O(18)			5.68	ug/kg		1	21-FEB-10 02:25	per0220093a

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

*Concentration =

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

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7317

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960004

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	21-FEB-10 03:03	per0220097a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:03	per0220097a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	21-FEB-10 03:03	per0220097a
	Perchlorate-O(18)			5.53	ug/kg		1	21-FEB-10 03:03	per0220097a

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

*Concentration =

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

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Form I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7319

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960005

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.618	ug/kg	J	1	21-FEB-10 03:13	per0220098a
	Perchlorate Isotope Ratio			3.31			1	21-FEB-10 03:13	per0220098a
14797-73-0	Perchlorate-101	.56	2.24	0.594	ug/kg	J	1	21-FEB-10 03:13	per0220098a
	Perchlorate-O(18)			5.47	ug/kg		1	21-FEB-10 03:13	per0220098a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7312

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960006

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 71

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.708	2.83	0.708	ug/kg	U	1	21-FEB-10 03:23	per0220099a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:23	per0220099a
14797-73-0	Perchlorate-101	.708	2.83	0.708	ug/kg	U	1	21-FEB-10 03:23	per0220099a
	Perchlorate-O(18)			6.70	ug/kg		1	21-FEB-10 03:23	per0220099a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7313

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960007

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.22	0.928	ug/kg	J	1	21-FEB-10 03:32	per0220100a
	Perchlorate Isotope Ratio			3.18			1	21-FEB-10 03:32	per0220100a
14797-73-0	Perchlorate-101	.554	2.22	0.927	ug/kg	J	1	21-FEB-10 03:32	per0220100a
	Perchlorate-O(18)			5.41	ug/kg		1	21-FEB-10 03:32	per0220100a

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

*Concentration =

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

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7314

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960008

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.742	2.97	0.742	ug/kg	U	1	21-FEB-10 03:42	per0220101a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:42	per0220101a
14797-73-0	Perchlorate-101	.742	2.97	0.742	ug/kg	U	1	21-FEB-10 03:42	per0220101a
	Perchlorate-O(18)			6.84	ug/kg		1	21-FEB-10 03:42	per0220101a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7316

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960009

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.776	3.11	0.776	ug/kg	U	1	21-FEB-10 03:51	per0220102a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:51	per0220102a
14797-73-0	Perchlorate-101	.776	3.11	0.776	ug/kg	U	1	21-FEB-10 03:51	per0220102a
	Perchlorate-O(18)			7.68	ug/kg		1	21-FEB-10 03:51	per0220102a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7318

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960010

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.587	2.35	1.49	ug/kg	J	1	21-FEB-10 04:01	per0220103a
	Perchlorate Isotope Ratio			3.21			1	21-FEB-10 04:01	per0220103a
14797-73-0	Perchlorate-101	.587	2.35	1.48	ug/kg	J	1	21-FEB-10 04:01	per0220103a
	Perchlorate-O(18)			5.42	ug/kg		1	21-FEB-10 04:01	per0220103a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7324

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960011

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.946	ug/kg	J	1	21-FEB-10 04:11	per0220104a
	Perchlorate Isotope Ratio			3.01			1	21-FEB-10 04:11	per0220104a
14797-73-0	Perchlorate-101	.557	2.23	0.998	ug/kg	J	1	21-FEB-10 04:11	per0220104a
	Perchlorate-O(18)			5.41	ug/kg		1	21-FEB-10 04:11	per0220104a

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

*Concentration =

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

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1511

Extract Batch Code: 950053

Date Filtered: 15–FEB–10

Matrix: SOIL

Sample ID: 1202035632

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.14	ug/kg	107		70 – 130
Perchlorate Isotope Ratio		3.28				–
Perchlorate–101	2.00	2.08	ug/kg	104		70 – 130
Perchlorate–O(18)		4.88	ug/kg			–

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

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1511

Extract Batch Code: 950053

Date Filtered: 15–FEB–10

Matrix: SOIL

Sample ID: 1202035635

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.1	ug/kg	105		70 – 130
Perchlorate Isotope Ratio		3.23				
Perchlorate–101	2.00	2.07	ug/kg	103		70 – 130
Perchlorate–O(18)		5.01	ug/kg			

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

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Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

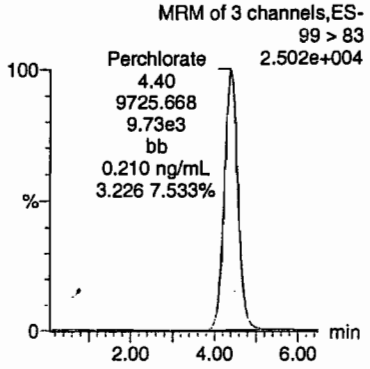
Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220077a
Date: 20-Feb-2010
Time: 23:52:19
ID: 1202035635
Vial: 2:5,C

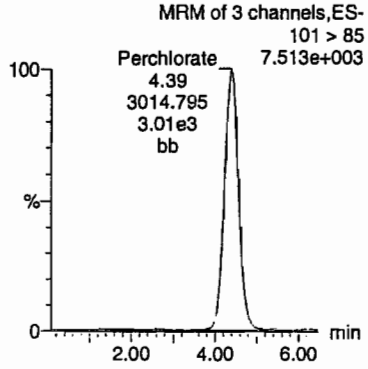
LANL | 950054 | 3025 | ZLS | 1 |

33
2/21-10

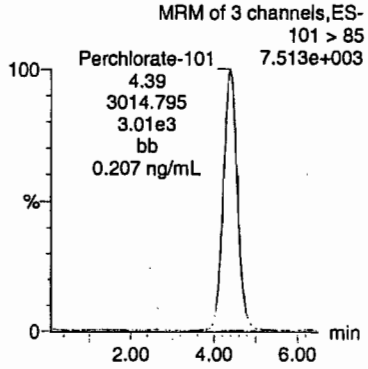
Perchlorate



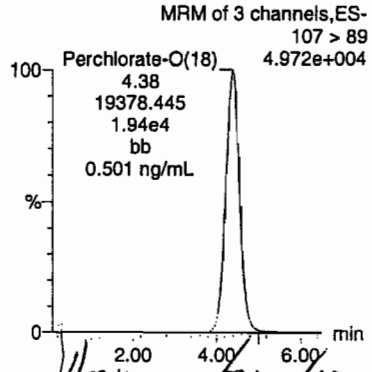
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 2/21/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035635	Perchlorate	99 > 83	4.40	9725.668	9725.668	bb			0.2100	104.99	4.99	368.233	3.23
1202035635	Perchlorate-101	101 > 85	4.39	3014.795	3014.795	bb			0.2068	103.39	3.39	73.018	
1202035635	Perchlorate-O(18)	107 > 89	4.38	19378.445	19378.445	bb			0.5005	100.10	0.10	4724.9...	

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

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1511

Extract Batch Code: 950053

Date Extracted: 15–FEB–10

GEL MS/PS ID: 1202035633

Client ID: RE46–10–11964

GEL MSD/PSD ID: 1202035634

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.22	0.0932	ug/kg	2.38	103	2.4	104	.746	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.18		3.15		0		–
Perchlorate–101	2.22	0.0794	ug/kg	2.37	103	2.42	105	1.78	30	75 – 125
Perchlorate–O(18)	0	5.51	ug/kg	5.50		5.54		.671		–

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

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	20–FEB–10	per0220001a	IPB001
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220001a	IPB001
Perchlorate	0.00	0	NA	20–FEB–10	per0220002a	IPB001
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220002a	IPB001

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

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ıst Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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alibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022010a.cdb 21 Feb 2010 10:20:58

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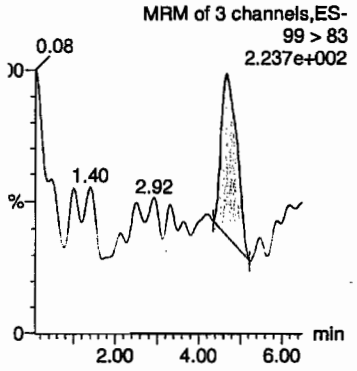
ate: 20-Feb-2010
me: 11:45:54
: IPB001
al: 1:1,A

02-21-10

erchlorate



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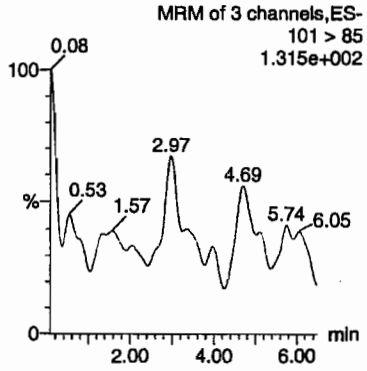
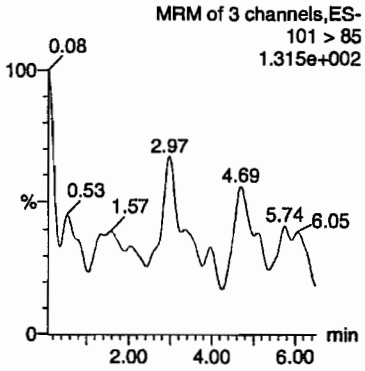
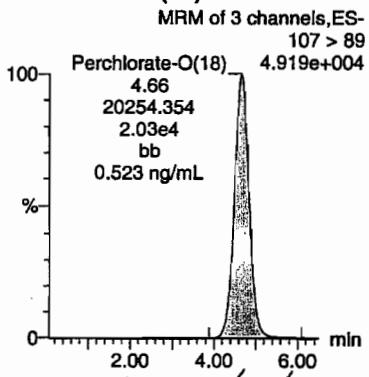


Perchlorate-101



Perchlorate-O(18)



Hmw 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
3001	Perchlorate	99 > 83	4.66	61.000	61.000	bb			0.0013			9.339	0.00
3001	Perchlorate-101	101 > 85											
3001	Perchlorate-O(18)	107 > 89	4.66	20254.354	20254.354	bb			0.5231	104.63	4.63	6035.7...	

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

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	20–FEB–10	per0220008a	IPB002
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220008a	IPB002
Perchlorate	0.00	0	NA	20–FEB–10	per0220010a	IPB003
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220010a	IPB003
Perchlorate	0.00	0	NA	20–FEB–10	per0220015a	IPB004
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220015a	IPB004
Perchlorate	0.00	0	NA	20–FEB–10	per0220023a	IPB005
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220023a	IPB005
Perchlorate	0.00	0	NA	20–FEB–10	per0220036a	IPB006
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220036a	IPB006
Perchlorate	0.00	0	NA	20–FEB–10	per0220043a	IPB007
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220043a	IPB007
Perchlorate	0.00	0	NA	20–FEB–10	per0220049a	IPB008

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220049a	IPB008
Perchlorate	0.00	0	NA	20–FEB–10	per0220062a	IPB009
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220062a	IPB009
Perchlorate	0.00	0	NA	20–FEB–10	per0220073a	IPB010
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220073a	IPB010
Perchlorate	0.00	0	NA	21–FEB–10	per0220084a	IPB011
Perchlorate–101	0.00	0	NA	21–FEB–10	per0220084a	IPB011
Perchlorate	0.00	0	NA	21–FEB–10	per0220095a	IPB012
Perchlorate–101	0.00	0	NA	21–FEB–10	per0220095a	IPB012
Perchlorate	0.00	0	NA	21–FEB–10	per0220106a	IPB013
Perchlorate–101	0.00	0	NA	21–FEB–10	per0220106a	IPB013

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

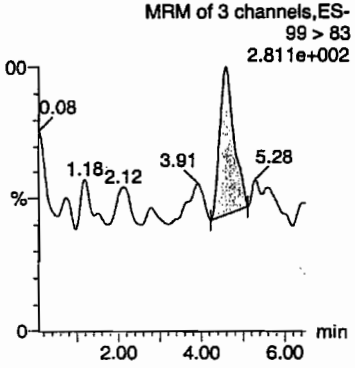
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

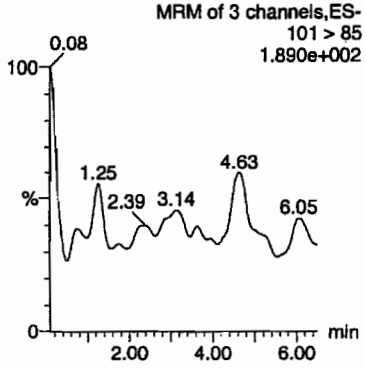
Name: per0220008a
Date: 20-Feb-2010
Time: 12:52:34
ID: IPB002
Vial: 1:1,A

CWB
02-21-10

Perchlorate



Perchlorate



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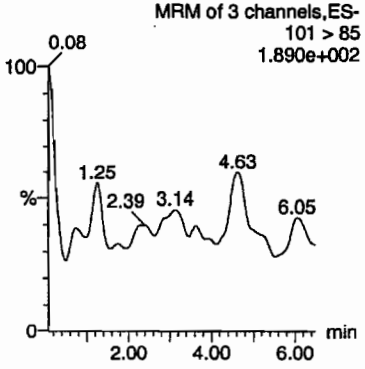
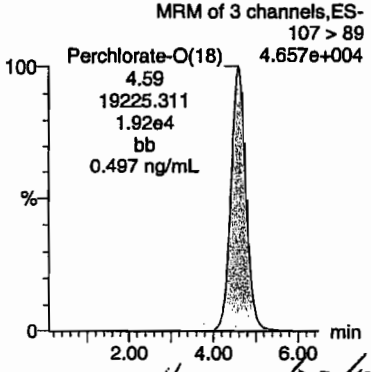


Perchlorate-O(18)



Hmm 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B002	Perchlorate	99 > 83	4.58	63.464	63.464	bb			0.0014			18.597	0.00
'B002	Perchlorate-101	101 > 85											
'B002	Perchlorate-O(18)	107 > 89	4.59	19225.311	19225.311	bb			0.4966	99.31	-0.69	9318.4...	

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The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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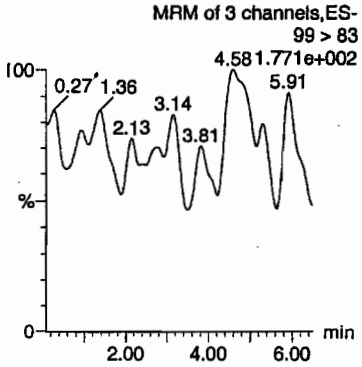
Date: 20-Feb-2010
Time: 13:11:39
ID: IPB003
Vial: 1:1,A

02-21-10

Perchlorate



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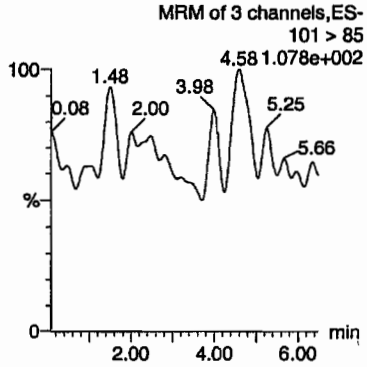

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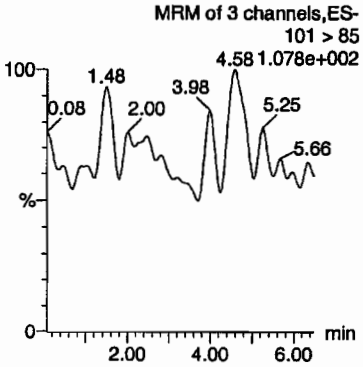

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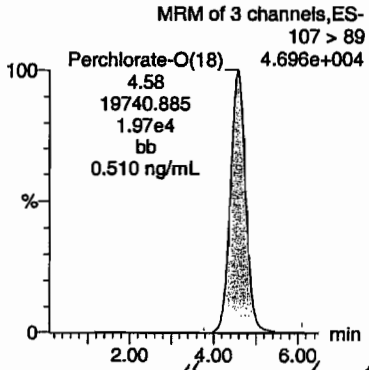

hmm 2/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83											0.00
PB003	Perchlorate-101	101 > 85											
PB003	Perchlorate-O(18)	107 > 89	4.58	19740.885	19740.885	bb			0.5099	101.97	1.97	4824.8...	

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

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rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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ate: 20-Feb-2010
ime: 13:59:24
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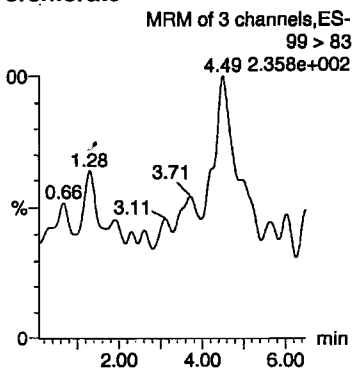
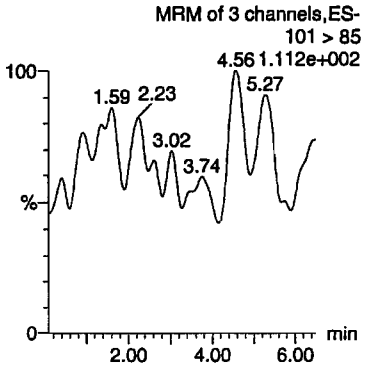
ial: 1:1,A

02/21/10

erchlorate



Perchlorate



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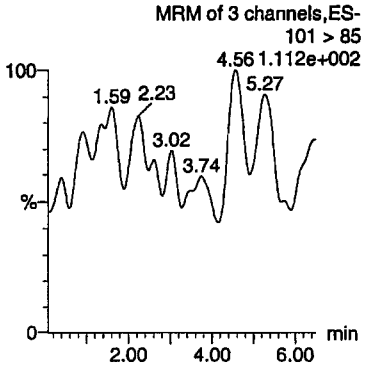
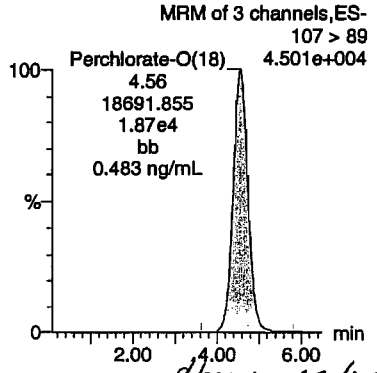


Perchlorate-O(18)



Hmm 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B004	Perchlorate	99 > 83											0.00
'B004	Perchlorate-101	101 > 85											
'B004	Perchlorate-O(18)	107 > 89	4.56	18691.855	18691.855	bb			0.4828	96.56	-3.44	7592.8...	

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

)ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

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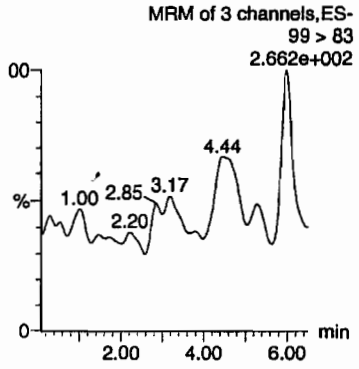
'rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

lame: per0220023a
)ate: 20-Feb-2010
ime: 15:15:43
): IPB005
ial: 1:1,A

02.22.10

erchlorate



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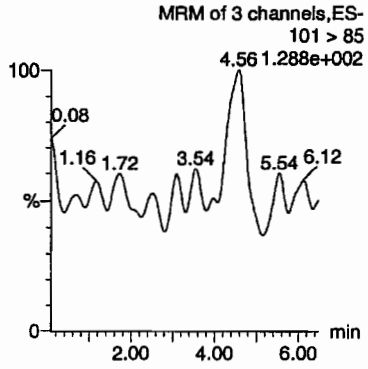

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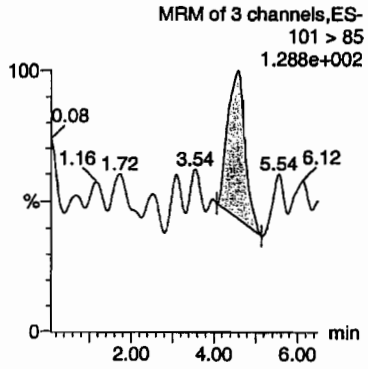

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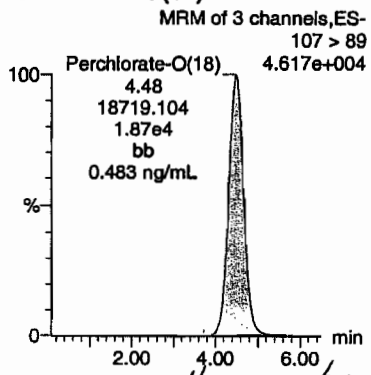

HMW 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B005	Perchlorate	99 > 83											0.00
B005	Perchlorate-101	101 > 85	4.56	34.937	34.937	bb			0.0024			13.428	
B005	Perchlorate-O(18)	107 > 89	4.48	18719.104	18719.104	bb			0.4835	96.70	-3.30	3565.0...	

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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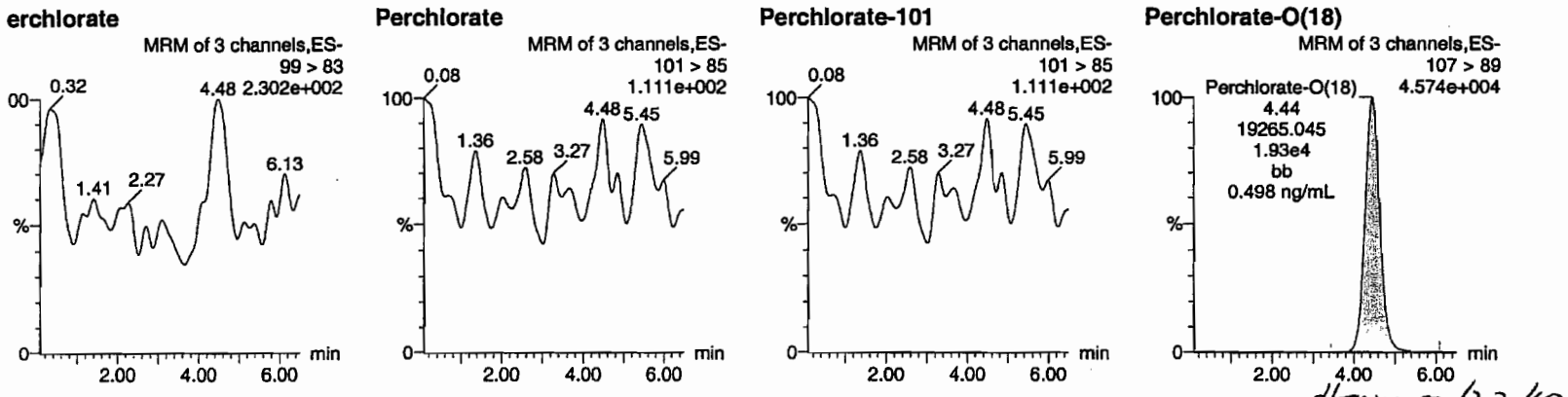
Date: 20-Feb-2010
Time: 17:19:52
ID: IPB006
Vial: 1:1,A

CWJ 02-21-10



HMM on 2/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B006	Perchlorate	99 > 83											0.00
B006	Perchlorate-101	101 > 85											
B006	Perchlorate-O(18)	107 > 89	4.44	19265.045	19265.045	bb			0.4976	99.52	-0.48	6877.1...	

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Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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)ate: 20-Feb-2010
'ime: 18:26:42
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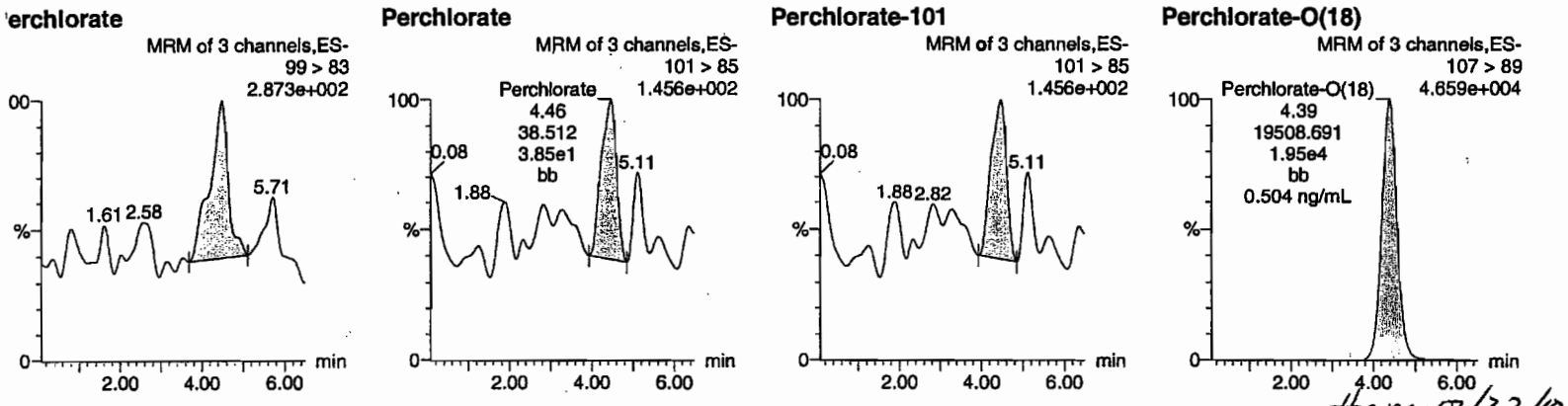
02-21-10



Hm 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B007	Perchlorate	99 > 83	4.48	89.974	89.974	bb			0.0019			15.691	2.34
'B007	Perchlorate-101	101 > 85	4.46	38.512	38.512	bb			0.0026			5.432	
'B007	Perchlorate-O(18)	107 > 89	4.39	19508.691	19508.691	bb			0.5039	100.78	0.78	7058.6...	

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The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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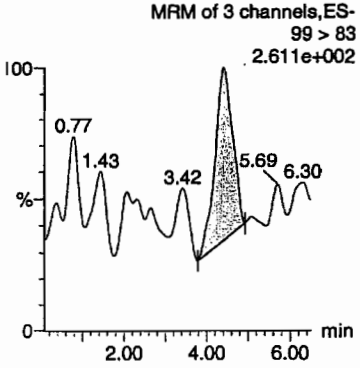
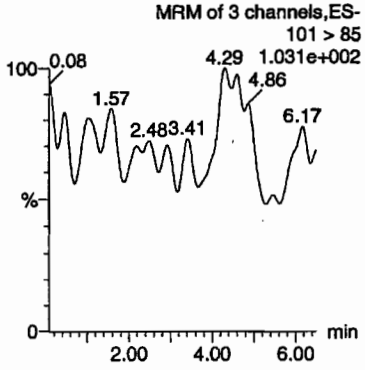
Time: 19:24:17
ID: IPB008
Vial: 1:1,A

02-21-10

Perchlorate



Perchlorate



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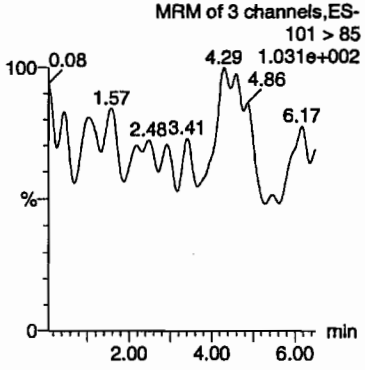

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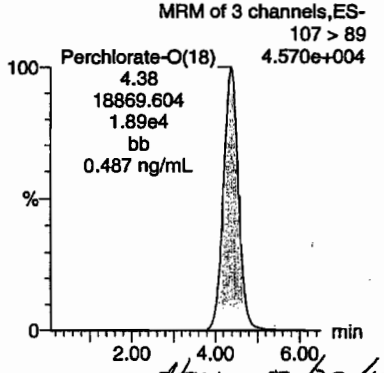


HMM 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB008	Perchlorate	99 > 83	4.40	84.592	84.592	bb			0.0018			10.288	0.00
PB008	Perchlorate-101	101 > 85											
PB008	Perchlorate-O(18)	107 > 89	4.38	18869.604	18869.604	bb			0.4874	97.47	-2.53	1484.5...	

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

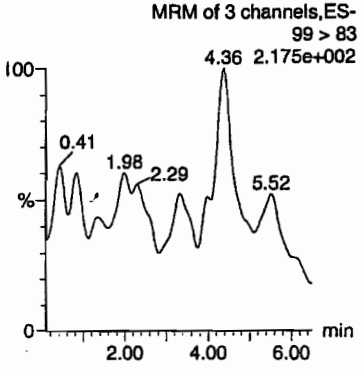
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

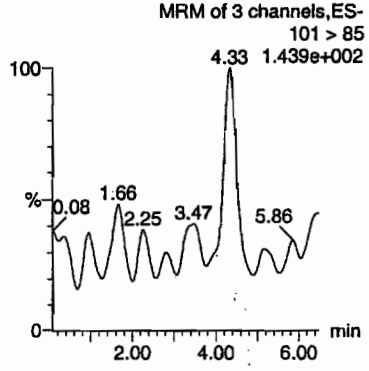
Name: per0220062a
Date: 20-Feb-2010
Time: 21:28:38
ID: IPB009
Vial: 1:1,A

02-21-10

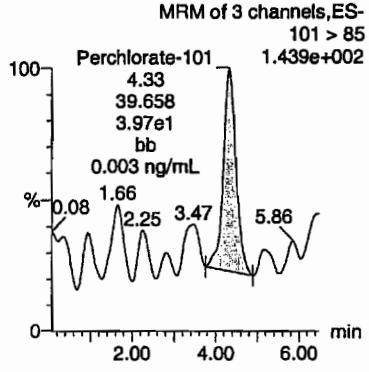
Perchlorate



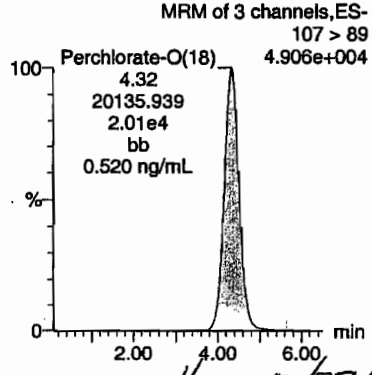
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB009	Perchlorate	99 > 83											0.00
PB009	Perchlorate-101	101 > 85	4.33	39.658	39.658	bb			0.0027			13.481	
PB009	Perchlorate-O(18)	107 > 89	4.32	20135.939	20135.939	bb			0.5201	104.02	4.02	4395.0...	

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

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

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

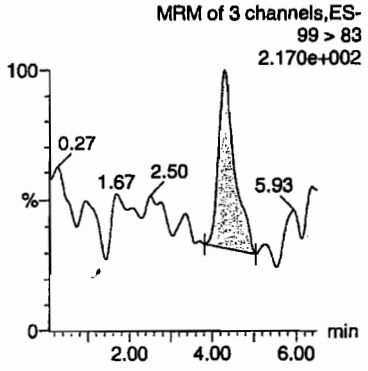
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

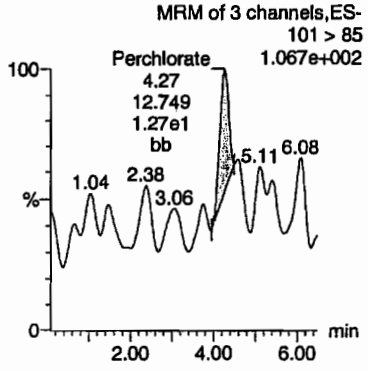
Name: per0220073a
Date: 20-Feb-2010
Time: 23:13:57
ID: IPB010
Vial: 1:1,A

CWW 02-21-10

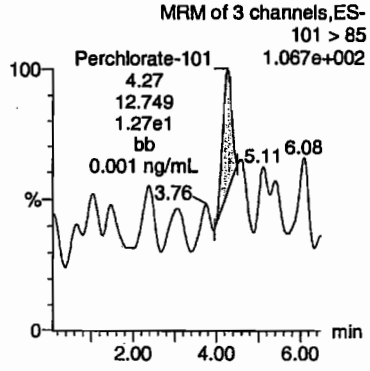
Perchlorate



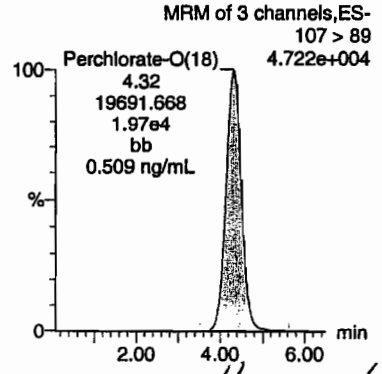
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HJ mw 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB010	Perchlorate	99 > 83	4.29	66.247	66.247	bb			0.0014			11.963	5.20
PB010	Perchlorate-101	101 > 85	4.27	12.749	12.749	bb			0.0009			8.284	
PB010	Perchlorate-O(18)	107 > 89	4.32	19691.668	19691.668	bb			0.5086	101.72	1.72	4522.9...	

okay
2/22/10

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

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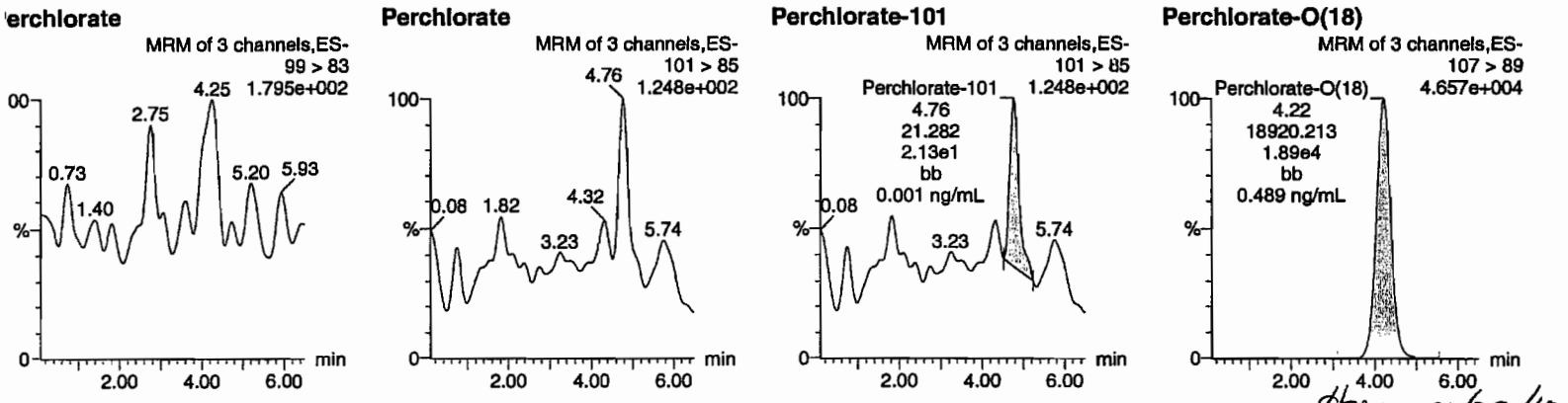
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220084a
Date: 21-Feb-2010
Time: 00:59:25
ID: IPB011
Vial: 1:1,A

033
02-21-10



HM 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB011	Perchlorate	99 > 83											0.00
PB011	Perchlorate-101	101 > 85	4.76	21.282	21.282	bb			0.0015			21.790	
PB011	Perchlorate-O(18)	107 > 89	4.22	18920.213	18920.213	bb			0.4887	97.74	-2.26	4383.8...	

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

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The GEL Group, LLC Analyst: Charlers W. Wilson

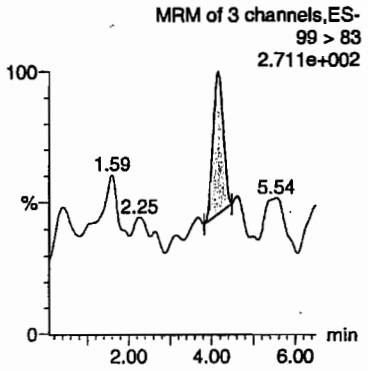
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

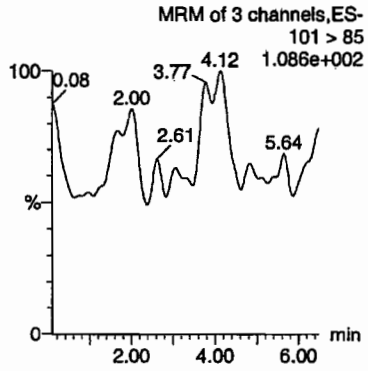
Name: per0220095a
Date: 21-Feb-2010
Time: 02:44:53
ID: IPB012
Vial: 1:1,A

CW 02/2/10

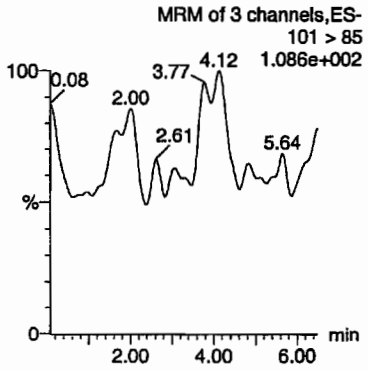
Perchlorate



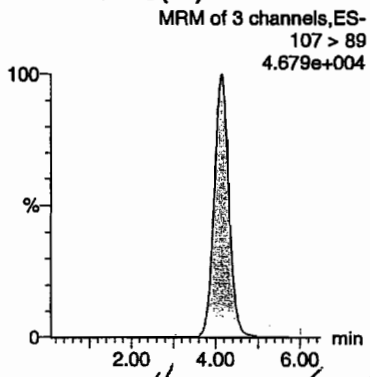
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB012	Perchlorate	99 > 83	4.15	42.382	42.382	bb			0.0009			18.969	0.00
IPB012	Perchlorate-101	101 > 85											
IPB012	Perchlorate-O(18)	107 > 89	4.14	18727.615	18727.615	bb			0.4837	96.74	-3.26	7863.9...	

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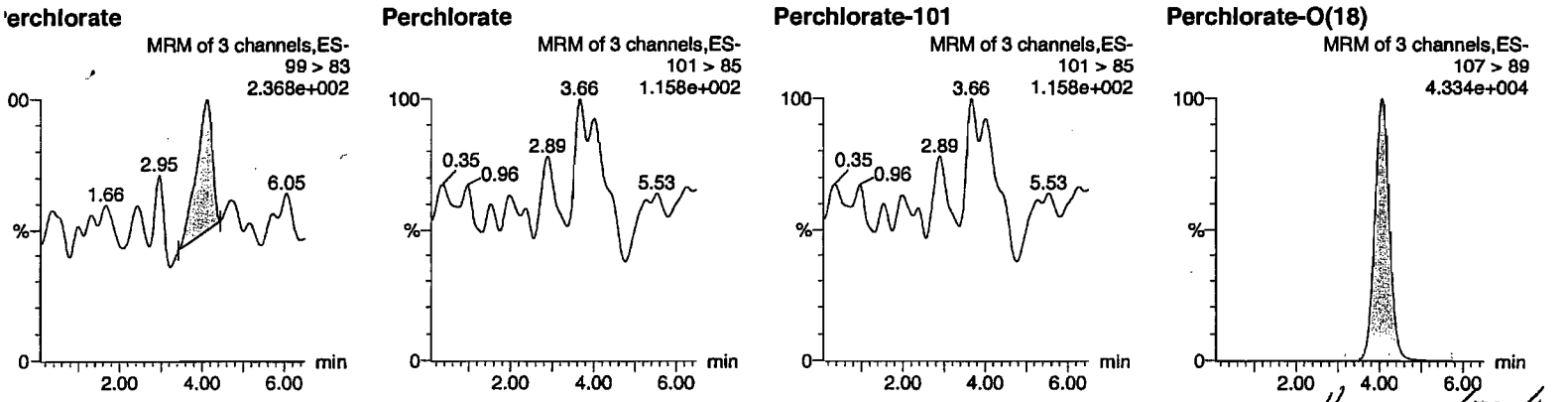
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220106a
Date: 21-Feb-2010
Time: 04:30:26
ID: IPB013
Vial: 1:1,A

333
02.21.10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB013	Perchlorate	99 > 83	4.12	54.108	54.108	bb			0.0012			6.988	0.00
IPB013	Perchlorate-101	101 > 85											
IPB013	Perchlorate-O(18)	107 > 89	4.05	17571.473	17571.473	bb			0.4538	90.77	-9.23	3961.9...	

Hmm 02/22/10

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

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Nairb.ref

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

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

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QUATTRO ULTIMA: nairb_01_08_08.ca1

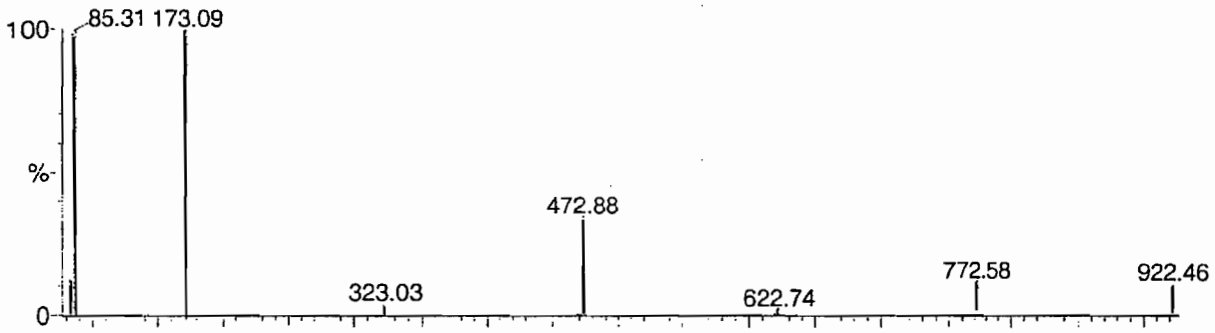
Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

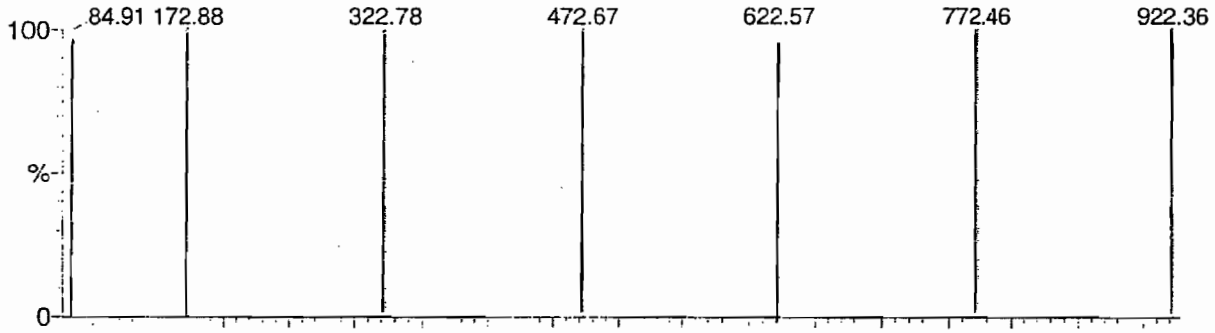
PEAKS HIGHLIGHTED BY CWJ 01-09-08

Data file: STATMS1 - Uncalibrated

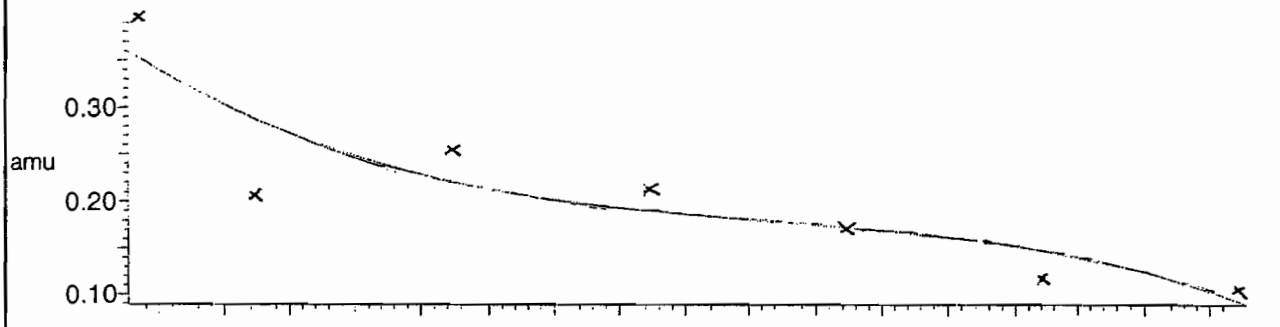
7 matches of 7 tested references



Reference file: Nairb

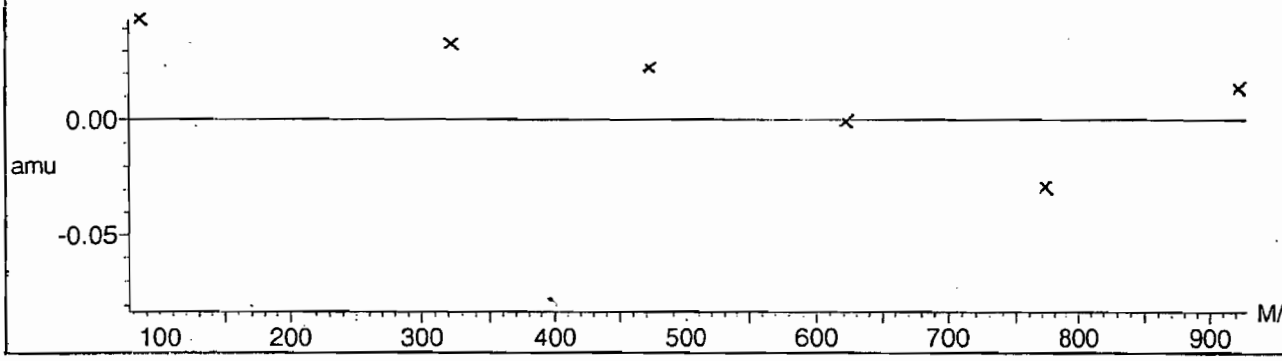


Mass difference (Raw - Ref mass)



Residuals

Mean residual = 3.212012e-2 ± 0.024108



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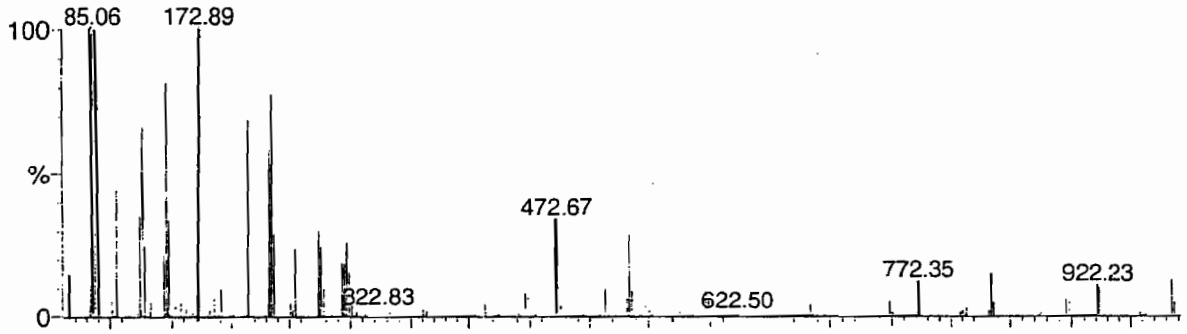
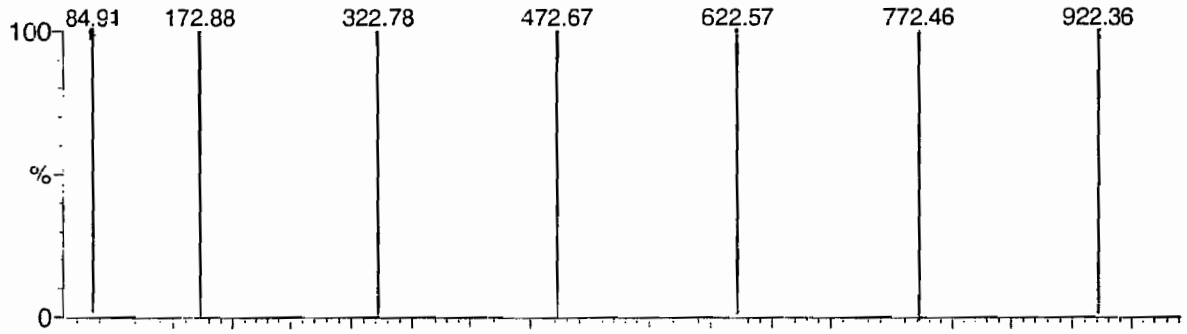
Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

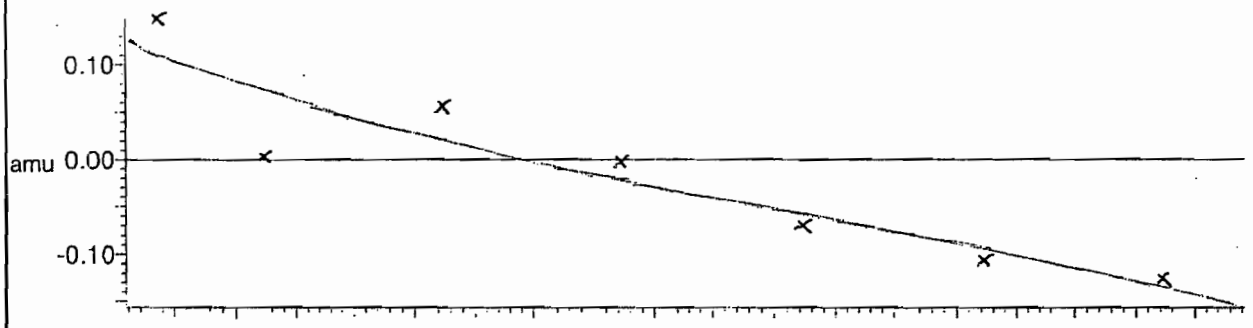
Data file: SCNMS1 - Uncalibrated 7 matches of 7 tested references



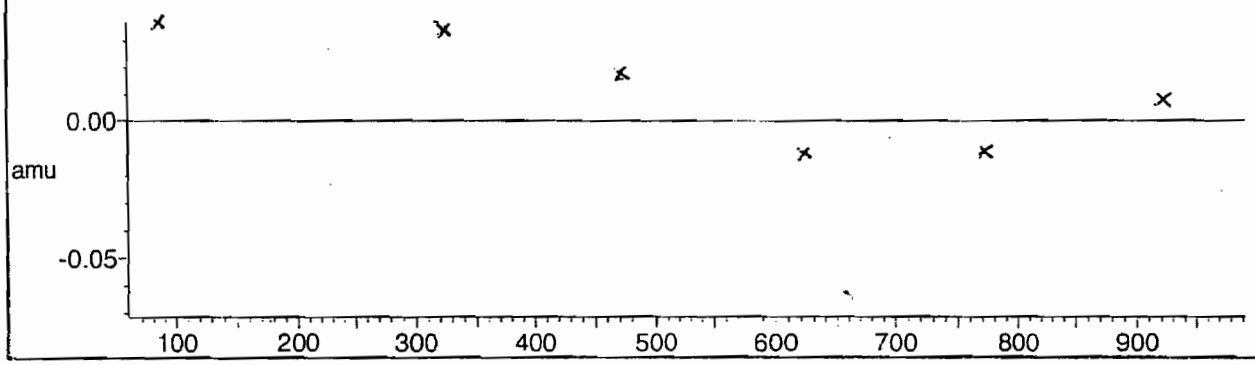
Reference file: Nairb



Mass difference (Raw - Ref mass)



Residuals Mean residual = 2.732691e-2 ± 0.020653



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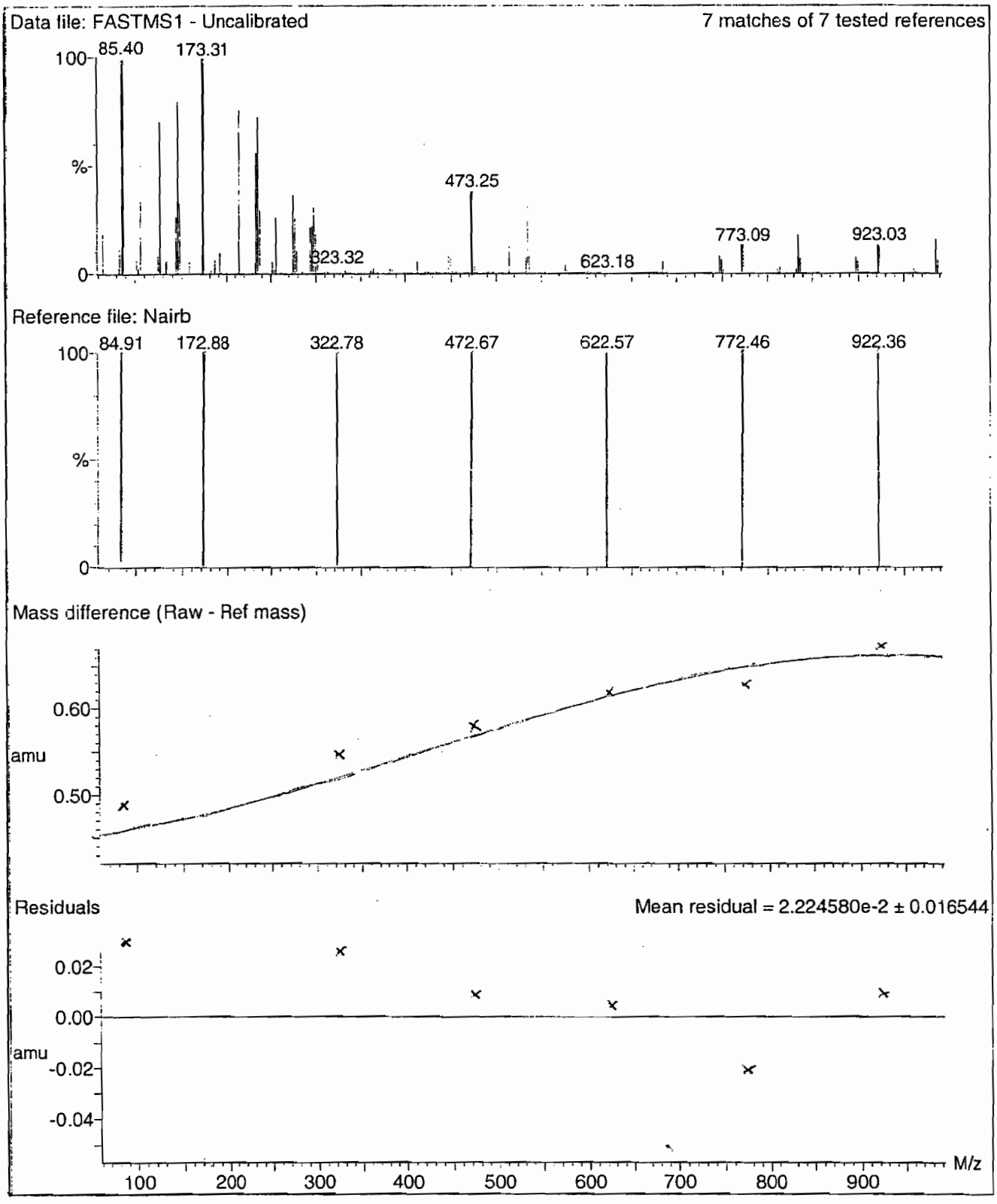
Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

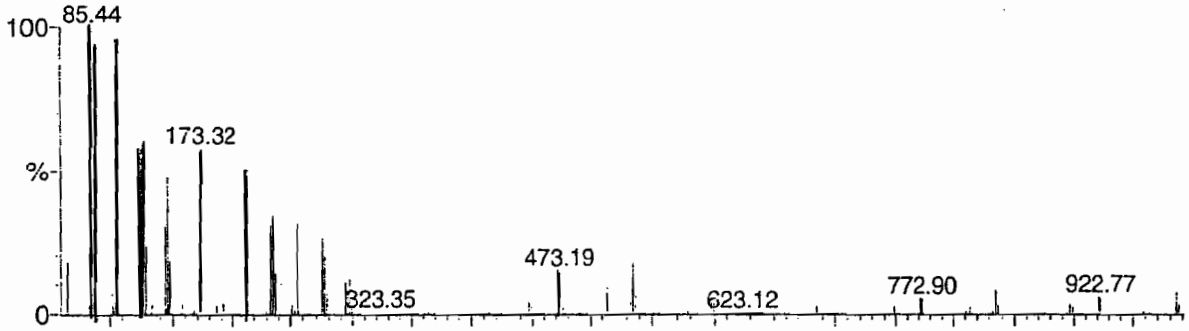


PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

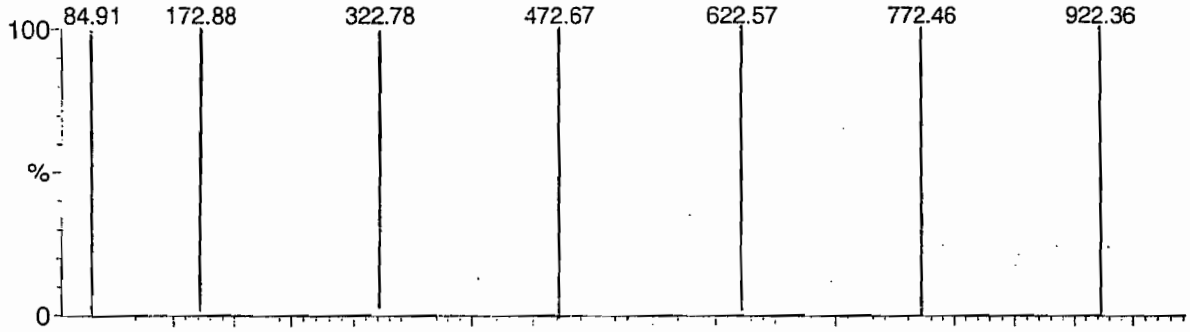
Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

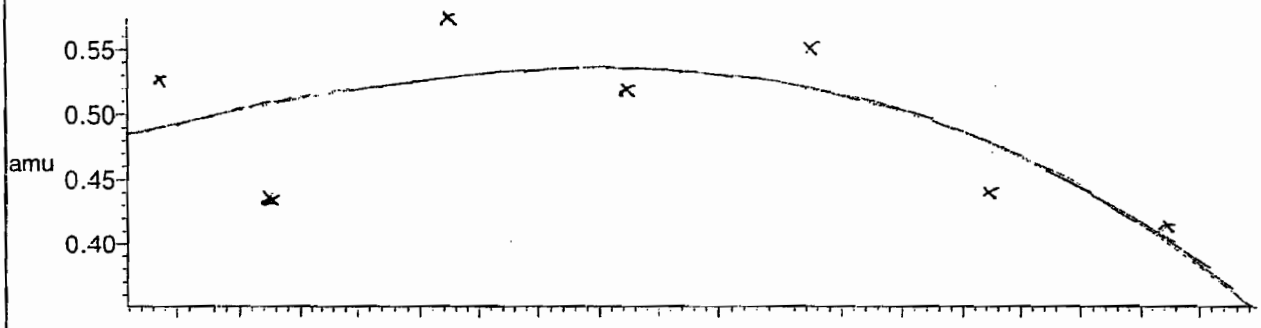
Data file: FASTMS2 - Uncalibrated 7 matches of 7 tested references



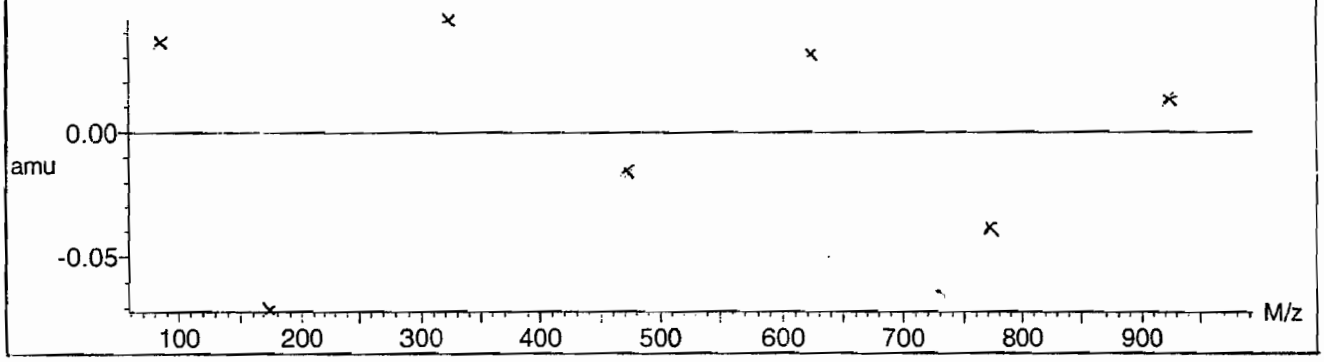
Reference file: Nairb



Mass difference (Raw - Ref mass)



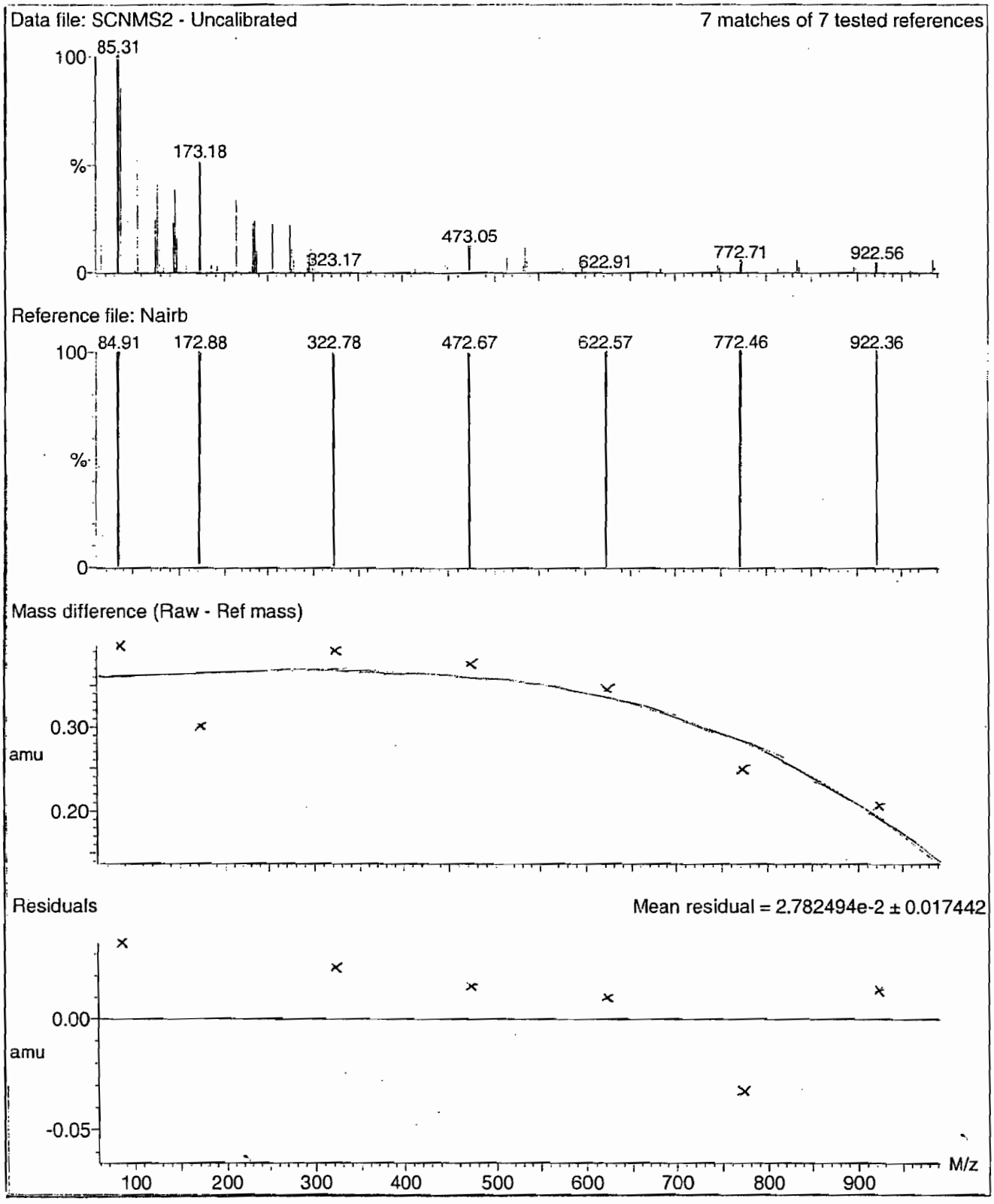
Residuals Mean residual = 3.598289e-2 ± 0.017899



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

Calibration Report - MS2 Scanning

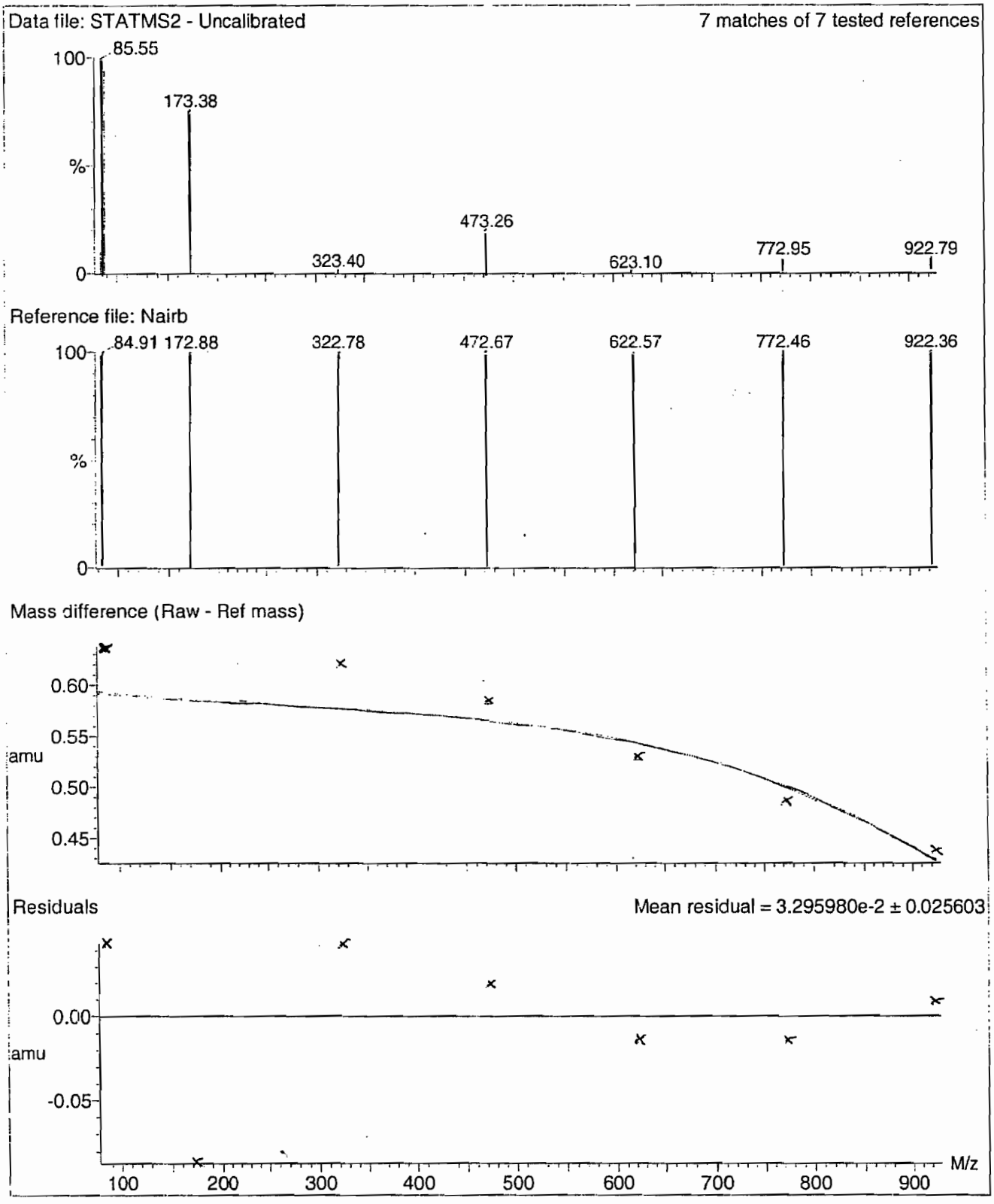
Printed: Tue Jan 08 12:22:56 2008



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

Calibration Report - MS2 Static

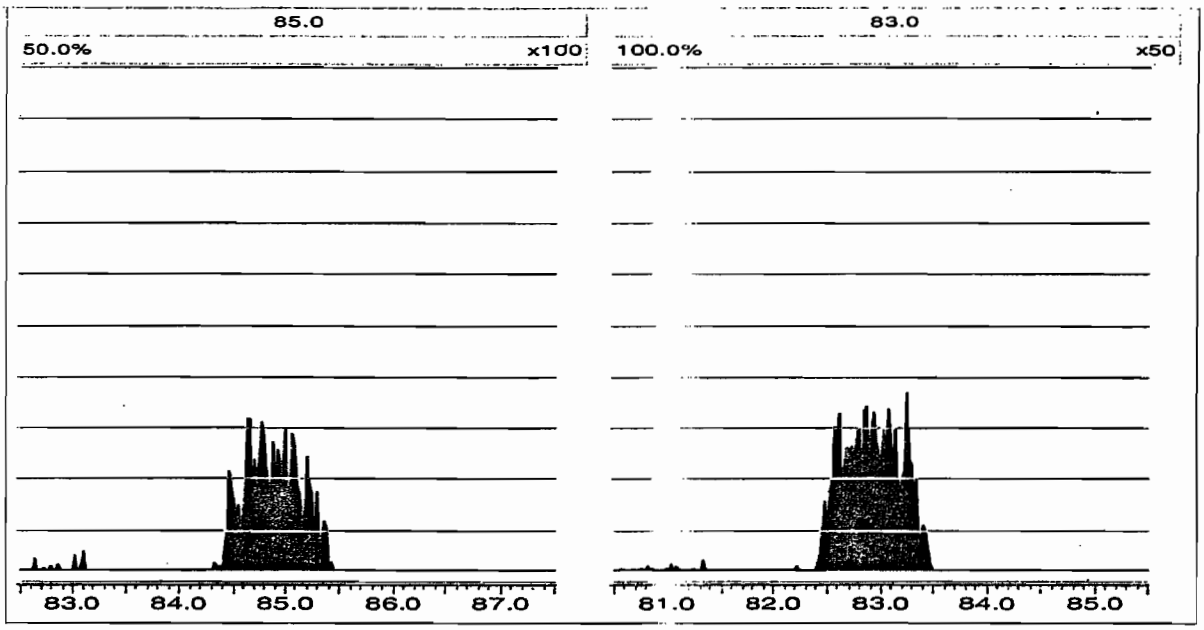
Printed: Tue Jan 08 12:21:59 2008



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

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

Printed: Saturday, February 20, 2010 10:23:15 Eastern Standard Time



Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Instrument ID: LCMSMS

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

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0220006a**	**20–FEB–10**	**18317.2**				
Lower Area Limit			**9158.6**				
Upper Area Limit			**36634.4**				
1202035631	per0220075a	20–FEB–10 23:33	17461.8	4.33	4.32755	.999	
1202035632	per0220076a	20–FEB–10 23:42	18906.5	4.3	4.32755	1.006	
1202035635	per0220077a	20–FEB–10 23:52	19378.4	4.38	4.4021	1.005	
245960001	per0220091a	21–FEB–10 02:06	19826.6	4.15	4.17852	1.007	
245960002	per0220092a	21–FEB–10 02:16	19310.6	4.14	4.1785	1.009	
245960003	per0220093a	21–FEB–10 02:25	20044	4.14	4.15357	1.003	
245960004	per0220097a	21–FEB–10 03:03	19097.6	4.13	4.15355	1.006	
245960005	per0220098a	21–FEB–10 03:13	18901.3	4.12	4.14122	1.005	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Instrument ID: LCMSMS

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

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0220006a**	**20–FEB–10**	**18317.2**				
Lower Area Limit			**9158.6**				
Upper Area Limit			**36634.4**				
245960006	per0220099a	21–FEB–10 03:23	18320.5	4.1	4.11632	1.004	
245960007	per0220100a	21–FEB–10 03:32	18913.6	4.1	4.11627	1.004	
245960008	per0220101a	21–FEB–10 03:42	17853.9	4.09	4.10393	1.003	
245960009	per0220102a	21–FEB–10 03:51	19148.6	4.09	4.12875	1.009	
245960010	per0220103a	21–FEB–10 04:01	17898.6	4.09	4.10402	1.003	
245960011	per0220104a	21–FEB–10 04:11	18788.5	4.07	4.07907	1.002	

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SAMPLE DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7309

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960001

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.555	2.22	0.892	ug/kg	J	1	21-FEB-10 02:06	per0220091a
	Perchlorate Isotope Ratio			3.13			1	21-FEB-10 02:06	per0220091a
14797-73-0	Perchlorate-101	.555	2.22	0.905	ug/kg	J	1	21-FEB-10 02:06	per0220091a
	Perchlorate-O(18)			5.68	ug/kg		1	21-FEB-10 02:06	per0220091a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

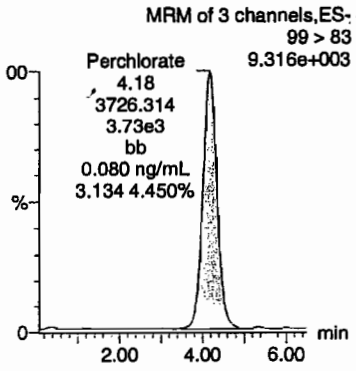
Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220091a
Date: 21-Feb-2010
Time: 02:06:26
ID: 245960001
Vial: 2:7,B

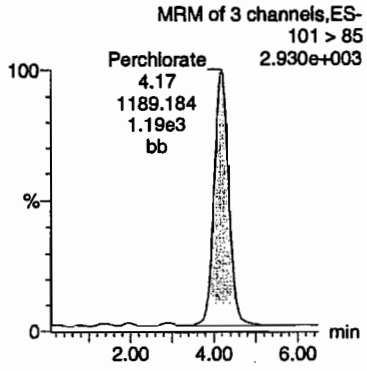
|LANL|950054|50120|11|

CWD
02-21-10

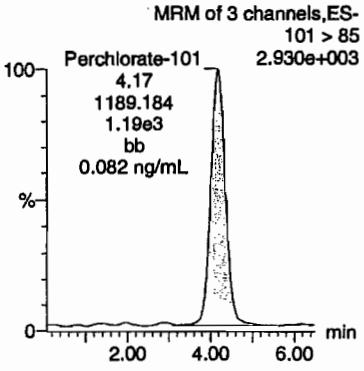
Perchlorate



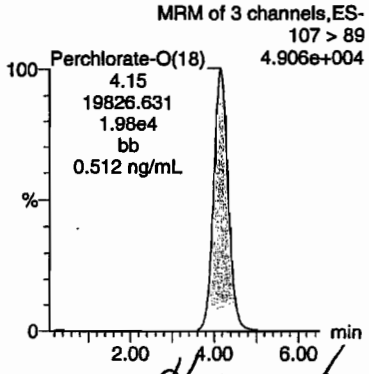
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMW 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960001	Perchlorate	99 > 83	4.18	3726.314	3726.314	bb			0.0805			1009.0...	3.13
45960001	Perchlorate-101	101 > 85	4.17	1189.184	1189.184	bb			0.0816			574.228	
45960001	Perchlorate-O(18)	107 > 89	4.15	19826.631	19826.631	bb			0.5121	102.42	2.42	6709.8...	

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

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7308

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960002

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.644	2.57	0.644	ug/kg	U	1	21-FEB-10 02:16	per0220092a
	Perchlorate Isotope Ratio						1	21-FEB-10 02:16	per0220092a
14797-73-0	Perchlorate-101	.644	2.57	0.644	ug/kg	U	1	21-FEB-10 02:16	per0220092a
	Perchlorate-O(18)			6.42	ug/kg		1	21-FEB-10 02:16	per0220092a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

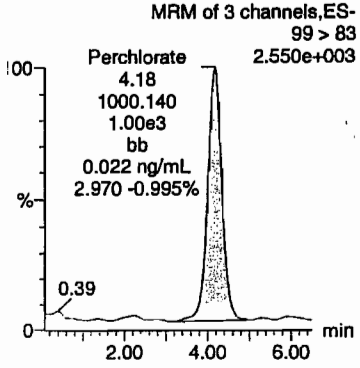
Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220092a
Date: 21-Feb-2010
Time: 02:16:00
ID: 245960002
Vial: 2:7,C

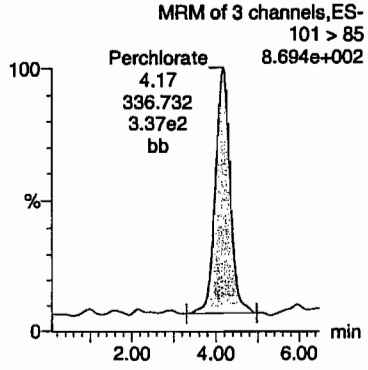
|LANL|950054|5020|1|

and 02-21-10

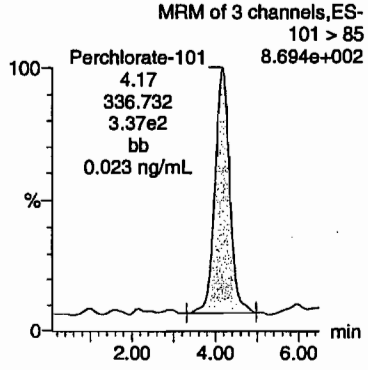
Perchlorate



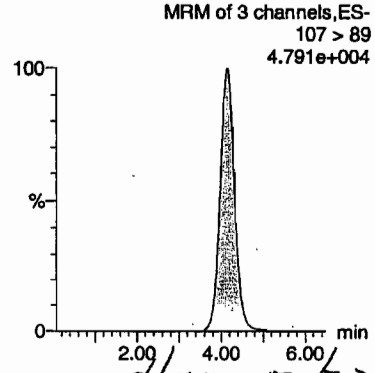
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Amc 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960002	Perchlorate	99 > 83	4.18	1000.140	1000.140	bb			0.0216			201.263	2.97
45960002	Perchlorate-101	101 > 85	4.17	336.732	336.732	bb			0.0231			393.081	
45960002	Perchlorate-O(18)	107 > 89	4.14	19310.611	19310.611	bb			0.4988	99.75	-0.25	11783....	

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7315

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960003

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 91.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.549	2.2	0.549	ug/kg	U	1	21-FEB-10 02:25	per0220093a
	Perchlorate Isotope Ratio						1	21-FEB-10 02:25	per0220093a
14797-73-0	Perchlorate-101	.549	2.2	0.549	ug/kg	U	1	21-FEB-10 02:25	per0220093a
	Perchlorate-O(18)			5.68	ug/kg		1	21-FEB-10 02:25	per0220093a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

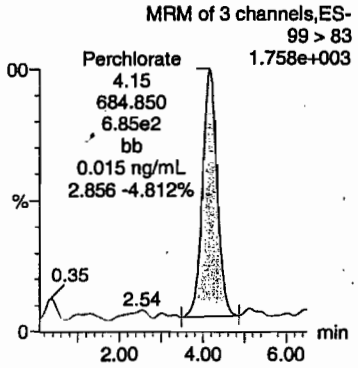
Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220093a
Date: 21-Feb-2010
Time: 02:25:33
ID: 245960003
Vial: 2:7,D

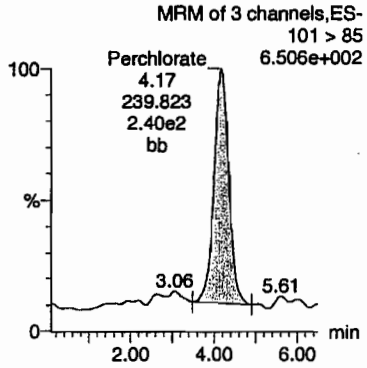
| LANL | 950054 | 50620 | 11 |

02-21-10

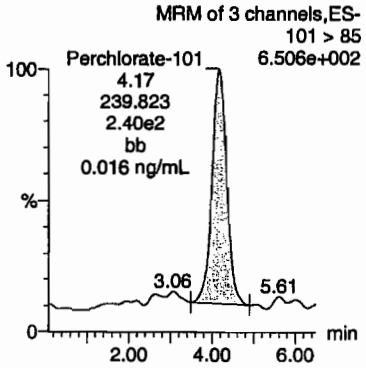
Perchlorate



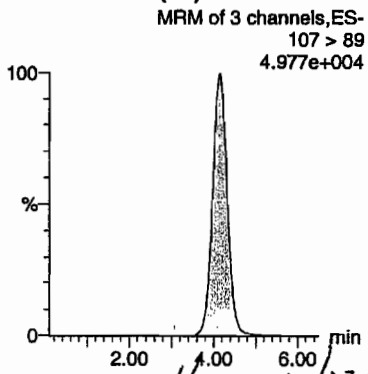
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HNM 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960003	Perchlorate	99 > 83	4.15	684.850	684.850	bb			0.0148			87.701	2.86
45960003	Perchlorate-101	101 > 85	4.17	239.823	239.823	bb			0.0164			12.746	
45960003	Perchlorate-O(18)	107 > 89	4.14	20044.012	20044.012	bb			0.5177	103.54	3.54	6185.6...	

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

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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7317

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960004

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	21-FEB-10 03:03	per0220097a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:03	per0220097a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	21-FEB-10 03:03	per0220097a
	Perchlorate-O(18)			5.53	ug/kg		1	21-FEB-10 03:03	per0220097a

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

*Concentration =

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

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

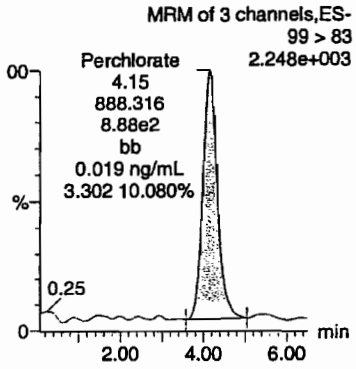
Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220097a
Date: 21-Feb-2010
Time: 03:03:58
ID: 245960004
Vial: 2:7,E

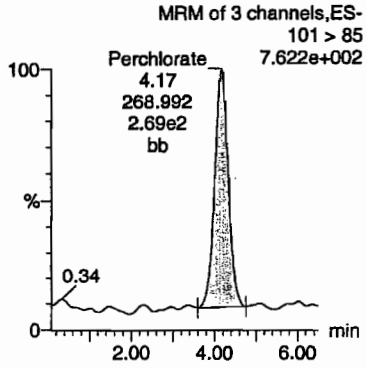
|LANL|950054|50620|1|

3rd 02-21-10

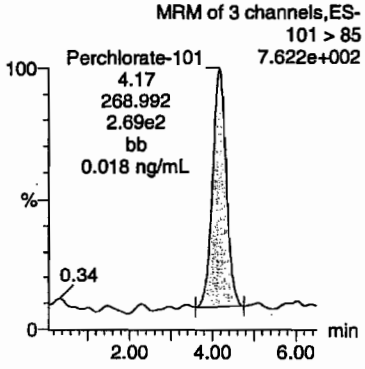
Perchlorate



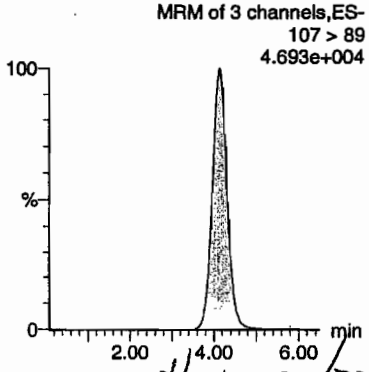
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960004	Perchlorate	99 > 83	4.15	888.316	888.316	bb			0.0192			200.965	3.30
45960004	Perchlorate-101	101 > 85	4.17	268.992	268.992	bb			0.0184			162.870	
45960004	Perchlorate-O(18)	107 > 89	4.13	19097.637	19097.637	bb			0.4933	98.65	-1.35	1297.1...	

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

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7319

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960005

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.618	ug/kg	J	1	21-FEB-10 03:13	per0220098a
	Perchlorate Isotope Ratio			3.31			1	21-FEB-10 03:13	per0220098a
14797-73-0	Perchlorate-101	.56	2.24	0.594	ug/kg	J	1	21-FEB-10 03:13	per0220098a
	Perchlorate-O(18)			5.47	ug/kg		1	21-FEB-10 03:13	per0220098a

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

*Concentration =

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

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

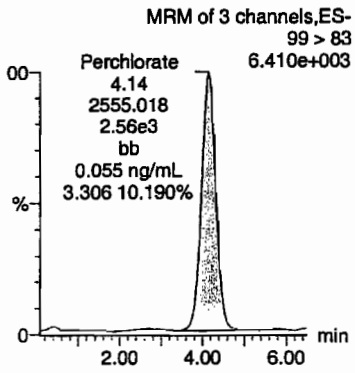
Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220098a
Date: 21-Feb-2010
Time: 03:13:42
ID: 245960005
Vial: 2:7,F

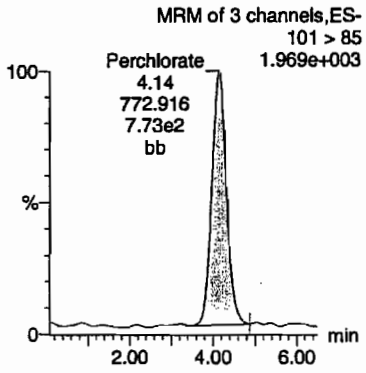
|LANL|950054|SOLID|1|

3rd 02-21-10

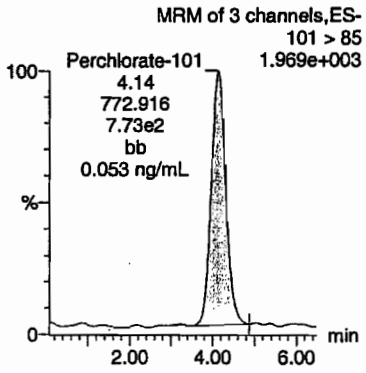
Perchlorate



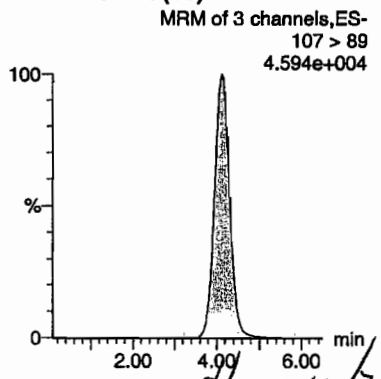
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960005	Perchlorate	99 > 83	4.14	2555.018	2555.018	bb			0.0552			882.482	3.31
45960005	Perchlorate-101	101 > 85	4.14	772.916	772.916	bb			0.0530			230.104	
45960005	Perchlorate-O(18)	107 > 89	4.12	18901.270	18901.270	bb			0.4882	97.64	-2.36	4103.7...	

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

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7312

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960006

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 71

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.708	2.83	0.708	ug/kg	U	1	21-FEB-10 03:23	per0220099a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:23	per0220099a
14797-73-0	Perchlorate-101	.708	2.83	0.708	ug/kg	U	1	21-FEB-10 03:23	per0220099a
	Perchlorate-O(18)			6.70	ug/kg		1	21-FEB-10 03:23	per0220099a

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

*Concentration =

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

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

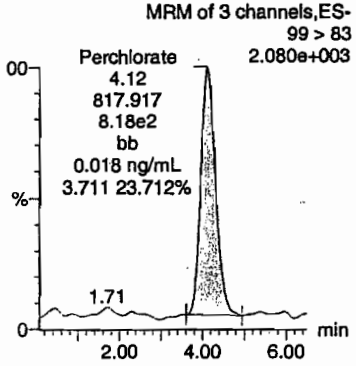
Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220099a
Date: 21-Feb-2010
Time: 03:23:16
ID: 245960006
Vial: 2:8,A

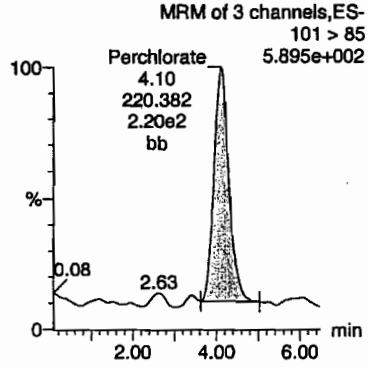
|LANL|950054|SD120|11|

GWO 02-21-10

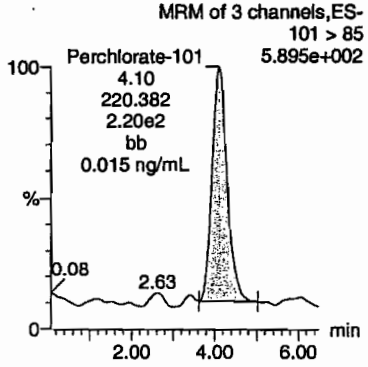
Perchlorate



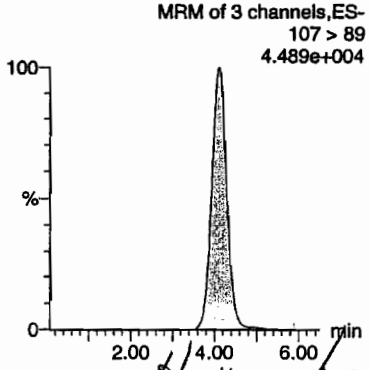
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hall 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
5960006	Perchlorate	99 > 83	4.12	817.917	817.917	bb			0.0177			314.419	3.71
5960006	Perchlorate-101	101 > 85	4.10	220.382	220.382	bb			0.0151			75.209	
5960006	Perchlorate-O(18)	107 > 89	4.10	18320.496	18320.496	bb			0.4732	94.64	-5.36	2523.9...	

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

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7313

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960007

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.22	0.928	ug/kg	J	1	21-FEB-10 03:32	per0220100a
	Perchlorate Isotope Ratio			3.18			1	21-FEB-10 03:32	per0220100a
14797-73-0	Perchlorate-101	.554	2.22	0.927	ug/kg	J	1	21-FEB-10 03:32	per0220100a
	Perchlorate-O(18)			5.41	ug/kg		1	21-FEB-10 03:32	per0220100a

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

*Concentration =

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

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

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

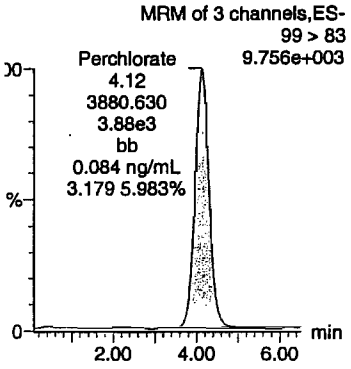
ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ame: per0220100a
ate: 21-Feb-2010
me: 03:32:50
: 245960007
ial: 2:8,B

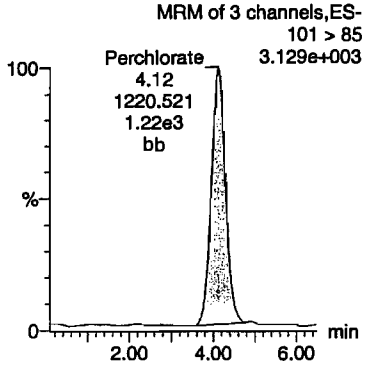
|LANL|950054|SOW20|1|

SW
02-24-10

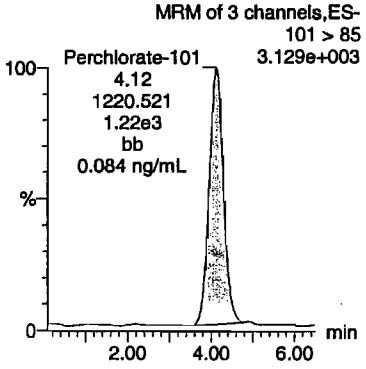
erchlorate



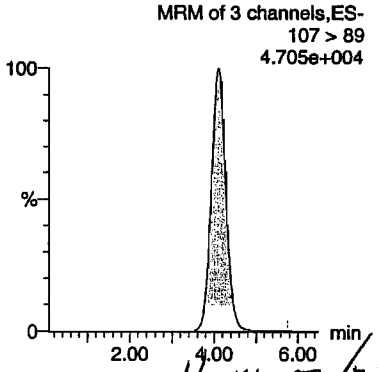
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HNW 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
5960007	Perchlorate	99 > 83	4.12	3880.630	3880.630	bb			0.0838			796.824	3.18
5960007	Perchlorate-101	101 > 85	4.12	1220.521	1220.521	bb			0.0837			281.227	
5960007	Perchlorate-O(18)	107 > 89	4.10	18913.563	18913.563	bb			0.4885	97.70	-2.30	8136.3...	

$$\frac{3880.630}{463.16} \Big| \frac{10}{40.28} \Big| \frac{100}{} = 0.928$$

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

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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7314

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960008

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.742	2.97	0.742	ug/kg	U	1	21-FEB-10 03:42	per0220101a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:42	per0220101a
14797-73-0	Perchlorate-101	.742	2.97	0.742	ug/kg	U	1	21-FEB-10 03:42	per0220101a
	Perchlorate-O(18)			6.84	ug/kg		1	21-FEB-10 03:42	per0220101a

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

*Concentration =

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

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

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

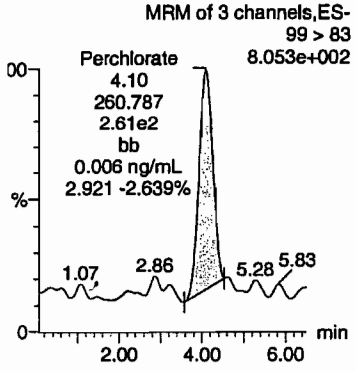
ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ame: per0220101a
ate: 21-Feb-2010
ime: 03:42:25
): 245960008
ial: 2:8,C

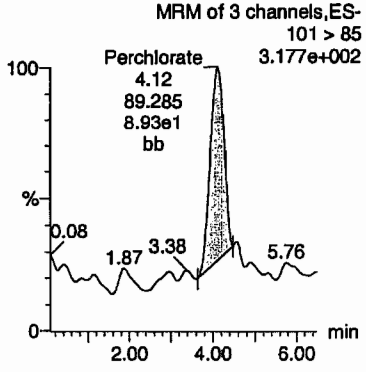
LANL | 950054 | SOLID | 1 |

GWS 02-21-10

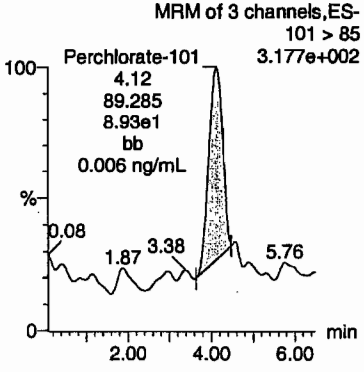
erchlorate



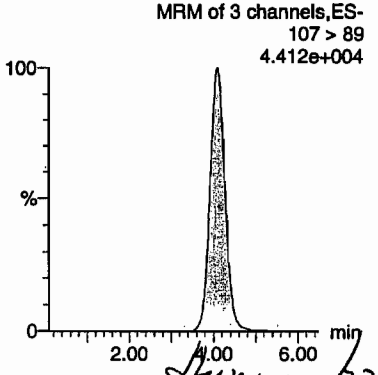
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hum 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960008	Perchlorate	99 > 83	4.10	260.787	260.787	bb			0.0056			55.318	2.92
45960008	Perchlorate-101	101 > 85	4.12	89.285	89.285	bb			0.0061			23.797	
45960008	Perchlorate-O(18)	107 > 89	4.09	17853.879	17853.879	bb			0.4611	92.23	-7.77	9107.8...	

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

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7316

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960009

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.776	3.11	0.776	ug/kg	U	1	21-FEB-10 03:51	per0220102a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:51	per0220102a
14797-73-0	Perchlorate-101	.776	3.11	0.776	ug/kg	U	1	21-FEB-10 03:51	per0220102a
	Perchlorate-O(18)			7.68	ug/kg		1	21-FEB-10 03:51	per0220102a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

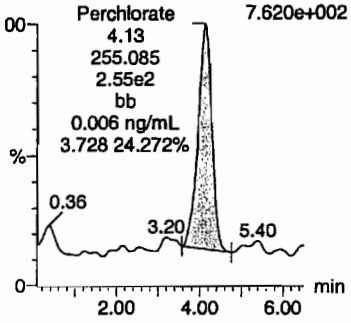
Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220102a
Date: 21-Feb-2010
Time: 03:51:58
ID: 245960009
Vial: 2:8,D

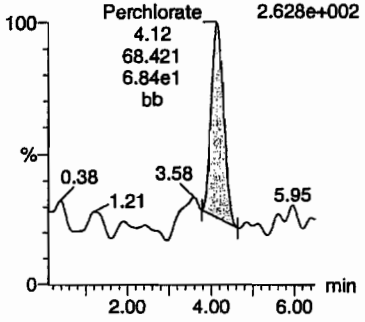
LANL | 950054 | 50120 | 11

333
02-21-10

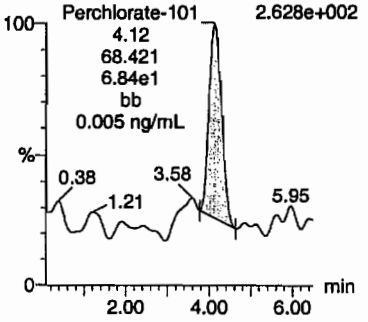
Perchlorate



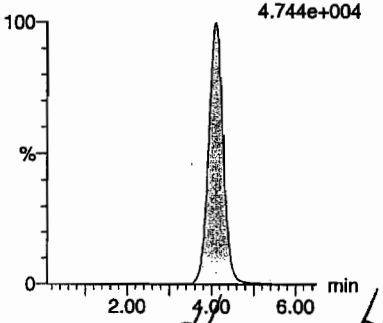
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmw 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
5960009	Perchlorate	99 > 83	4.13	255.085	255.085	bb			0.0055			38.545	3.73
5960009	Perchlorate-101	101 > 85	4.12	68.421	68.421	bb			0.0047			41.037	
5960009	Perchlorate-O(18)	107 > 89	4.09	19148.615	19148.615	bb			0.4946	98.92	-1.08	3624.5...	

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7318

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960010

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.587	2.35	1.49	ug/kg	J	1	21-FEB-10 04:01	per0220103a
	Perchlorate Isotope Ratio			3.21			1	21-FEB-10 04:01	per0220103a
14797-73-0	Perchlorate-101	.587	2.35	1.48	ug/kg	J	1	21-FEB-10 04:01	per0220103a
	Perchlorate-O(18)			5.42	ug/kg		1	21-FEB-10 04:01	per0220103a

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

*Concentration =

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

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

)ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

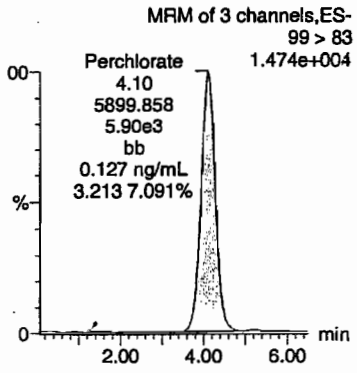
ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
'rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

lame: per0220103a
)ate: 21-Feb-2010
lme: 04:01:32
): 245960010
'ial: 2:8,E

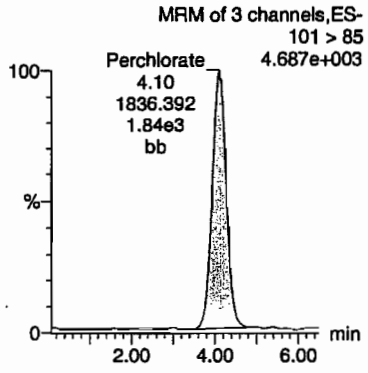
|LANL|950054|5020|1|

GWD 02.21.10

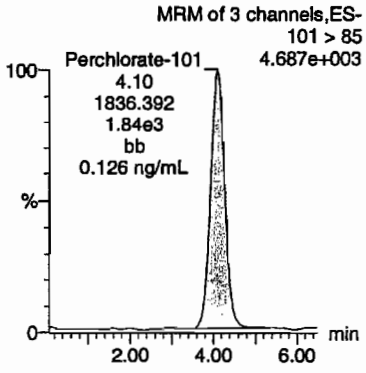
'erchlorate



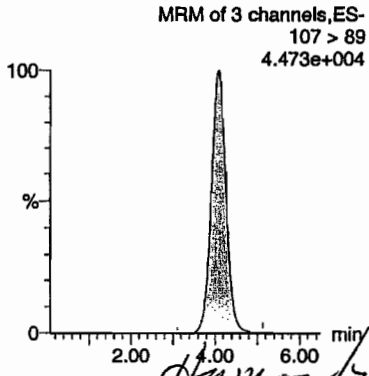
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HM 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960010	Perchlorate	99 > 83	4.10	5899.858	5899.858	bb			0.1274			2745.7...	3.21
45960010	Perchlorate-101	101 > 85	4.10	1836.392	1836.392	bb			0.1260			521.023	
45960010	Perchlorate-O(18)	107 > 89	4.09	17898.635	17898.635	bb			0.4623	92.46	-7.54	8035.3...	

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7324

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960011

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.946	ug/kg	J	1	21-FEB-10 04:11	per0220104a
	Perchlorate Isotope Ratio			3.01			1	21-FEB-10 04:11	per0220104a
14797-73-0	Perchlorate-101	.557	2.23	0.998	ug/kg	J	1	21-FEB-10 04:11	per0220104a
	Perchlorate-O(18)			5.41	ug/kg		1	21-FEB-10 04:11	per0220104a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

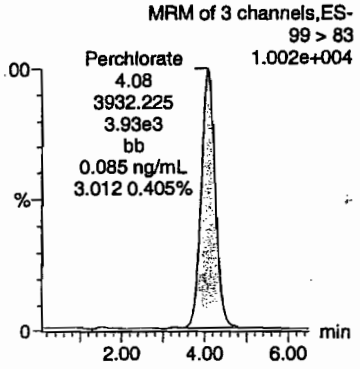
Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220104a
Date: 21-Feb-2010
Time: 04:11:06
ID: 245960011
Vial: 2:8,F

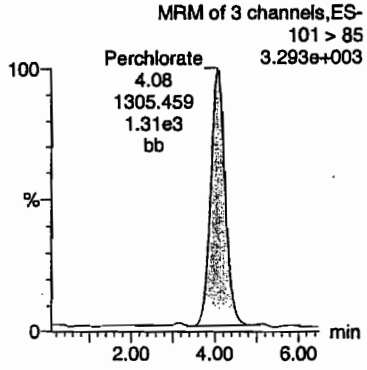
| LANL | 950054 | SOL20 | 11

CWJ 02-21-10

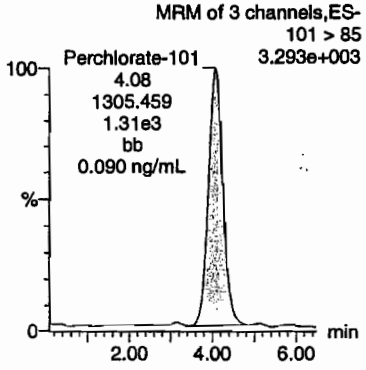
Perchlorate



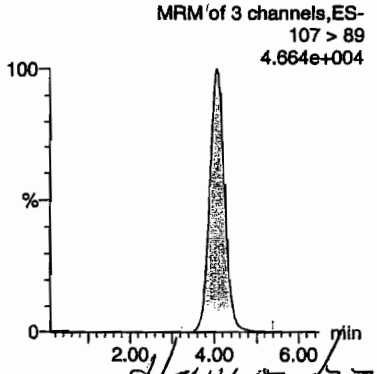
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hammond 2/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960011	Perchlorate	99 > 83	4.08	3932.225	3932.225	bb			0.0849			452.736	3.01
45960011	Perchlorate-101	101 > 85	4.08	1305.459	1305.459	bb			0.0895			192.783	
45960011	Perchlorate-O(18)	107 > 89	4.07	18788.537	18788.537	bb			0.4853	97.06	-2.94	1143.9...	

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

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 20–FEB–10

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

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

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 46315.98

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 20–FEB–10

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

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

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 14579.96

Response Type: External Standard

Curve Type: RF

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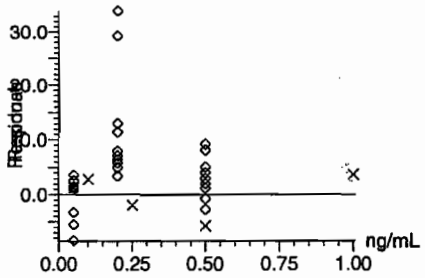
Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

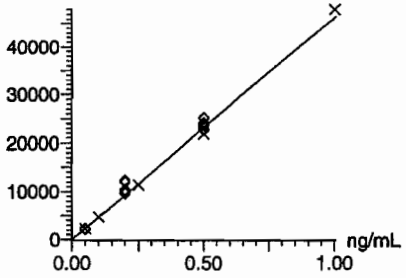
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022010a.mdb 21 Feb 2010 10:20:41
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022010a.cdb 21 Feb 2010 10:20:58

Compound name: Perchlorate
Response Factor: 46316
RF SD: 1794.44, % Relative SD: 3.87435
Response type: External Std, Area
Curve type: RF





CWJ 02-21-10

Compound name: Perchlorate-101
Response Factor: 14580
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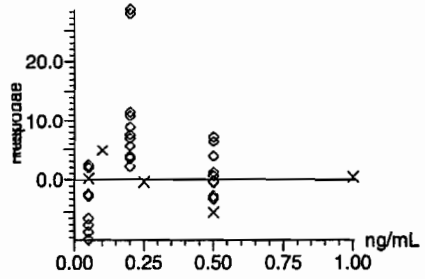
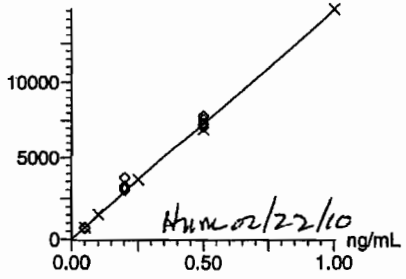
Response type: External Std, Area
Curve type: RF





AHM 02/22/10

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

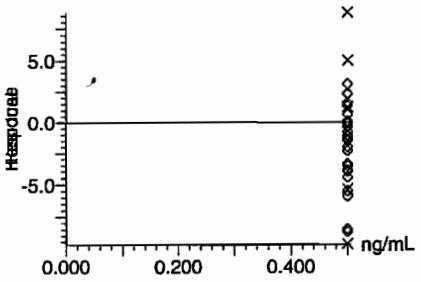
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

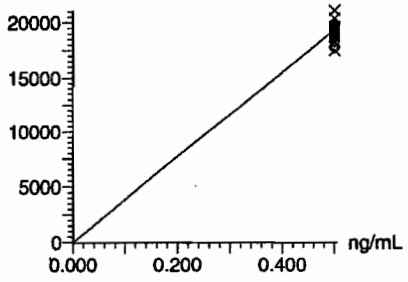
uantify Calibration Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ıst Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
inted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ompound name: Perchlorate-O(18)
esponse Factor: 38717.3
RF SD: 2911.99, % Relative SD: 7.52116
esponse type: External Std, Area
urve type: RF





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

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

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.55	109.17	20–FEB–10 13:02	per0220009a
Perchlorate Isotope Ratio		3.23		20–FEB–10 13:02	per0220009a
Perchlorate–101	.5	.54	107.23	20–FEB–10 13:02	per0220009a

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Page 33 02-21-10

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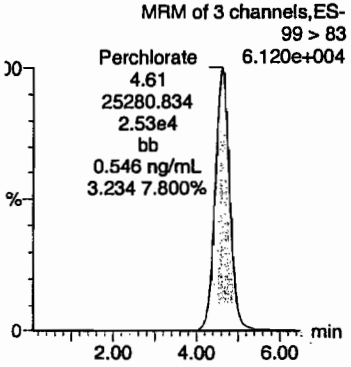
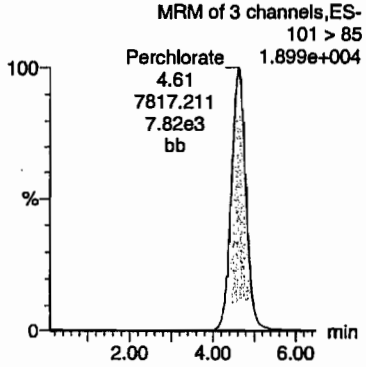
ate: 20-Feb-2010
ime: 13:02:07
): WCL100219-06ICV
ial: 1:2,A

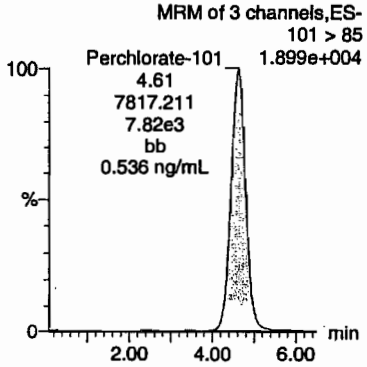
erchlorate



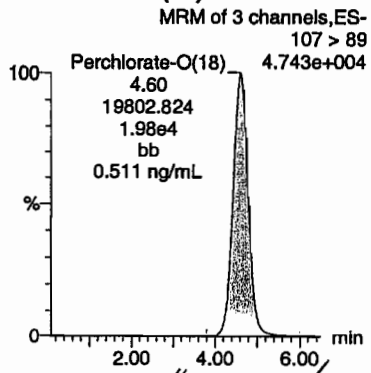
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06ICV	Perchlorate	99 > 83	4.61	25280.834	25280.834	bb			0.5458	109.17	9.17	5804.4...	3.23
CL100219-06ICV	Perchlorate-101	101 > 85	4.61	7817.211	7817.211	bb			0.5362	107.23	7.23	786.420	
CL100219-06ICV	Perchlorate-O(18)	107 > 89	4.60	19802.824	19802.824	bb			0.5115	102.29	2.29	24890....	

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	102.91	20–FEB–10 15:06	per0220022a
Perchlorate Isotope Ratio		3.35		20–FEB–10 15:06	per0220022a
Perchlorate–101	.5	.49	97.45	20–FEB–10 15:06	per0220022a
Perchlorate	.5	.51	101.18	20–FEB–10 17:10	per0220035a
Perchlorate Isotope Ratio		3.22		20–FEB–10 17:10	per0220035a
Perchlorate–101	.5	.5	99.77	20–FEB–10 17:10	per0220035a
Perchlorate	.5	.52	103.99	20–FEB–10 19:14	per0220048a
Perchlorate Isotope Ratio		3.32		20–FEB–10 19:14	per0220048a
Perchlorate–101	.5	.5	99.54	20–FEB–10 19:14	per0220048a
Perchlorate	.5	.54	108.13	20–FEB–10 21:18	per0220061a
Perchlorate Isotope Ratio		3.23		20–FEB–10 21:18	per0220061a
Perchlorate–101	.5	.53	106.41	20–FEB–10 21:18	per0220061a
Perchlorate	.5	.53	105.06	20–FEB–10 23:04	per0220072a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.21		20–FEB–10 23:04	per0220072a
Perchlorate–101	.5	.52	103.83	20–FEB–10 23:04	per0220072a
Perchlorate	.5	.5	99.2	21–FEB–10 00:49	per0220083a
Perchlorate Isotope Ratio		3.13		21–FEB–10 00:49	per0220083a
Perchlorate–101	.5	.5	100.65	21–FEB–10 00:49	per0220083a
Perchlorate	.5	.51	102.02	21–FEB–10 02:35	per0220094a
Perchlorate Isotope Ratio		3.2		21–FEB–10 02:35	per0220094a
Perchlorate–101	.5	.51	101.16	21–FEB–10 02:35	per0220094a
Perchlorate	.5	.49	97.28	21–FEB–10 04:20	per0220105a
Perchlorate Isotope Ratio		3.18		21–FEB–10 04:20	per0220105a
Perchlorate–101	.5	.49	97.03	21–FEB–10 04:20	per0220105a

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

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

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rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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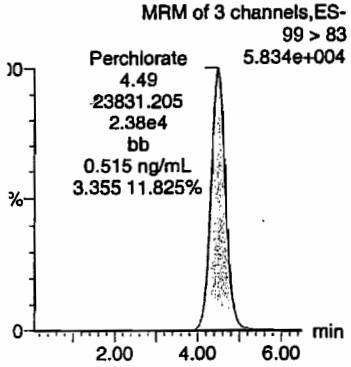
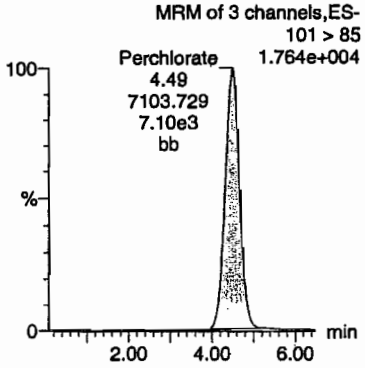
and
02-21-10

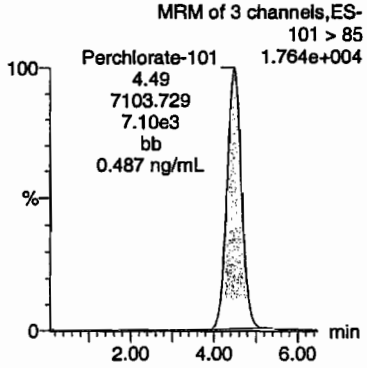
erchlorate



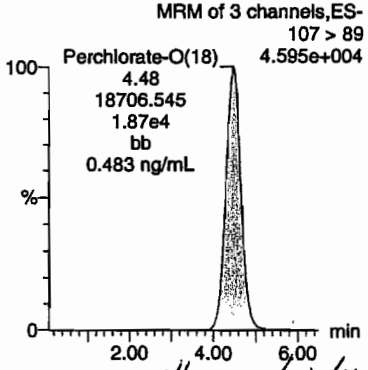
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HM 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.49	23831.205	23831.205	bb			0.5145	102.91	2.91	7443.4...	3.35
CL100219-06CCV	Perchlorate-101	101 > 85	4.49	7103.729	7103.729	bb			0.4872	97.45	-2.55	2137.2...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.48	18706.545	18706.545	bb			0.4832	96.63	-3.37	1260.4...	

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

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ıtaset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ıst Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
inted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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Perm
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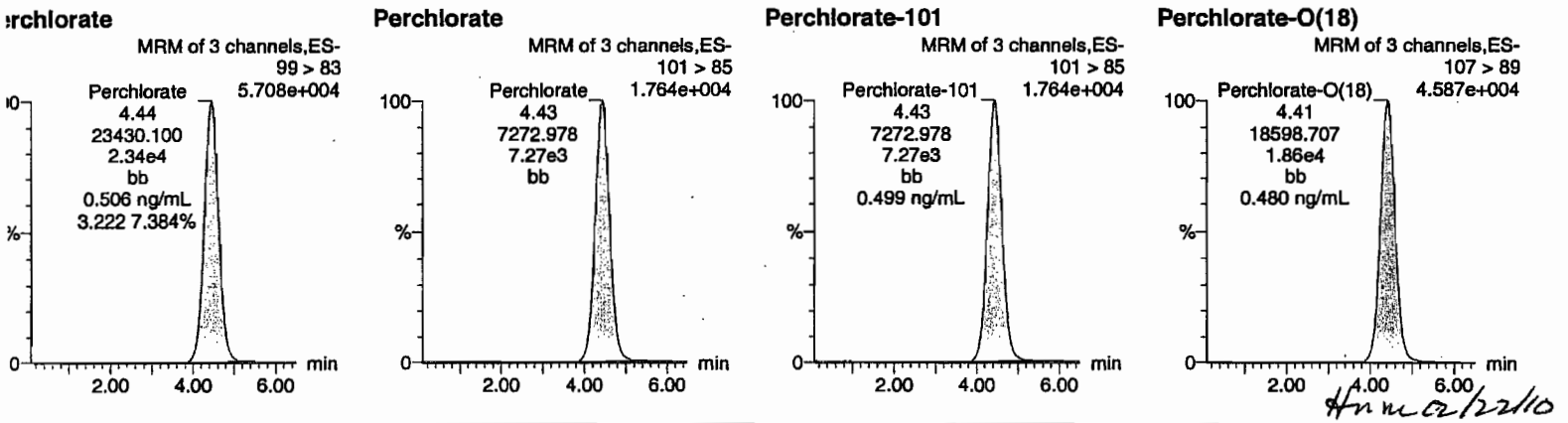
02-21-10



Hnm 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.44	23430.100	23430.100	bb			0.5059	101.18	1.18	3471.1...	3.22
CL100219-06CCV	Perchlorate-101	101 > 85	4.43	7272.978	7272.978	bb			0.4988	99.77	-0.23	2914.3...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.41	18598.707	18598.707	bb			0.4804	96.07	-3.93	4014.5...	

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

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ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

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rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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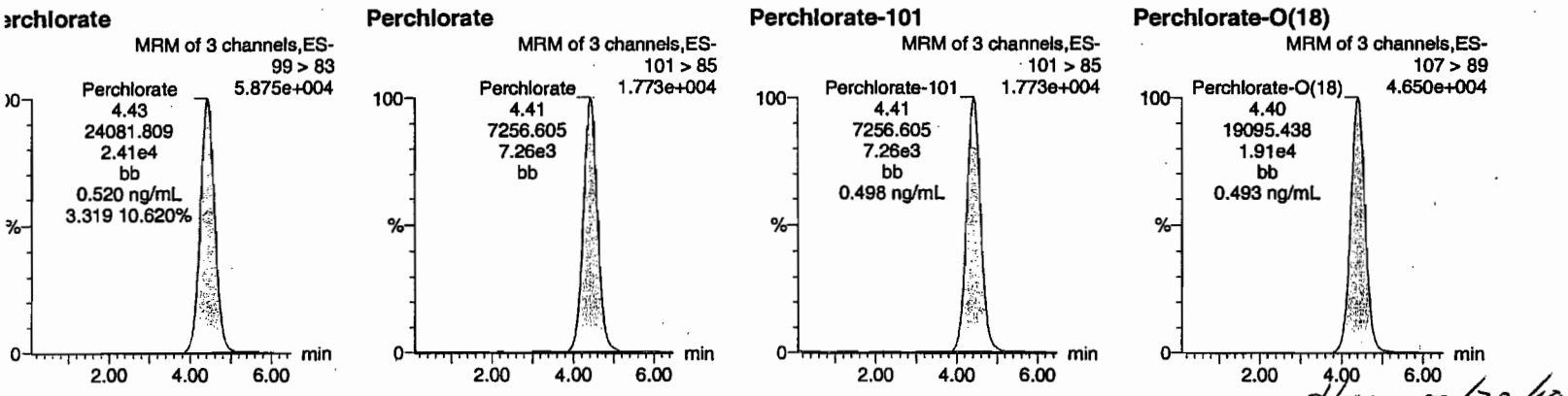
Rep
and
02-21-10



Hsm 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.43	24081.809	24081.809	bb			0.5199	103.99	3.99	3487.6...	3.32
CL100219-06CCV	Perchlorate-101	101 > 85	4.41	7256.605	7256.605	bb			0.4977	99.54	-0.46	2155.5...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.40	19095.438	19095.438	bb			0.4932	98.64	-1.36	5524.1...	

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

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

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

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rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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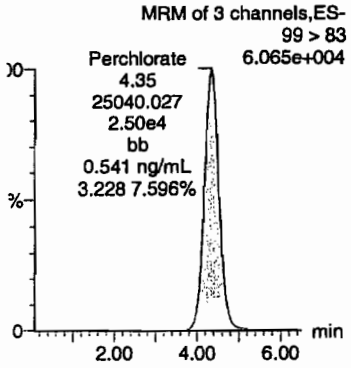
Pwd and 02-21-10

erchlorate



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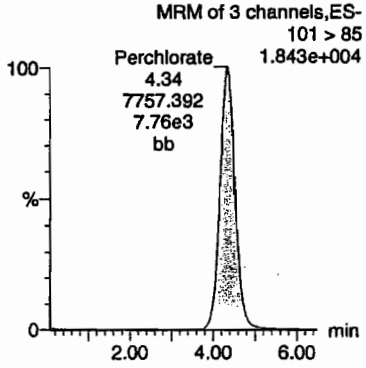

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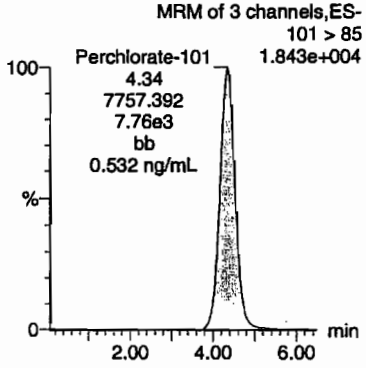

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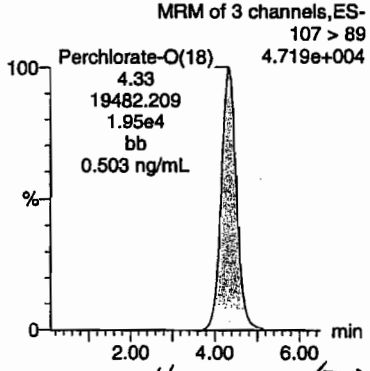

Hum 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.35	25040.027	25040.027	bb			0.5406	108.13	8.13	6065.8...	3.23
CL100219-06CCV	Perchlorate-101	101 > 85	4.34	7757.392	7757.392	bb			0.5321	106.41	6.41	4545.5...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.33	19482.209	19482.209	bb			0.5032	100.64	0.64	13763....	

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

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

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

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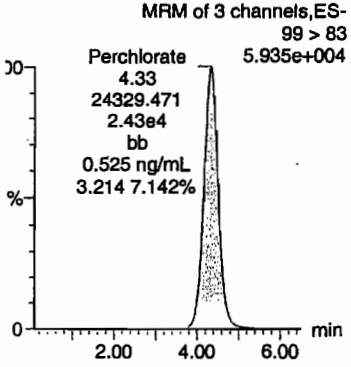
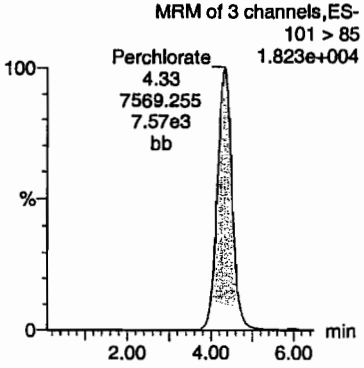
cmw
02-24-10

erchlorate



Perchlorate



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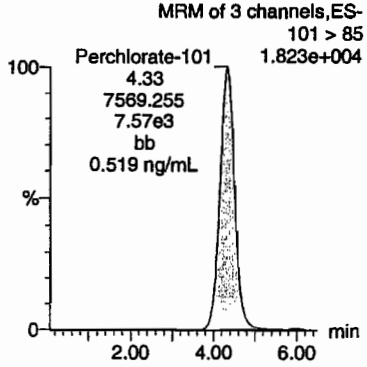
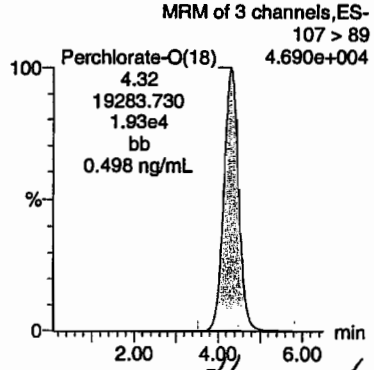


Perchlorate-O(18)



Hmm 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.33	24329.471	24329.471	bb			0.5253	105.06	5.06	7176.1...	3.21
CL100219-06CCV	Perchlorate-101	101 > 85	4.33	7569.255	7569.255	bb			0.5192	103.83	3.83	1709.3...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.32	19283.730	19283.730	bb			0.4981	99.61	-0.39	6392.3...	

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

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

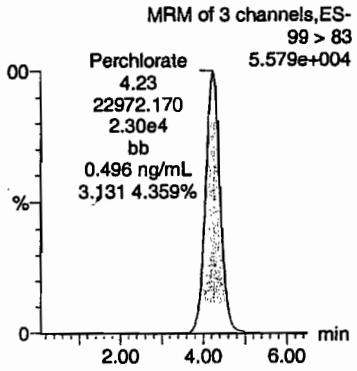
)ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
'rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

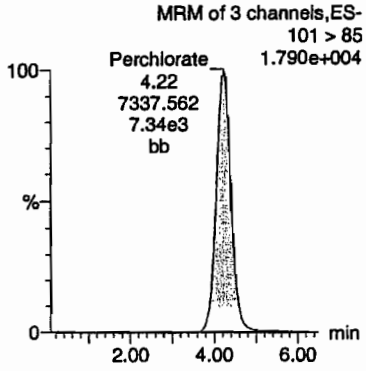
lame: per0220083a
)ate: 21-Feb-2010
ime: 00:49:38
): WCL100219-06CCV
ial: 1:2,A

Pass
and
02-21-10

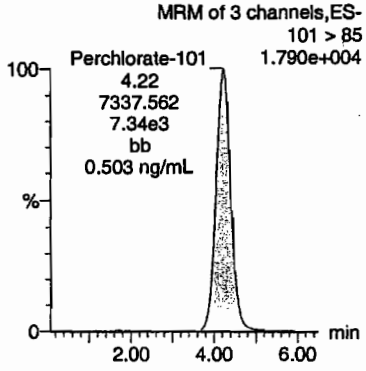
erchlorate



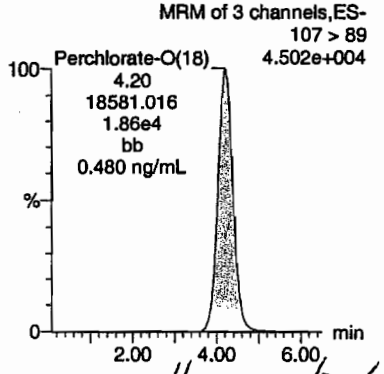
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hume 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.23	22972.170	22972.170	bb			0.4960	99.20	-0.80	5040.9...	3.13
CL100219-06CCV	Perchlorate-101	101 > 85	4.22	7337.562	7337.562	bb			0.5033	100.65	0.65	778.937	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.20	18581.016	18581.016	bb			0.4799	95.98	-4.02	4056.0...	

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

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

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

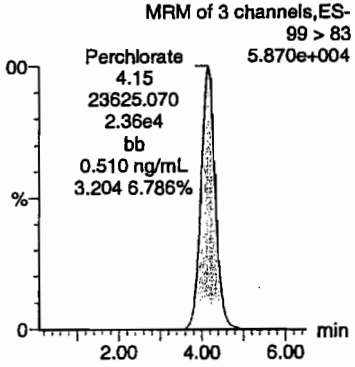
ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

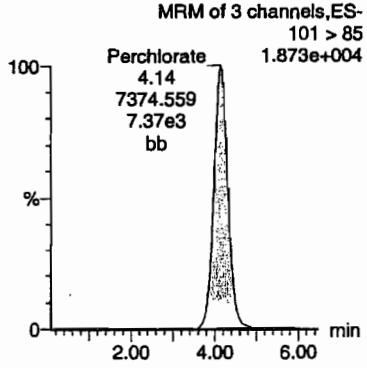
ame: per0220094a
ate: 21-Feb-2010
ime: 02:35:07
): WCL100219-06CCV
ial: 1:2,A

Per
and
02-21-10

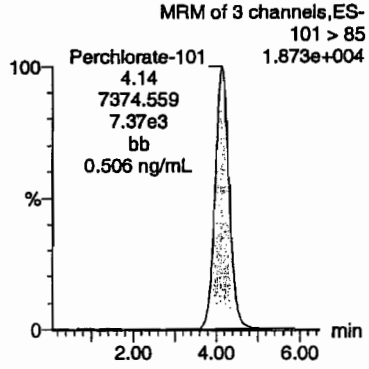
erchlorate



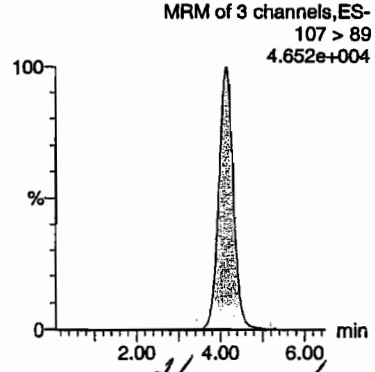
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HM 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL100219-06CCV	Perchlorate	99 > 83	4.15	23625.070	23625.070	bb			0.5101	102.02	2.02	3717.9...	3.20
'CL100219-06CCV	Perchlorate-101	101 > 85	4.14	7374.559	7374.559	bb			0.5058	101.16	1.16	5655.4...	
'CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.13	18614.232	18614.232	bb			0.4808	96.15	-3.85	3369.0...	

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

luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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ate: 21-Feb-2010
ime: 04:20:39
): WCL100219-06CCV
ial: 1:2,A

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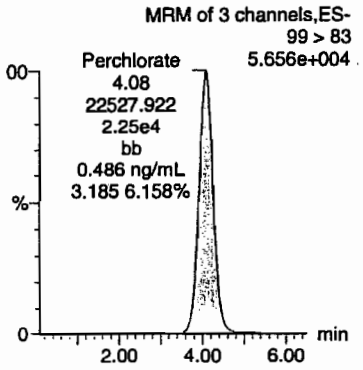
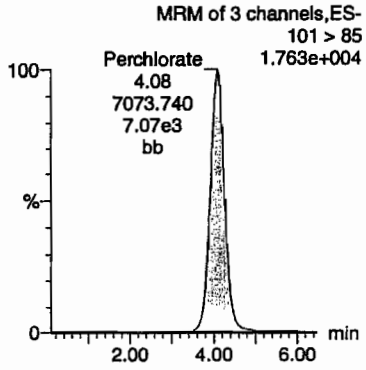
8/21-10

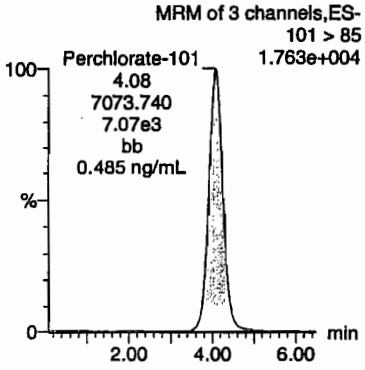
erchlorate



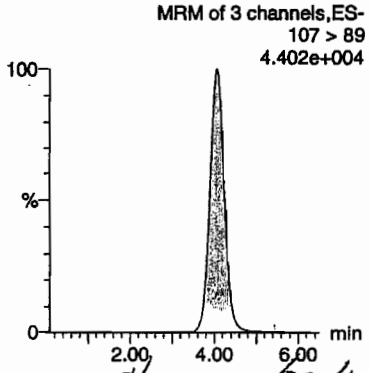
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Anne 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL100219-06CCV	Perchlorate	99 > 83	4.08	22527.922	22527.922	bb			0.4864	97.28	-2.72	506.362	3.18
'CL100219-06CCV	Perchlorate-101	101 > 85	4.08	7073.740	7073.740	bb			0.4852	97.03	-2.97	2434.4...	
'CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.07	17673.967	17673.967	bb			0.4565	91.30	-8.70	1164.6...	

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

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

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1511

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	101.29	20-FEB-10 13:21	per0220011a
Perchlorate Isotope Ratio		3.3		20-FEB-10 13:21	per0220011a
Perchlorate-101	.05	.05	97.42	20-FEB-10 13:21	per0220011a
Perchlorate	.05	.05	103.64	20-FEB-10 15:25	per0220024a
Perchlorate Isotope Ratio		3.23		20-FEB-10 15:25	per0220024a
Perchlorate-101	.05	.05	101.96	20-FEB-10 15:25	per0220024a
Perchlorate	.05	.05	102.62	20-FEB-10 17:29	per0220037a
Perchlorate Isotope Ratio		3.18		20-FEB-10 17:29	per0220037a
Perchlorate-101	.05	.05	102.38	20-FEB-10 17:29	per0220037a
Perchlorate	.05	.05	101.55	20-FEB-10 19:33	per0220050a
Perchlorate Isotope Ratio		3.51		20-FEB-10 19:33	per0220050a

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

Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1511

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	91.81	20-FEB-10 19:33	per0220050a
Perchlorate	.05	.05	102.48	20-FEB-10 21:38	per0220063a
Perchlorate Isotope Ratio		3.34		20-FEB-10 21:38	per0220063a
Perchlorate-101	.05	.05	97.47	20-FEB-10 21:38	per0220063a
Perchlorate	.05	.05	100.93	20-FEB-10 23:23	per0220074a
Perchlorate Isotope Ratio		3.54		20-FEB-10 23:23	per0220074a
Perchlorate-101	.05	.05	90.65	20-FEB-10 23:23	per0220074a
Perchlorate	.05	.05	91.55	21-FEB-10 01:08	per0220085a
Perchlorate Isotope Ratio		2.97		21-FEB-10 01:08	per0220085a
Perchlorate-101	.05	.05	97.8	21-FEB-10 01:08	per0220085a
Perchlorate	.05	.05	96.8	21-FEB-10 02:54	per0220096a

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

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.27		21–FEB–10 02:54	per0220096a
Perchlorate–101	.05	.05	94.01	21–FEB–10 02:54	per0220096a
Perchlorate	.05	.05	94.5	21–FEB–10 04:39	per0220107a
Perchlorate Isotope Ratio		3.23		21–FEB–10 04:39	per0220107a
Perchlorate–101	.05	.05	92.95	21–FEB–10 04:39	per0220107a

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

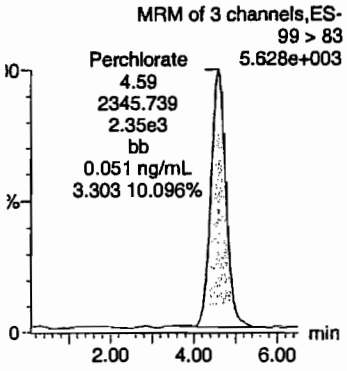
ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

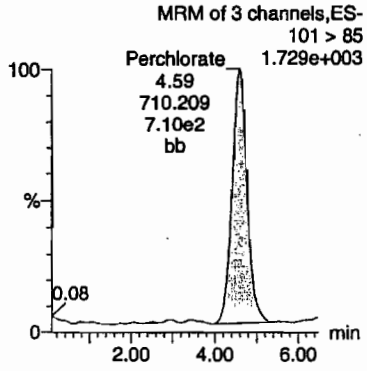
ame: per0220011a
ate: 20-Feb-2010
me: 13:21:12
: WCL100219-07CRI
al: 1:2,B

Pass 333 02-21-10

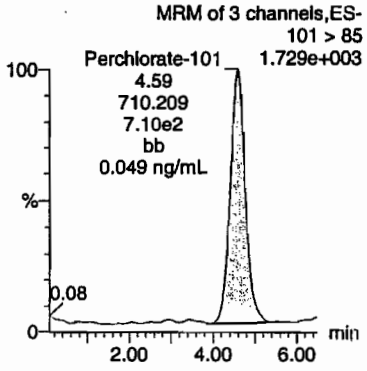
erchlorate



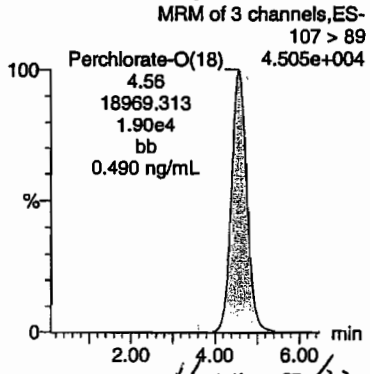
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-07CRI	Perchlorate	99 > 83	4.59	2345.739	2345.739	bb			0.0506	101.29	1.29	436.505	3.30
CL100219-07CRI	Perchlorate-101	101 > 85	4.59	710.209	710.209	bb			0.0487	97.42	-2.58	369.094	
CL100219-07CRI	Perchlorate-O(18)	107 > 89	4.56	18969.313	18969.313	bb			0.4899	97.99	-2.01	631.545	

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

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

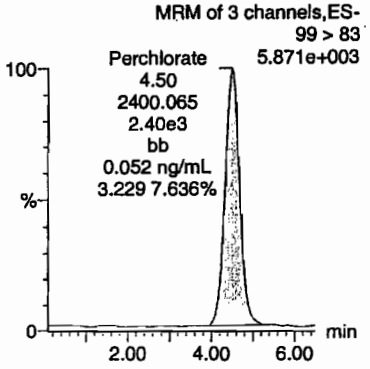
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

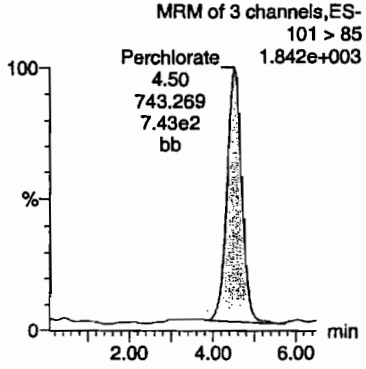
Name: per0220024a
Date: 20-Feb-2010
Time: 15:25:16
ID: WCL100219-07CRI
Vial: 1:2,B

P33 02-21-10

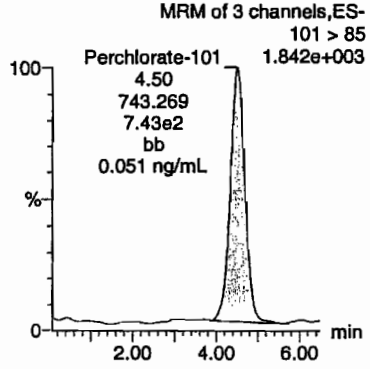
Perchlorate



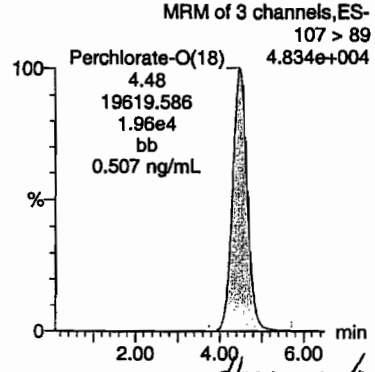
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Ammo 2/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100219-07CRI	Perchlorate	99 > 83	4.50	2400.065	2400.065	bb			0.0518	103.64	3.64	639.813	3.23
/CL100219-07CRI	Perchlorate-101	101 > 85	4.50	743.269	743.269	bb			0.0510	101.96	1.96	131.359	
/CL100219-07CRI	Perchlorate-O(18)	107 > 89	4.48	19619.586	19619.586	bb			0.5067	101.35	1.35	17963....	

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

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

luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

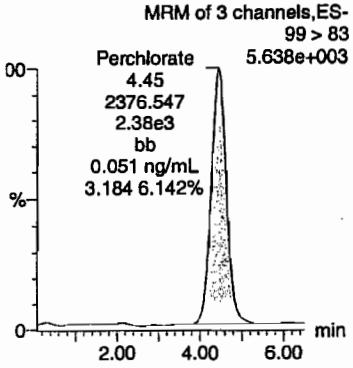
ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

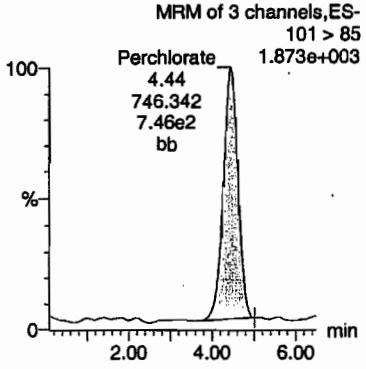
Pass
GW
02-21-10

ame: per0220037a
ate: 20-Feb-2010
ime: 17:29:25
): WCL100219-07CRI
ial: 1:2,B

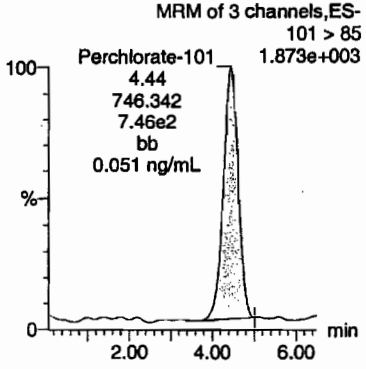
erchlorate



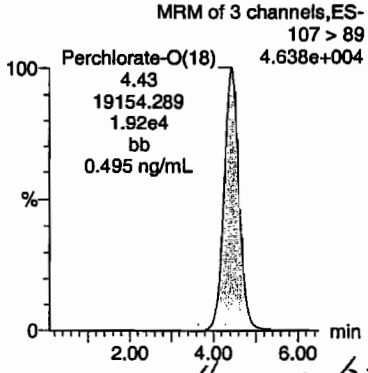
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-07CRI	Perchlorate	99 > 83	4.45	2376.547	2376.547	bb			0.0513	102.62	2.62	558.392	3.18
CL100219-07CRI	Perchlorate-101	101 > 85	4.44	746.342	746.342	bb			0.0512	102.38	2.38	389.491	
CL100219-07CRI	Perchlorate-O(18)	107 > 89	4.43	19154.289	19154.289	bb			0.4947	98.94	-1.06	5635.0...	

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

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

The GEL Group, LLC Analyst: Charlers W. Wilson

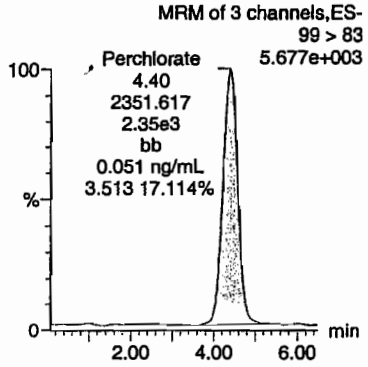
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

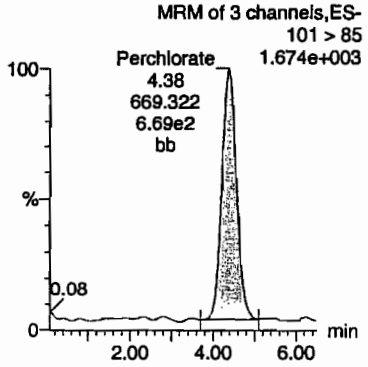
Name: per0220050a
Date: 20-Feb-2010
Time: 19:33:50
ID: WCL100219-07CRI
Vial: 1:2,B

P3D 02-21-10

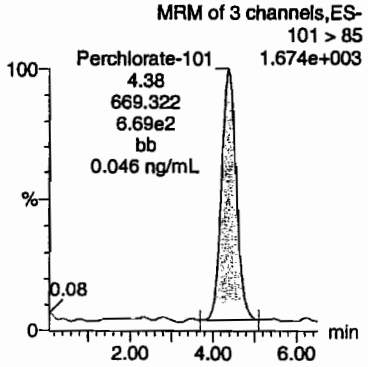
Perchlorate



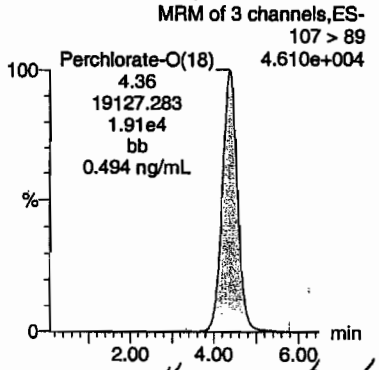
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	4.40	2351.617	2351.617	bb			0.0508	101.55	1.55	327.436	3.51
WCL100219-07CRI	Perchlorate-101	101 > 85	4.38	669.322	669.322	bb			0.0459	91.81	-8.19	223.769	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	4.36	19127.283	19127.283	bb			0.4940	98.80	-1.20	7461.1...	

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220063a
Date: 20-Feb-2010
Time: 21:38:10
ID: WCL100219-07CRI
Vial: 1:2,B

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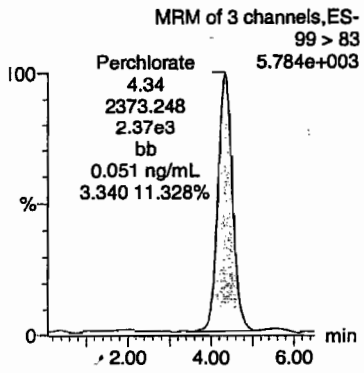
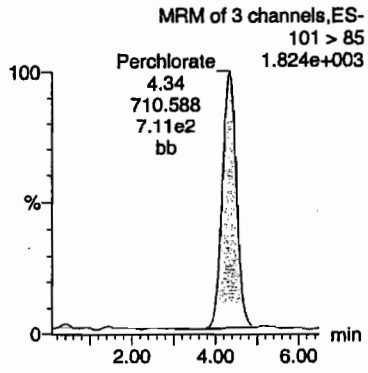
and
02-24-10

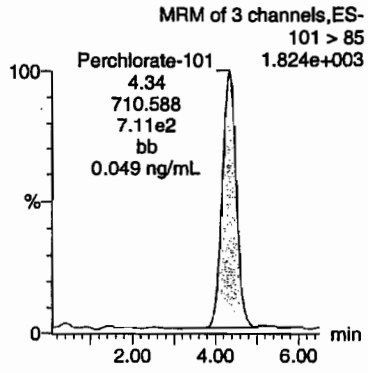
Perchlorate



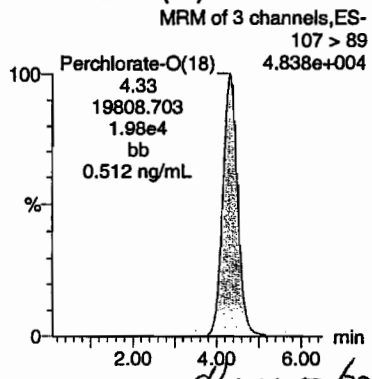
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Shine 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100219-07CRI	Perchlorate	99 > 83	4.34	2373.248	2373.248	bb			0.0512	102.48	2.48	465.448	3.34
/CL100219-07CRI	Perchlorate-101	101 > 85	4.34	710.588	710.588	bb			0.0487	97.47	-2.53	256.453	
/CL100219-07CRI	Perchlorate-O(18)	107 > 89	4.33	19808.703	19808.703	bb			0.5116	102.32	2.32	4838.7...	

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

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

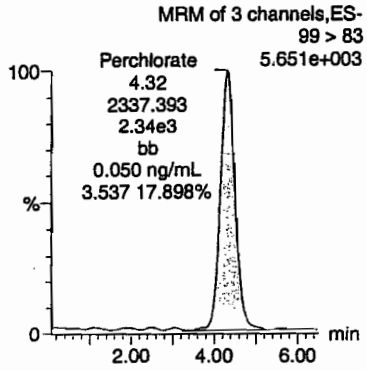
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

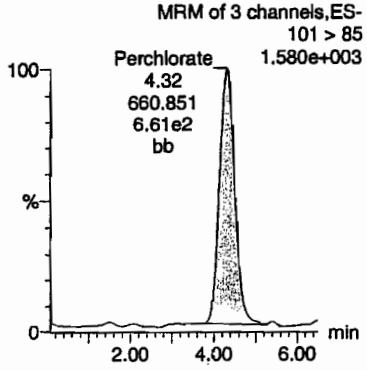
Name: per0220074a
Date: 20-Feb-2010
Time: 23:23:30
ID: WCL100219-07CRI
Vial: 1:2,B

Per
aw
02-21-10

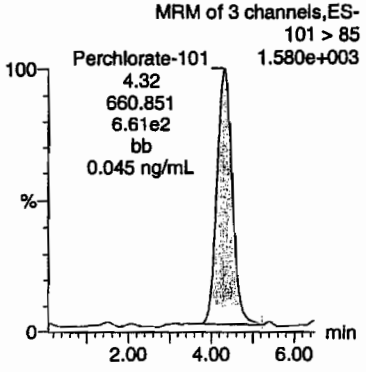
Perchlorate



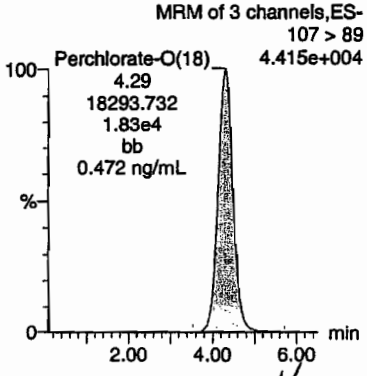
Perchlorate



Perchlorate-101



Perchlorate-O(18)



dmm 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	4.32	2337.393	2337.393	bb			0.0505	100.93	0.93	403.757	3.54
WCL100219-07CRI	Perchlorate-101	101 > 85	4.32	660.851	660.851	bb			0.0453	90.65	-9.35	251.018	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	4.29	18293.732	18293.732	bb			0.4725	94.50	-5.50	4835.7...	

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

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

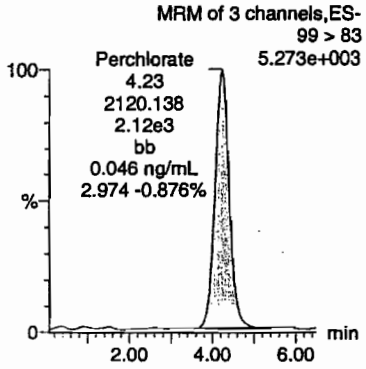
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

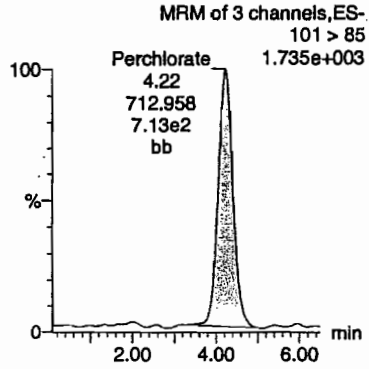
Name: per0220085a
Date: 21-Feb-2010
Time: 01:08:58
ID: WCL100219-07CRI
Vial: 1:2,B

P33
332
02.21.10

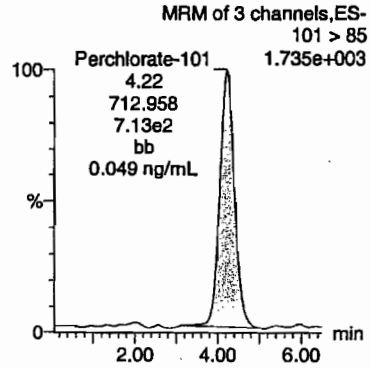
Perchlorate



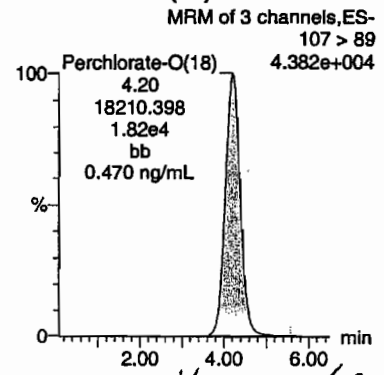
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmc 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	4.23	2120.138	2120.138	bb			0.0458	91.55	-8.45	372.289	2.97
WCL100219-07CRI	Perchlorate-101	101 > 85	4.22	712.958	712.958	bb			0.0489	97.80	-2.20	51.399	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	4.20	18210.398	18210.398	bb			0.4703	94.07	-5.93	12306....	

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

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

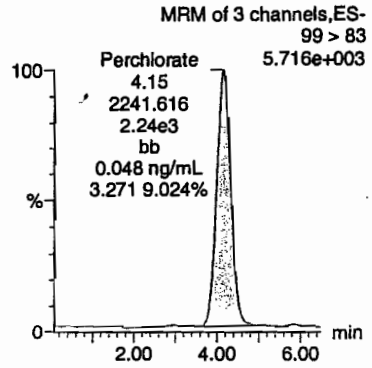
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

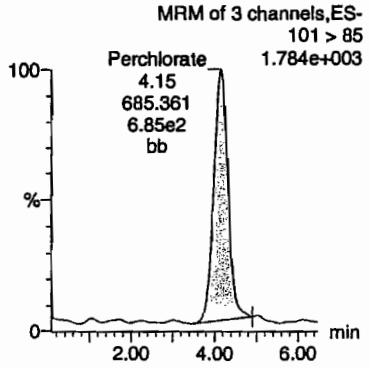
Name: per0220096a
Date: 21-Feb-2010
Time: 02:54:26
ID: WCL100219-07CRI | LANL | 950054 | 50120 | 1 |
Vial: 1:2,B

GWO 02-24-10

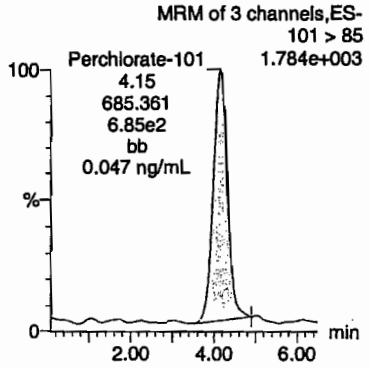
Perchlorate



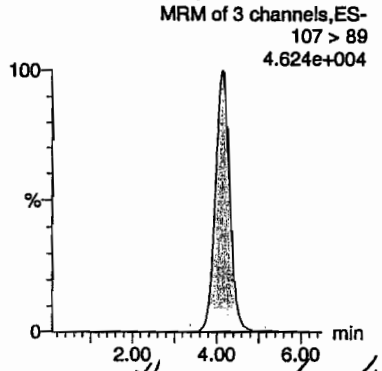
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	4.15	2241.616	2241.616	bb			0.0484	96.80	-3.20	121.544	3.27
WCL100219-07CRI	Perchlorate-101	101 > 85	4.15	685.361	685.361	bb			0.0470	94.01	-5.99	29.300	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	4.13	18498.721	18498.721	bb			0.4778	95.56	-4.44	1975.1...	

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

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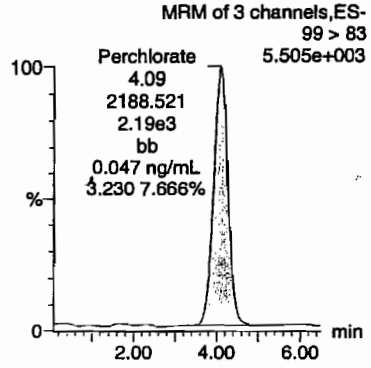
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

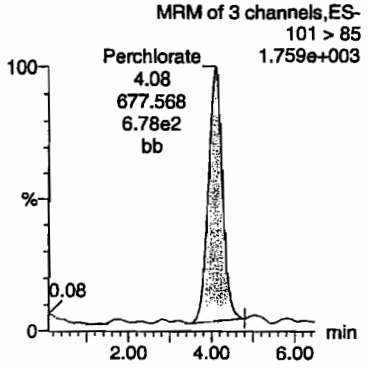
Name: per0220107a
Date: 21-Feb-2010
Time: 04:39:58
ID: WCL100219-07CRI
Vial: 1:2,B

Perm
02-21-10

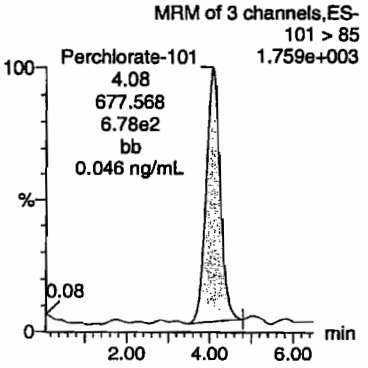
Perchlorate



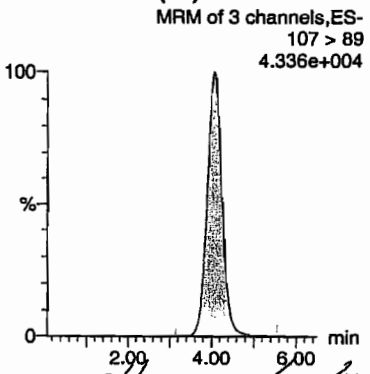
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Ramon 2/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	4.09	2188.521	2188.521	bb			0.0473	94.50	-5.50	364.745	3.23
WCL100219-07CRI	Perchlorate-101	101 > 85	4.08	677.568	677.568	bb			0.0465	92.95	-7.05	238.567	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	4.07	17718.965	17718.965	bb			0.4577	91.53	-8.47	8430.7...	

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

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 15-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 1202035631

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	20-FEB-10 23:33	per0220075a
	Perchlorate Isotope Ratio						1	20-FEB-10 23:33	per0220075a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	20-FEB-10 23:33	per0220075a
	Perchlorate-O(18)			4.51	ug/kg		1	20-FEB-10 23:33	per0220075a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

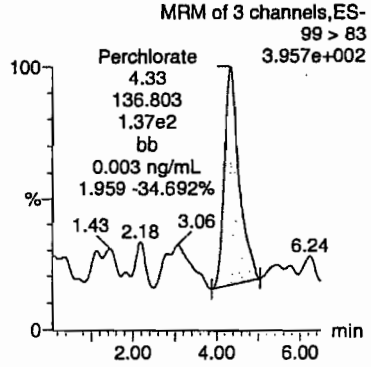
Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220075a
Date: 20-Feb-2010
Time: 23:33:02
ID: 1202035631
Vial: 2:5,A

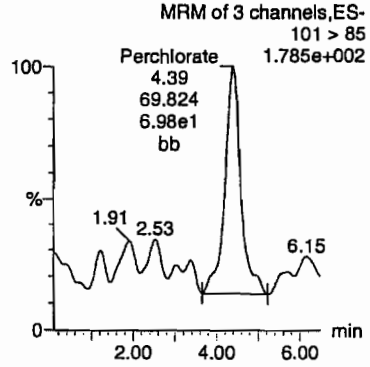
|LANL|950054|SOL20|MB|1|

GMW 02-21-10

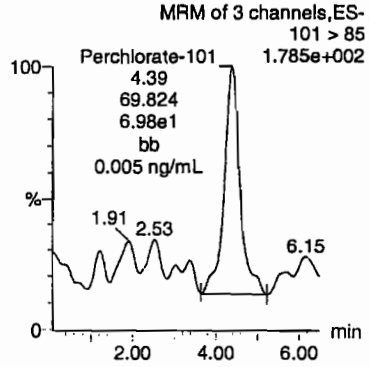
Perchlorate



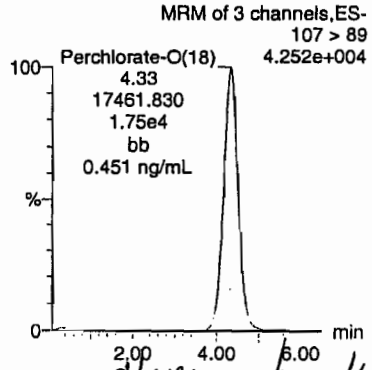
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMW 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035631	Perchlorate	99 > 83	4.33	136.803	136.803	bb			0.0030			44.900	1.96
1202035631	Perchlorate-101	101 > 85	4.39	69.824	69.824	bb			0.0048			38.498	
1202035631	Perchlorate-O(18)	107 > 89	4.33	17461.830	17461.830	bb			0.4510	90.20	-9.80	12252....	

OKAY 2/22/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 15-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 1202035632

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.14	ug/kg		1	20-FEB-10 23:42	per0220076a
	Perchlorate Isotope Ratio			3.28			1	20-FEB-10 23:42	per0220076a
14797-73-0	Perchlorate-101	.5	2	2.08	ug/kg		1	20-FEB-10 23:42	per0220076a
	Perchlorate-O(18)			4.88	ug/kg		1	20-FEB-10 23:42	per0220076a

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

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

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The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

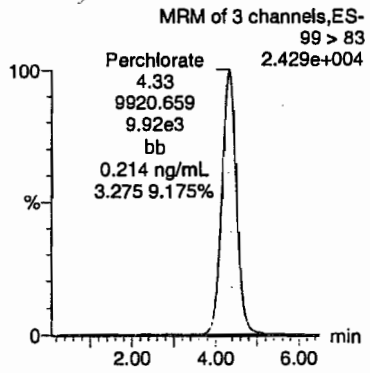
Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220076a
Date: 20-Feb-2010
Time: 23:42:45
ID: 1202035632
Vial: 2:5,B

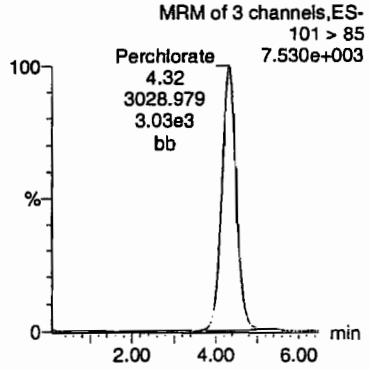
|LANL|950054|50170|LCS|1|

GWO 02-21-10

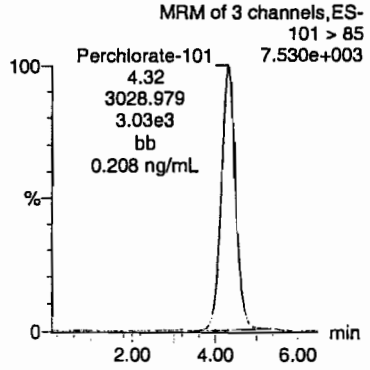
Perchlorate



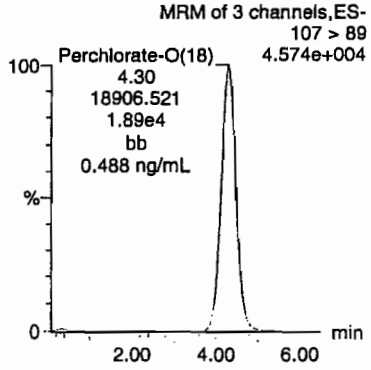
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035632	Perchlorate	99 > 83	4.33	9920.659	9920.659	bb			0.2142	107.10	7.10	3020.5...	3.28
1202035632	Perchlorate-101	101 > 85	4.32	3028.979	3028.979	bb			0.2077	103.87	3.87	758.843	
1202035632	Perchlorate-O(18)	107 > 89	4.30	18906.521	18906.521	bb			0.4883	97.66	-2.34	3352.7...	

$\frac{9920.659}{46316} = 0.214$ z

MMC 02/22/10

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MISCELLANEOUS DATA

Prep Logbook

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

Batch ID: 950053 **Verified by:** _____

Analyst: Charles Wilson **Lab SOP:** GL-OA-E-067 REV# 6

Method: SW846 6850 Modified **Instrument:** MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202035631 MB	15-FEB-2010 19:16:00	2	20	10
1202035632 LCS	15-FEB-2010 19:16:00	2	20	10
245938001	15-FEB-2010 19:16:00	2	20	10
245938002	15-FEB-2010 19:16:00	2	20	10
1202035633 MS (245938002)	15-FEB-2010 19:16:00	2	20	10
1202035634 MSD (245938002)	15-FEB-2010 19:16:00	2	20	10
245938003	15-FEB-2010 19:16:00	2	20	10
245938004	15-FEB-2010 19:16:00	2	20	10
245938005	15-FEB-2010 19:16:00	2	20	10
245938006	15-FEB-2010 19:16:00	2	20	10
245938007	15-FEB-2010 19:16:00	2	20	10
245938008	15-FEB-2010 19:16:00	2	20	10
245960001	15-FEB-2010 19:16:00	2	20	10
245960002	15-FEB-2010 19:16:00	2	20	10
245960003	15-FEB-2010 19:16:00	2	20	10
245960004	15-FEB-2010 19:16:00	2	20	10
245960005	15-FEB-2010 19:16:00	2	20	10
245960006	15-FEB-2010 19:16:00	2	20	10
245960007	15-FEB-2010 19:16:00	2	20	10
245960008	15-FEB-2010 19:16:00	2	20	10
245960009	15-FEB-2010 19:16:00	2	20	10
245960010	15-FEB-2010 19:16:00	2	20	10
245960011	15-FEB-2010 19:16:00	2	20	10
1202035635 ICS	15-FEB-2010 19:16:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035635	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
LCS	1202035632	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MS	1202035633	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MSD	1202035634	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL

Comments:

Desalting cartridges used: BJ01/02J1609 & BJ0003J1609

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/20/10
Extr. Injection Volume: 20uL
Sequence Number: per022010a
Initial Calibration Date: 02/20/10

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

Reviewed BY: [signature]
Date: 02/22/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100211-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0220001a	IPB001	CWW	2/20/2010 11:45			1		USE	B
per0220002a	IPB001	CWW	2/20/2010 11:55			1		USE	B
per0220003a	WCLICAL-01	CWW	2/20/2010 12:04			1		USE	I
per0220004a	WCLICAL-02	CWW	2/20/2010 12:14			1		USE	I
per0220005a	WCLICAL-03	CWW	2/20/2010 12:24			1		USE	I
per0220006a	WCLICAL-04	CWW	2/20/2010 12:33			1		USE	I
per0220007a	WCLICAL-05	CWW	2/20/2010 12:43			1		USE	I
per0220008a	IPB002	CWW	2/20/2010 12:52			1		USE	B
per0220009a	WCLICV	CWW	2/20/2010 13:02			1		USE	C
per0220010a	IPB003	CWW	2/20/2010 13:11			1		USE	B
per0220011a	WCLCRI	CWW	2/20/2010 13:21			1		USE	C
per0220012a	246331001	CWW	2/20/2010 13:30	952441	10-1577	20	LANL	USE	S
per0220013a	246331002	CWW	2/20/2010 13:40	952441	10-1577	20	LANL	USE	S
per0220014a	246338001	CWW	2/20/2010 13:49	952441	10-1605	1	LANL	USE	S
per0220015a	IPB004	CWW	2/20/2010 13:59			1		USE	B
per0220016a	1202041320	CWW	2/20/2010 14:08	952433	VARIOUS	1	LANL	USE	S
per0220017a	1202041321	CWW	2/20/2010 14:18	952433	VARIOUS	1	LANL	USE	S
per0220018a	1202041327	CWW	2/20/2010 14:28	952433	VARIOUS	1	LANL	USE	S
per0220019a	246344001	CWW	2/20/2010 14:37	952433	10-1570	1	LANL	USE	S
per0220020a	246344002	CWW	2/20/2010 14:47	952433	10-1570	1	LANL	USE	S
per0220021a	246344003	CWW	2/20/2010 14:56	952433	10-1570	1	LANL	USE	S
per0220022a	WCLCCV	CWW	2/20/2010 15:06			1		USE	C
per0220023a	IPB005	CWW	2/20/2010 15:15			1		USE	B
per0220024a	WCLCRI	CWW	2/20/2010 15:25			1		USE	C
per0220025a	246344004	CWW	2/20/2010 15:34	952433	10-1570	1	LANL	USE	S
per0220026a	246344005	CWW	2/20/2010 15:44	952433	10-1570	1	LANL	USE	S
per0220027a	246354001	CWW	2/20/2010 15:53	952433	10-1572	1	LANL	USE	S
per0220028a	1202041322	CWW	2/20/2010 16:03	952433	10-1572	1	LANL	USE	S
per0220029a	1202041323	CWW	2/20/2010 16:13	952433	10-1572	1	LANL	USE	S

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per0220030a	246354002	CWW	2/20/2010 16:22	952433	10-1572	1	LANL	USE	S
per0220031a	246354003	CWW	2/20/2010 16:32	952433	10-1572	1	LANL	USE	S
per0220032a	246354004	CWW	2/20/2010 16:41	952433	10-1572	1	LANL	USE	S
per0220033a	246354005	CWW	2/20/2010 16:51	952433	10-1572	1	LANL	USE	S
per0220034a	246354006	CWW	2/20/2010 17:00	952433	10-1572	1	LANL	USE	S
per0220035a	WCLCCV	CWW	2/20/2010 17:10			1		USE	C
per0220036a	IPB006	CWW	2/20/2010 17:19			1		USE	B
per0220037a	WCLCRI	CWW	2/20/2010 17:29			1		USE	C
per0220038a	246354007	CWW	2/20/2010 17:38	952433	10-1572	1	LANL	USE	S
per0220039a	246354008	CWW	2/20/2010 17:48	952433	10-1572	1	LANL	USE	S
per0220040a	246354009	CWW	2/20/2010 17:58	952433	10-1572	1	LANL	USE	S
per0220041a	246354010	CWW	2/20/2010 18:07	952433	10-1572	1	LANL	USE	S
per0220042a	246354011	CWW	2/20/2010 18:17	952433	10-1572	1	LANL	USE	S
per0220043a	IPB007	CWW	2/20/2010 18:26			1		USE	B
per0220044a	1202042230	CWW	2/20/2010 18:36	952823	VARIOUS	1	LANL	USE	S
per0220045a	1202042231	CWW	2/20/2010 18:45	952823	VARIOUS	1	LANL	USE	S
per0220046a	1202042235	CWW	2/20/2010 18:55	952823	VARIOUS	1	LANL	USE	S
per0220047a	246443001	CWW	2/20/2010 19:05	952823	10-1624	1	LANL	USE	S
per0220048a	WCLCCV	CWW	2/20/2010 19:14			1		USE	C
per0220049a	IPB008	CWW	2/20/2010 19:24			1		USE	B
per0220050a	WCLCRI	CWW	2/20/2010 19:33			1		USE	C
per0220051a	246443002	CWW	2/20/2010 19:43	952823	10-1624	1	LANL	USE	S
per0220052a	246443003	CWW	2/20/2010 19:53	952823	10-1624	1	LANL	USE	S
per0220053a	246443004	CWW	2/20/2010 20:02	952823	10-1624	1	LANL	USE	S
per0220054a	246443005	CWW	2/20/2010 20:12	952823	10-1624	1	LANL	USE	S
per0220055a	246447001	CWW	2/20/2010 20:21	952823	10-1627	1	LANL	USE	S
per0220056a	246447002	CWW	2/20/2010 20:31	952823	10-1627	1	LANL	USE	S
per0220057a	246447003	CWW	2/20/2010 20:40	952823	10-1627	1	LANL	USE	S
per0220058a	246452001	CWW	2/20/2010 20:50	952823	10-1629-1	1	LANL	USE	S
per0220059a	1202042232	CWW	2/20/2010 20:59	952823	10-1629-1	1	LANL	USE	S
per0220060a	1202042233	CWW	2/20/2010 21:09	952823	10-1629-1	1	LANL	USE	S
per0220061a	WCLCCV	CWW	2/20/2010 21:18			1		USE	C
per0220062a	IPB009	CWW	2/20/2010 21:28			1		USE	B
per0220063a	WCLCRI	CWW	2/20/2010 21:38			1		USE	C
per0220064a	246452002	CWW	2/20/2010 21:47	952823	10-1629-1	1	LANL	USE	S
per0220065a	246452003	CWW	2/20/2010 21:57	952823	10-1629-1	1	LANL	USE	S
per0220066a	246452004	CWW	2/20/2010 22:06	952823	10-1629-1	1	LANL	USE	S

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per0220067a	246452005	CWW	2/20/2010 22:16	952823	10-1629-1	1	LANL	USE	S
per0220068a	246452006	CWW	2/20/2010 22:26	952823	10-1629-1	1	LANL	USE	S
per0220069a	246452007	CWW	2/20/2010 22:35	952823	10-1629-1	1	LANL	USE	S
per0220070a	246452008	CWW	2/20/2010 22:45	952823	10-1629-1	1	LANL	USE	S
per0220071a	246452009	CWW	2/20/2010 22:54	952823	10-1629-1	1	LANL	USE	S
per0220072a	WCLCCV	CWW	2/20/2010 23:04			1		USE	C
per0220073a	IPB010	CWW	2/20/2010 23:13			1		USE	B
per0220074a	WCLCRI	CWW	2/20/2010 23:23			1		USE	C
per0220075a	1202035631	CWW	2/20/2010 23:33	950054	VARIOUS	1	LANL	USE	S
per0220076a	1202035632	CWW	2/20/2010 23:42	950054	VARIOUS	1	LANL	USE	S
per0220077a	1202035635	CWW	2/20/2010 23:52	950054	VARIOUS	1	LANL	USE	S
per0220078a	245938001	CWW	2/21/2010 0:01	950054	10-1506	1	LANL	USE	S
per0220079a	245938002	CWW	2/21/2010 0:11	950054	10-1506	1	LANL	USE	S
per0220080a	1202035633	CWW	2/21/2010 0:20	950054	10-1506	1	LANL	USE	S
per0220081a	1202035634	CWW	2/21/2010 0:30	950054	10-1506	1	LANL	USE	S
per0220082a	245938003	CWW	2/21/2010 0:40	950054	10-1506	1	LANL	USE	S
per0220083a	WCLCCV	CWW	2/21/2010 0:49			1		USE	C
per0220084a	IPB011	CWW	2/21/2010 0:59			1		USE	B
per0220085a	WCLCRI	CWW	2/21/2010 1:08			1		USE	C
per0220086a	245938004	CWW	2/21/2010 1:18	950054	10-1506	1	LANL	USE	S
per0220087a	245938005	CWW	2/21/2010 1:28	950054	10-1506	1	LANL	USE	S
per0220088a	245938006	CWW	2/21/2010 1:37	950054	10-1506	1	LANL	USE	S
per0220089a	245938007	CWW	2/21/2010 1:47	950054	10-1506	1	LANL	USE	S
per0220090a	245938008	CWW	2/21/2010 1:56	950054	10-1506	1	LANL	USE	S
per0220091a	245960001	CWW	2/21/2010 2:06	950054	10-1511	1	LANL	USE	S
per0220092a	245960002	CWW	2/21/2010 2:16	950054	10-1511	1	LANL	USE	S
per0220093a	245960003	CWW	2/21/2010 2:25	950054	10-1511	1	LANL	USE	S
per0220094a	WCLCCV	CWW	2/21/2010 2:35			1		USE	C
per0220095a	IPB012	CWW	2/21/2010 2:44			1		USE	B
per0220096a	WCLCRI	CWW	2/21/2010 2:54			1		USE	C
per0220097a	245960004	CWW	2/21/2010 3:03	950054	10-1511	1	LANL	USE	S
per0220098a	245960005	CWW	2/21/2010 3:13	950054	10-1511	1	LANL	USE	S
per0220099a	245960006	CWW	2/21/2010 3:23	950054	10-1511	1	LANL	USE	S
per0220100a	245960007	CWW	2/21/2010 3:32	950054	10-1511	1	LANL	USE	S
per0220101a	245960008	CWW	2/21/2010 3:42	950054	10-1511	1	LANL	USE	S
per0220102a	245960009	CWW	2/21/2010 3:51	950054	10-1511	1	LANL	USE	S
per0220103a	245960010	CWW	2/21/2010 4:01	950054	10-1511	1	LANL	USE	S

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per0220104a	245960011	CWW	2/21/2010 4:11	950054	10-1511	1	LANL	USE	S
per0220105a	WCLCCV	CWW	2/21/2010 4:20			1		USE	C
per0220106a	IPB013	CWW	2/21/2010 4:30			1		USE	B
per0220107a	WCLCRI	CWW	2/21/2010 4:39			1		USE	C

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

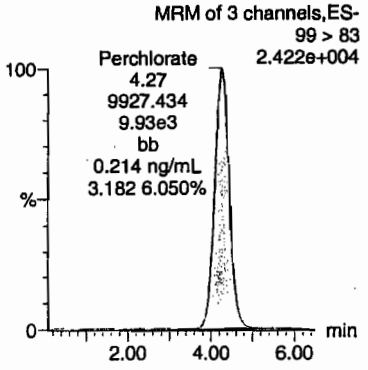
Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220080a
Date: 21-Feb-2010
Time: 00:20:58
ID: 1202035633
Vial: 2:5,F

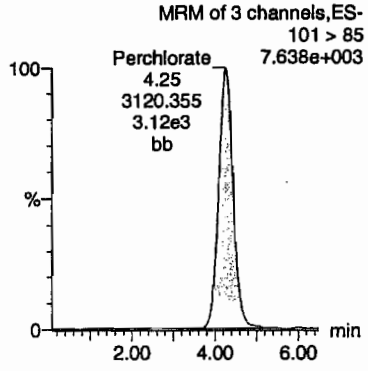
|LANL|950054|SOL20|MS|1|

33
02-21-10

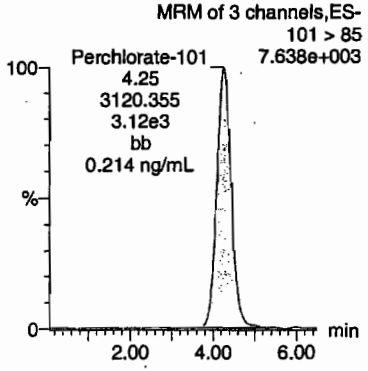
Perchlorate



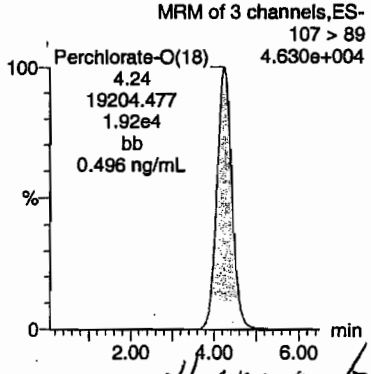
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMK 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035633	Perchlorate	99 > 83	4.27	9927.434	9927.434	bb			0.2143	107.17	7.17	1656.6...	3.18
1202035633	Perchlorate-101	101 > 85	4.25	3120.355	3120.355	bb			0.2140	107.01	7.01	1097.6...	
1202035633	Perchlorate-O(18)	107 > 89	4.24	19204.477	19204.477	bb			0.4960	99.20	-0.80	6722.7...	

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

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

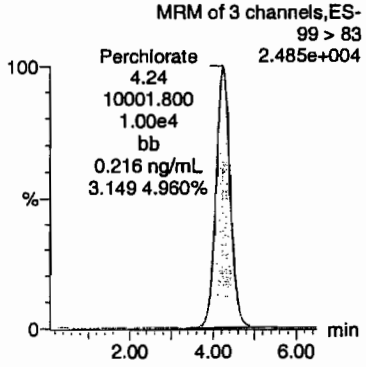
Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

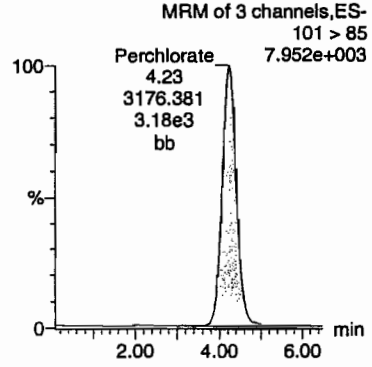
Name: per0220081a
Date: 21-Feb-2010
Time: 00:30:30
ID: 1202035634 |LANL|950054|SOLID|MSD|1|
Vial: 2:6,A

GJ 02.21.10

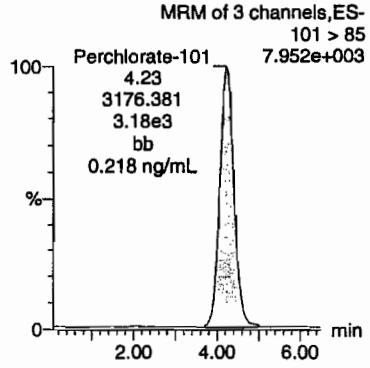
Perchlorate



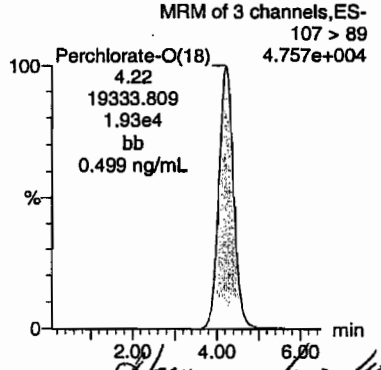
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035634	Perchlorate	99 > 83	4.24	10001.800	10001.800	bb			0.2159	107.97	7.97	2359.7...	3.15
1202035634	Perchlorate-101	101 > 85	4.23	3176.381	3176.381	bb			0.2179	108.93	8.93	2275.7...	
1202035634	Perchlorate-O(18)	107 > 89	4.22	19333.809	19333.809	bb			0.4994	99.87	-0.13	6997.7...	

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

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Isotope Ratio Criteria

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

2.31-3.85

Tune Criteria

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

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1511-1

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950028
Prep Batch Number:	950027

Sample Analysis

Sample ID	Client ID
245965001	RE15-10-7326
1202035573	Interference Check Sample (ICS)
1202035565	Method Blank (MB)
1202035566	Laboratory Control Sample (LCS)
1202035571	245911001(RE16-10-1400) Matrix Spike (MS)
1202035572	245911001(RE16-10-1400) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

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

Calibration Information

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

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

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

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

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

Quality Control (QC) Information

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

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

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

QC Sample Designation
Client sample 245911001 (RE16-10-1400) from SDG 10-1487-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

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

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

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

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

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

Technical Information

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

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

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

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

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

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

Method Comments
The sample in this SDG was not originally analyzed using EPA Method 314.0.

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

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

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

System Configuration

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

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Chromatographic Columns

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

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Herbert N Maier **Date:** 02/11/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-7326

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511-1

GEL Sample ID: 245965001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 20:53	per0208065a
	Perchlorate Isotope Ratio						1	08-FEB-10 20:53	per0208065a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 20:53	per0208065a
	Perchlorate-O(18)			0.465	ug/L		1	08-FEB-10 20:53	per0208065a

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

*Concentration =

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

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1511–1

Extract Batch Code: 950027

Date Filtered: 07–FEB–10

Matrix: WASTE WATER

Sample ID: 1202035566

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.196	ug/L	98.0		85 – 115
Perchlorate Isotope Ratio		3.01				–
Perchlorate–101	0.200	.207	ug/L	103		85 – 115
Perchlorate–O(18)		.483	ug/L			–

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

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1511-1

Extract Batch Code: 950027

Date Filtered: 07-FEB-10

Matrix: WATER

Sample ID: 1202035573

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.211	ug/L	105		70 – 130
Perchlorate Isotope Ratio		3.12				
Perchlorate–101	0.200	.214	ug/L	107		70 – 130
Perchlorate–O(18)		.488	ug/L			

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

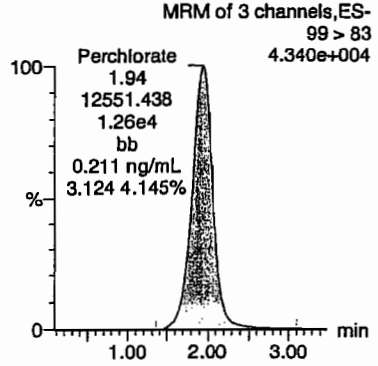
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208052a
Date: 08-Feb-2010
Time: 19:28:20
ID: 1202035573
Vial: 2:1,C

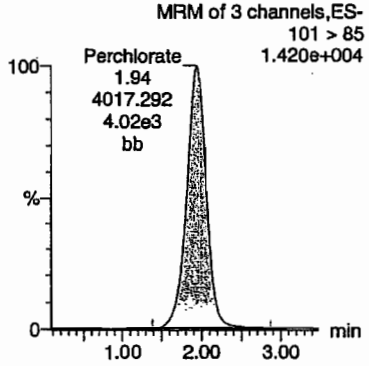
|LANL|950028|LLQ|ICS|1|

CWJ 02-09-10

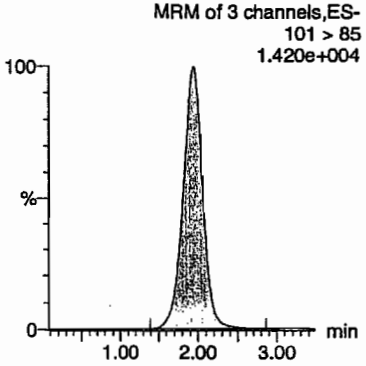
Perchlorate



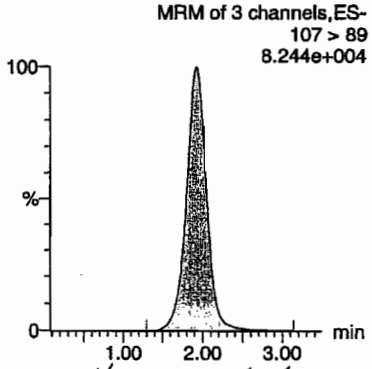
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035573	Perchlorate	99 > 83	1.94	12551.438	12551.438	bb			0.2108	105.42	5.42	1217.2...	3.12
1202035573	Perchlorate-101	101 > 85	1.94	4017.292	4017.292	bb			0.2140	107.01	7.01	2883.8...	
1202035573	Perchlorate-O(18)	107 > 89	1.93	23733.555	23733.555	bb			0.4879	97.59	-2.41	5289.0...	

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

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1511-1

Extract Batch Code: 950027

Date Extracted: 07-FEB-10

GEL MS/PS ID: 1202035571

Client ID: RE16-10-1400

GEL MSD/PSD ID: 1202035572

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00204	ug/L	0.192	94.8	.198	98.1	3.39	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3		3.01		0		–
Perchlorate-101	0.200	0.00319	ug/L	0.203	99.9	.209	103	2.76	30	75 – 125
Perchlorate-O(18)	0	0.461	ug/L	0.468		.462		1.31		–

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

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08–FEB–10	per0208001a	IPB001
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208001a	IPB001
Perchlorate	0.00	0	NA	08–FEB–10	per0208002a	IPB001
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208002a	IPB001

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

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

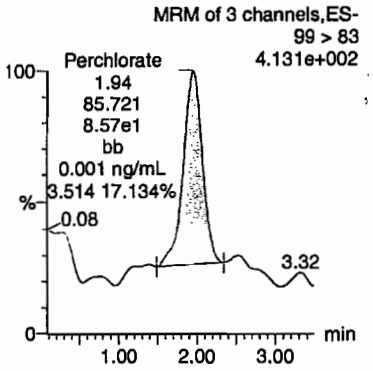
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17

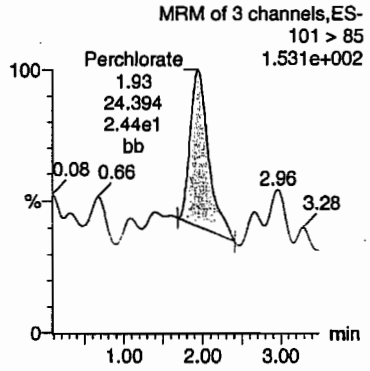
CWW
02-09-10

Name: per0208001a
Date: 08-Feb-2010
Time: 13:54:09
ID: IPB001
Vial: 1:1,A

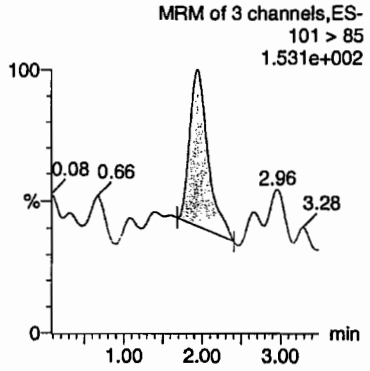
Perchlorate



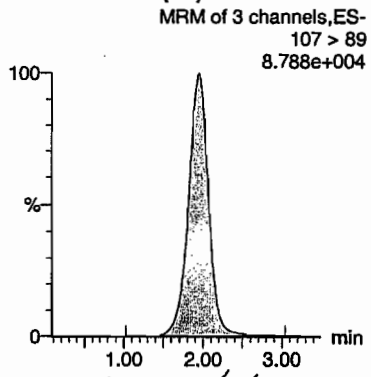
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hume 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83	1.94	85.721	85.721	bb			0.0014			29.463	3.51
PB001	Perchlorate-101	101 > 85	1.93	24.394	24.394	bb			0.0013			21.780	
PB001	Perchlorate-O(18)	107 > 89	1.94	25816.436	25816.436	bb			0.5308	106.15	6.15	6489.2...	

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

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

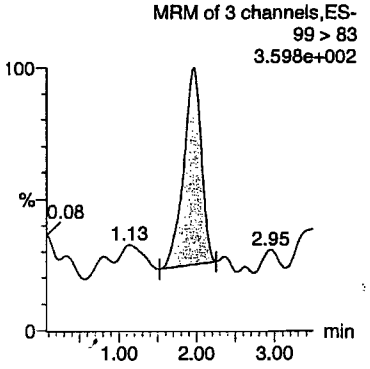
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

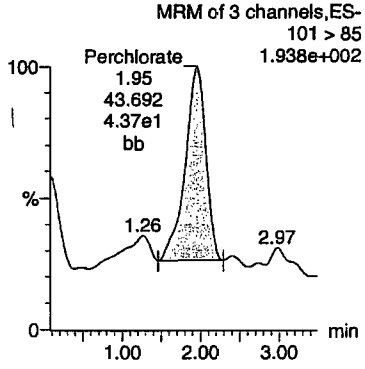
Name: per0208002a
Date: 08-Feb-2010
Time: 14:00:52
ID: IPB001
Vial: 1:1,A

CWD 02-09-10

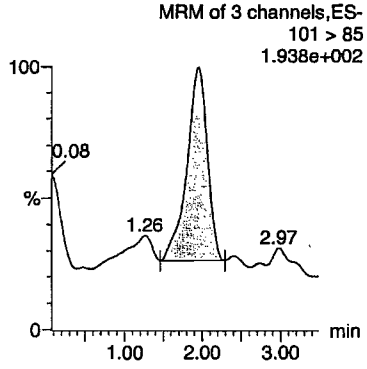
Perchlorate



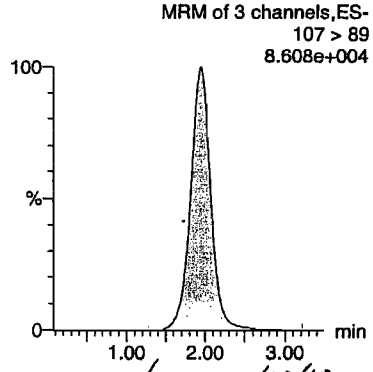
Perchlorate



Perchlorate-101



Perchlorate-O(18)



time or helio

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83	1.97	72.177	72.177	bb			0.0012			25.847	1.65
PB001	Perchlorate-101	101 > 85	1.95	43.692	43.692	bb			0.0023			6.442	
PB001	Perchlorate-O(18)	107 > 89	1.94	25472.947	25472.947	bb			0.5237	104.74	4.74	6120.9...	

0.44 2.0 SD

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

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08–FEB–10	per0208008a	IPB002
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208008a	IPB002
Perchlorate	0.00	0	NA	08–FEB–10	per0208010a	IPB003
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208010a	IPB003
Perchlorate	0.00	0	NA	08–FEB–10	per0208022a	IPB004
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208022a	IPB004
Perchlorate	0.00	0	NA	08–FEB–10	per0208026a	IPB005
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208026a	IPB005
Perchlorate	0.00	0	NA	08–FEB–10	per0208035a	IPB006
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208035a	IPB006
Perchlorate	0.00	0	NA	08–FEB–10	per0208048a	IPB007
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208048a	IPB007
Perchlorate	0.00	0	NA	08–FEB–10	per0208061a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208061a	IPB008
Perchlorate	0.00	0	NA	08–FEB–10	per0208074a	IPB009
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208074a	IPB009

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

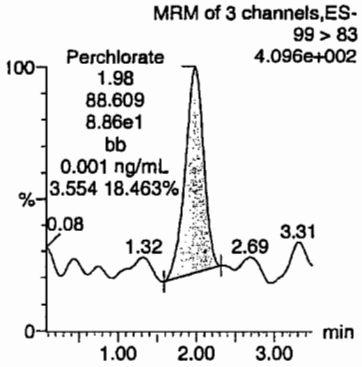
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

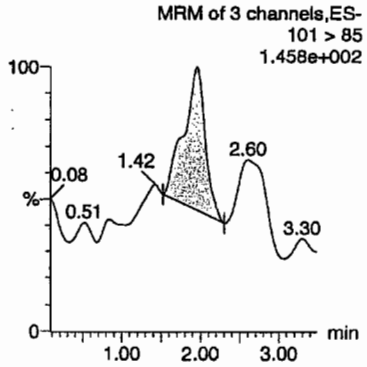
Name: per0208008a
Date: 08-Feb-2010
Time: 14:40:00
ID: IPB002
Vial: 1:1,A

02-04-10

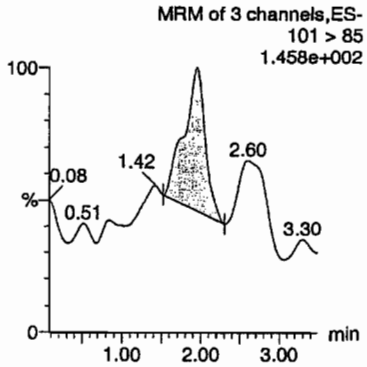
Perchlorate



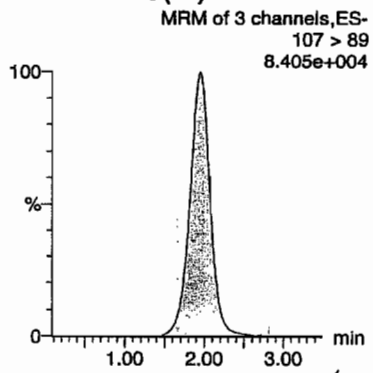
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hume 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	1.98	88.609	88.609	bb			0.0015			17.608	3.55
IPB002	Perchlorate-101	101 > 85	1.95	24.933	24.933	bb			0.0013			9.796	
IPB002	Perchlorate-O(18)	107 > 89	1.94	24800.170	24800.170	bb			0.5099	101.97	1.97	8413.0...	

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

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The GEL Group, LLC Analyst: Charlers W. Wilson

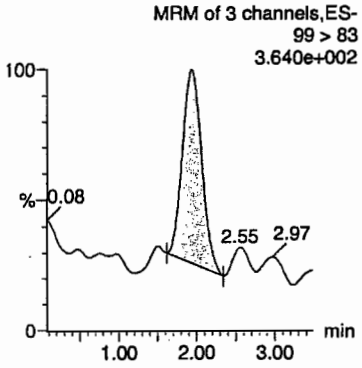
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

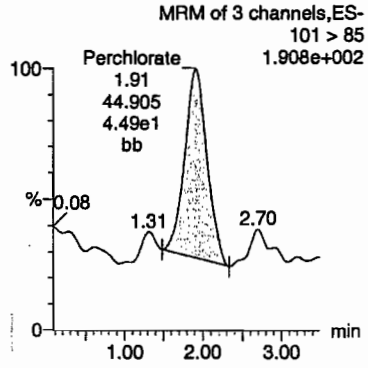
Name: per0208010a
Date: 08-Feb-2010
Time: 14:53:04
ID: IPB003
Vial: 1:1,A

02-09-10

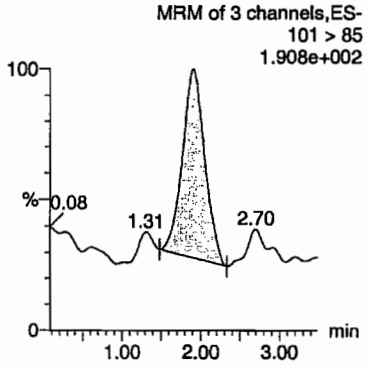
Perchlorate



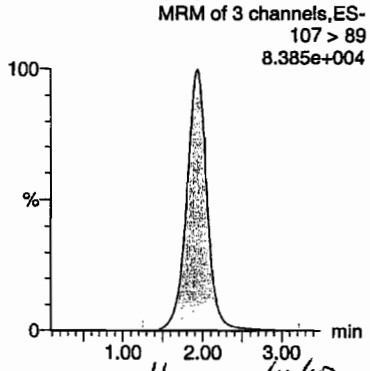
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Huncalibo

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83	1.93	78.058	78.058	bb			0.0013			17.447	1.74
PB003	Perchlorate-101	101 > 85	1.91	44.905	44.905	bb			0.0024			6.119	
PB003	Perchlorate-O(18)	107 > 89	1.93	24645.639	24645.639	bb			0.5067	101.34	1.34	10100....	

OKAY
LOQ

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

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

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

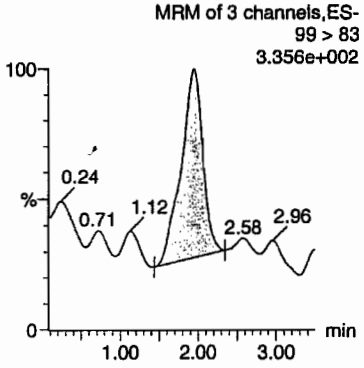
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

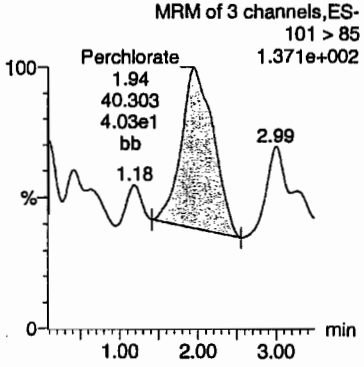
Name: per0208022a
Date: 08-Feb-2010
Time: 16:11:45
ID: IPB004
Vial: 1:1,A

CWW 02-09-10

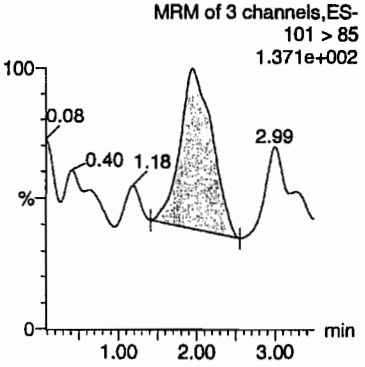
Perchlorate



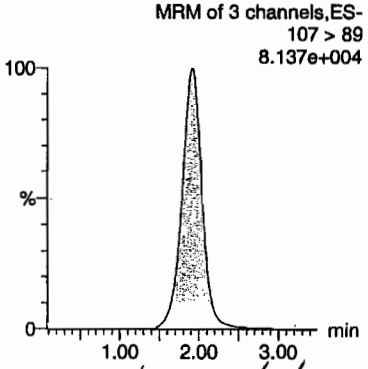
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio	
PB004	Perchlorate	99 > 83	1.94	78.709	78.709	bb			0.0013			20.514	1.95	okay
PB004	Perchlorate-101	101 > 85	1.94	40.303	40.303	bb			0.0021			13.319		< 0.0020
PB004	Perchlorate-O(18)	107 > 89	1.92	23985.541	23985.541	bb			0.4931	98.62	-1.38	5434.3...		

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

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

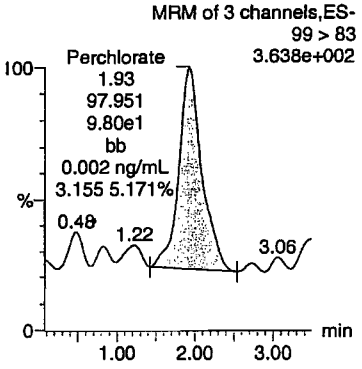
)ataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

.ast Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
'rinted: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

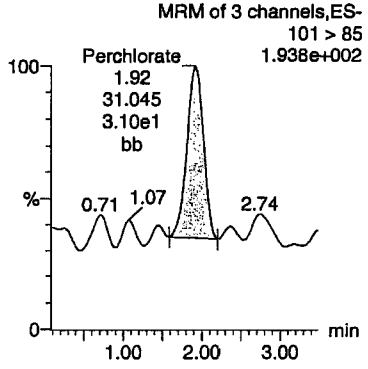
lame: per0208026a
)ate: 08-Feb-2010
'ime: 16:37:55
D: IPB005
'ial: 1:1,A

CWD
02-09-10

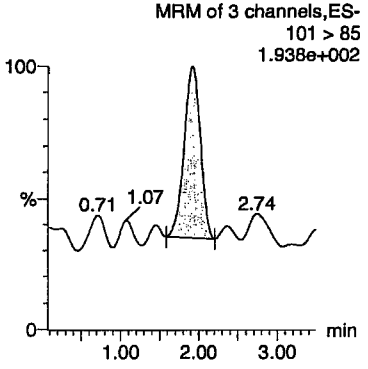
'erchlorate



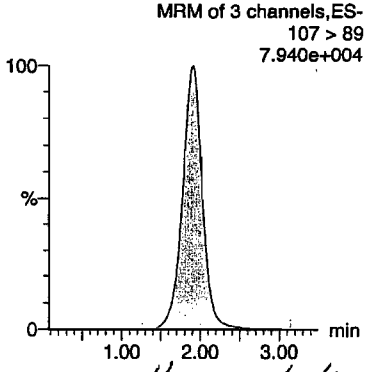
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB005	Perchlorate	99 > 83	1.93	97.951	97.951	bb			0.0016			26.012	3.16
PB005	Perchlorate-101	101 > 85	1.92	31.045	31.045	bb			0.0017			24.338	
PB005	Perchlorate-O(18)	107 > 89	1.91	23263.740	23263.740	bb			0.4783	95.66	-4.34	17328....	

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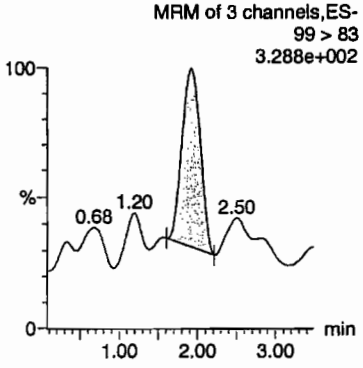
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

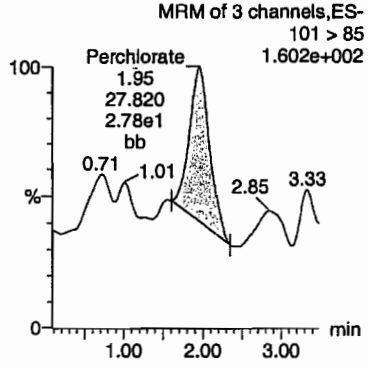
Name: per0208035a
Date: 08-Feb-2010
Time: 17:36:50
ID: IPB006
Vial: 1:1,A

CW
02-09-10

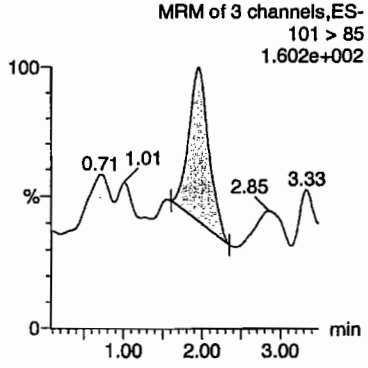
Perchlorate



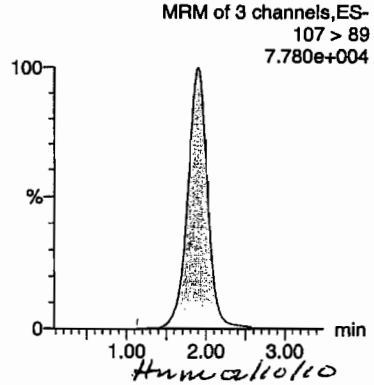
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm all ok

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB006	Perchlorate	99 > 83	1.92	61.682	61.682	bb			0.0010			7.589	2.22
PB006	Perchlorate-101	101 > 85	1.95	27.820	27.820	bb			0.0015			8.535	
PB006	Perchlorate-O(18)	107 > 89	1.89	22700.701	22700.701	bb			0.4667	93.34	-6.66	9296.2...	

okay
2.0530

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

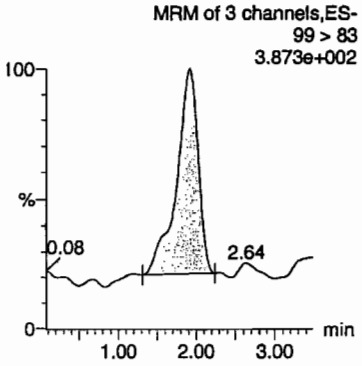
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

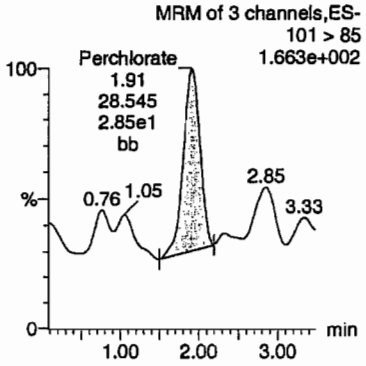
Name: per0208048a
Date: 08-Feb-2010
Time: 19:01:59
ID: IPB007
Vial: 1:1,A

02-09-10

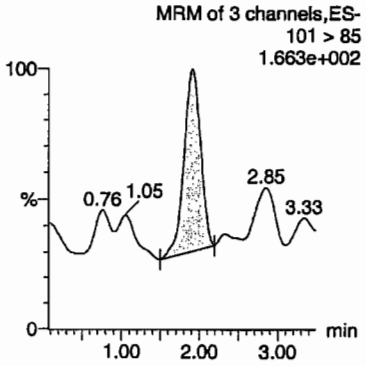
Perchlorate



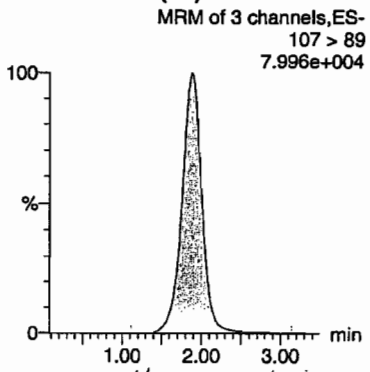
Perchlorate



Perchlorate-101



Perchlorate-O(18)



thru 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	1.92	98.695	98.695	bb			0.0017			45.617	3.46
IPB007	Perchlorate-101	101 > 85	1.91	28.545	28.545	bb			0.0015			16.585	
IPB007	Perchlorate-O(18)	107 > 89	1.88	23201.119	23201.119	bb			0.4770	95.40	-4.60	2781.0...	

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

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The GEL Group, LLC Analyst: Charlers W. Wilson

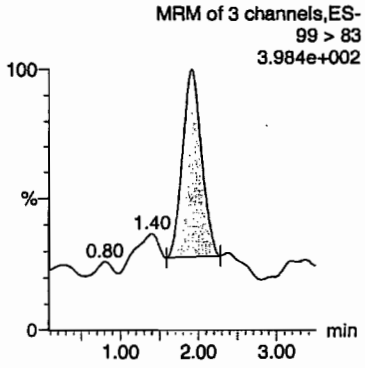
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

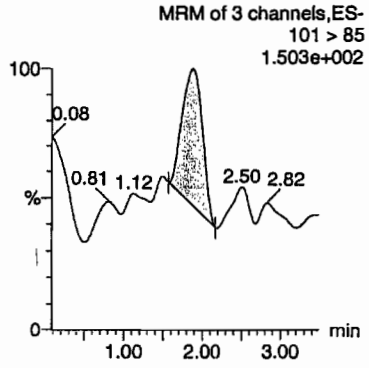
Name: per0208061a
Date: 08-Feb-2010
Time: 20:27:18
ID: IPB008
Vial: 1:1,A

CW 02-09-10

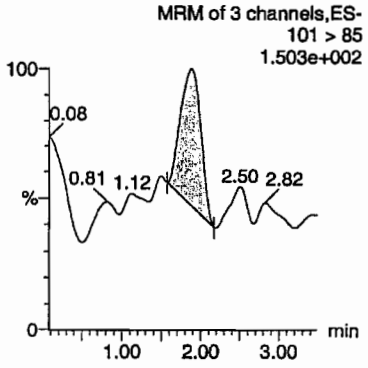
Perchlorate



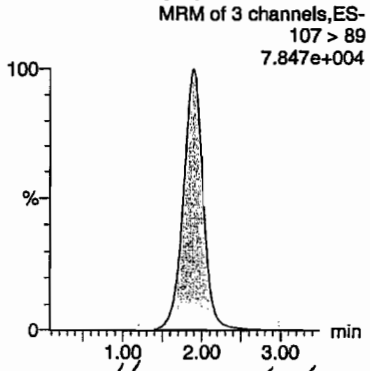
Perchlorate



Perchlorate-101



Perchlorate-O(18)



hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB008	Perchlorate	99 > 83	1.91	82.327	82.327	bb			0.0014			25.247	3.44
PB008	Perchlorate-101	101 > 85	1.88	23.921	23.921	bb			0.0013			7.965	
PB008	Perchlorate-O(18)	107 > 89	1.89	22850.625	22850.625	bb			0.4698	93.96	-6.04	9586.1...	

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

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The GEL Group, LLC Analyst: Charlers W. Wilson

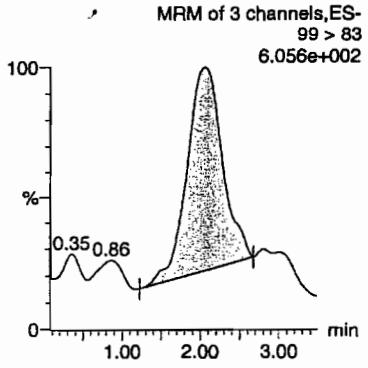
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

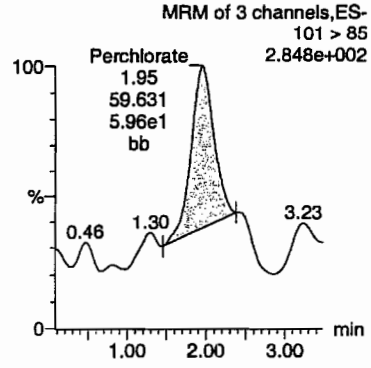
Name: per0208074a
Date: 08-Feb-2010
Time: 21:52:41
ID: IPB009
Vial: 1:1,A

02-09-10

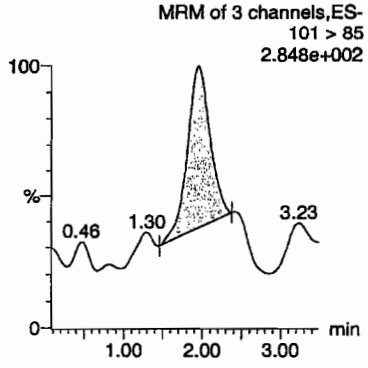
Perchlorate



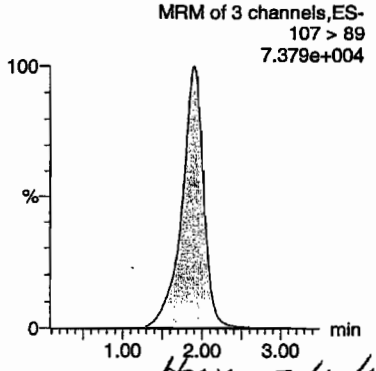
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83	2.05	246.817	246.817	bb			0.0041			12.504	4.14
IPB009	Perchlorate-101	101 > 85	1.95	59.631	59.631	bb			0.0032			10.438	
IPB009	Perchlorate-O(18)	107 > 89	1.89	23201.656	23201.656	bb			0.4770	95.40	-4.60	2554.5...	

0.44 LOQ

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

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Nairb.ref

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

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

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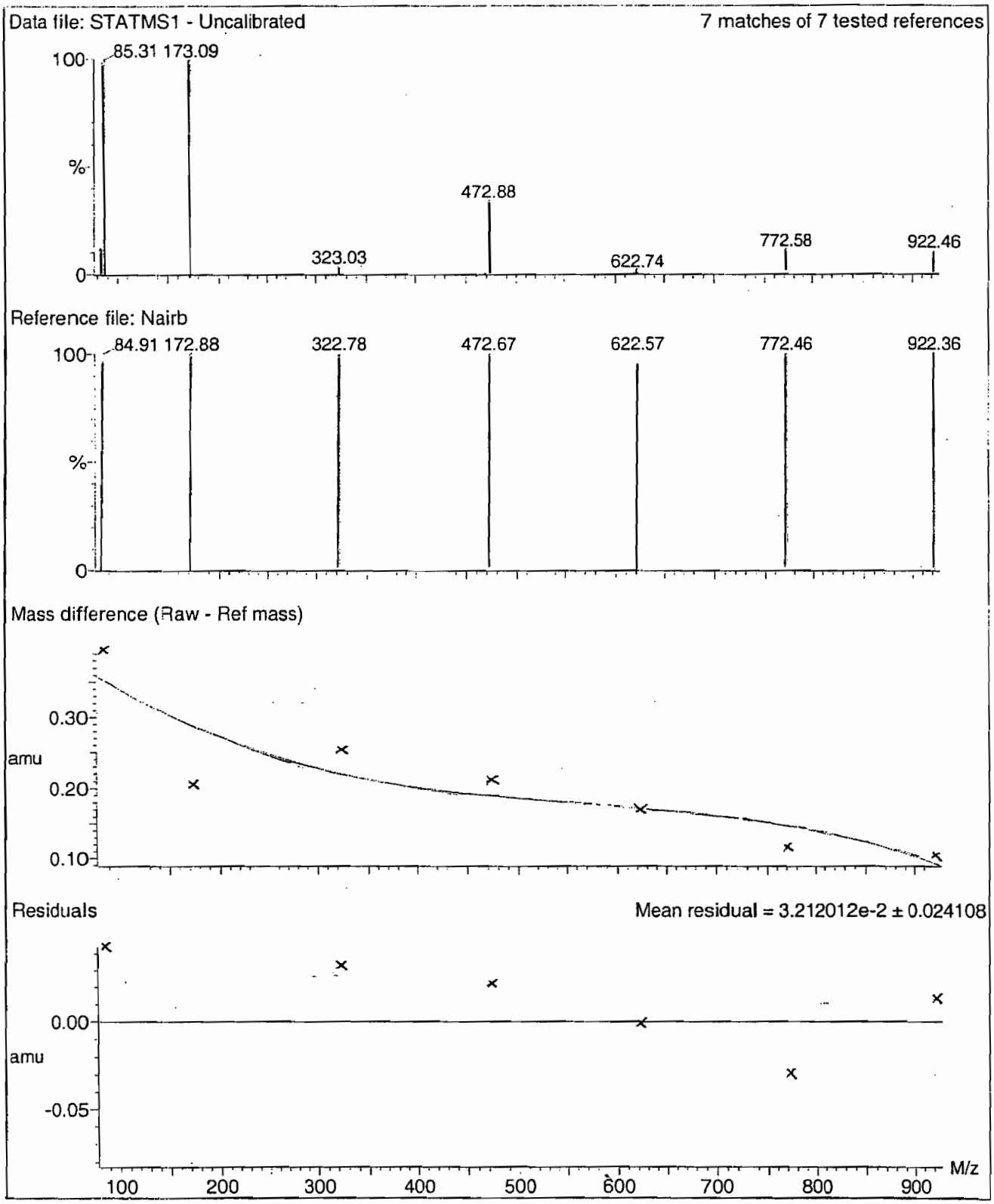
QUATRO ULTIMA: nairb_01_08_08.ca1

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

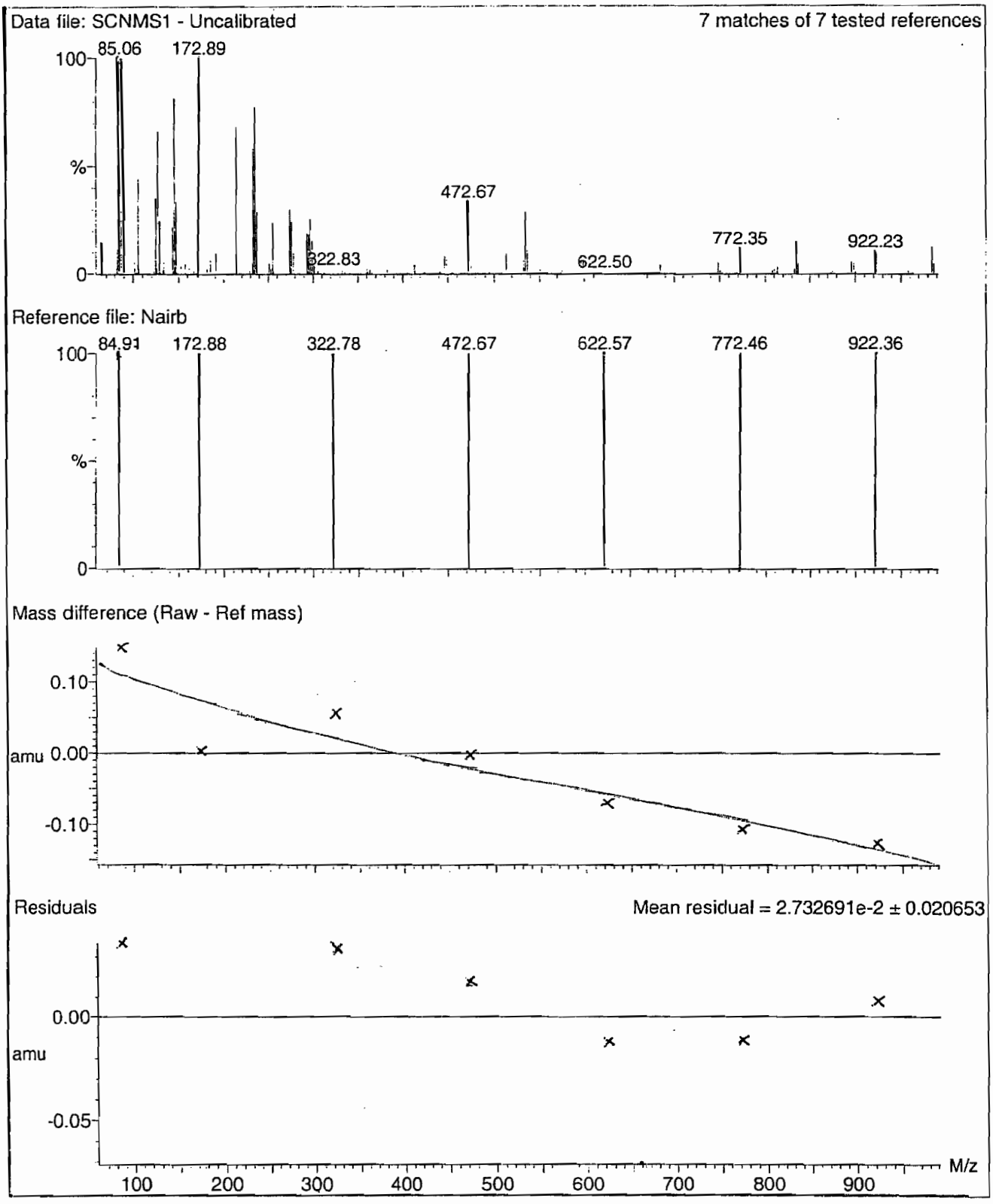
PEAKS HIGHLIGHTED BY CWJ 01-07-08



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

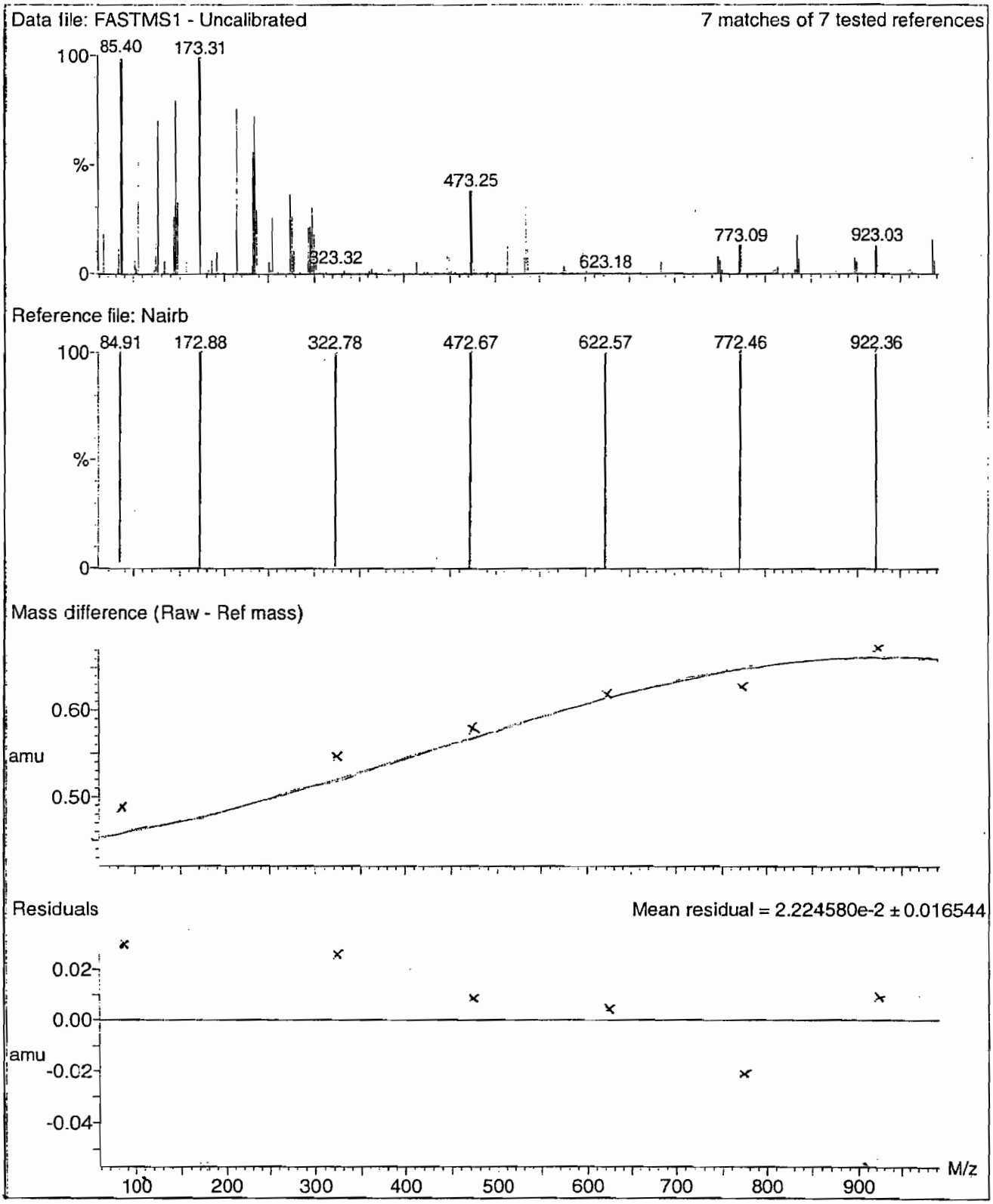
Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008



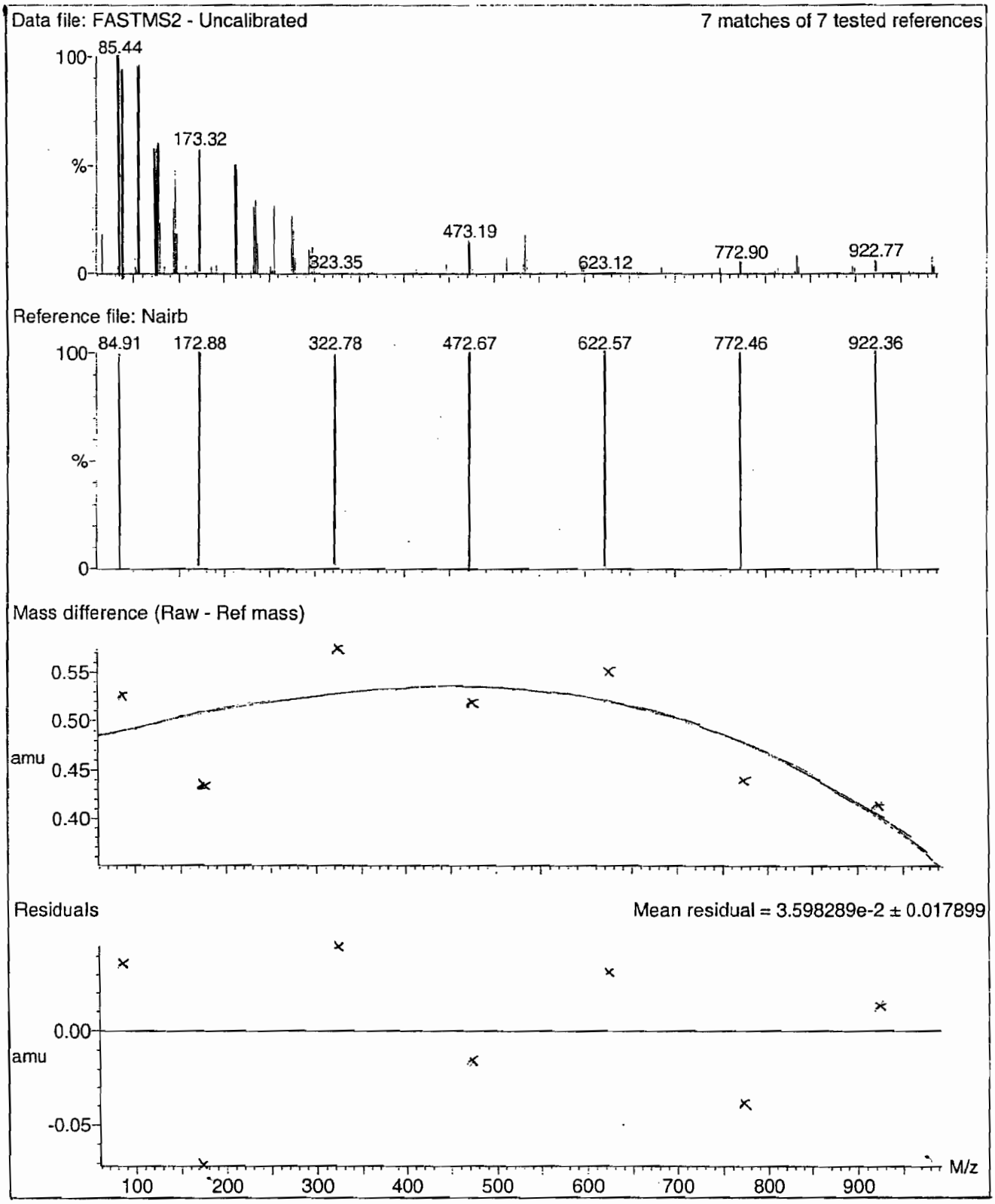
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Printed: Tue Jan 08 12:21:04 2008



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

Printed: Tue Jan 08 12:23:51 2008

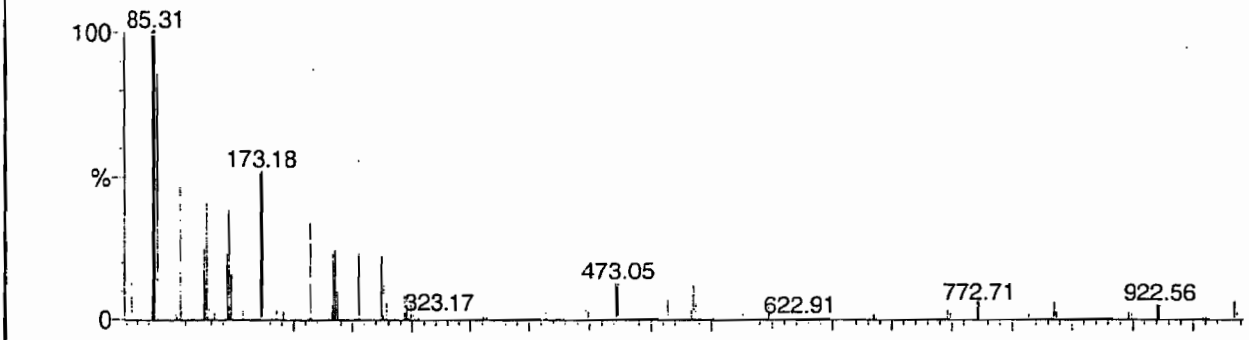


PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

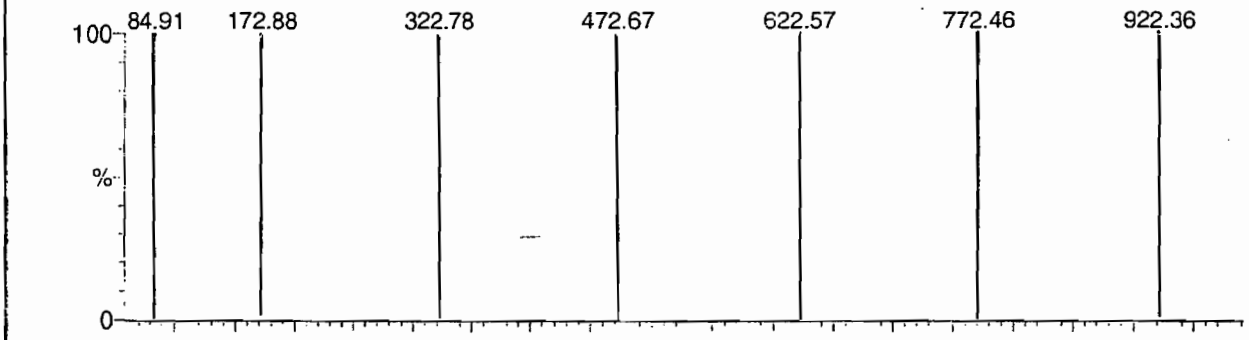
Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

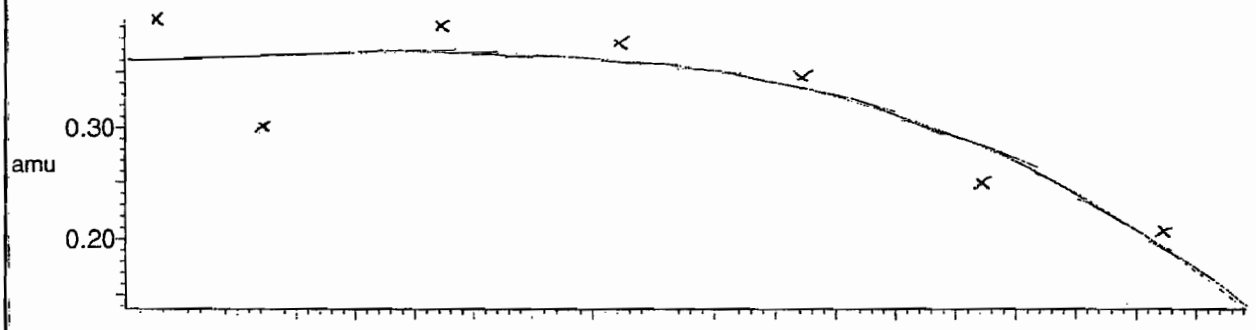
Data file: SCNMS2 - Uncalibrated 7 matches of 7 tested references



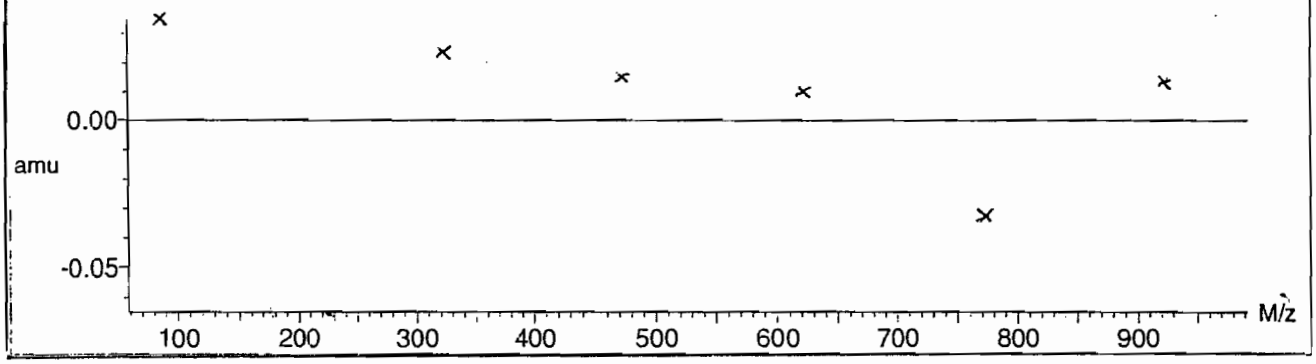
Reference file: Nairb



Mass difference (Raw - Ref mass)



Residuals Mean residual = 2.782494e-2 ± 0.017442



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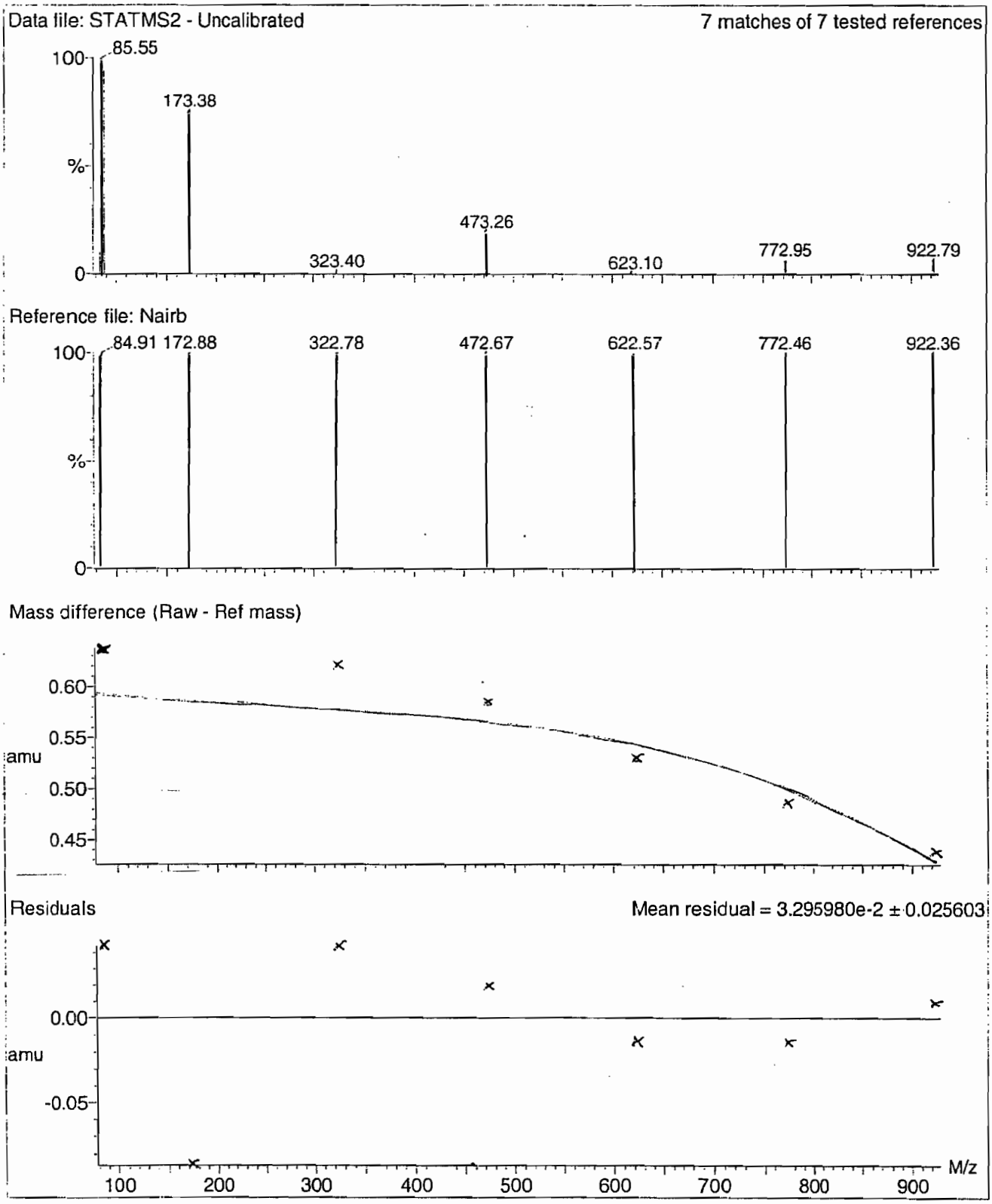
Calibration Report - MS2 Static

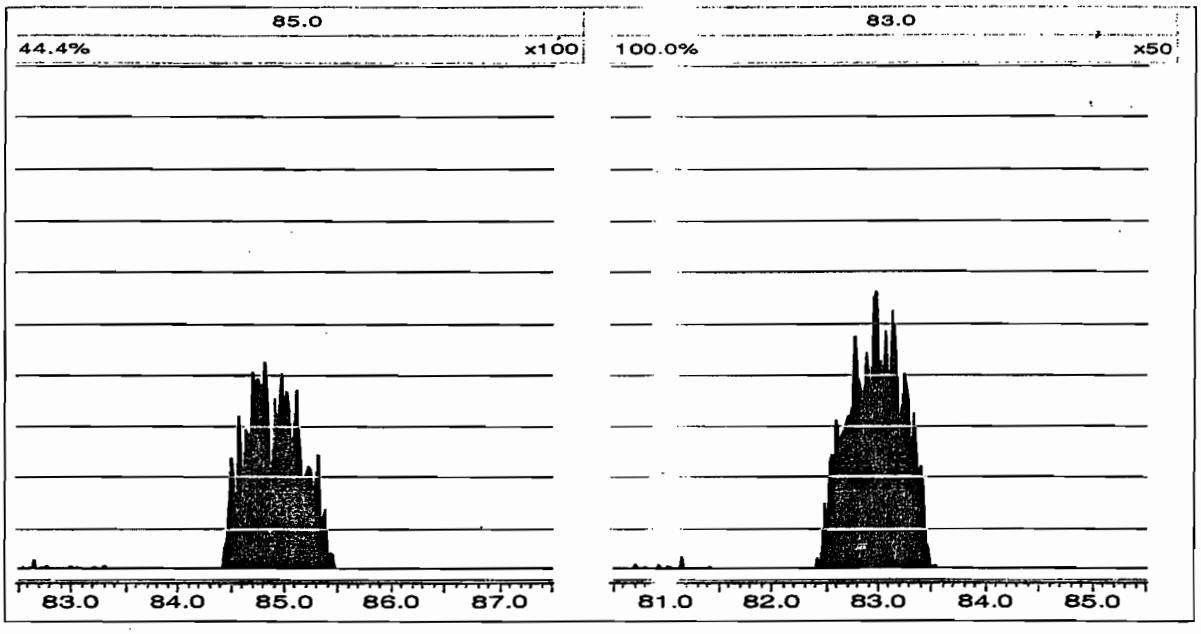
Printed: Tue Jan 08 12:21:59 2008



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

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

Printed: Monday, February 08, 2010 12:29:43 Eastern Standard Time



Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511–1

Lab Code: GEL

Instrument ID: LCMSMS

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

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0208006a**	**08–FEB–10**	**24441.6**				
Lower Area Limit			**12220.8**				
Upper Area Limit			**48883.2**				
1202035565	per0208050a	08–FEB–10 19:15	22209.3	1.88	1.89273	1.007	
1202035566	per0208051a	08–FEB–10 19:21	23514.8	1.88	1.89277	1.007	
1202035573	per0208052a	08–FEB–10 19:28	23733.6	1.93	1.94248	1.006	
245965001	per0208065a	08–FEB–10 20:53	22596.3	1.88	1.89275	1.007	

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SAMPLE DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-7326

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511-1

GEL Sample ID: 245965001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 20:53	per0208065a
	Perchlorate Isotope Ratio						1	08-FEB-10 20:53	per0208065a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 20:53	per0208065a
	Perchlorate-O(18)			0.465	ug/L		1	08-FEB-10 20:53	per0208065a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

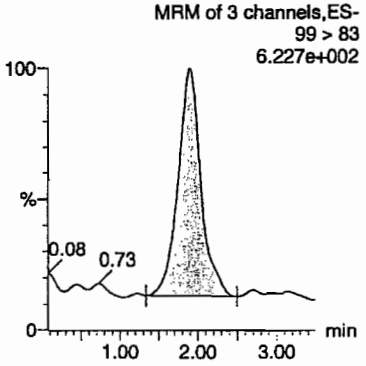
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208065a
Date: 08-Feb-2010
Time: 20:53:36
ID: 245965001
Vial: 2:3,A

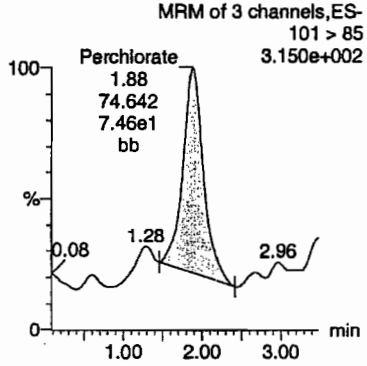
LANL|950028|L22|11

GW 02-24-10

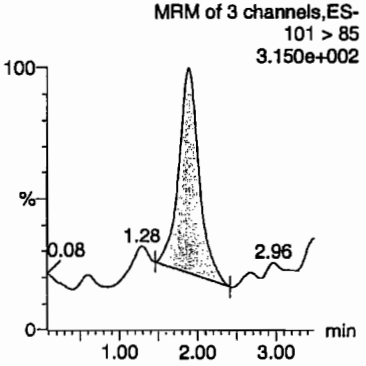
Perchlorate



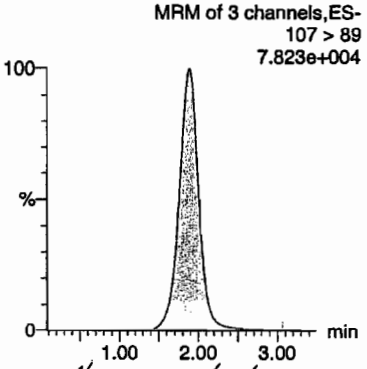
Perchlorate



Perchlorate-101



Perchlorate-O(18)



MM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245965001	Perchlorate	99 > 83	1.89	186.082	186.082	bb			0.0031			34.822	2.49
245965001	Perchlorate-101	101 > 85	1.88	74.642	74.642	bb			0.0040			32.265	
245965001	Perchlorate-O(18)	107 > 89	1.88	22596.332	22596.332	bb			0.4646	92.91	-7.09	3161.5...	

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

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1511-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08-FEB-10

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

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

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 59530.66

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511–1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08–FEB–10

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

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

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 18771.12

Response Type: External Standard

Curve Type: RF

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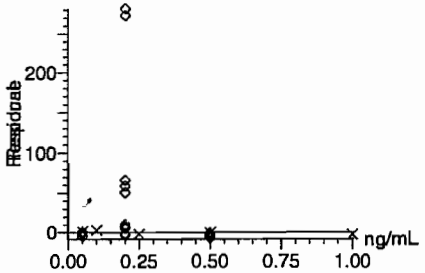
uantify Calibration Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

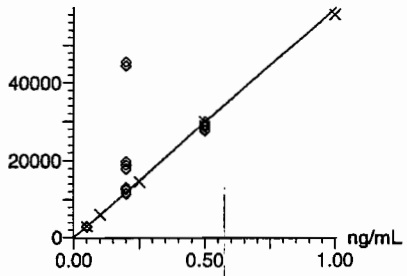
ataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

ast Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
rinted: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

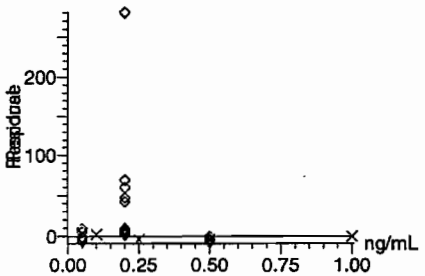
lethod: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59
alibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17

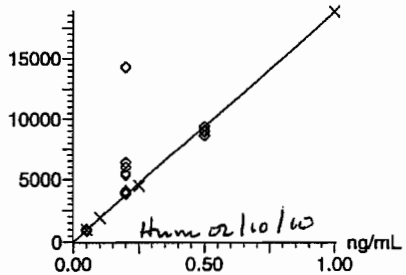
ompound name: Perchlorate
esponse Factor: 59530.6
RF SD: 1393.77, % Relative SD: 2.34126
esponse type: External Std, Area
urve type: RF





ompound name: Perchlorate-101
esponse Factor: 18771.1
RF SD: 687.466, % Relative SD: 3.66236
esponse type: External Std, Area
urve type: RF





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

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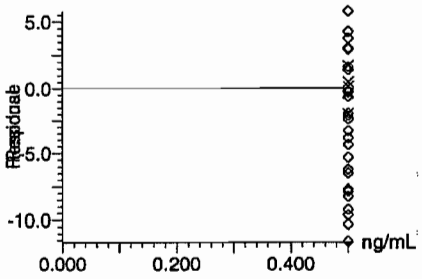
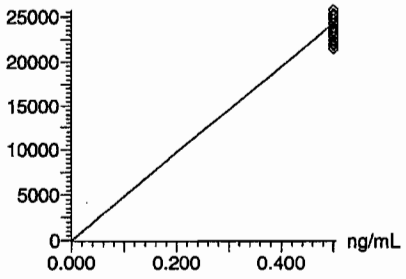
Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 48640
RRF SD: 647.782, % Relative SD: 1.33179
Response type: External Std, Area
Curve type: RF





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

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	100.59	08–FEB–10 14:46	per0208009a
Perchlorate Isotope Ratio		3.19		08–FEB–10 14:46	per0208009a
Perchlorate–101	.5	.5	99.88	08–FEB–10 14:46	per0208009a

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

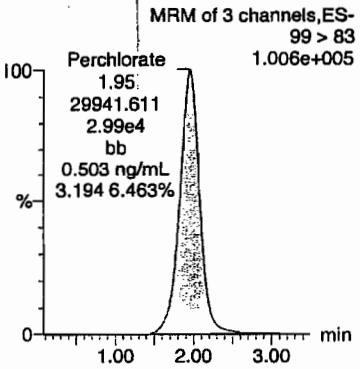
)ataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

.ast Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
'rinted: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

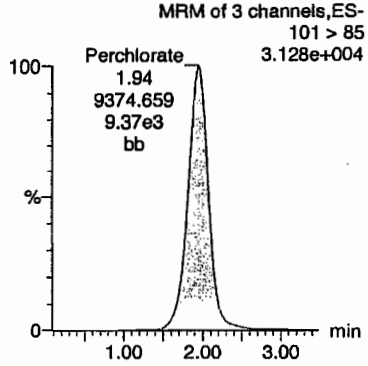
lame: per0208009a
)ate: 08-Feb-2010
'ime: 14:46:32
): WCL100128-06ICV
'ial: 1:2,A

P2D
CWO
02-09-10

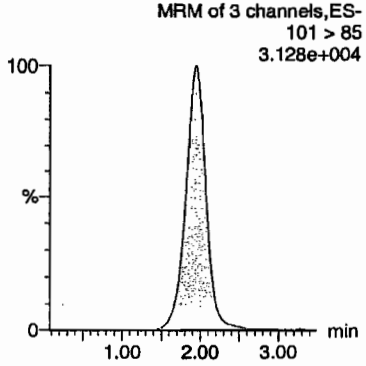
'erchlorate



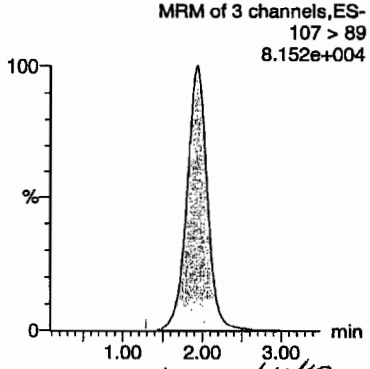
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Have w/ 10/16

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100128-06ICV	Perchlorate	99 > 83	1.95	29941.611	29941.611	bb			0.5030	100.59	0.59	5446.9...	3.19
VCL100128-06ICV	Perchlorate-101	101 > 85	1.94	9374.659	9374.659	bb			0.4994	99.88	-0.12	264.354	
VCL100128-06ICV	Perchlorate-O(18)	107 > 89	1.93	24277.504	24277.504	bb			0.4991	99.83	-0.17	3258.6...	

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

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.49	08–FEB–10 16:05	per0208021a
Perchlorate Isotope Ratio		3.13		08–FEB–10 16:05	per0208021a
Perchlorate–101	.5	.5	99.83	08–FEB–10 16:05	per0208021a
Perchlorate	.5	.49	97.32	08–FEB–10 17:30	per0208034a
Perchlorate Isotope Ratio		3.24		08–FEB–10 17:30	per0208034a
Perchlorate–101	.5	.48	95.26	08–FEB–10 17:30	per0208034a
Perchlorate	.5	.48	95.6	08–FEB–10 18:55	per0208047a
Perchlorate Isotope Ratio		3.13		08–FEB–10 18:55	per0208047a
Perchlorate–101	.5	.49	97	08–FEB–10 18:55	per0208047a
Perchlorate	.5	.47	93.45	08–FEB–10 20:20	per0208060a
Perchlorate Isotope Ratio		3.05		08–FEB–10 20:20	per0208060a
Perchlorate–101	.5	.49	97.09	08–FEB–10 20:20	per0208060a
Perchlorate	.5	.48	96.67	08–FEB–10 21:45	per0208073a

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.22		08–FEB–10 21:45	per0208073a
Perchlorate–101	.5	.48	95.12	08–FEB–10 21:45	per0208073a

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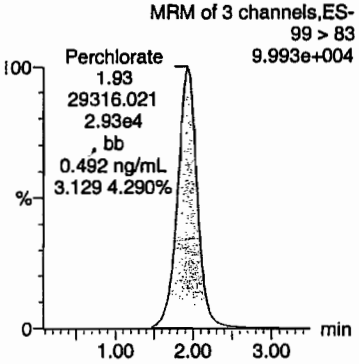
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

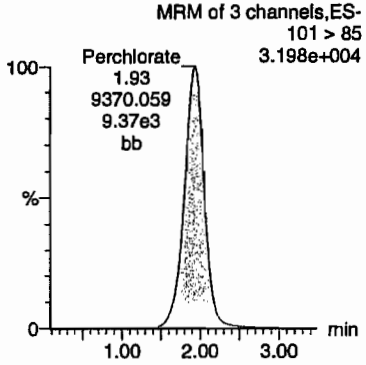
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208021a
Date: 08-Feb-2010
Time: 16:05:12
ID: WCL100128-06CCV
Vial: 1:2,A

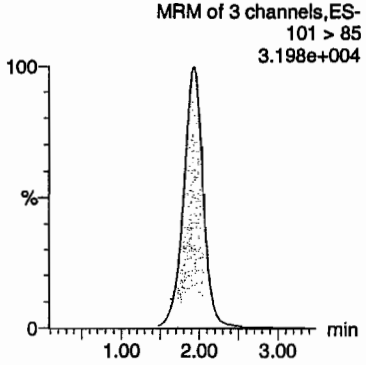
Perchlorate



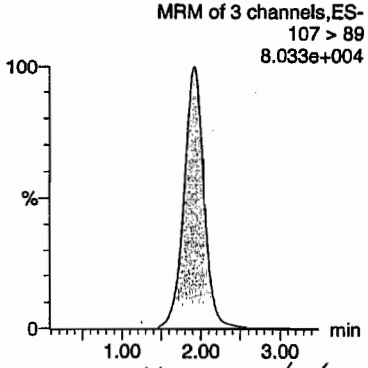
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.93	29316.021	29316.021	bb			0.4925	98.49	-1.51	1324.3...	3.13
WCL100128-06CCV	Perchlorate-101	101 > 85	1.93	9370.059	9370.059	bb			0.4992	99.83	-0.17	4157.5...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.92	23385.551	23385.551	bb			0.4808	96.16	-3.84	3253.6...	

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

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

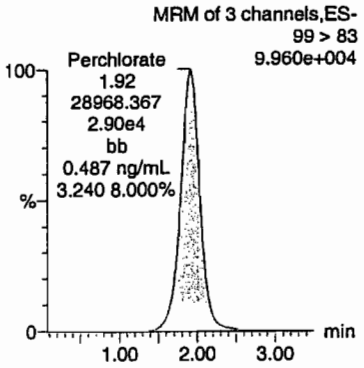
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

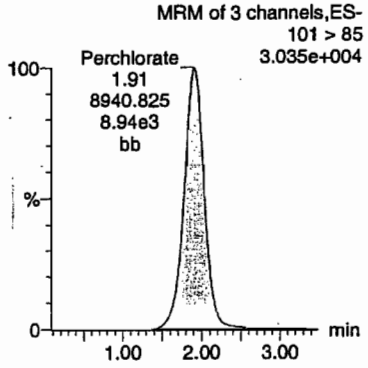
Name: per0208034a
Date: 08-Feb-2010
Time: 17:30:17
ID: WCL100128-06CCV
Vial: 1:2,A

Pwb
AW
02-09-10

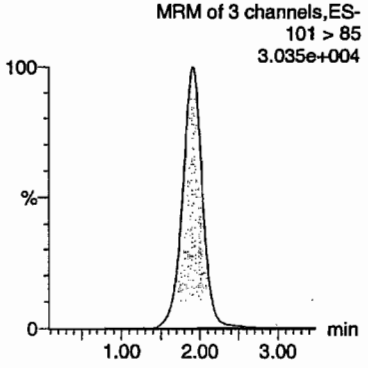
Perchlorate



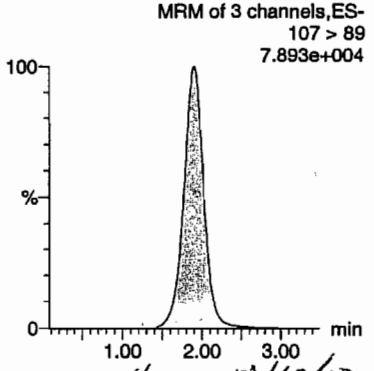
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.92	28968.367	28968.367	bb			0.4866	97.32	-2.68	7606.4...	3.24
WCL100128-06CCV	Perchlorate-101	101 > 85	1.91	8940.825	8940.825	bb			0.4763	95.26	-4.74	3381.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.91	23019.350	23019.350	bb			0.4733	94.65	-5.35	4411.7...	

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

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

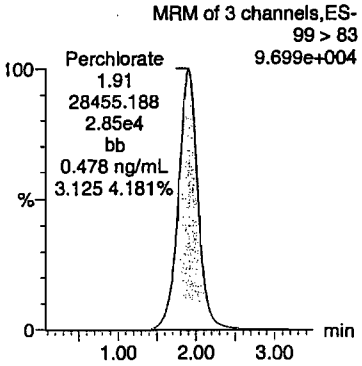
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

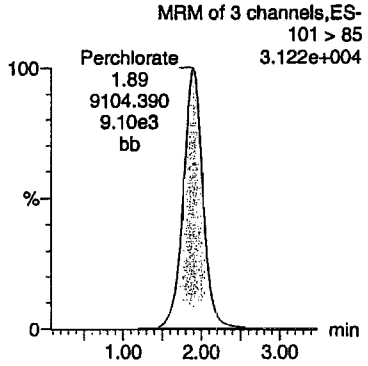
Name: per0208047a
Date: 08-Feb-2010
Time: 18:55:25
ID: WCL100128-06CCV
Vial: 1:2,A

Rev
DJW
02-09-10

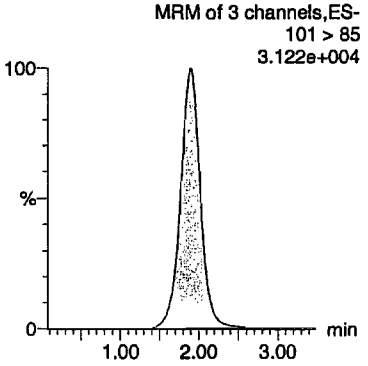
Perchlorate



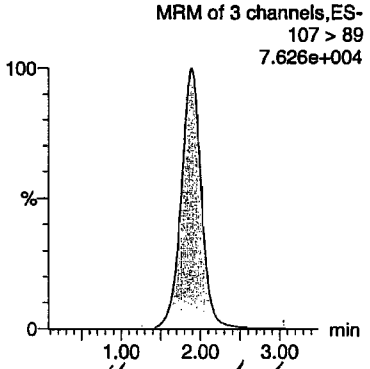
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmw 2/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.91	28455.188	28455.188	bb			0.4780	95.60	-4.40	6190.9...	3.13
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	9104.390	9104.390	bb			0.4850	97.00	-3.00	681.071	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22404.150	22404.150	bb			0.4606	92.12	-7.88	2959.4...	

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

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

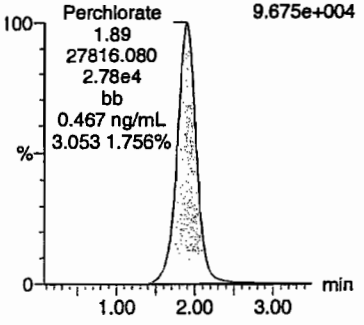
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

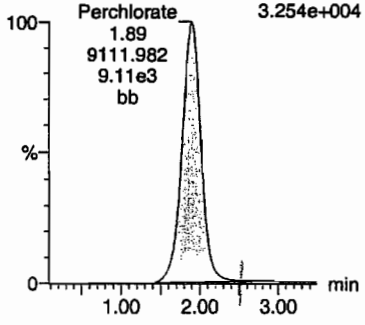
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208060a
Date: 08-Feb-2010
Time: 20:20:32
ID: WCL100128-06CCV
Vial: 1:2,A

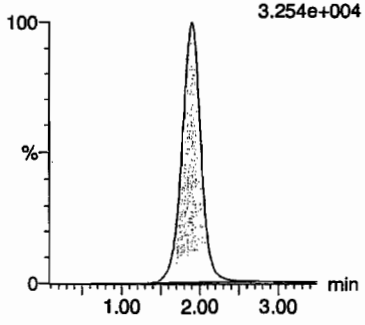
Perchlorate
MRM of 3 channels,ES-
99 > 83
9.675e+004



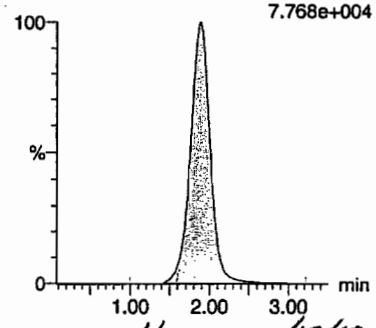
Perchlorate
MRM of 3 channels,ES-
101 > 85
3.254e+004



Perchlorate-101
MRM of 3 channels,ES-
101 > 85
3.254e+004



Perchlorate-O(18)
MRM of 3 channels,ES-
107 > 89
7.768e+004



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.89	27816.080	27816.080	bb			0.4673	93.45	-6.55	1799.5...	3.05
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	9111.982	9111.982	bb			0.4854	97.09	-2.91	1434.4...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22435.383	22435.383	bb			0.4613	92.25	-7.75	1805.8...	

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

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The GEL Group, LLC Analyst: Charlers W. Wilson

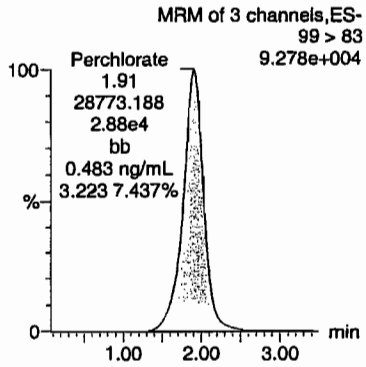
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

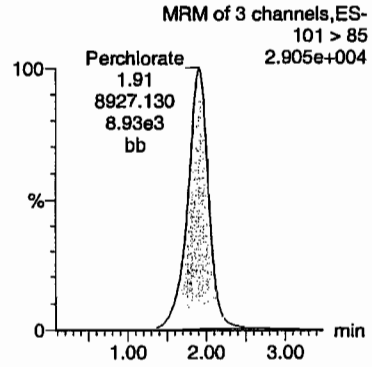
Name: per0208073a
Date: 08-Feb-2010
Time: 21:45:55
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-09-10

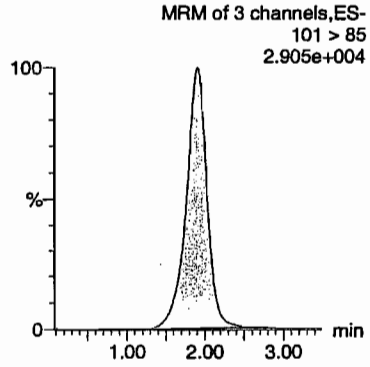
Perchlorate



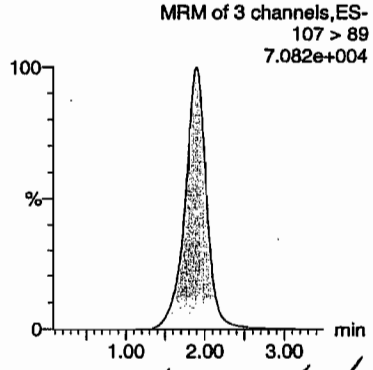
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.91	28773.188	28773.188	bb			0.4833	96.67	-3.33	3174.1...	3.22
WCL100128-06CCV	Perchlorate-101	101 > 85	1.91	8927.130	8927.130	bb			0.4756	95.12	-4.88	5417.8...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22077.664	22077.664	bb			0.4539	90.78	-9.22	7805.6...	

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

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

Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1511-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	101.73	08-FEB-10 14:59	per0208011a
Perchlorate Isotope Ratio		2.96		08-FEB-10 14:59	per0208011a
Perchlorate-101	.05	.05	109.1	08-FEB-10 14:59	per0208011a
Perchlorate	.05	.05	100.29	08-FEB-10 16:18	per0208023a
Perchlorate Isotope Ratio		3.21		08-FEB-10 16:18	per0208023a
Perchlorate-101	.05	.05	98.94	08-FEB-10 16:18	per0208023a
Perchlorate	.05	.05	101.53	08-FEB-10 17:43	per0208036a
Perchlorate Isotope Ratio		3.05		08-FEB-10 17:43	per0208036a
Perchlorate-101	.05	.05	105.49	08-FEB-10 17:43	per0208036a
Perchlorate	.05	.05	101.45	08-FEB-10 19:08	per0208049a
Perchlorate Isotope Ratio		3.36		08-FEB-10 19:08	per0208049a

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

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1511-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.05	.05	95.78	08-FEB-10 19:08	per0208049a
Perchlorate	.05	.05	97.2	08-FEB-10 20:33	per0208062a
Perchlorate Isotope Ratio		3.14		08-FEB-10 20:33	per0208062a
Perchlorate-101	.05	.05	98.24	08-FEB-10 20:33	per0208062a
Perchlorate	.05	.05	99.1	08-FEB-10 21:59	per0208075a
Perchlorate Isotope Ratio		3.16		08-FEB-10 21:59	per0208075a
Perchlorate-101	.05	.05	99.59	08-FEB-10 21:59	per0208075a

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

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

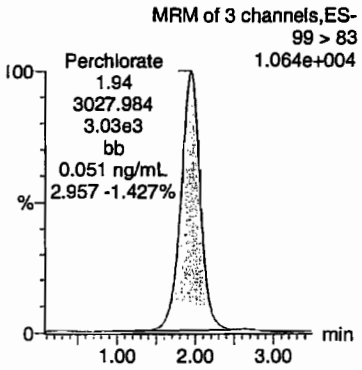
)ataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

.ast Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
'rinted: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

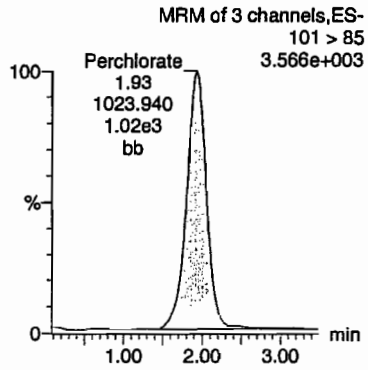
lame: per0208011a
)ate: 08-Feb-2010
'ime: 14:59:36
D: WCL100128-07CRI
'ial: 1:2,B

Pwn
CWJ
02-09-10

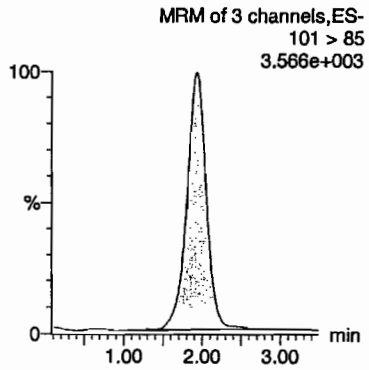
'erchlorate



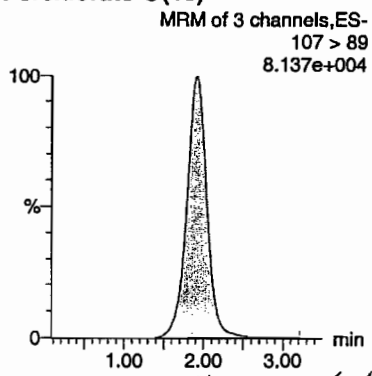
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hnm 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100128-07CRI	Perchlorate	99 > 83	1.94	3027.984	3027.984	bb			0.0509	101.73	1.73	849.198	2.96
VCL100128-07CRI	Perchlorate-101	101 > 85	1.93	1023.940	1023.940	bb			0.0545	109.10	9.10	829.276	
VCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.92	23852.451	23852.451	bb			0.4904	98.08	-1.92	6658.6...	

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

The GEL Group, LLC Analyst: Charlers W. Wilson

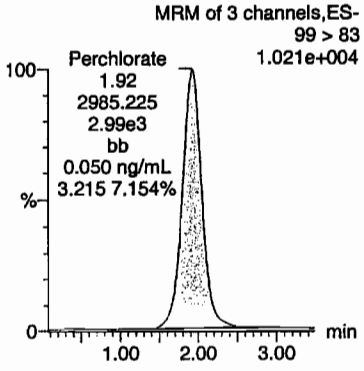
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altefed: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

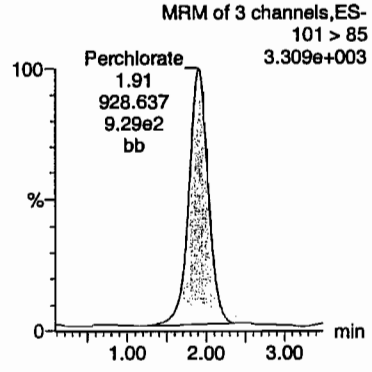
Name: per0208023a
Date: 08-Feb-2010
Time: 16:18:17
ID: WCL100128-07CRI
Vial: 1:2,B

Pms
ams
02-09-10

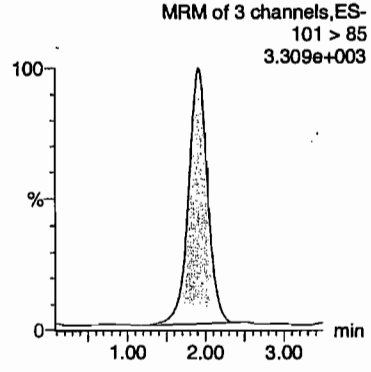
Perchlorate



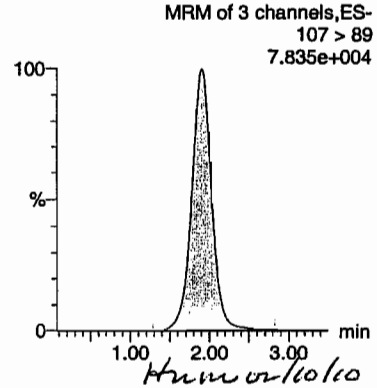
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.92	2985.225	2985.225	bb			0.0501	100.29	0.29	2277.7...	3.21
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	928.637	928.637	bb			0.0495	98.94	-1.06	1285.2...	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.91	22805.957	22805.957	bb			0.4689	93.77	-6.23	2391.8...	

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

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

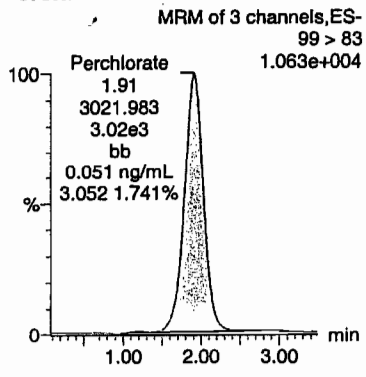
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

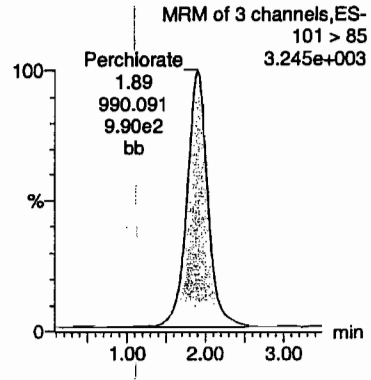
Name: per0208036a
Date: 08-Feb-2010
Time: 17:43:22
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
and
02-09-10

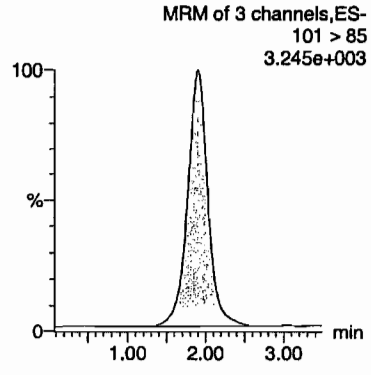
Perchlorate



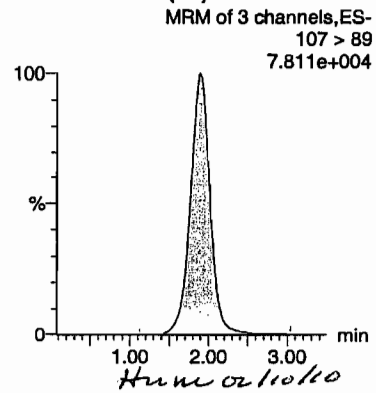
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	3021.983	3021.983	bb			0.0508	101.53	1.53	1282.6...	3.05
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	990.091	990.091	bb			0.0527	105.49	5.49	30.390	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	22734.426	22734.426	bb			0.4674	93.48	-6.52	4696.0...	

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

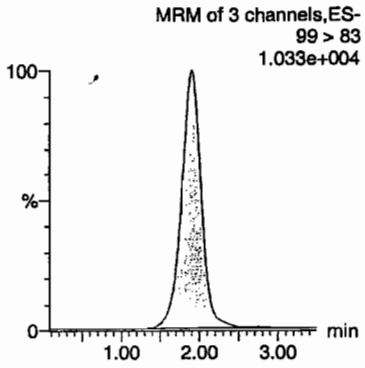
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

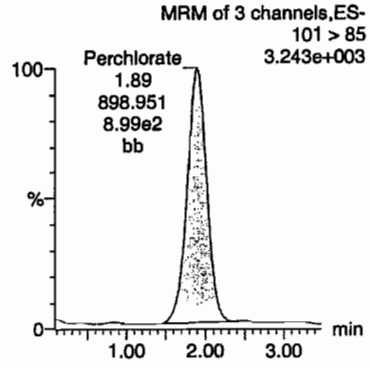
Name: per0208049a
Date: 08-Feb-2010
Time: 19:08:31
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
aw
02-09-10

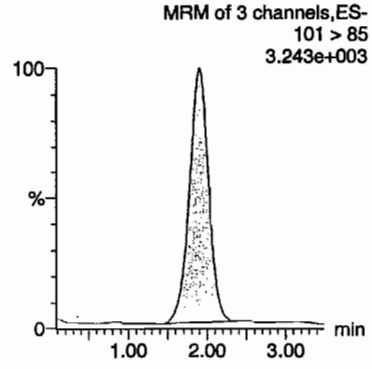
Perchlorate



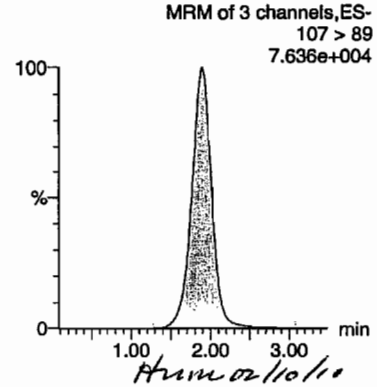
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Anm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	3019.704	3019.704	bb			0.0507	101.45	1.45	1111.1...	3.36
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	898.951	898.951	bb			0.0479	95.78	-4.22	607.346	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	22316.896	22316.896	bb			0.4588	91.76	-8.24	6290.4...	

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

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

The GEL Group, LLC Analyst: Charlers W. Wilson

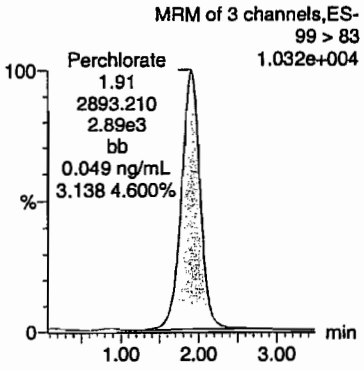
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

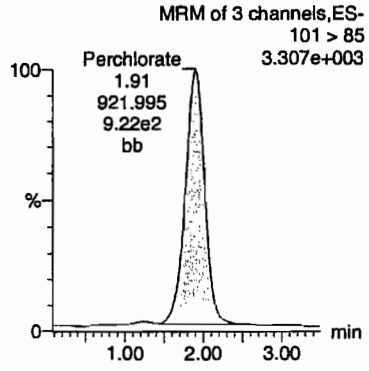
Per
and
02-09-10

Name: per0208062a
Date: 08-Feb-2010
Time: 20:33:51
ID: WCL100128-07CRI
Vial: 1:2,B

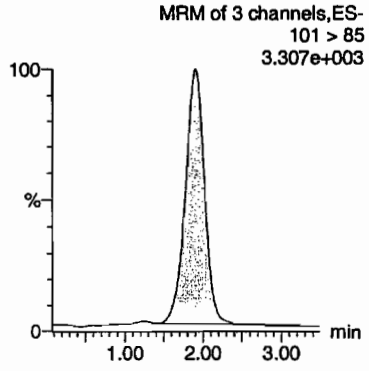
Perchlorate



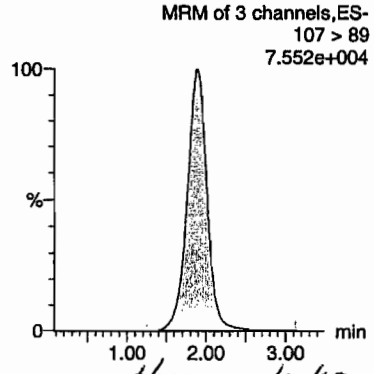
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	2893.210	2893.210	bb			0.0486	97.20	-2.80	767.866	3.14
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	921.995	921.995	bb			0.0491	98.24	-1.76	510.313	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	21979.691	21979.691	bb			0.4519	90.38	-9.62	1938.1...	

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

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

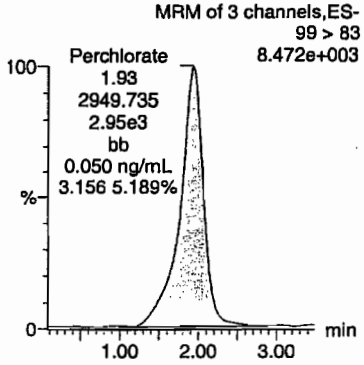
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

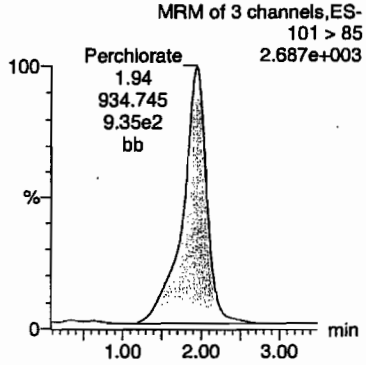
Name: per0208075a
Date: 08-Feb-2010
Time: 21:59:15
ID: WCL100128-07CRI
Vial: 1:2,B

Pass and 02-24-10

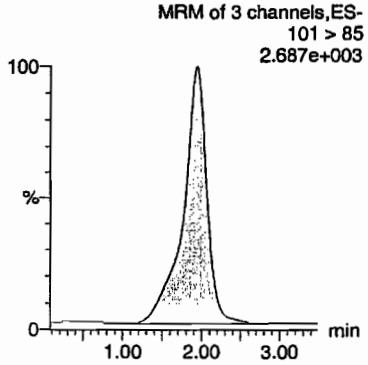
Perchlorate



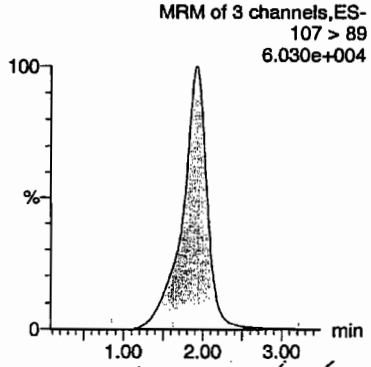
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Human 11/6/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.93	2949.735	2949.735	bb			0.0495	99.10	-0.90	555.102	3.16
WCL100128-07CRI	Perchlorate-101	101 > 85	1.94	934.745	934.745	bb			0.0498	99.59	-0.41	523.923	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.93	21809.545	21809.545	bb			0.4484	89.68	-10.32	1949.9...	

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 07-FEB-10

GEL Job No (SDG): 10-1511-1

GEL Sample ID: 1202035565

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 19:15	per0208050a
	Perchlorate Isotope Ratio						1	08-FEB-10 19:15	per0208050a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 19:15	per0208050a
	Perchlorate-O(18)			0.457	ug/L		1	08-FEB-10 19:15	per0208050a

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

*Concentration =

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

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Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

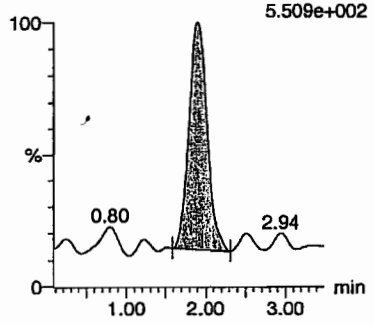
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208050a
Date: 08-Feb-2010
Time: 19:15:05
ID: 1202035565
Vial: 2:1,A

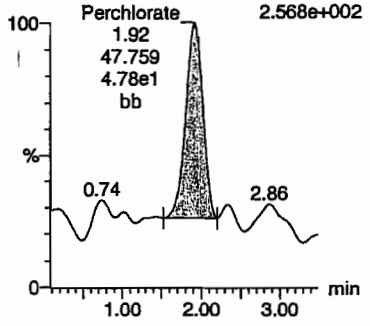
LANL | 950028 | LCQ | MB | 11

GWJ 02-09-10

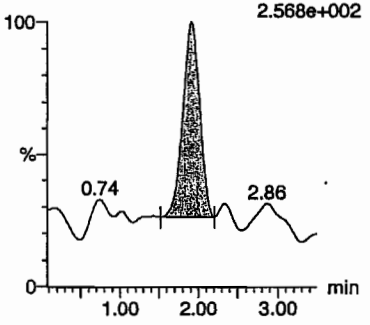
Perchlorate



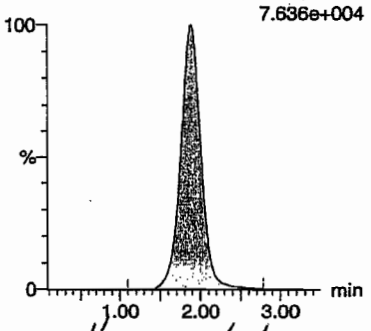
Perchlorate



Perchlorate-101



Perchlorate-O(18)



dmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035565	Perchlorate	99 > 83	1.89	121.925	121.925	bb			0.0020			39.295	2.55
1202035565	Perchlorate-101	101 > 85	1.92	47.759	47.759	bb			0.0025			14.790	
1202035565	Perchlorate-O(18)	107 > 89	1.88	22209.346	22209.346	bb			0.4566	91.32	-8.68	5376.4...	

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 07-FEB-10

GEL Job No (SDG): 10-1511-1

GEL Sample ID: 1202035566

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.196	ug/L	J	1	08-FEB-10 19:21	per0208051a
	Perchlorate Isotope Ratio			3.01			1	08-FEB-10 19:21	per0208051a
14797-73-0	Perchlorate-101	.05	.2	0.207	ug/L		1	08-FEB-10 19:21	per0208051a
	Perchlorate-O(18)			0.483	ug/L		1	08-FEB-10 19:21	per0208051a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

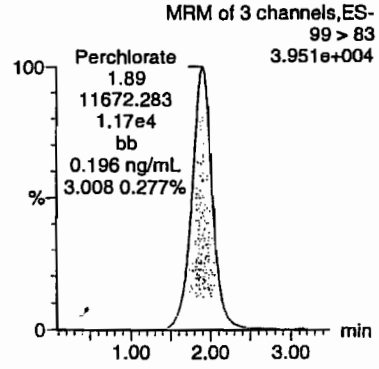
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208051a
Date: 08-Feb-2010
Time: 19:21:48
ID: 1202035566
Vial: 2:1,B

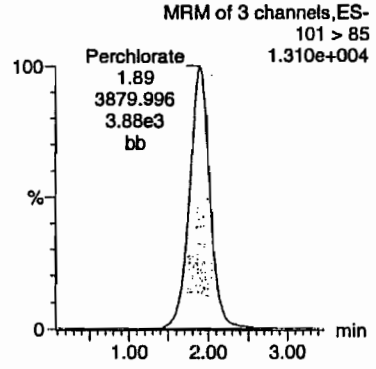
|LANL|950028|L22|LC3|11

GW 02-09-10

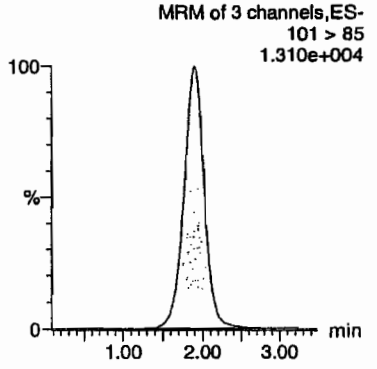
Perchlorate



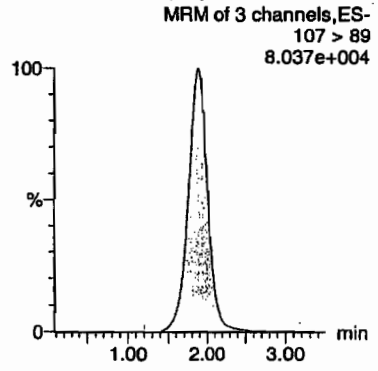
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035566	Perchlorate	99 > 83	1.89	11672.283	11672.283	bb			0.1961	98.04	-1.96	1706.5...	3.01
1202035566	Perchlorate-101	101 > 85	1.89	3879.996	3879.996	bb			0.2067	103.35	3.35	835.288	
1202035566	Perchlorate-O(18)	107 > 89	1.88	23514.770	23514.770	bb			0.4834	96.69	-3.31	6317.6...	

$\frac{11672.283}{59530.6} = 0.1961$

HMW 02/10/10

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

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MISCELLANEOUS DATA

Prep Logbook

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

Batch ID: 950027 **Verified by:** _____
Analyst: Charles Wilson
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202035565 MB	07-FEB-2010 14:31:00	10	10	1
1202035566 LCS	07-FEB-2010 14:31:00	10	10	1
245911001	07-FEB-2010 14:31:00	10	10	1
1202035571 MS (245911001)	07-FEB-2010 14:31:00	10	10	1
1202035572 MSD (245911001)	07-FEB-2010 14:31:00	10	10	1
245922001	07-FEB-2010 14:31:00	10	10	1
245934001	07-FEB-2010 14:31:00	10	10	1
245934004	07-FEB-2010 14:31:00	10	10	1
245939001	07-FEB-2010 14:31:00	10	10	1
245939002	07-FEB-2010 14:31:00	10	10	1
245953001	07-FEB-2010 14:31:00	10	10	1
245965001	07-FEB-2010 14:31:00	10	10	1
245975001	07-FEB-2010 14:31:00	10	10	1
245981001	07-FEB-2010 14:31:00	10	10	1
246000001	07-FEB-2010 14:31:00	10	10	1
246007001	07-FEB-2010 14:31:00	10	10	1
246056001	07-FEB-2010 14:31:00	10	10	1
246056002	07-FEB-2010 14:31:00	10	10	1
246056003	07-FEB-2010 14:31:00	10	10	1
246056004	07-FEB-2010 14:31:00	10	10	1
246375001	07-FEB-2010 14:31:00	10	10	1
1202035567 MS (246375001)	07-FEB-2010 14:31:00	10	10	1
1202035568 MSD (246375001)	07-FEB-2010 14:31:00	10	10	1
1202035573 ICS	07-FEB-2010 14:31:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035573	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
LCS	1202035566	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MS	1202035567	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MS	1202035571	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MSD	1202035568	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MSD	1202035572	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
RGNT	All	O2SI HPLC Grade Water	1246195	10	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL

Comments:

Desalting cartridges used: 100105-1-H & 091118-1-Ba

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 02/08/10 Method: EPA 6850-Modified Reviewed BY: Hnm
Extr. Injection Volume: 20uL Int. Std.: UCL100122-01 Date: 02/10/10
Sequence Number: per020810a Mobile Phase Lot#: 1254342, 1261217 SOP: GL-OA-E-067 Rev.6
Initial Calibration Date: 02/08/10 Standard-Samp Reagent Lot#:: 1233976 Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0208001a	IPB001	CWW	2/8/2010 13:54			1		USE	B
per0208002a	IPB001	CWW	2/8/2010 14:00			1		USE	B
per0208003a	WCLICAL-01	CWW	2/8/2010 14:07			1		USE	I
per0208004a	WCLICAL-02	CWW	2/8/2010 14:13			1		USE	I
per0208005a	WCLICAL-03	CWW	2/8/2010 14:20			1		USE	I
per0208006a	WCLICAL-04	CWW	2/8/2010 14:26			1		USE	I
per0208007a	WCLICAL-05	CWW	2/8/2010 14:33			1		USE	I
per0208008a	IPB002	CWW	2/8/2010 14:40			1		USE	B
per0208009a	WCLICV	CWW	2/8/2010 14:46			1		USE	C
per0208010a	IPB003	CWW	2/8/2010 14:53			1		USE	B
per0208011a	WCLCRI	CWW	2/8/2010 14:59			1		USE	C
per0208012a	1202035621	CWW	2/8/2010 15:06	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208013a	1202035622	CWW	2/8/2010 15:12	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208014a	1202035625	CWW	2/8/2010 15:19	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208015a	246431001	CWW	2/8/2010 15:25	950048	10-1650	1	LANL	DUSE-RE	S
per0208016a	1202035623	CWW	2/8/2010 15:32	950048	10-1650	1	LANL	DUSE-RE	S
per0208017a	1202035624	CWW	2/8/2010 15:39	950048	10-1650	1	LANL	DUSE-RE	S
per0208018a	246431002	CWW	2/8/2010 15:45	950048	10-1650	1	LANL	DUSE-RE	S
per0208019a	246431003	CWW	2/8/2010 15:52	950048	10-1650	1	LANL	DUSE-RE	S
per0208020a	246431004	CWW	2/8/2010 15:58	950048	10-1650	1	LANL	DUSE-RE	S
per0208021a	WCLCCV	CWW	2/8/2010 16:05			1		USE	C
per0208022a	IPB004	CWW	2/8/2010 16:11			1		USE	B
per0208023a	WCLCRI	CWW	2/8/2010 16:18			1		USE	C
per0208024a	246472001	CWW	2/8/2010 16:24	950048	10-1640	1	LANL	DUSE-RE	S
per0208025a	246472002	CWW	2/8/2010 16:31	950048	10-1640	1	LANL	DUSE-RE	S
per0208026a	IPB005	CWW	2/8/2010 16:37			1		USE	B
per0208027a	1202029082	CWW	2/8/2010 16:44	947249	VARIOUS	1	LANL	USE	S
per0208028a	1202029083	CWW	2/8/2010 16:51	947249	VARIOUS	1	LANL	USE	S
per0208029a	1202029088	CWW	2/8/2010 16:57	947249	VARIOUS	1	LANL	USE	S

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per0208030a	245605003	CWW	2/8/2010 17:04	947249	10-1413	200	LANL	USE	S
per0208031a	245608002	CWW	2/8/2010 17:10	947249	10-1415	1	LANL	USE	S
per0208032a	245673001	CWW	2/8/2010 17:17	947249	10-1442	100	LANL	USE	S
per0208033a	245673003	CWW	2/8/2010 17:23	947249	10-1442	200	LANL	USE	S
per0208034a	WCLCCV	CWW	2/8/2010 17:30			1		USE	C
per0208035a	IPB006	CWW	2/8/2010 17:36			1		USE	B
per0208036a	WCLCRI	CWW	2/8/2010 17:43			1		USE	C
per0208037a	245673006	CWW	2/8/2010 17:49	947249	10-1442	200	LANL	USE	S
per0208038a	245676001	CWW	2/8/2010 17:56	947249	10-1446	1	LANL	USE	S
per0208039a	1202029086	CWW	2/8/2010 18:03	947249	10-1446	1	LANL	USE	S
per0208040a	1202029087	CWW	2/8/2010 18:09	947249	10-1446	1	LANL	USE	S
per0208041a	245791001	CWW	2/8/2010 18:16	947249	10-1467	1	LANL	USE	S
per0208042a	1202029084	CWW	2/8/2010 18:22	947249	10-1467	1	LANL	USE	S
per0208043a	1202029085	CWW	2/8/2010 18:29	947249	10-1467	1	LANL	USE	S
per0208044a	245791003	CWW	2/8/2010 18:35	947249	10-1467	1	LANL	USE	S
per0208045a	245791006	CWW	2/8/2010 18:42	947249	10-1467	1	LANL	USE	S
per0208046a	245791007	CWW	2/8/2010 18:48	947249	10-1467	1	LANL	USE	S
per0208047a	WCLCCV	CWW	2/8/2010 18:55			1		USE	C
per0208048a	IPB007	CWW	2/8/2010 19:01			1		USE	B
per0208049a	WCLCRI	CWW	2/8/2010 19:08			1		USE	C
per0208050a	1202035565	CWW	2/8/2010 19:15	950028	VARIOUS	1	LANL	USE	S
per0208051a	1202035566	CWW	2/8/2010 19:21	950028	VARIOUS	1	LANL	USE	S
per0208052a	1202035573	CWW	2/8/2010 19:28	950028	VARIOUS	1	LANL	USE	S
per0208053a	245911001	CWW	2/8/2010 19:34	950028	10-1487-1	1	LANL	USE	S
per0208054a	1202035571	CWW	2/8/2010 19:41	950028	10-1487-1	1	LANL	USE	S
per0208055a	1202035572	CWW	2/8/2010 19:47	950028	10-1487-1	1	LANL	USE	S
per0208056a	245922001	CWW	2/8/2010 19:54	950028	10-1493-1	1	LANL	USE	S
per0208057a	245934001	CWW	2/8/2010 20:00	950028	10-1502	1	LANL	DUSE-DL	S
per0208058a	245934004	CWW	2/8/2010 20:07	950028	10-1502	1	LANL	DUSE-RA	S
per0208059a	245939001	CWW	2/8/2010 20:14	950028	10-1506-1	1	LANL	USE	S
per0208060a	WCLCCV	CWW	2/8/2010 20:20			1		USE	C
per0208061a	IPB008	CWW	2/8/2010 20:27			1		USE	B
per0208062a	WCLCRI	CWW	2/8/2010 20:33			1		USE	C
per0208063a	245939002	CWW	2/8/2010 20:40	950028	10-1506-1	1	LANL	USE	S
per0208064a	245953001	CWW	2/8/2010 20:47	950028	10-1508-1	1	LANL	USE	S
per0208065a	245965001	CWW	2/8/2010 20:53	950028	10-1511-1	1	LANL	USE	S
per0208066a	245975001	CWW	2/8/2010 21:00	950028	10-1512-1	1	LANL	USE	S

per0208067a	245981001	CWW	2/8/2010 21:06	950028	10-1514-1	1	LANL	USE	S
per0208068a	246000001	CWW	2/8/2010 21:13	950028	10-1517-1	1	LANL	USE	S
per0208069a	246007001	CWW	2/8/2010 21:19	950028	10-1520-1	1	LANL	USE	S
per0208070a	246056001	CWW	2/8/2010 21:26	950028	10-1545-1	1	LANL	USE	S
per0208071a	246056002	CWW	2/8/2010 21:32	950028	10-1545-1	1	LANL	USE	S
per0208072a	246056003	CWW	2/8/2010 21:39	950028	10-1545-1	1	LANL	USE	S
per0208073a	WCLCCV	CWW	2/8/2010 21:45			1		USE	C
per0208074a	IPB009	CWW	2/8/2010 21:52			1		USE	B
per0208075a	WCLCRI	CWW	2/8/2010 21:59			1		USE	C
per0208076a	246056004	CWW	2/8/2010 22:05	950028	10-1545-1	1	LANL	USE	S
per0208077a	246375001	CWW	2/8/2010 22:12	950028	10-1609	1	LANL	USE	S
per0208078a	1202035567	CWW	2/8/2010 22:19	950028	10-1609	1	LANL	USE	S
per0208079a	1202035568	CWW	2/8/2010 22:25	950028	10-1609	1	LANL	USE	S
per0208080a	IPB010	CWW	2/8/2010 22:32			1		USE	B
per0208081a	1262643 Supp	CWW	2/8/2010 22:38	Screen	Inhouse	1	GEL	DUSE	S
per0208082a	1202035625	CWW	2/8/2010 22:45	950048	VARIOUS	1	LANL	DUSE	S
per0208083a	WCLCCV	CWW	2/8/2010 22:52			1		USE	C
per0208084a	IPB011	CWW	2/8/2010 22:58			1		USE	B
per0208085a	WCLCRI	CWW	2/8/2010 23:05			1		USE	C

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

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

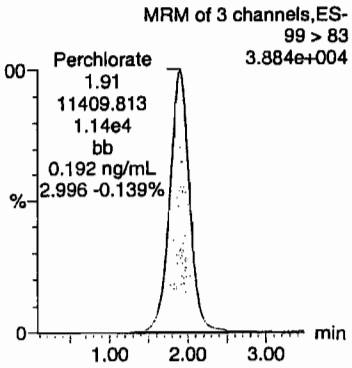
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208054a
Date: 08-Feb-2010
Time: 19:41:23
ID: 1202035571
Vial: 2:1,E

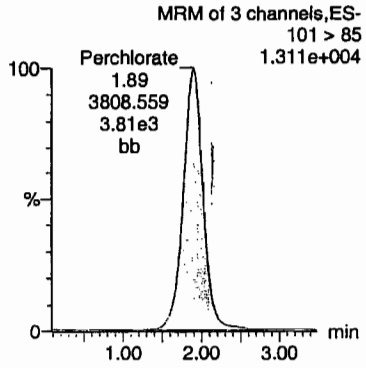
|LANL|950028|LCQ|MS|1|

02-04-10

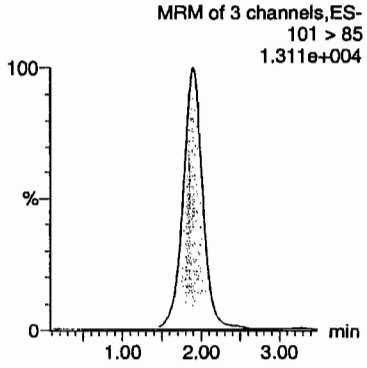
Perchlorate



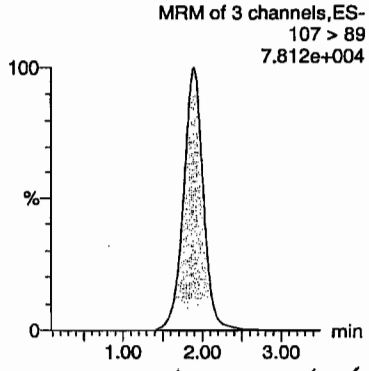
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/10/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035571	Perchlorate	99 > 83	1.91	11409.813	11409.813	bb			0.1917	95.83	-4.17	2471.6...	3.00
1202035571	Perchlorate-101	101 > 85	1.89	3808.559	3808.559	bb			0.2029	101.45	1.45	676.220	
1202035571	Perchlorate-O(18)	107 > 89	1.89	22745.916	22745.916	bb			0.4676	93.53	-6.47	4602.2...	

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

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

ataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

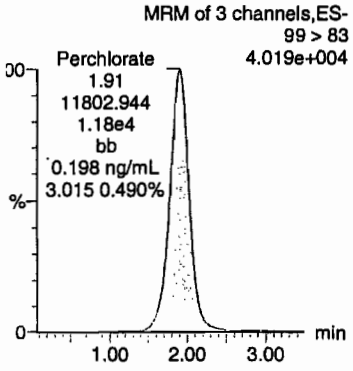
ast Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
rinted: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

ame: per0208055a
ate: 08-Feb-2010
ime: 19:47:53
): 1202035572
ial: 2:1,F

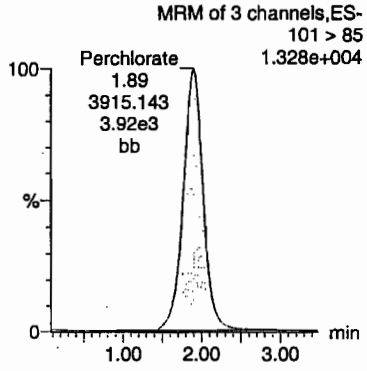
|LANL|950028|LLQ|MSD|1|

02-09-10

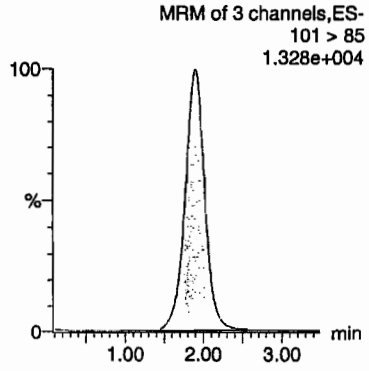
erchlorate



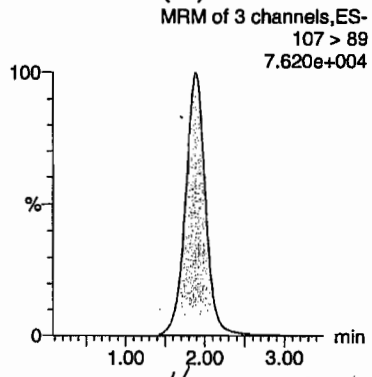
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/10/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202035572	Perchlorate	99 > 83	1.91	11802.944	11802.944	bb			0.1983	99.13	-0.87	5921.1...	3.01
202035572	Perchlorate-101	101 > 85	1.89	3915.143	3915.143	bb			0.2086	104.29	4.29	847.965	
202035572	Perchlorate-O(18)	107 > 89	1.89	22449.852	22449.852	bb			0.4616	92.31	-7.69	7045.6...	

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

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Isotope Ratio Criteria

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

2.31-3.85

Tune Criteria

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

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1511

Sample Analysis

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202032567	Method Blank (MB) **ICP**
1202032572	Laboratory Control Sample (LCS)
1202032569	245938001(RE46-10-11961L) Serial Dilution (SD)
1202032568	245938001(RE46-10-11961D) Sample Duplicate (DUP)
1202032570	245938001(RE46-10-11961S) Matrix Spike (MS)
1202032571	245938001(RE46-10-11961SD) Matrix Spike Duplicate (MSD)
1202032573	Method Blank (MB) **ICP-MS**
1202032578	Laboratory Control Sample (LCS)
1202032575	245938001(RE46-10-11961L) Serial Dilution (SD)

1202032574	245938001(RE46-10-11961D) Sample Duplicate (DUP)
1202032576	245938001(RE46-10-11961S) Matrix Spike (MS)
1202032577	245938001(RE46-10-11961SD) Matrix Spike Duplicate (MSD)
1202039184	Method Blank (MB) **CVAA**
1202039185	Laboratory Control Sample (LCS)
1202039192	246470001(RE16-10-4573L) Serial Dilution (SD)
1202039186	246470001(RE16-10-4573D) Sample Duplicate (DUP)
1202039187	246470001(RE16-10-4573S) Matrix Spike (MS)
1202039193	246470001(RE16-10-4573SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch:	948744, 948748 and 951512
Prep Batch :	948743, 948745 and 951508
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

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

Calibration Information

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

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

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

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

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 245938001 (RE46-10-11961) and 246470001 (RE16-10-4573).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, calcium and magnesium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, calcium and magnesium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of calcium, as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of barium, calcium, chromium, copper, lead and beryllium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

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

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 793579 and 796660. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Kristen Parson **Date:** 3/1/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960001 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7309 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13600000	ug/Kg		7290	21500	21500	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-36-0	Antimony	664	ug/Kg	J	354	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-38-2	Arsenic	1.92	mg/kg		0.22	1.1	1.1	2	MS	RMJ	02/26/10 23:40	100226-3	948748
7440-39-3	Barium	205000	ug/Kg		107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-41-7	Beryllium	1.15	mg/kg		0.022	0.11	0.11	2	MS	RMJ	02/27/10 02:08	100226-4	948748
7440-43-9	Cadmium	536	ug/Kg	U	107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-70-2	Calcium	2810000	ug/Kg		8580	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-47-3	Chromium	10700	ug/Kg		161	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-48-4	Cobalt	5820	ug/Kg		161	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-50-8	Copper	8300	ug/Kg		322	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-89-6	Iron	14200000	ug/Kg		8580	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-92-1	Lead	13800	ug/Kg		268	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-95-4	Magnesium	2290000	ug/Kg		9120	32200	32200	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-96-5	Manganese	364000	ug/Kg		215	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-97-6	Mercury	7.97	ug/kg	J	4.17	12.3	12.3	1	AV	JXL1	02/18/10 12:01	021810S1-5	951512
7440-02-0	Nickel	9.06	mg/kg		0.11	0.439	0.439	2	MS	RMJ	02/27/10 02:08	100226-4	948748
7440-09-7	Potassium	1840000	ug/Kg		6870	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.549	1.1	1.1	2	MS	RMJ	02/26/10 23:40	100226-3	948748
7440-22-4	Silver	536	ug/Kg	U	107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-23-5	Sodium	94700	ug/Kg		7510	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-28-0	Thallium	0.240	mg/kg		0.0659	0.22	0.22	2	MS	RMJ	02/26/10 23:40	100226-3	948748
7440-61-1	Uranium	0.908	mg/kg		0.0145	0.0439	0.0439	2	MS	RMJ	02/26/10 08:53	100225-2	948748
7440-62-2	Vanadium	27900	ug/Kg		107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-66-6	Zinc	27900	ug/Kg		354	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.517	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.505	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.542	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960002 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7308 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9550000	ug/Kg		8750	25700	25700	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-36-0	Antimony	542	ug/Kg	J	425	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-38-2	Arsenic	1.92	mg/kg		0.239	1.2	1.2	2	MS	RMJ	02/26/10 23:44	100226-3	948748
7440-39-3	Barium	161000	ug/Kg		129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-41-7	Beryllium	0.901	mg/kg		0.0239	0.12	0.12	2	MS	RMJ	02/27/10 02:11	100226-4	948748
7440-43-9	Cadmium	644	ug/Kg	U	129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-70-2	Calcium	2110000	ug/Kg		10300	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-47-3	Chromium	10300	ug/Kg		193	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-48-4	Cobalt	6570	ug/Kg		193	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-50-8	Copper	11900	ug/Kg		386	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-89-6	Iron	14000000	ug/Kg		10300	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-92-1	Lead	63800	ug/Kg		322	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-95-4	Magnesium	1660000	ug/Kg		10900	38600	38600	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-96-5	Manganese	312000	ug/Kg		257	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-97-6	Mercury	4.79	ug/kg	J	4.38	12.9	12.9	1	AV	JXL1	02/18/10 12:07	021810S1-5	951512
7440-02-0	Nickel	8.38	mg/kg		0.12	0.478	0.478	2	MS	RMJ	02/27/10 02:11	100226-4	948748
7440-09-7	Potassium	1710000	ug/Kg		8240	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7782-49-2	Selenium	1.2	mg/kg	U	0.598	1.2	1.2	2	MS	RMJ	02/26/10 23:44	100226-3	948748
7440-22-4	Silver	644	ug/Kg	U	129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-23-5	Sodium	91100	ug/Kg		9010	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-28-0	Thallium	0.167	mg/kg	J	0.0718	0.239	0.239	2	MS	RMJ	02/26/10 23:44	100226-3	948748
7440-61-1	Uranium	7.73	mg/kg		0.0158	0.0478	0.0478	2	MS	RMJ	02/26/10 08:59	100225-2	948748
7440-62-2	Vanadium	23000	ug/Kg		129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-66-6	Zinc	39700	ug/Kg		425	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.538	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.6	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960003 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7315 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 91.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13300000	ug/Kg		7330	21600	21600	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-36-0	Antimony	1220	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-38-2	Arsenic	2.16	mg/kg		0.22	1.1	1.1	2	MS	RMJ	02/26/10 23:48	100226-3	948748
7440-39-3	Barium	205000	ug/Kg		108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-41-7	Beryllium	1.15	mg/kg		0.022	0.11	0.11	2	MS	RMJ	02/27/10 02:20	100226-4	948748
7440-43-9	Cadmium	539	ug/Kg	U	108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-70-2	Calcium	2460000	ug/Kg		8630	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-47-3	Chromium	11700	ug/Kg		162	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-48-4	Cobalt	6310	ug/Kg		162	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-50-8	Copper	8010	ug/Kg		324	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-89-6	Iron	15000000	ug/Kg		8630	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-92-1	Lead	14900	ug/Kg		270	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-95-4	Magnesium	2400000	ug/Kg		9170	32400	32400	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-96-5	Manganese	422000	ug/Kg		216	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-97-6	Mercury	11.3	ug/kg	J	3.93	11.6	11.6	1	AV	JXL1	02/18/10 12:09	021810S1-5	951512
7440-02-0	Nickel	9.63	mg/kg		0.11	0.439	0.439	2	MS	RMJ	02/27/10 02:20	100226-4	948748
7440-09-7	Potassium	1960000	ug/Kg		6900	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.549	1.1	1.1	2	MS	RMJ	02/26/10 23:48	100226-3	948748
7440-22-4	Silver	539	ug/Kg	U	108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-23-5	Sodium	60800	ug/Kg		7550	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-28-0	Thallium	0.229	mg/kg		0.0659	0.22	0.22	2	MS	RMJ	02/26/10 23:48	100226-3	948748
7440-61-1	Uranium	1.59	mg/kg		0.0145	0.0439	0.0439	2	MS	RMJ	02/26/10 09:04	100225-2	948748
7440-62-2	Vanadium	30000	ug/Kg		108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-66-6	Zinc	30300	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.509	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.57	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960004 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7317 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	14500000	ug/Kg		7340	21600	21600	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-36-0	Antimony	1080	ug/Kg	U	356	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-38-2	Arsenic	2.07	mg/kg		0.223	1.12	1.12	2	MS	RMJ	02/27/10 00:00	100226-3	948748
7440-39-3	Barium	216000	ug/Kg		108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-41-7	Beryllium	1.32	mg/kg		0.0223	0.112	0.112	2	MS	RMJ	02/27/10 02:23	100226-4	948748
7440-43-9	Cadmium	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-70-2	Calcium	3530000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-47-3	Chromium	10300	ug/Kg		162	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-48-4	Cobalt	5250	ug/Kg		162	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-50-8	Copper	7520	ug/Kg		324	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-89-6	Iron	14100000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-92-1	Lead	13900	ug/Kg		270	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-95-4	Magnesium	2280000	ug/Kg		9180	32400	32400	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-96-5	Manganese	354000	ug/Kg		216	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-97-6	Mercury	10.8	ug/kg	J	4.51	13.3	13.3	1	AV	JXL1	02/18/10 12:11	021810S1-5	951512
7440-02-0	Nickel	10.6	mg/kg		0.112	0.447	0.447	2	MS	RMJ	02/27/10 02:23	100226-4	948748
7440-09-7	Potassium	1740000	ug/Kg		6910	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7782-49-2	Selenium	1.12	mg/kg	U	0.558	1.12	1.12	2	MS	RMJ	02/27/10 00:00	100226-3	948748
7440-22-4	Silver	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-23-5	Sodium	78500	ug/Kg		7560	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-28-0	Thallium	0.235	mg/kg		0.067	0.223	0.223	2	MS	RMJ	02/27/10 00:00	100226-3	948748
7440-61-1	Uranium	1.1	mg/kg		0.0147	0.0447	0.0447	2	MS	RMJ	02/26/10 09:10	100225-2	948748
7440-62-2	Vanadium	27500	ug/Kg		108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-66-6	Zinc	27000	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.519	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.507	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960005 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7319 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13300000	ug/Kg		7580	22300	22300	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-36-0	Antimony	905	ug/Kg	J	368	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-38-2	Arsenic	2.17	mg/kg		0.218	1.09	1.09	2	MS	RMJ	02/27/10 00:04	100226-3	948748
7440-39-3	Barium	205000	ug/Kg		111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-41-7	Beryllium	1.48	mg/kg		0.0218	0.109	0.109	2	MS	RMJ	02/27/10 02:26	100226-4	948748
7440-43-9	Cadmium	557	ug/Kg	U	111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-70-2	Calcium	2860000	ug/Kg		8910	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-47-3	Chromium	9850	ug/Kg		167	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-48-4	Cobalt	4720	ug/Kg		167	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-50-8	Copper	6720	ug/Kg		334	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-89-6	Iron	13000000	ug/Kg		8910	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-92-1	Lead	14400	ug/Kg		279	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-95-4	Magnesium	2160000	ug/Kg		9470	33400	33400	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-96-5	Manganese	310000	ug/Kg		223	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-97-6	Mercury	11.7	ug/kg	J	4.41	13	13	1	AV	JXL1	02/18/10 12:12	021810S1-5	951512
7440-02-0	Nickel	11	mg/kg		0.109	0.437	0.437	2	MS	RMJ	02/27/10 02:26	100226-4	948748
7440-09-7	Potassium	1760000	ug/Kg		7130	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7782-49-2	Selenium	1.09	mg/kg	U	0.546	1.09	1.09	2	MS	RMJ	02/27/10 00:04	100226-3	948748
7440-22-4	Silver	557	ug/Kg	U	111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-23-5	Sodium	96900	ug/Kg		7800	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-28-0	Thallium	0.268	mg/kg		0.0655	0.218	0.218	2	MS	RMJ	02/27/10 00:04	100226-3	948748
7440-61-1	Uranium	1.5	mg/kg		0.0144	0.0437	0.0437	2	MS	RMJ	02/26/10 09:28	100225-2	948748
7440-62-2	Vanadium	25400	ug/Kg		111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-66-6	Zinc	26000	ug/Kg		368	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.503	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.513	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.519	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960006 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7312 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 71

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10500000	ug/Kg		9360	27500	27500	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-36-0	Antimony	611	ug/Kg	J	454	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-38-2	Arsenic	2.15	mg/kg		0.27	1.35	1.35	2	MS	RMJ	02/27/10 00:08	100226-3	948748
7440-39-3	Barium	214000	ug/Kg		138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-41-7	Beryllium	0.981	mg/kg		0.027	0.135	0.135	2	MS	RMJ	02/27/10 02:29	100226-4	948748
7440-43-9	Cadmium	688	ug/Kg	U	138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-70-2	Calcium	2520000	ug/Kg		11000	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-47-3	Chromium	13900	ug/Kg		207	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-48-4	Cobalt	9870	ug/Kg		207	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-50-8	Copper	9580	ug/Kg		413	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-89-6	Iron	14200000	ug/Kg		11000	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-92-1	Lead	19100	ug/Kg		344	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-95-4	Magnesium	2050000	ug/Kg		11700	41300	41300	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-96-5	Manganese	693000	ug/Kg		275	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-97-6	Mercury	6.27	ug/kg	J	5.46	16.1	16.1	1	AV	JXL1	02/18/10 12:14	021810S1-5	951512
7440-02-0	Nickel	8.66	mg/kg		0.135	0.539	0.539	2	MS	RMJ	02/27/10 02:29	100226-4	948748
7440-09-7	Potassium	2310000	ug/Kg		8810	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7782-49-2	Selenium	1.35	mg/kg	U	0.674	1.35	1.35	2	MS	RMJ	02/27/10 00:08	100226-3	948748
7440-22-4	Silver	688	ug/Kg	U	138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-23-5	Sodium	52700	ug/Kg		9640	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-28-0	Thallium	0.205	mg/kg	J	0.0809	0.27	0.27	2	MS	RMJ	02/27/10 00:08	100226-3	948748
7440-61-1	Uranium	17.4	mg/kg		0.0178	0.0539	0.0539	2	MS	RMJ	02/26/10 09:34	100225-2	948748
7440-62-2	Vanadium	29100	ug/Kg		138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-66-6	Zinc	38200	ug/Kg		454	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.514	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.529	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960007 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7313 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	15200000	ug/Kg		7500	22100	22100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-36-0	Antimony	660	ug/Kg	J	364	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-38-2	Arsenic	2.32	mg/kg		0.221	1.1	1.1	2	MS	RMJ	02/27/10 00:12	100226-3	948748
7440-39-3	Barium	193000	ug/Kg		110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-41-7	Beryllium	1.24	mg/kg		0.0221	0.11	0.11	2	MS	RMJ	02/27/10 02:32	100226-4	948748
7440-43-9	Cadmium	552	ug/Kg	U	110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-70-2	Calcium	2650000	ug/Kg		8830	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-47-3	Chromium	13000	ug/Kg		165	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-48-4	Cobalt	7060	ug/Kg		165	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-50-8	Copper	7850	ug/Kg		331	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-89-6	Iron	16000000	ug/Kg		8830	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-92-1	Lead	15500	ug/Kg		276	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-95-4	Magnesium	2770000	ug/Kg		9380	33100	33100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-96-5	Manganese	440000	ug/Kg		221	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-97-6	Mercury	10.3	ug/kg	J	4.51	13.3	13.3	1	AV	JXL1	02/18/10 12:16	021810S1-5	951512
7440-02-0	Nickel	10.9	mg/kg		0.11	0.441	0.441	2	MS	RMJ	02/27/10 02:32	100226-4	948748
7440-09-7	Potassium	1910000	ug/Kg		7060	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.552	1.1	1.1	2	MS	RMJ	02/27/10 00:12	100226-3	948748
7440-22-4	Silver	552	ug/Kg	U	110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-23-5	Sodium	82900	ug/Kg		7720	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-28-0	Thallium	0.288	mg/kg		0.0662	0.221	0.221	2	MS	RMJ	02/27/10 00:12	100226-3	948748
7440-61-1	Uranium	1.14	mg/kg		0.0146	0.0441	0.0441	2	MS	RMJ	02/26/10 09:40	100225-2	948748
7440-62-2	Vanadium	30100	ug/Kg		110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-66-6	Zinc	31800	ug/Kg		364	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.501	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960008 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7314 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 67

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10700000	ug/Kg		9670	28400	28400	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-36-0	Antimony	503	ug/Kg	J	469	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-38-2	Arsenic	2.33	mg/kg		0.297	1.48	1.48	2	MS	RMJ	02/27/10 00:16	100226-3	948748
7440-39-3	Barium	205000	ug/Kg		142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-41-7	Beryllium	1.09	mg/kg		0.0297	0.148	0.148	2	MS	RMJ	02/27/10 02:36	100226-4	948748
7440-43-9	Cadmium	711	ug/Kg	U	142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-70-2	Calcium	2450000	ug/Kg		11400	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-47-3	Chromium	10500	ug/Kg		213	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-48-4	Cobalt	5770	ug/Kg		213	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-50-8	Copper	11100	ug/Kg		426	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-89-6	Iron	13300000	ug/Kg		11400	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-92-1	Lead	15800	ug/Kg		355	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-95-4	Magnesium	2030000	ug/Kg		12100	42600	42600	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-96-5	Manganese	418000	ug/Kg		284	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-97-6	Mercury	15.1	ug/kg	U	5.15	15.1	15.1	1	AV	JXL1	02/18/10 12:18	021810S1-5	951512
7440-02-0	Nickel	9.31	mg/kg		0.148	0.594	0.594	2	MS	RMJ	02/27/10 02:36	100226-4	948748
7440-09-7	Potassium	1930000	ug/Kg		9100	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7782-49-2	Selenium	1.48	mg/kg	U	0.742	1.48	1.48	2	MS	RMJ	02/27/10 00:16	100226-3	948748
7440-22-4	Silver	711	ug/Kg	U	142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-23-5	Sodium	53600	ug/Kg		9950	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-28-0	Thallium	0.227	mg/kg	J	0.089	0.297	0.297	2	MS	RMJ	02/27/10 00:16	100226-3	948748
7440-61-1	Uranium	8.52	mg/kg		0.0196	0.0594	0.0594	2	MS	RMJ	02/26/10 09:46	100225-2	948748
7440-62-2	Vanadium	27400	ug/Kg		142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-66-6	Zinc	33900	ug/Kg		469	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.522	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.588	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960009 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7316 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11200000	ug/Kg		10400	30700	30700	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-36-0	Antimony	869	ug/Kg	J	506	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-38-2	Arsenic	2.31	mg/kg		0.296	1.48	1.48	2	MS	RMJ	02/27/10 00:20	100226-3	948748
7440-39-3	Barium	185000	ug/Kg		153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-41-7	Beryllium	1.16	mg/kg		0.0296	0.148	0.148	2	MS	RMJ	02/27/10 02:39	100226-4	948748
7440-43-9	Cadmium	767	ug/Kg	U	153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-70-2	Calcium	2320000	ug/Kg		12300	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-47-3	Chromium	10800	ug/Kg		230	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-48-4	Cobalt	6240	ug/Kg		230	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-50-8	Copper	8110	ug/Kg		460	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-89-6	Iron	12900000	ug/Kg		12300	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-92-1	Lead	13500	ug/Kg		384	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-95-4	Magnesium	1900000	ug/Kg		13000	46000	46000	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-96-5	Manganese	405000	ug/Kg		307	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-97-6	Mercury	17.2	ug/kg	U	5.83	17.2	17.2	1	AV	JXL1	02/18/10 12:20	021810S1-5	951512
7440-02-0	Nickel	9.45	mg/kg		0.148	0.592	0.592	2	MS	RMJ	02/27/10 02:39	100226-4	948748
7440-09-7	Potassium	2100000	ug/Kg		9820	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7782-49-2	Selenium	1.48	mg/kg	U	0.739	1.48	1.48	2	MS	RMJ	02/27/10 00:20	100226-3	948748
7440-22-4	Silver	767	ug/Kg	U	153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-23-5	Sodium	62600	ug/Kg		10700	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-28-0	Thallium	0.217	mg/kg	J	0.0887	0.296	0.296	2	MS	RMJ	02/27/10 00:20	100226-3	948748
7440-61-1	Uranium	6.4	mg/kg		0.0195	0.0592	0.0592	2	MS	RMJ	02/26/10 09:52	100225-2	948748
7440-62-2	Vanadium	25100	ug/Kg		153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-66-6	Zinc	28300	ug/Kg		506	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.506	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.543	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960010 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7318 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5960000	ug/Kg		7610	22400	22400	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-36-0	Antimony	895	ug/Kg	J	369	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-38-2	Arsenic	1.34	mg/kg		0.235	1.17	1.17	2	MS	RMJ	02/27/10 00:24	100226-3	948748
7440-39-3	Barium	102000	ug/Kg		112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-41-7	Beryllium	0.590	mg/kg		0.0235	0.117	0.117	2	MS	RMJ	02/27/10 02:42	100226-4	948748
7440-43-9	Cadmium	560	ug/Kg	U	112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-70-2	Calcium	2590000	ug/Kg		8960	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-47-3	Chromium	5940	ug/Kg		168	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-48-4	Cobalt	2930	ug/Kg		168	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-50-8	Copper	10800	ug/Kg		336	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-89-6	Iron	7940000	ug/Kg		8960	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-92-1	Lead	69600	ug/Kg		280	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-95-4	Magnesium	1120000	ug/Kg		9520	33600	33600	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-96-5	Manganese	224000	ug/Kg		224	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-97-6	Mercury	6.52	ug/kg	J	4.54	13.4	13.4	1	AV	JXL1	02/18/10 12:22	021810S1-5	951512
7440-02-0	Nickel	5.37	mg/kg		0.117	0.469	0.469	2	MS	RMJ	02/27/10 02:42	100226-4	948748
7440-09-7	Potassium	1290000	ug/Kg		7170	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7782-49-2	Selenium	1.17	mg/kg	U	0.587	1.17	1.17	2	MS	RMJ	02/27/10 00:24	100226-3	948748
7440-22-4	Silver	560	ug/Kg	U	112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-23-5	Sodium	52000	ug/Kg		7840	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-28-0	Thallium	0.117	mg/kg	J	0.0704	0.235	0.235	2	MS	RMJ	02/27/10 00:24	100226-3	948748
7440-61-1	Uranium	7.65	mg/kg		0.0155	0.0469	0.0469	2	MS	RMJ	02/26/10 09:58	100225-2	948748
7440-62-2	Vanadium	14300	ug/Kg		112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-66-6	Zinc	27200	ug/Kg		369	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.524	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.527	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960011 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7324 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	14200000	ug/Kg		7340	21600	21600	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-36-0	Antimony	1260	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-38-2	Arsenic	1.85	mg/kg		0.22	1.1	1.1	2	MS	RMJ	02/27/10 00:28	100226-3	948748
7440-39-3	Barium	213000	ug/Kg		108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-41-7	Beryllium	1.18	mg/kg		0.022	0.11	0.11	2	MS	RMJ	02/27/10 02:45	100226-4	948748
7440-43-9	Cadmium	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-70-2	Calcium	3280000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-47-3	Chromium	10900	ug/Kg		162	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-48-4	Cobalt	5530	ug/Kg		162	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-50-8	Copper	7470	ug/Kg		324	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-89-6	Iron	14500000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-92-1	Lead	13800	ug/Kg		270	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-95-4	Magnesium	2390000	ug/Kg		9180	32400	32400	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-96-5	Manganese	367000	ug/Kg		216	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-97-6	Mercury	10.9	ug/kg	J	4.42	13	13	1	AV	JXL1	02/18/10 12:24	021810S1-5	951512
7440-02-0	Nickel	9.46	mg/kg		0.11	0.44	0.44	2	MS	RMJ	02/27/10 02:45	100226-4	948748
7440-09-7	Potassium	1880000	ug/Kg		6910	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.55	1.1	1.1	2	MS	RMJ	02/27/10 00:28	100226-3	948748
7440-22-4	Silver	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-23-5	Sodium	101000	ug/Kg		7560	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-28-0	Thallium	0.223	mg/kg		0.066	0.22	0.22	2	MS	RMJ	02/27/10 00:28	100226-3	948748
7440-61-1	Uranium	0.896	mg/kg		0.0145	0.044	0.044	2	MS	RMJ	02/26/10 10:04	100225-2	948748
7440-62-2	Vanadium	28400	ug/Kg		108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-66-6	Zinc	28700	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.516	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.507	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.514	g	30	mL	02/17/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.13	ug/L	5	ug/L	102.6	90.0 - 110.0	AV	18-FEB-10 09:57	021810S1-5
	Aluminum	5190	ug/L	5000	ug/L	103.9	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Antimony	497	ug/L	500	ug/L	99.3	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Barium	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Cadmium	500	ug/L	500	ug/L	100	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Chromium	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Cobalt	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Copper	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Lead	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Magnesium	5370	ug/L	5000	ug/L	107.4	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Manganese	516	ug/L	500	ug/L	103.2	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Potassium	2560	ug/L	2500	ug/L	102.4	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Silver	262	ug/L	250	ug/L	104.9	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Sodium	2570	ug/L	2500	ug/L	102.8	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Zinc	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Uranium	54.5	ug/L	50	ug/L	108.9	90.0 - 110.0	MS	26-FEB-10 06:07	100225-2
	Arsenic	50.1	ug/L	50	ug/L	100.3	90.0 - 110.0	MS	26-FEB-10 21:58	100226-3
	Selenium	52.6	ug/L	50	ug/L	105.2	90.0 - 110.0	MS	26-FEB-10 21:58	100226-3
	Thallium	51.2	ug/L	50	ug/L	102.5	90.0 - 110.0	MS	26-FEB-10 21:58	100226-3
	Beryllium	52.4	ug/L	50	ug/L	104.7	90.0 - 110.0	MS	27-FEB-10 01:01	100226-4
	Nickel	52.8	ug/L	50	ug/L	105.5	90.0 - 110.0	MS	27-FEB-10 01:01	100226-4
CCV01										
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 - 120.0	AV	18-FEB-10 10:03	021810S1-5
	Aluminum	5300	ug/L	5000	ug/L	105.9	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Antimony	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Barium	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Cadmium	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Copper	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Iron	5350	ug/L	5000	ug/L	107.1	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Lead	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Magnesium	5420	ug/L	5000	ug/L	108.5	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Manganese	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Potassium	5360	ug/L	5000	ug/L	107.2	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Sodium	10700	ug/L	10000	ug/L	106.9	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Zinc	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Uranium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	26–FEB–10 06:37	100225–2
	Arsenic	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	26–FEB–10 22:19	100226–3
	Selenium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	26–FEB–10 22:19	100226–3
	Thallium	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	26–FEB–10 22:19	100226–3
	Beryllium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	27–FEB–10 01:14	100226–4
	Nickel	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	27–FEB–10 01:14	100226–4
CCV02										
	Mercury	5.07	ug/L	5	ug/L	101.4	80.0 – 120.0	AV	18–FEB–10 10:27	021810S1–5
	Aluminum	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Barium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Calcium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Cobalt	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Copper	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Iron	5390	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Magnesium	5440	ug/L	5000	ug/L	108.8	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Manganese	515	ug/L	500	ug/L	103	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Potassium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Silver	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Sodium	10700	ug/L	10000	ug/L	106.9	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Zinc	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Uranium	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	26-FEB-10 06:54	100225-2
	Arsenic	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	26-FEB-10 22:35	100226-3
	Selenium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	26-FEB-10 22:35	100226-3
	Thallium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	26-FEB-10 22:35	100226-3
	Beryllium	52.6	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	27-FEB-10 01:44	100226-4
	Nickel	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	27-FEB-10 01:44	100226-4
CCV03										
	Mercury	5.22	ug/L	5	ug/L	104.5	80.0 – 120.0	AV	18-FEB-10 10:51	021810S1-5
	Aluminum	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Antimony	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Calcium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Chromium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Cobalt	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Copper	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Iron	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Lead	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Magnesium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Manganese	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Potassium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Silver	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10500	ug/L	10000	ug/L	105.5	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Vanadium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Uranium	54.3	ug/L	50	ug/L	108.6	90.0 – 110.0	MS	26–FEB–10 07:18	100225–2
	Arsenic	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	26–FEB–10 23:15	100226–3
	Selenium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	26–FEB–10 23:15	100226–3
	Thallium	50	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	26–FEB–10 23:15	100226–3
	Beryllium	52.7	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	27–FEB–10 02:15	100226–4
	Nickel	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	27–FEB–10 02:15	100226–4
CCV04										
	Mercury	5.15	ug/L	5	ug/L	103	80.0 – 120.0	AV	18–FEB–10 11:15	021810S1–5
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Antimony	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Barium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Lead	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Magnesium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Potassium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Uranium	54	ug/L	50	ug/L	108	90.0 – 110.0	MS	26–FEB–10 08:17	100225–2
	Arsenic	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	26–FEB–10 23:52	100226–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	26–FEB–10 23:52	100226–3
	Thallium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	26–FEB–10 23:52	100226–3
	Beryllium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	27–FEB–10 02:48	100226–4
	Nickel	54.6	ug/L	50	ug/L	109.2	90.0 – 110.0	MS	27–FEB–10 02:48	100226–4
CCV05										
	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 – 120.0	AV	18–FEB–10 11:39	021810S1–5
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Barium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Cadmium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Calcium	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Chromium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Cobalt	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Iron	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Lead	475	ug/L	500	ug/L	95	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Magnesium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Manganese	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Silver	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Vanadium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Zinc	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Uranium	54.9	ug/L	50	ug/L	109.8	90.0 – 110.0	MS	26–FEB–10 09:16	100225–2
	Arsenic	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	27–FEB–10 00:32	100226–3
	Selenium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	27–FEB–10 00:32	100226–3
	Thallium	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	27–FEB–10 00:32	100226–3
CCV06										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	18–FEB–10 12:03	021810S1–5
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Cadmium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Calcium	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Copper	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Lead	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Magnesium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Manganese	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Sodium	9920	ug/L	10000	ug/L	99.2	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Vanadium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Zinc	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Uranium	53.1	ug/L	50	ug/L	106.1	90.0 – 110.0	MS	26–FEB–10 10:10	100225–2
CCV07										
	Mercury	5.07	ug/L	5	ug/L	101.3	80.0 – 120.0	AV	18–FEB–10 12:26	021810S1–5
	Aluminum	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Antimony	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Barium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Cadmium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Chromium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Copper	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Iron	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Lead	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Magnesium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Potassium	4790	ug/L	5000	ug/L	95.8	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Silver	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Vanadium	478	ug/L	500	ug/L	95.5	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Zinc	478	ug/L	500	ug/L	95.6	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
CCV08										
	Mercury	5.02	ug/L	5	ug/L	100.4	80.0 - 120.0	AV	18-FEB-10 12:50	021810S1-5
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Antimony	480	ug/L	500	ug/L	96	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Barium	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Cadmium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Calcium	4980	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Chromium	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Cobalt	487	ug/L	500	ug/L	97.3	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Copper	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Iron	5130	ug/L	5000	ug/L	102.7	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Lead	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Magnesium	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Manganese	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Silver	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Vanadium	484	ug/L	500	ug/L	96.7	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Zinc	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
CCV09										
	Aluminum	4800	ug/L	5000	ug/L	96	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Antimony	468	ug/L	500	ug/L	93.7	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Barium	474	ug/L	500	ug/L	94.8	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Cadmium	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Cobalt	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Copper	467	ug/L	500	ug/L	93.5	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Lead	472	ug/L	500	ug/L	94.5	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Magnesium	4980	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Manganese	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Silver	474	ug/L	500	ug/L	94.7	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Sodium	9700	ug/L	10000	ug/L	97	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Vanadium	474	ug/L	500	ug/L	94.9	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
	Zinc	475	ug/L	500	ug/L	94.9	90.0 - 110.0	P	19-FEB-10 21:08	021910A-1
CCV10										
	Aluminum	4860	ug/L	5000	ug/L	97.3	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Barium	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Cadmium	489	ug/L	500	ug/L	97.9	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Calcium	4890	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Cobalt	485	ug/L	500	ug/L	97.1	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Copper	478	ug/L	500	ug/L	95.5	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Iron	5030	ug/L	5000	ug/L	100.5	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Lead	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Magnesium	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Potassium	4800	ug/L	5000	ug/L	96.1	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Silver	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Vanadium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19–FEB–10 21:52	021910A–1
CCV11										
	Aluminum	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Antimony	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Cadmium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Chromium	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Cobalt	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Copper	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Lead	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Magnesium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Manganese	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Potassium	4820	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Silver	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
	Zinc	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–FEB–10 22:28	021910A–1
CCV12										
	Aluminum	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Antimony	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Cadmium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Chromium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Cobalt	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Copper	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Lead	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Potassium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Zinc	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1511

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.218	ug/L	.2	ug/L	109	70.0 - 130.0	AV	18-FEB-10 10:01	021810S1-5
	Uranium	.246	ug/L	.2	ug/L	123	70.0 - 130.0	MS	26-FEB-10 06:19	100225-2
	Thallium	1.09	ug/L	1	ug/L	108.5	70.0 - 130.0	MS	26-FEB-10 22:06	100226-3
	Selenium	5.91	ug/L	5	ug/L	118.2	70.0 - 130.0	MS	26-FEB-10 22:06	100226-3
	Arsenic	5.98	ug/L	5	ug/L	119.7	70.0 - 130.0	MS	26-FEB-10 22:06	100226-3
	Nickel	2.18	ug/L	2	ug/L	108.8	70.0 - 130.0	MS	27-FEB-10 01:06	100226-4
	Beryllium	.579	ug/L	.5	ug/L	115.8	70.0 - 130.0	MS	27-FEB-10 01:06	100226-4
PQL01										
	Aluminum	198	ug/L	200	ug/L	98.8	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Iron	101	ug/L	100	ug/L	100.9	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Lead	10.5	ug/L	10	ug/L	105.2	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Magnesium	305	ug/L	300	ug/L	101.7	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Manganese	10.3	ug/L	10	ug/L	102.7	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Potassium	157	ug/L	150	ug/L	104.4	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Silver	4.8	ug/L	5	ug/L	96.1	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Sodium	312	ug/L	300	ug/L	104	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Antimony	10.8	ug/L	10	ug/L	108.3	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Barium	4.87	ug/L	5	ug/L	97.4	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Cadmium	5	ug/L	5	ug/L	99.9	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Chromium	5.48	ug/L	5	ug/L	109.5	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Cobalt	4.54	ug/L	5	ug/L	90.9	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Copper	10.1	ug/L	10	ug/L	100.7	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Vanadium	5.03	ug/L	5	ug/L	100.5	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Zinc	9.76	ug/L	10	ug/L	97.6	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Calcium	188	ug/L	200	ug/L	94.2	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	–0.129	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 09:59	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 16:44	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 16:44	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 16:44	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 16:44	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 16:44	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 16:44	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 16:44	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 16:44	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 16:44	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 16:44	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 16:44	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 16:44	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 16:44	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 16:44	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 16:44	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 16:44	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 16:44	021910A–1
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 06:13	100225–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 22:02	100226–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 22:02	100226–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 22:02	100226–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	27–FEB–10 01:03	100226–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	27–FEB–10 01:03	100226–4
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 10:05	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 17:07	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:07	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:07	021910A–1
	Lead	5.21	+/–10	J	2.5	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 17:07	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Potassium	80.96	+/–250	J	64.0	250	SOL	P	19–FEB–10 17:07	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Sodium	72.13	+/–250	J	70.0	250	SOL	P	19–FEB–10 17:07	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 06:43	100225–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 22:23	100226–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 22:23	100226–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 22:23	100226–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	27–FEB–10 01:16	100226–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	27–FEB–10 01:16	100226–4
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 10:29	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 17:25	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:25	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:25	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 17:25	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 17:25	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 17:25	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Uranium	0.066	+/–.2	J	0.066	0.2	SOL	MS	26–FEB–10 07:00	100225–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 22:39	100226–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 22:39	100226–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 22:39	100226–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	27–FEB–10 01:47	100226–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	27–FEB–10 01:47	100226–4
CCB03										
	Mercury	–0.08	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 10:53	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 17:55	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:55	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:55	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 17:55	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:55	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 17:55	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 17:55	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 17:55	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 17:55	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 17:55	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:55	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 07:24	100225–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 23:19	100226–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 23:19	100226–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 23:19	100226–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	27–FEB–10 02:17	100226–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	27–FEB–10 02:17	100226–4
CCB04										
	Mercury	–0.106	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 11:17	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 18:28	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 18:28	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 18:28	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 18:28	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 18:28	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 18:28	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 18:28	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 18:28	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 18:28	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 18:28	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 18:28	021910A–1
	Manganese	2.04	+/–10	J	2.0	10.0	SOL	P	19–FEB–10 18:28	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 18:28	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 18:28	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 18:28	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 18:28	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 18:28	021910A–1
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 08:23	100225–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 23:56	100226–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 23:56	100226–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 23:56	100226–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	27–FEB–10 02:51	100226–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	27–FEB–10 02:51	100226–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Mercury	–0.154	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 11:41	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 19:01	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 19:01	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:01	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:01	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 19:01	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 19:01	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 19:01	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 19:01	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 19:01	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 19:01	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 19:01	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 19:01	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 19:01	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:01	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 19:01	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:01	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 19:01	021910A–1
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 09:22	100225–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	27–FEB–10 00:36	100226–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	27–FEB–10 00:36	100226–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	27–FEB–10 00:36	100226–3
CCB06										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 12:05	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 19:30	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 19:30	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 19:30	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 19:30	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 19:30	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 19:30	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 19:30	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 10:16	100225–2
CCB07										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 12:28	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 20:02	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 20:02	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 20:02	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB08										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 12:52	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 20:39	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 20:39	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:39	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:39	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 20:39	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 20:39	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 20:39	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 20:39	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 20:39	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 20:39	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 20:39	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 20:39	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 20:39	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:39	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 20:39	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:39	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 20:39	021910A–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 21:12	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 21:12	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 21:12	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 21:12	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 21:12	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 21:12	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 21:12	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 21:12	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 21:12	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 21:12	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 21:12	021910A–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 21:55	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 21:55	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 21:55	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 21:55	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 21:55	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 21:55	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 21:55	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 21:55	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 21:55	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 21:55	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 21:55	021910A–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 22:32	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 22:32	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 22:32	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 22:32	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 22:32	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 22:32	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 22:32	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 22:32	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 22:32	021910A–1
	Lead	–3.7	+/–10	J	2.5	10.0	SOL	P	19–FEB–10 22:32	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 22:32	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 22:32	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 22:32	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 22:32	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 22:32	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 22:32	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 22:32	021910A–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 23:09	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 23:09	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 23:09	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 23:09	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 23:09	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 23:09	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 23:09	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 23:09	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 23:09	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 23:09	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 23:09	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 23:09	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 23:09	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 23:09	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 23:09	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 23:09	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 23:09	021910A–1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1511
Contract: LANL01004
Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202032567								
	Aluminum	5230	ug/Kg	+/-15400	U	P	5230	15400
	Antimony	254	ug/Kg	+/-769	U	P	254	769
	Barium	76.9	ug/Kg	+/-385	U	P	76.9	385
	Cadmium	76.9	ug/Kg	+/-385	U	P	76.9	385
	Calcium	6150	ug/Kg	+/-19200	U	P	6150	19200
	Chromium	191	ug/Kg	+/-385	J	P	115	385
	Cobalt	115	ug/Kg	+/-385	U	P	115	385
	Copper	231	ug/Kg	+/-769	U	P	231	769
	Iron	8210	ug/Kg	+/-19200	J	P	6150	19200
	Lead	192	ug/Kg	+/-769	U	P	192	769
	Magnesium	6540	ug/Kg	+/-23100	U	P	6540	23100
	Manganese	226	ug/Kg	+/-769	J	P	154	769
	Potassium	4920	ug/Kg	+/-19200	U	P	4920	19200
	Silver	76.9	ug/Kg	+/-385	U	P	76.9	385
	Sodium	5380	ug/Kg	+/-19200	U	P	5380	19200
	Vanadium	76.9	ug/Kg	+/-385	U	P	76.9	385
	Zinc	346	ug/Kg	+/-769	J	P	254	769
1202032573								
	Arsenic	0.157	mg/kg	+/-0.784	U	MS	0.157	0.784
	Beryllium	0.0157	mg/kg	+/-0.0784	U	MS	0.0157	0.0784
	Nickel	0.0784	mg/kg	+/-0.313	U	MS	0.0784	0.313
	Selenium	0.392	mg/kg	+/-0.784	U	MS	0.392	0.784
	Thallium	0.047	mg/kg	+/-0.157	U	MS	0.047	0.157
	Uranium	0.0103	mg/kg	+/-0.0314	U	MS	0.0103	0.0314
1202039184								
	Mercury	-10.4	ug/kg	+/-11.4	J	AV	3.87	11.4

METALS
–4–
Interference Check Sample

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	515000	ug/L	500000	ug/L	103	80.0 – 120.0	19–FEB–10 16:51	021910A–1
	Antimony	–14.6	ug/L					19–FEB–10 16:51	021910A–1
	Barium	7.73	ug/L					19–FEB–10 16:51	021910A–1
	Cadmium	–6.35	ug/L					19–FEB–10 16:51	021910A–1
	Calcium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	19–FEB–10 16:51	021910A–1
	Chromium	–0.312	ug/L					19–FEB–10 16:51	021910A–1
	Cobalt	2.17	ug/L					19–FEB–10 16:51	021910A–1
	Copper	–2.01	ug/L					19–FEB–10 16:51	021910A–1
	Iron	191000	ug/L	200000	ug/L	95.7	80.0 – 120.0	19–FEB–10 16:51	021910A–1
	Lead	7.77	ug/L					19–FEB–10 16:51	021910A–1
	Magnesium	494000	ug/L	500000	ug/L	98.8	80.0 – 120.0	19–FEB–10 16:51	021910A–1
	Manganese	8.98	ug/L					19–FEB–10 16:51	021910A–1
	Potassium	–20.1	ug/L					19–FEB–10 16:51	021910A–1
	Silver	–6.6	ug/L					19–FEB–10 16:51	021910A–1
	Sodium	30.3	ug/L					19–FEB–10 16:51	021910A–1
	Vanadium	–3.3	ug/L					19–FEB–10 16:51	021910A–1
	Zinc	–9.41	ug/L					19–FEB–10 16:51	021910A–1
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Antimony	505	ug/L	500	ug/L	101	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Barium	503	ug/L	500	ug/L	101	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Cadmium	459	ug/L	500	ug/L	91.9	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Calcium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Chromium	489	ug/L	500	ug/L	97.8	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Cobalt	435	ug/L	500	ug/L	87.1	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Copper	543	ug/L	500	ug/L	109	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Iron	189000	ug/L	200000	ug/L	94.4	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Lead	484	ug/L	500	ug/L	96.8	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Magnesium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	19–FEB–10 16:54	021910A–1

METALS
–4–
Interference Check Sample

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	489	ug/L	500	ug/L	97.8	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Potassium	5060	ug/L	5000	ug/L	101	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Silver	257	ug/L	250	ug/L	103	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Sodium	5160	ug/L	5000	ug/L	103	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Zinc	466	ug/L	500	ug/L	93.3	80.0 – 120.0	19–FEB–10 16:54	021910A–1

METALS
–4–
Interference Check Sample

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.014	ug/L					26–FEB–10 06:25	100225–2
ICSAB01									
	Uranium	22.2	ug/L	20	ug/L	111	80.0 – 120.0	26–FEB–10 06:31	100225–2

METALS
–4–
Interference Check Sample

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.839	ug/L					26–FEB–10 22:11	100226–3
	Selenium	–2.53	ug/L					26–FEB–10 22:11	100226–3
	Thallium	0.016	ug/L					26–FEB–10 22:11	100226–3
ICSAB01									
	Arsenic	22.1	ug/L	20	ug/L	110	80.0 – 120.0	26–FEB–10 22:15	100226–3
	Selenium	19.1	ug/L	20	ug/L	95.5	80.0 – 120.0	26–FEB–10 22:15	100226–3
	Thallium	19.5	ug/L	20	ug/L	97.6	80.0 – 120.0	26–FEB–10 22:15	100226–3

METALS
–4–
Interference Check Sample

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.108	ug/L					27–FEB–10 01:09	100226–4
	Nickel	4.68	ug/L					27–FEB–10 01:09	100226–4
ICSAB01									
	Beryllium	19.6	ug/L	20	ug/L	97.8	80.0 – 120.0	27–FEB–10 01:11	100226–4
	Nickel	24.1	ug/L	23.31	ug/L	103	80.0 – 120.0	27–FEB–10 01:11	100226–4

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1511 **Client ID:** RE46–10–11961S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.9

Sample ID: 245938001 **Spike ID:** 1202032570

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg	75–125	2230000		953000		529000	241	N	P
Antimony	ug/Kg	75–125	47500		348	U	52900	89.2		P
Barium	ug/Kg	75–125	67600		11300		52900	106		P
Cadmium	ug/Kg	75–125	50300		105	U	52900	95.1		P
Calcium	ug/Kg	75–125	1700000		1360000		529000	65.1	N	P
Chromium	ug/Kg	75–125	60700		3980		52900	107		P
Cobalt	ug/Kg	75–125	49900		612		52900	93.2		P
Copper	ug/Kg	75–125	54900		3030		52900	98.1		P
Iron	ug/Kg		5240000		4330000		529000	172	N/A	P
Lead	ug/Kg	75–125	53000		2170		52900	96.2		P
Magnesium	ug/Kg	75–125	928000		236000		529000	131	N	P
Manganese	ug/Kg	75–125	220000		161000		52900	113		P
Potassium	ug/Kg	75–125	853000		246000		529000	115		P
Silver	ug/Kg	75–125	49700		105	U	52900	93.9		P
Sodium	ug/Kg	75–125	656000		97200		529000	106		P
Vanadium	ug/Kg	75–125	54100		3960		52900	94.8		P
Zinc	ug/Kg	75–125	71700		19600		52900	98.5		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1511 **Client ID** RE46–10–11961SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.9

Sample ID: 245938001 **Spike ID:** 1202032571

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Copper	ug/Kg	75–125	56700		3030		54800	97.9		P
Iron	ug/Kg		4870000		4330000		548000	98.4	N/A	P
Lead	ug/Kg	75–125	54800		2170		54800	96		P
Magnesium	ug/Kg	75–125	924000		236000		548000	126	N	P
Manganese	ug/Kg	75–125	223000		161000		54800	113		P
Potassium	ug/Kg	75–125	833000		246000		548000	107		P
Silver	ug/Kg	75–125	52100		105	U	54800	95.1		P
Sodium	ug/Kg	75–125	682000		97200		548000	107		P
Vanadium	ug/Kg	75–125	54700		3960		54800	92.7		P
Zinc	ug/Kg	75–125	73900		19600		54800	99.1		P
Aluminum	ug/Kg	75–125	2150000		953000		548000	219	N	P
Antimony	ug/Kg	75–125	49900		348	U	54800	90.5		P
Barium	ug/Kg	75–125	65100		11300		54800	98.1		P
Cadmium	ug/Kg	75–125	53200		105	U	54800	97		P
Calcium	ug/Kg	75–125	1240000		1360000		548000	–21.6	N	P
Chromium	ug/Kg	75–125	57600		3980		54800	97.9		P
Cobalt	ug/Kg	75–125	52200		612		54800	94.1		P

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1511 **Client ID** RE46-10-11961S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.9

Sample ID: 245938001 **Spike ID:** 1202032576

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	8.26		0.529	J	8.25	93.7		MS
Beryllium	mg/kg	75-125	5.07		0.249		5.16	93.4		MS
Nickel	mg/kg	75-125	6.43		1.34		5.16	98.6		MS
Selenium	mg/kg	75-125	2		0.543	U	2.06	84		MS
Thallium	mg/kg	75-125	9.2		0.0652	U	10.3	88.8		MS
Uranium	mg/kg	75-125	5.42		0.546		5.16	94.5		MS

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1511 **Client ID** RE46-10-11961SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.9

Sample ID: 245938001 **Spike ID:** 1202032577

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	mg/kg	75-125	5.26		0.249		5.33	94.1		MS
Nickel	mg/kg	75-125	6.19		1.34		5.33	91		MS
Arsenic	mg/kg	75-125	8.47		0.529	J	8.53	93.1		MS
Selenium	mg/kg	75-125	2.03		0.543	U	2.13	82.6		MS
Thallium	mg/kg	75-125	9.6		0.0652	U	10.7	89.7		MS
Uranium	mg/kg	75-125	5.47		0.546		5.33	92.4		MS

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1511 **Client ID** RE16-10-4573S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 94.5

Sample ID: 246470001 **Spike ID:** 1202039187

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg		719		581		111	124	N/A	AV

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1511 **Client ID:** RE16-10-4573SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 94.5

Sample ID: 246470001 **Spike ID:** 1202039193

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg		717		581		119	115	N/A	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11961D

Sample ID: 245938001 **Duplicate ID:** 1202032568 **Percent Solids for Dup:** 90.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	953000		1060000		10.4		P
Antimony	ug/Kg		348	U	359	U			P
Barium	ug/Kg	+/–20%	11300		19500		53	*	P
Cadmium	ug/Kg		105	U	109	U			P
Calcium	ug/Kg	+/–20%	1360000		1870000		31.6	*	P
Chromium	ug/Kg	+/–20%	3980		28200		150	*	P
Cobalt	ug/Kg	+/–543	612		894		37.5		P
Copper	ug/Kg	+/–1090	3030		15800		135	*	P
Iron	ug/Kg	+/–20%	4330000		4770000		9.53		P
Lead	ug/Kg	+/–1090	2170		4460		69	*	P
Magnesium	ug/Kg	+/–20%	236000		275000		15.1		P
Manganese	ug/Kg	+/–20%	161000		173000		7.3		P
Potassium	ug/Kg	+/–20%	246000		281000		12.9		P
Silver	ug/Kg		105	U	423	J	200		P
Sodium	ug/Kg	+/–27200	97200		111000		13		P
Vanadium	ug/Kg	+/–20%	3960		4470		12		P
Zinc	ug/Kg	+/–20%	19600		23000		15.9		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1511

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46-10-11961SD

Sample ID: 1202032570 **Duplicate ID:** 1202032571 **Percent Solids for Dup:** 90.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	2230000		2150000		3.33		P
Antimony	ug/Kg	+/-20	47500		49900		4.94		P
Barium	ug/Kg	+/-20	67600		65100		3.84		P
Cadmium	ug/Kg	+/-20	50300		53200		5.57		P
Calcium	ug/Kg	+/-20	1700000		1240000		31.4	*	P
Chromium	ug/Kg	+/-20	60700		57600		5.19		P
Cobalt	ug/Kg	+/-20	49900		52200		4.44		P
Copper	ug/Kg	+/-20	54900		56700		3.08		P
Iron	ug/Kg	+/-20	5240000		4870000		7.33		P
Lead	ug/Kg	+/-20	53000		54800		3.21		P
Magnesium	ug/Kg	+/-20	928000		924000		.38		P
Manganese	ug/Kg	+/-20	220000		223000		1.1		P
Potassium	ug/Kg	+/-20	853000		833000		2.32		P
Silver	ug/Kg	+/-20	49700		52100		4.89		P
Sodium	ug/Kg	+/-20	656000		682000		3.9		P
Vanadium	ug/Kg	+/-20	54100		54700		1.15		P
Zinc	ug/Kg	+/-20	71700		73900		3		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11961D

Sample ID: 245938001 **Duplicate ID:** 1202032574 **Percent Solids for Dup:** 90.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.07	0.529	J	0.674	J	24.1		MS
Beryllium	mg/kg	+/–.107	0.249		0.391		44.4	*	MS
Nickel	mg/kg	+/–.427	1.34		1.48		9.7		MS
Selenium	mg/kg		0.543	U	0.534	U			MS
Thallium	mg/kg		0.0652	U	0.0641	U			MS
Uranium	mg/kg	+/–20%	0.546		0.518		5.29		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1511

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46-10-11961SD

Sample ID: 1202032576 **Duplicate ID:** 1202032577 **Percent Solids for Dup:** 90.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	8.26		8.47		2.47		MS
Beryllium	mg/kg	+/-20	5.07		5.26		3.8		MS
Nickel	mg/kg	+/-20	6.43		6.19		3.71		MS
Selenium	mg/kg	+/-20	2		2.03		1.34		MS
Thallium	mg/kg	+/-20	9.2		9.6		4.19		MS
Uranium	mg/kg	+/-20	5.42		5.47		.939		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE16–10–4573D

Sample ID: 246470001 **Duplicate ID:** 1202039186 **Percent Solids for Dup:** 94.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20%	581		516		11.8		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE16–10–4573SD

Sample ID: 1202039187 **Duplicate ID:** 1202039193 **Percent Solids for Dup:** 94.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	719		717		.265		AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1511

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032572								
	Aluminum	ug/Kg	10500000	8610000		82	56-144	P
	Antimony	ug/Kg	173000	127000		73.4	71-130	P
	Barium	ug/Kg	198000	194000		98.2	80-120	P
	Cadmium	ug/Kg	60700	56600		93.3	81-120	P
	Calcium	ug/Kg	9870000	9650000		97.7	83-117	P
	Chromium	ug/Kg	236000	224000		94.8	80-120	P
	Cobalt	ug/Kg	91200	88600		97.1	81-120	P
	Copper	ug/Kg	174000	173000		99.4	81-118	P
	Iron	ug/Kg	18000000	19400000		108	51-149	P
	Lead	ug/Kg	86000	83900		97.6	79-121	P
	Magnesium	ug/Kg	4000000	3780000		94.4	79-122	P
	Manganese	ug/Kg	558000	537000		96.3	81-119	P
	Potassium	ug/Kg	4300000	3890000		90.4	74-127	P
	Silver	ug/Kg	30100	29700		98.8	66-134	P
	Sodium	ug/Kg	1020000	961000		94.2	74-127	P
	Vanadium	ug/Kg	115000	119000		103	79-121	P
	Zinc	ug/Kg	594000	557000		93.8	80-121	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1511

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032578								
	Arsenic	mg/kg	104	108		103	78-123	MS
	Beryllium	mg/kg	77.6	74.7		96.2	84-116	MS
	Nickel	mg/kg	134	135		101	78-123	MS
	Selenium	mg/kg	286	286		99.9	77-123	MS
	Thallium	mg/kg	121	121		100	78-122	MS
	Uranium	mg/kg	2.13	1.8		84.7	73-127	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1511

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202039185								
	Mercury	ug/kg	5150	6070		118	71.6-128.3	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1511 **Client ID** RE46-10-11961L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245938001 **Serial Dilution ID:** 1202032569

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	9050		8950		1.1		10	P
Antimony	3.3	U	16.5	U				P
Barium	108		107		1.39		10	P
Cadmium	1	U	5	U				P
Calcium	12900		12900		.388		10	P
Chromium	37.8		40.7		7.54			P
Cobalt	5.81		7.5	U	100			P
Copper	28.8		27.2	J	5.56			P
Iron	41100		41400		.73		10	P
Lead	20.6		16.7	J	18.9			P
Magnesium	2240		2110		5.8			P
Manganese	1530		1490		2.61		10	P
Potassium	2340		2480		5.98			P
Silver	1	U	5	U				P
Sodium	922		910	J	1.3			P
Vanadium	37.6		38.5		2.26			P
Zinc	186		182		2.42		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1511 **Client ID** RE46–10–11961L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245938001 **Serial Dilution ID:** 1202032575

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	2.44	J	5.3	J	117			MS
Beryllium	1.14		1.07	J	6.58			MS
Nickel	6.18		5.85	J	5.34			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS
Uranium	2.51		2.45		2.59			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1511 **Client ID:** RE16-10-4573L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246470001 **Serial Dilution ID:** 1202039192

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	9.22		8.75		5.1		10	AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1511 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 948743							
1202032567	MB for batch 948743	MB	S	10–FEB–10	.65g	50mL	
1202032572	LCS for batch 948743	LCS	S	10–FEB–10	.535g	50mL	
1202032570	RE46–10–11961S	MS	S	10–FEB–10	.52g	50mL	
1202032571	RE46–10–11961SD	MSD	S	10–FEB–10	.502g	50mL	
1202032568	RE46–10–11961D	DUP	S	10–FEB–10	.506g	50mL	
245960001	RE15–10–7309	SAMPLE	S	10–FEB–10	.517g	50mL	
245960002	RE15–10–7308	SAMPLE	S	10–FEB–10	.5g	50mL	
245960003	RE15–10–7315	SAMPLE	S	10–FEB–10	.509g	50mL	
245960004	RE15–10–7317	SAMPLE	S	10–FEB–10	.519g	50mL	
245960005	RE15–10–7319	SAMPLE	S	10–FEB–10	.503g	50mL	
245960006	RE15–10–7312	SAMPLE	S	10–FEB–10	.514g	50mL	
245960007	RE15–10–7313	SAMPLE	S	10–FEB–10	.502g	50mL	
245960008	RE15–10–7314	SAMPLE	S	10–FEB–10	.522g	50mL	
245960009	RE15–10–7316	SAMPLE	S	10–FEB–10	.506g	50mL	
245960010	RE15–10–7318	SAMPLE	S	10–FEB–10	.524g	50mL	
245960011	RE15–10–7324	SAMPLE	S	10–FEB–10	.516g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1511 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 948745							
1202032573	MB for batch 948745	MB	S	10-FEB-10	.638g	50mL	
1202032578	LCS for batch 948745	LCS	S	10-FEB-10	.5g	50mL	
1202032576	RE46-10-11961S	MS	S	10-FEB-10	.533g	50mL	
1202032577	RE46-10-11961SD	MSD	S	10-FEB-10	.516g	50mL	
1202032574	RE46-10-11961D	DUP	S	10-FEB-10	.515g	50mL	
245960001	RE15-10-7309	SAMPLE	S	10-FEB-10	.505g	50mL	
245960002	RE15-10-7308	SAMPLE	S	10-FEB-10	.538g	50mL	
245960003	RE15-10-7315	SAMPLE	S	10-FEB-10	.5g	50mL	
245960004	RE15-10-7317	SAMPLE	S	10-FEB-10	.502g	50mL	
245960005	RE15-10-7319	SAMPLE	S	10-FEB-10	.513g	50mL	
245960006	RE15-10-7312	SAMPLE	S	10-FEB-10	.525g	50mL	
245960007	RE15-10-7313	SAMPLE	S	10-FEB-10	.502g	50mL	
245960008	RE15-10-7314	SAMPLE	S	10-FEB-10	.5g	50mL	
245960009	RE15-10-7316	SAMPLE	S	10-FEB-10	.525g	50mL	
245960010	RE15-10-7318	SAMPLE	S	10-FEB-10	.5g	50mL	
245960011	RE15-10-7324	SAMPLE	S	10-FEB-10	.507g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1511 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 951508							
1202039184	MB for batch 951508	MB	S	17–FEB–10	.527g	30mL	
1202039185	LCS for batch 951508	LCS	S	17–FEB–10	.202g	30mL	
1202039187	RE16–10–4573S	MS	S	17–FEB–10	.571g	30mL	
1202039193	RE16–10–4573SD	MSD	S	17–FEB–10	.534g	30mL	
1202039186	RE16–10–4573D	DUP	S	17–FEB–10	.555g	30mL	
245960001	RE15–10–7309	SAMPLE	S	17–FEB–10	.542g	30mL	
245960002	RE15–10–7308	SAMPLE	S	17–FEB–10	.6g	30mL	
245960003	RE15–10–7315	SAMPLE	S	17–FEB–10	.57g	30mL	
245960004	RE15–10–7317	SAMPLE	S	17–FEB–10	.507g	30mL	
245960005	RE15–10–7319	SAMPLE	S	17–FEB–10	.519g	30mL	
245960006	RE15–10–7312	SAMPLE	S	17–FEB–10	.529g	30mL	
245960007	RE15–10–7313	SAMPLE	S	17–FEB–10	.501g	30mL	
245960008	RE15–10–7314	SAMPLE	S	17–FEB–10	.588g	30mL	
245960009	RE15–10–7316	SAMPLE	S	17–FEB–10	.543g	30mL	
245960010	RE15–10–7318	SAMPLE	S	17–FEB–10	.527g	30mL	
245960011	RE15–10–7324	SAMPLE	S	17–FEB–10	.514g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 26–FEB–10 **End Date:** 26–FEB–10

Client Sdg: 10–1511
Method MS
Data File: 100225–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	05:50																						X		
S10	1	05:55																						X		
S100	1	06:01																						X		
ICV01	1	06:07																						X		
ICB01	1	06:13																						X		
CRDL01	1	06:19																						X		
ICSA01	1	06:25																						X		
ICSAB01	1	06:31																						X		
CCV01	1	06:37																						X		
CCB01	1	06:43																						X		
LR01	1	06:48																						X		
CCV02	1	06:54																						X		
CCB02	1	07:00																						X		
1202032573	2	07:06																						X		
1202032578	40	07:12																						X		
CCV03	1	07:18																						X		
CCB03	1	07:24																						X		
ZZZZZZ	2	07:30																								
1202032574	2	07:36																						X		
1202032576	2	07:42																						X		
1202032577	2	07:48																						X		
1202032575	10	07:53																						X		
ZZZZZZ	2	07:59																								
ZZZZZZ	2	08:05																								
ZZZZZZ	2	08:11																								
CCV04	1	08:17																						X		
CCB04	1	08:23																						X		
ZZZZZZ	2	08:29																								
ZZZZZZ	2	08:35																								
ZZZZZZ	2	08:41																								
ZZZZZZ	2	08:47																								
245960001	2	08:53																						X		
245960002	2	08:59																						X		
245960003	2	09:04																						X		
245960004	2	09:10																						X		
CCV05	1	09:16																						X		
CCB05	1	09:22																						X		
245960005	2	09:28																						X		
245960006	2	09:34																						X		
245960007	2	09:40																						X		

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																					X		
245960008	2	09:46																					X		
245960009	2	09:52																					X		
245960010	2	09:58																					X		
245960011	2	10:04																					X		
CCV06	1	10:10																					X		
CCB06	1	10:16																					X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 26–FEB–10 **End Date:** 27–FEB–10

Client Sdg: 10–1511
Method MS
Data File: 100226–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	21:46			X															X			X			
S10	1	21:50			X															X			X			
S100	1	21:54			X															X			X			
ICV01	1	21:58			X															X			X			
ICB01	1	22:02			X															X			X			
CRDL01	1	22:06			X															X			X			
ICSA01	1	22:11			X															X			X			
ICSAB01	1	22:15			X															X			X			
CCV01	1	22:19			X															X			X			
CCB01	1	22:23			X															X			X			
1202032573	2	22:27			X															X			X			
1202032578	40	22:31			X															X			X			
CCV02	1	22:35			X															X			X			
CCB02	1	22:39			X															X			X			
ZZZZZZ	2	22:43																								
1202032574	2	22:47			X															X			X			
1202032576	2	22:51			X															X			X			
1202032577	2	22:55			X															X			X			
1202032575	10	22:59			X															X			X			
ZZZZZZ	2	23:03																								
ZZZZZZ	2	23:07																								
ZZZZZZ	2	23:11																								
CCV03	1	23:15			X															X			X			
CCB03	1	23:19			X															X			X			
ZZZZZZ	2	23:23																								
ZZZZZZ	2	23:27																								
ZZZZZZ	2	23:31																								
ZZZZZZ	2	23:35																								
245960001	2	23:40			X															X			X			
245960002	2	23:44			X															X			X			
245960003	2	23:48			X															X			X			
CCV04	1	23:52			X															X			X			
CCB04	1	23:56			X															X			X			
245960004	2	00:00			X															X			X			
245960005	2	00:04			X															X			X			
245960006	2	00:08			X															X			X			
245960007	2	00:12			X															X			X			
245960008	2	00:16			X															X			X			
245960009	2	00:20			X															X			X			
245960010	2	00:24			X															X			X			

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																							
245960011	2	00:28			X															X			X			
CCV05	1	00:32			X															X			X			
CCB05	1	00:36			X															X			X			

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 26-FEB-10
End Date: 27-FEB-10
Client Sdg: 10-1511
Method MS
Data File: 100226-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	00:51					X											X								
S10	1	00:55					X											X								
S100	1	00:58					X											X								
ICV01	1	01:01					X											X								
ICB01	1	01:03					X											X								
CRDL01	1	01:06					X											X								
ICSA01	1	01:09					X											X								
ICSAB01	1	01:11					X											X								
CCV01	1	01:14					X											X								
CCB01	1	01:16					X											X								
1202032573	2	01:19					X											X								
1202032578	40	01:22					X											X								
ZZZZZZ	2	01:25																								
1202032574	2	01:29					X											X								
1202032576	2	01:32					X											X								
1202032577	2	01:35					X											X								
1202032575	10	01:38					X											X								
ZZZZZZ	2	01:41																								
CCV02	1	01:44					X											X								
CCB02	1	01:47					X											X								
ZZZZZZ	2	01:49																								
ZZZZZZ	2	01:53																								
ZZZZZZ	2	01:56																								
ZZZZZZ	2	01:59																								
ZZZZZZ	2	02:02																								
ZZZZZZ	2	02:05																								
245960001	2	02:08					X											X								
245960002	2	02:11					X											X								
CCV03	1	02:15					X											X								
CCB03	1	02:17					X											X								
245960003	2	02:20					X											X								
245960004	2	02:23					X											X								
245960005	2	02:26					X											X								
245960006	2	02:29					X											X								
245960007	2	02:32					X											X								
245960008	2	02:36					X											X								
245960009	2	02:39					X											X								
245960010	2	02:42					X											X								
245960011	2	02:45					X											X								
CCV04	1	02:48					X											X								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																							
CCB04	1	02:51					X											X							

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 18-FEB-10 **End Date:** 18-FEB-10

Client Sdg: 10-1511
Method AV
Data File: 021810S1-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:45															X									
S0.2	1	09:47															X									
S0.5	1	09:49															X									
S2.0	1	09:51															X									
S5.0	1	09:53															X									
S10	1	09:55															X									
ICV01	1	09:57															X									
ICB01	1	09:59															X									
CRDL01	1	10:01															X									
CCV01	1	10:03															X									
CCB01	1	10:05															X									
ZZZZZZ	1	10:07																								
ZZZZZZ	10	10:09																								
ZZZZZZ	1	10:11																								
ZZZZZZ	1	10:13																								
ZZZZZZ	1	10:15																								
ZZZZZZ	1	10:17																								
ZZZZZZ	5	10:19																								
ZZZZZZ	1	10:21																								
ZZZZZZ	1	10:23																								
ZZZZZZ	1	10:25																								
CCV02	1	10:27															X									
CCB02	1	10:29															X									
ZZZZZZ	1	10:31																								
ZZZZZZ	1	10:33																								
ZZZZZZ	1	10:35																								
ZZZZZZ	1	10:37																								
ZZZZZZ	1	10:39																								
ZZZZZZ	1	10:41																								
ZZZZZZ	1	10:43																								
ZZZZZZ	1	10:45																								
ZZZZZZ	1	10:47																								
ZZZZZZ	1	10:49																								
CCV03	1	10:51															X									
CCB03	1	10:53															X									
ZZZZZZ	1	10:55																								
ZZZZZZ	1	10:57																								
ZZZZZZ	10	10:59																								
ZZZZZZ	1	11:01																								
ZZZZZZ	1	11:03																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	11:05																								
ZZZZZZ	1	11:07																								
ZZZZZZ	5	11:09																								
ZZZZZZ	1	11:11																								
ZZZZZZ	1	11:13																								
CCV04	1	11:15														X										
CCB04	1	11:17														X										
ZZZZZZ	1	11:19																								
ZZZZZZ	1	11:21																								
ZZZZZZ	1	11:23																								
ZZZZZZ	1	11:25																								
ZZZZZZ	1	11:27																								
ZZZZZZ	1	11:29																								
ZZZZZZ	1	11:31																								
ZZZZZZ	1	11:33																								
ZZZZZZ	1	11:35																								
ZZZZZZ	1	11:37																								
CCV05	1	11:39														X										
CCB05	1	11:41														X										
ZZZZZZ	1	11:43																								
ZZZZZZ	1	11:45																								
ZZZZZZ	1	11:47																								
ZZZZZZ	1	11:49																								
ZZZZZZ	1	11:51																								
ZZZZZZ	1	11:53																								
ZZZZZZ	1	11:55																								
1202039184	1	11:57														X										
1202039185	10	11:59														X										
245960001	1	12:01														X										
CCV06	1	12:03														X										
CCB06	1	12:05														X										
245960002	1	12:07														X										
245960003	1	12:09														X										
245960004	1	12:11														X										
245960005	1	12:12														X										
245960006	1	12:14														X										
245960007	1	12:16														X										
245960008	1	12:18														X										
245960009	1	12:20														X										
245960010	1	12:22														X										

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
245960011	1	12:24															X									
CCV07	1	12:26															X									
CCB07	1	12:28															X									
ZZZZZZ	1	12:30																								
1202039186	1	12:32															X									
1202039187	1	12:34															X									
1202039193	1	12:36															X									
1202039192	5	12:38															X									
ZZZZZZ	1	12:40																								
ZZZZZZ	1	12:42																								
ZZZZZZ	1	12:44																								
ZZZZZZ	1	12:46																								
ZZZZZZ	1	12:48																								
CCV08	1	12:50															X									
CCB08	1	12:52															X									

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 19-FEB-10
End Date: 19-FEB-10

Client Sdg: 10-1511
Method P
Data File: 021910A-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	16:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	16:28		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	16:30	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	16:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	16:38	X						X				X		X							X				
ICV01	1	16:40	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	16:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	16:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	16:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	16:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	16:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	16:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	17:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	17:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR03	1	17:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	17:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	17:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:30																								
ZZZZZZ	1	17:34																								
ZZZZZZ	1	17:37																								
ZZZZZZ	1	17:41																								
ZZZZZZ	1	17:44																								
ZZZZZZ	1	17:48																								
CCV03	1	17:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	17:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:59																								
ZZZZZZ	1	18:03																								
ZZZZZZ	1	18:06																								
ZZZZZZ	1	18:09																								
ZZZZZZ	1	18:13																								
ZZZZZZ	1	18:17																								
ZZZZZZ	5	18:20																								
CCV04	1	18:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	18:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	18:31																								
ZZZZZZ	1	18:35																								
ZZZZZZ	1	18:39																								
ZZZZZZ	1	18:42																								
ZZZZZZ	1	18:46																								
ZZZZZZ	1	18:50																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	18:53																							
CCV05	1	18:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB05	1	19:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:04																							
ZZZZZZ	1	19:08																							
ZZZZZZ	1	19:12																							
ZZZZZZ	1	19:15																							
ZZZZZZ	1	19:19																							
ZZZZZZ	1	19:23																							
CCV06	1	19:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB06	1	19:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:34																							
ZZZZZZ	1	19:37																							
ZZZZZZ	1	19:40																							
ZZZZZZ	1	19:44																							
ZZZZZZ	1	19:48																							
ZZZZZZ	1	19:51																							
ZZZZZZ	5	19:55																							
CCV07	1	19:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB07	1	20:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:06																							
ZZZZZZ	1	20:10																							
ZZZZZZ	1	20:13																							
ZZZZZZ	1	20:17																							
ZZZZZZ	1	20:21																							
ZZZZZZ	1	20:24																							
ZZZZZZ	1	20:28																							
ZZZZZZ	1	20:32																							
CCV08	1	20:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB08	1	20:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:43																							
ZZZZZZ	1	20:46																							
ZZZZZZ	1	20:50																							
ZZZZZZ	1	20:53																							
ZZZZZZ	1	20:57																							
ZZZZZZ	5	21:01																							
ZZZZZZ	1	21:04																							
CCV09	1	21:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	21:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032567	1	21:19	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
1202032572	1	21:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:26																								
1202032568	1	21:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032570	1	21:33	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032571	1	21:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032569	5	21:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:44																								
ZZZZZZ	1	21:48																								
CCV10	1	21:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	21:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:59																								
ZZZZZZ	1	22:03																								
ZZZZZZ	1	22:06																								
ZZZZZZ	1	22:10																								
ZZZZZZ	1	22:14																								
245960001	1	22:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960002	1	22:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960003	1	22:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV11	1	22:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	22:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960004	1	22:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960005	1	22:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960006	1	22:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960007	1	22:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960008	1	22:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960009	1	22:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960010	1	22:58	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960011	1	23:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV12	1	23:05	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB12	1	23:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1511

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1511

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1511

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
GEL Job No: 10-1511
Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
GEL Job No: 10-1511
Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-1511
Contract: LANL01004
Instrument: OPTIMA1 **Effective Dates:** 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
GEL Job No: 10-1511
Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1511

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1511

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

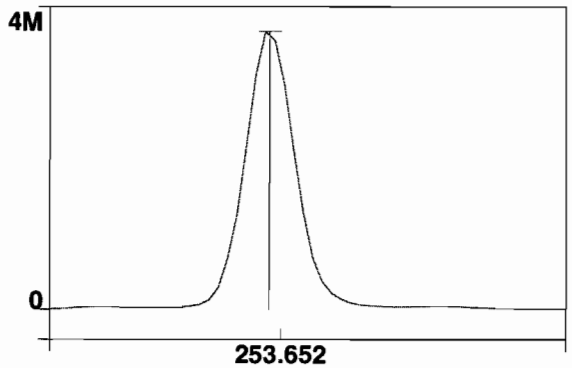
Raw Data

Method: Hg_ReAlign
Result: 022710B

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1



Intensity: 3672376.8 cps
Conc:

1

==========

Analysis Begun

Start Time: 2/19/2010 16:24:40 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021910E.sif
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/19/2010 15:19:26**
IEC File: 011510.iec **MSF File:**
Method Description:

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

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/19/2010 16:24:43**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56379.0	56379.0	99.8	%	16:25:17
1	Al 396.153Radial†	16.2	16.2	[0.00]	µg/L	16:25:17
1	Ca 317.933Radial†	214.7	215.2	[0.00]	µg/L	16:25:38
1	Fe 238.204 Radial†	18.4	18.4	[0.00]	µg/L	16:25:38

1	K 766.490 Radial†	170.1	170.5	[0.00] µg/L	16:25:17
1	Mg 279.077 IEC†	12.4	12.5	[0.00] µg/L	16:25:38
1	Na 589.592 Radial†	471.3	472.3	[0.00] µg/L	16:25:17
1	Sr 421.552†	12.0	12.0	[0.00] µg/L	16:25:17
1	Sc 361.383	1972868.2	1972868.2	100.50 %	16:26:40
1	Y 371.029	1358545.8	1358545.8	100.43 %	16:26:40
1	Ag 328.068†	-377.9	-376.0	[0.00] µg/L	16:26:45
1	As 188.979†	2.0	2.0	[0.00] µg/L	16:27:06
1	B 249.677†	379.3	377.5	[0.00] µg/L	16:27:06
1	Ba 233.527†	-13.3	-13.3	[0.00] µg/L	16:27:06
1	Be 313.107†	-2914.6	-2900.2	[0.00] µg/L	16:26:45
1	Cd 226.502†	-140.3	-139.6	[0.00] µg/L	16:27:06
1	Co 228.616†	-4.5	-4.5	[0.00] µg/L	16:27:06
1	Cr 267.716†	-50.8	-50.6	[0.00] µg/L	16:26:45
1	Cu 324.752†	2545.0	2532.4	[0.00] µg/L	16:26:45
1	Mn 257.610†	-255.0	-253.7	[0.00] µg/L	16:27:06
1	Mo 202.031†	-2.4	-2.3	[0.00] µg/L	16:27:06
1	Ni 231.604†	320.7	319.1	[0.00] µg/L	16:27:06
1	P 214.914†	15.8	15.8	[0.00] µg/L	16:27:06
1	Pb 220.353†	88.6	88.2	[0.00] µg/L	16:27:06
1	S 181.975 Axial†	19.1	19.1	[0.00] µg/L	16:27:06
1	Sb 206.836†	17.4	17.3	[0.00] µg/L	16:27:06
1	Se 196.026†	20.3	20.2	[0.00] µg/L	16:27:06
1	SiO2†	1396.5	1389.6	[0.00] µg/L	16:26:45
1	Si 251.611†	308.1	306.6	[0.00] µg/L	16:27:06
1	Sn 189.927†	0.6	0.6	[0.00] µg/L	16:27:06
1	Ti 334.940†	185.3	184.3	[0.00] µg/L	16:26:45
1	Tl 190.801†	-23.5	-23.3	[0.00] µg/L	16:27:06
1	U 409.014†	-92.6	-92.1	[0.00] µg/L	16:26:45
1	V 292.402†	-67.1	-66.8	[0.00] µg/L	16:26:45
1	Zn 213.857†	537.3	534.6	[0.00] µg/L	16:27:06
2	Sc RADIAL	56755.6	56755.6	100 %	16:25:43
2	Al 396.153Radial†	-1.8	-1.8	[0.00] µg/L	16:25:43
2	Ca 317.933Radial†	215.5	214.5	[0.00] µg/L	16:26:04
2	Fe 238.204 Radial†	16.5	16.4	[0.00] µg/L	16:26:04
2	K 766.490 Radial†	182.5	181.6	[0.00] µg/L	16:25:43
2	Mg 279.077 IEC†	11.4	11.3	[0.00] µg/L	16:26:04
2	Na 589.592 Radial†	457.5	455.4	[0.00] µg/L	16:25:43
2	Sr 421.552†	48.2	48.0	[0.00] µg/L	16:25:43
2	Sc 361.383	1966863.7	1966863.7	100.19 %	16:27:12
2	Y 371.029	1355430.0	1355430.0	100.20 %	16:27:12
2	Ag 328.068†	-456.1	-455.2	[0.00] µg/L	16:27:17
2	As 188.979†	1.0	0.9	[0.00] µg/L	16:27:38
2	B 249.677†	393.1	392.3	[0.00] µg/L	16:27:38
2	Ba 233.527†	-22.9	-22.8	[0.00] µg/L	16:27:38
2	Be 313.107†	-2829.8	-2824.4	[0.00] µg/L	16:27:17
2	Cd 226.502†	-143.7	-143.4	[0.00] µg/L	16:27:38
2	Co 228.616†	5.2	5.2	[0.00] µg/L	16:27:38
2	Cr 267.716†	-56.7	-56.6	[0.00] µg/L	16:27:17
2	Cu 324.752†	2525.9	2521.0	[0.00] µg/L	16:27:17
2	Mn 257.610†	-246.3	-245.8	[0.00] µg/L	16:27:38
2	Mo 202.031†	-7.2	-7.2	[0.00] µg/L	16:27:38
2	Ni 231.604†	311.9	311.3	[0.00] µg/L	16:27:38
2	P 214.914†	14.8	14.8	[0.00] µg/L	16:27:38
2	Pb 220.353†	93.7	93.5	[0.00] µg/L	16:27:38
2	S 181.975 Axial†	14.7	14.7	[0.00] µg/L	16:27:38
2	Sb 206.836†	27.4	27.4	[0.00] µg/L	16:27:38
2	Se 196.026†	17.0	16.9	[0.00] µg/L	16:27:38
2	SiO2†	1365.2	1362.6	[0.00] µg/L	16:27:17
2	Si 251.611†	311.7	311.1	[0.00] µg/L	16:27:38
2	Sn 189.927†	0.1	0.1	[0.00] µg/L	16:27:38
2	Ti 334.940†	147.4	147.1	[0.00] µg/L	16:27:17
2	Tl 190.801†	-23.8	-23.8	[0.00] µg/L	16:27:38
2	U 409.014†	-39.1	-39.0	[0.00] µg/L	16:27:17
2	V 292.402†	-66.7	-66.6	[0.00] µg/L	16:27:17
2	Zn 213.857†	535.6	534.6	[0.00] µg/L	16:27:38
3	Sc RADIAL	56352.2	56352.2	99.7 %	16:26:09
3	Al 396.153Radial†	7.7	7.7	[0.00] µg/L	16:26:09
3	Ca 317.933Radial†	203.6	204.1	[0.00] µg/L	16:26:29
3	Fe 238.204 Radial†	14.9	14.9	[0.00] µg/L	16:26:29
3	K 766.490 Radial†	142.5	142.8	[0.00] µg/L	16:26:09

3	Mg 279.077 IEC†	14.6	14.7	[0.00] µg/L	16:26:29
3	Na 589.592 Radial†	487.6	488.9	[0.00] µg/L	16:26:09
3	Sr 421.552†	26.3	26.4	[0.00] µg/L	16:26:09
3	Sc 361.383	1949627.5	1949627.5	99.313 %	16:27:44
3	Y 371.029	1344291.5	1344291.5	99.374 %	16:27:44
3	Ag 328.068†	-371.1	-373.6	[0.00] µg/L	16:27:50
3	As 188.979†	-4.3	-4.4	[0.00] µg/L	16:28:10
3	B 249.677†	380.0	382.6	[0.00] µg/L	16:28:10
3	Ba 233.527†	-15.0	-15.1	[0.00] µg/L	16:28:10
3	Be 313.107†	-2823.0	-2842.5	[0.00] µg/L	16:27:50
3	Cd 226.502†	-141.0	-142.0	[0.00] µg/L	16:28:10
3	Co 228.616†	5.0	5.1	[0.00] µg/L	16:28:10
3	Cr 267.716†	-43.6	-43.9	[0.00] µg/L	16:27:50
3	Cu 324.752†	2560.1	2577.8	[0.00] µg/L	16:27:50
3	Mn 257.610†	-266.7	-268.5	[0.00] µg/L	16:28:10
3	Mo 202.031†	-6.5	-6.5	[0.00] µg/L	16:28:10
3	Ni 231.604†	304.5	306.6	[0.00] µg/L	16:28:10
3	P 214.914†	15.4	15.5	[0.00] µg/L	16:28:10
3	Pb 220.353†	90.5	91.1	[0.00] µg/L	16:28:10
3	S 181.975 Axial†	22.9	23.0	[0.00] µg/L	16:28:10
3	Sb 206.836†	22.7	22.8	[0.00] µg/L	16:28:10
3	Se 196.026†	20.7	20.8	[0.00] µg/L	16:28:10
3	SiO2†	1412.7	1422.5	[0.00] µg/L	16:27:50
3	Si 251.611†	312.1	314.3	[0.00] µg/L	16:28:10
3	Sn 189.927†	0.4	0.4	[0.00] µg/L	16:28:10
3	Ti 334.940†	192.3	193.6	[0.00] µg/L	16:27:50
3	Tl 190.801†	-19.9	-20.0	[0.00] µg/L	16:28:10
3	U 409.014†	-99.5	-100.1	[0.00] µg/L	16:27:50
3	V 292.402†	-0.9	-0.9	[0.00] µg/L	16:27:50
3	Zn 213.857†	530.3	534.0	[0.00] µg/L	16:28:10

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1963119.8	12064.22	0.61%	100.00	%
Sc RADIAL	56495.6	225.58	0.40%	100	%
Y 371.029	1352755.8	7494.01	0.55%	100.00	%
Ag 328.068†	-401.6	46.42	11.56%	[0.00]	µg/L
Al 396.153Radial†	7.4	9.00	122.22%	[0.00]	µg/L
As 188.979†	-0.5	3.42	746.44%	[0.00]	µg/L
B 249.677†	384.1	7.56	1.97%	[0.00]	µg/L
Ba 233.527†	-17.1	5.08	29.78%	[0.00]	µg/L
Be 313.107†	-2855.7	39.56	1.39%	[0.00]	µg/L
Ca 317.933Radial†	211.3	6.18	2.93%	[0.00]	µg/L
Cd 226.502†	-141.7	1.91	1.35%	[0.00]	µg/L
Co 228.616†	1.9	5.56	287.58%	[0.00]	µg/L
Cr 267.716†	-50.4	6.37	12.65%	[0.00]	µg/L
Cu 324.752†	2543.7	30.02	1.18%	[0.00]	µg/L
Fe 238.204 Radial†	16.6	1.77	10.70%	[0.00]	µg/L
K 766.490 Radial†	165.0	19.97	12.10%	[0.00]	µg/L
Mg 279.077 IEC†	12.8	1.69	13.22%	[0.00]	µg/L
Mn 257.610†	-256.0	11.55	4.51%	[0.00]	µg/L
Mo 202.031†	-5.3	2.62	48.99%	[0.00]	µg/L
Na 589.592 Radial†	472.2	16.73	3.54%	[0.00]	µg/L
Ni 231.604†	312.3	6.29	2.01%	[0.00]	µg/L
P 214.914†	15.3	0.52	3.38%	[0.00]	µg/L
Pb 220.353†	90.9	2.66	2.92%	[0.00]	µg/L
S 181.975 Axial†	18.9	4.16	21.98%	[0.00]	µg/L
Sb 206.836†	22.5	5.03	22.34%	[0.00]	µg/L
Se 196.026†	19.3	2.09	10.80%	[0.00]	µg/L
SiO2†	1391.6	29.99	2.16%	[0.00]	µg/L
Si 251.611†	310.6	3.86	1.24%	[0.00]	µg/L
Sn 189.927†	0.4	0.26	71.28%	[0.00]	µg/L
Sr 421.552†	28.8	18.10	62.83%	[0.00]	µg/L
Ti 334.940†	175.0	24.62	14.06%	[0.00]	µg/L
Tl 190.801†	-22.4	2.06	9.20%	[0.00]	µg/L
U 409.014†	-77.1	33.23	43.11%	[0.00]	µg/L
V 292.402†	-44.8	37.98	84.87%	[0.00]	µg/L
Zn 213.857†	534.4	0.37	0.07%	[0.00]	µg/L

Sequence No.: 2 | **Autosampler Location: 2**
Sample ID: S0.1 | **Date Collected: 2/19/2010 16:28:19**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56547.7	56547.7	100	%	16:28:54
1	K 766.490 Radial†	1729.4	1562.9	[1000]	µg/L	16:28:54
1	Sr 421.552†	10915.2	10876.4	[100]	µg/L	16:28:54
1	Sc 361.383	1958657.5	1958657.5	99.773	%	16:29:16
1	Y 371.029	1350548.9	1350548.9	99.837	%	16:29:16
1	Ag 328.068†	13553.9	13986.4	[100]	µg/L	16:29:22
1	As 188.979†	59.6	60.2	[100]	µg/L	16:29:42
1	B 249.677†	2836.9	2459.2	[100]	µg/L	16:29:22
1	Ba 233.527†	4355.0	4382.0	[100]	µg/L	16:29:22
1	Be 313.107†	171130.8	174376.3	[100]	µg/L	16:29:16
1	Cd 226.502†	4124.2	4275.2	[100]	µg/L	16:29:22
1	Co 228.616†	2298.0	2301.3	[100]	µg/L	16:29:42
1	Cr 267.716†	5258.9	5321.2	[100]	µg/L	16:29:22
1	Cu 324.752†	18781.5	16280.6	[100]	µg/L	16:29:22
1	Mn 257.610†	33738.0	34070.9	[100]	µg/L	16:29:22
1	Mo 202.031†	1103.1	1111.0	[100]	µg/L	16:29:42
1	Ni 231.604†	2464.7	2158.0	[100]	µg/L	16:29:22
1	P 214.914†	279.5	264.8	[500]	µg/L	16:29:42
1	Pb 220.353†	532.5	442.7	[100]	µg/L	16:29:42
1	S 181.975 Axial†	65.4	46.6	[200]	µg/L	16:29:42
1	Sb 206.836†	134.3	112.1	[100]	µg/L	16:29:42
1	Se 196.026†	91.1	72.0	[100]	µg/L	16:29:42
1	SiO2†	6958.0	5582.3	[1069.5]	µg/L	16:29:22
1	Si 251.611†	7026.5	6731.9	[500]	µg/L	16:29:22
1	Sn 189.927†	255.8	256.0	[100]	µg/L	16:29:42
1	Ti 334.940†	46558.0	46489.0	[100]	µg/L	16:29:22
1	Tl 190.801†	54.5	77.1	[100]	µg/L	16:29:42
1	U 409.014†	1252.7	1332.6	[100]	µg/L	16:29:22
1	V 292.402†	10759.4	10828.7	[100]	µg/L	16:29:22
1	Zn 213.857†	5084.1	4561.2	[100]	µg/L	16:29:22
2	Sc RADIAL	56202.9	56202.9	99.5	%	16:29:00
2	K 766.490 Radial†	1727.4	1571.4	[1000]	µg/L	16:29:00
2	Sr 421.552†	10846.6	10874.3	[100]	µg/L	16:29:00
2	Sc 361.383	1969774.0	1969774.0	100.34	%	16:29:48
2	Y 371.029	1358589.1	1358589.1	100.43	%	16:29:48
2	Ag 328.068†	13626.3	13981.9	[100]	µg/L	16:29:54
2	As 188.979†	59.0	59.2	[100]	µg/L	16:30:15
2	B 249.677†	2870.2	2476.3	[100]	µg/L	16:29:54
2	Ba 233.527†	4352.8	4355.2	[100]	µg/L	16:29:54
2	Be 313.107†	172207.8	174481.8	[100]	µg/L	16:29:48
2	Cd 226.502†	4144.1	4271.8	[100]	µg/L	16:29:54
2	Co 228.616†	2299.6	2289.9	[100]	µg/L	16:30:15
2	Cr 267.716†	5267.7	5300.2	[100]	µg/L	16:29:54
2	Cu 324.752†	18798.4	16191.1	[100]	µg/L	16:29:54
2	Mn 257.610†	33750.8	33892.8	[100]	µg/L	16:29:54
2	Mo 202.031†	1093.5	1095.1	[100]	µg/L	16:30:15
2	Ni 231.604†	2441.8	2121.3	[100]	µg/L	16:29:54
2	P 214.914†	278.5	262.2	[500]	µg/L	16:30:15
2	Pb 220.353†	534.1	441.4	[100]	µg/L	16:30:15
2	S 181.975 Axial†	68.1	49.0	[200]	µg/L	16:30:15
2	Sb 206.836†	141.3	118.3	[100]	µg/L	16:30:15
2	Se 196.026†	84.6	65.0	[100]	µg/L	16:30:15
2	SiO2†	6950.3	5535.3	[1069.5]	µg/L	16:29:54
2	Si 251.611†	7046.5	6712.0	[500]	µg/L	16:29:54
2	Sn 189.927†	257.8	256.5	[100]	µg/L	16:30:15
2	Ti 334.940†	46408.5	46076.6	[100]	µg/L	16:29:54
2	Tl 190.801†	53.9	76.1	[100]	µg/L	16:30:15
2	U 409.014†	1326.1	1398.7	[100]	µg/L	16:29:54
2	V 292.402†	10708.8	10717.4	[100]	µg/L	16:29:54

2	Zn 213.857†	5067.8	4516.3	[100] µg/L	16:29:54
3	Sc RADIAL	55976.7	55976.7	99.1 %	16:29:05
3	K 766.490 Radial†	1714.6	1565.5	[1000] µg/L	16:29:05
3	Sr 421.552†	10778.8	10849.9	[100] µg/L	16:29:05
3	Sc 361.383	1959694.8	1959694.8	99.826 %	16:30:21
3	Y 371.029	1350466.2	1350466.2	99.831 %	16:30:21
3	Ag 328.068†	13514.1	13939.3	[100] µg/L	16:30:27
3	As 188.979†	60.6	61.1	[100] µg/L	16:30:47
3	B 249.677†	2823.5	2444.3	[100] µg/L	16:30:27
3	Ba 233.527†	4346.0	4370.6	[100] µg/L	16:30:27
3	Be 313.107†	170786.2	173940.4	[100] µg/L	16:30:21
3	Cd 226.502†	4105.4	4254.3	[100] µg/L	16:30:27
3	Co 228.616†	2321.1	2323.2	[100] µg/L	16:30:47
3	Cr 267.716†	5182.0	5241.4	[100] µg/L	16:30:27
3	Cu 324.752†	18775.8	16264.9	[100] µg/L	16:30:27
3	Mn 257.610†	33438.9	33753.4	[100] µg/L	16:30:27
3	Mo 202.031†	1103.0	1110.3	[100] µg/L	16:30:47
3	Ni 231.604†	2473.4	2165.4	[100] µg/L	16:30:27
3	P 214.914†	282.4	267.5	[500] µg/L	16:30:47
3	Pb 220.353†	529.2	439.2	[100] µg/L	16:30:47
3	S 181.975 Axial†	72.1	53.3	[200] µg/L	16:30:47
3	Sb 206.836†	136.5	114.2	[100] µg/L	16:30:47
3	Se 196.026†	86.4	67.3	[100] µg/L	16:30:47
3	SiO2†	6918.8	5539.3	[1069.5] µg/L	16:30:27
3	Si 251.611†	6976.1	6677.7	[500] µg/L	16:30:27
3	Sn 189.927†	259.9	260.0	[100] µg/L	16:30:47
3	Ti 334.940†	46135.2	46040.8	[100] µg/L	16:30:27
3	Tl 190.801†	63.1	85.5	[100] µg/L	16:30:47
3	U 409.014†	1279.4	1358.7	[100] µg/L	16:30:27
3	V 292.402†	10662.6	10726.0	[100] µg/L	16:30:27
3	Zn 213.857†	5060.1	4534.5	[100] µg/L	16:30:27

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1962708.8	6140.62	0.31%	99.979	%
Sc RADIAL	56242.4	287.56	0.51%	99.6	%
Y 371.029	1353201.4	4666.07	0.34%	100.03	%
Ag 328.068†	13969.2	25.98	0.19%	[100]	µg/L
As 188.979†	60.2	0.95	1.58%	[100]	µg/L
B 249.677†	2459.9	16.02	0.65%	[100]	µg/L
Ba 233.527†	4369.3	13.48	0.31%	[100]	µg/L
Be 313.107†	174266.2	287.04	0.16%	[100]	µg/L
Cd 226.502†	4267.1	11.24	0.26%	[100]	µg/L
Co 228.616†	2304.8	16.95	0.74%	[100]	µg/L
Cr 267.716†	5287.6	41.38	0.78%	[100]	µg/L
Cu 324.752†	16245.5	47.76	0.29%	[100]	µg/L
K 766.490 Radial†	1566.6	4.37	0.28%	[1000]	µg/L
Mn 257.610†	33905.7	159.14	0.47%	[100]	µg/L
Mo 202.031†	1105.5	8.97	0.81%	[100]	µg/L
Ni 231.604†	2148.2	23.63	1.10%	[100]	µg/L
P 214.914†	264.9	2.64	1.00%	[500]	µg/L
Pb 220.353†	441.1	1.78	0.40%	[100]	µg/L
S 181.975 Axial†	49.6	3.39	6.83%	[200]	µg/L
Sb 206.836†	114.9	3.15	2.74%	[100]	µg/L
Se 196.026†	68.1	3.58	5.25%	[100]	µg/L
SiO2†	5552.3	26.07	0.47%	[1069.5]	µg/L
Si 251.611†	6707.2	27.43	0.41%	[500]	µg/L
Sn 189.927†	257.5	2.17	0.84%	[100]	µg/L
Sr 421.552†	10866.8	14.72	0.14%	[100]	µg/L
Ti 334.940†	46202.1	249.08	0.54%	[100]	µg/L
Tl 190.801†	79.6	5.19	6.52%	[100]	µg/L
U 409.014†	1363.3	33.25	2.44%	[100]	µg/L
V 292.402†	10757.4	61.94	0.58%	[100]	µg/L
Zn 213.857†	4537.3	22.62	0.50%	[100]	µg/L

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

Autosampler Location: 3
Date Collected: 2/19/2010 16:30:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56525.4	56525.4	100	%	16:31:29
1	Al 396.153Radial†	7453.5	7442.2	[5000]	µg/L	16:31:29
1	Ca 317.933Radial†	6221.9	6007.4	[5000]	µg/L	16:31:49
1	K 766.490 Radial†	7933.1	7763.9	[5000]	µg/L	16:31:29
1	Mg 279.077 IEC†	599.2	586.0	[5000]	µg/L	16:31:49
1	Sr 421.552†	54754.2	54696.6	[500]	µg/L	16:31:29
1	Sc 361.383	1991566.8	1991566.8	101.45	%	16:32:53
1	Y 371.029	1367918.2	1367918.2	101.12	%	16:32:53
1	Ag 328.068†	68503.2	67926.3	[500]	µg/L	16:32:58
1	As 188.979†	299.0	295.2	[500]	µg/L	16:33:19
1	B 249.677†	12863.6	12295.7	[500]	µg/L	16:32:58
1	Ba 233.527†	21495.8	21205.8	[500]	µg/L	16:32:58
1	Be 313.107†	866518.5	856997.1	[500]	µg/L	16:32:53
1	Cd 226.502†	20677.7	20524.0	[500]	µg/L	16:32:58
1	Co 228.616†	11538.9	11372.2	[500]	µg/L	16:32:58
1	Cr 267.716†	25928.5	25608.5	[500]	µg/L	16:32:58
1	Cu 324.752†	81773.4	78061.6	[500]	µg/L	16:32:58
1	Mn 257.610†	167098.7	164967.9	[500]	µg/L	16:32:53
1	Mo 202.031†	5532.6	5459.0	[500]	µg/L	16:33:19
1	Ni 231.604†	10768.1	10301.9	[500]	µg/L	16:32:58
1	P 214.914†	1359.0	1324.3	[2500]	µg/L	16:33:19
1	Pb 220.353†	2302.4	2178.6	[500]	µg/L	16:33:19
1	S 181.975 Axial†	272.4	249.5	[1000]	µg/L	16:33:19
1	Sb 206.836†	599.4	568.4	[500]	µg/L	16:33:19
1	Se 196.026†	396.8	371.8	[500]	µg/L	16:33:19
1	SiO2†	29409.8	27598.2	[5347.5]	µg/L	16:32:58
1	Si 251.611†	34329.7	33528.7	[2500]	µg/L	16:32:58
1	Sn 189.927†	1299.8	1280.9	[500]	µg/L	16:33:19
1	Ti 334.940†	233565.9	230054.7	[500]	µg/L	16:32:53
1	Tl 190.801†	385.4	402.3	[500]	µg/L	16:33:19
1	U 409.014†	6215.4	6203.7	[500]	µg/L	16:32:58
1	V 292.402†	53048.0	52335.0	[500]	µg/L	16:32:58
1	Zn 213.857†	22866.4	22005.3	[500]	µg/L	16:32:58
2	Sc RADIAL	57277.6	57277.6	101	%	16:31:55
2	Al 396.153Radial†	7395.5	7287.2	[5000]	µg/L	16:31:55
2	Ca 317.933Radial†	6211.2	5915.2	[5000]	µg/L	16:32:15
2	K 766.490 Radial†	7980.6	7706.7	[5000]	µg/L	16:31:55
2	Mg 279.077 IEC†	604.0	583.0	[5000]	µg/L	16:32:15
2	Sr 421.552†	54765.5	53989.0	[500]	µg/L	16:31:55
2	Sc 361.383	1976796.7	1976796.7	100.70	%	16:33:26
2	Y 371.029	1357513.2	1357513.2	100.35	%	16:33:26
2	Ag 328.068†	68789.6	68715.3	[500]	µg/L	16:33:31
2	As 188.979†	285.8	284.2	[500]	µg/L	16:33:52
2	B 249.677†	12976.0	12502.1	[500]	µg/L	16:33:31
2	Ba 233.527†	21626.4	21493.9	[500]	µg/L	16:33:31
2	Be 313.107†	874707.4	871511.2	[500]	µg/L	16:33:26
2	Cd 226.502†	20785.1	20783.0	[500]	µg/L	16:33:31
2	Co 228.616†	11579.6	11497.5	[500]	µg/L	16:33:31
2	Cr 267.716†	26128.8	25998.4	[500]	µg/L	16:33:31
2	Cu 324.752†	82210.9	79098.3	[500]	µg/L	16:33:31
2	Mn 257.610†	168624.9	167714.3	[500]	µg/L	16:33:26
2	Mo 202.031†	5307.9	5276.5	[500]	µg/L	16:33:52
2	Ni 231.604†	10841.5	10454.2	[500]	µg/L	16:33:31
2	P 214.914†	1330.2	1305.6	[2500]	µg/L	16:33:52
2	Pb 220.353†	2234.1	2127.7	[500]	µg/L	16:33:52
2	S 181.975 Axial†	262.6	241.9	[1000]	µg/L	16:33:52
2	Sb 206.836†	590.7	564.1	[500]	µg/L	16:33:52
2	Se 196.026†	389.5	367.5	[500]	µg/L	16:33:52
2	SiO2†	29539.9	27943.9	[5347.5]	µg/L	16:33:31

2	Si 251.611†	34501.4	33952.0	[2500] µg/L	16:33:31
2	Sn 189.927†	1233.2	1224.3	[500] µg/L	16:33:52
2	Ti 334.940†	235746.0	233939.9	[500] µg/L	16:33:26
2	Tl 190.801†	379.0	398.8	[500] µg/L	16:33:52
2	U 409.014†	6274.1	6307.8	[500] µg/L	16:33:31
2	V 292.402†	53430.8	53105.9	[500] µg/L	16:33:31
2	Zn 213.857†	22993.9	22300.4	[500] µg/L	16:33:31
3	Sc RADIAL	57058.8	57058.8	101 %	16:32:20
3	Al 396.153Radial†	7492.8	7411.5	[5000] µg/L	16:32:20
3	Ca 317.933Radial†	6205.9	5933.4	[5000] µg/L	16:32:41
3	K 766.490 Radial†	8033.0	7788.8	[5000] µg/L	16:32:20
3	Mg 279.077 IEC†	601.3	582.5	[5000] µg/L	16:32:41
3	Sr 421.552†	55478.9	54902.6	[500] µg/L	16:32:20
3	Sc 361.383	1973452.3	1973452.3	100.53 %	16:33:59
3	Y 371.029	1355765.1	1355765.1	100.22 %	16:33:59
3	Ag 328.068†	62917.4	62989.6	[500] µg/L	16:34:05
3	As 188.979†	237.6	236.8	[500] µg/L	16:34:25
3	B 249.677†	11812.4	11366.4	[500] µg/L	16:34:05
3	Ba 233.527†	19002.6	18920.2	[500] µg/L	16:34:05
3	Be 313.107†	778040.5	776822.6	[500] µg/L	16:33:59
3	Cd 226.502†	18161.8	18208.4	[500] µg/L	16:34:05
3	Co 228.616†	9999.7	9945.4	[500] µg/L	16:34:05
3	Cr 267.716†	21799.1	21735.4	[500] µg/L	16:34:05
3	Cu 324.752†	71681.4	68762.3	[500] µg/L	16:34:05
3	Mn 257.610†	150744.1	150210.9	[500] µg/L	16:33:59
3	Mo 202.031†	4242.5	4225.7	[500] µg/L	16:34:25
3	Ni 231.604†	9432.3	9070.6	[500] µg/L	16:34:05
3	P 214.914†	1083.7	1062.7	[2500] µg/L	16:34:25
3	Pb 220.353†	1851.4	1750.7	[500] µg/L	16:34:25
3	S 181.975 Axial†	228.1	208.0	[1000] µg/L	16:34:25
3	Sb 206.836†	487.0	461.9	[500] µg/L	16:34:25
3	Se 196.026†	331.3	310.2	[500] µg/L	16:34:25
3	SiO2†	26534.1	25003.6	[5347.5] µg/L	16:34:05
3	Si 251.611†	30910.4	30437.9	[2500] µg/L	16:34:05
3	Sn 189.927†	970.3	964.9	[500] µg/L	16:34:25
3	Ti 334.940†	207765.1	206502.3	[500] µg/L	16:33:59
3	Tl 190.801†	318.1	338.8	[500] µg/L	16:34:25
3	U 409.014†	5271.8	5321.3	[500] µg/L	16:34:05
3	V 292.402†	45729.0	45534.4	[500] µg/L	16:34:05
3	Zn 213.857†	20028.6	19389.3	[500] µg/L	16:34:05

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1980605.3	9639.15	0.49%	100.89	%
Sc RADIAL	56953.9	386.91	0.68%	101	%
Y 371.029	1360398.8	6570.38	0.48%	100.57	%
Ag 328.068†	66543.7	3103.16	4.66%	[500]	µg/L
Al 396.153Radial†	7380.3	82.09	1.11%	[5000]	µg/L
As 188.979†	272.1	31.03	11.41%	[500]	µg/L
B 249.677†	12054.7	604.97	5.02%	[500]	µg/L
Ba 233.527†	20540.0	1410.14	6.87%	[500]	µg/L
Be 313.107†	835110.3	50997.60	6.11%	[500]	µg/L
Ca 317.933Radial†	5952.0	48.84	0.82%	[5000]	µg/L
Cd 226.502†	19838.5	1417.61	7.15%	[500]	µg/L
Co 228.616†	10938.4	862.20	7.88%	[500]	µg/L
Cr 267.716†	24447.5	2356.79	9.64%	[500]	µg/L
Cu 324.752†	75307.4	5691.88	7.56%	[500]	µg/L
K 766.490 Radial†	7753.1	42.12	0.54%	[5000]	µg/L
Mg 279.077 IEC†	583.8	1.92	0.33%	[5000]	µg/L
Mn 257.610†	160964.4	9413.47	5.85%	[500]	µg/L
Mo 202.031†	4987.0	665.66	13.35%	[500]	µg/L
Ni 231.604†	9942.2	758.69	7.63%	[500]	µg/L
P 214.914†	1230.9	145.94	11.86%	[2500]	µg/L
Pb 220.353†	2019.0	233.71	11.58%	[500]	µg/L
S 181.975 Axial†	233.1	22.09	9.48%	[1000]	µg/L
Sb 206.836†	531.5	60.25	11.34%	[500]	µg/L
Se 196.026†	349.9	34.37	9.82%	[500]	µg/L
SiO2†	26848.6	1607.13	5.99%	[5347.5]	µg/L
Si 251.611†	32639.5	1918.39	5.88%	[2500]	µg/L

Sn 189.927†	1156.7	168.51	14.57%	[500] µg/L
Sr 421.552†	54529.4	479.17	0.88%	[500] µg/L
Ti 334.940†	223499.0	14847.21	6.64%	[500] µg/L
Tl 190.801†	380.0	35.70	9.40%	[500] µg/L
U 409.014†	5944.2	542.02	9.12%	[500] µg/L
V 292.402†	50325.1	4166.77	8.28%	[500] µg/L
Zn 213.857†	21231.7	1602.33	7.55%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/19/2010 16:34:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57422.3	57422.3	102	%	16:35:07
1	Al 396.153Radial†	14869.0	14621.7	[10000]	µg/L	16:35:07
1	Ca 317.933Radial†	12244.2	11835.4	[10000]	µg/L	16:35:27
1	Fe 238.204 Radial†	1337.9	1299.7	[10000]	µg/L	16:35:27
1	K 766.490 Radial†	15761.0	15341.7	[10000]	µg/L	16:35:07
1	Mg 279.077 IEC†	1192.0	1159.9	[10000]	µg/L	16:35:27
1	Na 589.592 Radial†	34164.4	33140.9	[10000]	µg/L	16:35:07
1	Sr 421.552†	110392.2	108581.9	[1000]	µg/L	16:35:07
1	Sc 361.383	1976099.1	1976099.1	100.66	%	16:36:31
1	Y 371.029	1355904.7	1355904.7	100.23	%	16:36:31
1	Ag 328.068†	139743.4	139227.2	[1000]	µg/L	16:36:37
1	As 188.979†	605.1	601.6	[1000]	µg/L	16:36:57
1	B 249.677†	26002.4	25447.4	[1000]	µg/L	16:36:37
1	Ba 233.527†	43710.4	43440.4	[1000]	µg/L	16:36:37
1	Be 313.107†	1745428.1	1736819.7	[1000]	µg/L	16:36:31
1	Cd 226.502†	41933.9	41800.2	[1000]	µg/L	16:36:37
1	Co 228.616†	23253.7	23099.0	[1000]	µg/L	16:36:37
1	Cr 267.716†	53002.6	52704.8	[1000]	µg/L	16:36:37
1	Cu 324.752†	163999.7	160378.8	[1000]	µg/L	16:36:37
1	Mn 257.610†	334533.8	332592.5	[1000]	µg/L	16:36:37
1	Mo 202.031†	11127.7	11059.9	[1000]	µg/L	16:36:57
1	Ni 231.604†	21437.9	20984.7	[1000]	µg/L	16:36:37
1	P 214.914†	2747.0	2713.6	[5000]	µg/L	16:36:57
1	Pb 220.353†	4519.4	4398.7	[1000]	µg/L	16:36:57
1	S 181.975 Axial†	537.0	514.5	[2000]	µg/L	16:36:57
1	Sb 206.836†	1201.1	1170.7	[1000]	µg/L	16:36:57
1	Se 196.026†	778.4	754.0	[1000]	µg/L	16:36:57
1	SiO2†	57839.1	56067.6	[10695]	µg/L	16:36:37
1	Si 251.611†	68811.8	68049.2	[5000]	µg/L	16:36:37
1	Sn 189.927†	2603.2	2585.7	[1000]	µg/L	16:36:57
1	Ti 334.940†	470528.6	467263.1	[1000]	µg/L	16:36:31
1	Tl 190.801†	793.2	810.4	[1000]	µg/L	16:36:57
1	U 409.014†	12617.6	12611.8	[1000]	µg/L	16:36:37
1	V 292.402†	108523.0	107854.9	[1000]	µg/L	16:36:37
1	Zn 213.857†	45321.2	44489.2	[1000]	µg/L	16:36:37
2	Sc RADIAL	58102.6	58102.6	103	%	16:35:33
2	Al 396.153Radial†	14960.9	14539.8	[10000]	µg/L	16:35:33
2	Ca 317.933Radial†	12189.3	11640.9	[10000]	µg/L	16:35:53
2	Fe 238.204 Radial†	1332.7	1279.3	[10000]	µg/L	16:35:53
2	K 766.490 Radial†	15805.1	15203.0	[10000]	µg/L	16:35:33
2	Mg 279.077 IEC†	1183.6	1138.1	[10000]	µg/L	16:35:53
2	Na 589.592 Radial†	34301.4	32880.5	[10000]	µg/L	16:35:33
2	Sr 421.552†	111111.1	108009.2	[1000]	µg/L	16:35:33
2	Sc 361.383	1983646.2	1983646.2	101.05	%	16:37:04
2	Y 371.029	1360206.5	1360206.5	100.55	%	16:37:04
2	Ag 328.068†	139094.6	138056.9	[1000]	µg/L	16:37:10
2	As 188.979†	587.5	581.9	[1000]	µg/L	16:37:30
2	B 249.677†	25898.4	25246.3	[1000]	µg/L	16:37:10
2	Ba 233.527†	43616.3	43182.0	[1000]	µg/L	16:37:10
2	Be 313.107†	1746219.5	1731005.6	[1000]	µg/L	16:37:04
2	Cd 226.502†	41774.2	41483.6	[1000]	µg/L	16:37:10
2	Co 228.616†	23185.1	22943.2	[1000]	µg/L	16:37:10
2	Cr 267.716†	52660.4	52165.9	[1000]	µg/L	16:37:10
2	Cu 324.752†	163246.9	159013.9	[1000]	µg/L	16:37:10
2	Mn 257.610†	333323.0	330129.8	[1000]	µg/L	16:37:10
2	Mo 202.031†	10856.0	10749.0	[1000]	µg/L	16:37:30
2	Ni 231.604†	21396.9	20863.1	[1000]	µg/L	16:37:10
2	P 214.914†	2695.8	2652.5	[5000]	µg/L	16:37:30
2	Pb 220.353†	4439.8	4303.0	[1000]	µg/L	16:37:30

2	S 181.975 Axial†	528.4	504.0	[2000] µg/L	16:37:30
2	Sb 206.836†	1179.2	1144.5	[1000] µg/L	16:37:30
2	Se 196.026†	773.9	746.5	[1000] µg/L	16:37:30
2	SiO2†	57827.3	55837.4	[10695] µg/L	16:37:10
2	Si 251.611†	68760.8	67738.7	[5000] µg/L	16:37:10
2	Sn 189.927†	2530.7	2504.2	[1000] µg/L	16:37:30
2	Ti 334.940†	470622.3	465577.3	[1000] µg/L	16:37:04
2	Tl 190.801†	781.8	796.1	[1000] µg/L	16:37:30
2	U 409.014†	12629.7	12576.1	[1000] µg/L	16:37:10
2	V 292.402†	108044.3	106971.0	[1000] µg/L	16:37:10
2	Zn 213.857†	45147.6	44146.0	[1000] µg/L	16:37:10
3	Sc RADIAL	57759.7	57759.7	102 %	16:35:59
3	Al 396.153Radial†	14873.5	14540.6	[10000] µg/L	16:35:59
3	Ca 317.933Radial†	12176.6	11698.9	[10000] µg/L	16:36:19
3	Fe 238.204 Radial†	1332.4	1286.7	[10000] µg/L	16:36:19
3	K 766.490 Radial†	15741.4	15231.9	[10000] µg/L	16:35:59
3	Mg 279.077 IEC†	1190.1	1151.2	[10000] µg/L	16:36:19
3	Na 589.592 Radial†	34189.4	32969.0	[10000] µg/L	16:35:59
3	Sr 421.552†	110552.5	108104.4	[1000] µg/L	16:35:59
3	Sc 361.383	1985078.6	1985078.6	101.12 %	16:37:37
3	Y 371.029	1363323.6	1363323.6	100.78 %	16:37:37
3	Ag 328.068†	130033.0	128996.2	[1000] µg/L	16:37:43
3	As 188.979†	504.5	499.3	[1000] µg/L	16:38:03
3	B 249.677†	23878.6	23230.3	[1000] µg/L	16:37:43
3	Ba 233.527†	39125.7	38709.9	[1000] µg/L	16:37:43
3	Be 313.107†	1611138.8	1596172.2	[1000] µg/L	16:37:37
3	Cd 226.502†	37509.7	37236.5	[1000] µg/L	16:37:43
3	Co 228.616†	20554.3	20325.0	[1000] µg/L	16:37:43
3	Cr 267.716†	45522.8	45069.6	[1000] µg/L	16:37:43
3	Cu 324.752†	146020.7	141861.7	[1000] µg/L	16:37:43
3	Mn 257.610†	295756.2	292740.6	[1000] µg/L	16:37:43
3	Mo 202.031†	9074.4	8979.3	[1000] µg/L	16:38:03
3	Ni 231.604†	18944.4	18422.5	[1000] µg/L	16:37:43
3	P 214.914†	2295.1	2254.3	[5000] µg/L	16:38:03
3	Pb 220.353†	3820.6	3687.4	[1000] µg/L	16:38:03
3	S 181.975 Axial†	464.0	439.9	[2000] µg/L	16:38:03
3	Sb 206.836†	1004.3	970.7	[1000] µg/L	16:38:03
3	Se 196.026†	672.5	645.8	[1000] µg/L	16:38:03
3	SiO2†	52945.1	50967.8	[10695] µg/L	16:37:43
3	Si 251.611†	62859.1	61853.1	[5000] µg/L	16:37:43
3	Sn 189.927†	2084.7	2061.2	[1000] µg/L	16:38:03
3	Ti 334.940†	431690.8	426740.5	[1000] µg/L	16:37:37
3	Tl 190.801†	695.2	709.9	[1000] µg/L	16:38:03
3	U 409.014†	11027.6	10982.7	[1000] µg/L	16:37:43
3	V 292.402†	95350.9	94340.9	[1000] µg/L	16:37:43
3	Zn 213.857†	40251.0	39271.3	[1000] µg/L	16:37:43

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1981608.0	4824.30	0.24%	100.94	%
Sc RADIAL	57761.5	340.17	0.59%	102	%
Y 371.029	1359811.6	3725.20	0.27%	100.52	%
Ag 328.068†	135426.8	5599.70	4.13%	[1000]	µg/L
Al 396.153Radial†	14567.3	47.07	0.32%	[10000]	µg/L
As 188.979†	560.9	54.25	9.67%	[1000]	µg/L
B 249.677†	24641.4	1226.12	4.98%	[1000]	µg/L
Ba 233.527†	41777.5	2659.67	6.37%	[1000]	µg/L
Be 313.107†	1687999.2	79577.59	4.71%	[1000]	µg/L
Ca 317.933Radial†	11725.1	99.83	0.85%	[10000]	µg/L
Cd 226.502†	40173.4	2548.40	6.34%	[1000]	µg/L
Co 228.616†	22122.4	1558.58	7.05%	[1000]	µg/L
Cr 267.716†	49980.1	4261.16	8.53%	[1000]	µg/L
Cu 324.752†	153751.5	10319.43	6.71%	[1000]	µg/L
Fe 238.204 Radial†	1288.5	10.35	0.80%	[10000]	µg/L
K 766.490 Radial†	15258.9	73.17	0.48%	[10000]	µg/L
Mg 279.077 IEC†	1149.7	11.01	0.96%	[10000]	µg/L
Mn 257.610†	318487.6	22331.56	7.01%	[1000]	µg/L
Mo 202.031†	10262.8	1122.29	10.94%	[1000]	µg/L
Na 589.592 Radial†	32996.8	132.37	0.40%	[10000]	µg/L

Ni 231.604†	20090.1	1445.49	7.20%	[1000] µg/L
P 214.914†	2540.1	249.38	9.82%	[5000] µg/L
Pb 220.353†	4129.7	386.03	9.35%	[1000] µg/L
S 181.975 Axial†	486.1	40.36	8.30%	[2000] µg/L
Sb 206.836†	1095.3	108.69	9.92%	[1000] µg/L
Se 196.026†	715.4	60.44	8.45%	[1000] µg/L
SiO2†	54290.9	2880.22	5.31%	[10695] µg/L
Si 251.611†	65880.3	3491.15	5.30%	[5000] µg/L
Sn 189.927†	2383.7	282.23	11.84%	[1000] µg/L
Sr 421.552†	108231.8	306.90	0.28%	[1000] µg/L
Ti 334.940†	453193.6	22924.60	5.06%	[1000] µg/L
Tl 190.801†	772.1	54.39	7.04%	[1000] µg/L
U 409.014†	12056.9	930.42	7.72%	[1000] µg/L
V 292.402†	103055.6	7560.10	7.34%	[1000] µg/L
Zn 213.857†	42635.5	2918.50	6.85%	[1000] µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/19/2010 16:38:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57539.5	57539.5	102	%	16:38:46
1	Al 396.153Radial†	72990.6	71659.1	[50000]	µg/L	16:38:46
1	Ca 317.933Radial†	59650.4	58357.0	[50000]	µg/L	16:38:46
1	Fe 238.204 Radial†	2601.5	2537.7	[20000]	µg/L	16:39:06
1	Mg 279.077 IEC†	5707.4	5591.1	[50000]	µg/L	16:39:06
1	Na 589.592 Radial†	66487.5	64809.1	[20000]	µg/L	16:38:46
1	Sc 361.383	1991346.9	1991346.9	101.44	%	16:40:10
1	Y 371.029	1361642.8	1361642.8	100.66	%	16:40:10
2	Sc RADIAL	57692.4	57692.4	102	%	16:39:12
2	Al 396.153Radial†	73669.2	72133.7	[50000]	µg/L	16:39:12
2	Ca 317.933Radial†	60236.2	58775.4	[50000]	µg/L	16:39:12
2	Fe 238.204 Radial†	2575.9	2505.9	[20000]	µg/L	16:39:32
2	Mg 279.077 IEC†	5682.3	5551.6	[50000]	µg/L	16:39:32
2	Na 589.592 Radial†	66913.0	65052.7	[20000]	µg/L	16:39:12
2	Sc 361.383	1994513.8	1994513.8	101.60	%	16:40:18
2	Y 371.029	1362831.0	1362831.0	100.74	%	16:40:18
3	Sc RADIAL	57518.8	57518.8	102	%	16:39:38
3	Al 396.153Radial†	72963.9	71658.6	[50000]	µg/L	16:39:38
3	Ca 317.933Radial†	59707.9	58434.6	[50000]	µg/L	16:39:38
3	Fe 238.204 Radial†	2595.7	2533.0	[20000]	µg/L	16:39:58
3	Mg 279.077 IEC†	5726.3	5611.7	[50000]	µg/L	16:39:58
3	Na 589.592 Radial†	66483.6	64828.8	[20000]	µg/L	16:39:38
3	Sc 361.383	1986414.7	1986414.7	101.19	%	16:40:26
3	Y 371.029	1358035.0	1358035.0	100.39	%	16:40:26

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1990758.5	4081.49	0.21%	101.41	%
Sc RADIAL	57583.6	94.84	0.16%	102	%
Y 371.029	1360836.3	2497.65	0.18%	100.60	%
Al 396.153Radial†	71817.1	274.12	0.38%	[50000]	µg/L
Ca 317.933Radial†	58522.3	222.58	0.38%	[50000]	µg/L
Fe 238.204 Radial†	2525.5	17.19	0.68%	[20000]	µg/L
Mg 279.077 IEC†	5584.8	30.54	0.55%	[50000]	µg/L
Na 589.592 Radial†	64896.9	135.34	0.21%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	135.0	0.00000	0.999971	
Al 396.153Radial	3	Lin Thru 0	0.0	1.437	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	0.5579	0.00000	0.999904	
B 249.677	3	Lin Thru 0	0.0	24.54	0.00000	0.999963	
Ba 233.527	3	Lin Thru 0	0.0	41.65	0.00000	0.999968	
Be 313.107	3	Lin Thru 0	0.0	1685	0.00000	0.999986	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.171	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	40.09	0.00000	0.999971	
Co 228.616	3	Lin Thru 0	0.0	22.08	0.00000	0.999983	
Cr 267.716	3	Lin Thru 0	0.0	49.79	0.00000	0.999947	
Cu 324.752	3	Lin Thru 0	0.0	153.2	0.00000	0.999952	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1268	0.00000	0.999967	
K 766.490 Radial	3	Lin Thru 0	0.0	1.531	0.00000	0.999977	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1119	0.00000	0.999975	
Mn 257.610	3	Lin Thru 0	0.0	319.3	0.00000	0.999976	
Mo 202.031	3	Lin Thru 0	0.0	10.21	0.00000	0.999909	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.256	0.00000	0.999977	

Ni 231.604	3	Lin Thru 0	0.0	20.06	0.00000	0.999972
P 214.914	3	Lin Thru 0	0.0	0.5051	0.00000	0.999914
Pb 220.353	3	Lin Thru 0	0.0	4.114	0.00000	0.999940
S 181.975 Axial	3	Lin Thru 0	0.0	0.2411	0.00000	0.999862
Sb 206.836	3	Lin Thru 0	0.0	1.089	0.00000	0.999918
Se 196.026	3	Lin Thru 0	0.0	0.7120	0.00000	0.999954
SiO2	3	Lin Thru 0	0.0	5.066	0.00000	0.999988
Si 251.611	3	Lin Thru 0	0.0	13.15	0.00000	0.999992
Sn 189.927	3	Lin Thru 0	0.0	2.371	0.00000	0.999901
Sr 421.552	3	Lin Thru 0	0.0	108.4	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	452.0	0.00000	0.999983
Tl 190.801	3	Lin Thru 0	0.0	0.7699	0.00000	0.999976
U 409.014	3	Lin Thru 0	0.0	12.04	0.00000	0.999914
V 292.402	3	Lin Thru 0	0.0	102.6	0.00000	0.999947
Zn 213.857	3	Lin Thru 0	0.0	42.62	0.00000	0.999982

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/19/2010 16:40:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57359.3	57359.3	102	%			16:41:09
1	Al 396.153Radial†	7610.3	7488.4	5197.5	µg/L	5197.5	ppb	16:41:09
1	Ca 317.933Radial†	6222.8	5917.8	5054.9	µg/L	5054.9	ppb	16:41:29
1	Fe 238.204 Radial†	692.6	665.6	5260.8	µg/L	5260.8	ppb	16:41:29
1	K 766.490 Radial†	4130.5	3903.3	2549.3	µg/L	2549.3	ppb	16:41:09
1	Mg 279.077 IEC†	619.9	597.8	5347.7	µg/L	5347.7	ppb	16:41:29
1	Na 589.592 Radial†	9010.6	8402.7	2580.8	µg/L	2580.8	ppb	16:41:09
1	Sr 421.552†	58315.4	57408.5	529.60	µg/L	529.60	ppb	16:41:09
1	Sc 361.383	2000166.2	2000166.2	101.89	%			16:42:33
1	Y 371.029	1374985.6	1374985.6	101.64	%			16:42:33
1	Ag 328.068†	36064.6	35798.3	269.00	µg/L	269.00	ppb	16:42:38
1	As 188.979†	291.8	286.8	513.02	µg/L	513.02	ppb	16:42:59
1	B 249.677†	13712.5	13074.4	530.96	µg/L	530.96	ppb	16:42:38
1	Ba 233.527†	22228.0	21833.3	525.11	µg/L	525.11	ppb	16:42:38
1	Be 313.107†	460753.1	455074.9	269.89	µg/L	269.89	ppb	16:42:33
1	Cd 226.502†	21063.9	20815.4	519.08	µg/L	519.08	ppb	16:42:38
1	Co 228.616†	11897.3	11675.0	528.19	µg/L	528.19	ppb	16:42:38
1	Cr 267.716†	25972.0	25541.3	513.34	µg/L	513.34	ppb	16:42:38
1	Cu 324.752†	84959.1	80841.8	528.42	µg/L	528.42	ppb	16:42:38
1	Mn 257.610†	174009.6	171042.6	536.11	µg/L	536.11	ppb	16:42:33
1	Mo 202.031†	5977.0	5871.6	575.18	µg/L	575.18	ppb	16:42:59
1	Ni 231.604†	11001.5	10485.4	522.13	µg/L	522.13	ppb	16:42:38
1	P 214.914†	1396.3	1355.1	2632.9	µg/L	2632.9	ppb	16:42:59
1	Pb 220.353†	2319.9	2186.0	531.70	µg/L	531.70	ppb	16:42:59
1	S 181.975 Axial†	667.0	635.7	2636.3	µg/L	2636.3	ppb	16:42:59
1	Sb 206.836†	616.3	582.4	537.83	µg/L	537.83	ppb	16:42:59
1	Se 196.026†	1971.6	1915.8	2698.7	µg/L	2698.7	ppb	16:42:59
1	SiO2†	55895.4	53468.6	10554	µg/L	10554	ppb	16:42:38
1	Si 251.611†	66312.0	64773.2	4924.2	µg/L	4924.2	ppb	16:42:38
1	Sn 189.927†	1397.6	1371.4	578.38	µg/L	578.38	ppb	16:42:59
1	Ti 334.940†	236505.6	231950.1	512.78	µg/L	512.78	ppb	16:42:33
1	Tl 190.801†	406.2	421.1	553.15	µg/L	553.15	ppb	16:42:59
1	U 409.014†	6233.6	6195.2	513.68	µg/L	513.68	ppb	16:42:38
1	V 292.402†	55272.1	54293.1	535.87	µg/L	535.87	ppb	16:42:38
1	Zn 213.857†	23721.8	22748.1	529.99	µg/L	529.99	ppb	16:42:38
2	Sc RADIAL	57362.6	57362.6	102	%			16:41:35
2	Al 396.153Radial†	7570.2	7448.5	5170.1	µg/L	5170.1	ppb	16:41:35
2	Ca 317.933Radial†	6248.3	5942.6	5076.0	µg/L	5076.0	ppb	16:41:55
2	Fe 238.204 Radial†	687.3	660.3	5219.2	µg/L	5219.2	ppb	16:41:55
2	K 766.490 Radial†	4135.1	3907.6	2552.1	µg/L	2552.1	ppb	16:41:35
2	Mg 279.077 IEC†	628.6	606.2	5423.0	µg/L	5423.0	ppb	16:41:55
2	Na 589.592 Radial†	8905.8	8299.0	2549.0	µg/L	2549.0	ppb	16:41:35
2	Sr 421.552†	58283.1	57373.4	529.28	µg/L	529.28	ppb	16:41:35
2	Sc 361.383	1991588.3	1991588.3	101.45	%			16:43:06
2	Y 371.029	1369085.3	1369085.3	101.21	%			16:43:06
2	Ag 328.068†	36279.5	36162.5	271.74	µg/L	271.74	ppb	16:43:12
2	As 188.979†	284.2	280.6	501.89	µg/L	501.89	ppb	16:43:32
2	B 249.677†	13841.7	13259.7	538.55	µg/L	538.55	ppb	16:43:12
2	Ba 233.527†	22542.4	22237.3	534.82	µg/L	534.82	ppb	16:43:12
2	Be 313.107†	458487.5	454789.4	269.72	µg/L	269.72	ppb	16:43:06
2	Cd 226.502†	21330.8	21167.6	527.88	µg/L	527.88	ppb	16:43:12
2	Co 228.616†	12048.7	11874.5	537.21	µg/L	537.21	ppb	16:43:12
2	Cr 267.716†	26258.5	25933.5	521.22	µg/L	521.22	ppb	16:43:12
2	Cu 324.752†	85756.0	81986.4	535.89	µg/L	535.89	ppb	16:43:12
2	Mn 257.610†	173215.7	170995.8	535.95	µg/L	535.95	ppb	16:43:06
2	Mo 202.031†	5783.7	5706.4	559.00	µg/L	559.00	ppb	16:43:32
2	Ni 231.604†	11147.8	10676.1	531.63	µg/L	531.63	ppb	16:43:12
2	P 214.914†	1350.6	1315.9	2554.3	µg/L	2554.3	ppb	16:43:32
2	Pb 220.353†	2269.2	2145.8	521.87	µg/L	521.87	ppb	16:43:32

2	S 181.975 Axial†	662.1	633.7	2628.1 µg/L	2628.1 ppb	16:43:32
2	Sb 206.836†	597.3	566.3	522.67 µg/L	522.67 ppb	16:43:32
2	Se 196.026†	1939.9	1892.9	2666.3 µg/L	2666.3 ppb	16:43:32
2	SiO2†	56544.0	54344.2	10727 µg/L	10727 ppb	16:43:12
2	Si 251.611†	67028.2	65759.4	4999.2 µg/L	4999.2 ppb	16:43:12
2	Sn 189.927†	1346.2	1326.5	559.48 µg/L	559.48 ppb	16:43:32
2	Ti 334.940†	235243.5	231705.8	512.24 µg/L	512.24 ppb	16:43:06
2	Tl 190.801†	411.2	427.8	561.75 µg/L	561.75 ppb	16:43:32
2	U 409.014†	6266.1	6253.6	518.55 µg/L	518.55 ppb	16:43:12
2	V 292.402†	55774.5	55022.0	542.87 µg/L	542.87 ppb	16:43:12
2	Zn 213.857†	24005.0	23127.4	538.84 µg/L	538.84 ppb	16:43:12
3	Sc RADIAL	57314.4	57314.4	101 %		16:42:01
3	Al 396.153Radial†	7617.9	7501.8	5209.5 µg/L	5209.5 ppb	16:42:01
3	Ca 317.933Radial†	6192.6	5892.9	5033.6 µg/L	5033.6 ppb	16:42:21
3	Fe 238.204 Radial†	680.9	654.6	5172.6 µg/L	5172.6 ppb	16:42:21
3	K 766.490 Radial†	4172.6	3948.0	2578.5 µg/L	2578.5 ppb	16:42:01
3	Mg 279.077 IEC†	617.9	596.2	5331.5 µg/L	5331.5 ppb	16:42:21
3	Na 589.592 Radial†	9012.1	8411.2	2583.4 µg/L	2583.4 ppb	16:42:01
3	Sr 421.552†	58397.5	57534.4	530.76 µg/L	530.76 ppb	16:42:01
3	Sc 361.383	1985318.4	1985318.4	101.13 %		16:43:39
3	Y 371.029	1365549.9	1365549.9	100.95 %		16:43:39
3	Ag 328.068†	32686.9	32723.0	245.69 µg/L	245.69 ppb	16:43:45
3	As 188.979†	231.6	229.5	410.45 µg/L	410.45 ppb	16:44:05
3	B 249.677†	12281.0	11759.6	477.28 µg/L	477.28 ppb	16:43:45
3	Ba 233.527†	19297.0	19098.3	459.31 µg/L	459.31 ppb	16:43:45
3	Be 313.107†	404356.4	402690.8	238.83 µg/L	238.83 ppb	16:43:39
3	Cd 226.502†	18203.2	18141.4	452.33 µg/L	452.33 ppb	16:43:45
3	Co 228.616†	10166.3	10050.7	454.63 µg/L	454.63 ppb	16:43:45
3	Cr 267.716†	21411.9	21222.9	426.55 µg/L	426.55 ppb	16:43:45
3	Cu 324.752†	73007.3	69647.2	455.34 µg/L	455.34 ppb	16:43:45
3	Mn 257.610†	153334.3	151875.9	476.08 µg/L	476.08 ppb	16:43:39
3	Mo 202.031†	4566.2	4520.5	442.87 µg/L	442.87 ppb	16:44:05
3	Ni 231.604†	9424.8	9007.0	448.52 µg/L	448.52 ppb	16:43:45
3	P 214.914†	1102.1	1074.4	2083.0 µg/L	2083.0 ppb	16:44:05
3	Pb 220.353†	1863.1	1751.3	425.87 µg/L	425.87 ppb	16:44:05
3	S 181.975 Axial†	551.5	526.4	2182.8 µg/L	2182.8 ppb	16:44:05
3	Sb 206.836†	493.8	465.8	429.60 µg/L	429.60 ppb	16:44:05
3	Se 196.026†	1594.6	1557.5	2195.3 µg/L	2195.3 ppb	16:44:05
3	SiO2†	49563.2	47617.5	9399.1 µg/L	9399.1 ppb	16:43:45
3	Si 251.611†	58584.7	57619.0	4380.3 µg/L	4380.3 ppb	16:43:45
3	Sn 189.927†	1053.3	1041.2	439.13 µg/L	439.13 ppb	16:44:05
3	Ti 334.940†	205922.2	203444.7	449.72 µg/L	449.72 ppb	16:43:39
3	Tl 190.801†	337.8	356.4	468.42 µg/L	468.42 ppb	16:44:05
3	U 409.014†	5226.1	5244.7	434.73 µg/L	434.73 ppb	16:43:45
3	V 292.402†	46549.8	46074.1	454.46 µg/L	454.46 ppb	16:43:45
3	Zn 213.857†	20360.6	19598.5	456.55 µg/L	456.55 ppb	16:43:45

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992357.6	101.49	%	0.380				0.37%
Sc RADIAL	57345.5	102	%	0.0				0.05%
Y 371.029	1369873.6	101.27	%	0.352				0.35%
Ag 328.068†	34894.6	262.14	µg/L	14.318	262.14	ppb	14.318	5.46%
QC value within limits for Ag 328.068 Recovery = 104.86%								
Al 396.153Radial†	7479.5	5192.4	µg/L	20.22	5192.4	ppb	20.22	0.39%
QC value within limits for Al 396.153Radial Recovery = 103.85%								
As 188.979†	265.6	475.12	µg/L	56.284	475.12	ppb	56.284	11.85%
QC value within limits for As 188.979 Recovery = 95.02%								
B 249.677†	12697.9	515.59	µg/L	33.400	515.59	ppb	33.400	6.48%
QC value within limits for B 249.677 Recovery = 103.12%								
Ba 233.527†	21056.3	506.41	µg/L	41.083	506.41	ppb	41.083	8.11%
QC value within limits for Ba 233.527 Recovery = 101.28%								
Be 313.107†	437518.4	259.48	µg/L	17.887	259.48	ppb	17.887	6.89%
QC value within limits for Be 313.107 Recovery = 103.79%								
Ca 317.933Radial†	5917.8	5054.8	µg/L	21.22	5054.8	ppb	21.22	0.42%
QC value within limits for Ca 317.933Radial Recovery = 101.10%								
Cd 226.502†	20041.5	499.76	µg/L	41.316	499.76	ppb	41.316	8.27%
QC value within limits for Cd 226.502 Recovery = 99.95%								
Co 228.616†	11200.1	506.67	µg/L	45.295	506.67	ppb	45.295	8.94%

QC value within limits for Co 228.616 Recovery = 101.33%

Cr 267.716†	24232.6	487.04 µg/L	52.530	487.04 ppb	52.530	10.79%
QC value within limits for Cr 267.716 Recovery = 97.41%						
Cu 324.752†	77491.8	506.55 µg/L	44.507	506.55 ppb	44.507	8.79%
QC value within limits for Cu 324.752 Recovery = 101.31%						
Fe 238.204 Radial†	660.2	5217.6 µg/L	44.12	5217.6 ppb	44.12	0.85%
QC value within limits for Fe 238.204 Radial Recovery = 104.35%						
K 766.490 Radial†	3919.6	2560.0 µg/L	16.09	2560.0 ppb	16.09	0.63%
QC value within limits for K 766.490 Radial Recovery = 102.40%						
Mg 279.077 IEC†	600.1	5367.4 µg/L	48.83	5367.4 ppb	48.83	0.91%
QC value within limits for Mg 279.077 IEC Recovery = 107.35%						
Mn 257.610†	164638.1	516.05 µg/L	34.615	516.05 ppb	34.615	6.71%
QC value within limits for Mn 257.610 Recovery = 103.21%						
Mo 202.031†	5366.2	525.68 µg/L	72.174	525.68 ppb	72.174	13.73%
QC value within limits for Mo 202.031 Recovery = 105.14%						
Na 589.592 Radial†	8371.0	2571.1 µg/L	19.18	2571.1 ppb	19.18	0.75%
QC value within limits for Na 589.592 Radial Recovery = 102.84%						
Ni 231.604†	10056.2	500.76 µg/L	45.489	500.76 ppb	45.489	9.08%
QC value within limits for Ni 231.604 Recovery = 100.15%						
P 214.914†	1248.5	2423.4 µg/L	297.40	2423.4 ppb	297.40	12.27%
QC value within limits for P 214.914 Recovery = 96.94%						
Pb 220.353†	2027.7	493.15 µg/L	58.472	493.15 ppb	58.472	11.86%
QC value within limits for Pb 220.353 Recovery = 98.63%						
S 181.975 Axial†	598.6	2482.4 µg/L	259.45	2482.4 ppb	259.45	10.45%
QC value within limits for S 181.975 Axial Recovery = 99.30%						
Sb 206.836†	538.2	496.70 µg/L	58.600	496.70 ppb	58.600	11.80%
QC value within limits for Sb 206.836 Recovery = 99.34%						
Se 196.026†	1788.7	2520.1 µg/L	281.74	2520.1 ppb	281.74	11.18%
QC value within limits for Se 196.026 Recovery = 100.81%						
SiO2†	51810.1	10227 µg/L	721.9	10227 ppb	721.9	7.06%
QC value within limits for SiO2 Recovery = 95.62%						
Si 251.611†	62717.2	4767.9 µg/L	337.74	4767.9 ppb	337.74	7.08%
QC value within limits for Si 251.611 Recovery = 95.36%						
Sn 189.927†	1246.4	525.66 µg/L	75.534	525.66 ppb	75.534	14.37%
QC value within limits for Sn 189.927 Recovery = 105.13%						
Sr 421.552†	57438.8	529.88 µg/L	0.781	529.88 ppb	0.781	0.15%
QC value within limits for Sr 421.552 Recovery = 105.98%						
Ti 334.940†	222366.9	491.58 µg/L	36.251	491.58 ppb	36.251	7.37%
QC value within limits for Ti 334.940 Recovery = 98.32%						
Tl 190.801†	401.7	527.77 µg/L	51.582	527.77 ppb	51.582	9.77%
QC value within limits for Tl 190.801 Recovery = 105.55%						
U 409.014†	5897.8	488.99 µg/L	47.052	488.99 ppb	47.052	9.62%
QC value within limits for U 409.014 Recovery = 97.80%						
V 292.402†	51796.4	511.07 µg/L	49.146	511.07 ppb	49.146	9.62%
QC value within limits for V 292.402 Recovery = 102.21%						
Zn 213.857†	21824.7	508.46 µg/L	45.173	508.46 ppb	45.173	8.88%
QC value within limits for Zn 213.857 Recovery = 101.69%						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/19/2010 16:44:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56443.8	56443.8	99.9	%			16:44:48
1	Al 396.153Radial†	-10.1	-17.4	-12.137	µg/L	-12.137	ppb	16:44:48
1	Ca 317.933Radial†	199.6	-11.5	-9.8207	µg/L	-9.8207	ppb	16:45:08
1	Fe 238.204 Radial†	15.6	-0.9	-7.1871	µg/L	-7.1871	ppb	16:45:08
1	K 766.490 Radial†	171.4	6.6	4.2945	µg/L	4.2945	ppb	16:44:48
1	Mg 279.077 IEC†	7.6	-5.2	-46.321	µg/L	-46.321	ppb	16:45:08
1	Na 589.592 Radial†	489.1	17.3	5.3226	µg/L	5.3226	ppb	16:44:48
1	Sr 421.552†	79.0	50.3	0.4638	µg/L	0.4638	ppb	16:44:48
1	Sc 361.383	1989449.1	1989449.1	101.34	%			16:46:10
1	Y 371.029	1372109.7	1372109.7	101.43	%			16:46:10
1	Ag 328.068†	-456.4	-48.7	-0.3594	µg/L	-0.3594	ppb	16:46:15
1	As 188.979†	-5.3	-4.7	-8.4993	µg/L	-8.4993	ppb	16:46:36
1	B 249.677†	407.4	17.9	0.7343	µg/L	0.7343	ppb	16:46:36
1	Ba 233.527†	-5.2	11.9	0.2870	µg/L	0.2870	ppb	16:46:36
1	Be 313.107†	-2754.2	138.0	0.0819	µg/L	0.0819	ppb	16:46:15
1	Cd 226.502†	-144.4	-0.8	-0.0195	µg/L	-0.0195	ppb	16:46:36
1	Co 228.616†	1.0	-1.0	-0.0431	µg/L	-0.0431	ppb	16:46:36
1	Cr 267.716†	-33.7	17.2	0.3447	µg/L	0.3447	ppb	16:46:36
1	Cu 324.752†	2574.7	-3.1	-0.0214	µg/L	-0.0214	ppb	16:46:15
1	Mn 257.610†	-226.6	32.4	0.1025	µg/L	0.1025	ppb	16:46:36
1	Mo 202.031†	0.9	6.2	0.6075	µg/L	0.6075	ppb	16:46:36
1	Ni 231.604†	309.9	-6.6	-0.3281	µg/L	-0.3281	ppb	16:46:36
1	P 214.914†	11.4	-4.0	-7.9899	µg/L	-7.9899	ppb	16:46:36
1	Pb 220.353†	88.4	-3.8	-0.9074	µg/L	-0.9074	ppb	16:46:36
1	S 181.975 Axial†	15.3	-3.9	-15.967	µg/L	-15.967	ppb	16:46:36
1	Sb 206.836†	19.9	-2.9	-2.6187	µg/L	-2.6187	ppb	16:46:36
1	Se 196.026†	12.9	-6.6	-9.2715	µg/L	-9.2715	ppb	16:46:36
1	SiO2†	1429.0	18.5	3.6472	µg/L	3.6472	ppb	16:46:15
1	Si 251.611†	332.7	17.7	1.3429	µg/L	1.3429	ppb	16:46:36
1	Sn 189.927†	3.4	3.0	1.2548	µg/L	1.2548	ppb	16:46:36
1	Ti 334.940†	214.5	36.6	0.0844	µg/L	0.0844	ppb	16:46:15
1	Tl 190.801†	-23.3	-0.6	-0.8230	µg/L	-0.8230	ppb	16:46:36
1	U 409.014†	-112.1	-33.5	-2.7841	µg/L	-2.7841	ppb	16:46:15
1	V 292.402†	-13.0	31.9	0.3124	µg/L	0.3124	ppb	16:46:15
1	Zn 213.857†	555.4	13.6	0.3246	µg/L	0.3246	ppb	16:46:36
2	Sc RADIAL	56635.2	56635.2	100	%			16:45:14
2	Al 396.153Radial†	-10.1	-17.4	-12.141	µg/L	-12.141	ppb	16:45:14
2	Ca 317.933Radial†	187.9	-23.8	-20.367	µg/L	-20.367	ppb	16:45:34
2	Fe 238.204 Radial†	16.3	-0.3	-2.5827	µg/L	-2.5827	ppb	16:45:34
2	K 766.490 Radial†	218.4	52.9	34.520	µg/L	34.520	ppb	16:45:14
2	Mg 279.077 IEC†	12.4	-0.5	-4.1392	µg/L	-4.1392	ppb	16:45:34
2	Na 589.592 Radial†	513.9	40.5	12.430	µg/L	12.430	ppb	16:45:14
2	Sr 421.552†	58.4	29.4	0.2715	µg/L	0.2715	ppb	16:45:14
2	Sc 361.383	1983608.7	1983608.7	101.04	%			16:46:42
2	Y 371.029	1367482.8	1367482.8	101.09	%			16:46:42
2	Ag 328.068†	-443.4	-37.3	-0.2763	µg/L	-0.2763	ppb	16:46:47
2	As 188.979†	-2.8	-2.3	-4.1149	µg/L	-4.1149	ppb	16:47:08
2	B 249.677†	412.0	23.6	0.9621	µg/L	0.9621	ppb	16:47:08
2	Ba 233.527†	-18.2	-0.9	-0.0219	µg/L	-0.0219	ppb	16:47:08
2	Be 313.107†	-2703.5	180.2	0.1068	µg/L	0.1068	ppb	16:46:47
2	Cd 226.502†	-127.6	15.4	0.3840	µg/L	0.3840	ppb	16:47:08
2	Co 228.616†	7.3	5.3	0.2405	µg/L	0.2405	ppb	16:47:08
2	Cr 267.716†	-58.8	-7.8	-0.1569	µg/L	-0.1569	ppb	16:47:08
2	Cu 324.752†	2608.4	37.7	0.2459	µg/L	0.2459	ppb	16:46:47
2	Mn 257.610†	-227.1	31.2	0.0977	µg/L	0.0977	ppb	16:47:08
2	Mo 202.031†	0.0	5.4	0.5248	µg/L	0.5248	ppb	16:47:08
2	Ni 231.604†	305.0	-10.5	-0.5251	µg/L	-0.5251	ppb	16:47:08
2	P 214.914†	15.6	0.1	0.1534	µg/L	0.1534	ppb	16:47:08
2	Pb 220.353†	82.8	-8.9	-2.1787	µg/L	-2.1787	ppb	16:47:08

2	S 181.975 Axial†	18.3	-0.8	-3.3922 µg/L	-3.3922 ppb	16:47:08
2	Sb 206.836†	21.7	-1.0	-0.9259 µg/L	-0.9259 ppb	16:47:08
2	Se 196.026†	16.5	-3.0	-4.1629 µg/L	-4.1629 ppb	16:47:08
2	SiO2†	1450.1	43.5	8.5888 µg/L	8.5888 ppb	16:46:47
2	Si 251.611†	323.7	9.8	0.7431 µg/L	0.7431 ppb	16:47:08
2	Sn 189.927†	7.2	6.8	2.8541 µg/L	2.8541 ppb	16:47:08
2	Ti 334.940†	275.2	97.3	0.2152 µg/L	0.2152 ppb	16:46:47
2	Tl 190.801†	-21.7	1.0	1.2441 µg/L	1.2441 ppb	16:47:08
2	U 409.014†	-34.6	42.8	3.5596 µg/L	3.5596 ppb	16:46:47
2	V 292.402†	-47.6	-2.4	-0.0159 µg/L	-0.0159 ppb	16:46:47
2	Zn 213.857†	557.8	17.6	0.4155 µg/L	0.4155 ppb	16:47:08
3	Sc RADIAL	56103.5	56103.5	99.3 %		16:45:39
3	Al 396.153Radial†	-12.8	-20.2	-14.109 µg/L	-14.109 ppb	16:45:39
3	Ca 317.933Radial†	191.0	-18.9	-16.130 µg/L	-16.130 ppb	16:46:00
3	Fe 238.204 Radial†	17.4	1.0	7.6890 µg/L	7.6890 ppb	16:46:00
3	K 766.490 Radial†	173.9	10.1	6.6116 µg/L	6.6116 ppb	16:45:39
3	Mg 279.077 IEC†	10.0	-2.8	-24.916 µg/L	-24.916 ppb	16:46:00
3	Na 589.592 Radial†	509.0	40.4	12.402 µg/L	12.402 ppb	16:45:39
3	Sr 421.552†	51.1	22.6	0.2086 µg/L	0.2086 ppb	16:45:39
3	Sc 361.383	1979825.1	1979825.1	100.85 %		16:47:14
3	Y 371.029	1367032.8	1367032.8	101.06 %		16:47:14
3	Ag 328.068†	-365.2	39.5	0.2926 µg/L	0.2926 ppb	16:47:20
3	As 188.979†	6.4	6.8	12.172 µg/L	12.172 ppb	16:47:40
3	B 249.677†	398.6	11.1	0.4486 µg/L	0.4486 ppb	16:47:40
3	Ba 233.527†	-12.4	4.8	0.1152 µg/L	0.1152 ppb	16:47:40
3	Be 313.107†	-2652.0	226.1	0.1341 µg/L	0.1341 ppb	16:47:20
3	Cd 226.502†	-131.0	11.8	0.2924 µg/L	0.2924 ppb	16:47:40
3	Co 228.616†	3.8	1.9	0.0848 µg/L	0.0848 ppb	16:47:40
3	Cr 267.716†	-32.1	18.5	0.3716 µg/L	0.3716 ppb	16:47:40
3	Cu 324.752†	2543.2	-22.0	-0.1426 µg/L	-0.1426 ppb	16:47:20
3	Mn 257.610†	-230.0	28.0	0.0896 µg/L	0.0896 ppb	16:47:40
3	Mo 202.031†	7.5	12.8	1.2495 µg/L	1.2495 ppb	16:47:40
3	Ni 231.604†	307.7	-7.2	-0.3603 µg/L	-0.3603 ppb	16:47:40
3	P 214.914†	16.4	0.9	1.7842 µg/L	1.7842 ppb	16:47:40
3	Pb 220.353†	91.4	-0.3	-0.0769 µg/L	-0.0769 ppb	16:47:40
3	S 181.975 Axial†	16.1	-2.9	-12.216 µg/L	-12.216 ppb	16:47:40
3	Sb 206.836†	18.4	-4.3	-3.9156 µg/L	-3.9156 ppb	16:47:40
3	Se 196.026†	19.5	-0.0	0.0313 µg/L	0.0313 ppb	16:47:40
3	SiO2†	1408.7	5.2	1.0280 µg/L	1.0280 ppb	16:47:20
3	Si 251.611†	328.7	15.3	1.1614 µg/L	1.1614 ppb	16:47:40
3	Sn 189.927†	7.2	6.8	2.8616 µg/L	2.8616 ppb	16:47:40
3	Ti 334.940†	264.4	87.1	0.1944 µg/L	0.1944 ppb	16:47:20
3	Tl 190.801†	-17.8	4.8	6.2130 µg/L	6.2130 ppb	16:47:40
3	U 409.014†	44.4	121.1	10.062 µg/L	10.062 ppb	16:47:20
3	V 292.402†	-48.6	-3.5	-0.0118 µg/L	-0.0118 ppb	16:47:20
3	Zn 213.857†	546.8	7.8	0.1863 µg/L	0.1863 ppb	16:47:40

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1984294.3	101.08	%	0.247				0.24%
Sc RADIAL	56394.2	99.8	%	0.48				0.48%
Y 371.029	1368875.1	101.19	%	0.208				0.21%
Ag 328.068†	-15.5	-0.1144	µg/L	0.35487	-0.1144	ppb	0.35487	310.31%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.4	-12.796	µg/L	1.1373	-12.796	ppb	1.1373	8.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.1476	µg/L	10.89157	-0.1476	ppb	10.89157	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.5	0.7150	µg/L	0.25726	0.7150	ppb	0.25726	35.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.3	0.1268	µg/L	0.15478	0.1268	ppb	0.15478	122.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.4	0.1076	µg/L	0.02612	0.1076	ppb	0.02612	24.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-18.1	-15.439	µg/L	5.3071	-15.439	ppb	5.3071	34.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.8	0.2189	µg/L	0.21153	0.2189	ppb	0.21153	96.62%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.1	0.0941	µg/L	0.14201	0.0941	ppb	0.14201	150.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                9.3      0.1865 µg/L       0.29770      0.1865 ppb        0.29770 159.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                4.2      0.0273 µg/L       0.19878      0.0273 ppb        0.19878 728.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.1     -0.6936 µg/L       7.61586     -0.6936 ppb        7.61586 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         23.2      15.142 µg/L       16.8219      15.142 ppb        16.8219 111.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.8     -25.125 µg/L       21.0915     -25.125 ppb        21.0915  83.94%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               30.6      0.0966 µg/L       0.00647      0.0966 ppb        0.00647   6.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.1      0.7939 µg/L       0.39671      0.7939 ppb        0.39671  49.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        32.7      10.051 µg/L        4.0953      10.051 ppb         4.0953  40.74%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.1     -0.4045 µg/L       0.10569     -0.4045 ppb        0.10569  26.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -1.0     -2.0175 µg/L       5.23620     -2.0175 ppb        5.23620 259.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -4.3     -1.0543 µg/L       1.05859     -1.0543 ppb        1.05859 100.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.5     -10.525 µg/L        6.4558     -10.525 ppb         6.4558  61.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.7     -2.4867 µg/L       1.49921     -2.4867 ppb        1.49921  60.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.2     -4.4677 µg/L       4.65886     -4.4677 ppb        4.65886 104.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     22.4      4.4213 µg/L       3.83941      4.4213 ppb        3.83941  86.84%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               14.2      1.0825 µg/L       0.30758      1.0825 ppb        0.30758  28.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.5      2.3235 µg/L       0.92554      2.3235 ppb        0.92554  39.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               34.1      0.3146 µg/L       0.13296      0.3146 ppb        0.13296  42.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               73.7      0.1647 µg/L       0.07028      0.1647 ppb        0.07028  42.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.7      2.2114 µg/L       3.61632      2.2114 ppb        3.61632 163.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                43.5      3.6126 µg/L       6.42347      3.6126 ppb        6.42347 177.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 8.7      0.0949 µg/L       0.18839      0.0949 ppb        0.18839 198.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               13.0      0.3088 µg/L       0.11540      0.3088 ppb        0.11540  37.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/19/2010 16:47:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56282.3	56282.3	99.6	%			16:48:22
1	Al 396.153Radial†	298.2	292.0	202.91	µg/L	202.91	ppb	16:48:22
1	Ca 317.933Radial†	429.4	219.7	187.68	µg/L	187.68	ppb	16:48:43
1	Fe 238.204 Radial†	29.6	13.1	103.39	µg/L	103.39	ppb	16:48:43
1	K 766.490 Radial†	342.0	178.3	116.45	µg/L	116.45	ppb	16:48:22
1	Mg 279.077 IEC†	44.3	31.6	282.85	µg/L	282.85	ppb	16:48:43
1	Na 589.592 Radial†	1474.0	1007.4	309.41	µg/L	309.41	ppb	16:48:22
1	Sr 421.552†	600.8	574.3	5.2980	µg/L	5.2980	ppb	16:48:22
1	Sc 361.383	1977761.8	1977761.8	100.75	%			16:49:45
1	Y 371.029	1365399.5	1365399.5	100.93	%			16:49:45
1	Ag 328.068†	258.4	658.1	4.9148	µg/L	4.9148	ppb	16:49:50
1	As 188.979†	15.7	16.1	28.782	µg/L	28.782	ppb	16:50:11
1	B 249.677†	1617.1	1221.0	49.720	µg/L	49.720	ppb	16:49:50
1	Ba 233.527†	202.7	218.3	5.2492	µg/L	5.2492	ppb	16:50:11
1	Be 313.107†	5999.9	8811.2	5.2276	µg/L	5.2276	ppb	16:49:50
1	Cd 226.502†	69.7	210.9	5.2540	µg/L	5.2540	ppb	16:50:11
1	Co 228.616†	98.7	96.0	4.3479	µg/L	4.3479	ppb	16:50:11
1	Cr 267.716†	241.4	290.0	5.8279	µg/L	5.8279	ppb	16:49:50
1	Cu 324.752†	4202.8	1627.9	10.640	µg/L	10.640	ppb	16:49:50
1	Mn 257.610†	3188.0	3420.5	10.714	µg/L	10.714	ppb	16:49:50
1	Mo 202.031†	99.0	103.6	10.146	µg/L	10.146	ppb	16:50:11
1	Ni 231.604†	418.0	102.5	5.1075	µg/L	5.1075	ppb	16:50:11
1	P 214.914†	98.6	82.5	162.32	µg/L	162.32	ppb	16:50:11
1	Pb 220.353†	137.2	45.3	10.965	µg/L	10.965	ppb	16:50:11
1	S 181.975 Axial†	42.3	23.0	95.542	µg/L	95.542	ppb	16:50:11
1	Sb 206.836†	37.6	14.8	13.659	µg/L	13.659	ppb	16:50:11
1	Se 196.026†	37.4	17.8	24.952	µg/L	24.952	ppb	16:50:11
1	SiO2†	2505.0	1094.9	216.12	µg/L	216.12	ppb	16:49:50
1	Si 251.611†	1649.6	1326.8	100.86	µg/L	100.86	ppb	16:50:11
1	Sn 189.927†	23.4	22.9	9.6771	µg/L	9.6771	ppb	16:50:11
1	Ti 334.940†	2480.4	2287.0	5.0399	µg/L	5.0399	ppb	16:49:50
1	Tl 190.801†	-7.5	15.0	19.606	µg/L	19.606	ppb	16:50:11
1	U 409.014†	617.0	689.5	57.259	µg/L	57.259	ppb	16:49:50
1	V 292.402†	481.6	522.7	5.2575	µg/L	5.2575	ppb	16:49:50
1	Zn 213.857†	992.7	450.9	10.519	µg/L	10.519	ppb	16:50:11
2	Sc RADIAL	56210.7	56210.7	99.5	%			16:48:48
2	Al 396.153Radial†	273.4	267.4	185.81	µg/L	185.81	ppb	16:48:48
2	Ca 317.933Radial†	426.2	217.1	185.45	µg/L	185.45	ppb	16:49:08
2	Fe 238.204 Radial†	28.4	12.0	94.492	µg/L	94.492	ppb	16:49:08
2	K 766.490 Radial†	411.4	248.5	162.28	µg/L	162.28	ppb	16:48:48
2	Mg 279.077 IEC†	50.3	37.8	337.62	µg/L	337.62	ppb	16:49:08
2	Na 589.592 Radial†	1464.1	999.4	306.94	µg/L	306.94	ppb	16:48:48
2	Sr 421.552†	574.2	548.3	5.0581	µg/L	5.0581	ppb	16:48:48
2	Sc 361.383	1972692.6	1972692.6	100.49	%			16:50:17
2	Y 371.029	1361966.2	1361966.2	100.68	%			16:50:17
2	Ag 328.068†	270.6	670.9	5.0087	µg/L	5.0087	ppb	16:50:23
2	As 188.979†	17.9	18.3	32.707	µg/L	32.707	ppb	16:50:43
2	B 249.677†	1623.8	1231.8	50.165	µg/L	50.165	ppb	16:50:23
2	Ba 233.527†	197.6	213.7	5.1395	µg/L	5.1395	ppb	16:50:43
2	Be 313.107†	5881.6	8708.7	5.1667	µg/L	5.1667	ppb	16:50:23
2	Cd 226.502†	72.2	213.5	5.3190	µg/L	5.3190	ppb	16:50:43
2	Co 228.616†	112.6	110.1	4.9856	µg/L	4.9856	ppb	16:50:43
2	Cr 267.716†	212.6	261.9	5.2641	µg/L	5.2641	ppb	16:50:23
2	Cu 324.752†	4135.5	1571.7	10.273	µg/L	10.273	ppb	16:50:23
2	Mn 257.610†	3139.9	3380.7	10.586	µg/L	10.586	ppb	16:50:23
2	Mo 202.031†	100.4	105.3	10.314	µg/L	10.314	ppb	16:50:43
2	Ni 231.604†	409.7	95.3	4.7480	µg/L	4.7480	ppb	16:50:43
2	P 214.914†	98.3	82.5	162.33	µg/L	162.33	ppb	16:50:43
2	Pb 220.353†	137.5	45.9	11.123	µg/L	11.123	ppb	16:50:43

2	S 181.975 Axial†	44.4	25.2	104.52 µg/L	104.52 ppb	16:50:43
2	Sb 206.836†	32.9	10.2	9.4639 µg/L	9.4639 ppb	16:50:43
2	Se 196.026†	35.2	15.7	21.973 µg/L	21.973 ppb	16:50:43
2	SiO2†	2523.6	1119.7	221.02 µg/L	221.02 ppb	16:50:23
2	Si 251.611†	1635.2	1316.7	100.10 µg/L	100.10 ppb	16:50:43
2	Sn 189.927†	26.0	25.5	10.767 µg/L	10.767 ppb	16:50:43
2	Ti 334.940†	2526.0	2338.7	5.1499 µg/L	5.1499 ppb	16:50:23
2	Tl 190.801†	-4.6	17.8	23.319 µg/L	23.319 ppb	16:50:43
2	U 409.014†	591.4	665.6	55.280 µg/L	55.280 ppb	16:50:23
2	V 292.402†	473.1	515.6	5.1847 µg/L	5.1847 ppb	16:50:23
2	Zn 213.857†	977.2	438.1	10.216 µg/L	10.216 ppb	16:50:43
3	Sc RADIAL	56270.8	56270.8	99.6 %		16:49:14
3	Al 396.153Radial†	299.9	293.7	204.14 µg/L	204.14 ppb	16:49:14
3	Ca 317.933Radial†	434.4	224.8	192.04 µg/L	192.04 ppb	16:49:35
3	Fe 238.204 Radial†	29.7	13.3	104.87 µg/L	104.87 ppb	16:49:35
3	K 766.490 Radial†	455.9	292.7	191.16 µg/L	191.16 ppb	16:49:14
3	Mg 279.077 IEC†	45.6	33.0	295.03 µg/L	295.03 ppb	16:49:35
3	Na 589.592 Radial†	1506.5	1040.3	319.53 µg/L	319.53 ppb	16:49:14
3	Sr 421.552†	597.6	571.2	5.2696 µg/L	5.2696 ppb	16:49:14
3	Sc 361.383	1984220.0	1984220.0	101.07 %		16:50:49
3	Y 371.029	1369121.2	1369121.2	101.21 %		16:50:49
3	Ag 328.068†	201.6	601.1	4.4889 µg/L	4.4889 ppb	16:50:55
3	As 188.979†	12.2	12.5	22.435 µg/L	22.435 ppb	16:51:15
3	B 249.677†	1528.3	1127.9	45.924 µg/L	45.924 ppb	16:50:55
3	Ba 233.527†	159.9	175.2	4.2153 µg/L	4.2153 ppb	16:51:15
3	Be 313.107†	4886.5	7690.3	4.5625 µg/L	4.5625 ppb	16:50:55
3	Cd 226.502†	36.1	177.4	4.4177 µg/L	4.4177 ppb	16:51:15
3	Co 228.616†	97.9	94.9	4.2983 µg/L	4.2983 ppb	16:51:15
3	Cr 267.716†	217.3	265.4	5.3332 µg/L	5.3332 ppb	16:50:55
3	Cu 324.752†	4009.3	1423.0	9.3030 µg/L	9.3030 ppb	16:50:55
3	Mn 257.610†	2806.1	3032.2	9.4977 µg/L	9.4977 ppb	16:50:55
3	Mo 202.031†	85.5	90.0	8.8152 µg/L	8.8152 ppb	16:51:15
3	Ni 231.604†	395.2	78.7	3.9181 µg/L	3.9181 ppb	16:51:15
3	P 214.914†	81.4	65.2	128.29 µg/L	128.29 ppb	16:51:15
3	Pb 220.353†	131.5	39.1	9.4710 µg/L	9.4710 ppb	16:51:15
3	S 181.975 Axial†	39.1	19.8	81.981 µg/L	81.981 ppb	16:51:15
3	Sb 206.836†	33.0	10.1	9.3652 µg/L	9.3652 ppb	16:51:15
3	Se 196.026†	36.9	17.2	24.099 µg/L	24.099 ppb	16:51:15
3	SiO2†	2440.0	1022.5	201.82 µg/L	201.82 ppb	16:50:55
3	Si 251.611†	1427.0	1101.2	83.718 µg/L	83.718 ppb	16:51:15
3	Sn 189.927†	23.7	23.1	9.7555 µg/L	9.7555 ppb	16:51:15
3	Ti 334.940†	2205.8	2007.3	4.4203 µg/L	4.4203 ppb	16:50:55
3	Tl 190.801†	-9.0	13.5	17.705 µg/L	17.705 ppb	16:51:15
3	U 409.014†	550.5	621.7	51.630 µg/L	51.630 ppb	16:50:55
3	V 292.402†	420.4	460.6	4.6353 µg/L	4.6353 ppb	16:50:55
3	Zn 213.857†	910.8	366.7	8.5490 µg/L	8.5490 ppb	16:51:15

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1978224.8	100.77	%	0.294				0.29%
Sc RADIAL	56254.6	99.6	%	0.07				0.07%
Y 371.029	1365495.6	100.94	%	0.265				0.26%
Ag 328.068†	643.3	4.8041	µg/L	0.27699	4.8041	ppb	0.27699	5.77%
QC value within limits for Ag 328.068 Recovery = 96.08%								
Al 396.153Radial†	284.4	197.62	µg/L	10.244	197.62	ppb	10.244	5.18%
QC value within limits for Al 396.153Radial Recovery = 98.81%								
As 188.979†	15.6	27.975	µg/L	5.1834	27.975	ppb	5.1834	18.53%
QC value within limits for As 188.979 Recovery = 93.25%								
B 249.677†	1193.6	48.603	µg/L	2.3307	48.603	ppb	2.3307	4.80%
QC value within limits for B 249.677 Recovery = 97.21%								
Ba 233.527†	202.4	4.8680	µg/L	0.56789	4.8680	ppb	0.56789	11.67%
QC value within limits for Ba 233.527 Recovery = 97.36%								
Be 313.107†	8403.4	4.9856	µg/L	0.36766	4.9856	ppb	0.36766	7.37%
QC value within limits for Be 313.107 Recovery = 99.71%								
Ca 317.933Radial†	220.5	188.39	µg/L	3.356	188.39	ppb	3.356	1.78%
QC value within limits for Ca 317.933Radial Recovery = 94.19%								
Cd 226.502†	200.6	4.9969	µg/L	0.50267	4.9969	ppb	0.50267	10.06%
QC value within limits for Cd 226.502 Recovery = 99.94%								
Co 228.616†	100.4	4.5440	µg/L	0.38331	4.5440	ppb	0.38331	8.44%

QC value within limits for Co 228.616 Recovery = 90.88%						
Cr 267.716†	272.4	5.4751 µg/L	0.30749	5.4751 ppb	0.30749	5.62%
QC value within limits for Cr 267.716 Recovery = 109.50%						
Cu 324.752†	1540.9	10.072 µg/L	0.6909	10.072 ppb	0.6909	6.86%
QC value within limits for Cu 324.752 Recovery = 100.72%						
Fe 238.204 Radial†	12.8	100.92 µg/L	5.613	100.92 ppb	5.613	5.56%
QC value within limits for Fe 238.204 Radial Recovery = 100.92%						
K 766.490 Radial†	239.8	156.63 µg/L	37.674	156.63 ppb	37.674	24.05%
QC value within limits for K 766.490 Radial Recovery = 104.42%						
Mg 279.077 IEC†	34.1	305.17 µg/L	28.759	305.17 ppb	28.759	9.42%
QC value within limits for Mg 279.077 IEC Recovery = 101.72%						
Mn 257.610†	3277.8	10.266 µg/L	0.6682	10.266 ppb	0.6682	6.51%
QC value within limits for Mn 257.610 Recovery = 102.66%						
Mo 202.031†	99.6	9.7581 µg/L	0.82093	9.7581 ppb	0.82093	8.41%
QC value within limits for Mo 202.031 Recovery = 97.58%						
Na 589.592 Radial†	1015.7	311.96 µg/L	6.671	311.96 ppb	6.671	2.14%
QC value within limits for Na 589.592 Radial Recovery = 103.99%						
Ni 231.604†	92.2	4.5912 µg/L	0.61004	4.5912 ppb	0.61004	13.29%
QC value within limits for Ni 231.604 Recovery = 91.82%						
P 214.914†	76.7	150.98 µg/L	19.653	150.98 ppb	19.653	13.02%
QC value within limits for P 214.914 Recovery = 100.65%						
Pb 220.353†	43.4	10.520 µg/L	0.9115	10.520 ppb	0.9115	8.67%
QC value within limits for Pb 220.353 Recovery = 105.20%						
S 181.975 Axial†	22.7	94.016 µg/L	11.3485	94.016 ppb	11.3485	12.07%
QC value within limits for S 181.975 Axial Recovery = 94.02%						
Sb 206.836†	11.7	10.829 µg/L	2.4509	10.829 ppb	2.4509	22.63%
QC value within limits for Sb 206.836 Recovery = 108.29%						
Se 196.026†	16.9	23.675 µg/L	1.5343	23.675 ppb	1.5343	6.48%
QC value within limits for Se 196.026 Recovery = 78.92%						
SiO2†	1079.0	212.99 µg/L	9.975	212.99 ppb	9.975	4.68%
QC value within limits for SiO2 Recovery = 99.99%						
Si 251.611†	1248.2	94.893 µg/L	9.6851	94.893 ppb	9.6851	10.21%
QC value within limits for Si 251.611 Recovery = 94.89%						
Sn 189.927†	23.8	10.067 µg/L	0.6079	10.067 ppb	0.6079	6.04%
QC value within limits for Sn 189.927 Recovery = 100.67%						
Sr 421.552†	564.6	5.2086 µg/L	0.13109	5.2086 ppb	0.13109	2.52%
QC value within limits for Sr 421.552 Recovery = 104.17%						
Ti 334.940†	2211.0	4.8701 µg/L	0.39334	4.8701 ppb	0.39334	8.08%
QC value within limits for Ti 334.940 Recovery = 97.40%						
Tl 190.801†	15.4	20.210 µg/L	2.8552	20.210 ppb	2.8552	14.13%
QC value within limits for Tl 190.801 Recovery = 101.05%						
U 409.014†	659.0	54.723 µg/L	2.8553	54.723 ppb	2.8553	5.22%
QC value within limits for U 409.014 Recovery = 109.45%						
V 292.402†	499.7	5.0258 µg/L	0.34018	5.0258 ppb	0.34018	6.77%
QC value within limits for V 292.402 Recovery = 100.52%						
Zn 213.857†	418.6	9.7614 µg/L	1.06081	9.7614 ppb	1.06081	10.87%
QC value within limits for Zn 213.857 Recovery = 97.61%						

All analyte(s) passed QC.

Sequence No.: 9 | **Autosampler Location: 103**
Sample ID: ICSA | **Date Collected: 2/19/2010 16:51:24**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55393.6	55393.6	98.0	%			16:52:06
1	Al 396.153Radial†	724194.0	738594.2	513810	µg/L	513810	ppb	16:52:00
1	Ca 317.933Radial†	560588.9	571530.4	488190	µg/L	488190	ppb	16:52:00
1	Fe 238.204 Radial†	23830.6	24288.1	191560	µg/L	191560	ppb	16:52:06
1	K 766.490 Radial†	115.1	-47.6	-31.114	µg/L	-31.114	ppb	16:52:06
1	Mg 279.077 IEC†	54305.7	55373.3	494780	µg/L	494780	ppb	16:52:06
1	Na 589.592 Radial†	579.7	119.1	36.566	µg/L	36.566	ppb	16:52:06
1	Sr 421.552†	417.7	397.2	3.6640	µg/L	3.6640	ppb	16:52:06
1	Sc 361.383	1850788.2	1850788.2	94.278	%			16:52:38
1	Y 371.029	1267800.9	1267800.9	93.720	%			16:52:38
1	Ag 328.068†	-2693.6	-2455.5	-6.2926	µg/L	-6.2926	ppb	16:52:44
1	As 188.979†	-3.5	-3.2	-20.025	µg/L	-20.025	ppb	16:53:05
1	B 249.677†	871.2	539.9	-77.949	µg/L	-77.949	ppb	16:52:44
1	Ba 233.527†	294.9	329.9	7.8736	µg/L	7.8736	ppb	16:53:05
1	Be 313.107†	-3450.2	-803.9	-0.4876	µg/L	-0.4876	ppb	16:52:44
1	Cd 226.502†	449.3	618.2	-6.2337	µg/L	-6.2337	ppb	16:53:05
1	Co 228.616†	61.1	62.9	2.7806	µg/L	2.7806	ppb	16:53:05
1	Cr 267.716†	-66.1	-19.8	-0.4132	µg/L	-0.4132	ppb	16:53:05
1	Cu 324.752†	-1734.2	-4383.2	-1.9848	µg/L	-1.9848	ppb	16:52:44
1	Mn 257.610†	821.6	1127.5	9.2085	µg/L	9.2085	ppb	16:52:44
1	Mo 202.031†	-118.4	-120.2	-4.4913	µg/L	-4.4913	ppb	16:53:05
1	Ni 231.604†	163.0	-139.5	-4.4672	µg/L	-4.4672	ppb	16:53:05
1	P 214.914†	72.2	61.2	116.25	µg/L	116.25	ppb	16:53:05
1	Pb 220.353†	39.4	-49.1	9.0511	µg/L	9.0511	ppb	16:53:05
1	S 181.975 Axial†	32.2	15.3	63.310	µg/L	63.310	ppb	16:53:05
1	Sb 206.836†	57.5	38.5	-7.3305	µg/L	-7.3305	ppb	16:53:05
1	Se 196.026†	11.6	-7.0	-62.783	µg/L	-62.783	ppb	16:53:05
1	SiO2†	1235.7	-80.9	-15.963	µg/L	-15.963	ppb	16:53:05
1	Si 251.611†	441.8	157.9	12.007	µg/L	12.007	ppb	16:53:05
1	Sn 189.927†	-66.4	-70.8	5.6696	µg/L	5.6696	ppb	16:53:05
1	Ti 334.940†	11832.7	12375.9	-3.9147	µg/L	-3.9147	ppb	16:52:44
1	Tl 190.801†	-42.3	-22.5	-8.4040	µg/L	-8.4040	ppb	16:53:05
1	U 409.014†	-59.0	14.5	-55.197	µg/L	-55.197	ppb	16:52:44
1	V 292.402†	-2553.4	-2663.6	-3.5017	µg/L	-3.5017	ppb	16:52:44
1	Zn 213.857†	1634.5	1199.3	-8.9501	µg/L	-8.9501	ppb	16:53:05
2	Sc RADIAL	55011.0	55011.0	97.4	%			16:52:17
2	Al 396.153Radial†	723719.7	743244.2	517040	µg/L	517040	ppb	16:52:11
2	Ca 317.933Radial†	561511.7	576454.6	492400	µg/L	492400	ppb	16:52:11
2	Fe 238.204 Radial†	23613.9	24234.6	191140	µg/L	191140	ppb	16:52:17
2	K 766.490 Radial†	128.3	-33.2	-21.699	µg/L	-21.699	ppb	16:52:17
2	Mg 279.077 IEC†	53736.1	55173.5	492990	µg/L	492990	ppb	16:52:17
2	Na 589.592 Radial†	541.6	84.0	25.796	µg/L	25.796	ppb	16:52:17
2	Sr 421.552†	414.5	396.8	3.6609	µg/L	3.6609	ppb	16:52:17
2	Sc 361.383	1848725.6	1848725.6	94.173	%			16:53:11
2	Y 371.029	1266302.7	1266302.7	93.609	%			16:53:11
2	Ag 328.068†	-2764.2	-2533.7	-6.8956	µg/L	-6.8956	ppb	16:53:16
2	As 188.979†	-19.7	-20.5	-51.199	µg/L	-51.199	ppb	16:53:37
2	B 249.677†	821.6	488.3	-79.833	µg/L	-79.833	ppb	16:53:16
2	Ba 233.527†	289.2	324.1	7.7351	µg/L	7.7351	ppb	16:53:37
2	Be 313.107†	-3507.9	-869.3	-0.5266	µg/L	-0.5266	ppb	16:53:16
2	Cd 226.502†	439.6	608.5	-6.4301	µg/L	-6.4301	ppb	16:53:37
2	Co 228.616†	46.3	47.3	2.0733	µg/L	2.0733	ppb	16:53:37
2	Cr 267.716†	-55.1	-8.1	-0.1798	µg/L	-0.1798	ppb	16:53:37
2	Cu 324.752†	-1747.2	-4399.1	-2.1470	µg/L	-2.1470	ppb	16:53:16
2	Mn 257.610†	693.8	992.7	8.8018	µg/L	8.8018	ppb	16:53:16
2	Mo 202.031†	-103.9	-105.0	-3.0206	µg/L	-3.0206	ppb	16:53:37
2	Ni 231.604†	140.3	-163.4	-5.6612	µg/L	-5.6612	ppb	16:53:37
2	P 214.914†	95.8	86.4	167.33	µg/L	167.33	ppb	16:53:37
2	Pb 220.353†	25.6	-63.7	5.6987	µg/L	5.6987	ppb	16:53:37

2	S 181.975 Axial†	46.7	30.7	127.27 µg/L	127.27 ppb	16:53:37
2	Sb 206.836†	44.2	24.4	-20.582 µg/L	-20.582 ppb	16:53:37
2	Se 196.026†	15.1	-3.2	-58.240 µg/L	-58.240 ppb	16:53:37
2	SiO2†	1212.8	-103.8	-20.481 µg/L	-20.481 ppb	16:53:37
2	Si 251.611†	449.3	166.5	12.657 µg/L	12.657 ppb	16:53:37
2	Sn 189.927†	-68.4	-73.0	4.5450 µg/L	4.5450 ppb	16:53:37
2	Ti 334.940†	12102.5	12676.3	-3.0417 µg/L	-3.0417 ppb	16:53:16
2	Tl 190.801†	-37.0	-17.0	-1.3751 µg/L	-1.3751 ppb	16:53:37
2	U 409.014†	-33.8	41.2	-53.185 µg/L	-53.185 ppb	16:53:16
2	V 292.402†	-2512.7	-2623.4	-3.1453 µg/L	-3.1453 ppb	16:53:16
2	Zn 213.857†	1609.3	1174.4	-9.4073 µg/L	-9.4073 ppb	16:53:37
3	Sc RADIAL	55087.9	55087.9	97.5 %		16:52:28
3	Al 396.153Radial†	720131.5	738527.0	513760 µg/L	513760 ppb	16:52:23
3	Ca 317.933Radial†	556178.1	570179.9	487040 µg/L	487040 ppb	16:52:23
3	Fe 238.204 Radial†	23691.3	24280.2	191500 µg/L	191500 ppb	16:52:28
3	K 766.490 Radial†	149.7	-11.5	-7.5099 µg/L	-7.5099 ppb	16:52:28
3	Mg 279.077 IEC†	53963.6	55329.8	494390 µg/L	494390 ppb	16:52:28
3	Na 589.592 Radial†	551.3	93.2	28.624 µg/L	28.624 ppb	16:52:28
3	Sr 421.552†	418.9	400.8	3.6974 µg/L	3.6974 ppb	16:52:28
3	Sc 361.383	1849927.7	1849927.7	94.234 %		16:53:43
3	Y 371.029	1267002.1	1267002.1	93.661 %		16:53:43
3	Ag 328.068†	-2734.1	-2499.7	-6.6223 µg/L	-6.6223 ppb	16:53:49
3	As 188.979†	-9.3	-9.4	-31.056 µg/L	-31.056 ppb	16:54:09
3	B 249.677†	848.6	516.3	-78.878 µg/L	-78.878 ppb	16:53:49
3	Ba 233.527†	283.0	317.4	7.5725 µg/L	7.5725 ppb	16:54:09
3	Be 313.107†	-3473.1	-829.9	-0.5033 µg/L	-0.5033 ppb	16:53:49
3	Cd 226.502†	443.2	612.0	-6.3822 µg/L	-6.3822 ppb	16:54:09
3	Co 228.616†	37.7	38.1	1.6569 µg/L	1.6569 ppb	16:54:09
3	Cr 267.716†	-62.9	-16.3	-0.3442 µg/L	-0.3442 ppb	16:54:09
3	Cu 324.752†	-1721.6	-4370.7	-1.9119 µg/L	-1.9119 ppb	16:53:49
3	Mn 257.610†	731.2	1032.0	8.9167 µg/L	8.9167 ppb	16:53:49
3	Mo 202.031†	-107.8	-109.1	-3.4029 µg/L	-3.4029 ppb	16:54:09
3	Ni 231.604†	145.6	-157.8	-5.3810 µg/L	-5.3810 ppb	16:54:09
3	P 214.914†	108.6	100.0	193.00 µg/L	193.00 ppb	16:54:09
3	Pb 220.353†	37.4	-51.2	8.5535 µg/L	8.5535 ppb	16:54:09
3	S 181.975 Axial†	37.1	20.4	84.584 µg/L	84.584 ppb	16:54:09
3	Sb 206.836†	48.6	29.0	-15.889 µg/L	-15.889 ppb	16:54:09
3	Se 196.026†	35.7	18.5	-26.410 µg/L	-26.410 ppb	16:54:09
3	SiO2†	1232.2	-83.9	-16.565 µg/L	-16.565 ppb	16:54:09
3	Si 251.611†	426.5	142.0	10.792 µg/L	10.792 ppb	16:54:09
3	Sn 189.927†	-55.5	-59.3	10.507 µg/L	10.507 ppb	16:54:09
3	Ti 334.940†	12184.3	12754.8	-3.0642 µg/L	-3.0642 ppb	16:53:49
3	Tl 190.801†	-36.8	-16.7	-0.7208 µg/L	-0.7208 ppb	16:54:09
3	U 409.014†	-97.2	-26.0	-58.491 µg/L	-58.491 ppb	16:53:49
3	V 292.402†	-2526.9	-2636.8	-3.2422 µg/L	-3.2422 ppb	16:53:49
3	Zn 213.857†	1595.9	1159.1	-9.8646 µg/L	-9.8646 ppb	16:54:09

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sc 361.383	1849813.8	94.228	%	0.0528				0.06%
Sc RADIAL	55164.1	97.6	%	0.36				0.37%
Y 371.029	1267035.2	93.663	%	0.0554				0.06%
Ag 328.068†	-2496.3	-6.6035	µg/L	0.30193	-6.6035	ppb	0.30193	4.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	740121.8	514870	µg/L	1881.2	514870	ppb	1881.2	0.37%
QC value within limits for Al 396.153Radial Recovery = 102.97%								
As 188.979†	-11.0	-34.093	µg/L	15.8073	-34.093	ppb	15.8073	46.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	514.9	-78.887	µg/L	0.9419	-78.887	ppb	0.9419	1.19%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	323.8	7.7271	µg/L	0.15071	7.7271	ppb	0.15071	1.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-834.4	-0.5058	µg/L	0.01964	-0.5058	ppb	0.01964	3.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	572721.6	489210	µg/L	2821.0	489210	ppb	2821.0	0.58%
QC value within limits for Ca 317.933Radial Recovery = 97.84%								
Cd 226.502†	612.9	-6.3487	µg/L	0.10242	-6.3487	ppb	0.10242	1.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	49.4	2.1702	µg/L	0.56812	2.1702	ppb	0.56812	26.18%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	-14.7	-0.3124 µg/L	0.11992	-0.3124 ppb	0.11992	38.39%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-4384.3	-2.0146 µg/L	0.12034	-2.0146 ppb	0.12034	5.97%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	24267.6	191400 µg/L	227.6	191400 ppb	227.6	0.12%
QC value within limits for Fe 238.204 Radial Recovery = 95.70%						
K 766.490 Radial†	-30.8	-20.107 µg/L	11.8821	-20.107 ppb	11.8821	59.09%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	55292.2	494060 µg/L	938.7	494060 ppb	938.7	0.19%
QC value within limits for Mg 279.077 IEC Recovery = 98.81%						
Mn 257.610†	1050.7	8.9756 µg/L	0.20969	8.9756 ppb	0.20969	2.34%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-111.4	-3.6383 µg/L	0.76308	-3.6383 ppb	0.76308	20.97%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	98.7	30.329 µg/L	5.5836	30.329 ppb	5.5836	18.41%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-153.6	-5.1698 µg/L	0.62439	-5.1698 ppb	0.62439	12.08%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	82.5	158.86 µg/L	39.068	158.86 ppb	39.068	24.59%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-54.7	7.7677 µg/L	1.80905	7.7677 ppb	1.80905	23.29%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	22.1	91.723 µg/L	32.5738	91.723 ppb	32.5738	35.51%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	30.6	-14.600 µg/L	6.7191	-14.600 ppb	6.7191	46.02%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	2.8	-49.144 µg/L	19.8190	-49.144 ppb	19.8190	40.33%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-89.5	-17.670 µg/L	2.4533	-17.670 ppb	2.4533	13.88%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	155.5	11.818 µg/L	0.9466	11.818 ppb	0.9466	8.01%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-67.7	6.9072 µg/L	3.16787	6.9072 ppb	3.16787	45.86%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	398.3	3.6741 µg/L	0.02024	3.6741 ppb	0.02024	0.55%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	12602.3	-3.3402 µg/L	0.49765	-3.3402 ppb	0.49765	14.90%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-18.7	-3.4999 µg/L	4.25960	-3.4999 ppb	4.25960	121.70%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	9.9	-55.624 µg/L	2.6789	-55.624 ppb	2.6789	4.82%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-2641.3	-3.2964 µg/L	0.18427	-3.2964 ppb	0.18427	5.59%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	1177.6	-9.4073 µg/L	0.45728	-9.4073 ppb	0.45728	4.86%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/19/2010 16:54:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55797.0	55797.0	98.8	%			16:54:58
1	Al 396.153Radial†	721688.4	730717.2	508320	µg/L	508320	ppb	16:54:53
1	Ca 317.933Radial†	559165.5	565955.4	483430	µg/L	483430	ppb	16:54:53
1	Fe 238.204 Radial†	23697.0	23977.1	189110	µg/L	189110	ppb	16:54:58
1	K 766.490 Radial†	7825.4	7758.4	5067.1	µg/L	5067.1	ppb	16:54:58
1	Mg 279.077 IEC†	54011.0	54674.5	488540	µg/L	488540	ppb	16:54:58
1	Na 589.592 Radial†	17079.2	16820.9	5166.4	µg/L	5166.4	ppb	16:54:58
1	Sr 421.552†	53653.0	54296.0	500.89	µg/L	500.89	ppb	16:54:58
1	Sc 361.383	1843700.1	1843700.1	93.917	%			16:55:33
1	Y 371.029	1261744.6	1261744.6	93.272	%			16:55:33
1	Ag 328.068†	30366.5	32735.0	257.65	µg/L	257.65	ppb	16:55:33
1	As 188.979†	267.3	285.0	495.71	µg/L	495.71	ppb	16:55:53
1	B 249.677†	12776.1	13219.5	440.90	µg/L	440.90	ppb	16:55:33
1	Ba 233.527†	19707.5	21001.1	505.07	µg/L	505.07	ppb	16:55:33
1	Be 313.107†	381967.5	409563.9	242.87	µg/L	242.87	ppb	16:55:33
1	Cd 226.502†	18000.5	19308.2	460.62	µg/L	460.62	ppb	16:55:33
1	Co 228.616†	9028.5	9611.4	434.60	µg/L	434.60	ppb	16:55:53
1	Cr 267.716†	22814.5	24342.6	489.24	µg/L	489.24	ppb	16:55:33
1	Cu 324.752†	76830.3	79263.0	543.67	µg/L	543.67	ppb	16:55:33
1	Mn 257.610†	145121.7	154777.5	490.29	µg/L	490.29	ppb	16:55:33
1	Mo 202.031†	4771.3	5085.6	505.20	µg/L	505.20	ppb	16:55:53
1	Ni 231.604†	8362.6	8591.9	430.24	µg/L	430.24	ppb	16:55:53
1	P 214.914†	1320.9	1391.1	2699.5	µg/L	2699.5	ppb	16:55:53
1	Pb 220.353†	1871.2	1901.4	483.01	µg/L	483.01	ppb	16:55:53
1	S 181.975 Axial†	648.6	671.7	2785.4	µg/L	2785.4	ppb	16:55:53
1	Sb 206.836†	575.1	589.8	502.04	µg/L	502.04	ppb	16:55:53
1	Se 196.026†	1623.8	1709.6	2348.3	µg/L	2348.3	ppb	16:55:53
1	SiO2†	53672.2	55757.1	11006	µg/L	11006	ppb	16:55:33
1	Si 251.611†	64106.8	67948.4	5165.6	µg/L	5165.6	ppb	16:55:33
1	Sn 189.927†	1083.9	1153.7	521.63	µg/L	521.63	ppb	16:55:53
1	Ti 334.940†	229038.7	243698.9	508.24	µg/L	508.24	ppb	16:55:33
1	Tl 190.801†	288.9	330.0	454.77	µg/L	454.77	ppb	16:55:53
1	U 409.014†	5773.2	6224.2	461.36	µg/L	461.36	ppb	16:55:33
1	V 292.402†	47456.1	50574.7	520.63	µg/L	520.63	ppb	16:55:33
1	Zn 213.857†	20837.2	21652.5	468.58	µg/L	468.58	ppb	16:55:33
2	Sc RADIAL	55348.5	55348.5	98.0	%			16:55:10
2	Al 396.153Radial†	722041.1	736998.6	512690	µg/L	512690	ppb	16:55:04
2	Ca 317.933Radial†	559699.2	571088.2	487810	µg/L	487810	ppb	16:55:04
2	Fe 238.204 Radial†	23398.1	23866.4	188240	µg/L	188240	ppb	16:55:10
2	K 766.490 Radial†	7752.4	7748.1	5060.4	µg/L	5060.4	ppb	16:55:10
2	Mg 279.077 IEC†	53665.0	54764.4	489350	µg/L	489350	ppb	16:55:10
2	Na 589.592 Radial†	16898.5	16776.6	5152.8	µg/L	5152.8	ppb	16:55:10
2	Sr 421.552†	53220.9	54295.2	500.88	µg/L	500.88	ppb	16:55:10
2	Sc 361.383	1828346.4	1828346.4	93.135	%			16:56:01
2	Y 371.029	1251250.1	1251250.1	92.496	%			16:56:01
2	Ag 328.068†	30001.6	32614.7	256.69	µg/L	256.69	ppb	16:56:01
2	As 188.979†	258.0	277.4	481.82	µg/L	481.82	ppb	16:56:21
2	B 249.677†	12695.1	13246.8	442.46	µg/L	442.46	ppb	16:56:01
2	Ba 233.527†	19356.4	20800.3	500.24	µg/L	500.24	ppb	16:56:01
2	Be 313.107†	377037.1	407685.5	241.76	µg/L	241.76	ppb	16:56:01
2	Cd 226.502†	17698.0	19144.3	456.64	µg/L	456.64	ppb	16:56:01
2	Co 228.616†	8995.7	9656.8	436.67	µg/L	436.67	ppb	16:56:21
2	Cr 267.716†	22554.0	24266.9	487.72	µg/L	487.72	ppb	16:56:01
2	Cu 324.752†	76157.1	79227.2	543.32	µg/L	543.32	ppb	16:56:01
2	Mn 257.610†	143300.8	154120.0	488.08	µg/L	488.08	ppb	16:56:01
2	Mo 202.031†	4737.2	5091.8	505.77	µg/L	505.77	ppb	16:56:21
2	Ni 231.604†	8356.6	8660.3	433.64	µg/L	433.64	ppb	16:56:21
2	P 214.914†	1314.8	1396.4	2712.1	µg/L	2712.1	ppb	16:56:21
2	Pb 220.353†	1869.4	1916.2	486.89	µg/L	486.89	ppb	16:56:21

2	S 181.975 Axial†	642.4	670.8	2782.0 µg/L	2782.0 ppb	16:56:21
2	Sb 206.836†	578.7	598.8	509.94 µg/L	509.94 ppb	16:56:21
2	Se 196.026†	1633.2	1734.3	2378.6 µg/L	2378.6 ppb	16:56:21
2	SiO2†	52972.0	55485.1	10952 µg/L	10952 ppb	16:56:01
2	Si 251.611†	63354.2	67713.7	5147.7 µg/L	5147.7 ppb	16:56:01
2	Sn 189.927†	1076.4	1155.4	522.48 µg/L	522.48 ppb	16:56:21
2	Ti 334.940†	226229.7	242730.8	506.11 µg/L	506.11 ppb	16:56:01
2	Tl 190.801†	294.9	339.0	466.26 µg/L	466.26 ppb	16:56:21
2	U 409.014†	5629.0	6121.0	452.64 µg/L	452.64 ppb	16:56:01
2	V 292.402†	46870.5	50370.2	518.52 µg/L	518.52 ppb	16:56:01
2	Zn 213.857†	20535.2	21514.5	465.32 µg/L	465.32 ppb	16:56:01
3	Sc RADIAL	55847.7	55847.7	98.9 %		16:55:21
3	Al 396.153Radial†	722897.9	731277.0	508700 µg/L	508700 ppb	16:55:15
3	Ca 317.933Radial†	559752.9	566035.4	483500 µg/L	483500 ppb	16:55:15
3	Fe 238.204 Radial†	23698.6	23957.0	188960 µg/L	188960 ppb	16:55:21
3	K 766.490 Radial†	7809.0	7734.7	5051.6 µg/L	5051.6 ppb	16:55:21
3	Mg 279.077 IEC†	54100.9	54715.7	488910 µg/L	488910 ppb	16:55:21
3	Na 589.592 Radial†	17037.2	16762.7	5148.5 µg/L	5148.5 ppb	16:55:21
3	Sr 421.552†	53557.3	54149.8	499.54 µg/L	499.54 ppb	16:55:21
3	Sc 361.383	1849513.8	1849513.8	94.213 %		16:56:29
3	Y 371.029	1265200.0	1265200.0	93.528 %		16:56:29
3	Ag 328.068†	30278.1	32539.5	256.19 µg/L	256.19 ppb	16:56:29
3	As 188.979†	249.4	265.2	460.15 µg/L	460.15 ppb	16:56:49
3	B 249.677†	12838.9	13243.4	441.96 µg/L	441.96 ppb	16:56:29
3	Ba 233.527†	19684.2	20910.3	502.89 µg/L	502.89 ppb	16:56:29
3	Be 313.107†	381877.8	408190.3	242.06 µg/L	242.06 ppb	16:56:29
3	Cd 226.502†	18049.5	19299.9	460.44 µg/L	460.44 ppb	16:56:29
3	Co 228.616†	9068.2	9623.2	435.15 µg/L	435.15 ppb	16:56:49
3	Cr 267.716†	22913.2	24371.1	489.81 µg/L	489.81 ppb	16:56:29
3	Cu 324.752†	76676.5	78842.6	540.91 µg/L	540.91 ppb	16:56:29
3	Mn 257.610†	145122.9	154293.0	488.74 µg/L	488.74 ppb	16:56:29
3	Mo 202.031†	4785.3	5084.6	505.09 µg/L	505.09 ppb	16:56:49
3	Ni 231.604†	8413.0	8617.4	431.51 µg/L	431.51 ppb	16:56:49
3	P 214.914†	1336.0	1402.7	2723.0 µg/L	2723.0 ppb	16:56:49
3	Pb 220.353†	1874.0	1898.2	482.26 µg/L	482.26 ppb	16:56:49
3	S 181.975 Axial†	650.5	671.5	2784.8 µg/L	2784.8 ppb	16:56:49
3	Sb 206.836†	579.0	592.1	504.11 µg/L	504.11 ppb	16:56:49
3	Se 196.026†	1645.5	1727.2	2372.2 µg/L	2372.2 ppb	16:56:49
3	SiO2†	53612.6	55514.2	10958 µg/L	10958 ppb	16:56:29
3	Si 251.611†	64125.9	67754.2	5150.8 µg/L	5150.8 ppb	16:56:29
3	Sn 189.927†	1079.8	1145.8	518.33 µg/L	518.33 ppb	16:56:49
3	Ti 334.940†	228839.3	242720.7	506.05 µg/L	506.05 ppb	16:56:29
3	Tl 190.801†	301.0	341.8	470.11 µg/L	470.11 ppb	16:56:49
3	U 409.014†	5634.4	6057.5	447.53 µg/L	447.53 ppb	16:56:29
3	V 292.402†	47572.3	50539.2	520.25 µg/L	520.25 ppb	16:56:29
3	Zn 213.857†	20782.8	21525.0	465.57 µg/L	465.57 ppb	16:56:29

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1840520.1	93.755	%	0.5571				0.59%
Sc RADIAL	55664.4	98.5	%	0.49				0.49%
Y 371.029	1259398.2	93.099	%	0.5370				0.58%
Ag 328.068†	32629.7	256.85	µg/L	0.742	256.85	ppb	0.742	0.29%
QC value within limits for Ag 328.068 Recovery = 102.74%								
Al 396.153Radial†	732997.6	509900	µg/L	2418.3	509900	ppb	2418.3	0.47%
QC value within limits for Al 396.153Radial Recovery = 101.98%								
As 188.979†	275.9	479.23	µg/L	17.921	479.23	ppb	17.921	3.74%
QC value within limits for As 188.979 Recovery = 95.85%								
B 249.677†	13236.6	441.77	µg/L	0.799	441.77	ppb	0.799	0.18%
QC value within limits for B 249.677 Recovery = 88.35%								
Ba 233.527†	20903.9	502.73	µg/L	2.416	502.73	ppb	2.416	0.48%
QC value within limits for Ba 233.527 Recovery = 100.55%								
Be 313.107†	408479.9	242.23	µg/L	0.577	242.23	ppb	0.577	0.24%
QC value within limits for Be 313.107 Recovery = 96.89%								
Ca 317.933Radial†	567693.0	484910	µg/L	2511.8	484910	ppb	2511.8	0.52%
QC value within limits for Ca 317.933Radial Recovery = 96.98%								
Cd 226.502†	19250.8	459.23	µg/L	2.249	459.23	ppb	2.249	0.49%
QC value within limits for Cd 226.502 Recovery = 91.85%								
Co 228.616†	9630.5	435.47	µg/L	1.070	435.47	ppb	1.070	0.25%

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   QC value within limits for Co 228.616  Recovery = 87.09%
Cr 267.716†          24326.8      488.92 µg/L         1.082      488.92 ppb          1.082   0.22%
   QC value within limits for Cr 267.716  Recovery = 97.78%
Cu 324.752†          79110.9      542.63 µg/L         1.505      542.63 ppb          1.505   0.28%
   QC value within limits for Cu 324.752  Recovery = 108.53%
Fe 238.204 Radial†   23933.5      188770 µg/L         465.0      188770 ppb          465.0   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.39%
K 766.490 Radial†     7747.0      5059.7 µg/L          7.77      5059.7 ppb           7.77   0.15%
   QC value within limits for K 766.490 Radial  Recovery = 101.19%
Mg 279.077 IEC†      54718.2      488940 µg/L         403.0      488940 ppb          403.0   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.79%
Mn 257.610†         154396.8      489.04 µg/L         1.134      489.04 ppb          1.134   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.81%
Mo 202.031†          5087.3       505.36 µg/L         0.362      505.36 ppb          0.362   0.07%
   QC value within limits for Mo 202.031  Recovery = 101.07%
Na 589.592 Radial†   16786.7      5155.9 µg/L          9.34      5155.9 ppb           9.34   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 103.12%
Ni 231.604†          8623.2       431.80 µg/L         1.714      431.80 ppb          1.714   0.40%
   QC value within limits for Ni 231.604  Recovery = 86.36%
P 214.914†           1396.7       2711.6 µg/L         11.77      2711.6 ppb          11.77   0.43%
   QC value within limits for P 214.914  Recovery = 108.46%
Pb 220.353†          1905.3       484.05 µg/L         2.482      484.05 ppb          2.482   0.51%
   QC value within limits for Pb 220.353  Recovery = 96.81%
S 181.975 Axial†      671.3       2784.0 µg/L          1.83      2784.0 ppb           1.83   0.07%
   QC value within limits for S 181.975 Axial  Recovery = 111.36%
Sb 206.836†           593.6       505.36 µg/L         4.096      505.36 ppb          4.096   0.81%
   QC value within limits for Sb 206.836  Recovery = 101.07%
Se 196.026†          1723.7       2366.3 µg/L         15.98      2366.3 ppb          15.98   0.68%
   QC value within limits for Se 196.026  Recovery = 94.65%
SiO2†               55585.5        10972 µg/L          29.5       10972 ppb           29.5   0.27%
   QC value within limits for SiO2  Recovery = 102.59%
Si 251.611†          67805.4      5154.7 µg/L          9.54      5154.7 ppb           9.54   0.19%
   QC value within limits for Si 251.611  Recovery = 103.09%
Sn 189.927†          1151.6       520.81 µg/L         2.193      520.81 ppb          2.193   0.42%
   QC value within limits for Sn 189.927  Recovery = 104.16%
Sr 421.552†          54247.0      500.44 µg/L         0.776      500.44 ppb          0.776   0.16%
   QC value within limits for Sr 421.552  Recovery = 100.09%
Ti 334.940†         243050.1      506.80 µg/L         1.249      506.80 ppb          1.249   0.25%
   QC value within limits for Ti 334.940  Recovery = 101.36%
Tl 190.801†           337.0       463.71 µg/L         7.981      463.71 ppb          7.981   1.72%
   QC value within limits for Tl 190.801  Recovery = 92.74%
U 409.014†           6134.3       453.84 µg/L         6.995      453.84 ppb          6.995   1.54%
   QC value within limits for U 409.014  Recovery = 90.77%
V 292.402†           50494.7      519.80 µg/L         1.121      519.80 ppb          1.121   0.22%
   QC value within limits for V 292.402  Recovery = 103.96%
Zn 213.857†          21564.0      466.49 µg/L         1.813      466.49 ppb          1.813   0.39%
   QC value within limits for Zn 213.857  Recovery = 93.30%
All analyte(s) passed QC.
```

Sequence No.: 11 | **Autosampler Location: 105**
Sample ID: LR1 | **Date Collected: 2/19/2010 16:56:59**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54748.6	54748.6	96.9	%			16:57:39
1	Al 396.153Radial†	706292.1	728823.1	507010	µg/L	507010	ppb	16:57:34
1	Ca 317.933Radial†	550897.7	568266.0	485400	µg/L	485400	ppb	16:57:34
1	Fe 238.204 Radial†	56162.0	57937.6	456950	µg/L	456950	ppb	16:57:39
1	K 766.490 Radial†	115.4	-45.9	-29.969	µg/L	-29.969	ppb	16:57:39
1	Mg 279.077 IEC†	52280.8	53936.3	481650	µg/L	481650	ppb	16:57:39
1	Na 589.592 Radial†	1551701.3	1600745.1	491660	µg/L	491660	ppb	16:57:34
1	Sr 421.552†	596.5	586.7	5.4124	µg/L	5.4124	ppb	16:57:39
1	Sc 361.383	1808982.1	1808982.1	92.148	%			16:58:15
1	Y 371.029	1229275.2	1229275.2	90.872	%			16:58:15
1	Ag 328.068†	-4982.3	-5005.2	-8.7931	µg/L	-8.7931	ppb	16:58:15
1	As 188.979†	-19.3	-20.5	-35.405	µg/L	-35.405	ppb	16:58:35
1	B 249.677†	1469.8	1210.9	-189.08	µg/L	-189.08	ppb	16:58:15
1	Ba 233.527†	599.8	668.0	15.898	µg/L	15.898	ppb	16:58:35
1	Be 313.107†	-11244.2	-9346.6	-5.5617	µg/L	-5.5617	ppb	16:58:15
1	Cd 226.502†	1210.5	1455.3	-15.352	µg/L	-15.352	ppb	16:58:15
1	Co 228.616†	210.6	226.6	10.160	µg/L	10.160	ppb	16:58:35
1	Cr 267.716†	45.2	99.4	1.9489	µg/L	1.9489	ppb	16:58:35
1	Cu 324.752†	-9617.8	-12981.1	-21.218	µg/L	-21.218	ppb	16:58:15
1	Mn 257.610†	-6155.9	-6424.4	21.370	µg/L	21.370	ppb	16:58:15
1	Mo 202.031†	-225.9	-239.8	-6.1197	µg/L	-6.1197	ppb	16:58:35
1	Ni 231.604†	48.3	-259.9	-7.0295	µg/L	-7.0295	ppb	16:58:35
1	P 214.914†	306.6	317.4	411.96	µg/L	411.96	ppb	16:58:35
1	Pb 220.353†	156.6	79.1	15.477	µg/L	15.477	ppb	16:58:35
1	S 181.975 Axial†	35.4	19.5	80.955	µg/L	80.955	ppb	16:58:35
1	Sb 206.836†	57.1	39.4	-6.4292	µg/L	-6.4292	ppb	16:58:35
1	Se 196.026†	-157.5	-190.2	417.62	µg/L	417.62	ppb	16:58:35
1	SiO2†	1118.3	-178.0	-35.141	µg/L	-35.141	ppb	16:58:35
1	Si 251.611†	-300.1	-636.3	-48.374	µg/L	-48.374	ppb	16:58:35
1	Sn 189.927†	-47.4	-51.8	-16.141	µg/L	-16.141	ppb	16:58:35
1	Ti 334.940†	15981.4	17168.1	7.6569	µg/L	7.6569	ppb	16:58:15
1	Tl 190.801†	-58.7	-41.3	21.254	µg/L	21.254	ppb	16:58:35
1	U 409.014†	152808.3	165905.7	13691	µg/L	13691	ppb	16:58:15
1	V 292.402†	-7264.4	-7838.6	-8.4612	µg/L	-8.4612	ppb	16:58:15
1	Zn 213.857†	2986.9	2707.0	14.661	µg/L	14.661	ppb	16:58:35
2	Sc RADIAL	54627.5	54627.5	96.7	%			16:57:51
2	Al 396.153Radial†	705003.9	729106.1	507210	µg/L	507210	ppb	16:57:46
2	Ca 317.933Radial†	548288.5	566827.4	484170	µg/L	484170	ppb	16:57:46
2	Fe 238.204 Radial†	56104.2	58006.2	457490	µg/L	457490	ppb	16:57:51
2	K 766.490 Radial†	75.8	-86.6	-56.548	µg/L	-56.548	ppb	16:57:51
2	Mg 279.077 IEC†	52084.5	53852.8	480900	µg/L	480900	ppb	16:57:51
2	Na 589.592 Radial†	1549659.8	1602182.6	492100	µg/L	492100	ppb	16:57:46
2	Sr 421.552†	580.4	571.4	5.2714	µg/L	5.2714	ppb	16:57:51
2	Sc 361.383	1809663.3	1809663.3	92.183	%			16:58:42
2	Y 371.029	1230302.7	1230302.7	90.948	%			16:58:42
2	Ag 328.068†	-5024.4	-5048.9	-9.0852	µg/L	-9.0852	ppb	16:58:42
2	As 188.979†	-32.4	-34.7	-60.833	µg/L	-60.833	ppb	16:59:03
2	B 249.677†	1435.1	1172.6	-190.92	µg/L	-190.92	ppb	16:58:42
2	Ba 233.527†	598.4	666.2	15.855	µg/L	15.855	ppb	16:59:03
2	Be 313.107†	-11290.0	-9391.7	-5.5890	µg/L	-5.5890	ppb	16:58:42
2	Cd 226.502†	1204.3	1448.1	-15.591	µg/L	-15.591	ppb	16:58:42
2	Co 228.616†	198.7	213.6	9.5711	µg/L	9.5711	ppb	16:59:03
2	Cr 267.716†	78.1	135.1	2.6649	µg/L	2.6649	ppb	16:59:03
2	Cu 324.752†	-9599.6	-12957.4	-20.988	µg/L	-20.988	ppb	16:58:42
2	Mn 257.610†	-6316.5	-6596.2	20.934	µg/L	20.934	ppb	16:58:42
2	Mo 202.031†	-200.5	-212.1	-3.3875	µg/L	-3.3875	ppb	16:59:03
2	Ni 231.604†	53.6	-254.2	-6.7348	µg/L	-6.7348	ppb	16:59:03
2	P 214.914†	301.0	311.1	399.21	µg/L	399.21	ppb	16:59:03
2	Pb 220.353†	148.3	69.9	13.245	µg/L	13.245	ppb	16:59:03

2	S 181.975 Axial†	35.1	19.1	79.229 µg/L	79.229 ppb	16:59:03
2	Sb 206.836†	43.8	25.1	-19.483 µg/L	-19.483 ppb	16:59:03
2	Se 196.026†	-176.5	-210.8	391.20 µg/L	391.20 ppb	16:59:03
2	SiO2†	1119.0	-177.7	-35.076 µg/L	-35.076 ppb	16:59:03
2	Si 251.611†	-359.8	-700.9	-53.283 µg/L	-53.283 ppb	16:59:03
2	Sn 189.927†	-47.7	-52.1	-16.412 µg/L	-16.412 ppb	16:59:03
2	Ti 334.940†	16565.0	17794.7	9.0824 µg/L	9.0824 ppb	16:58:42
2	Tl 190.801†	-50.4	-32.3	33.191 µg/L	33.191 ppb	16:59:03
2	U 409.014†	152895.7	165938.1	13694 µg/L	13694 ppb	16:58:42
2	V 292.402†	-7309.1	-7884.1	-8.8154 µg/L	-8.8154 ppb	16:58:42
2	Zn 213.857†	2986.8	2705.7	14.646 µg/L	14.646 ppb	16:59:03
3	Sc RADIAL	54733.6	54733.6	96.9 %		16:58:03
3	Al 396.153Radial†	704918.4	727604.3	506160 µg/L	506160 ppb	16:57:58
3	Ca 317.933Radial†	547195.5	564600.0	482270 µg/L	482270 ppb	16:57:58
3	Fe 238.204 Radial†	56342.5	58139.8	458540 µg/L	458540 ppb	16:58:03
3	K 766.490 Radial†	150.9	-9.2	-6.0382 µg/L	-6.0382 ppb	16:58:03
3	Mg 279.077 IEC†	52432.2	54107.4	483180 µg/L	483180 ppb	16:58:03
3	Na 589.592 Radial†	1551864.9	1601351.6	491840 µg/L	491840 ppb	16:57:58
3	Sr 421.552†	544.2	532.9	4.9161 µg/L	4.9161 ppb	16:58:03
3	Sc 361.383	1803530.5	1803530.5	91.871 %		16:59:10
3	Y 371.029	1226225.3	1226225.3	90.646 %		16:59:10
3	Ag 328.068†	-4992.7	-5032.9	-8.8937 µg/L	-8.8937 ppb	16:59:10
3	As 188.979†	-17.9	-19.1	-32.607 µg/L	-32.607 ppb	16:59:30
3	B 249.677†	1429.0	1171.3	-191.53 µg/L	-191.53 ppb	16:59:10
3	Ba 233.527†	596.4	666.2	15.857 µg/L	15.857 ppb	16:59:30
3	Be 313.107†	-11247.7	-9387.3	-5.5855 µg/L	-5.5855 ppb	16:59:10
3	Cd 226.502†	1240.2	1491.6	-14.625 µg/L	-14.625 ppb	16:59:10
3	Co 228.616†	217.8	235.1	10.551 µg/L	10.551 ppb	16:59:30
3	Cr 267.716†	61.4	117.2	2.3057 µg/L	2.3057 ppb	16:59:30
3	Cu 324.752†	-9496.4	-12880.5	-20.340 µg/L	-20.340 ppb	16:59:10
3	Mn 257.610†	-6307.3	-6609.4	20.942 µg/L	20.942 ppb	16:59:10
3	Mo 202.031†	-204.7	-217.5	-3.8705 µg/L	-3.8705 ppb	16:59:30
3	Ni 231.604†	57.2	-250.1	-6.5186 µg/L	-6.5186 ppb	16:59:30
3	P 214.914†	280.7	290.2	356.64 µg/L	356.64 ppb	16:59:30
3	Pb 220.353†	147.7	69.8	13.118 µg/L	13.118 ppb	16:59:30
3	S 181.975 Axial†	25.1	8.4	34.818 µg/L	34.818 ppb	16:59:30
3	Sb 206.836†	38.6	19.5	-24.434 µg/L	-24.434 ppb	16:59:30
3	Se 196.026†	-161.9	-195.6	413.95 µg/L	413.95 ppb	16:59:30
3	SiO2†	1115.5	-177.4	-35.018 µg/L	-35.018 ppb	16:59:30
3	Si 251.611†	-321.2	-660.2	-50.191 µg/L	-50.191 ppb	16:59:30
3	Sn 189.927†	-41.2	-45.3	-13.350 µg/L	-13.350 ppb	16:59:30
3	Ti 334.940†	15494.0	16690.0	6.4283 µg/L	6.4283 ppb	16:59:10
3	Tl 190.801†	-51.2	-33.3	32.056 µg/L	32.056 ppb	16:59:30
3	U 409.014†	152493.7	166064.5	13704 µg/L	13704 ppb	16:59:10
3	V 292.402†	-7191.9	-7783.6	-7.7057 µg/L	-7.7057 ppb	16:59:10
3	Zn 213.857†	2972.0	2700.6	14.345 µg/L	14.345 ppb	16:59:30

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807392.0	92.067	%	0.1712				0.19%
Sc RADIAL	54703.2	96.8	%	0.12				0.12%
Y 371.029	1228601.0	90.822	%	0.1568				0.17%
Ag 328.068†	-5029.0	-8.9240	µg/L	0.14840	-8.9240	ppb	0.14840	1.66%
Al 396.153Radial†	728511.2	506790	µg/L	555.2	506790	ppb	555.2	0.11%
QC value within limits for Al 396.153Radial Recovery = 101.36%								
As 188.979†	-24.8	-42.948	µg/L	15.5521	-42.948	ppb	15.5521	36.21%
B 249.677†	1184.9	-190.51	µg/L	1.274	-190.51	ppb	1.274	0.67%
Ba 233.527†	666.8	15.870	µg/L	0.0245	15.870	ppb	0.0245	0.15%
Be 313.107†	-9375.2	-5.5787	µg/L	0.01486	-5.5787	ppb	0.01486	0.27%
Ca 317.933Radial†	566564.5	483950	µg/L	1577.8	483950	ppb	1577.8	0.33%
QC value within limits for Ca 317.933Radial Recovery = 96.79%								
Cd 226.502†	1465.0	-15.189	µg/L	0.5033	-15.189	ppb	0.5033	3.31%
Co 228.616†	225.1	10.094	µg/L	0.4933	10.094	ppb	0.4933	4.89%
Cr 267.716†	117.2	2.3065	µg/L	0.35801	2.3065	ppb	0.35801	15.52%
Cu 324.752†	-12939.7	-20.849	µg/L	0.4554	-20.849	ppb	0.4554	2.18%
Fe 238.204 Radial†	58027.9	457660	µg/L	810.7	457660	ppb	810.7	0.18%
QC value within limits for Fe 238.204 Radial Recovery = 91.53%								
K 766.490 Radial†	-47.2	-30.852	µg/L	25.2666	-30.852	ppb	25.2666	81.90%
Mg 279.077 IEC†	53965.5	481910	µg/L	1159.2	481910	ppb	1159.2	0.24%

QC value within limits for Mg 279.077 IEC Recovery = 96.38%						
Mn 257.610†	-6543.3	21.082 µg/L	0.2497	21.082 ppb	0.2497	1.18%
Mo 202.031†	-223.1	-4.4592 µg/L	1.45813	-4.4592 ppb	1.45813	32.70%
Na 589.592 Radial†	1601426.4	491870 µg/L	221.6	491870 ppb	221.6	0.05%
QC value within limits for Na 589.592 Radial Recovery = 98.37%						
Ni 231.604†	-254.7	-6.7610 µg/L	0.25647	-6.7610 ppb	0.25647	3.79%
P 214.914†	306.2	389.27 µg/L	28.970	389.27 ppb	28.970	7.44%
Pb 220.353†	72.9	13.947 µg/L	1.3271	13.947 ppb	1.3271	9.52%
S 181.975 Axial†	15.7	65.000 µg/L	26.1534	65.000 ppb	26.1534	40.24%
Sb 206.836†	28.0	-16.782 µg/L	9.3013	-16.782 ppb	9.3013	55.42%
Se 196.026†	-198.8	407.59 µg/L	14.310	407.59 ppb	14.310	3.51%
SiO2†	-177.7	-35.078 µg/L	0.0614	-35.078 ppb	0.0614	0.18%
Si 251.611†	-665.8	-50.616 µg/L	2.4820	-50.616 ppb	2.4820	4.90%
Sn 189.927†	-49.7	-15.301 µg/L	1.6952	-15.301 ppb	1.6952	11.08%
Sr 421.552†	563.7	5.2000 µg/L	0.25572	5.2000 ppb	0.25572	4.92%
Ti 334.940†	17217.6	7.7225 µg/L	1.32825	7.7225 ppb	1.32825	17.20%
Tl 190.801†	-35.6	28.834 µg/L	6.5890	28.834 ppb	6.5890	22.85%
U 409.014†	165969.4	13696 µg/L	7.0	13696 ppb	7.0	0.05%
QC value within limits for U 409.014 Recovery = 91.31%						
V 292.402†	-7835.4	-8.3274 µg/L	0.56678	-8.3274 ppb	0.56678	6.81%
Zn 213.857†	2704.4	14.551 µg/L	0.1785	14.551 ppb	0.1785	1.23%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/19/2010 16:59:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56692.7	56692.7	100	%			17:00:22
1	Al 396.153Radial†	410.3	401.6	67.150	µg/L	67.150	ppb	17:00:22
1	Ca 317.933Radial†	313.1	100.7	86.030	µg/L	86.030	ppb	17:00:42
1	Fe 238.204 Radial†	6.3	-10.3	125.34	µg/L	125.34	ppb	17:00:42
1	K 766.490 Radial†	452848.2	451108.7	294630	µg/L	294630	ppb	17:00:16
1	Mg 279.077 IEC†	-3.5	-16.3	27.924	µg/L	27.924	ppb	17:00:42
1	Na 589.592 Radial†	1202.8	726.5	223.13	µg/L	223.13	ppb	17:00:22
1	Sr 421.552†	1055792.8	1052093.2	9705.7	µg/L	9705.7	ppb	17:00:16
1	Sc 361.383	1927950.9	1927950.9	98.209	%			17:02:14
1	Y 371.029	1317313.5	1317313.5	97.380	%			17:02:14
1	Ag 328.068†	-7740.8	-7480.4	13.019	µg/L	13.019	ppb	17:02:19
1	As 188.979†	5373.1	5471.6	9786.3	µg/L	9786.3	ppb	17:02:19
1	B 249.677†	122177.3	124021.9	5094.8	µg/L	5094.8	ppb	17:02:14
1	Ba 233.527†	611336.6	622505.5	14963	µg/L	14963	ppb	17:02:14
1	Be 313.107†	4884950.3	4976915.5	2949.9	µg/L	2949.9	ppb	17:02:03
1	Cd 226.502†	386911.9	394111.5	9839.4	µg/L	9839.4	ppb	17:02:14
1	Co 228.616†	210861.9	214706.5	9711.7	µg/L	9711.7	ppb	17:02:14
1	Cr 267.716†	1221432.5	1243763.8	24988	µg/L	24988	ppb	17:02:14
1	Cu 324.752†	3142243.6	3197019.5	20869	µg/L	20869	ppb	17:02:14
1	Mn 257.610†	3084343.0	3140862.5	9835.7	µg/L	9835.7	ppb	17:02:14
1	Mo 202.031†	103586.6	105481.5	10329	µg/L	10329	ppb	17:02:14
1	Ni 231.604†	195607.8	198863.7	9901.7	µg/L	9901.7	ppb	17:02:14
1	P 214.914†	7737.6	7863.4	13522	µg/L	13522	ppb	17:02:19
1	Pb 220.353†	104065.3	105872.7	25731	µg/L	25731	ppb	17:02:14
1	S 181.975 Axial†	12812.3	13027.1	54023	µg/L	54023	ppb	17:02:19
1	Sb 206.836†	11529.6	11717.4	10643	µg/L	10643	ppb	17:02:19
1	Se 196.026†	6981.3	7089.4	9956.3	µg/L	9956.3	ppb	17:02:19
1	SiO2†	509789.5	517697.3	102190	µg/L	102190	ppb	17:02:14
1	Si 251.611†	616246.3	627177.0	47679	µg/L	47679	ppb	17:02:14
1	Sn 189.927†	24747.6	25198.7	10627	µg/L	10627	ppb	17:02:19
1	Ti 334.940†	4520614.2	4602902.5	10183	µg/L	10183	ppb	17:02:03
1	Tl 190.801†	7250.0	7404.6	9714.3	µg/L	9714.3	ppb	17:02:19
1	U 409.014†	894.0	987.4	82.040	µg/L	82.040	ppb	17:02:14
1	V 292.402†	1045223.3	1064334.6	10510	µg/L	10510	ppb	17:02:14
1	Zn 213.857†	624777.0	635639.6	14836	µg/L	14836	ppb	17:02:14
2	Sc RADIAL	56901.4	56901.4	101	%			17:00:54
2	Al 396.153Radial†	358.9	349.0	41.120	µg/L	41.120	ppb	17:00:54
2	Ca 317.933Radial†	305.5	92.1	78.637	µg/L	78.637	ppb	17:01:14
2	Fe 238.204 Radial†	4.4	-12.2	99.290	µg/L	99.290	ppb	17:01:14
2	K 766.490 Radial†	456232.0	452813.9	295740	µg/L	295740	ppb	17:00:48
2	Mg 279.077 IEC†	1.4	-11.4	63.333	µg/L	63.333	ppb	17:01:14
2	Na 589.592 Radial†	1121.5	641.3	196.97	µg/L	196.97	ppb	17:00:54
2	Sr 421.552†	1064137.7	1056521.3	9746.6	µg/L	9746.6	ppb	17:00:48
2	Sc 361.383	1930719.4	1930719.4	98.350	%			17:02:38
2	Y 371.029	1320362.0	1320362.0	97.605	%			17:02:38
2	Ag 328.068†	-7077.0	-6794.2	14.570	µg/L	14.570	ppb	17:02:44
2	As 188.979†	5081.0	5166.8	9240.9	µg/L	9240.9	ppb	17:02:44
2	B 249.677†	118618.7	120225.2	4937.5	µg/L	4937.5	ppb	17:02:38
2	Ba 233.527†	584914.6	594747.4	14296	µg/L	14296	ppb	17:02:38
2	Be 313.107†	4840646.5	4924735.5	2919.0	µg/L	2919.0	ppb	17:02:28
2	Cd 226.502†	369934.9	376284.7	9394.3	µg/L	9394.3	ppb	17:02:38
2	Co 228.616†	200219.4	203577.5	9207.4	µg/L	9207.4	ppb	17:02:38
2	Cr 267.716†	1146054.0	1165336.9	23412	µg/L	23412	ppb	17:02:38
2	Cu 324.752†	2987260.6	3034847.6	19810	µg/L	19810	ppb	17:02:38
2	Mn 257.610†	2933156.9	2982635.7	9340.2	µg/L	9340.2	ppb	17:02:38
2	Mo 202.031†	98580.4	100240.0	9816.1	µg/L	9816.1	ppb	17:02:38
2	Ni 231.604†	185684.1	188487.9	9385.1	µg/L	9385.1	ppb	17:02:38
2	P 214.914†	7168.5	7273.5	12452	µg/L	12452	ppb	17:02:44
2	Pb 220.353†	100296.4	101888.6	24763	µg/L	24763	ppb	17:02:38

2	S 181.975 Axial†	12172.5	12357.8	51247 µg/L	51247 ppb	17:02:44
2	Sb 206.836†	10777.5	10935.8	9934.7 µg/L	9934.7 ppb	17:02:44
2	Se 196.026†	6594.7	6686.0	9389.7 µg/L	9389.7 ppb	17:02:44
2	SiO2†	493318.0	500205.0	98734 µg/L	98734 ppb	17:02:38
2	Si 251.611†	596653.2	606355.3	46096 µg/L	46096 ppb	17:02:38
2	Sn 189.927†	22590.4	22969.2	9686.4 µg/L	9686.4 ppb	17:02:44
2	Ti 334.940†	4476920.0	4551874.4	10070 µg/L	10070 ppb	17:02:28
2	Tl 190.801†	7064.0	7204.9	9453.5 µg/L	9453.5 ppb	17:02:44
2	U 409.014†	804.4	895.0	74.370 µg/L	74.370 ppb	17:02:38
2	V 292.402†	992711.5	1009415.4	9966.7 µg/L	9966.7 ppb	17:02:38
2	Zn 213.857†	595571.0	605031.1	14122 µg/L	14122 ppb	17:02:38
3	Sc RADIAL	56734.5	56734.5	100 %		17:01:26
3	Al 396.153Radial†	382.8	373.8	92.098 µg/L	92.098 ppb	17:01:26
3	Ca 317.933Radial†	337.7	125.0	106.77 µg/L	106.77 ppb	17:01:46
3	Fe 238.204 Radial†	8.1	-8.5	96.137 µg/L	96.137 ppb	17:01:46
3	K 766.490 Radial†	455344.2	453262.2	296030 µg/L	296030 ppb	17:01:20
3	Mg 279.077 IEC†	6.4	-6.4	80.021 µg/L	80.021 ppb	17:01:46
3	Na 589.592 Radial†	1058.9	582.2	178.83 µg/L	178.83 ppb	17:01:26
3	Sr 421.552†	1062613.5	1058110.9	9761.2 µg/L	9761.2 ppb	17:01:20
3	Sc 361.383	1951531.6	1951531.6	99.410 %		17:03:03
3	Y 371.029	1334759.8	1334759.8	98.670 %		17:03:03
3	Ag 328.068†	-5952.6	-5586.4	12.490 µg/L	12.490 ppb	17:03:09
3	As 188.979†	4352.3	4378.6	7831.5 µg/L	7831.5 ppb	17:03:09
3	B 249.677†	103961.3	104194.4	4277.3 µg/L	4277.3 ppb	17:03:03
3	Ba 233.527†	498513.8	501491.0	12054 µg/L	12054 ppb	17:03:03
3	Be 313.107†	4199873.9	4227668.5	2505.9 µg/L	2505.9 ppb	17:02:53
3	Cd 226.502†	314684.6	316694.9	7906.5 µg/L	7906.5 ppb	17:03:03
3	Co 228.616†	168522.5	169521.2	7666.6 µg/L	7666.6 ppb	17:03:03
3	Cr 267.716†	945201.2	950864.3	19103 µg/L	19103 ppb	17:03:03
3	Cu 324.752†	2517755.9	2530162.7	16516 µg/L	16516 ppb	17:03:03
3	Mn 257.610†	2467371.4	2482278.7	7773.3 µg/L	7773.3 ppb	17:03:03
3	Mo 202.031†	82974.3	83472.3	8174.1 µg/L	8174.1 ppb	17:03:03
3	Ni 231.604†	156258.3	156873.9	7811.0 µg/L	7811.0 ppb	17:03:03
3	P 214.914†	6005.8	6026.1	10305 µg/L	10305 ppb	17:03:09
3	Pb 220.353†	86464.2	86886.7	21117 µg/L	21117 ppb	17:03:03
3	S 181.975 Axial†	10331.9	10374.4	43022 µg/L	43022 ppb	17:03:09
3	Sb 206.836†	9128.5	9160.2	8326.6 µg/L	8326.6 ppb	17:03:09
3	Se 196.026†	5645.3	5659.5	7948.1 µg/L	7948.1 ppb	17:03:09
3	SiO2†	429530.2	430689.2	85012 µg/L	85012 ppb	17:03:03
3	Si 251.611†	519223.8	521996.3	39683 µg/L	39683 ppb	17:03:03
3	Sn 189.927†	18770.5	18881.6	7962.6 µg/L	7962.6 ppb	17:03:09
3	Ti 334.940†	3882788.8	3905669.8	8640.2 µg/L	8640.2 ppb	17:02:53
3	Tl 190.801†	6222.6	6282.0	8241.0 µg/L	8241.0 ppb	17:03:09
3	U 409.014†	704.1	785.3	65.252 µg/L	65.252 ppb	17:03:03
3	V 292.402†	832909.4	837900.0	8272.7 µg/L	8272.7 ppb	17:03:03
3	Zn 213.857†	505033.0	507497.5	11846 µg/L	11846 ppb	17:03:03

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1936734.0	98.656	%	0.6566				0.67%
Sc RADIAL	56776.2	100	%	0.2				0.19%
Y 371.029	1324145.1	97.885	%	0.6888				0.70%
Ag 328.068†	-6620.3	13.360	µg/L	1.0808	13.360	ppb	1.0808	8.09%
Al 396.153Radial†	374.8	66.790	µg/L	25.4910	66.790	ppb	25.4910	38.17%
As 188.979†	5005.6	8952.9	µg/L	1008.74	8952.9	ppb	1008.74	11.27%
QC value less than the lower limit for As 188.979 Recovery = 89.53%								
B 249.677†	116147.2	4769.9	µg/L	433.79	4769.9	ppb	433.79	9.09%
QC value within limits for B 249.677 Recovery = 95.40%								
Ba 233.527†	572914.6	13771	µg/L	1524.0	13771	ppb	1524.0	11.07%
QC value within limits for Ba 233.527 Recovery = 91.81%								
Be 313.107†	4709773.2	2791.6	µg/L	247.95	2791.6	ppb	247.95	8.88%
QC value within limits for Be 313.107 Recovery = 93.05%								
Ca 317.933Radial†	105.9	90.480	µg/L	14.5864	90.480	ppb	14.5864	16.12%
Cd 226.502†	362363.7	9046.7	µg/L	1012.25	9046.7	ppb	1012.25	11.19%
QC value within limits for Cd 226.502 Recovery = 90.47%								
Co 228.616†	195935.1	8861.9	µg/L	1065.42	8861.9	ppb	1065.42	12.02%
QC value less than the lower limit for Co 228.616 Recovery = 88.62%								
Cr 267.716†	1119988.3	22501	µg/L	3046.1	22501	ppb	3046.1	13.54%
QC value within limits for Cr 267.716 Recovery = 90.00%								

Cu 324.752†	2920676.6	19065 µg/L	2270.1	19065 ppb	2270.1	11.91%
QC value within limits for Cu 324.752 Recovery = 95.32%						
Fe 238.204 Radial†	-10.3	106.92 µg/L	16.029	106.92 ppb	16.029	14.99%
K 766.490 Radial†	452395.0	295470 µg/L	742.1	295470 ppb	742.1	0.25%
QC value within limits for K 766.490 Radial Recovery = 98.49%						
Mg 279.077 IEC†	-11.4	57.093 µg/L	26.6031	57.093 ppb	26.6031	46.60%
Mn 257.610†	2868592.3	8983.1 µg/L	1076.57	8983.1 ppb	1076.57	11.98%
QC value less than the lower limit for Mn 257.610 Recovery = 89.83%						
Mo 202.031†	96398.0	9439.9 µg/L	1125.82	9439.9 ppb	1125.82	11.93%
QC value within limits for Mo 202.031 Recovery = 94.40%						
Na 589.592 Radial†	650.0	199.64 µg/L	22.270	199.64 ppb	22.270	11.15%
Ni 231.604†	181408.5	9032.6 µg/L	1089.03	9032.6 ppb	1089.03	12.06%
QC value within limits for Ni 231.604 Recovery = 90.33%						
P 214.914†	7054.3	12093 µg/L	1638.4	12093 ppb	1638.4	13.55%
QC value less than the lower limit for P 214.914 Recovery = 80.62%						
Pb 220.353†	98216.0	23870 µg/L	2433.1	23870 ppb	2433.1	10.19%
QC value within limits for Pb 220.353 Recovery = 95.48%						
S 181.975 Axial†	11919.8	49431 µg/L	5721.0	49431 ppb	5721.0	11.57%
QC value within limits for S 181.975 Axial Recovery = 98.86%						
Sb 206.836†	10604.5	9634.7 µg/L	1186.86	9634.7 ppb	1186.86	12.32%
QC value within limits for Sb 206.836 Recovery = 96.35%						
Se 196.026†	6478.3	9098.0 µg/L	1035.37	9098.0 ppb	1035.37	11.38%
QC value within limits for Se 196.026 Recovery = 90.98%						
SiO2†	482863.9	95311 µg/L	9084.4	95311 ppb	9084.4	9.53%
QC value less than the lower limit for SiO2 Recovery = 89.08%						
Si 251.611†	585176.2	44486 µg/L	4234.2	44486 ppb	4234.2	9.52%
QC value less than the lower limit for Si 251.611 Recovery = 88.97%						
Sn 189.927†	22349.8	9425.3 µg/L	1351.08	9425.3 ppb	1351.08	14.33%
QC value within limits for Sn 189.927 Recovery = 94.25%						
Sr 421.552†	1055575.2	9737.8 µg/L	28.77	9737.8 ppb	28.77	0.30%
QC value within limits for Sr 421.552 Recovery = 97.38%						
Ti 334.940†	4353482.3	9630.9 µg/L	859.79	9630.9 ppb	859.79	8.93%
QC value within limits for Ti 334.940 Recovery = 96.31%						
Tl 190.801†	6963.8	9136.3 µg/L	786.19	9136.3 ppb	786.19	8.61%
QC value within limits for Tl 190.801 Recovery = 91.36%						
U 409.014†	889.2	73.887 µg/L	8.4048	73.887 ppb	8.4048	11.38%
V 292.402†	970550.0	9583.0 µg/L	1166.76	9583.0 ppb	1166.76	12.18%
QC value within limits for V 292.402 Recovery = 95.83%						
Zn 213.857†	582722.8	13601 µg/L	1561.6	13601 ppb	1561.6	11.48%
QC value within limits for Zn 213.857 Recovery = 90.67%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:03:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55888.6	55888.6	98.9	%			17:03:56
1	Al 396.153Radial†	7603.9	7679.1	5330.8	µg/L	5330.8	ppb	17:03:56
1	Ca 317.933Radial†	6396.5	6254.7	5342.6	µg/L	5342.6	ppb	17:04:16
1	Fe 238.204 Radial†	693.3	684.2	5407.8	µg/L	5407.8	ppb	17:04:16
1	K 766.490 Radial†	8387.1	8313.2	5429.5	µg/L	5429.5	ppb	17:03:56
1	Mg 279.077 IEC†	619.4	613.3	5485.4	µg/L	5485.4	ppb	17:04:16
1	Na 589.592 Radial†	35135.8	35045.3	10764	µg/L	10764	ppb	17:03:56
1	Sr 421.552†	55695.8	56272.0	519.12	µg/L	519.12	ppb	17:03:56
1	Sc 361.383	1985726.3	1985726.3	101.15	%			17:05:20
1	Y 371.029	1365771.7	1365771.7	100.96	%			17:05:20
1	Ag 328.068†	70288.8	69890.2	521.53	µg/L	521.53	ppb	17:05:25
1	As 188.979†	301.3	298.4	533.72	µg/L	533.72	ppb	17:05:46
1	B 249.677†	13549.7	13011.4	528.34	µg/L	528.34	ppb	17:05:25
1	Ba 233.527†	22064.2	21830.1	525.03	µg/L	525.03	ppb	17:05:25
1	Be 313.107†	895757.0	888415.0	527.08	µg/L	527.08	ppb	17:05:20
1	Cd 226.502†	21255.4	21155.1	527.55	µg/L	527.55	ppb	17:05:25
1	Co 228.616†	11817.8	11681.3	528.41	µg/L	528.41	ppb	17:05:25
1	Cr 267.716†	26786.8	26532.2	533.24	µg/L	533.24	ppb	17:05:25
1	Cu 324.752†	84423.2	80918.4	528.94	µg/L	528.94	ppb	17:05:25
1	Mn 257.610†	172694.5	170984.5	535.94	µg/L	535.94	ppb	17:05:20
1	Mo 202.031†	5634.1	5575.3	546.17	µg/L	546.17	ppb	17:05:46
1	Ni 231.604†	11061.6	10623.3	529.01	µg/L	529.01	ppb	17:05:25
1	P 214.914†	1393.6	1362.4	2646.9	µg/L	2646.9	ppb	17:05:46
1	Pb 220.353†	2366.1	2248.2	546.74	µg/L	546.74	ppb	17:05:46
1	S 181.975 Axial†	286.4	264.2	1095.6	µg/L	1095.6	ppb	17:05:46
1	Sb 206.836†	624.5	594.8	548.51	µg/L	548.51	ppb	17:05:46
1	Se 196.026†	403.3	379.4	541.16	µg/L	541.16	ppb	17:05:46
1	SiO2†	30463.6	28725.2	5670.0	µg/L	5670.0	ppb	17:05:25
1	Si 251.611†	35537.3	34822.1	2647.2	µg/L	2647.2	ppb	17:05:25
1	Sn 189.927†	1316.6	1301.2	548.79	µg/L	548.79	ppb	17:05:46
1	Ti 334.940†	242343.4	239409.4	529.28	µg/L	529.28	ppb	17:05:20
1	Tl 190.801†	396.9	414.8	545.11	µg/L	545.11	ppb	17:05:46
1	U 409.014†	6392.8	6397.1	530.42	µg/L	530.42	ppb	17:05:25
1	V 292.402†	54586.5	54009.9	532.97	µg/L	532.97	ppb	17:05:25
1	Zn 213.857†	23680.6	22876.6	532.96	µg/L	532.96	ppb	17:05:25
2	Sc RADIAL	56411.2	56411.2	99.9	%			17:04:22
2	Al 396.153Radial†	7635.5	7639.5	5303.6	µg/L	5303.6	ppb	17:04:22
2	Ca 317.933Radial†	6387.4	6185.7	5283.7	µg/L	5283.7	ppb	17:04:42
2	Fe 238.204 Radial†	694.2	678.6	5363.5	µg/L	5363.5	ppb	17:04:42
2	K 766.490 Radial†	8367.7	8215.3	5365.5	µg/L	5365.5	ppb	17:04:22
2	Mg 279.077 IEC†	620.5	608.6	5443.2	µg/L	5443.2	ppb	17:04:42
2	Na 589.592 Radial†	35309.3	34889.9	10716	µg/L	10716	ppb	17:04:22
2	Sr 421.552†	56012.6	56067.6	517.23	µg/L	517.23	ppb	17:04:22
2	Sc 361.383	1973301.2	1973301.2	100.52	%			17:05:53
2	Y 371.029	1356327.8	1356327.8	100.26	%			17:05:53
2	Ag 328.068†	69539.4	69582.3	519.23	µg/L	519.23	ppb	17:05:58
2	As 188.979†	297.6	296.5	530.36	µg/L	530.36	ppb	17:06:19
2	B 249.677†	13399.5	12946.2	525.71	µg/L	525.71	ppb	17:05:58
2	Ba 233.527†	21880.7	21784.8	523.94	µg/L	523.94	ppb	17:05:58
2	Be 313.107†	883505.0	881802.2	523.15	µg/L	523.15	ppb	17:05:53
2	Cd 226.502†	20975.5	21009.0	523.90	µg/L	523.90	ppb	17:05:58
2	Co 228.616†	11661.3	11599.2	524.68	µg/L	524.68	ppb	17:05:58
2	Cr 267.716†	26502.8	26416.4	530.91	µg/L	530.91	ppb	17:05:58
2	Cu 324.752†	83587.4	80612.4	526.94	µg/L	526.94	ppb	17:05:58
2	Mn 257.610†	170657.8	170033.3	532.96	µg/L	532.96	ppb	17:05:53
2	Mo 202.031†	5420.5	5397.9	528.80	µg/L	528.80	ppb	17:06:19
2	Ni 231.604†	10882.8	10514.3	523.58	µg/L	523.58	ppb	17:05:58
2	P 214.914†	1342.7	1320.4	2563.7	µg/L	2563.7	ppb	17:06:19
2	Pb 220.353†	2290.9	2188.1	532.08	µg/L	532.08	ppb	17:06:19

2	S 181.975 Axial†	275.7	255.3	1058.7 µg/L	1058.7 ppb	17:06:19
2	Sb 206.836†	598.1	572.5	527.76 µg/L	527.76 ppb	17:06:19
2	Se 196.026†	397.1	375.7	535.95 µg/L	535.95 ppb	17:06:19
2	SiO2†	30055.7	28509.0	5627.3 µg/L	5627.3 ppb	17:05:58
2	Si 251.611†	35203.5	34711.2	2638.8 µg/L	2638.8 ppb	17:05:58
2	Sn 189.927†	1262.7	1255.8	529.63 µg/L	529.63 ppb	17:06:19
2	Ti 334.940†	239137.9	237729.0	525.56 µg/L	525.56 ppb	17:05:53
2	Tl 190.801†	378.8	399.3	524.92 µg/L	524.92 ppb	17:06:19
2	U 409.014†	6362.6	6406.8	531.24 µg/L	531.24 ppb	17:05:58
2	V 292.402†	53891.1	53657.8	529.39 µg/L	529.39 ppb	17:05:58
2	Zn 213.857†	23377.3	22722.3	529.37 µg/L	529.37 ppb	17:05:58
3	Sc RADIAL	56975.5	56975.5	101 %		17:04:48
3	Al 396.153Radial†	7635.5	7563.8	5253.0 µg/L	5253.0 ppb	17:04:48
3	Ca 317.933Radial†	6375.4	6110.4	5219.4 µg/L	5219.4 ppb	17:05:08
3	Fe 238.204 Radial†	692.0	669.6	5290.9 µg/L	5290.9 ppb	17:05:08
3	K 766.490 Radial†	8336.4	8101.2	5291.0 µg/L	5291.0 ppb	17:04:48
3	Mg 279.077 IEC†	615.1	597.1	5339.2 µg/L	5339.2 ppb	17:05:08
3	Na 589.592 Radial†	35286.2	34516.8	10602 µg/L	10602 ppb	17:04:48
3	Sr 421.552†	56155.5	55653.7	513.41 µg/L	513.41 ppb	17:04:48
3	Sc 361.383	1965301.5	1965301.5	100.11 %		17:06:26
3	Y 371.029	1350670.0	1350670.0	99.846 %		17:06:26
3	Ag 328.068†	64381.3	64711.5	482.70 µg/L	482.70 ppb	17:06:32
3	As 188.979†	245.8	246.0	440.05 µg/L	440.05 ppb	17:06:52
3	B 249.677†	12272.2	11874.4	481.93 µg/L	481.93 ppb	17:06:32
3	Ba 233.527†	19548.8	19544.2	470.02 µg/L	470.02 ppb	17:06:32
3	Be 313.107†	784667.9	786652.6	466.70 µg/L	466.70 ppb	17:06:26
3	Cd 226.502†	18615.7	18736.7	467.18 µg/L	467.18 ppb	17:06:32
3	Co 228.616†	10218.5	10205.2	461.59 µg/L	461.59 ppb	17:06:32
3	Cr 267.716†	22418.3	22443.7	451.08 µg/L	451.08 ppb	17:06:32
3	Cu 324.752†	73939.9	71314.0	466.24 µg/L	466.24 ppb	17:06:32
3	Mn 257.610†	152452.7	152539.5	478.17 µg/L	478.17 ppb	17:06:26
3	Mo 202.031†	4381.2	4381.7	429.29 µg/L	429.29 ppb	17:06:52
3	Ni 231.604†	9646.8	9323.7	464.30 µg/L	464.30 ppb	17:06:32
3	P 214.914†	1099.4	1082.8	2098.1 µg/L	2098.1 ppb	17:06:52
3	Pb 220.353†	1951.4	1858.2	451.78 µg/L	451.78 ppb	17:06:52
3	S 181.975 Axial†	236.4	217.2	900.67 µg/L	900.67 ppb	17:06:52
3	Sb 206.836†	506.2	483.2	445.02 µg/L	445.02 ppb	17:06:52
3	Se 196.026†	341.1	321.4	459.63 µg/L	459.63 ppb	17:06:52
3	SiO2†	27392.4	25970.5	5126.2 µg/L	5126.2 ppb	17:06:32
3	Si 251.611†	31876.5	31530.5	2397.0 µg/L	2397.0 ppb	17:06:32
3	Sn 189.927†	1001.9	1000.4	421.93 µg/L	421.93 ppb	17:06:52
3	Ti 334.940†	211018.2	210609.0	465.58 µg/L	465.58 ppb	17:06:26
3	Tl 190.801†	333.8	355.8	467.83 µg/L	467.83 ppb	17:06:52
3	U 409.014†	5451.1	5522.1	457.75 µg/L	457.75 ppb	17:06:32
3	V 292.402†	46793.0	46785.8	461.39 µg/L	461.39 ppb	17:06:32
3	Zn 213.857†	20591.5	20034.3	466.68 µg/L	466.68 ppb	17:06:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1974776.3	100.59	%	0.524				0.52%
Sc RADIAL	56425.1	99.9	%	0.96				0.96%
Y 371.029	1357589.8	100.36	%	0.564				0.56%
Ag 328.068†	68061.3	507.82	µg/L	21.786	507.82	ppb	21.786	4.29%
QC value within limits for Ag 328.068 Recovery = 101.56%								
Al 396.153Radial†	7627.5	5295.8	µg/L	39.51	5295.8	ppb	39.51	0.75%
QC value within limits for Al 396.153Radial Recovery = 105.92%								
As 188.979†	280.3	501.38	µg/L	53.136	501.38	ppb	53.136	10.60%
QC value within limits for As 188.979 Recovery = 100.28%								
B 249.677†	12610.7	512.00	µg/L	26.067	512.00	ppb	26.067	5.09%
QC value within limits for B 249.677 Recovery = 102.40%								
Ba 233.527†	21053.0	506.33	µg/L	31.447	506.33	ppb	31.447	6.21%
QC value within limits for Ba 233.527 Recovery = 101.27%								
Be 313.107†	852289.9	505.65	µg/L	33.780	505.65	ppb	33.780	6.68%
QC value within limits for Be 313.107 Recovery = 101.13%								
Ca 317.933Radial†	6183.6	5281.9	µg/L	61.64	5281.9	ppb	61.64	1.17%
QC value within limits for Ca 317.933Radial Recovery = 105.64%								
Cd 226.502†	20300.3	506.21	µg/L	33.851	506.21	ppb	33.851	6.69%
QC value within limits for Cd 226.502 Recovery = 101.24%								
Co 228.616†	11161.9	504.89	µg/L	37.550	504.89	ppb	37.550	7.44%

QC value within limits for Co 228.616 Recovery = 100.98%

Cr 267.716†	25130.8	505.07 µg/L	46.779	505.07 ppb	46.779	9.26%
QC value within limits for Cr 267.716 Recovery = 101.01%						
Cu 324.752†	77614.9	507.37 µg/L	35.640	507.37 ppb	35.640	7.02%
QC value within limits for Cu 324.752 Recovery = 101.47%						
Fe 238.204 Radial†	677.5	5354.0 µg/L	59.03	5354.0 ppb	59.03	1.10%
QC value within limits for Fe 238.204 Radial Recovery = 107.08%						
K 766.490 Radial†	8209.9	5362.0 µg/L	69.32	5362.0 ppb	69.32	1.29%
QC value within limits for K 766.490 Radial Recovery = 107.24%						
Mg 279.077 IEC†	606.3	5422.6 µg/L	75.22	5422.6 ppb	75.22	1.39%
QC value within limits for Mg 279.077 IEC Recovery = 108.45%						
Mn 257.610†	164519.1	515.69 µg/L	32.527	515.69 ppb	32.527	6.31%
QC value within limits for Mn 257.610 Recovery = 103.14%						
Mo 202.031†	5118.3	501.42 µg/L	63.069	501.42 ppb	63.069	12.58%
QC value within limits for Mo 202.031 Recovery = 100.28%						
Na 589.592 Radial†	34817.3	10694 µg/L	83.4	10694 ppb	83.4	0.78%
QC value within limits for Na 589.592 Radial Recovery = 106.94%						
Ni 231.604†	10153.8	505.63 µg/L	35.893	505.63 ppb	35.893	7.10%
QC value within limits for Ni 231.604 Recovery = 101.13%						
P 214.914†	1255.2	2436.2 µg/L	295.76	2436.2 ppb	295.76	12.14%
QC value within limits for P 214.914 Recovery = 97.45%						
Pb 220.353†	2098.2	510.20 µg/L	51.120	510.20 ppb	51.120	10.02%
QC value within limits for Pb 220.353 Recovery = 102.04%						
S 181.975 Axial†	245.6	1018.3 µg/L	103.55	1018.3 ppb	103.55	10.17%
QC value within limits for S 181.975 Axial Recovery = 101.83%						
Sb 206.836†	550.2	507.10 µg/L	54.752	507.10 ppb	54.752	10.80%
QC value within limits for Sb 206.836 Recovery = 101.42%						
Se 196.026†	358.8	512.25 µg/L	45.639	512.25 ppb	45.639	8.91%
QC value within limits for Se 196.026 Recovery = 102.45%						
SiO2†	27734.9	5474.5 µg/L	302.37	5474.5 ppb	302.37	5.52%
QC value within limits for SiO2 Recovery = 102.38%						
Si 251.611†	33688.0	2561.0 µg/L	142.10	2561.0 ppb	142.10	5.55%
QC value within limits for Si 251.611 Recovery = 102.44%						
Sn 189.927†	1185.8	500.11 µg/L	68.387	500.11 ppb	68.387	13.67%
QC value within limits for Sn 189.927 Recovery = 100.02%						
Sr 421.552†	55997.8	516.59 µg/L	2.906	516.59 ppb	2.906	0.56%
QC value within limits for Sr 421.552 Recovery = 103.32%						
Ti 334.940†	229249.1	506.81 µg/L	35.755	506.81 ppb	35.755	7.05%
QC value within limits for Ti 334.940 Recovery = 101.36%						
Tl 190.801†	390.0	512.62 µg/L	40.080	512.62 ppb	40.080	7.82%
QC value within limits for Tl 190.801 Recovery = 102.52%						
U 409.014†	6108.7	506.47 µg/L	42.195	506.47 ppb	42.195	8.33%
QC value within limits for U 409.014 Recovery = 101.29%						
V 292.402†	51484.5	507.91 µg/L	40.335	507.91 ppb	40.335	7.94%
QC value within limits for V 292.402 Recovery = 101.58%						
Zn 213.857†	21877.7	509.67 µg/L	37.277	509.67 ppb	37.277	7.31%
QC value within limits for Zn 213.857 Recovery = 101.93%						

All analyte(s) passed QC.

Sequence No.: 14 | **Autosampler Location: 8**
Sample ID: CCB | **Date Collected: 2/19/2010 17:07:02**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55412.9	55412.9	98.1	%			17:07:34
1	Al 396.153Radial†	37.8	31.1	21.627	µg/L	21.627	ppb	17:07:34
1	Ca 317.933Radial†	224.1	17.2	14.719	µg/L	14.719	ppb	17:07:55
1	Fe 238.204 Radial†	17.2	1.0	7.9128	µg/L	7.9128	ppb	17:07:55
1	K 766.490 Radial†	263.9	104.0	67.945	µg/L	67.945	ppb	17:07:34
1	Mg 279.077 IEC†	16.1	3.6	31.922	µg/L	31.922	ppb	17:07:55
1	Na 589.592 Radial†	689.0	230.2	70.711	µg/L	70.711	ppb	17:07:34
1	Sr 421.552†	101.9	75.1	0.6926	µg/L	0.6926	ppb	17:07:34
1	Sc 361.383	1951828.9	1951828.9	99.425	%			17:08:57
1	Y 371.029	1347100.7	1347100.7	99.582	%			17:08:57
1	Ag 328.068†	-411.9	-12.6	-0.0884	µg/L	-0.0884	ppb	17:09:02
1	As 188.979†	1.0	1.5	2.6447	µg/L	2.6447	ppb	17:09:23
1	B 249.677†	547.2	166.2	6.7725	µg/L	6.7725	ppb	17:09:02
1	Ba 233.527†	13.0	30.1	0.7248	µg/L	0.7248	ppb	17:09:23
1	Be 313.107†	-2489.6	351.6	0.2085	µg/L	0.2085	ppb	17:09:02
1	Cd 226.502†	-106.1	35.0	0.8724	µg/L	0.8724	ppb	17:09:23
1	Co 228.616†	8.3	6.4	0.2907	µg/L	0.2907	ppb	17:09:23
1	Cr 267.716†	3.3	53.7	1.0792	µg/L	1.0792	ppb	17:09:02
1	Cu 324.752†	2832.8	305.4	1.9949	µg/L	1.9949	ppb	17:09:02
1	Mn 257.610†	-94.7	160.8	0.5033	µg/L	0.5033	ppb	17:09:23
1	Mo 202.031†	11.2	16.6	1.6267	µg/L	1.6267	ppb	17:09:23
1	Ni 231.604†	329.4	19.0	0.9450	µg/L	0.9450	ppb	17:09:23
1	P 214.914†	17.5	2.3	4.3252	µg/L	4.3252	ppb	17:09:23
1	Pb 220.353†	117.3	27.1	6.5756	µg/L	6.5756	ppb	17:09:23
1	S 181.975 Axial†	13.9	-5.0	-20.708	µg/L	-20.708	ppb	17:09:23
1	Sb 206.836†	24.4	2.0	1.8677	µg/L	1.8677	ppb	17:09:23
1	Se 196.026†	8.1	-11.2	-15.713	µg/L	-15.713	ppb	17:09:23
1	SiO2†	1498.4	115.5	22.804	µg/L	22.804	ppb	17:09:02
1	Si 251.611†	397.1	88.7	6.7465	µg/L	6.7465	ppb	17:09:23
1	Sn 189.927†	7.9	7.6	3.2082	µg/L	3.2082	ppb	17:09:23
1	Ti 334.940†	420.5	247.9	0.5462	µg/L	0.5462	ppb	17:09:02
1	Tl 190.801†	-26.0	-3.7	-4.8506	µg/L	-4.8506	ppb	17:09:23
1	U 409.014†	-2.4	74.7	6.2026	µg/L	6.2026	ppb	17:09:02
1	V 292.402†	29.6	74.5	0.7487	µg/L	0.7487	ppb	17:09:02
1	Zn 213.857†	624.2	93.4	2.1827	µg/L	2.1827	ppb	17:09:23
2	Sc RADIAL	55845.1	55845.1	98.8	%			17:08:00
2	Al 396.153Radial†	15.5	8.3	5.7389	µg/L	5.7389	ppb	17:08:00
2	Ca 317.933Radial†	229.7	21.1	18.050	µg/L	18.050	ppb	17:08:21
2	Fe 238.204 Radial†	18.3	1.9	15.065	µg/L	15.065	ppb	17:08:21
2	K 766.490 Radial†	268.0	106.2	69.336	µg/L	69.336	ppb	17:08:00
2	Mg 279.077 IEC†	18.8	6.2	55.616	µg/L	55.616	ppb	17:08:21
2	Na 589.592 Radial†	718.0	254.2	78.078	µg/L	78.078	ppb	17:08:00
2	Sr 421.552†	118.8	91.4	0.8433	µg/L	0.8433	ppb	17:08:00
2	Sc 361.383	1967750.3	1967750.3	100.24	%			17:09:29
2	Y 371.029	1358640.9	1358640.9	100.44	%			17:09:29
2	Ag 328.068†	-328.6	73.7	0.5515	µg/L	0.5515	ppb	17:09:34
2	As 188.979†	0.4	0.9	1.5587	µg/L	1.5587	ppb	17:09:55
2	B 249.677†	564.6	179.1	7.2933	µg/L	7.2933	ppb	17:09:34
2	Ba 233.527†	22.7	39.7	0.9547	µg/L	0.9547	ppb	17:09:55
2	Be 313.107†	-2501.6	360.0	0.2134	µg/L	0.2134	ppb	17:09:34
2	Cd 226.502†	-111.0	30.9	0.7694	µg/L	0.7694	ppb	17:09:55
2	Co 228.616†	5.7	3.7	0.1688	µg/L	0.1688	ppb	17:09:55
2	Cr 267.716†	-17.2	33.2	0.6680	µg/L	0.6680	ppb	17:09:34
2	Cu 324.752†	2799.6	249.3	1.6293	µg/L	1.6293	ppb	17:09:34
2	Mn 257.610†	-100.4	155.9	0.4879	µg/L	0.4879	ppb	17:09:55
2	Mo 202.031†	11.5	16.9	1.6521	µg/L	1.6521	ppb	17:09:55
2	Ni 231.604†	309.9	-3.2	-0.1576	µg/L	-0.1576	ppb	17:09:55
2	P 214.914†	22.6	7.2	14.217	µg/L	14.217	ppb	17:09:55
2	Pb 220.353†	112.5	21.3	5.1809	µg/L	5.1809	ppb	17:09:55

2	S 181.975 Axial†	17.8	-1.2	-5.0873 µg/L	-5.0873 ppb	17:09:55
2	Sb 206.836†	28.6	6.1	5.5939 µg/L	5.5939 ppb	17:09:55
2	Se 196.026†	12.5	-6.8	-9.5638 µg/L	-9.5638 ppb	17:09:55
2	SiO2†	1499.4	104.3	20.597 µg/L	20.597 ppb	17:09:34
2	Si 251.611†	402.2	90.6	6.8889 µg/L	6.8889 ppb	17:09:55
2	Sn 189.927†	9.5	9.2	3.8641 µg/L	3.8641 ppb	17:09:55
2	Ti 334.940†	469.3	293.2	0.6444 µg/L	0.6444 ppb	17:09:34
2	Tl 190.801†	-20.6	1.9	2.4344 µg/L	2.4344 ppb	17:09:55
2	U 409.014†	-26.6	50.5	4.1927 µg/L	4.1927 ppb	17:09:34
2	V 292.402†	21.3	66.0	0.6641 µg/L	0.6641 ppb	17:09:34
2	Zn 213.857†	610.2	74.4	1.7390 µg/L	1.7390 ppb	17:09:55
3	Sc RADIAL	55020.8	55020.8	97.4 %		17:08:26
3	Al 396.153Radial†	25.2	18.5	12.855 µg/L	12.855 ppb	17:08:26
3	Ca 317.933Radial†	219.3	13.9	11.843 µg/L	11.843 ppb	17:08:46
3	Fe 238.204 Radial†	16.8	0.7	5.5902 µg/L	5.5902 ppb	17:08:46
3	K 766.490 Radial†	318.2	161.7	105.61 µg/L	105.61 ppb	17:08:26
3	Mg 279.077 IEC†	14.2	1.7	15.617 µg/L	15.617 ppb	17:08:46
3	Na 589.592 Radial†	674.2	220.1	67.603 µg/L	67.603 ppb	17:08:26
3	Sr 421.552†	108.4	82.5	0.7609 µg/L	0.7609 ppb	17:08:26
3	Sc 361.383	1948909.4	1948909.4	99.276 %		17:10:01
3	Y 371.029	1346308.2	1346308.2	99.523 %		17:10:01
3	Ag 328.068†	-352.8	46.2	0.3442 µg/L	0.3442 ppb	17:10:07
3	As 188.979†	-1.2	-0.7	-1.3112 µg/L	-1.3112 ppb	17:10:27
3	B 249.677†	510.9	130.5	5.3165 µg/L	5.3165 ppb	17:10:07
3	Ba 233.527†	13.0	30.2	0.7245 µg/L	0.7245 ppb	17:10:27
3	Be 313.107†	-2546.8	290.3	0.1721 µg/L	0.1721 ppb	17:10:07
3	Cd 226.502†	-112.3	28.5	0.7115 µg/L	0.7115 ppb	17:10:27
3	Co 228.616†	15.8	14.0	0.6325 µg/L	0.6325 ppb	17:10:27
3	Cr 267.716†	5.2	55.6	1.1178 µg/L	1.1178 ppb	17:10:07
3	Cu 324.752†	2793.0	269.6	1.7608 µg/L	1.7608 ppb	17:10:07
3	Mn 257.610†	-128.7	126.3	0.3957 µg/L	0.3957 ppb	17:10:27
3	Mo 202.031†	14.1	19.5	1.9140 µg/L	1.9140 ppb	17:10:27
3	Ni 231.604†	312.1	2.0	0.1004 µg/L	0.1004 ppb	17:10:27
3	P 214.914†	16.0	0.8	1.3809 µg/L	1.3809 ppb	17:10:27
3	Pb 220.353†	106.0	15.9	3.8630 µg/L	3.8630 ppb	17:10:27
3	S 181.975 Axial†	14.2	-4.6	-19.132 µg/L	-19.132 ppb	17:10:27
3	Sb 206.836†	16.0	-6.4	-5.8776 µg/L	-5.8776 ppb	17:10:27
3	Se 196.026†	18.1	-1.1	-1.5391 µg/L	-1.5391 ppb	17:10:27
3	SiO2†	1473.7	92.8	18.326 µg/L	18.326 ppb	17:10:07
3	Si 251.611†	414.5	106.9	8.1279 µg/L	8.1279 ppb	17:10:27
3	Sn 189.927†	10.6	10.3	4.3488 µg/L	4.3488 ppb	17:10:27
3	Ti 334.940†	439.9	268.1	0.5920 µg/L	0.5920 ppb	17:10:07
3	Tl 190.801†	-23.3	-1.1	-1.4129 µg/L	-1.4129 ppb	17:10:27
3	U 409.014†	-71.7	4.9	0.4060 µg/L	0.4060 ppb	17:10:07
3	V 292.402†	-20.7	23.9	0.2511 µg/L	0.2511 ppb	17:10:07
3	Zn 213.857†	601.7	71.7	1.6777 µg/L	1.6777 ppb	17:10:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1956162.9	99.646	%	0.5166				0.52%
Sc RADIAL	55426.3	98.1	%	0.73				0.74%
Y 371.029	1350683.2	99.847	%	0.5103				0.51%
Ag 328.068†	35.8	0.2691	µg/L	0.32647	0.2691	ppb	0.32647	121.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.3	13.407	µg/L	7.9584	13.407	ppb	7.9584	59.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.5	0.9641	µg/L	2.04391	0.9641	ppb	2.04391	212.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	158.6	6.4608	µg/L	1.02461	6.4608	ppb	1.02461	15.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	33.3	0.8013	µg/L	0.13279	0.8013	ppb	0.13279	16.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	334.0	0.1980	µg/L	0.02257	0.1980	ppb	0.02257	11.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	17.4	14.871	µg/L	3.1063	14.871	ppb	3.1063	20.89%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.5	0.7844	µg/L	0.08148	0.7844	ppb	0.08148	10.39%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.3640	µg/L	0.24037	0.3640	ppb	0.24037	66.04%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              47.5      0.9550 µg/L       0.24930      0.9550 ppb        0.24930  26.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             274.8      1.7950 µg/L       0.18518      1.7950 ppb        0.18518  10.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.2      9.5227 µg/L       4.93823      9.5227 ppb        4.93823  51.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       124.0      80.963 µg/L       21.3541      80.963 ppb        21.3541  26.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.8      34.385 µg/L       20.1131      34.385 ppb        20.1131  58.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             147.7      0.4623 µg/L       0.05817      0.4623 ppb        0.05817  12.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              17.7      1.7309 µg/L       0.15903      1.7309 ppb        0.15903   9.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      234.8      72.131 µg/L        5.3801      72.131 ppb         5.3801   7.46%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.9      0.2959 µg/L       0.57673      0.2959 ppb        0.57673 194.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                3.4      6.6410 µg/L       6.72404      6.6410 ppb        6.72404 101.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.4      5.2065 µg/L       1.35647      5.2065 ppb        1.35647  26.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.6     -14.976 µg/L        8.5998     -14.976 ppb         8.5998  57.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.6      0.5280 µg/L       5.85192      0.5280 ppb        5.85192 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.4     -8.9385 µg/L       7.10744     -8.9385 ppb        7.10744  79.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   104.2      20.576 µg/L        2.2394      20.576 ppb         2.2394  10.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              95.4      7.2544 µg/L       0.75977      7.2544 ppb        0.75977  10.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.0      3.8070 µg/L       0.57241      3.8070 ppb        0.57241  15.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              83.0      0.7656 µg/L       0.07544      0.7656 ppb        0.07544   9.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             269.7      0.5942 µg/L       0.04915      0.5942 ppb        0.04915   8.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.0     -1.2763 µg/L       3.64442     -1.2763 ppb        3.64442 285.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               43.4      3.6004 µg/L       2.94331      3.6004 ppb        2.94331  81.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               54.8      0.5546 µg/L       0.26626      0.5546 ppb        0.26626  48.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              79.8      1.8665 µg/L       0.27558      1.8665 ppb        0.27558  14.76%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/19/2010 17:18:12 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\optima1\Sample Information\021910E.sif
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/19/2010 16:28:12**
IEC File: 011510.iec **MSF File:**
Method Description:

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

Sequence No.: 1 **Autosampler Location: 113**
Sample ID: LR2 **Date Collected: 2/19/2010 17:18:14**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57089.6	57089.6	101	%			17:18:49
1	Al 396.153Radial†	-10.5	-17.7	-12.364	µg/L	-12.364	ppb	17:18:49
1	Ca 317.933Radial†	228.9	15.3	13.039	µg/L	13.039	ppb	17:19:09
1	Fe 238.204 Radial†	8.4	-8.2	43.697	µg/L	43.697	ppb	17:19:09

1	K 766.490 Radial†	220.7	53.4	34.889 µg/L	34.889 ppb	17:18:49
1	Mg 279.077 IEC†	10.1	-2.8	-24.911 µg/L	-24.911 ppb	17:19:09
1	Na 589.592 Radial†	602.0	123.6	37.957 µg/L	37.957 ppb	17:18:49
1	Sr 421.552†	60.8	31.4	0.2896 µg/L	0.2896 ppb	17:18:49
1	Sc 361.383	1992980.4	1992980.4	101.52 %		17:20:12
1	Y 371.029	1370801.5	1370801.5	101.33 %		17:20:12
1	Ag 328.068†	-413.2	-5.4	-0.0402 µg/L	-0.0402 ppb	17:20:18
1	As 188.979†	2879.0	2836.3	5083.5 µg/L	5083.5 ppb	17:20:38
1	B 249.677†	863.8	466.7	19.057 µg/L	19.057 ppb	17:20:18
1	Ba 233.527†	-3.1	14.0	0.3366 µg/L	0.3366 ppb	17:20:38
1	Be 313.107†	-2634.3	260.8	0.1545 µg/L	0.1545 ppb	17:20:18
1	Cd 226.502†	-101.6	41.6	1.0480 µg/L	1.0480 ppb	17:20:38
1	Co 228.616†	114754.7	113033.4	5119.0 µg/L	5119.0 ppb	17:20:18
1	Cr 267.716†	-18.5	32.2	0.6465 µg/L	0.6465 ppb	17:20:18
1	Cu 324.752†	1806.3	-764.5	-4.9994 µg/L	-4.9994 ppb	17:20:18
1	Mn 257.610†	-157.7	100.7	0.3076 µg/L	0.3076 ppb	17:20:38
1	Mo 202.031†	8.0	13.2	1.2927 µg/L	1.2927 ppb	17:20:38
1	Ni 231.604†	383.1	65.0	-2.8550 µg/L	-2.8550 ppb	17:20:38
1	P 214.914†	5661.5	5561.4	11011 µg/L	11011 ppb	17:20:18
1	Pb 220.353†	103.9	11.4	2.7844 µg/L	2.7844 ppb	17:20:38
1	S 181.975 Axial†	11.6	-7.5	-31.222 µg/L	-31.222 ppb	17:20:38
1	Sb 206.836†	26.1	3.2	2.9217 µg/L	2.9217 ppb	17:20:38
1	Se 196.026†	15.5	-4.1	-5.9032 µg/L	-5.9032 ppb	17:20:38
1	SiO2†	426908.6	419120.7	82729 µg/L	82729 ppb	17:20:12
1	Si 251.611†	511420.1	503446.9	38273 µg/L	38273 ppb	17:20:12
1	Sn 189.927†	7.7	7.2	3.0305 µg/L	3.0305 ppb	17:20:38
1	Ti 334.940†	600.4	416.4	0.9232 µg/L	0.9232 ppb	17:20:18
1	Tl 190.801†	0.4	22.7	12.314 µg/L	12.314 ppb	17:20:38
1	U 409.014†	-95.3	-16.8	-1.3899 µg/L	-1.3899 ppb	17:20:18
1	V 292.402†	13.1	57.7	0.5647 µg/L	0.5647 ppb	17:20:18
1	Zn 213.857†	632.3	88.4	2.0732 µg/L	2.0732 ppb	17:20:38
2	Sc RADIAL	56165.6	56165.6	99.4 %		17:19:15
2	Al 396.153Radial†	-6.9	-14.3	-9.9617 µg/L	-9.9617 ppb	17:19:15
2	Ca 317.933Radial†	216.0	6.0	5.1201 µg/L	5.1201 ppb	17:19:35
2	Fe 238.204 Radial†	7.6	-8.9	36.342 µg/L	36.342 ppb	17:19:35
2	K 766.490 Radial†	221.8	58.1	37.930 µg/L	37.930 ppb	17:19:15
2	Mg 279.077 IEC†	7.5	-5.3	-47.450 µg/L	-47.450 ppb	17:19:35
2	Na 589.592 Radial†	593.1	124.4	38.204 µg/L	38.204 ppb	17:19:15
2	Sr 421.552†	33.6	5.0	0.0462 µg/L	0.0462 ppb	17:19:15
2	Sc 361.383	2021073.3	2021073.3	102.95 %		17:20:45
2	Y 371.029	1388832.8	1388832.8	102.67 %		17:20:45
2	Ag 328.068†	-393.4	19.5	0.1414 µg/L	0.1414 ppb	17:20:50
2	As 188.979†	2798.9	2719.1	4873.4 µg/L	4873.4 ppb	17:21:11
2	B 249.677†	844.8	436.4	17.824 µg/L	17.824 ppb	17:20:50
2	Ba 233.527†	-4.8	12.4	0.2992 µg/L	0.2992 ppb	17:21:11
2	Be 313.107†	-2671.8	260.5	0.1543 µg/L	0.1543 ppb	17:20:50
2	Cd 226.502†	-106.1	38.6	0.9740 µg/L	0.9740 ppb	17:21:11
2	Co 228.616†	114007.7	110736.6	5015.0 µg/L	5015.0 ppb	17:20:50
2	Cr 267.716†	-23.2	27.9	0.5600 µg/L	0.5600 ppb	17:20:50
2	Cu 324.752†	1789.0	-806.1	-5.2714 µg/L	-5.2714 ppb	17:20:50
2	Mn 257.610†	-160.2	100.4	0.3070 µg/L	0.3070 ppb	17:21:11
2	Mo 202.031†	1.7	7.0	0.6793 µg/L	0.6793 ppb	17:21:11
2	Ni 231.604†	365.6	42.8	-3.8392 µg/L	-3.8392 ppb	17:21:11
2	P 214.914†	5616.7	5440.3	10772 µg/L	10772 ppb	17:20:50
2	Pb 220.353†	110.3	16.2	3.9509 µg/L	3.9509 ppb	17:21:11
2	S 181.975 Axial†	18.6	-0.9	-3.7186 µg/L	-3.7186 ppb	17:21:11
2	Sb 206.836†	25.8	2.5	2.3409 µg/L	2.3409 ppb	17:21:11
2	Se 196.026†	13.5	-6.2	-8.8057 µg/L	-8.8057 ppb	17:21:11
2	SiO2†	425202.9	411618.8	81248 µg/L	81248 ppb	17:20:45
2	Si 251.611†	509536.8	494615.4	37602 µg/L	37602 ppb	17:20:45
2	Sn 189.927†	2.6	2.2	0.9156 µg/L	0.9156 ppb	17:21:11
2	Ti 334.940†	589.0	397.1	0.8822 µg/L	0.8822 ppb	17:20:50
2	Tl 190.801†	0.9	23.3	13.383 µg/L	13.383 ppb	17:21:11
2	U 409.014†	-89.3	-9.7	-0.7935 µg/L	-0.7935 ppb	17:20:50
2	V 292.402†	-20.8	24.5	0.2365 µg/L	0.2365 ppb	17:20:50
2	Zn 213.857†	620.1	67.9	1.5977 µg/L	1.5977 ppb	17:21:11
3	Sc RADIAL	56192.1	56192.1	99.5 %		17:19:41
3	Al 396.153Radial†	-3.6	-11.0	-7.6627 µg/L	-7.6627 ppb	17:19:41
3	Ca 317.933Radial†	218.7	8.6	7.3845 µg/L	7.3845 ppb	17:20:01
3	Fe 238.204 Radial†	9.7	-6.8	38.692 µg/L	38.692 ppb	17:20:01
3	K 766.490 Radial†	214.2	50.4	32.899 µg/L	32.899 ppb	17:19:41

3	Mg 279.077 IEC†	13.9	1.2	10.769 µg/L	10.769 ppb	17:20:01
3	Na 589.592 Radial†	600.0	131.0	40.239 µg/L	40.239 ppb	17:19:41
3	Sr 421.552†	67.6	39.2	0.3616 µg/L	0.3616 ppb	17:19:41
3	Sc 361.383	1998637.7	1998637.7	101.81 %		17:21:17
3	Y 371.029	1373104.8	1373104.8	101.50 %		17:21:17
3	Ag 328.068†	-417.7	-8.6	-0.0666 µg/L	-0.0666 ppb	17:21:23
3	As 188.979†	2369.6	2327.9	4172.3 µg/L	4172.3 ppb	17:21:43
3	B 249.677†	832.0	433.0	17.679 µg/L	17.679 ppb	17:21:23
3	Ba 233.527†	-4.2	12.9	0.3111 µg/L	0.3111 ppb	17:21:43
3	Be 313.107†	-2497.8	402.3	0.2384 µg/L	0.2384 ppb	17:21:23
3	Cd 226.502†	-118.0	25.8	0.6517 µg/L	0.6517 ppb	17:21:43
3	Co 228.616†	98118.9	96373.3	4364.5 µg/L	4364.5 ppb	17:21:23
3	Cr 267.716†	-6.1	44.4	0.8924 µg/L	0.8924 ppb	17:21:23
3	Cu 324.752†	1945.6	-632.7	-4.1375 µg/L	-4.1375 ppb	17:21:23
3	Mn 257.610†	-181.8	77.4	0.2349 µg/L	0.2349 ppb	17:21:43
3	Mo 202.031†	-0.1	5.3	0.5134 µg/L	0.5134 ppb	17:21:43
3	Ni 231.604†	349.6	31.0	-3.6536 µg/L	-3.6536 ppb	17:21:43
3	P 214.914†	4913.6	4810.9	9525.5 µg/L	9525.5 ppb	17:21:23
3	Pb 220.353†	106.2	13.4	3.2602 µg/L	3.2602 ppb	17:21:43
3	S 181.975 Axial†	19.1	-0.2	-0.8917 µg/L	-0.8917 ppb	17:21:43
3	Sb 206.836†	17.0	-5.8	-5.3639 µg/L	-5.3639 ppb	17:21:43
3	Se 196.026†	14.4	-5.1	-7.3641 µg/L	-7.3641 ppb	17:21:43
3	SiO2†	388378.1	380084.6	75024 µg/L	75024 ppb	17:21:17
3	Si 251.611†	465723.5	457136.5	34752 µg/L	34752 ppb	17:21:17
3	Sn 189.927†	7.2	6.7	2.8419 µg/L	2.8419 ppb	17:21:43
3	Ti 334.940†	599.4	413.7	0.9146 µg/L	0.9146 ppb	17:21:23
3	Tl 190.801†	-3.1	19.4	10.494 µg/L	10.494 ppb	17:21:43
3	U 409.014†	-33.0	44.6	3.7148 µg/L	3.7148 ppb	17:21:23
3	V 292.402†	-34.4	11.0	0.1103 µg/L	0.1103 ppb	17:21:23
3	Zn 213.857†	609.9	64.6	1.5181 µg/L	1.5181 ppb	17:21:43

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2004230.5	102.09	%	0.757				0.74%
Sc RADIAL	56482.4	100.0	%	0.93				0.93%
Y 371.029	1377579.7	101.84	%	0.725				0.71%
Ag 328.068†	1.8	0.0115	µg/L	0.11324	0.0115	ppb	0.11324	983.61%
Al 396.153Radial†	-14.3	-9.9961	µg/L	2.35074	-9.9961	ppb	2.35074	23.52%
As 188.979†	2627.8	4709.7	µg/L	477.13	4709.7	ppb	477.13	10.13%
B 249.677†	445.4	18.187	µg/L	0.7573	18.187	ppb	0.7573	4.16%
Ba 233.527†	13.1	0.3156	µg/L	0.01910	0.3156	ppb	0.01910	6.05%
Be 313.107†	307.9	0.1824	µg/L	0.04852	0.1824	ppb	0.04852	26.60%
Ca 317.933Radial†	10.0	8.5144	µg/L	4.07847	8.5144	ppb	4.07847	47.90%
Cd 226.502†	35.4	0.8912	µg/L	0.21072	0.8912	ppb	0.21072	23.64%
Co 228.616†	106714.5	4832.9	µg/L	408.90	4832.9	ppb	408.90	8.46%
Cr 267.716†	34.8	0.6996	µg/L	0.17243	0.6996	ppb	0.17243	24.65%
Cu 324.752†	-734.4	-4.8027	µg/L	0.59198	-4.8027	ppb	0.59198	12.33%
Fe 238.204 Radial†	-8.0	39.577	µg/L	3.7566	39.577	ppb	3.7566	9.49%
K 766.490 Radial†	54.0	35.239	µg/L	2.5339	35.239	ppb	2.5339	7.19%
Mg 279.077 IEC†	-2.3	-20.531	µg/L	29.3558	-20.531	ppb	29.3558	142.98%
Mn 257.610†	92.8	0.2832	µg/L	0.04179	0.2832	ppb	0.04179	14.76%
Mo 202.031†	8.5	0.8285	µg/L	0.41049	0.8285	ppb	0.41049	49.55%
Na 589.592 Radial†	126.3	38.800	µg/L	1.2520	38.800	ppb	1.2520	3.23%
Ni 231.604†	46.3	-3.4493	µg/L	0.52296	-3.4493	ppb	0.52296	15.16%
P 214.914†	5270.9	10436	µg/L	797.7	10436	ppb	797.7	7.64%
Pb 220.353†	13.7	3.3319	µg/L	0.58655	3.3319	ppb	0.58655	17.60%
S 181.975 Axial†	-2.9	-11.944	µg/L	16.7551	-11.944	ppb	16.7551	140.28%
Sb 206.836†	-0.0	-0.0338	µg/L	4.62516	-0.0338	ppb	4.62516	>999.9%
Se 196.026†	-5.1	-7.3577	µg/L	1.45126	-7.3577	ppb	1.45126	19.72%
SiO2†	403608.1	79667	µg/L	4088.7	79667	ppb	4088.7	5.13%
Si 251.611†	485066.3	36876	µg/L	1869.2	36876	ppb	1869.2	5.07%
Sn 189.927†	5.4	2.2626	µg/L	1.17039	2.2626	ppb	1.17039	51.73%
Sr 421.552†	25.2	0.2325	µg/L	0.16530	0.2325	ppb	0.16530	71.11%
Ti 334.940†	409.0	0.9067	µg/L	0.02163	0.9067	ppb	0.02163	2.39%
Tl 190.801†	21.8	12.064	µg/L	1.4608	12.064	ppb	1.4608	12.11%
U 409.014†	6.0	0.5104	µg/L	2.79101	0.5104	ppb	2.79101	546.79%
V 292.402†	31.1	0.3038	µg/L	0.23456	0.3038	ppb	0.23456	77.20%
Zn 213.857†	73.7	1.7297	µg/L	0.30016	1.7297	ppb	0.30016	17.35%

Sequence No.: 2 | **Autosampler Location: 7**
Sample ID: CCV | **Date Collected: 2/19/2010 17:21:52**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55997.1	55997.1	99.1	%			17:22:28
1	Al 396.153Radial†	7484.4	7543.7	5236.5	µg/L	5236.5	ppb	17:22:28
1	Ca 317.933Radial†	6284.2	6128.9	5235.2	µg/L	5235.2	ppb	17:22:48
1	Fe 238.204 Radial†	689.0	678.6	5363.5	µg/L	5363.5	ppb	17:22:48
1	K 766.490 Radial†	8069.9	7976.8	5209.8	µg/L	5209.8	ppb	17:22:28
1	Mg 279.077 IEC†	607.2	599.8	5365.3	µg/L	5365.3	ppb	17:22:48
1	Na 589.592 Radial†	34612.1	34448.1	10580	µg/L	10580	ppb	17:22:28
1	Sr 421.552†	55249.7	55712.7	513.96	µg/L	513.96	ppb	17:22:28
1	Sc 361.383	1941292.6	1941292.6	98.888	%			17:23:51
1	Y 371.029	1335522.5	1335522.5	98.726	%			17:23:51
1	Ag 328.068†	70158.7	71349.1	532.40	µg/L	532.40	ppb	17:23:57
1	As 188.979†	304.1	308.0	550.96	µg/L	550.96	ppb	17:24:18
1	B 249.677†	13216.5	12981.0	527.15	µg/L	527.15	ppb	17:23:57
1	Ba 233.527†	22082.2	22347.5	537.47	µg/L	537.47	ppb	17:23:57
1	Be 313.107†	881057.8	893819.8	530.28	µg/L	530.28	ppb	17:23:51
1	Cd 226.502†	21234.9	21615.4	539.04	µg/L	539.04	ppb	17:23:57
1	Co 228.616†	11841.2	11972.4	541.59	µg/L	541.59	ppb	17:23:57
1	Cr 267.716†	26708.5	27059.1	543.83	µg/L	543.83	ppb	17:23:57
1	Cu 324.752†	83577.2	81973.2	535.82	µg/L	535.82	ppb	17:23:57
1	Mn 257.610†	169839.0	172004.6	539.13	µg/L	539.13	ppb	17:23:51
1	Mo 202.031†	5552.9	5620.6	550.61	µg/L	550.61	ppb	17:24:18
1	Ni 231.604†	11057.1	10869.0	541.24	µg/L	541.24	ppb	17:23:57
1	P 214.914†	1373.5	1373.6	2668.4	µg/L	2668.4	ppb	17:24:18
1	Pb 220.353†	2326.6	2261.9	550.03	µg/L	550.03	ppb	17:24:18
1	S 181.975 Axial†	279.6	263.8	1093.9	µg/L	1093.9	ppb	17:24:18
1	Sb 206.836†	611.1	595.5	549.07	µg/L	549.07	ppb	17:24:18
1	Se 196.026†	411.0	396.3	565.02	µg/L	565.02	ppb	17:24:18
1	SiO2†	30336.5	29286.0	5780.7	µg/L	5780.7	ppb	17:23:57
1	Si 251.611†	35486.6	35575.0	2704.5	µg/L	2704.5	ppb	17:23:57
1	Sn 189.927†	1307.2	1321.6	557.36	µg/L	557.36	ppb	17:24:18
1	Ti 334.940†	237204.0	239696.0	529.92	µg/L	529.92	ppb	17:23:51
1	Tl 190.801†	383.1	409.8	538.64	µg/L	538.64	ppb	17:24:18
1	U 409.014†	6443.7	6593.3	546.74	µg/L	546.74	ppb	17:23:57
1	V 292.402†	54369.9	55025.9	542.94	µg/L	542.94	ppb	17:23:57
1	Zn 213.857†	23470.8	23200.3	540.50	µg/L	540.50	ppb	17:23:57
2	Sc RADIAL	55374.2	55374.2	98.0	%			17:22:54
2	Al 396.153Radial†	7516.3	7661.2	5318.8	µg/L	5318.8	ppb	17:22:54
2	Ca 317.933Radial†	6316.8	6233.4	5324.5	µg/L	5324.5	ppb	17:23:14
2	Fe 238.204 Radial†	689.1	686.5	5425.5	µg/L	5425.5	ppb	17:23:14
2	K 766.490 Radial†	8078.4	8077.0	5275.2	µg/L	5275.2	ppb	17:22:54
2	Mg 279.077 IEC†	616.4	616.1	5510.0	µg/L	5510.0	ppb	17:23:14
2	Na 589.592 Radial†	34699.9	34930.4	10729	µg/L	10729	ppb	17:22:54
2	Sr 421.552†	55215.6	56305.0	519.42	µg/L	519.42	ppb	17:22:54
2	Sc 361.383	1972008.9	1972008.9	100.45	%			17:24:25
2	Y 371.029	1357440.8	1357440.8	100.35	%			17:24:25
2	Ag 328.068†	69394.0	69482.8	518.48	µg/L	518.48	ppb	17:24:30
2	As 188.979†	292.5	291.6	521.69	µg/L	521.69	ppb	17:24:51
2	B 249.677†	13098.0	12654.8	513.80	µg/L	513.80	ppb	17:24:30
2	Ba 233.527†	21766.9	21685.9	521.56	µg/L	521.56	ppb	17:24:30
2	Be 313.107†	875557.6	874466.7	518.80	µg/L	518.80	ppb	17:24:25
2	Cd 226.502†	20934.5	20981.8	523.22	µg/L	523.22	ppb	17:24:30
2	Co 228.616†	11674.3	11619.7	525.62	µg/L	525.62	ppb	17:24:30
2	Cr 267.716†	26349.4	26281.0	528.19	µg/L	528.19	ppb	17:24:30
2	Cu 324.752†	82762.2	79845.4	521.94	µg/L	521.94	ppb	17:24:30
2	Mn 257.610†	168819.9	168315.0	527.58	µg/L	527.58	ppb	17:24:25
2	Mo 202.031†	5374.4	5355.5	524.65	µg/L	524.65	ppb	17:24:51
2	Ni 231.604†	10896.7	10535.3	524.62	µg/L	524.62	ppb	17:24:30
2	P 214.914†	1349.1	1327.7	2578.5	µg/L	2578.5	ppb	17:24:51
2	Pb 220.353†	2255.8	2154.7	523.94	µg/L	523.94	ppb	17:24:51

2	S 181.975 Axial†	273.6	253.5	1051.2 µg/L	1051.2 ppb	17:24:51
2	Sb 206.836†	597.1	571.9	527.15 µg/L	527.15 ppb	17:24:51
2	Se 196.026†	399.0	377.9	539.15 µg/L	539.15 ppb	17:24:51
2	SiO2†	30015.2	28488.3	5623.2 µg/L	5623.2 ppb	17:24:30
2	Si 251.611†	35058.2	34589.5	2629.6 µg/L	2629.6 ppb	17:24:30
2	Sn 189.927†	1256.6	1250.5	527.41 µg/L	527.41 ppb	17:24:51
2	Ti 334.940†	235686.9	234449.5	518.30 µg/L	518.30 ppb	17:24:25
2	Tl 190.801†	379.7	400.4	526.29 µg/L	526.29 ppb	17:24:51
2	U 409.014†	6398.7	6446.9	534.56 µg/L	534.56 ppb	17:24:30
2	V 292.402†	53704.7	53507.4	527.90 µg/L	527.90 ppb	17:24:30
2	Zn 213.857†	23141.6	22502.9	524.22 µg/L	524.22 ppb	17:24:30
3	Sc RADIAL	55679.0	55679.0	98.6 %		17:23:19
3	Al 396.153Radial†	7596.6	7700.7	5348.4 µg/L	5348.4 ppb	17:23:19
3	Ca 317.933Radial†	6283.1	6164.0	5265.1 µg/L	5265.1 ppb	17:23:40
3	Fe 238.204 Radial†	686.1	679.6	5369.7 µg/L	5369.7 ppb	17:23:40
3	K 766.490 Radial†	8154.7	8109.3	5296.3 µg/L	5296.3 ppb	17:23:19
3	Mg 279.077 IEC†	612.2	608.4	5439.6 µg/L	5439.6 ppb	17:23:40
3	Na 589.592 Radial†	34975.0	35015.8	10755 µg/L	10755 ppb	17:23:19
3	Sr 421.552†	55908.1	56699.3	523.06 µg/L	523.06 ppb	17:23:19
3	Sc 361.383	1952535.0	1952535.0	99.461 %		17:24:58
3	Y 371.029	1343624.0	1343624.0	99.325 %		17:24:58
3	Ag 328.068†	63360.5	64105.6	478.17 µg/L	478.17 ppb	17:25:04
3	As 188.979†	241.7	243.4	435.49 µg/L	435.49 ppb	17:25:24
3	B 249.677†	11843.3	11523.4	467.57 µg/L	467.57 ppb	17:25:04
3	Ba 233.527†	19104.2	19224.8	462.34 µg/L	462.34 ppb	17:25:04
3	Be 313.107†	780835.5	787924.2	467.46 µg/L	467.46 ppb	17:24:58
3	Cd 226.502†	18231.2	18471.7	460.55 µg/L	460.55 ppb	17:25:04
3	Co 228.616†	10034.6	10087.0	456.23 µg/L	456.23 ppb	17:25:04
3	Cr 267.716†	21902.6	22071.8	443.60 µg/L	443.60 ppb	17:25:04
3	Cu 324.752†	72242.1	70090.0	458.26 µg/L	458.26 ppb	17:25:04
3	Mn 257.610†	151408.5	152485.3	478.01 µg/L	478.01 ppb	17:24:58
3	Mo 202.031†	4271.9	4300.4	421.32 µg/L	421.32 ppb	17:25:24
3	Ni 231.604†	9447.8	9186.7	457.48 µg/L	457.48 ppb	17:25:04
3	P 214.914†	1083.3	1073.8	2080.9 µg/L	2080.9 ppb	17:25:24
3	Pb 220.353†	1873.7	1793.0	435.92 µg/L	435.92 ppb	17:25:24
3	S 181.975 Axial†	233.8	216.1	896.36 µg/L	896.36 ppb	17:25:24
3	Sb 206.836†	489.4	469.6	432.51 µg/L	432.51 ppb	17:25:24
3	Se 196.026†	332.8	315.3	451.15 µg/L	451.15 ppb	17:25:24
3	SiO2†	26947.7	25702.2	5073.3 µg/L	5073.3 ppb	17:25:04
3	Si 251.611†	31277.9	31136.9	2367.1 µg/L	2367.1 ppb	17:25:04
3	Sn 189.927†	976.9	981.8	414.09 µg/L	414.09 ppb	17:25:24
3	Ti 334.940†	208555.8	209511.3	463.14 µg/L	463.14 ppb	17:24:58
3	Tl 190.801†	319.8	343.9	452.38 µg/L	452.38 ppb	17:25:24
3	U 409.014†	5254.4	5360.0	444.27 µg/L	444.27 ppb	17:25:04
3	V 292.402†	45815.6	46108.8	454.70 µg/L	454.70 ppb	17:25:04
3	Zn 213.857†	20168.8	19743.8	459.90 µg/L	459.90 ppb	17:25:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1955278.8	99.601	%	0.7916				0.79%
Sc RADIAL	55683.5	98.6	%	0.55				0.56%
Y 371.029	1345529.1	99.466	%	0.8193				0.82%
Ag 328.068†	68312.5	509.69	µg/L	28.165	509.69	ppb	28.165	5.53%
QC value within limits for Ag 328.068 Recovery = 101.94%								
Al 396.153Radial†	7635.2	5301.2	µg/L	57.98	5301.2	ppb	57.98	1.09%
QC value within limits for Al 396.153Radial Recovery = 106.02%								
As 188.979†	281.0	502.71	µg/L	60.027	502.71	ppb	60.027	11.94%
QC value within limits for As 188.979 Recovery = 100.54%								
B 249.677†	12386.4	502.84	µg/L	31.261	502.84	ppb	31.261	6.22%
QC value within limits for B 249.677 Recovery = 100.57%								
Ba 233.527†	21086.1	507.12	µg/L	39.588	507.12	ppb	39.588	7.81%
QC value within limits for Ba 233.527 Recovery = 101.42%								
Be 313.107†	852070.2	505.52	µg/L	33.453	505.52	ppb	33.453	6.62%
QC value within limits for Be 313.107 Recovery = 101.10%								
Ca 317.933Radial†	6175.4	5274.9	µg/L	45.45	5274.9	ppb	45.45	0.86%
QC value within limits for Ca 317.933Radial Recovery = 105.50%								
Cd 226.502†	20356.3	507.61	µg/L	41.509	507.61	ppb	41.509	8.18%
QC value within limits for Cd 226.502 Recovery = 101.52%								
Co 228.616†	11226.4	507.82	µg/L	45.380	507.82	ppb	45.380	8.94%

QC value within limits for Co 228.616 Recovery = 101.56%

Cr 267.716†	25137.3	505.21 µg/L	53.922	505.21 ppb	53.922	10.67%
QC value within limits for Cr 267.716 Recovery = 101.04%						
Cu 324.752†	77302.9	505.34 µg/L	41.362	505.34 ppb	41.362	8.19%
QC value within limits for Cu 324.752 Recovery = 101.07%						
Fe 238.204 Radial†	681.6	5386.2 µg/L	34.14	5386.2 ppb	34.14	0.63%
QC value within limits for Fe 238.204 Radial Recovery = 107.72%						
K 766.490 Radial†	8054.3	5260.4 µg/L	45.13	5260.4 ppb	45.13	0.86%
QC value within limits for K 766.490 Radial Recovery = 105.21%						
Mg 279.077 IEC†	608.1	5438.3 µg/L	72.33	5438.3 ppb	72.33	1.33%
QC value within limits for Mg 279.077 IEC Recovery = 108.77%						
Mn 257.610†	164268.3	514.91 µg/L	32.475	514.91 ppb	32.475	6.31%
QC value within limits for Mn 257.610 Recovery = 102.98%						
Mo 202.031†	5092.2	498.86 µg/L	68.394	498.86 ppb	68.394	13.71%
QC value within limits for Mo 202.031 Recovery = 99.77%						
Na 589.592 Radial†	34798.1	10688 µg/L	94.0	10688 ppb	94.0	0.88%
QC value within limits for Na 589.592 Radial Recovery = 106.88%						
Ni 231.604†	10197.0	507.78 µg/L	44.349	507.78 ppb	44.349	8.73%
QC value within limits for Ni 231.604 Recovery = 101.56%						
P 214.914†	1258.3	2442.6 µg/L	316.42	2442.6 ppb	316.42	12.95%
QC value within limits for P 214.914 Recovery = 97.70%						
Pb 220.353†	2069.8	503.29 µg/L	59.790	503.29 ppb	59.790	11.88%
QC value within limits for Pb 220.353 Recovery = 100.66%						
S 181.975 Axial†	244.5	1013.8 µg/L	103.94	1013.8 ppb	103.94	10.25%
QC value within limits for S 181.975 Axial Recovery = 101.38%						
Sb 206.836†	545.7	502.91 µg/L	61.945	502.91 ppb	61.945	12.32%
QC value within limits for Sb 206.836 Recovery = 100.58%						
Se 196.026†	363.2	518.44 µg/L	59.692	518.44 ppb	59.692	11.51%
QC value within limits for Se 196.026 Recovery = 103.69%						
SiO2†	27825.5	5492.4 µg/L	371.40	5492.4 ppb	371.40	6.76%
QC value within limits for SiO2 Recovery = 102.71%						
Si 251.611†	33767.1	2567.0 µg/L	177.17	2567.0 ppb	177.17	6.90%
QC value within limits for Si 251.611 Recovery = 102.68%						
Sn 189.927†	1184.6	499.62 µg/L	75.568	499.62 ppb	75.568	15.13%
QC value within limits for Sn 189.927 Recovery = 99.92%						
Sr 421.552†	56239.0	518.81 µg/L	4.581	518.81 ppb	4.581	0.88%
QC value within limits for Sr 421.552 Recovery = 103.76%						
Ti 334.940†	227885.6	503.79 µg/L	35.678	503.79 ppb	35.678	7.08%
QC value within limits for Ti 334.940 Recovery = 100.76%						
Tl 190.801†	384.7	505.77 µg/L	46.646	505.77 ppb	46.646	9.22%
QC value within limits for Tl 190.801 Recovery = 101.15%						
U 409.014†	6133.4	508.52 µg/L	55.977	508.52 ppb	55.977	11.01%
QC value within limits for U 409.014 Recovery = 101.70%						
V 292.402†	51547.4	508.51 µg/L	47.203	508.51 ppb	47.203	9.28%
QC value within limits for V 292.402 Recovery = 101.70%						
Zn 213.857†	21815.7	508.21 µg/L	42.623	508.21 ppb	42.623	8.39%
QC value within limits for Zn 213.857 Recovery = 101.64%						

All analyte(s) passed QC.

Sequence No.: 3 | **Autosampler Location: 8**
Sample ID: CCB | **Date Collected: 2/19/2010 17:25:33**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55715.1	55715.1	98.6	%			17:26:06
1	Al 396.153Radial†	9.9	2.7	1.8794	µg/L	1.8794	ppb	17:26:06
1	Ca 317.933Radial†	200.0	-8.4	-7.2065	µg/L	-7.2065	ppb	17:26:26
1	Fe 238.204 Radial†	18.1	1.8	14.281	µg/L	14.281	ppb	17:26:26
1	K 766.490 Radial†	190.3	28.0	18.262	µg/L	18.262	ppb	17:26:06
1	Mg 279.077 IEC†	10.8	-1.8	-16.403	µg/L	-16.403	ppb	17:26:26
1	Na 589.592 Radial†	566.5	102.3	31.414	µg/L	31.414	ppb	17:26:06
1	Sr 421.552†	8.2	-20.5	-0.1895	µg/L	-0.1895	ppb	17:26:06
1	Sc 361.383	1953458.7	1953458.7	99.508	%			17:27:28
1	Y 371.029	1347989.6	1347989.6	99.648	%			17:27:28
1	Ag 328.068†	-445.9	-46.5	-0.3428	µg/L	-0.3428	ppb	17:27:34
1	As 188.979†	1.8	2.2	4.0261	µg/L	4.0261	ppb	17:27:54
1	B 249.677†	402.6	20.4	0.8246	µg/L	0.8246	ppb	17:27:54
1	Ba 233.527†	-7.2	9.9	0.2372	µg/L	0.2372	ppb	17:27:54
1	Be 313.107†	-2535.3	307.9	0.1827	µg/L	0.1827	ppb	17:27:34
1	Cd 226.502†	-139.8	1.2	0.0290	µg/L	0.0290	ppb	17:27:54
1	Co 228.616†	8.7	6.8	0.3065	µg/L	0.3065	ppb	17:27:54
1	Cr 267.716†	-42.4	7.8	0.1560	µg/L	0.1560	ppb	17:27:34
1	Cu 324.752†	2642.5	111.8	0.7321	µg/L	0.7321	ppb	17:27:34
1	Mn 257.610†	-204.1	50.9	0.1618	µg/L	0.1618	ppb	17:27:54
1	Mo 202.031†	-2.0	3.3	0.3242	µg/L	0.3242	ppb	17:27:54
1	Ni 231.604†	314.6	3.8	0.1900	µg/L	0.1900	ppb	17:27:54
1	P 214.914†	18.8	3.5	6.8616	µg/L	6.8616	ppb	17:27:54
1	Pb 220.353†	98.3	7.8	1.8853	µg/L	1.8853	ppb	17:27:54
1	S 181.975 Axial†	15.5	-3.4	-14.112	µg/L	-14.112	ppb	17:27:54
1	Sb 206.836†	26.9	4.5	4.1739	µg/L	4.1739	ppb	17:27:54
1	Se 196.026†	12.3	-7.0	-9.7684	µg/L	-9.7684	ppb	17:27:54
1	SiO2†	1515.6	131.5	25.955	µg/L	25.955	ppb	17:27:34
1	Si 251.611†	416.0	107.4	8.1665	µg/L	8.1665	ppb	17:27:54
1	Sn 189.927†	2.2	1.9	0.7860	µg/L	0.7860	ppb	17:27:54
1	Ti 334.940†	256.5	82.7	0.1842	µg/L	0.1842	ppb	17:27:34
1	Tl 190.801†	-25.3	-3.1	-3.9679	µg/L	-3.9679	ppb	17:27:54
1	U 409.014†	32.9	110.1	9.1492	µg/L	9.1492	ppb	17:27:34
1	V 292.402†	-29.6	15.0	0.1604	µg/L	0.1604	ppb	17:27:34
1	Zn 213.857†	546.5	14.8	0.3443	µg/L	0.3443	ppb	17:27:54
2	Sc RADIAL	55504.2	55504.2	98.2	%			17:26:32
2	Al 396.153Radial†	11.6	4.4	3.0699	µg/L	3.0699	ppb	17:26:32
2	Ca 317.933Radial†	200.3	-7.4	-6.2839	µg/L	-6.2839	ppb	17:26:52
2	Fe 238.204 Radial†	17.9	1.6	12.645	µg/L	12.645	ppb	17:26:52
2	K 766.490 Radial†	201.9	40.6	26.491	µg/L	26.491	ppb	17:26:32
2	Mg 279.077 IEC†	10.5	-2.1	-19.078	µg/L	-19.078	ppb	17:26:52
2	Na 589.592 Radial†	562.4	100.3	30.804	µg/L	30.804	ppb	17:26:32
2	Sr 421.552†	36.5	8.4	0.0774	µg/L	0.0774	ppb	17:26:32
2	Sc 361.383	1950778.5	1950778.5	99.371	%			17:28:00
2	Y 371.029	1346193.0	1346193.0	99.515	%			17:28:00
2	Ag 328.068†	-396.0	3.1	0.0257	µg/L	0.0257	ppb	17:28:06
2	As 188.979†	1.1	1.6	2.8532	µg/L	2.8532	ppb	17:28:26
2	B 249.677†	390.0	8.3	0.3322	µg/L	0.3322	ppb	17:28:26
2	Ba 233.527†	-6.8	10.2	0.2452	µg/L	0.2452	ppb	17:28:26
2	Be 313.107†	-2616.4	222.8	0.1321	µg/L	0.1321	ppb	17:28:06
2	Cd 226.502†	-139.8	1.0	0.0242	µg/L	0.0242	ppb	17:28:26
2	Co 228.616†	3.7	1.8	0.0803	µg/L	0.0803	ppb	17:28:26
2	Cr 267.716†	-54.5	-4.5	-0.0900	µg/L	-0.0900	ppb	17:28:06
2	Cu 324.752†	2637.6	110.5	0.7233	µg/L	0.7233	ppb	17:28:06
2	Mn 257.610†	-213.1	41.5	0.1325	µg/L	0.1325	ppb	17:28:26
2	Mo 202.031†	-0.0	5.3	0.5204	µg/L	0.5204	ppb	17:28:26
2	Ni 231.604†	311.7	1.3	0.0651	µg/L	0.0651	ppb	17:28:26
2	P 214.914†	7.2	-8.1	-16.019	µg/L	-16.019	ppb	17:28:26
2	Pb 220.353†	96.7	6.4	1.5474	µg/L	1.5474	ppb	17:28:26

2	S 181.975 Axial†	17.4	-1.4	-5.8210 µg/L	-5.8210 ppb	17:28:26
2	Sb 206.836†	19.7	-2.6	-2.3998 µg/L	-2.3998 ppb	17:28:26
2	Se 196.026†	15.0	-4.2	-5.8108 µg/L	-5.8108 ppb	17:28:26
2	SiO2†	1459.9	77.6	15.313 µg/L	15.313 ppb	17:28:06
2	Si 251.611†	412.0	104.0	7.9062 µg/L	7.9062 ppb	17:28:26
2	Sn 189.927†	7.8	7.4	3.1294 µg/L	3.1294 ppb	17:28:26
2	Ti 334.940†	270.4	97.1	0.2161 µg/L	0.2161 ppb	17:28:06
2	Tl 190.801†	-21.2	1.0	1.3155 µg/L	1.3155 ppb	17:28:26
2	U 409.014†	-29.9	47.0	3.9019 µg/L	3.9019 ppb	17:28:06
2	V 292.402†	-11.1	33.5	0.3361 µg/L	0.3361 ppb	17:28:06
2	Zn 213.857†	544.6	13.6	0.3180 µg/L	0.3180 ppb	17:28:26
3	Sc RADIAL	55576.2	55576.2	98.4 %		17:26:57
3	Al 396.153Radial†	-4.2	-11.6	-8.0814 µg/L	-8.0814 ppb	17:26:57
3	Ca 317.933Radial†	198.4	-9.6	-8.1878 µg/L	-8.1878 ppb	17:27:18
3	Fe 238.204 Radial†	17.1	0.8	6.2197 µg/L	6.2197 ppb	17:27:18
3	K 766.490 Radial†	182.5	20.5	13.397 µg/L	13.397 ppb	17:26:57
3	Mg 279.077 IEC†	14.4	1.8	16.514 µg/L	16.514 ppb	17:27:18
3	Na 589.592 Radial†	564.0	101.1	31.056 µg/L	31.056 ppb	17:26:57
3	Sr 421.552†	84.4	57.0	0.5260 µg/L	0.5260 ppb	17:26:57
3	Sc 361.383	1984583.7	1984583.7	101.09 %		17:28:32
3	Y 371.029	1368650.9	1368650.9	101.18 %		17:28:32
3	Ag 328.068†	-463.7	-57.1	-0.4221 µg/L	-0.4221 ppb	17:28:38
3	As 188.979†	1.5	1.9	3.4901 µg/L	3.4901 ppb	17:28:58
3	B 249.677†	385.7	-2.6	-0.1102 µg/L	-0.1102 ppb	17:28:58
3	Ba 233.527†	-8.4	8.8	0.2107 µg/L	0.2107 ppb	17:28:58
3	Be 313.107†	-2606.1	277.8	0.1648 µg/L	0.1648 ppb	17:28:38
3	Cd 226.502†	-137.9	5.3	0.1312 µg/L	0.1312 ppb	17:28:58
3	Co 228.616†	11.7	9.7	0.4385 µg/L	0.4385 ppb	17:28:58
3	Cr 267.716†	-56.0	-5.0	-0.1002 µg/L	-0.1002 ppb	17:28:38
3	Cu 324.752†	2581.0	9.4	0.0621 µg/L	0.0621 ppb	17:28:38
3	Mn 257.610†	-221.0	37.4	0.1174 µg/L	0.1174 ppb	17:28:58
3	Mo 202.031†	2.7	8.0	0.7835 µg/L	0.7835 ppb	17:28:58
3	Ni 231.604†	311.4	-4.3	-0.2151 µg/L	-0.2151 ppb	17:28:58
3	P 214.914†	14.9	-0.6	-1.1261 µg/L	-1.1261 ppb	17:28:58
3	Pb 220.353†	89.4	-2.5	-0.6244 µg/L	-0.6244 ppb	17:28:58
3	S 181.975 Axial†	14.9	-4.2	-17.388 µg/L	-17.388 ppb	17:28:58
3	Sb 206.836†	22.0	-0.7	-0.6331 µg/L	-0.6331 ppb	17:28:58
3	Se 196.026†	16.1	-3.3	-4.6875 µg/L	-4.6875 ppb	17:28:58
3	SiO2†	1488.2	80.6	15.904 µg/L	15.904 ppb	17:28:38
3	Si 251.611†	405.3	90.2	6.8609 µg/L	6.8609 ppb	17:28:58
3	Sn 189.927†	5.4	5.0	2.0931 µg/L	2.0931 ppb	17:28:58
3	Ti 334.940†	242.9	65.3	0.1429 µg/L	0.1429 ppb	17:28:38
3	Tl 190.801†	-20.1	2.5	3.3063 µg/L	3.3063 ppb	17:28:58
3	U 409.014†	41.4	118.0	9.8042 µg/L	9.8042 ppb	17:28:38
3	V 292.402†	-37.8	7.4	0.0885 µg/L	0.0885 ppb	17:28:38
3	Zn 213.857†	537.5	-2.8	-0.0653 µg/L	-0.0653 ppb	17:28:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1962940.3	99.991	%	0.9572				0.96%
Sc RADIAL	55598.5	98.4	%	0.19				0.19%
Y 371.029	1354277.8	100.11	%	0.923				0.92%
Ag 328.068†	-33.5	-0.2464	µg/L	0.23900	-0.2464	ppb	0.23900	96.99%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.5	-1.0440	µg/L	6.12354	-1.0440	ppb	6.12354	586.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	3.4565	µg/L	0.58720	3.4565	ppb	0.58720	16.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	8.7	0.3489	µg/L	0.46764	0.3489	ppb	0.46764	134.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.6	0.2310	µg/L	0.01805	0.2310	ppb	0.01805	7.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	269.5	0.1599	µg/L	0.02562	0.1599	ppb	0.02562	16.03%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-8.5	-7.2261	µg/L	0.95208	-7.2261	ppb	0.95208	13.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	2.5	0.0615	µg/L	0.06046	0.0615	ppb	0.06046	98.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.1	0.2751	µg/L	0.18114	0.2751	ppb	0.18114	65.85%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -0.6     -0.0114 µg/L       0.14502     -0.0114 ppb       0.14502 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              77.3      0.5058 µg/L       0.38426      0.5058 ppb       0.38426  75.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.4      11.049 µg/L        4.2612      11.049 ppb        4.2612  38.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        29.7      19.384 µg/L        6.6186      19.384 ppb        6.6186  34.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.7     -6.3222 µg/L      19.82205     -6.3222 ppb       19.82205 313.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              43.3      0.1372 µg/L       0.02261      0.1372 ppb       0.02261  16.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.5      0.5427 µg/L       0.23045      0.5427 ppb       0.23045  42.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       101.2      31.091 µg/L        0.3066      31.091 ppb        0.3066   0.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.3      0.0133 µg/L       0.20747      0.0133 ppb       0.20747 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.7     -3.4277 µg/L      11.61243     -3.4277 ppb       11.61243 338.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.9      0.9361 µg/L       1.36196      0.9361 ppb       1.36196 145.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.0      -12.440 µg/L       5.9620      -12.440 ppb        5.9620  47.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.4      0.3803 µg/L       3.40201      0.3803 ppb       3.40201 894.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -4.8     -6.7556 µg/L       2.66893     -6.7556 ppb       2.66893  39.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    96.5      19.057 µg/L        5.9811      19.057 ppb        5.9811  31.38%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             100.6      7.6446 µg/L       0.69104      7.6446 ppb       0.69104   9.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.8      2.0028 µg/L       1.17429      2.0028 ppb       1.17429  58.63%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              15.0      0.1380 µg/L       0.36157      0.1380 ppb       0.36157 262.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              81.7      0.1811 µg/L       0.03671      0.1811 ppb       0.03671  20.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.2      0.2179 µg/L       3.75923      0.2179 ppb       3.75923 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               91.7      7.6184 µg/L       3.23526      7.6184 ppb       3.23526  42.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               18.6      0.1950 µg/L       0.12739      0.1950 ppb       0.12739  65.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               8.5      0.1990 µg/L       0.22924      0.1990 ppb       0.22924 115.20%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:52:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56387.7	56387.7	99.8	%			17:52:51
1	Al 396.153Radial†	7516.2	7523.2	5222.3	µg/L	5222.3	ppb	17:52:51
1	Ca 317.933Radial†	6203.6	6004.2	5128.7	µg/L	5128.7	ppb	17:53:12
1	Fe 238.204 Radial†	678.6	663.3	5242.5	µg/L	5242.5	ppb	17:53:12
1	K 766.490 Radial†	8065.5	7916.0	5170.1	µg/L	5170.1	ppb	17:52:51
1	Mg 279.077 IEC†	612.7	601.1	5376.4	µg/L	5376.4	ppb	17:53:12
1	Na 589.592 Radial†	34827.6	34422.1	10573	µg/L	10573	ppb	17:52:51
1	Sr 421.552†	55284.5	55361.6	510.72	µg/L	510.72	ppb	17:52:51
1	Sc 361.383	1961302.2	1961302.2	99.907	%			17:54:15
1	Y 371.029	1346537.9	1346537.9	99.540	%			17:54:15
1	Ag 328.068†	69774.1	70240.4	524.12	µg/L	524.12	ppb	17:54:21
1	As 188.979†	301.3	302.0	540.22	µg/L	540.22	ppb	17:54:41
1	B 249.677†	13080.8	12708.8	516.10	µg/L	516.10	ppb	17:54:21
1	Ba 233.527†	21956.6	21994.0	528.97	µg/L	528.97	ppb	17:54:21
1	Be 313.107†	883536.0	887210.5	526.36	µg/L	526.36	ppb	17:54:15
1	Cd 226.502†	21042.7	21203.9	528.78	µg/L	528.78	ppb	17:54:21
1	Co 228.616†	11741.3	11750.3	531.54	µg/L	531.54	ppb	17:54:21
1	Cr 267.716†	26482.6	26557.5	533.75	µg/L	533.75	ppb	17:54:21
1	Cu 324.752†	83088.9	80622.2	526.99	µg/L	526.99	ppb	17:54:21
1	Mn 257.610†	170434.3	170848.3	535.50	µg/L	535.50	ppb	17:54:15
1	Mo 202.031†	5552.2	5562.7	544.93	µg/L	544.93	ppb	17:54:41
1	Ni 231.604†	10987.8	10685.6	532.11	µg/L	532.11	ppb	17:54:21
1	P 214.914†	1368.8	1354.8	2632.0	µg/L	2632.0	ppb	17:54:41
1	Pb 220.353†	2310.1	2221.3	540.17	µg/L	540.17	ppb	17:54:41
1	S 181.975 Axial†	278.0	259.3	1075.2	µg/L	1075.2	ppb	17:54:41
1	Sb 206.836†	616.4	594.4	548.12	µg/L	548.12	ppb	17:54:41
1	Se 196.026†	407.1	388.1	553.19	µg/L	553.19	ppb	17:54:41
1	SiO2†	29956.0	28592.2	5643.7	µg/L	5643.7	ppb	17:54:21
1	Si 251.611†	34932.9	34654.6	2634.5	µg/L	2634.5	ppb	17:54:21
1	Sn 189.927†	1295.2	1296.1	546.62	µg/L	546.62	ppb	17:54:41
1	Ti 334.940†	237959.8	238005.3	526.18	µg/L	526.18	ppb	17:54:15
1	Tl 190.801†	387.6	410.3	539.25	µg/L	539.25	ppb	17:54:41
1	U 409.014†	6411.5	6494.5	538.55	µg/L	538.55	ppb	17:54:21
1	V 292.402†	54050.9	54145.8	534.27	µg/L	534.27	ppb	17:54:21
1	Zn 213.857†	23288.3	22775.5	530.59	µg/L	530.59	ppb	17:54:21
2	Sc RADIAL	56513.7	56513.7	100	%			17:53:17
2	Al 396.153Radial†	7511.3	7501.5	5207.6	µg/L	5207.6	ppb	17:53:17
2	Ca 317.933Radial†	6229.5	6016.2	5139.0	µg/L	5139.0	ppb	17:53:38
2	Fe 238.204 Radial†	684.9	668.1	5280.5	µg/L	5280.5	ppb	17:53:38
2	K 766.490 Radial†	8100.3	7932.7	5181.0	µg/L	5181.0	ppb	17:53:17
2	Mg 279.077 IEC†	601.5	588.5	5263.5	µg/L	5263.5	ppb	17:53:38
2	Na 589.592 Radial†	34828.0	34344.7	10549	µg/L	10549	ppb	17:53:17
2	Sr 421.552†	55539.3	55492.7	511.93	µg/L	511.93	ppb	17:53:17
2	Sc 361.383	1968482.8	1968482.8	100.27	%			17:54:48
2	Y 371.029	1351706.6	1351706.6	99.922	%			17:54:48
2	Ag 328.068†	69757.2	69968.7	522.10	µg/L	522.10	ppb	17:54:54
2	As 188.979†	290.5	290.2	519.13	µg/L	519.13	ppb	17:55:15
2	B 249.677†	13075.3	12655.5	513.91	µg/L	513.91	ppb	17:54:54
2	Ba 233.527†	21957.1	21914.4	527.05	µg/L	527.05	ppb	17:54:54
2	Be 313.107†	886040.3	886482.1	525.93	µg/L	525.93	ppb	17:54:48
2	Cd 226.502†	21056.7	21141.0	527.21	µg/L	527.21	ppb	17:54:54
2	Co 228.616†	11735.1	11701.2	529.30	µg/L	529.30	ppb	17:54:54
2	Cr 267.716†	26499.8	26477.9	532.15	µg/L	532.15	ppb	17:54:54
2	Cu 324.752†	83008.4	80238.5	524.49	µg/L	524.49	ppb	17:54:54
2	Mn 257.610†	171057.7	170847.6	535.50	µg/L	535.50	ppb	17:54:48
2	Mo 202.031†	5398.9	5389.5	527.98	µg/L	527.98	ppb	17:55:15
2	Ni 231.604†	11020.6	10678.2	531.74	µg/L	531.74	ppb	17:54:54
2	P 214.914†	1347.0	1328.0	2579.1	µg/L	2579.1	ppb	17:55:15
2	Pb 220.353†	2257.9	2160.8	525.43	µg/L	525.43	ppb	17:55:15

QC value within limits for Co 228.616 Recovery = 100.90%

Cr 267.716†	24932.7	501.10 µg/L	55.174	501.10 ppb	55.174	11.01%
QC value within limits for Cr 267.716 Recovery = 100.22%						
Cu 324.752†	76565.2	500.51 µg/L	43.720	500.51 ppb	43.720	8.74%
QC value within limits for Cu 324.752 Recovery = 100.10%						
Fe 238.204 Radial†	664.4	5250.8 µg/L	26.46	5250.8 ppb	26.46	0.50%
QC value within limits for Fe 238.204 Radial Recovery = 105.02%						
K 766.490 Radial†	7929.2	5178.7 µg/L	7.74	5178.7 ppb	7.74	0.15%
QC value within limits for K 766.490 Radial Recovery = 103.57%						
Mg 279.077 IEC†	596.8	5337.6 µg/L	64.15	5337.6 ppb	64.15	1.20%
QC value within limits for Mg 279.077 IEC Recovery = 106.75%						
Mn 257.610†	164681.4	516.19 µg/L	33.451	516.19 ppb	33.451	6.48%
QC value within limits for Mn 257.610 Recovery = 103.24%						
Mo 202.031†	5078.6	497.52 µg/L	67.959	497.52 ppb	67.959	13.66%
QC value within limits for Mo 202.031 Recovery = 99.50%						
Na 589.592 Radial†	34331.7	10545 µg/L	29.9	10545 ppb	29.9	0.28%
QC value within limits for Na 589.592 Radial Recovery = 105.45%						
Ni 231.604†	10144.1	505.14 µg/L	46.388	505.14 ppb	46.388	9.18%
QC value within limits for Ni 231.604 Recovery = 101.03%						
P 214.914†	1250.6	2427.8 µg/L	309.09	2427.8 ppb	309.09	12.73%
QC value within limits for P 214.914 Recovery = 97.11%						
Pb 220.353†	2055.1	499.72 µg/L	57.768	499.72 ppb	57.768	11.56%
QC value within limits for Pb 220.353 Recovery = 99.94%						
S 181.975 Axial†	243.6	1010.2 µg/L	98.85	1010.2 ppb	98.85	9.79%
QC value within limits for S 181.975 Axial Recovery = 101.02%						
Sb 206.836†	544.1	501.49 µg/L	65.671	501.49 ppb	65.671	13.10%
QC value within limits for Sb 206.836 Recovery = 100.30%						
Se 196.026†	359.6	513.22 µg/L	56.697	513.22 ppb	56.697	11.05%
QC value within limits for Se 196.026 Recovery = 102.64%						
SiO2†	27382.4	5404.9 µg/L	389.50	5404.9 ppb	389.50	7.21%
QC value within limits for SiO2 Recovery = 101.07%						
Si 251.611†	33259.5	2528.4 µg/L	181.64	2528.4 ppb	181.64	7.18%
QC value within limits for Si 251.611 Recovery = 101.14%						
Sn 189.927†	1178.7	497.14 µg/L	72.805	497.14 ppb	72.805	14.64%
QC value within limits for Sn 189.927 Recovery = 99.43%						
Sr 421.552†	55404.3	511.11 µg/L	0.706	511.11 ppb	0.706	0.14%
QC value within limits for Sr 421.552 Recovery = 102.22%						
Ti 334.940†	228393.4	504.92 µg/L	36.389	504.92 ppb	36.389	7.21%
QC value within limits for Ti 334.940 Recovery = 100.98%						
Tl 190.801†	388.0	510.09 µg/L	40.923	510.09 ppb	40.923	8.02%
QC value within limits for Tl 190.801 Recovery = 102.02%						
U 409.014†	6071.8	503.43 µg/L	52.204	503.43 ppb	52.204	10.37%
QC value within limits for U 409.014 Recovery = 100.69%						
V 292.402†	51233.3	505.41 µg/L	48.044	505.41 ppb	48.044	9.51%
QC value within limits for V 292.402 Recovery = 101.08%						
Zn 213.857†	21595.5	503.07 µg/L	44.204	503.07 ppb	44.204	8.79%
QC value within limits for Zn 213.857 Recovery = 100.61%						

All analyte(s) passed QC.

Sequence No.: 8 | **Autosampler Location: 8**
Sample ID: CCB | **Date Collected: 2/19/2010 17:55:58**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55016.4	55016.4	97.4	%			17:56:30
1	Al 396.153Radial†	-25.6	-33.6	-23.423	µg/L	-23.423	ppb	17:56:30
1	Ca 317.933Radial†	188.9	-17.3	-14.738	µg/L	-14.738	ppb	17:56:51
1	Fe 238.204 Radial†	16.8	0.7	5.5284	µg/L	5.5284	ppb	17:56:51
1	K 766.490 Radial†	203.2	43.7	28.526	µg/L	28.526	ppb	17:56:30
1	Mg 279.077 IEC†	6.2	-6.4	-57.504	µg/L	-57.504	ppb	17:56:51
1	Na 589.592 Radial†	507.1	48.5	14.906	µg/L	14.906	ppb	17:56:30
1	Sr 421.552†	39.0	11.2	0.1037	µg/L	0.1037	ppb	17:56:30
1	Sc 361.383	1965901.2	1965901.2	100.14	%			17:57:53
1	Y 371.029	1354342.9	1354342.9	100.12	%			17:57:53
1	Ag 328.068†	-375.0	27.2	0.2015	µg/L	0.2015	ppb	17:57:58
1	As 188.979†	2.9	3.3	5.9435	µg/L	5.9435	ppb	17:58:19
1	B 249.677†	389.1	4.4	0.1765	µg/L	0.1765	ppb	17:58:19
1	Ba 233.527†	-21.5	-4.4	-0.1059	µg/L	-0.1059	ppb	17:58:19
1	Be 313.107†	-2713.7	145.8	0.0865	µg/L	0.0865	ppb	17:57:58
1	Cd 226.502†	-132.8	9.1	0.2255	µg/L	0.2255	ppb	17:58:19
1	Co 228.616†	-6.2	-8.1	-0.3659	µg/L	-0.3659	ppb	17:58:19
1	Cr 267.716†	-50.1	0.4	0.0078	µg/L	0.0078	ppb	17:57:58
1	Cu 324.752†	2544.7	-2.7	-0.0168	µg/L	-0.0168	ppb	17:57:58
1	Mn 257.610†	-245.9	10.5	0.0359	µg/L	0.0359	ppb	17:58:19
1	Mo 202.031†	3.8	9.1	0.8915	µg/L	0.8915	ppb	17:58:19
1	Ni 231.604†	300.7	-12.0	-0.5990	µg/L	-0.5990	ppb	17:58:19
1	P 214.914†	17.4	2.0	4.0305	µg/L	4.0305	ppb	17:58:19
1	Pb 220.353†	97.4	6.3	1.5269	µg/L	1.5269	ppb	17:58:19
1	S 181.975 Axial†	17.7	-1.2	-5.1360	µg/L	-5.1360	ppb	17:58:19
1	Sb 206.836†	24.8	2.2	2.0583	µg/L	2.0583	ppb	17:58:19
1	Se 196.026†	12.5	-6.8	-9.5059	µg/L	-9.5059	ppb	17:58:19
1	SiO2†	1426.2	32.7	6.4463	µg/L	6.4463	ppb	17:57:58
1	Si 251.611†	326.4	15.3	1.1636	µg/L	1.1636	ppb	17:58:19
1	Sn 189.927†	4.0	3.6	1.5081	µg/L	1.5081	ppb	17:58:19
1	Ti 334.940†	201.4	26.1	0.0620	µg/L	0.0620	ppb	17:57:58
1	Tl 190.801†	-21.5	0.9	1.1647	µg/L	1.1647	ppb	17:58:19
1	U 409.014†	-51.8	25.4	2.1068	µg/L	2.1068	ppb	17:57:58
1	V 292.402†	-46.0	-1.1	-0.0014	µg/L	-0.0014	ppb	17:57:58
1	Zn 213.857†	533.4	-1.7	-0.0344	µg/L	-0.0344	ppb	17:58:19
2	Sc RADIAL	55682.3	55682.3	98.6	%			17:56:56
2	Al 396.153Radial†	-28.9	-36.6	-25.497	µg/L	-25.497	ppb	17:56:56
2	Ca 317.933Radial†	190.4	-18.1	-15.487	µg/L	-15.487	ppb	17:57:17
2	Fe 238.204 Radial†	16.8	0.5	4.1171	µg/L	4.1171	ppb	17:57:17
2	K 766.490 Radial†	223.9	62.2	40.619	µg/L	40.619	ppb	17:56:56
2	Mg 279.077 IEC†	9.9	-2.8	-25.072	µg/L	-25.072	ppb	17:57:17
2	Na 589.592 Radial†	519.3	54.7	16.798	µg/L	16.798	ppb	17:56:56
2	Sr 421.552†	32.7	4.3	0.0401	µg/L	0.0401	ppb	17:56:56
2	Sc 361.383	1957019.5	1957019.5	99.689	%			17:58:25
2	Y 371.029	1350334.7	1350334.7	99.821	%			17:58:25
2	Ag 328.068†	-377.0	23.5	0.1757	µg/L	0.1757	ppb	17:58:30
2	As 188.979†	-0.8	-0.3	-0.5788	µg/L	-0.5788	ppb	17:58:51
2	B 249.677†	388.0	5.1	0.2060	µg/L	0.2060	ppb	17:58:51
2	Ba 233.527†	-16.1	0.9	0.0215	µg/L	0.0215	ppb	17:58:51
2	Be 313.107†	-2677.7	169.6	0.1006	µg/L	0.1006	ppb	17:58:30
2	Cd 226.502†	-142.7	-1.4	-0.0367	µg/L	-0.0367	ppb	17:58:51
2	Co 228.616†	7.4	5.5	0.2501	µg/L	0.2501	ppb	17:58:51
2	Cr 267.716†	-33.3	17.0	0.3420	µg/L	0.3420	ppb	17:58:30
2	Cu 324.752†	2564.5	28.8	0.1884	µg/L	0.1884	ppb	17:58:30
2	Mn 257.610†	-244.8	10.4	0.0341	µg/L	0.0341	ppb	17:58:51
2	Mo 202.031†	-1.9	3.5	0.3412	µg/L	0.3412	ppb	17:58:51
2	Ni 231.604†	305.0	-6.4	-0.3187	µg/L	-0.3187	ppb	17:58:51
2	P 214.914†	15.9	0.6	1.2381	µg/L	1.2381	ppb	17:58:51
2	Pb 220.353†	85.8	-4.9	-1.1822	µg/L	-1.1822	ppb	17:58:51

2	S 181.975 Axial†	16.3	-2.6	-10.626 µg/L	-10.626 ppb	17:58:51
2	Sb 206.836†	25.7	3.2	2.9825 µg/L	2.9825 ppb	17:58:51
2	Se 196.026†	18.4	-0.8	-1.1281 µg/L	-1.1281 ppb	17:58:51
2	SiO2†	1461.8	74.8	14.763 µg/L	14.763 ppb	17:58:30
2	Si 251.611†	344.9	35.3	2.6849 µg/L	2.6849 ppb	17:58:51
2	Sn 189.927†	-1.0	-1.4	-0.5943 µg/L	-0.5943 ppb	17:58:51
2	Ti 334.940†	216.4	42.0	0.0947 µg/L	0.0947 ppb	17:58:30
2	Tl 190.801†	-19.8	2.5	3.2612 µg/L	3.2612 ppb	17:58:51
2	U 409.014†	-50.4	26.6	2.2066 µg/L	2.2066 ppb	17:58:30
2	V 292.402†	-18.0	26.7	0.2662 µg/L	0.2662 ppb	17:58:30
2	Zn 213.857†	535.3	2.5	0.0614 µg/L	0.0614 ppb	17:58:51
3	Sc RADIAL	55053.2	55053.2	97.4 %		17:57:22
3	Al 396.153Radial†	-40.3	-48.7	-33.898 µg/L	-33.898 ppb	17:57:22
3	Ca 317.933Radial†	188.9	-17.4	-14.892 µg/L	-14.892 ppb	17:57:42
3	Fe 238.204 Radial†	16.1	-0.0	-0.3068 µg/L	-0.3068 ppb	17:57:42
3	K 766.490 Radial†	212.7	53.3	34.793 µg/L	34.793 ppb	17:57:22
3	Mg 279.077 IEC†	19.0	6.7	59.990 µg/L	59.990 ppb	17:57:42
3	Na 589.592 Radial†	541.5	83.5	25.652 µg/L	25.652 ppb	17:57:22
3	Sr 421.552†	50.1	22.6	0.2082 µg/L	0.2082 ppb	17:57:22
3	Sc 361.383	1965248.8	1965248.8	100.11 %		17:58:57
3	Y 371.029	1354189.1	1354189.1	100.11 %		17:58:57
3	Ag 328.068†	-450.0	-47.9	-0.3524 µg/L	-0.3524 ppb	17:59:03
3	As 188.979†	0.1	0.6	1.0726 µg/L	1.0726 ppb	17:59:23
3	B 249.677†	379.0	-5.5	-0.2247 µg/L	-0.2247 ppb	17:59:23
3	Ba 233.527†	-9.6	7.5	0.1800 µg/L	0.1800 ppb	17:59:23
3	Be 313.107†	-2642.2	216.4	0.1284 µg/L	0.1284 ppb	17:59:03
3	Cd 226.502†	-137.1	4.7	0.1164 µg/L	0.1164 ppb	17:59:23
3	Co 228.616†	5.7	3.7	0.1693 µg/L	0.1693 ppb	17:59:23
3	Cr 267.716†	-63.8	-13.4	-0.2679 µg/L	-0.2679 ppb	17:59:03
3	Cu 324.752†	2541.3	-5.2	-0.0342 µg/L	-0.0342 ppb	17:59:03
3	Mn 257.610†	-242.2	14.1	0.0418 µg/L	0.0418 ppb	17:59:23
3	Mo 202.031†	-0.6	4.8	0.4652 µg/L	0.4652 ppb	17:59:23
3	Ni 231.604†	301.2	-11.4	-0.5704 µg/L	-0.5704 ppb	17:59:23
3	P 214.914†	21.9	6.6	13.019 µg/L	13.019 ppb	17:59:23
3	Pb 220.353†	81.2	-9.9	-2.4060 µg/L	-2.4060 ppb	17:59:23
3	S 181.975 Axial†	14.0	-4.9	-20.443 µg/L	-20.443 ppb	17:59:23
3	Sb 206.836†	27.7	5.2	4.7514 µg/L	4.7514 ppb	17:59:23
3	Se 196.026†	17.1	-2.2	-3.1763 µg/L	-3.1763 ppb	17:59:23
3	SiO2†	1412.3	19.2	3.7961 µg/L	3.7961 ppb	17:59:03
3	Si 251.611†	335.9	24.9	1.8933 µg/L	1.8933 ppb	17:59:23
3	Sn 189.927†	3.9	3.5	1.4733 µg/L	1.4733 ppb	17:59:23
3	Ti 334.940†	206.9	31.6	0.0650 µg/L	0.0650 ppb	17:59:03
3	Tl 190.801†	-23.3	-0.9	-1.1798 µg/L	-1.1798 ppb	17:59:23
3	U 409.014†	2.6	79.6	6.6183 µg/L	6.6183 ppb	17:59:03
3	V 292.402†	-4.6	40.2	0.4016 µg/L	0.4016 ppb	17:59:03
3	Zn 213.857†	533.9	-1.1	-0.0271 µg/L	-0.0271 ppb	17:59:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1962723.2	99.980	%	0.2522				0.25%
Sc RADIAL	55250.6	97.8	%	0.66				0.68%
Y 371.029	1352955.6	100.01	%	0.168				0.17%
Ag 328.068†	0.9	0.0083	µg/L	0.31265	0.0083	ppb	0.31265	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-39.7	-27.606	µg/L	5.5466	-27.606	ppb	5.5466	20.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	2.1458	µg/L	3.39103	2.1458	ppb	3.39103	158.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.3	0.0526	µg/L	0.24059	0.0526	ppb	0.24059	457.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.3	0.0318	µg/L	0.14326	0.0318	ppb	0.14326	449.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	177.3	0.1052	µg/L	0.02132	0.1052	ppb	0.02132	20.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.6	-15.039	µg/L	0.3955	-15.039	ppb	0.3955	2.63%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.1	0.1017	µg/L	0.13173	0.1017	ppb	0.13173	129.53%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0179	µg/L	0.33479	0.0179	ppb	0.33479	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              1.4      0.0273 µg/L       0.30543      0.0273 ppb       0.30543 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              7.0      0.0458 µg/L       0.12379      0.0458 ppb       0.12379 270.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       0.4      3.1129 µg/L       3.04443      3.1129 ppb       3.04443  97.80%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       53.0      34.646 µg/L        6.0478      34.646 ppb        6.0478  17.46%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -0.8     -7.5284 µg/L      60.67961     -7.5284 ppb      60.67961 806.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             11.7      0.0373 µg/L       0.00401      0.0373 ppb       0.00401  10.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              5.8      0.5659 µg/L       0.28866      0.5659 ppb       0.28866  51.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      62.2      19.119 µg/L        5.7369      19.119 ppb        5.7369  30.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†            -10.0     -0.4960 µg/L       0.15424     -0.4960 ppb       0.15424  31.09%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               3.1      6.0957 µg/L       6.15582      6.0957 ppb       6.15582 100.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -2.8     -0.6871 µg/L       2.01265     -0.6871 ppb       2.01265 292.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -2.9      -12.068 µg/L        7.7546     -12.068 ppb        7.7546  64.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              3.5      3.2641 µg/L       1.36846      3.2641 ppb       1.36846  41.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -3.3     -4.6035 µg/L       4.36743     -4.6035 ppb       4.36743  94.87%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   42.2      8.3350 µg/L       5.72201      8.3350 ppb       5.72201  68.65%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             25.2      1.9139 µg/L       0.76087      1.9139 ppb       0.76087  39.75%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              1.9      0.7957 µg/L       1.20387      0.7957 ppb       1.20387 151.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             12.7      0.1173 µg/L       0.08487      0.1173 ppb       0.08487  72.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             33.2      0.0739 µg/L       0.01807      0.0739 ppb       0.01807  24.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              0.8      1.0820 µg/L       2.22165      1.0820 ppb       2.22165 205.32%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              43.9      3.6439 µg/L       2.57643      3.6439 ppb       2.57643  70.71%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              21.9      0.2221 µg/L       0.20505      0.2221 ppb       0.20505  92.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -0.1      0.0000 µg/L       0.05335      0.0000 ppb       0.05335 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 18:24:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58110.7	58110.7	103	%			18:24:59
1	Al 396.153Radial†	7350.7	7139.0	4955.6	µg/L	4955.6	ppb	18:24:59
1	Ca 317.933Radial†	6185.2	5802.1	4956.0	µg/L	4956.0	ppb	18:25:20
1	Fe 238.204 Radial†	675.1	639.8	5056.7	µg/L	5056.7	ppb	18:25:20
1	K 766.490 Radial†	7936.4	7550.9	4931.6	µg/L	4931.6	ppb	18:24:59
1	Mg 279.077 IEC†	594.2	564.9	5052.6	µg/L	5052.6	ppb	18:25:20
1	Na 589.592 Radial†	33978.9	32562.3	10001	µg/L	10001	ppb	18:24:59
1	Sr 421.552†	54344.8	52805.6	487.14	µg/L	487.14	ppb	18:24:59
1	Sc 361.383	2010503.2	2010503.2	102.41	%			18:26:23
1	Y 371.029	1378737.8	1378737.8	101.92	%			18:26:23
1	Ag 328.068†	69160.3	67932.0	506.90	µg/L	506.90	ppb	18:26:28
1	As 188.979†	303.0	296.3	530.04	µg/L	530.04	ppb	18:26:49
1	B 249.677†	13059.0	12367.1	502.24	µg/L	502.24	ppb	18:26:28
1	Ba 233.527†	21831.0	21333.5	513.08	µg/L	513.08	ppb	18:26:28
1	Be 313.107†	864886.0	847358.1	502.72	µg/L	502.72	ppb	18:26:23
1	Cd 226.502†	21036.3	20682.2	515.78	µg/L	515.78	ppb	18:26:28
1	Co 228.616†	11703.6	11425.8	516.87	µg/L	516.87	ppb	18:26:28
1	Cr 267.716†	26284.2	25715.1	516.82	µg/L	516.82	ppb	18:26:28
1	Cu 324.752†	82127.8	77648.4	507.55	µg/L	507.55	ppb	18:26:28
1	Mn 257.610†	166823.1	163147.4	511.37	µg/L	511.37	ppb	18:26:23
1	Mo 202.031†	5448.5	5325.4	521.69	µg/L	521.69	ppb	18:26:49
1	Ni 231.604†	10977.7	10406.6	518.22	µg/L	518.22	ppb	18:26:28
1	P 214.914†	1361.9	1314.4	2554.1	µg/L	2554.1	ppb	18:26:49
1	Pb 220.353†	2277.9	2133.2	518.76	µg/L	518.76	ppb	18:26:49
1	S 181.975 Axial†	276.1	250.7	1039.6	µg/L	1039.6	ppb	18:26:49
1	Sb 206.836†	598.0	561.4	517.60	µg/L	517.60	ppb	18:26:49
1	Se 196.026†	404.7	375.8	535.75	µg/L	535.75	ppb	18:26:49
1	SiO2†	29945.4	27848.1	5496.8	µg/L	5496.8	ppb	18:26:28
1	Si 251.611†	34979.9	33844.9	2573.0	µg/L	2573.0	ppb	18:26:28
1	Sn 189.927†	1294.8	1263.9	533.06	µg/L	533.06	ppb	18:26:49
1	Ti 334.940†	232405.2	226752.9	501.31	µg/L	501.31	ppb	18:26:23
1	Tl 190.801†	387.3	400.5	526.22	µg/L	526.22	ppb	18:26:49
1	U 409.014†	6254.1	6183.8	512.77	µg/L	512.77	ppb	18:26:28
1	V 292.402†	53539.0	52322.0	516.23	µg/L	516.23	ppb	18:26:28
1	Zn 213.857†	23135.9	22056.3	513.84	µg/L	513.84	ppb	18:26:28
2	Sc RADIAL	57983.0	57983.0	103	%			18:25:25
2	Al 396.153Radial†	7301.1	7106.5	4933.3	µg/L	4933.3	ppb	18:25:25
2	Ca 317.933Radial†	6156.7	5787.5	4943.6	µg/L	4943.6	ppb	18:25:45
2	Fe 238.204 Radial†	670.2	636.5	5030.5	µg/L	5030.5	ppb	18:25:45
2	K 766.490 Radial†	7863.7	7497.0	4896.4	µg/L	4896.4	ppb	18:25:25
2	Mg 279.077 IEC†	585.6	557.7	4988.7	µg/L	4988.7	ppb	18:25:45
2	Na 589.592 Radial†	33805.3	32465.9	9971.7	µg/L	9971.7	ppb	18:25:25
2	Sr 421.552†	54068.8	52653.0	485.73	µg/L	485.73	ppb	18:25:25
2	Sc 361.383	2038047.8	2038047.8	103.82	%			18:26:56
2	Y 371.029	1399253.6	1399253.6	103.44	%			18:26:56
2	Ag 328.068†	68906.4	66774.7	498.26	µg/L	498.26	ppb	18:27:02
2	As 188.979†	291.3	281.1	502.79	µg/L	502.79	ppb	18:27:22
2	B 249.677†	13031.9	12168.7	494.15	µg/L	494.15	ppb	18:27:02
2	Ba 233.527†	21788.4	21004.4	505.16	µg/L	505.16	ppb	18:27:02
2	Be 313.107†	871938.9	842738.2	499.98	µg/L	499.98	ppb	18:26:56
2	Cd 226.502†	20959.6	20330.7	507.01	µg/L	507.01	ppb	18:27:02
2	Co 228.616†	11663.7	11232.9	508.13	µg/L	508.13	ppb	18:27:02
2	Cr 267.716†	26195.8	25283.1	508.13	µg/L	508.13	ppb	18:27:02
2	Cu 324.752†	81865.7	76312.2	498.82	µg/L	498.82	ppb	18:27:02
2	Mn 257.610†	168150.2	162224.2	508.48	µg/L	508.48	ppb	18:26:56
2	Mo 202.031†	5330.8	5140.1	503.54	µg/L	503.54	ppb	18:27:22
2	Ni 231.604†	10880.8	10168.4	506.35	µg/L	506.35	ppb	18:27:02
2	P 214.914†	1337.9	1273.4	2473.4	µg/L	2473.4	ppb	18:27:22
2	Pb 220.353†	2238.1	2064.9	502.11	µg/L	502.11	ppb	18:27:22

2	S 181.975 Axial†	271.4	242.5	1005.7 µg/L	1005.7 ppb	18:27:22
2	Sb 206.836†	590.8	546.6	503.85 µg/L	503.85 ppb	18:27:22
2	Se 196.026†	401.0	366.9	523.19 µg/L	523.19 ppb	18:27:22
2	SiO2†	29842.8	27354.0	5399.3 µg/L	5399.3 ppb	18:27:02
2	Si 251.611†	34939.6	33344.4	2534.9 µg/L	2534.9 ppb	18:27:02
2	Sn 189.927†	1259.4	1212.7	511.46 µg/L	511.46 ppb	18:27:22
2	Ti 334.940†	233999.5	225221.6	497.93 µg/L	497.93 ppb	18:26:56
2	Tl 190.801†	377.0	385.6	506.75 µg/L	506.75 ppb	18:27:22
2	U 409.014†	6252.8	6100.0	505.82 µg/L	505.82 ppb	18:27:02
2	V 292.402†	53301.3	51386.4	506.94 µg/L	506.94 ppb	18:27:02
2	Zn 213.857†	23074.0	21691.3	505.35 µg/L	505.35 ppb	18:27:02
3	Sc RADIAL	58101.7	58101.7	103 %		18:25:51
3	Al 396.153Radial†	7325.2	7115.3	4941.3 µg/L	4941.3 ppb	18:25:51
3	Ca 317.933Radial†	6167.8	5786.1	4942.3 µg/L	4942.3 ppb	18:26:11
3	Fe 238.204 Radial†	673.8	638.6	5046.3 µg/L	5046.3 ppb	18:26:11
3	K 766.490 Radial†	7958.4	7573.4	4946.3 µg/L	4946.3 ppb	18:25:51
3	Mg 279.077 IEC†	598.9	569.5	5092.5 µg/L	5092.5 ppb	18:26:11
3	Na 589.592 Radial†	33931.7	32521.6	9988.8 µg/L	9988.8 ppb	18:25:51
3	Sr 421.552†	54158.1	52632.2	485.54 µg/L	485.54 ppb	18:25:51
3	Sc 361.383	2006960.6	2006960.6	102.23 %		18:27:29
3	Y 371.029	1377064.8	1377064.8	101.80 %		18:27:29
3	Ag 328.068†	63249.3	62269.2	464.47 µg/L	464.47 ppb	18:27:35
3	As 188.979†	239.9	235.1	420.56 µg/L	420.56 ppb	18:27:55
3	B 249.677†	11912.9	11268.6	457.34 µg/L	457.34 ppb	18:27:35
3	Ba 233.527†	19263.5	18859.7	453.56 µg/L	453.56 ppb	18:27:35
3	Be 313.107†	784759.4	770472.5	457.11 µg/L	457.11 ppb	18:27:29
3	Cd 226.502†	18434.4	18173.4	453.14 µg/L	453.14 ppb	18:27:35
3	Co 228.616†	10122.4	9899.4	447.75 µg/L	447.75 ppb	18:27:35
3	Cr 267.716†	21992.5	21562.5	433.36 µg/L	433.36 ppb	18:27:35
3	Cu 324.752†	71871.2	67757.5	442.99 µg/L	442.99 ppb	18:27:35
3	Mn 257.610†	152131.1	149063.9	467.26 µg/L	467.26 ppb	18:27:29
3	Mo 202.031†	4313.3	4224.4	413.87 µg/L	413.87 ppb	18:27:55
3	Ni 231.604†	9585.0	9063.2	451.33 µg/L	451.33 ppb	18:27:35
3	P 214.914†	1100.5	1061.1	2057.6 µg/L	2057.6 ppb	18:27:55
3	Pb 220.353†	1891.6	1759.4	427.76 µg/L	427.76 ppb	18:27:55
3	S 181.975 Axial†	229.0	205.1	850.35 µg/L	850.35 ppb	18:27:55
3	Sb 206.836†	491.8	458.5	422.37 µg/L	422.37 ppb	18:27:55
3	Se 196.026†	337.5	310.8	444.41 µg/L	444.41 ppb	18:27:55
3	SiO2†	27007.5	25025.9	4939.8 µg/L	4939.8 ppb	18:27:35
3	Si 251.611†	31393.7	30397.3	2310.9 µg/L	2310.9 ppb	18:27:35
3	Sn 189.927†	994.9	972.8	410.27 µg/L	410.27 ppb	18:27:55
3	Ti 334.940†	209196.0	204451.2	451.97 µg/L	451.97 ppb	18:27:29
3	Tl 190.801†	327.6	342.9	450.86 µg/L	450.86 ppb	18:27:55
3	U 409.014†	5293.3	5254.7	435.59 µg/L	435.59 ppb	18:27:35
3	V 292.402†	45934.6	44975.9	443.54 µg/L	443.54 ppb	18:27:35
3	Zn 213.857†	20247.3	19270.6	448.88 µg/L	448.88 ppb	18:27:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2018503.9	102.82	%	0.867				0.84%
Sc RADIAL	58065.1	103	%	0.1				0.12%
Y 371.029	1385018.8	102.38	%	0.913				0.89%
Ag 328.068†	65658.6	489.88	µg/L	22.418	489.88	ppb	22.418	4.58%
QC value within limits for Ag 328.068 Recovery = 97.98%								
Al 396.153Radial†	7120.3	4943.4	µg/L	11.28	4943.4	ppb	11.28	0.23%
QC value within limits for Al 396.153Radial Recovery = 98.87%								
As 188.979†	270.8	484.46	µg/L	56.991	484.46	ppb	56.991	11.76%
QC value within limits for As 188.979 Recovery = 96.89%								
B 249.677†	11934.8	484.58	µg/L	23.933	484.58	ppb	23.933	4.94%
QC value within limits for B 249.677 Recovery = 96.92%								
Ba 233.527†	20399.2	490.60	µg/L	32.321	490.60	ppb	32.321	6.59%
QC value within limits for Ba 233.527 Recovery = 98.12%								
Be 313.107†	820189.6	486.60	µg/L	25.580	486.60	ppb	25.580	5.26%
QC value within limits for Be 313.107 Recovery = 97.32%								
Ca 317.933Radial†	5791.9	4947.3	µg/L	7.57	4947.3	ppb	7.57	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.95%								
Cd 226.502†	19728.8	491.98	µg/L	33.915	491.98	ppb	33.915	6.89%
QC value within limits for Cd 226.502 Recovery = 98.40%								
Co 228.616†	10852.7	490.92	µg/L	37.639	490.92	ppb	37.639	7.67%

QC value within limits for Co 228.616 Recovery = 98.18%

Cr 267.716†	24186.9	486.10 µg/L	45.880	486.10 ppb	45.880	9.44%
QC value within limits for Cr 267.716 Recovery = 97.22%						
Cu 324.752†	73906.0	483.12 µg/L	35.030	483.12 ppb	35.030	7.25%
QC value within limits for Cu 324.752 Recovery = 96.62%						
Fe 238.204 Radial†	638.3	5044.5 µg/L	13.19	5044.5 ppb	13.19	0.26%
QC value within limits for Fe 238.204 Radial Recovery = 100.89%						
K 766.490 Radial†	7540.4	4924.8 µg/L	25.64	4924.8 ppb	25.64	0.52%
QC value within limits for K 766.490 Radial Recovery = 98.50%						
Mg 279.077 IEC†	564.0	5044.6 µg/L	52.37	5044.6 ppb	52.37	1.04%
QC value within limits for Mg 279.077 IEC Recovery = 100.89%						
Mn 257.610†	158145.2	495.70 µg/L	24.672	495.70 ppb	24.672	4.98%
QC value within limits for Mn 257.610 Recovery = 99.14%						
Mo 202.031†	4896.7	479.70 µg/L	57.728	479.70 ppb	57.728	12.03%
QC value within limits for Mo 202.031 Recovery = 95.94%						
Na 589.592 Radial†	32516.6	9987.3 µg/L	14.87	9987.3 ppb	14.87	0.15%
QC value within limits for Na 589.592 Radial Recovery = 99.87%						
Ni 231.604†	9879.4	491.97 µg/L	35.688	491.97 ppb	35.688	7.25%
QC value within limits for Ni 231.604 Recovery = 98.39%						
P 214.914†	1216.3	2361.7 µg/L	266.42	2361.7 ppb	266.42	11.28%
QC value within limits for P 214.914 Recovery = 94.47%						
Pb 220.353†	1985.8	482.88 µg/L	48.455	482.88 ppb	48.455	10.03%
QC value within limits for Pb 220.353 Recovery = 96.58%						
S 181.975 Axial†	232.7	965.19 µg/L	100.884	965.19 ppb	100.884	10.45%
QC value within limits for S 181.975 Axial Recovery = 96.52%						
Sb 206.836†	522.2	481.27 µg/L	51.474	481.27 ppb	51.474	10.70%
QC value within limits for Sb 206.836 Recovery = 96.25%						
Se 196.026†	351.2	501.12 µg/L	49.509	501.12 ppb	49.509	9.88%
QC value within limits for Se 196.026 Recovery = 100.22%						
SiO2†	26742.7	5278.7 µg/L	297.49	5278.7 ppb	297.49	5.64%
QC value within limits for SiO2 Recovery = 98.71%						
Si 251.611†	32528.9	2472.9 µg/L	141.62	2472.9 ppb	141.62	5.73%
QC value within limits for Si 251.611 Recovery = 98.92%						
Sn 189.927†	1149.8	484.93 µg/L	65.553	484.93 ppb	65.553	13.52%
QC value within limits for Sn 189.927 Recovery = 96.99%						
Sr 421.552†	52696.9	486.14 µg/L	0.873	486.14 ppb	0.873	0.18%
QC value within limits for Sr 421.552 Recovery = 97.23%						
Ti 334.940†	218808.6	483.73 µg/L	27.562	483.73 ppb	27.562	5.70%
QC value within limits for Ti 334.940 Recovery = 96.75%						
Tl 190.801†	376.3	494.61 µg/L	39.121	494.61 ppb	39.121	7.91%
QC value within limits for Tl 190.801 Recovery = 98.92%						
U 409.014†	5846.2	484.73 µg/L	42.700	484.73 ppb	42.700	8.81%
QC value within limits for U 409.014 Recovery = 96.95%						
V 292.402†	49561.4	488.90 µg/L	39.562	488.90 ppb	39.562	8.09%
QC value within limits for V 292.402 Recovery = 97.78%						
Zn 213.857†	21006.1	489.36 µg/L	35.308	489.36 ppb	35.308	7.22%
QC value within limits for Zn 213.857 Recovery = 97.87%						

All analyte(s) passed QC.

Sequence No.: 17 | **Autosampler Location: 8**
Sample ID: CCB | **Date Collected: 2/19/2010 18:28:05**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	56920.6	56920.6	101	%			18:28:38
1	Al 396.153Radial†	-0.3	-7.6	-5.3346	µg/L	-5.3346	ppb	18:28:38
1	Ca 317.933Radial†	189.5	-23.2	-19.841	µg/L	-19.841	ppb	18:28:58
1	Fe 238.204 Radial†	19.4	2.7	21.377	µg/L	21.377	ppb	18:28:58
1	K 766.490 Radial†	221.6	55.0	35.912	µg/L	35.912	ppb	18:28:38
1	Mg 279.077 IEC†	10.8	-2.1	-18.380	µg/L	-18.380	ppb	18:28:58
1	Na 589.592 Radial†	498.2	22.3	6.8542	µg/L	6.8542	ppb	18:28:38
1	Sr 421.552†	54.9	25.7	0.2367	µg/L	0.2367	ppb	18:28:38
1	Sc 361.383	2032515.3	2032515.3	103.53	%			18:30:00
1	Y 371.029	1398820.8	1398820.8	103.41	%			18:30:00
1	Ag 328.068†	-457.1	-39.8	-0.2911	µg/L	-0.2911	ppb	18:30:06
1	As 188.979†	5.6	5.9	10.594	µg/L	10.594	ppb	18:30:26
1	B 249.677†	410.3	12.1	0.4845	µg/L	0.4845	ppb	18:30:26
1	Ba 233.527†	49.3	64.6	1.5526	µg/L	1.5526	ppb	18:30:26
1	Be 313.107†	-2857.0	96.2	0.0570	µg/L	0.0570	ppb	18:30:06
1	Cd 226.502†	-101.1	44.0	1.0963	µg/L	1.0963	ppb	18:30:26
1	Co 228.616†	28.1	25.2	1.1408	µg/L	1.1408	ppb	18:30:26
1	Cr 267.716†	-32.9	18.6	0.3731	µg/L	0.3731	ppb	18:30:06
1	Cu 324.752†	2585.0	-47.0	-0.3039	µg/L	-0.3039	ppb	18:30:06
1	Mn 257.610†	1142.9	1359.9	4.2620	µg/L	4.2620	ppb	18:30:26
1	Mo 202.031†	8.1	13.2	1.2945	µg/L	1.2945	ppb	18:30:26
1	Ni 231.604†	338.7	14.7	0.7339	µg/L	0.7339	ppb	18:30:26
1	P 214.914†	15.9	0.0	0.2437	µg/L	0.2437	ppb	18:30:26
1	Pb 220.353†	99.8	5.5	1.3339	µg/L	1.3339	ppb	18:30:26
1	S 181.975 Axial†	18.1	-1.5	-6.0253	µg/L	-6.0253	ppb	18:30:26
1	Sb 206.836†	22.7	-0.5	-0.4788	µg/L	-0.4788	ppb	18:30:26
1	Se 196.026†	18.0	-1.9	-2.6538	µg/L	-2.6538	ppb	18:30:26
1	SiO2†	1447.9	6.9	1.3541	µg/L	1.3541	ppb	18:30:06
1	Si 251.611†	659.6	326.5	24.820	µg/L	24.820	ppb	18:30:26
1	Sn 189.927†	38.3	36.6	15.441	µg/L	15.441	ppb	18:30:26
1	Ti 334.940†	321.1	135.1	0.3001	µg/L	0.3001	ppb	18:30:06
1	Tl 190.801†	-21.1	2.0	2.6395	µg/L	2.6395	ppb	18:30:26
1	U 409.014†	-28.7	49.4	4.1035	µg/L	4.1035	ppb	18:30:06
1	V 292.402†	-3.2	41.6	0.4232	µg/L	0.4232	ppb	18:30:06
1	Zn 213.857†	618.9	63.4	1.4848	µg/L	1.4848	ppb	18:30:26
2	Sc RADIAL	56709.3	56709.3	100	%			18:29:04
2	Al 396.153Radial†	-16.5	-23.8	-16.528	µg/L	-16.528	ppb	18:29:04
2	Ca 317.933Radial†	196.4	-15.6	-13.311	µg/L	-13.311	ppb	18:29:24
2	Fe 238.204 Radial†	19.1	2.4	18.992	µg/L	18.992	ppb	18:29:24
2	K 766.490 Radial†	204.3	38.5	25.150	µg/L	25.150	ppb	18:29:04
2	Mg 279.077 IEC†	11.8	-1.1	-9.6092	µg/L	-9.6092	ppb	18:29:24
2	Na 589.592 Radial†	485.8	11.8	3.6148	µg/L	3.6148	ppb	18:29:04
2	Sr 421.552†	30.8	1.9	0.0174	µg/L	0.0174	ppb	18:29:04
2	Sc 361.383	2017506.8	2017506.8	102.77	%			18:30:32
2	Y 371.029	1389281.0	1389281.0	102.70	%			18:30:32
2	Ag 328.068†	-439.2	-25.7	-0.1831	µg/L	-0.1831	ppb	18:30:38
2	As 188.979†	-2.8	-2.2	-4.0102	µg/L	-4.0102	ppb	18:30:58
2	B 249.677†	382.6	-11.8	-0.4899	µg/L	-0.4899	ppb	18:30:58
2	Ba 233.527†	4.3	21.2	0.5118	µg/L	0.5118	ppb	18:30:58
2	Be 313.107†	-2101.4	811.0	0.4800	µg/L	0.4800	ppb	18:30:38
2	Cd 226.502†	-138.5	6.9	0.1705	µg/L	0.1705	ppb	18:30:58
2	Co 228.616†	11.1	8.8	0.3922	µg/L	0.3922	ppb	18:30:58
2	Cr 267.716†	4.0	54.3	1.0911	µg/L	1.0911	ppb	18:30:38
2	Cu 324.752†	2748.4	130.6	0.8552	µg/L	0.8552	ppb	18:30:38
2	Mn 257.610†	83.5	337.3	1.0592	µg/L	1.0592	ppb	18:30:58
2	Mo 202.031†	-7.8	-2.2	-0.2192	µg/L	-0.2192	ppb	18:30:58
2	Ni 231.604†	324.9	3.8	0.1884	µg/L	0.1884	ppb	18:30:58
2	P 214.914†	13.0	-2.7	-5.2676	µg/L	-5.2676	ppb	18:30:58
2	Pb 220.353†	93.0	-0.4	-0.1127	µg/L	-0.1127	ppb	18:30:58

2	S 181.975 Axial†	20.2	0.7	2.8524 µg/L	2.8524 ppb	18:30:58
2	Sb 206.836†	24.9	1.7	1.5373 µg/L	1.5373 ppb	18:30:58
2	Se 196.026†	20.3	0.5	0.7192 µg/L	0.7192 ppb	18:30:58
2	SiO2†	1642.6	206.7	40.802 µg/L	40.802 ppb	18:30:38
2	Si 251.611†	453.6	130.8	9.9406 µg/L	9.9406 ppb	18:30:58
2	Sn 189.927†	19.1	18.2	7.6779 µg/L	7.6779 ppb	18:30:58
2	Ti 334.940†	1831.1	1606.7	3.5550 µg/L	3.5550 ppb	18:30:38
2	Tl 190.801†	-20.6	2.3	3.0926 µg/L	3.0926 ppb	18:30:58
2	U 409.014†	-17.3	60.3	5.0059 µg/L	5.0059 ppb	18:30:38
2	V 292.402†	54.7	98.0	0.9631 µg/L	0.9631 ppb	18:30:38
2	Zn 213.857†	549.1	-0.1	-0.0060 µg/L	-0.0060 ppb	18:30:58
3	Sc RADIAL	57463.0	57463.0	102 %		18:29:29
3	Al 396.153Radial†	-41.0	-47.6	-33.158 µg/L	-33.158 ppb	18:29:29
3	Ca 317.933Radial†	194.3	-20.2	-17.244 µg/L	-17.244 ppb	18:29:50
3	Fe 238.204 Radial†	18.7	1.8	14.201 µg/L	14.201 ppb	18:29:50
3	K 766.490 Radial†	178.1	10.2	6.6395 µg/L	6.6395 ppb	18:29:29
3	Mg 279.077 IEC†	8.7	-4.2	-37.957 µg/L	-37.957 ppb	18:29:50
3	Na 589.592 Radial†	506.8	26.1	8.0102 µg/L	8.0102 ppb	18:29:29
3	Sr 421.552†	42.9	13.3	0.1232 µg/L	0.1232 ppb	18:29:29
3	Sc 361.383	2013891.9	2013891.9	102.59 %		18:31:04
3	Y 371.029	1385497.7	1385497.7	102.42 %		18:31:04
3	Ag 328.068†	-434.1	-21.6	-0.1566 µg/L	-0.1566 ppb	18:31:10
3	As 188.979†	1.4	1.8	3.2592 µg/L	3.2592 ppb	18:31:31
3	B 249.677†	380.8	-12.9	-0.5336 µg/L	-0.5336 ppb	18:31:31
3	Ba 233.527†	-7.5	9.7	0.2343 µg/L	0.2343 ppb	18:31:31
3	Be 313.107†	-2627.4	294.5	0.1745 µg/L	0.1745 ppb	18:31:10
3	Cd 226.502†	-139.2	6.0	0.1475 µg/L	0.1475 ppb	18:31:31
3	Co 228.616†	-2.4	-4.2	-0.1927 µg/L	-0.1927 ppb	18:31:31
3	Cr 267.716†	-21.1	29.8	0.5980 µg/L	0.5980 ppb	18:31:10
3	Cu 324.752†	2619.6	9.8	0.0659 µg/L	0.0659 ppb	18:31:10
3	Mn 257.610†	-3.1	253.0	0.7956 µg/L	0.7956 ppb	18:31:31
3	Mo 202.031†	1.5	6.8	0.6637 µg/L	0.6637 ppb	18:31:31
3	Ni 231.604†	309.6	-10.5	-0.5253 µg/L	-0.5253 ppb	18:31:31
3	P 214.914†	10.7	-4.9	-9.6506 µg/L	-9.6506 ppb	18:31:31
3	Pb 220.353†	92.1	-1.1	-0.2804 µg/L	-0.2804 ppb	18:31:31
3	S 181.975 Axial†	20.6	1.2	4.9214 µg/L	4.9214 ppb	18:31:31
3	Sb 206.836†	22.0	-1.0	-0.9299 µg/L	-0.9299 ppb	18:31:31
3	Se 196.026†	22.4	2.6	3.6800 µg/L	3.6800 ppb	18:31:31
3	SiO2†	1531.3	101.1	19.951 µg/L	19.951 ppb	18:31:10
3	Si 251.611†	470.6	148.1	11.258 µg/L	11.258 ppb	18:31:31
3	Sn 189.927†	15.7	14.9	6.2845 µg/L	6.2845 ppb	18:31:31
3	Ti 334.940†	545.2	356.5	0.7913 µg/L	0.7913 ppb	18:31:10
3	Tl 190.801†	-18.8	4.0	5.2381 µg/L	5.2381 ppb	18:31:31
3	U 409.014†	-62.1	16.5	1.3714 µg/L	1.3714 ppb	18:31:10
3	V 292.402†	-10.9	34.2	0.3425 µg/L	0.3425 ppb	18:31:10
3	Zn 213.857†	537.6	-10.4	-0.2395 µg/L	-0.2395 ppb	18:31:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2021304.7	102.96	%	0.503				0.49%
Sc RADIAL	57030.9	101	%	0.7				0.68%
Y 371.029	1391199.8	102.84	%	0.508				0.49%
Ag 328.068†	-29.0	-0.2103	µg/L	0.07128	-0.2103	ppb	0.07128	33.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-26.3	-18.340	µg/L	14.0000	-18.340	ppb	14.0000	76.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	3.2809	µg/L	7.30195	3.2809	ppb	7.30195	222.56%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-4.2	-0.1797	µg/L	0.57561	-0.1797	ppb	0.57561	320.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	31.9	0.7662	µg/L	0.69500	0.7662	ppb	0.69500	90.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	400.6	0.2372	µg/L	0.21833	0.2372	ppb	0.21833	92.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-19.7	-16.799	µg/L	3.2876	-16.799	ppb	3.2876	19.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.0	0.4714	µg/L	0.54127	0.4714	ppb	0.54127	114.82%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.9	0.4468	µg/L	0.66842	0.4468	ppb	0.66842	149.61%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	34.2	0.6874 µg/L	0.36726	0.6874 ppb	0.36726	53.43%

QC value within limits for Cr 267.716 Recovery = Not calculated

Cu 324.752†	31.1	0.2057 µg/L	0.59207	0.2057 ppb	0.59207	287.77%

QC value within limits for Cu 324.752 Recovery = Not calculated

Fe 238.204 Radial†	2.3	18.190 µg/L	3.6545	18.190 ppb	3.6545	20.09%

QC value within limits for Fe 238.204 Radial Recovery = Not calculated

K 766.490 Radial†	34.6	22.567 µg/L	14.8062	22.567 ppb	14.8062	65.61%

QC value within limits for K 766.490 Radial Recovery = Not calculated

Mg 279.077 IEC†	-2.5	-21.982 µg/L	14.5132	-21.982 ppb	14.5132	66.02%

QC value within limits for Mg 279.077 IEC Recovery = Not calculated

Mn 257.610†	650.0	2.0389 µg/L	1.92974	2.0389 ppb	1.92974	94.65%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031†	5.9	0.5797 µg/L	0.76032	0.5797 ppb	0.76032	131.17%

QC value within limits for Mo 202.031 Recovery = Not calculated

Na 589.592 Radial†	20.1	6.1597 µg/L	2.27853	6.1597 ppb	2.27853	36.99%

QC value within limits for Na 589.592 Radial Recovery = Not calculated

Ni 231.604†	2.7	0.1323 µg/L	0.63148	0.1323 ppb	0.63148	477.25%

QC value within limits for Ni 231.604 Recovery = Not calculated

P 214.914†	-2.5	-4.8915 µg/L	4.95786	-4.8915 ppb	4.95786	101.36%

QC value within limits for P 214.914 Recovery = Not calculated

Pb 220.353†	1.3	0.3136 µg/L	0.88754	0.3136 ppb	0.88754	283.00%

QC value within limits for Pb 220.353 Recovery = Not calculated

S 181.975 Axial†	0.1	0.5829 µg/L	5.81558	0.5829 ppb	5.81558	997.77%

QC value within limits for S 181.975 Axial Recovery = Not calculated

Sb 206.836†	0.0	0.0429 µg/L	1.31372	0.0429 ppb	1.31372	>999.9%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026†	0.4	0.5818 µg/L	3.16914	0.5818 ppb	3.16914	544.71%

QC value within limits for Se 196.026 Recovery = Not calculated

SiO2†	104.9	20.702 µg/L	19.7346	20.702 ppb	19.7346	95.33%

QC value within limits for SiO2 Recovery = Not calculated

Si 251.611†	201.8	15.340 µg/L	8.2366	15.340 ppb	8.2366	53.69%

QC value within limits for Si 251.611 Recovery = Not calculated

Sn 189.927†	23.3	9.8010 µg/L	4.93347	9.8010 ppb	4.93347	50.34%

QC value within limits for Sn 189.927 Recovery = Not calculated

Sr 421.552†	13.6	0.1258 µg/L	0.10971	0.1258 ppb	0.10971	87.24%

QC value within limits for Sr 421.552 Recovery = Not calculated

Ti 334.940†	699.4	1.5488 µg/L	1.75468	1.5488 ppb	1.75468	113.30%

QC value within limits for Ti 334.940 Recovery = Not calculated

Tl 190.801†	2.8	3.6567 µg/L	1.38813	3.6567 ppb	1.38813	37.96%

QC value within limits for Tl 190.801 Recovery = Not calculated

U 409.014†	42.1	3.4936 µg/L	1.89246	3.4936 ppb	1.89246	54.17%

QC value within limits for U 409.014 Recovery = Not calculated

V 292.402†	57.9	0.5763 µg/L	0.33743	0.5763 ppb	0.33743	58.55%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 213.857†	17.6	0.4131 µg/L	0.93546	0.4131 ppb	0.93546	226.45%

QC value within limits for Zn 213.857 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 18:57:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	58333.6	58333.6	103	%			18:58:00
1	Al 396.153Radial†	7365.1	7125.7	4946.5	µg/L	4946.5	ppb	18:58:00
1	Ca 317.933Radial†	6192.0	5785.6	4942.0	µg/L	4942.0	ppb	18:58:20
1	Fe 238.204 Radial†	674.6	636.7	5032.7	µg/L	5032.7	ppb	18:58:20
1	K 766.490 Radial†	7915.6	7501.2	4899.2	µg/L	4899.2	ppb	18:58:00
1	Mg 279.077 IEC†	598.6	566.9	5070.8	µg/L	5070.8	ppb	18:58:20
1	Na 589.592 Radial†	33942.4	32400.8	9951.7	µg/L	9951.7	ppb	18:58:00
1	Sr 421.552†	54192.3	52456.0	483.91	µg/L	483.91	ppb	18:58:00
1	Sc 361.383	2038441.2	2038441.2	103.84	%			18:59:24
1	Y 371.029	1399434.4	1399434.4	103.45	%			18:59:24
1	Ag 328.068†	68624.6	66490.5	496.15	µg/L	496.15	ppb	18:59:29
1	As 188.979†	294.5	284.1	508.19	µg/L	508.19	ppb	18:59:50
1	B 249.677†	12921.2	12059.6	489.70	µg/L	489.70	ppb	18:59:29
1	Ba 233.527†	21646.3	20863.5	501.78	µg/L	501.78	ppb	18:59:29
1	Be 313.107†	864552.3	835462.4	495.66	µg/L	495.66	ppb	18:59:24
1	Cd 226.502†	20886.7	20256.6	505.16	µg/L	505.16	ppb	18:59:29
1	Co 228.616†	11617.5	11186.3	506.03	µg/L	506.03	ppb	18:59:29
1	Cr 267.716†	26041.8	25130.0	505.06	µg/L	505.06	ppb	18:59:29
1	Cu 324.752†	81610.2	76051.0	497.12	µg/L	497.12	ppb	18:59:29
1	Mn 257.610†	166517.1	160620.2	503.45	µg/L	503.45	ppb	18:59:24
1	Mo 202.031†	5420.2	5225.2	511.88	µg/L	511.88	ppb	18:59:50
1	Ni 231.604†	10851.5	10138.2	504.85	µg/L	504.85	ppb	18:59:29
1	P 214.914†	1356.9	1291.4	2509.3	µg/L	2509.3	ppb	18:59:50
1	Pb 220.353†	2274.9	2099.9	510.66	µg/L	510.66	ppb	18:59:50
1	S 181.975 Axial†	272.1	243.1	1008.0	µg/L	1008.0	ppb	18:59:50
1	Sb 206.836†	600.9	556.2	512.79	µg/L	512.79	ppb	18:59:50
1	Se 196.026†	401.3	367.2	523.52	µg/L	523.52	ppb	18:59:50
1	SiO2†	29690.3	27201.7	5369.3	µg/L	5369.3	ppb	18:59:29
1	Si 251.611†	34620.8	33030.9	2511.1	µg/L	2511.1	ppb	18:59:29
1	Sn 189.927†	1274.6	1227.1	517.53	µg/L	517.53	ppb	18:59:50
1	Ti 334.940†	232175.5	223421.5	493.94	µg/L	493.94	ppb	18:59:24
1	Tl 190.801†	380.4	388.7	510.84	µg/L	510.84	ppb	18:59:50
1	U 409.014†	6240.2	6086.8	504.71	µg/L	504.71	ppb	18:59:29
1	V 292.402†	53236.3	51313.9	506.29	µg/L	506.29	ppb	18:59:29
1	Zn 213.857†	23013.8	21629.0	503.89	µg/L	503.89	ppb	18:59:29
2	Sc RADIAL	58344.7	58344.7	103	%			18:58:26
2	Al 396.153Radial†	7317.7	7078.4	4913.9	µg/L	4913.9	ppb	18:58:26
2	Ca 317.933Radial†	6132.7	5727.0	4891.9	µg/L	4891.9	ppb	18:58:46
2	Fe 238.204 Radial†	665.9	628.2	4965.5	µg/L	4965.5	ppb	18:58:46
2	K 766.490 Radial†	7920.4	7504.4	4901.2	µg/L	4901.2	ppb	18:58:26
2	Mg 279.077 IEC†	590.4	558.9	4999.2	µg/L	4999.2	ppb	18:58:46
2	Na 589.592 Radial†	33811.9	32268.1	9910.9	µg/L	9910.9	ppb	18:58:26
2	Sr 421.552†	54099.6	52356.2	482.99	µg/L	482.99	ppb	18:58:26
2	Sc 361.383	2035256.6	2035256.6	103.67	%			18:59:57
2	Y 371.029	1396273.2	1396273.2	103.22	%			18:59:57
2	Ag 328.068†	68425.9	66402.2	495.48	µg/L	495.48	ppb	19:00:03
2	As 188.979†	292.9	282.9	506.17	µg/L	506.17	ppb	19:00:23
2	B 249.677†	12903.7	12062.2	489.84	µg/L	489.84	ppb	19:00:03
2	Ba 233.527†	21596.0	20847.7	501.39	µg/L	501.39	ppb	19:00:03
2	Be 313.107†	862338.3	834629.7	495.17	µg/L	495.17	ppb	18:59:57
2	Cd 226.502†	20772.6	20178.1	503.20	µg/L	503.20	ppb	19:00:03
2	Co 228.616†	11542.6	11131.5	503.54	µg/L	503.54	ppb	19:00:03
2	Cr 267.716†	25954.2	25084.7	504.15	µg/L	504.15	ppb	19:00:03
2	Cu 324.752†	81509.2	76076.5	497.28	µg/L	497.28	ppb	19:00:03
2	Mn 257.610†	166351.9	160711.8	503.73	µg/L	503.73	ppb	18:59:57
2	Mo 202.031†	5270.1	5088.7	498.51	µg/L	498.51	ppb	19:00:23
2	Ni 231.604†	10791.0	10096.2	502.76	µg/L	502.76	ppb	19:00:03
2	P 214.914†	1323.9	1261.6	2450.2	µg/L	2450.2	ppb	19:00:23
2	Pb 220.353†	2210.1	2040.8	496.26	µg/L	496.26	ppb	19:00:23

2	S 181.975 Axial†	270.0	241.5	1001.5 µg/L	1001.5 ppb	19:00:23
2	Sb 206.836†	587.9	544.6	501.96 µg/L	501.96 ppb	19:00:23
2	Se 196.026†	392.6	359.4	512.48 µg/L	512.48 ppb	19:00:23
2	SiO2†	29616.5	27175.2	5364.0 µg/L	5364.0 ppb	19:00:03
2	Si 251.611†	34657.6	33118.5	2517.7 µg/L	2517.7 ppb	19:00:03
2	Sn 189.927†	1231.7	1187.7	500.91 µg/L	500.91 ppb	19:00:23
2	Ti 334.940†	231864.1	223470.9	494.05 µg/L	494.05 ppb	18:59:57
2	Tl 190.801†	372.5	381.7	501.72 µg/L	501.72 ppb	19:00:23
2	U 409.014†	6180.9	6038.9	500.75 µg/L	500.75 ppb	19:00:03
2	V 292.402†	53024.3	51189.7	504.96 µg/L	504.96 ppb	19:00:03
2	Zn 213.857†	22918.2	21571.5	502.56 µg/L	502.56 ppb	19:00:03
3	Sc RADIAL	58456.7	58456.7	103 %		18:58:52
3	Al 396.153Radial†	7314.1	7061.4	4904.0 µg/L	4904.0 ppb	18:58:52
3	Ca 317.933Radial†	6160.3	5742.4	4905.0 µg/L	4905.0 ppb	18:59:12
3	Fe 238.204 Radial†	669.3	630.3	4980.2 µg/L	4980.2 ppb	18:59:12
3	K 766.490 Radial†	7905.3	7475.1	4882.1 µg/L	4882.1 ppb	18:58:52
3	Mg 279.077 IEC†	592.0	559.3	5000.9 µg/L	5000.9 ppb	18:59:12
3	Na 589.592 Radial†	33692.4	32089.9	9856.2 µg/L	9856.2 ppb	18:58:52
3	Sr 421.552†	53981.8	52142.0	481.02 µg/L	481.02 ppb	18:58:52
3	Sc 361.383	2047612.7	2047612.7	104.30 %		19:00:30
3	Y 371.029	1406490.5	1406490.5	103.97 %		19:00:30
3	Ag 328.068†	63103.6	60901.3	454.27 µg/L	454.27 ppb	19:00:36
3	As 188.979†	237.6	228.3	408.38 µg/L	408.38 ppb	19:00:57
3	B 249.677†	11765.8	10896.1	442.18 µg/L	442.18 ppb	19:00:36
3	Ba 233.527†	19176.1	18401.9	442.55 µg/L	442.55 ppb	19:00:36
3	Be 313.107†	782724.7	753282.0	446.91 µg/L	446.91 ppb	19:00:30
3	Cd 226.502†	18400.9	17783.3	443.41 µg/L	443.41 ppb	19:00:36
3	Co 228.616†	10109.3	9690.2	438.29 µg/L	438.29 ppb	19:00:36
3	Cr 267.716†	21969.5	21113.3	424.34 µg/L	424.34 ppb	19:00:36
3	Cu 324.752†	71747.0	66242.7	433.09 µg/L	433.09 ppb	19:00:36
3	Mn 257.610†	151555.7	145557.9	456.28 µg/L	456.28 ppb	19:00:30
3	Mo 202.031†	4263.1	4092.5	400.95 µg/L	400.95 ppb	19:00:57
3	Ni 231.604†	9465.5	8762.6	436.35 µg/L	436.35 ppb	19:00:36
3	P 214.914†	1103.2	1042.4	2021.3 µg/L	2021.3 ppb	19:00:57
3	Pb 220.353†	1887.4	1718.6	417.83 µg/L	417.83 ppb	19:00:57
3	S 181.975 Axial†	232.4	203.9	845.45 µg/L	845.45 ppb	19:00:57
3	Sb 206.836†	490.6	447.9	412.47 µg/L	412.47 ppb	19:00:57
3	Se 196.026†	335.5	302.3	432.38 µg/L	432.38 ppb	19:00:57
3	SiO2†	26801.6	24304.1	4797.3 µg/L	4797.3 ppb	19:00:36
3	Si 251.611†	31212.7	29614.1	2251.3 µg/L	2251.3 ppb	19:00:36
3	Sn 189.927†	987.7	946.6	399.24 µg/L	399.24 ppb	19:00:57
3	Ti 334.940†	208406.1	199631.3	441.31 µg/L	441.31 ppb	19:00:30
3	Tl 190.801†	322.4	331.5	435.96 µg/L	435.96 ppb	19:00:57
3	U 409.014†	5296.2	5154.8	427.29 µg/L	427.29 ppb	19:00:36
3	V 292.402†	45829.3	43982.9	433.72 µg/L	433.72 ppb	19:00:36
3	Zn 213.857†	20142.3	18776.7	437.38 µg/L	437.38 ppb	19:00:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2040436.8	103.94	%	0.327				0.31%
Sc RADIAL	58378.3	103	%	0.1				0.12%
Y 371.029	1400732.7	103.55	%	0.387				0.37%
Ag 328.068†	64598.0	481.97	µg/L	23.988	481.97	ppb	23.988	4.98%
QC value within limits for Ag 328.068 Recovery = 96.39%								
Al 396.153Radial†	7088.5	4921.5	µg/L	22.23	4921.5	ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.43%								
As 188.979†	265.1	474.24	µg/L	57.051	474.24	ppb	57.051	12.03%
QC value within limits for As 188.979 Recovery = 94.85%								
B 249.677†	11672.6	473.91	µg/L	27.477	473.91	ppb	27.477	5.80%
QC value within limits for B 249.677 Recovery = 94.78%								
Ba 233.527†	20037.7	481.91	µg/L	34.084	481.91	ppb	34.084	7.07%
QC value within limits for Ba 233.527 Recovery = 96.38%								
Be 313.107†	807791.4	479.25	µg/L	28.007	479.25	ppb	28.007	5.84%
QC value within limits for Be 313.107 Recovery = 95.85%								
Ca 317.933Radial†	5751.7	4913.0	µg/L	25.95	4913.0	ppb	25.95	0.53%
QC value within limits for Ca 317.933Radial Recovery = 98.26%								
Cd 226.502†	19406.0	483.92	µg/L	35.100	483.92	ppb	35.100	7.25%
QC value within limits for Cd 226.502 Recovery = 96.78%								
Co 228.616†	10669.3	482.62	µg/L	38.414	482.62	ppb	38.414	7.96%

QC value within limits for Co 228.616 Recovery = 96.52%

Cr 267.716†	23776.0	477.85 µg/L	46.344	477.85 ppb	46.344	9.70%
QC value within limits for Cr 267.716 Recovery = 95.57%						
Cu 324.752†	72790.1	475.83 µg/L	37.014	475.83 ppb	37.014	7.78%
QC value within limits for Cu 324.752 Recovery = 95.17%						
Fe 238.204 Radial†	631.7	4992.8 µg/L	35.34	4992.8 ppb	35.34	0.71%
QC value within limits for Fe 238.204 Radial Recovery = 99.86%						
K 766.490 Radial†	7493.6	4894.2 µg/L	10.48	4894.2 ppb	10.48	0.21%
QC value within limits for K 766.490 Radial Recovery = 97.88%						
Mg 279.077 IEC†	561.7	5023.6 µg/L	40.85	5023.6 ppb	40.85	0.81%
QC value within limits for Mg 279.077 IEC Recovery = 100.47%						
Mn 257.610†	155630.0	487.82 µg/L	27.316	487.82 ppb	27.316	5.60%
QC value within limits for Mn 257.610 Recovery = 97.56%						
Mo 202.031†	4802.1	470.44 µg/L	60.553	470.44 ppb	60.553	12.87%
QC value within limits for Mo 202.031 Recovery = 94.09%						
Na 589.592 Radial†	32252.9	9906.3 µg/L	47.92	9906.3 ppb	47.92	0.48%
QC value within limits for Na 589.592 Radial Recovery = 99.06%						
Ni 231.604†	9665.7	481.32 µg/L	38.955	481.32 ppb	38.955	8.09%
QC value within limits for Ni 231.604 Recovery = 96.26%						
P 214.914†	1198.4	2326.9 µg/L	266.31	2326.9 ppb	266.31	11.44%
QC value within limits for P 214.914 Recovery = 93.08%						
Pb 220.353†	1953.1	474.92 µg/L	49.957	474.92 ppb	49.957	10.52%
QC value within limits for Pb 220.353 Recovery = 94.98%						
S 181.975 Axial†	229.5	951.68 µg/L	92.053	951.68 ppb	92.053	9.67%
QC value within limits for S 181.975 Axial Recovery = 95.17%						
Sb 206.836†	516.2	475.74 µg/L	55.061	475.74 ppb	55.061	11.57%
QC value within limits for Sb 206.836 Recovery = 95.15%						
Se 196.026†	343.0	489.46 µg/L	49.737	489.46 ppb	49.737	10.16%
QC value within limits for Se 196.026 Recovery = 97.89%						
SiO2†	26227.0	5176.9 µg/L	328.72	5176.9 ppb	328.72	6.35%
QC value within limits for SiO2 Recovery = 96.81%						
Si 251.611†	31921.2	2426.7 µg/L	151.93	2426.7 ppb	151.93	6.26%
QC value within limits for Si 251.611 Recovery = 97.07%						
Sn 189.927†	1120.5	472.56 µg/L	64.040	472.56 ppb	64.040	13.55%
QC value within limits for Sn 189.927 Recovery = 94.51%						
Sr 421.552†	52318.1	482.64 µg/L	1.480	482.64 ppb	1.480	0.31%
QC value within limits for Sr 421.552 Recovery = 96.53%						
Ti 334.940†	215507.9	476.43 µg/L	30.416	476.43 ppb	30.416	6.38%
QC value within limits for Ti 334.940 Recovery = 95.29%						
Tl 190.801†	367.3	482.84 µg/L	40.853	482.84 ppb	40.853	8.46%
QC value within limits for Tl 190.801 Recovery = 96.57%						
U 409.014†	5760.1	477.59 µg/L	43.602	477.59 ppb	43.602	9.13%
QC value within limits for U 409.014 Recovery = 95.52%						
V 292.402†	48828.8	481.66 µg/L	41.521	481.66 ppb	41.521	8.62%
QC value within limits for V 292.402 Recovery = 96.33%						
Zn 213.857†	20659.1	481.28 µg/L	38.019	481.28 ppb	38.019	7.90%
QC value within limits for Zn 213.857 Recovery = 96.26%						

All analyte(s) passed QC.

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 19:01:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57423.2	57423.2	102	%			19:01:39
1	Al 396.153Radial†	-18.9	-25.9	-18.036	µg/L	-18.036	ppb	19:01:39
1	Ca 317.933Radial†	194.6	-19.8	-16.907	µg/L	-16.907	ppb	19:02:00
1	Fe 238.204 Radial†	20.3	3.4	26.844	µg/L	26.844	ppb	19:02:00
1	K 766.490 Radial†	169.3	1.6	1.0514	µg/L	1.0514	ppb	19:01:39
1	Mg 279.077 IEC†	10.7	-2.3	-20.795	µg/L	-20.795	ppb	19:02:00
1	Na 589.592 Radial†	537.1	56.3	17.279	µg/L	17.279	ppb	19:01:39
1	Sr 421.552†	21.5	-7.7	-0.0709	µg/L	-0.0709	ppb	19:01:39
1	Sc 361.383	2013251.1	2013251.1	102.55	%			19:03:02
1	Y 371.029	1385844.0	1385844.0	102.45	%			19:03:02
1	Ag 328.068†	-425.6	-13.4	-0.0944	µg/L	-0.0944	ppb	19:03:07
1	As 188.979†	1.0	1.5	2.6013	µg/L	2.6013	ppb	19:03:28
1	B 249.677†	361.7	-31.5	-1.2963	µg/L	-1.2963	ppb	19:03:28
1	Ba 233.527†	-6.9	10.3	0.2492	µg/L	0.2492	ppb	19:03:28
1	Be 313.107†	-2769.2	155.5	0.0922	µg/L	0.0922	ppb	19:03:07
1	Cd 226.502†	-136.0	9.0	0.2223	µg/L	0.2223	ppb	19:03:28
1	Co 228.616†	7.0	4.9	0.2213	µg/L	0.2213	ppb	19:03:28
1	Cr 267.716†	-45.7	5.9	0.1181	µg/L	0.1181	ppb	19:03:07
1	Cu 324.752†	2554.2	-53.2	-0.3432	µg/L	-0.3432	ppb	19:03:07
1	Mn 257.610†	-168.0	92.2	0.2930	µg/L	0.2930	ppb	19:03:28
1	Mo 202.031†	-4.8	0.6	0.0615	µg/L	0.0615	ppb	19:03:28
1	Ni 231.604†	318.0	-2.3	-0.1132	µg/L	-0.1132	ppb	19:03:28
1	P 214.914†	14.8	-0.9	-1.7488	µg/L	-1.7488	ppb	19:03:28
1	Pb 220.353†	84.3	-8.7	-2.1358	µg/L	-2.1358	ppb	19:03:28
1	S 181.975 Axial†	16.4	-2.9	-12.184	µg/L	-12.184	ppb	19:03:28
1	Sb 206.836†	29.7	6.4	5.9047	µg/L	5.9047	ppb	19:03:28
1	Se 196.026†	21.6	1.7	2.5321	µg/L	2.5321	ppb	19:03:28
1	SiO2†	1445.6	18.1	3.5679	µg/L	3.5679	ppb	19:03:07
1	Si 251.611†	358.6	39.1	2.9715	µg/L	2.9715	ppb	19:03:28
1	Sn 189.927†	6.5	5.9	2.5018	µg/L	2.5018	ppb	19:03:28
1	Ti 334.940†	319.2	136.2	0.3026	µg/L	0.3026	ppb	19:03:07
1	Tl 190.801†	-23.1	-0.1	-0.1533	µg/L	-0.1533	ppb	19:03:28
1	U 409.014†	95.4	170.1	14.129	µg/L	14.129	ppb	19:03:07
1	V 292.402†	4.5	49.1	0.4975	µg/L	0.4975	ppb	19:03:07
1	Zn 213.857†	525.8	-21.7	-0.5072	µg/L	-0.5072	ppb	19:03:28
2	Sc RADIAL	57351.0	57351.0	102	%			19:02:05
2	Al 396.153Radial†	0.6	-6.8	-4.7217	µg/L	-4.7217	ppb	19:02:05
2	Ca 317.933Radial†	191.9	-22.2	-18.945	µg/L	-18.945	ppb	19:02:26
2	Fe 238.204 Radial†	16.4	-0.4	-2.9277	µg/L	-2.9277	ppb	19:02:26
2	K 766.490 Radial†	226.8	58.4	38.151	µg/L	38.151	ppb	19:02:05
2	Mg 279.077 IEC†	4.7	-8.2	-72.904	µg/L	-72.904	ppb	19:02:26
2	Na 589.592 Radial†	474.9	-4.4	-1.3380	µg/L	-1.3380	ppb	19:02:05
2	Sr 421.552†	49.2	19.7	0.1813	µg/L	0.1813	ppb	19:02:05
2	Sc 361.383	2012182.2	2012182.2	102.50	%			19:03:34
2	Y 371.029	1385686.0	1385686.0	102.43	%			19:03:34
2	Ag 328.068†	-448.4	-35.9	-0.2659	µg/L	-0.2659	ppb	19:03:39
2	As 188.979†	-1.5	-1.0	-1.7378	µg/L	-1.7378	ppb	19:04:00
2	B 249.677†	352.5	-40.3	-1.6393	µg/L	-1.6393	ppb	19:04:00
2	Ba 233.527†	-10.2	7.1	0.1714	µg/L	0.1714	ppb	19:04:00
2	Be 313.107†	-2906.5	20.0	0.0117	µg/L	0.0117	ppb	19:03:39
2	Cd 226.502†	-139.6	5.4	0.1354	µg/L	0.1354	ppb	19:04:00
2	Co 228.616†	8.8	6.6	0.3005	µg/L	0.3005	ppb	19:04:00
2	Cr 267.716†	-48.8	2.8	0.0565	µg/L	0.0565	ppb	19:03:39
2	Cu 324.752†	2585.7	-21.1	-0.1382	µg/L	-0.1382	ppb	19:03:39
2	Mn 257.610†	-165.3	94.7	0.2992	µg/L	0.2992	ppb	19:04:00
2	Mo 202.031†	-0.6	4.7	0.4624	µg/L	0.4624	ppb	19:04:00
2	Ni 231.604†	304.3	-15.4	-0.7700	µg/L	-0.7700	ppb	19:04:00
2	P 214.914†	20.3	4.4	8.7926	µg/L	8.7926	ppb	19:04:00
2	Pb 220.353†	93.2	-0.0	-0.0043	µg/L	-0.0043	ppb	19:04:00

2	S 181.975 Axial†	10.8	-8.4	-34.884 µg/L	-34.884 ppb	19:04:00
2	Sb 206.836†	19.1	-3.9	-3.5666 µg/L	-3.5666 ppb	19:04:00
2	Se 196.026†	15.1	-4.6	-6.4360 µg/L	-6.4360 ppb	19:04:00
2	SiO2†	1460.9	33.7	6.6594 µg/L	6.6594 ppb	19:03:39
2	Si 251.611†	358.4	39.0	2.9639 µg/L	2.9639 ppb	19:04:00
2	Sn 189.927†	4.7	4.2	1.7676 µg/L	1.7676 ppb	19:04:00
2	Ti 334.940†	408.1	223.1	0.4990 µg/L	0.4990 ppb	19:03:39
2	Tl 190.801†	-23.8	-0.9	-1.1422 µg/L	-1.1422 ppb	19:04:00
2	U 409.014†	-63.7	15.0	1.2443 µg/L	1.2443 ppb	19:03:39
2	V 292.402†	-44.3	1.5	0.0193 µg/L	0.0193 ppb	19:03:39
2	Zn 213.857†	528.3	-19.0	-0.4374 µg/L	-0.4374 ppb	19:04:00
3	Sc RADIAL	57190.0	57190.0	101 %		19:02:31
3	Al 396.153Radial†	-22.6	-29.7	-20.673 µg/L	-20.673 ppb	19:02:31
3	Ca 317.933Radial†	189.8	-23.8	-20.291 µg/L	-20.291 ppb	19:02:51
3	Fe 238.204 Radial†	18.6	1.8	13.987 µg/L	13.987 ppb	19:02:51
3	K 766.490 Radial†	197.7	30.3	19.782 µg/L	19.782 ppb	19:02:31
3	Mg 279.077 IEC†	10.1	-2.9	-25.784 µg/L	-25.784 ppb	19:02:51
3	Na 589.592 Radial†	485.7	7.6	2.3466 µg/L	2.3466 ppb	19:02:31
3	Sr 421.552†	55.0	25.5	0.2351 µg/L	0.2351 ppb	19:02:31
3	Sc 361.383	2000057.1	2000057.1	101.88 %		19:04:06
3	Y 371.029	1377155.5	1377155.5	101.80 %		19:04:06
3	Ag 328.068†	-451.3	-41.4	-0.3043 µg/L	-0.3043 ppb	19:04:11
3	As 188.979†	5.3	5.6	10.113 µg/L	10.113 ppb	19:04:32
3	B 249.677†	349.5	-41.1	-1.6816 µg/L	-1.6816 ppb	19:04:32
3	Ba 233.527†	-13.8	3.6	0.0860 µg/L	0.0860 ppb	19:04:32
3	Be 313.107†	-2997.1	-86.1	-0.0512 µg/L	-0.0512 ppb	19:04:11
3	Cd 226.502†	-137.9	6.3	0.1551 µg/L	0.1551 ppb	19:04:32
3	Co 228.616†	6.6	4.6	0.2062 µg/L	0.2062 ppb	19:04:32
3	Cr 267.716†	-22.6	28.2	0.5656 µg/L	0.5656 ppb	19:04:11
3	Cu 324.752†	2587.8	-3.8	-0.0226 µg/L	-0.0226 ppb	19:04:11
3	Mn 257.610†	-159.2	99.8	0.3153 µg/L	0.3153 ppb	19:04:32
3	Mo 202.031†	2.5	7.8	0.7608 µg/L	0.7608 ppb	19:04:32
3	Ni 231.604†	316.7	-1.4	-0.0722 µg/L	-0.0722 ppb	19:04:32
3	P 214.914†	14.3	-1.3	-2.5898 µg/L	-2.5898 ppb	19:04:32
3	Pb 220.353†	83.5	-8.9	-2.1741 µg/L	-2.1741 ppb	19:04:32
3	S 181.975 Axial†	16.2	-3.0	-12.393 µg/L	-12.393 ppb	19:04:32
3	Sb 206.836†	23.0	0.1	0.0887 µg/L	0.0887 ppb	19:04:32
3	Se 196.026†	9.9	-9.6	-13.418 µg/L	-13.418 ppb	19:04:32
3	SiO2†	1462.5	43.9	8.6651 µg/L	8.6651 ppb	19:04:11
3	Si 251.611†	360.6	43.4	3.2962 µg/L	3.2962 ppb	19:04:32
3	Sn 189.927†	6.4	5.9	2.4731 µg/L	2.4731 ppb	19:04:32
3	Ti 334.940†	309.8	129.0	0.2871 µg/L	0.2871 ppb	19:04:11
3	Tl 190.801†	-25.4	-2.6	-3.3285 µg/L	-3.3285 ppb	19:04:32
3	U 409.014†	-45.5	32.4	2.6931 µg/L	2.6931 ppb	19:04:11
3	V 292.402†	-23.1	22.0	0.2263 µg/L	0.2263 ppb	19:04:11
3	Zn 213.857†	527.6	-16.5	-0.3862 µg/L	-0.3862 ppb	19:04:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2008496.8	102.31	%	0.373				0.36%
Sc RADIAL	57321.4	101	%	0.2				0.21%
Y 371.029	1382895.2	102.23	%	0.367				0.36%
Ag 328.068†	-30.2	-0.2215	µg/L	0.11176	-0.2215	ppb	0.11176	50.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-20.8	-14.477	µg/L	8.5505	-14.477	ppb	8.5505	59.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	3.6588	µg/L	5.99568	3.6588	ppb	5.99568	163.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-37.6	-1.5391	µg/L	0.21127	-1.5391	ppb	0.21127	13.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.0	0.1689	µg/L	0.08165	0.1689	ppb	0.08165	48.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	29.8	0.0176	µg/L	0.07185	0.0176	ppb	0.07185	409.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-21.9	-18.714	µg/L	1.7037	-18.714	ppb	1.7037	9.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.9	0.1709	µg/L	0.04557	0.1709	ppb	0.04557	26.66%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.4	0.2427	µg/L	0.05064	0.2427	ppb	0.05064	20.87%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	12.3	0.2467 µg/L	0.27783	0.2467 ppb	0.27783	112.61%

QC value within limits for Cr 267.716 Recovery = Not calculated

Cu 324.752†	-26.0	-0.1680 µg/L	0.16236	-0.1680 ppb	0.16236	96.63%

QC value within limits for Cu 324.752 Recovery = Not calculated

Fe 238.204 Radial†	1.6	12.634 µg/L	14.9319	12.634 ppb	14.9319	118.18%

QC value within limits for Fe 238.204 Radial Recovery = Not calculated

K 766.490 Radial†	30.1	19.662 µg/L	18.5502	19.662 ppb	18.5502	94.35%

QC value within limits for K 766.490 Radial Recovery = Not calculated

Mg 279.077 IEC†	-4.5	-39.828 µg/L	28.7536	-39.828 ppb	28.7536	72.20%

QC value within limits for Mg 279.077 IEC Recovery = Not calculated

Mn 257.610†	95.6	0.3025 µg/L	0.01153	0.3025 ppb	0.01153	3.81%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031†	4.4	0.4283 µg/L	0.35090	0.4283 ppb	0.35090	81.94%

QC value within limits for Mo 202.031 Recovery = Not calculated

Na 589.592 Radial†	19.8	6.0958 µg/L	9.85836	6.0958 ppb	9.85836	161.73%

QC value within limits for Na 589.592 Radial Recovery = Not calculated

Ni 231.604†	-6.4	-0.3185 µg/L	0.39156	-0.3185 ppb	0.39156	122.95%

QC value within limits for Ni 231.604 Recovery = Not calculated

P 214.914†	0.7	1.4847 µg/L	6.34276	1.4847 ppb	6.34276	427.21%

QC value within limits for P 214.914 Recovery = Not calculated

Pb 220.353†	-5.9	-1.4381 µg/L	1.24182	-1.4381 ppb	1.24182	86.35%

QC value within limits for Pb 220.353 Recovery = Not calculated

S 181.975 Axial†	-4.8	-19.820 µg/L	13.0459	-19.820 ppb	13.0459	65.82%

QC value within limits for S 181.975 Axial Recovery = Not calculated

Sb 206.836†	0.9	0.8090 µg/L	4.77653	0.8090 ppb	4.77653	590.45%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026†	-4.2	-5.7739 µg/L	7.99551	-5.7739 ppb	7.99551	138.48%

QC value within limits for Se 196.026 Recovery = Not calculated

SiO2†	31.9	6.2974 µg/L	2.56780	6.2974 ppb	2.56780	40.78%

QC value within limits for SiO2 Recovery = Not calculated

Si 251.611†	40.5	3.0772 µg/L	0.18971	3.0772 ppb	0.18971	6.16%

QC value within limits for Si 251.611 Recovery = Not calculated

Sn 189.927†	5.3	2.2475 µg/L	0.41585	2.2475 ppb	0.41585	18.50%

QC value within limits for Sn 189.927 Recovery = Not calculated

Sr 421.552†	12.5	0.1152 µg/L	0.16339	0.1152 ppb	0.16339	141.88%

QC value within limits for Sr 421.552 Recovery = Not calculated

Ti 334.940†	162.8	0.3629 µg/L	0.11813	0.3629 ppb	0.11813	32.55%

QC value within limits for Ti 334.940 Recovery = Not calculated

Tl 190.801†	-1.2	-1.5413 µg/L	1.62481	-1.5413 ppb	1.62481	105.42%

QC value within limits for Tl 190.801 Recovery = Not calculated

U 409.014†	72.5	6.0222 µg/L	7.05819	6.0222 ppb	7.05819	117.20%

QC value within limits for U 409.014 Recovery = Not calculated

V 292.402†	24.2	0.2477 µg/L	0.23982	0.2477 ppb	0.23982	96.82%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 213.857†	-19.1	-0.4436 µg/L	0.06072	-0.4436 ppb	0.06072	13.69%

QC value within limits for Zn 213.857 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 19:26:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58011.2	58011.2	103	%			19:27:24
1	Al 396.153Radial†	7306.1	7107.9	4934.0	µg/L	4934.0	ppb	19:27:24
1	Ca 317.933Radial†	6126.5	5755.1	4915.9	µg/L	4915.9	ppb	19:27:44
1	Fe 238.204 Radial†	670.2	636.1	5027.8	µg/L	5027.8	ppb	19:27:44
1	K 766.490 Radial†	7850.1	7480.0	4885.3	µg/L	4885.3	ppb	19:27:24
1	Mg 279.077 IEC†	589.4	561.2	5020.1	µg/L	5020.1	ppb	19:27:44
1	Na 589.592 Radial†	33642.4	32291.3	9918.0	µg/L	9918.0	ppb	19:27:24
1	Sr 421.552†	53727.7	52295.2	482.43	µg/L	482.43	ppb	19:27:24
1	Sc 361.383	2023941.6	2023941.6	103.10	%			19:28:48
1	Y 371.029	1390155.2	1390155.2	102.76	%			19:28:48
1	Ag 328.068†	68263.9	66614.1	497.07	µg/L	497.07	ppb	19:28:53
1	As 188.979†	297.5	289.1	517.08	µg/L	517.08	ppb	19:29:14
1	B 249.677†	12754.8	11987.3	486.76	µg/L	486.76	ppb	19:28:53
1	Ba 233.527†	21527.5	20897.6	502.60	µg/L	502.60	ppb	19:28:53
1	Be 313.107†	859738.4	836757.9	496.43	µg/L	496.43	ppb	19:28:48
1	Cd 226.502†	20670.0	20190.5	503.51	µg/L	503.51	ppb	19:28:53
1	Co 228.616†	11554.6	11205.5	506.90	µg/L	506.90	ppb	19:28:53
1	Cr 267.716†	25881.7	25154.3	505.55	µg/L	505.55	ppb	19:28:53
1	Cu 324.752†	81255.0	76269.5	498.55	µg/L	498.55	ppb	19:28:53
1	Mn 257.610†	166147.8	161410.9	505.93	µg/L	505.93	ppb	19:28:48
1	Mo 202.031†	5454.8	5296.3	518.83	µg/L	518.83	ppb	19:29:14
1	Ni 231.604†	10745.9	10110.7	503.47	µg/L	503.47	ppb	19:28:53
1	P 214.914†	1361.8	1305.6	2537.4	µg/L	2537.4	ppb	19:29:14
1	Pb 220.353†	2266.4	2107.4	512.48	µg/L	512.48	ppb	19:29:14
1	S 181.975 Axial†	273.5	246.4	1021.7	µg/L	1021.7	ppb	19:29:14
1	Sb 206.836†	610.7	569.8	525.42	µg/L	525.42	ppb	19:29:14
1	Se 196.026†	395.7	364.5	519.83	µg/L	519.83	ppb	19:29:14
1	SiO2†	29524.0	27245.2	5377.9	µg/L	5377.9	ppb	19:28:53
1	Si 251.611†	34545.7	33196.9	2523.7	µg/L	2523.7	ppb	19:28:53
1	Sn 189.927†	1282.8	1243.9	524.60	µg/L	524.60	ppb	19:29:14
1	Ti 334.940†	231474.2	224343.1	495.98	µg/L	495.98	ppb	19:28:48
1	Tl 190.801†	382.2	393.1	516.55	µg/L	516.55	ppb	19:29:14
1	U 409.014†	6240.4	6130.0	508.31	µg/L	508.31	ppb	19:28:53
1	V 292.402†	52860.7	51317.0	506.38	µg/L	506.38	ppb	19:28:53
1	Zn 213.857†	22851.7	21630.6	503.94	µg/L	503.94	ppb	19:28:53
2	Sc RADIAL	58208.4	58208.4	103	%			19:27:50
2	Al 396.153Radial†	7271.3	7050.0	4894.0	µg/L	4894.0	ppb	19:27:50
2	Ca 317.933Radial†	6163.6	5771.0	4929.4	µg/L	4929.4	ppb	19:28:10
2	Fe 238.204 Radial†	675.5	639.1	5051.0	µg/L	5051.0	ppb	19:28:10
2	K 766.490 Radial†	7866.0	7469.5	4878.5	µg/L	4878.5	ppb	19:27:50
2	Mg 279.077 IEC†	590.4	560.2	5010.8	µg/L	5010.8	ppb	19:28:10
2	Na 589.592 Radial†	33660.4	32197.8	9889.3	µg/L	9889.3	ppb	19:27:50
2	Sr 421.552†	53698.2	52089.4	480.53	µg/L	480.53	ppb	19:27:50
2	Sc 361.383	2026589.1	2026589.1	103.23	%			19:29:21
2	Y 371.029	1392880.6	1392880.6	102.97	%			19:29:21
2	Ag 328.068†	68809.4	67056.0	500.36	µg/L	500.36	ppb	19:29:27
2	As 188.979†	296.8	288.0	515.16	µg/L	515.16	ppb	19:29:47
2	B 249.677†	12885.4	12097.7	491.25	µg/L	491.25	ppb	19:29:27
2	Ba 233.527†	21677.5	21015.6	505.43	µg/L	505.43	ppb	19:29:27
2	Be 313.107†	865418.2	841170.5	499.05	µg/L	499.05	ppb	19:29:21
2	Cd 226.502†	20826.2	20315.7	506.63	µg/L	506.63	ppb	19:29:27
2	Co 228.616†	11598.5	11233.3	508.15	µg/L	508.15	ppb	19:29:27
2	Cr 267.716†	26109.2	25341.9	509.31	µg/L	509.31	ppb	19:29:27
2	Cu 324.752†	81892.1	76783.6	501.90	µg/L	501.90	ppb	19:29:27
2	Mn 257.610†	167199.4	162219.0	508.46	µg/L	508.46	ppb	19:29:21
2	Mo 202.031†	5288.0	5127.7	502.33	µg/L	502.33	ppb	19:29:47
2	Ni 231.604†	10828.5	10177.0	506.78	µg/L	506.78	ppb	19:29:27
2	P 214.914†	1324.9	1268.1	2462.5	µg/L	2462.5	ppb	19:29:47
2	Pb 220.353†	2219.6	2059.1	500.70	µg/L	500.70	ppb	19:29:47

2	S 181.975 Axial†	269.0	241.6	1001.9 µg/L	1001.9 ppb	19:29:47
2	Sb 206.836†	585.9	545.1	502.40 µg/L	502.40 ppb	19:29:47
2	Se 196.026†	401.2	369.3	526.64 µg/L	526.64 ppb	19:29:47
2	SiO2†	29674.8	27353.9	5399.3 µg/L	5399.3 ppb	19:29:27
2	Si 251.611†	34681.9	33285.1	2530.4 µg/L	2530.4 ppb	19:29:27
2	Sn 189.927†	1240.2	1201.0	506.52 µg/L	506.52 ppb	19:29:47
2	Ti 334.940†	232768.0	225303.0	498.10 µg/L	498.10 ppb	19:29:21
2	Tl 190.801†	370.9	381.6	501.66 µg/L	501.66 ppb	19:29:47
2	U 409.014†	6213.7	6096.2	505.50 µg/L	505.50 ppb	19:29:27
2	V 292.402†	53162.8	51542.6	508.46 µg/L	508.46 ppb	19:29:27
2	Zn 213.857†	22978.8	21724.8	506.12 µg/L	506.12 ppb	19:29:27
3	Sc RADIAL	57939.2	57939.2	103 %		19:28:16
3	Al 396.153Radial†	7262.7	7074.4	4912.9 µg/L	4912.9 ppb	19:28:16
3	Ca 317.933Radial†	6172.6	5807.6	4960.7 µg/L	4960.7 ppb	19:28:36
3	Fe 238.204 Radial†	672.1	638.8	5047.6 µg/L	5047.6 ppb	19:28:36
3	K 766.490 Radial†	7867.0	7506.0	4902.3 µg/L	4902.3 ppb	19:28:16
3	Mg 279.077 IEC†	596.5	568.8	5086.0 µg/L	5086.0 ppb	19:28:36
3	Na 589.592 Radial†	33675.5	32364.3	9940.5 µg/L	9940.5 ppb	19:28:16
3	Sr 421.552†	53684.5	52318.1	482.64 µg/L	482.64 ppb	19:28:16
3	Sc 361.383	2019244.9	2019244.9	102.86 %		19:29:54
3	Y 371.029	1386733.2	1386733.2	102.51 %		19:29:54
3	Ag 328.068†	63032.4	61682.0	460.10 µg/L	460.10 ppb	19:30:00
3	As 188.979†	244.2	237.9	425.60 µg/L	425.60 ppb	19:30:20
3	B 249.677†	11714.9	11005.2	446.60 µg/L	446.60 ppb	19:30:00
3	Ba 233.527†	19107.8	18593.8	447.17 µg/L	447.17 ppb	19:30:00
3	Be 313.107†	780455.8	761618.7	451.85 µg/L	451.85 ppb	19:29:54
3	Cd 226.502†	18286.2	17919.6	446.80 µg/L	446.80 ppb	19:30:00
3	Co 228.616†	10093.7	9811.2	443.77 µg/L	443.77 ppb	19:30:00
3	Cr 267.716†	21917.3	21358.4	429.26 µg/L	429.26 ppb	19:30:00
3	Cu 324.752†	71787.5	67248.4	439.66 µg/L	439.66 ppb	19:30:00
3	Mn 257.610†	151706.1	147745.4	463.13 µg/L	463.13 ppb	19:29:54
3	Mo 202.031†	4317.7	4203.0	411.78 µg/L	411.78 ppb	19:30:20
3	Ni 231.604†	9445.6	8870.7	441.74 µg/L	441.74 ppb	19:30:00
3	P 214.914†	1095.4	1049.6	2035.1 µg/L	2035.1 ppb	19:30:20
3	Pb 220.353†	1899.2	1755.5	426.81 µg/L	426.81 ppb	19:30:20
3	S 181.975 Axial†	229.2	203.9	845.45 µg/L	845.45 ppb	19:30:20
3	Sb 206.836†	491.4	455.2	419.32 µg/L	419.32 ppb	19:30:20
3	Se 196.026†	335.0	306.4	438.20 µg/L	438.20 ppb	19:30:20
3	SiO2†	26768.8	24633.2	4862.3 µg/L	4862.3 ppb	19:30:00
3	Si 251.611†	31095.2	29920.3	2274.6 µg/L	2274.6 ppb	19:30:00
3	Sn 189.927†	986.7	958.9	404.42 µg/L	404.42 ppb	19:30:20
3	Ti 334.940†	208387.6	202420.4	447.48 µg/L	447.48 ppb	19:29:54
3	Tl 190.801†	323.7	337.1	443.33 µg/L	443.33 ppb	19:30:20
3	U 409.014†	5278.3	5208.6	431.75 µg/L	431.75 ppb	19:30:00
3	V 292.402†	45791.0	44563.0	439.48 µg/L	439.48 ppb	19:30:00
3	Zn 213.857†	20107.0	19013.7	442.90 µg/L	442.90 ppb	19:30:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2023258.5	103.06	%	0.189				0.18%
Sc RADIAL	58052.9	103	%	0.2				0.24%
Y 371.029	1389923.0	102.75	%	0.228				0.22%
Ag 328.068†	65117.4	485.84	µg/L	22.354	485.84	ppb	22.354	4.60%
QC value within limits for Ag 328.068 Recovery = 97.17%								
Al 396.153Radial†	7077.4	4913.6	µg/L	19.97	4913.6	ppb	19.97	0.41%
QC value within limits for Al 396.153Radial Recovery = 98.27%								
As 188.979†	271.6	485.95	µg/L	52.268	485.95	ppb	52.268	10.76%
QC value within limits for As 188.979 Recovery = 97.19%								
B 249.677†	11696.7	474.87	µg/L	24.588	474.87	ppb	24.588	5.18%
QC value within limits for B 249.677 Recovery = 94.97%								
Ba 233.527†	20169.0	485.07	µg/L	32.850	485.07	ppb	32.850	6.77%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	813182.4	482.44	µg/L	26.525	482.44	ppb	26.525	5.50%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	5777.9	4935.4	µg/L	22.97	4935.4	ppb	22.97	0.47%
QC value within limits for Ca 317.933Radial Recovery = 98.71%								
Cd 226.502†	19475.3	485.65	µg/L	33.674	485.65	ppb	33.674	6.93%
QC value within limits for Cd 226.502 Recovery = 97.13%								
Co 228.616†	10750.0	486.27	µg/L	36.817	486.27	ppb	36.817	7.57%

QC value within limits for Co 228.616 Recovery = 97.25%

Cr 267.716†	23951.5	481.37 µg/L	45.169	481.37 ppb	45.169	9.38%
QC value within limits for Cr 267.716 Recovery = 96.27%						
Cu 324.752†	73433.8	480.04 µg/L	35.005	480.04 ppb	35.005	7.29%
QC value within limits for Cu 324.752 Recovery = 96.01%						
Fe 238.204 Radial†	638.0	5042.1 µg/L	12.53	5042.1 ppb	12.53	0.25%
QC value within limits for Fe 238.204 Radial Recovery = 100.84%						
K 766.490 Radial†	7485.2	4888.7 µg/L	12.26	4888.7 ppb	12.26	0.25%
QC value within limits for K 766.490 Radial Recovery = 97.77%						
Mg 279.077 IEC†	563.4	5039.0 µg/L	41.01	5039.0 ppb	41.01	0.81%
QC value within limits for Mg 279.077 IEC Recovery = 100.78%						
Mn 257.610†	157125.1	492.51 µg/L	25.470	492.51 ppb	25.470	5.17%
QC value within limits for Mn 257.610 Recovery = 98.50%						
Mo 202.031†	4875.7	477.65 µg/L	57.638	477.65 ppb	57.638	12.07%
QC value within limits for Mo 202.031 Recovery = 95.53%						
Na 589.592 Radial†	32284.4	9915.9 µg/L	25.63	9915.9 ppb	25.63	0.26%
QC value within limits for Na 589.592 Radial Recovery = 99.16%						
Ni 231.604†	9719.5	484.00 µg/L	36.636	484.00 ppb	36.636	7.57%
QC value within limits for Ni 231.604 Recovery = 96.80%						
P 214.914†	1207.8	2345.0 µg/L	270.98	2345.0 ppb	270.98	11.56%
QC value within limits for P 214.914 Recovery = 93.80%						
Pb 220.353†	1974.0	480.00 µg/L	46.437	480.00 ppb	46.437	9.67%
QC value within limits for Pb 220.353 Recovery = 96.00%						
S 181.975 Axial†	230.6	956.35 µg/L	96.547	956.35 ppb	96.547	10.10%
QC value within limits for S 181.975 Axial Recovery = 95.63%						
Sb 206.836†	523.4	482.38 µg/L	55.814	482.38 ppb	55.814	11.57%
QC value within limits for Sb 206.836 Recovery = 96.48%						
Se 196.026†	346.8	494.89 µg/L	49.212	494.89 ppb	49.212	9.94%
QC value within limits for Se 196.026 Recovery = 98.98%						
SiO2†	26410.8	5213.1 µg/L	304.05	5213.1 ppb	304.05	5.83%
QC value within limits for SiO2 Recovery = 97.49%						
Si 251.611†	32134.1	2442.9 µg/L	145.79	2442.9 ppb	145.79	5.97%
QC value within limits for Si 251.611 Recovery = 97.72%						
Sn 189.927†	1134.6	478.51 µg/L	64.799	478.51 ppb	64.799	13.54%
QC value within limits for Sn 189.927 Recovery = 95.70%						
Sr 421.552†	52234.2	481.87 µg/L	1.162	481.87 ppb	1.162	0.24%
QC value within limits for Sr 421.552 Recovery = 96.37%						
Ti 334.940†	217355.5	480.52 µg/L	28.636	480.52 ppb	28.636	5.96%
QC value within limits for Ti 334.940 Recovery = 96.10%						
Tl 190.801†	370.6	487.18 µg/L	38.702	487.18 ppb	38.702	7.94%
QC value within limits for Tl 190.801 Recovery = 97.44%						
U 409.014†	5811.6	481.85 µg/L	43.409	481.85 ppb	43.409	9.01%
QC value within limits for U 409.014 Recovery = 96.37%						
V 292.402†	49140.8	484.77 µg/L	39.238	484.77 ppb	39.238	8.09%
QC value within limits for V 292.402 Recovery = 96.95%						
Zn 213.857†	20789.7	484.32 µg/L	35.886	484.32 ppb	35.886	7.41%
QC value within limits for Zn 213.857 Recovery = 96.86%						

All analyte(s) passed QC.

Sequence No.: 34 | **Autosampler Location: 8**
Sample ID: CCB | **Date Collected: 2/19/2010 19:30:31**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57803.7	57803.7	102	%			19:31:04
1	Al 396.153Radial†	-10.0	-17.1	-11.924	µg/L	-11.924	ppb	19:31:04
1	Ca 317.933Radial†	196.7	-19.1	-16.278	µg/L	-16.278	ppb	19:31:24
1	Fe 238.204 Radial†	20.4	3.4	26.456	µg/L	26.456	ppb	19:31:24
1	K 766.490 Radial†	206.4	36.8	24.007	µg/L	24.007	ppb	19:31:04
1	Mg 279.077 IEC†	12.2	-0.9	-8.3904	µg/L	-8.3904	ppb	19:31:24
1	Na 589.592 Radial†	467.0	-15.7	-4.8300	µg/L	-4.8300	ppb	19:31:04
1	Sr 421.552†	46.6	16.7	0.1542	µg/L	0.1542	ppb	19:31:04
1	Sc 361.383	2025799.3	2025799.3	103.19	%			19:32:26
1	Y 371.029	1395690.7	1395690.7	103.17	%			19:32:26
1	Ag 328.068†	-418.9	-4.3	-0.0299	µg/L	-0.0299	ppb	19:32:32
1	As 188.979†	5.7	6.0	10.690	µg/L	10.690	ppb	19:32:52
1	B 249.677†	346.4	-48.5	-1.9903	µg/L	-1.9903	ppb	19:32:52
1	Ba 233.527†	-10.1	7.3	0.1761	µg/L	0.1761	ppb	19:32:52
1	Be 313.107†	-2840.4	103.2	0.0611	µg/L	0.0611	ppb	19:32:32
1	Cd 226.502†	-141.4	4.7	0.1130	µg/L	0.1130	ppb	19:32:52
1	Co 228.616†	3.9	1.9	0.0851	µg/L	0.0851	ppb	19:32:52
1	Cr 267.716†	-52.3	-0.3	-0.0059	µg/L	-0.0059	ppb	19:32:32
1	Cu 324.752†	2589.2	-34.6	-0.2223	µg/L	-0.2223	ppb	19:32:32
1	Mn 257.610†	-125.9	134.0	0.4234	µg/L	0.4234	ppb	19:32:52
1	Mo 202.031†	-3.8	1.7	0.1637	µg/L	0.1637	ppb	19:32:52
1	Ni 231.604†	312.5	-9.5	-0.4735	µg/L	-0.4735	ppb	19:32:52
1	P 214.914†	19.0	3.1	6.0665	µg/L	6.0665	ppb	19:32:52
1	Pb 220.353†	87.4	-6.2	-1.5170	µg/L	-1.5170	ppb	19:32:52
1	S 181.975 Axial†	16.2	-3.2	-13.428	µg/L	-13.428	ppb	19:32:52
1	Sb 206.836†	17.3	-5.7	-5.2171	µg/L	-5.2171	ppb	19:32:52
1	Se 196.026†	14.6	-5.2	-7.2159	µg/L	-7.2159	ppb	19:32:52
1	SiO2†	1457.3	20.6	4.0713	µg/L	4.0713	ppb	19:32:32
1	Si 251.611†	367.4	45.4	3.4484	µg/L	3.4484	ppb	19:32:52
1	Sn 189.927†	2.9	2.5	1.0388	µg/L	1.0388	ppb	19:32:52
1	Ti 334.940†	320.1	135.2	0.2995	µg/L	0.2995	ppb	19:32:32
1	Tl 190.801†	-20.2	2.8	3.6951	µg/L	3.6951	ppb	19:32:52
1	U 409.014†	5.9	82.8	6.8777	µg/L	6.8777	ppb	19:32:32
1	V 292.402†	-40.7	5.3	0.0634	µg/L	0.0634	ppb	19:32:32
1	Zn 213.857†	538.4	-12.7	-0.2952	µg/L	-0.2952	ppb	19:32:52
2	Sc RADIAL	57446.2	57446.2	102	%			19:31:29
2	Al 396.153Radial†	-13.6	-20.7	-14.413	µg/L	-14.413	ppb	19:31:29
2	Ca 317.933Radial†	196.2	-18.3	-15.615	µg/L	-15.615	ppb	19:31:50
2	Fe 238.204 Radial†	16.6	-0.3	-2.1967	µg/L	-2.1967	ppb	19:31:50
2	K 766.490 Radial†	247.6	78.5	51.300	µg/L	51.300	ppb	19:31:29
2	Mg 279.077 IEC†	10.6	-2.4	-21.567	µg/L	-21.567	ppb	19:31:50
2	Na 589.592 Radial†	483.2	3.0	0.9277	µg/L	0.9277	ppb	19:31:29
2	Sr 421.552†	2.4	-26.4	-0.2440	µg/L	-0.2440	ppb	19:31:29
2	Sc 361.383	2031745.9	2031745.9	103.50	%			19:32:58
2	Y 371.029	1401392.4	1401392.4	103.60	%			19:32:58
2	Ag 328.068†	-396.7	18.3	0.1368	µg/L	0.1368	ppb	19:33:04
2	As 188.979†	0.2	0.6	1.1375	µg/L	1.1375	ppb	19:33:24
2	B 249.677†	348.5	-47.4	-1.9319	µg/L	-1.9319	ppb	19:33:24
2	Ba 233.527†	-17.3	0.3	0.0083	µg/L	0.0083	ppb	19:33:24
2	Be 313.107†	-2882.3	70.8	0.0419	µg/L	0.0419	ppb	19:33:04
2	Cd 226.502†	-137.7	8.6	0.2144	µg/L	0.2144	ppb	19:33:24
2	Co 228.616†	-1.5	-3.4	-0.1547	µg/L	-0.1547	ppb	19:33:24
2	Cr 267.716†	-68.0	-15.3	-0.3078	µg/L	-0.3078	ppb	19:33:04
2	Cu 324.752†	2609.0	-22.8	-0.1493	µg/L	-0.1493	ppb	19:33:04
2	Mn 257.610†	-117.6	142.3	0.4463	µg/L	0.4463	ppb	19:33:24
2	Mo 202.031†	-2.4	3.0	0.2951	µg/L	0.2951	ppb	19:33:24
2	Ni 231.604†	312.9	-10.0	-0.4983	µg/L	-0.4983	ppb	19:33:24
2	P 214.914†	11.5	-4.2	-8.3725	µg/L	-8.3725	ppb	19:33:24
2	Pb 220.353†	83.2	-10.5	-2.5612	µg/L	-2.5612	ppb	19:33:24

2	S 181.975 Axial†	19.8	0.2	0.8387 µg/L	0.8387 ppb	19:33:24
2	Sb 206.836†	25.4	2.1	1.9038 µg/L	1.9038 ppb	19:33:24
2	Se 196.026†	16.0	-3.9	-5.4218 µg/L	-5.4218 ppb	19:33:24
2	SiO2†	1425.4	-14.3	-2.8218 µg/L	-2.8218 ppb	19:33:04
2	Si 251.611†	386.0	62.4	4.7401 µg/L	4.7401 ppb	19:33:24
2	Sn 189.927†	-0.4	-0.8	-0.3347 µg/L	-0.3347 ppb	19:33:24
2	Ti 334.940†	346.5	159.8	0.3550 µg/L	0.3550 ppb	19:33:04
2	Tl 190.801†	-19.1	3.9	5.0976 µg/L	5.0976 ppb	19:33:24
2	U 409.014†	-2.7	74.5	6.1922 µg/L	6.1922 ppb	19:33:04
2	V 292.402†	-29.1	16.7	0.1702 µg/L	0.1702 ppb	19:33:04
2	Zn 213.857†	529.8	-22.5	-0.5234 µg/L	-0.5234 ppb	19:33:24
3	Sc RADIAL	56634.0	56634.0	100 %		19:31:55
3	Al 396.153Radial†	3.4	-4.0	-2.7853 µg/L	-2.7853 ppb	19:31:55
3	Ca 317.933Radial†	194.5	-17.2	-14.719 µg/L	-14.719 ppb	19:32:16
3	Fe 238.204 Radial†	18.7	2.1	16.416 µg/L	16.416 ppb	19:32:16
3	K 766.490 Radial†	165.0	-0.4	-0.2546 µg/L	-0.2546 ppb	19:31:55
3	Mg 279.077 IEC†	11.4	-1.4	-12.921 µg/L	-12.921 ppb	19:32:16
3	Na 589.592 Radial†	499.6	26.2	8.0527 µg/L	8.0527 ppb	19:31:55
3	Sr 421.552†	20.0	-8.9	-0.0818 µg/L	-0.0818 ppb	19:31:55
3	Sc 361.383	2031784.6	2031784.6	103.50 %		19:33:30
3	Y 371.029	1401143.1	1401143.1	103.58 %		19:33:30
3	Ag 328.068†	-447.4	-30.7	-0.2248 µg/L	-0.2248 ppb	19:33:36
3	As 188.979†	-3.2	-2.6	-4.7006 µg/L	-4.7006 ppb	19:33:57
3	B 249.677†	355.0	-41.1	-1.6835 µg/L	-1.6835 ppb	19:33:57
3	Ba 233.527†	-12.0	5.5	0.1329 µg/L	0.1329 ppb	19:33:57
3	Be 313.107†	-2752.0	196.7	0.1167 µg/L	0.1167 ppb	19:33:36
3	Cd 226.502†	-133.4	12.8	0.3163 µg/L	0.3163 ppb	19:33:57
3	Co 228.616†	5.6	3.5	0.1593 µg/L	0.1593 ppb	19:33:57
3	Cr 267.716†	-3.9	46.6	0.9367 µg/L	0.9367 ppb	19:33:36
3	Cu 324.752†	2597.8	-33.7	-0.2180 µg/L	-0.2180 ppb	19:33:36
3	Mn 257.610†	-109.9	149.9	0.4720 µg/L	0.4720 ppb	19:33:57
3	Mo 202.031†	-0.0	5.3	0.5227 µg/L	0.5227 ppb	19:33:57
3	Ni 231.604†	321.2	-2.0	-0.0983 µg/L	-0.0983 ppb	19:33:57
3	P 214.914†	15.7	-0.2	-0.3967 µg/L	-0.3967 ppb	19:33:57
3	Pb 220.353†	93.0	-1.1	-0.2629 µg/L	-0.2629 ppb	19:33:57
3	S 181.975 Axial†	17.9	-1.7	-6.9059 µg/L	-6.9059 ppb	19:33:57
3	Sb 206.836†	24.5	1.2	1.0976 µg/L	1.0976 ppb	19:33:57
3	Se 196.026†	13.0	-6.8	-9.4419 µg/L	-9.4419 ppb	19:33:57
3	SiO2†	1471.5	30.2	5.9619 µg/L	5.9619 ppb	19:33:36
3	Si 251.611†	378.8	55.4	4.2091 µg/L	4.2091 ppb	19:33:57
3	Sn 189.927†	1.2	0.8	0.3212 µg/L	0.3212 ppb	19:33:57
3	Ti 334.940†	295.3	110.3	0.2447 µg/L	0.2447 ppb	19:33:36
3	Tl 190.801†	-22.9	0.3	0.3574 µg/L	0.3574 ppb	19:33:57
3	U 409.014†	-14.1	63.5	5.2725 µg/L	5.2725 ppb	19:33:36
3	V 292.402†	-25.9	19.7	0.2057 µg/L	0.2057 ppb	19:33:36
3	Zn 213.857†	530.6	-21.8	-0.5098 µg/L	-0.5098 ppb	19:33:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2029776.6	103.40	%	0.175				0.17%
Sc RADIAL	57294.7	101	%	1.1				1.05%
Y 371.029	1399408.7	103.45	%	0.238				0.23%
Ag 328.068†	-5.5	-0.0393	µg/L	0.18096	-0.0393	ppb	0.18096	460.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.9	-9.7076	µg/L	6.12268	-9.7076	ppb	6.12268	63.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.3	2.3757	µg/L	7.76979	2.3757	ppb	7.76979	327.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-45.7	-1.8686	µg/L	0.16289	-1.8686	ppb	0.16289	8.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.4	0.1057	µg/L	0.08714	0.1057	ppb	0.08714	82.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	123.6	0.0732	µg/L	0.03884	0.0732	ppb	0.03884	53.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-18.2	-15.537	µg/L	0.7823	-15.537	ppb	0.7823	5.04%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.7	0.2146	µg/L	0.10166	0.2146	ppb	0.10166	47.38%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.7	0.0299	µg/L	0.16412	0.0299	ppb	0.16412	548.91%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.3      0.2077 µg/L       0.64914      0.2077 ppb        0.64914 312.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -30.4     -0.1965 µg/L       0.04097     -0.1965 ppb        0.04097  20.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.7      13.558 µg/L       14.5386      13.558 ppb        14.5386 107.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        38.3      25.017 µg/L       25.7921      25.017 ppb        25.7921 103.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.6     -14.293 µg/L        6.6944     -14.293 ppb         6.6944  46.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             142.1      0.4473 µg/L       0.02431      0.4473 ppb        0.02431   5.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.3      0.3272 µg/L       0.18162      0.3272 ppb        0.18162  55.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        4.5      1.3835 µg/L       6.45342      1.3835 ppb        6.45342 466.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -7.2     -0.3567 µg/L       0.22417     -0.3567 ppb        0.22417  62.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -0.5     -0.9009 µg/L       7.23268     -0.9009 ppb        7.23268 802.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -5.9     -1.4470 µg/L       1.15074     -1.4470 ppb        1.15074  79.52%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.6     -6.4984 µg/L       7.14204     -6.4984 ppb        7.14204 109.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.8     -0.7386 µg/L       3.89940     -0.7386 ppb        3.89940 527.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -5.3     -7.3599 µg/L       2.01391     -7.3599 ppb        2.01391  27.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    12.2      2.4038 µg/L       4.62317      2.4038 ppb        4.62317 192.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              54.4      4.1325 µg/L       0.64925      4.1325 ppb        0.64925  15.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.8      0.3418 µg/L       0.68701      0.3418 ppb        0.68701 201.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -6.2     -0.0572 µg/L       0.20025     -0.0572 ppb        0.20025 350.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             135.1      0.2997 µg/L       0.05511      0.2997 ppb        0.05511  18.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.3      3.0500 µg/L       2.43504      3.0500 ppb        2.43504  79.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               73.6      6.1141 µg/L       0.80544      6.1141 ppb        0.80544  13.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               13.9      0.1464 µg/L       0.07408      0.1464 ppb        0.07408  50.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -19.0     -0.4428 µg/L       0.12799     -0.4428 ppb        0.12799  28.90%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 42 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/19/2010 19:59:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58617.0	58617.0	104	%			19:59:42
1	Al 396.153Radial†	7256.0	6986.0	4849.5	µg/L	4849.5	ppb	19:59:42
1	Ca 317.933Radial†	6123.5	5690.6	4860.8	µg/L	4860.8	ppb	20:00:02
1	Fe 238.204 Radial†	667.2	626.5	4951.5	µg/L	4951.5	ppb	20:00:02
1	K 766.490 Radial†	7829.5	7381.2	4820.8	µg/L	4820.8	ppb	19:59:42
1	Mg 279.077 IEC†	588.8	554.6	4961.1	µg/L	4961.1	ppb	20:00:02
1	Na 589.592 Radial†	33301.2	31623.9	9713.1	µg/L	9713.1	ppb	19:59:42
1	Sr 421.552†	53397.7	51436.4	474.51	µg/L	474.51	ppb	19:59:42
1	Sc 361.383	2068511.8	2068511.8	105.37	%			20:01:05
1	Y 371.029	1423469.8	1423469.8	105.23	%			20:01:05
1	Ag 328.068†	67922.0	64862.9	484.01	µg/L	484.01	ppb	20:01:11
1	As 188.979†	296.0	281.4	503.36	µg/L	503.36	ppb	20:01:31
1	B 249.677†	12790.0	11754.2	477.28	µg/L	477.28	ppb	20:01:11
1	Ba 233.527†	21499.5	20421.1	491.13	µg/L	491.13	ppb	20:01:11
1	Be 313.107†	867694.3	826340.4	490.25	µg/L	490.25	ppb	20:01:05
1	Cd 226.502†	20783.9	19866.6	495.43	µg/L	495.43	ppb	20:01:11
1	Co 228.616†	11539.6	10949.8	495.33	µg/L	495.33	ppb	20:01:11
1	Cr 267.716†	25939.4	24668.1	495.77	µg/L	495.77	ppb	20:01:11
1	Cu 324.752†	80834.9	74172.6	484.85	µg/L	484.85	ppb	20:01:11
1	Mn 257.610†	167548.2	159267.5	499.21	µg/L	499.21	ppb	20:01:05
1	Mo 202.031†	5432.8	5161.4	505.62	µg/L	505.62	ppb	20:01:31
1	Ni 231.604†	10817.5	9954.0	495.67	µg/L	495.67	ppb	20:01:11
1	P 214.914†	1353.6	1269.3	2466.8	µg/L	2466.8	ppb	20:01:31
1	Pb 220.353†	2262.0	2055.8	499.95	µg/L	499.95	ppb	20:01:31
1	S 181.975 Axial†	272.7	239.9	994.69	µg/L	994.69	ppb	20:01:31
1	Sb 206.836†	591.4	538.8	496.84	µg/L	496.84	ppb	20:01:31
1	Se 196.026†	402.1	362.3	516.51	µg/L	516.51	ppb	20:01:31
1	SiO2†	29474.8	26581.5	5246.8	µg/L	5246.8	ppb	20:01:11
1	Si 251.611†	34348.3	32287.6	2454.6	µg/L	2454.6	ppb	20:01:11
1	Sn 189.927†	1273.6	1208.3	509.59	µg/L	509.59	ppb	20:01:31
1	Ti 334.940†	232532.4	220509.7	487.50	µg/L	487.50	ppb	20:01:05
1	Tl 190.801†	380.7	383.7	504.27	µg/L	504.27	ppb	20:01:31
1	U 409.014†	6183.0	5945.1	492.96	µg/L	492.96	ppb	20:01:11
1	V 292.402†	52726.6	50084.9	494.22	µg/L	494.22	ppb	20:01:11
1	Zn 213.857†	22867.3	21167.8	493.14	µg/L	493.14	ppb	20:01:11
2	Sc RADIAL	58636.6	58636.6	104	%			20:00:07
2	Al 396.153Radial†	7235.2	6963.6	4834.1	µg/L	4834.1	ppb	20:00:07
2	Ca 317.933Radial†	6136.1	5700.8	4869.5	µg/L	4869.5	ppb	20:00:28
2	Fe 238.204 Radial†	670.0	629.0	4971.2	µg/L	4971.2	ppb	20:00:28
2	K 766.490 Radial†	7740.8	7293.1	4763.3	µg/L	4763.3	ppb	20:00:07
2	Mg 279.077 IEC†	589.3	554.9	4963.5	µg/L	4963.5	ppb	20:00:28
2	Na 589.592 Radial†	33169.7	31486.4	9670.8	µg/L	9670.8	ppb	20:00:07
2	Sr 421.552†	53167.6	51197.6	472.31	µg/L	472.31	ppb	20:00:07
2	Sc 361.383	2055969.6	2055969.6	104.73	%			20:01:39
2	Y 371.029	1414871.3	1414871.3	104.59	%			20:01:39
2	Ag 328.068†	68170.5	65493.4	488.71	µg/L	488.71	ppb	20:01:44
2	As 188.979†	286.1	273.7	489.56	µg/L	489.56	ppb	20:02:05
2	B 249.677†	12871.2	11905.8	483.46	µg/L	483.46	ppb	20:01:44
2	Ba 233.527†	21540.4	20584.7	495.07	µg/L	495.07	ppb	20:01:44
2	Be 313.107†	866432.8	830159.5	492.52	µg/L	492.52	ppb	20:01:39
2	Cd 226.502†	20792.6	19995.3	498.64	µg/L	498.64	ppb	20:01:44
2	Co 228.616†	11548.2	11024.7	498.71	µg/L	498.71	ppb	20:01:44
2	Cr 267.716†	25975.2	24852.5	499.48	µg/L	499.48	ppb	20:01:44
2	Cu 324.752†	80962.2	74762.1	488.70	µg/L	488.70	ppb	20:01:44
2	Mn 257.610†	167284.8	159986.0	501.46	µg/L	501.46	ppb	20:01:39
2	Mo 202.031†	5294.1	5060.4	495.73	µg/L	495.73	ppb	20:02:05
2	Ni 231.604†	10791.2	9991.5	497.54	µg/L	497.54	ppb	20:01:44
2	P 214.914†	1329.3	1253.9	2435.7	µg/L	2435.7	ppb	20:02:05
2	Pb 220.353†	2213.3	2022.4	491.80	µg/L	491.80	ppb	20:02:05

2	S 181.975 Axial†	269.1	238.0	986.93 µg/L	986.93 ppb	20:02:05
2	Sb 206.836†	582.9	534.0	492.29 µg/L	492.29 ppb	20:02:05
2	Se 196.026†	393.7	356.6	508.59 µg/L	508.59 ppb	20:02:05
2	SiO2†	29657.1	26926.2	5314.9 µg/L	5314.9 ppb	20:01:44
2	Si 251.611†	34634.6	32759.9	2490.5 µg/L	2490.5 ppb	20:01:44
2	Sn 189.927†	1234.0	1177.9	496.78 µg/L	496.78 ppb	20:02:05
2	Ti 334.940†	231981.3	221329.7	489.32 µg/L	489.32 ppb	20:01:39
2	Tl 190.801†	381.4	386.5	507.93 µg/L	507.93 ppb	20:02:05
2	U 409.014†	6098.6	5900.3	489.23 µg/L	489.23 ppb	20:01:44
2	V 292.402†	52826.1	50485.1	498.06 µg/L	498.06 ppb	20:01:44
2	Zn 213.857†	22870.8	21303.6	496.31 µg/L	496.31 ppb	20:01:44
3	Sc RADIAL	59033.7	59033.7	104 %		20:00:33
3	Al 396.153Radial†	7290.5	6969.7	4840.1 µg/L	4840.1 ppb	20:00:33
3	Ca 317.933Radial†	6120.4	5646.0	4822.7 µg/L	4822.7 ppb	20:00:54
3	Fe 238.204 Radial†	666.4	621.2	4908.6 µg/L	4908.6 ppb	20:00:54
3	K 766.490 Radial†	7821.9	7320.6	4781.2 µg/L	4781.2 ppb	20:00:33
3	Mg 279.077 IEC†	587.2	549.1	4910.3 µg/L	4910.3 ppb	20:00:54
3	Na 589.592 Radial†	33485.2	31573.4	9697.6 µg/L	9697.6 ppb	20:00:33
3	Sr 421.552†	53913.2	51566.5	475.71 µg/L	475.71 ppb	20:00:33
3	Sc 361.383	2033065.7	2033065.7	103.56 %		20:02:12
3	Y 371.029	1398835.6	1398835.6	103.41 %		20:02:12
3	Ag 328.068†	63294.2	61518.2	458.88 µg/L	458.88 ppb	20:02:18
3	As 188.979†	245.5	237.5	424.87 µg/L	424.87 ppb	20:02:38
3	B 249.677†	11858.0	11065.9	449.15 µg/L	449.15 ppb	20:02:18
3	Ba 233.527†	19323.7	18676.0	449.14 µg/L	449.14 ppb	20:02:18
3	Be 313.107†	782866.8	758788.6	450.18 µg/L	450.18 ppb	20:02:12
3	Cd 226.502†	18556.4	18059.6	450.32 µg/L	450.32 ppb	20:02:18
3	Co 228.616†	10216.8	9863.3	446.13 µg/L	446.13 ppb	20:02:18
3	Cr 267.716†	22173.2	21460.7	431.32 µg/L	431.32 ppb	20:02:18
3	Cu 324.752†	72319.8	67287.9	439.90 µg/L	439.90 ppb	20:02:18
3	Mn 257.610†	151992.9	147019.7	460.85 µg/L	460.85 ppb	20:02:12
3	Mo 202.031†	4312.9	4169.9	408.53 µg/L	408.53 ppb	20:02:38
3	Ni 231.604†	9615.9	8972.7	446.82 µg/L	446.82 ppb	20:02:18
3	P 214.914†	1099.8	1046.6	2029.2 µg/L	2029.2 ppb	20:02:38
3	Pb 220.353†	1898.6	1742.3	423.60 µg/L	423.60 ppb	20:02:38
3	S 181.975 Axial†	229.2	202.4	839.15 µg/L	839.15 ppb	20:02:38
3	Sb 206.836†	490.6	451.2	415.60 µg/L	415.60 ppb	20:02:38
3	Se 196.026†	342.7	311.6	445.29 µg/L	445.29 ppb	20:02:38
3	SiO2†	27143.6	24818.1	4898.8 µg/L	4898.8 ppb	20:02:18
3	Si 251.611†	31477.2	30083.6	2287.0 µg/L	2287.0 ppb	20:02:18
3	Sn 189.927†	996.2	961.5	405.52 µg/L	405.52 ppb	20:02:38
3	Ti 334.940†	208374.6	201030.6	444.41 µg/L	444.41 ppb	20:02:12
3	Tl 190.801†	320.5	331.9	436.49 µg/L	436.49 ppb	20:02:38
3	U 409.014†	5350.1	5243.1	434.64 µg/L	434.64 ppb	20:02:18
3	V 292.402†	46198.8	44654.1	440.34 µg/L	440.34 ppb	20:02:18
3	Zn 213.857†	20325.7	19092.0	444.73 µg/L	444.73 ppb	20:02:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2052515.7	104.55	%	0.916				0.88%
Sc RADIAL	58762.4	104	%	0.4				0.40%
Y 371.029	1412392.2	104.41	%	0.924				0.89%
Ag 328.068†	63958.2	477.20	µg/L	16.037	477.20	ppb	16.037	3.36%
QC value within limits for Ag 328.068 Recovery = 95.44%								
Al 396.153Radial†	6973.1	4841.2	µg/L	7.74	4841.2	ppb	7.74	0.16%
QC value within limits for Al 396.153Radial Recovery = 96.82%								
As 188.979†	264.2	472.59	µg/L	41.905	472.59	ppb	41.905	8.87%
QC value within limits for As 188.979 Recovery = 94.52%								
B 249.677†	11575.3	469.96	µg/L	18.288	469.96	ppb	18.288	3.89%
QC value within limits for B 249.677 Recovery = 93.99%								
Ba 233.527†	19893.9	478.45	µg/L	25.456	478.45	ppb	25.456	5.32%
QC value within limits for Ba 233.527 Recovery = 95.69%								
Be 313.107†	805096.2	477.65	µg/L	23.819	477.65	ppb	23.819	4.99%
QC value within limits for Be 313.107 Recovery = 95.53%								
Ca 317.933Radial†	5679.2	4851.0	µg/L	24.88	4851.0	ppb	24.88	0.51%
QC value within limits for Ca 317.933Radial Recovery = 97.02%								
Cd 226.502†	19307.2	481.46	µg/L	27.019	481.46	ppb	27.019	5.61%
QC value within limits for Cd 226.502 Recovery = 96.29%								
Co 228.616†	10612.6	480.06	µg/L	29.431	480.06	ppb	29.431	6.13%

Sequence No.: 43
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 20:02:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57569.4	57569.4	102	%			20:03:20
1	Al 396.153Radial†	-22.6	-29.5	-20.579	µg/L	-20.579	ppb	20:03:20
1	Ca 317.933Radial†	198.2	-16.8	-14.330	µg/L	-14.330	ppb	20:03:40
1	Fe 238.204 Radial†	19.4	2.5	19.506	µg/L	19.506	ppb	20:03:40
1	K 766.490 Radial†	193.2	24.6	16.060	µg/L	16.060	ppb	20:03:20
1	Mg 279.077 IEC†	17.4	4.2	37.678	µg/L	37.678	ppb	20:03:40
1	Na 589.592 Radial†	507.7	26.1	8.0056	µg/L	8.0056	ppb	20:03:20
1	Sr 421.552†	69.4	39.3	0.3627	µg/L	0.3627	ppb	20:03:20
1	Sc 361.383	2028233.3	2028233.3	103.32	%			20:04:43
1	Y 371.029	1400221.9	1400221.9	103.51	%			20:04:43
1	Ag 328.068†	-425.8	-10.5	-0.0759	µg/L	-0.0759	ppb	20:04:48
1	As 188.979†	-0.0	0.4	0.7754	µg/L	0.7754	ppb	20:05:09
1	B 249.677†	384.2	-12.2	-0.5097	µg/L	-0.5097	ppb	20:05:09
1	Ba 233.527†	-8.4	9.0	0.2158	µg/L	0.2158	ppb	20:05:09
1	Be 313.107†	-2721.5	221.5	0.1313	µg/L	0.1313	ppb	20:04:48
1	Cd 226.502†	-138.1	8.0	0.1973	µg/L	0.1973	ppb	20:05:09
1	Co 228.616†	11.2	8.9	0.4024	µg/L	0.4024	ppb	20:05:09
1	Cr 267.716†	-77.7	-24.8	-0.4982	µg/L	-0.4982	ppb	20:04:48
1	Cu 324.752†	2603.6	-23.7	-0.1519	µg/L	-0.1519	ppb	20:04:48
1	Mn 257.610†	-163.1	98.1	0.3084	µg/L	0.3084	ppb	20:05:09
1	Mo 202.031†	7.5	12.6	1.2358	µg/L	1.2358	ppb	20:05:09
1	Ni 231.604†	299.1	-22.9	-1.1403	µg/L	-1.1403	ppb	20:05:09
1	P 214.914†	14.2	-1.6	-3.2353	µg/L	-3.2353	ppb	20:05:09
1	Pb 220.353†	90.8	-3.0	-0.7394	µg/L	-0.7394	ppb	20:05:09
1	S 181.975 Axial†	13.4	-5.9	-24.623	µg/L	-24.623	ppb	20:05:09
1	Sb 206.836†	25.4	2.1	1.9281	µg/L	1.9281	ppb	20:05:09
1	Se 196.026†	24.1	4.0	5.6292	µg/L	5.6292	ppb	20:05:09
1	SiO2†	1495.3	55.8	11.008	µg/L	11.008	ppb	20:04:48
1	Si 251.611†	422.4	98.2	7.4686	µg/L	7.4686	ppb	20:05:09
1	Sn 189.927†	3.5	3.0	1.2550	µg/L	1.2550	ppb	20:05:09
1	Ti 334.940†	384.2	196.9	0.4323	µg/L	0.4323	ppb	20:04:48
1	Tl 190.801†	-27.9	-4.6	-5.9805	µg/L	-5.9805	ppb	20:05:09
1	U 409.014†	2.8	79.8	6.6302	µg/L	6.6302	ppb	20:04:48
1	V 292.402†	-37.2	8.7	0.1027	µg/L	0.1027	ppb	20:04:48
1	Zn 213.857†	546.8	-5.1	-0.1177	µg/L	-0.1177	ppb	20:05:09
2	Sc RADIAL	57517.3	57517.3	102	%			20:03:46
2	Al 396.153Radial†	-0.6	-7.9	-5.5362	µg/L	-5.5362	ppb	20:03:46
2	Ca 317.933Radial†	193.6	-21.1	-17.995	µg/L	-17.995	ppb	20:04:06
2	Fe 238.204 Radial†	17.2	0.3	2.2760	µg/L	2.2760	ppb	20:04:06
2	K 766.490 Radial†	220.4	51.5	33.663	µg/L	33.663	ppb	20:03:46
2	Mg 279.077 IEC†	7.2	-5.8	-51.579	µg/L	-51.579	ppb	20:04:06
2	Na 589.592 Radial†	510.7	29.4	9.0386	µg/L	9.0386	ppb	20:03:46
2	Sr 421.552†	54.5	24.8	0.2285	µg/L	0.2285	ppb	20:03:46
2	Sc 361.383	2037744.1	2037744.1	103.80	%			20:05:15
2	Y 371.029	1408689.0	1408689.0	104.13	%			20:05:15
2	Ag 328.068†	-451.1	-32.9	-0.2433	µg/L	-0.2433	ppb	20:05:20
2	As 188.979†	-1.3	-0.8	-1.5061	µg/L	-1.5061	ppb	20:05:41
2	B 249.677†	373.4	-24.4	-0.9937	µg/L	-0.9937	ppb	20:05:41
2	Ba 233.527†	-11.7	5.8	0.1389	µg/L	0.1389	ppb	20:05:41
2	Be 313.107†	-2676.0	277.7	0.1647	µg/L	0.1647	ppb	20:05:20
2	Cd 226.502†	-133.2	13.4	0.3334	µg/L	0.3334	ppb	20:05:41
2	Co 228.616†	1.8	-0.2	-0.0098	µg/L	-0.0098	ppb	20:05:41
2	Cr 267.716†	-26.9	24.5	0.4922	µg/L	0.4922	ppb	20:05:20
2	Cu 324.752†	2624.5	-15.4	-0.0999	µg/L	-0.0999	ppb	20:05:20
2	Mn 257.610†	-174.3	88.1	0.2782	µg/L	0.2782	ppb	20:05:41
2	Mo 202.031†	-0.9	4.5	0.4383	µg/L	0.4383	ppb	20:05:41
2	Ni 231.604†	325.1	0.9	0.0446	µg/L	0.0446	ppb	20:05:41
2	P 214.914†	14.3	-1.6	-3.1937	µg/L	-3.1937	ppb	20:05:41
2	Pb 220.353†	89.5	-4.7	-1.1490	µg/L	-1.1490	ppb	20:05:41

2	S 181.975 Axial†	14.0	-5.5	-22.637 µg/L	-22.637 ppb	20:05:41
2	Sb 206.836†	15.2	-7.8	-7.1701 µg/L	-7.1701 ppb	20:05:41
2	Se 196.026†	20.1	0.0	0.0726 µg/L	0.0726 ppb	20:05:41
2	SiO2†	1557.2	108.6	21.433 µg/L	21.433 ppb	20:05:20
2	Si 251.611†	433.2	106.7	8.1144 µg/L	8.1144 ppb	20:05:41
2	Sn 189.927†	-0.5	-0.9	-0.3787 µg/L	-0.3787 ppb	20:05:41
2	Ti 334.940†	337.5	150.1	0.3359 µg/L	0.3359 ppb	20:05:20
2	Tl 190.801†	-19.6	3.5	4.5946 µg/L	4.5946 ppb	20:05:41
2	U 409.014†	-41.0	37.6	3.1255 µg/L	3.1255 ppb	20:05:20
2	V 292.402†	-37.8	8.4	0.0896 µg/L	0.0896 ppb	20:05:20
2	Zn 213.857†	536.8	-17.3	-0.4029 µg/L	-0.4029 ppb	20:05:41
3	Sc RADIAL	57101.8	57101.8	101 %		20:04:12
3	Al 396.153Radial†	-30.6	-37.6	-26.198 µg/L	-26.198 ppb	20:04:12
3	Ca 317.933Radial†	202.0	-11.4	-9.7154 µg/L	-9.7154 ppb	20:04:32
3	Fe 238.204 Radial†	16.6	-0.1	-0.8955 µg/L	-0.8955 ppb	20:04:32
3	K 766.490 Radial†	248.0	80.4	52.520 µg/L	52.520 ppb	20:04:12
3	Mg 279.077 IEC†	11.1	-1.9	-16.608 µg/L	-16.608 ppb	20:04:32
3	Na 589.592 Radial†	462.4	-14.7	-4.5060 µg/L	-4.5060 ppb	20:04:12
3	Sr 421.552†	86.8	57.1	0.5266 µg/L	0.5266 ppb	20:04:12
3	Sc 361.383	2024969.7	2024969.7	103.15 %		20:05:47
3	Y 371.029	1398302.4	1398302.4	103.37 %		20:05:47
3	Ag 328.068†	-423.6	-9.1	-0.0674 µg/L	-0.0674 ppb	20:05:53
3	As 188.979†	-1.6	-1.1	-1.9285 µg/L	-1.9285 ppb	20:06:13
3	B 249.677†	379.2	-16.5	-0.6717 µg/L	-0.6717 ppb	20:06:13
3	Ba 233.527†	0.7	17.8	0.4269 µg/L	0.4269 ppb	20:06:13
3	Be 313.107†	-2714.8	223.8	0.1327 µg/L	0.1327 ppb	20:05:53
3	Cd 226.502†	-132.0	13.7	0.3404 µg/L	0.3404 ppb	20:06:13
3	Co 228.616†	-1.2	-3.1	-0.1385 µg/L	-0.1385 ppb	20:06:13
3	Cr 267.716†	-33.0	18.3	0.3686 µg/L	0.3686 ppb	20:05:53
3	Cu 324.752†	2577.7	-44.8	-0.2926 µg/L	-0.2926 ppb	20:05:53
3	Mn 257.610†	-197.2	64.8	0.2036 µg/L	0.2036 ppb	20:06:13
3	Mo 202.031†	6.7	11.8	1.1572 µg/L	1.1572 ppb	20:06:13
3	Ni 231.604†	298.5	-22.9	-1.1431 µg/L	-1.1431 ppb	20:06:13
3	P 214.914†	13.3	-2.5	-4.8521 µg/L	-4.8521 ppb	20:06:13
3	Pb 220.353†	83.9	-9.6	-2.3299 µg/L	-2.3299 ppb	20:06:13
3	S 181.975 Axial†	20.3	0.8	3.2471 µg/L	3.2471 ppb	20:06:13
3	Sb 206.836†	24.6	1.3	1.2371 µg/L	1.2371 ppb	20:06:13
3	Se 196.026†	22.2	2.2	3.1385 µg/L	3.1385 ppb	20:06:13
3	SiO2†	1561.1	121.8	24.043 µg/L	24.043 ppb	20:05:53
3	Si 251.611†	451.8	127.4	9.6851 µg/L	9.6851 ppb	20:06:13
3	Sn 189.927†	2.9	2.4	1.0100 µg/L	1.0100 ppb	20:06:13
3	Ti 334.940†	371.5	185.1	0.4107 µg/L	0.4107 ppb	20:05:53
3	Tl 190.801†	-21.0	2.0	2.6499 µg/L	2.6499 ppb	20:06:13
3	U 409.014†	-27.8	50.1	4.1641 µg/L	4.1641 ppb	20:05:53
3	V 292.402†	-46.3	-0.1	0.0127 µg/L	0.0127 ppb	20:05:53
3	Zn 213.857†	547.9	-3.2	-0.0687 µg/L	-0.0687 ppb	20:06:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2030315.7	103.42	%	0.338				0.33%
Sc RADIAL	57396.2	102	%	0.5				0.45%
Y 371.029	1402404.4	103.67	%	0.409				0.39%
Ag 328.068†	-17.5	-0.1289	µg/L	0.09924	-0.1289	ppb	0.09924	77.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-25.0	-17.437	µg/L	10.6828	-17.437	ppb	10.6828	61.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.8864	µg/L	1.45458	-0.8864	ppb	1.45458	164.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.7	-0.7250	µg/L	0.24636	-0.7250	ppb	0.24636	33.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.8	0.2605	µg/L	0.14916	0.2605	ppb	0.14916	57.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	241.0	0.1429	µg/L	0.01888	0.1429	ppb	0.01888	13.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-16.4	-14.013	µg/L	4.1488	-14.013	ppb	4.1488	29.61%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.2904	µg/L	0.08067	0.2904	ppb	0.08067	27.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.9	0.0847	µg/L	0.28258	0.0847	ppb	0.28258	333.70%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                6.0      0.1209 µg/L       0.53966      0.1209 ppb        0.53966 446.50%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -27.9     -0.1815 µg/L       0.09969     -0.1815 ppb        0.09969  54.94%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.9      6.9622 µg/L      10.97852      6.9622 ppb       10.97852 157.69%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         52.2      34.081 µg/L       18.2334      34.081 ppb        18.2334  53.50%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.1     -10.170 µg/L       44.9756     -10.170 ppb        44.9756 442.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               83.7      0.2634 µg/L       0.05392      0.2634 ppb        0.05392  20.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.6      0.9437 µg/L       0.43952      0.9437 ppb        0.43952  46.57%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        13.6      4.1794 µg/L       7.53951      4.1794 ppb        7.53951 180.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -15.0     -0.7463 µg/L       0.68489     -0.7463 ppb        0.68489  91.77%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -1.9     -3.7603 µg/L       0.94573     -3.7603 ppb        0.94573  25.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.8     -1.4061 µg/L       0.82584     -1.4061 ppb        0.82584  58.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.5     -14.671 µg/L       15.5492     -14.671 ppb        15.5492 105.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.5     -1.3350 µg/L       5.06517     -1.3350 ppb        5.06517 379.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.1      2.9468 µg/L       2.78328      2.9468 ppb        2.78328  94.45%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     95.4      18.828 µg/L        6.8971      18.828 ppb         6.8971  36.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              110.8      8.4227 µg/L       1.13993      8.4227 ppb        1.13993  13.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.5      0.6288 µg/L       0.88102      0.6288 ppb        0.88102 140.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               40.4      0.3726 µg/L       0.14931      0.3726 ppb        0.14931  40.07%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              177.4      0.3930 µg/L       0.05061      0.3930 ppb        0.05061  12.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.3      0.4213 µg/L       5.62878      0.4213 ppb        5.62878 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                55.8      4.6399 µg/L       1.80015      4.6399 ppb        1.80015  38.80%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 5.7      0.0683 µg/L       0.04863      0.0683 ppb        0.04863  71.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -8.5     -0.1964 µg/L       0.18047     -0.1964 ppb        0.18047  91.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 52
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 20:35:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57811.0	57811.0	102	%			20:36:24
1	Al 396.153Radial†	7388.1	7212.6	5006.8	µg/L	5006.8	ppb	20:36:24
1	Ca 317.933Radial†	6190.3	5838.2	4986.9	µg/L	4986.9	ppb	20:36:45
1	Fe 238.204 Radial†	686.3	654.2	5170.0	µg/L	5170.0	ppb	20:36:45
1	K 766.490 Radial†	7863.0	7519.2	4910.9	µg/L	4910.9	ppb	20:36:24
1	Mg 279.077 IEC†	595.3	569.0	5089.2	µg/L	5089.2	ppb	20:36:45
1	Na 589.592 Radial†	33730.1	32490.4	9979.2	µg/L	9979.2	ppb	20:36:24
1	Sr 421.552†	54087.0	52827.6	487.34	µg/L	487.34	ppb	20:36:24
1	Sc 361.383	2027762.0	2027762.0	103.29	%			20:37:48
1	Y 371.029	1396189.5	1396189.5	103.21	%			20:37:48
1	Ag 328.068†	68163.2	66391.9	495.42	µg/L	495.42	ppb	20:37:54
1	As 188.979†	292.5	283.7	507.44	µg/L	507.44	ppb	20:38:14
1	B 249.677†	12787.8	11996.0	487.04	µg/L	487.04	ppb	20:37:54
1	Ba 233.527†	21558.1	20888.0	502.36	µg/L	502.36	ppb	20:37:54
1	Be 313.107†	866205.3	841447.6	499.21	µg/L	499.21	ppb	20:37:48
1	Cd 226.502†	20872.3	20348.6	507.44	µg/L	507.44	ppb	20:37:54
1	Co 228.616†	11546.5	11176.4	505.59	µg/L	505.59	ppb	20:37:54
1	Cr 267.716†	26035.2	25255.6	507.58	µg/L	507.58	ppb	20:37:54
1	Cu 324.752†	80912.1	75789.0	495.43	µg/L	495.43	ppb	20:37:54
1	Mn 257.610†	167567.2	162481.4	509.30	µg/L	509.30	ppb	20:37:48
1	Mo 202.031†	5499.7	5329.7	522.12	µg/L	522.12	ppb	20:38:14
1	Ni 231.604†	10852.6	10194.3	507.64	µg/L	507.64	ppb	20:37:54
1	P 214.914†	1371.9	1312.8	2552.0	µg/L	2552.0	ppb	20:38:14
1	Pb 220.353†	2293.7	2129.7	517.93	µg/L	517.93	ppb	20:38:14
1	S 181.975 Axial†	271.3	243.7	1010.7	µg/L	1010.7	ppb	20:38:14
1	Sb 206.836†	610.9	568.9	524.60	µg/L	524.60	ppb	20:38:14
1	Se 196.026†	405.3	373.1	532.19	µg/L	532.19	ppb	20:38:14
1	SiO2†	29562.8	27228.8	5374.6	µg/L	5374.6	ppb	20:37:54
1	Si 251.611†	34535.5	33124.0	2518.1	µg/L	2518.1	ppb	20:37:54
1	Sn 189.927†	1288.7	1247.3	526.02	µg/L	526.02	ppb	20:38:14
1	Ti 334.940†	232020.0	224448.5	496.21	µg/L	496.21	ppb	20:37:48
1	Tl 190.801†	381.3	391.6	514.57	µg/L	514.57	ppb	20:38:14
1	U 409.014†	6126.5	6008.3	498.17	µg/L	498.17	ppb	20:37:54
1	V 292.402†	52790.3	51152.2	504.81	µg/L	504.81	ppb	20:37:54
1	Zn 213.857†	22965.6	21699.1	505.52	µg/L	505.52	ppb	20:37:54
2	Sc RADIAL	57688.1	57688.1	102	%			20:36:50
2	Al 396.153Radial†	7347.5	7188.2	4990.2	µg/L	4990.2	ppb	20:36:50
2	Ca 317.933Radial†	6170.4	5831.6	4981.2	µg/L	4981.2	ppb	20:37:11
2	Fe 238.204 Radial†	679.7	649.0	5129.7	µg/L	5129.7	ppb	20:37:11
2	K 766.490 Radial†	7862.4	7534.9	4921.2	µg/L	4921.2	ppb	20:36:50
2	Mg 279.077 IEC†	586.2	561.2	5019.8	µg/L	5019.8	ppb	20:37:11
2	Na 589.592 Radial†	33629.0	32461.7	9970.4	µg/L	9970.4	ppb	20:36:50
2	Sr 421.552†	53906.2	52763.0	486.75	µg/L	486.75	ppb	20:36:50
2	Sc 361.383	2033079.9	2033079.9	103.56	%			20:38:21
2	Y 371.029	1400966.0	1400966.0	103.56	%			20:38:21
2	Ag 328.068†	68767.8	66803.0	498.49	µg/L	498.49	ppb	20:38:27
2	As 188.979†	289.6	280.1	501.07	µg/L	501.07	ppb	20:38:48
2	B 249.677†	12962.6	12132.4	492.63	µg/L	492.63	ppb	20:38:27
2	Ba 233.527†	21784.9	21052.3	506.31	µg/L	506.31	ppb	20:38:27
2	Be 313.107†	868836.4	841794.7	499.42	µg/L	499.42	ppb	20:38:21
2	Cd 226.502†	21029.8	20447.8	509.92	µg/L	509.92	ppb	20:38:27
2	Co 228.616†	11697.0	11292.5	510.83	µg/L	510.83	ppb	20:38:27
2	Cr 267.716†	26246.5	25393.7	510.36	µg/L	510.36	ppb	20:38:27
2	Cu 324.752†	81619.6	76267.2	498.55	µg/L	498.55	ppb	20:38:27
2	Mn 257.610†	168162.1	162631.5	509.76	µg/L	509.76	ppb	20:38:21
2	Mo 202.031†	5295.6	5118.8	501.46	µg/L	501.46	ppb	20:38:48
2	Ni 231.604†	10929.3	10240.9	509.96	µg/L	509.96	ppb	20:38:27
2	P 214.914†	1331.9	1270.7	2468.1	µg/L	2468.1	ppb	20:38:48
2	Pb 220.353†	2225.5	2057.9	500.41	µg/L	500.41	ppb	20:38:48

2	S 181.975 Axial†	269.1	240.9	999.11 µg/L	999.11 ppb	20:38:48
2	Sb 206.836†	587.1	544.4	501.78 µg/L	501.78 ppb	20:38:48
2	Se 196.026†	397.3	364.3	519.74 µg/L	519.74 ppb	20:38:48
2	SiO2†	29990.1	27566.6	5441.3 µg/L	5441.3 ppb	20:38:27
2	Si 251.611†	34935.7	33422.9	2540.9 µg/L	2540.9 ppb	20:38:27
2	Sn 189.927†	1242.7	1199.6	505.90 µg/L	505.90 ppb	20:38:48
2	Ti 334.940†	232729.3	224545.8	496.43 µg/L	496.43 ppb	20:38:21
2	Tl 190.801†	371.6	381.2	501.12 µg/L	501.12 ppb	20:38:48
2	U 409.014†	6316.5	6176.2	512.13 µg/L	512.13 ppb	20:38:27
2	V 292.402†	53367.3	51575.7	508.79 µg/L	508.79 ppb	20:38:27
2	Zn 213.857†	23160.5	21829.2	508.56 µg/L	508.56 ppb	20:38:27
3	Sc RADIAL	57760.3	57760.3	102 %		20:37:16
3	Al 396.153Radial†	7302.7	7135.4	4955.4 µg/L	4955.4 ppb	20:37:16
3	Ca 317.933Radial†	6153.2	5807.2	4960.4 µg/L	4960.4 ppb	20:37:37
3	Fe 238.204 Radial†	676.8	645.4	5100.0 µg/L	5100.0 ppb	20:37:37
3	K 766.490 Radial†	7938.5	7599.7	4963.5 µg/L	4963.5 ppb	20:37:16
3	Mg 279.077 IEC†	588.7	563.0	5033.9 µg/L	5033.9 ppb	20:37:37
3	Na 589.592 Radial†	33538.1	32331.6	9930.4 µg/L	9930.4 ppb	20:37:16
3	Sr 421.552†	53805.7	52598.9	485.23 µg/L	485.23 ppb	20:37:16
3	Sc 361.383	2033958.3	2033958.3	103.61 %		20:38:55
3	Y 371.029	1400977.3	1400977.3	103.56 %		20:38:55
3	Ag 328.068†	62963.6	61172.3	456.31 µg/L	456.31 ppb	20:39:00
3	As 188.979†	248.4	240.2	429.67 µg/L	429.67 ppb	20:39:21
3	B 249.677†	11744.3	10951.1	444.37 µg/L	444.37 ppb	20:39:00
3	Ba 233.527†	19280.0	18625.6	447.93 µg/L	447.93 ppb	20:39:00
3	Be 313.107†	786101.6	761579.0	451.83 µg/L	451.83 ppb	20:38:55
3	Cd 226.502†	18540.5	18036.5	449.72 µg/L	449.72 ppb	20:39:00
3	Co 228.616†	10152.5	9797.0	443.12 µg/L	443.12 ppb	20:39:00
3	Cr 267.716†	22048.4	21330.9	428.71 µg/L	428.71 ppb	20:39:00
3	Cu 324.752†	71642.8	66603.9	435.46 µg/L	435.46 ppb	20:39:00
3	Mn 257.610†	152739.1	147675.5	462.92 µg/L	462.92 ppb	20:38:55
3	Mo 202.031†	4325.4	4180.1	409.54 µg/L	409.54 ppb	20:39:21
3	Ni 231.604†	9564.0	8918.6	444.13 µg/L	444.13 ppb	20:39:00
3	P 214.914†	1113.3	1059.1	2054.4 µg/L	2054.4 ppb	20:39:21
3	Pb 220.353†	1908.3	1750.9	425.71 µg/L	425.71 ppb	20:39:21
3	S 181.975 Axial†	235.9	208.8	865.74 µg/L	865.74 ppb	20:39:21
3	Sb 206.836†	489.0	449.5	414.04 µg/L	414.04 ppb	20:39:21
3	Se 196.026†	343.4	312.2	446.46 µg/L	446.46 ppb	20:39:21
3	SiO2†	26970.8	24639.8	4863.6 µg/L	4863.6 ppb	20:39:00
3	Si 251.611†	31321.6	29920.1	2274.6 µg/L	2274.6 ppb	20:39:00
3	Sn 189.927†	1005.3	969.9	409.06 µg/L	409.06 ppb	20:39:21
3	Ti 334.940†	209022.0	201567.2	445.59 µg/L	445.59 ppb	20:38:55
3	Tl 190.801†	324.2	335.3	441.01 µg/L	441.01 ppb	20:39:21
3	U 409.014†	5266.4	5160.0	427.71 µg/L	427.71 ppb	20:39:00
3	V 292.402†	45851.9	44299.7	436.90 µg/L	436.90 ppb	20:39:00
3	Zn 213.857†	20248.2	19008.5	442.78 µg/L	442.78 ppb	20:39:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2031600.1	103.49	%	0.171				0.17%
Sc RADIAL	57753.1	102	%	0.1				0.11%
Y 371.029	1399377.6	103.45	%	0.204				0.20%
Ag 328.068†	64789.1	483.41	µg/L	23.516	483.41	ppb	23.516	4.86%
QC value within limits for Ag 328.068 Recovery = 96.68%								
Al 396.153Radial†	7178.8	4984.1	µg/L	26.23	4984.1	ppb	26.23	0.53%
QC value within limits for Al 396.153Radial Recovery = 99.68%								
As 188.979†	268.0	479.39	µg/L	43.175	479.39	ppb	43.175	9.01%
QC value within limits for As 188.979 Recovery = 95.88%								
B 249.677†	11693.1	474.68	µg/L	26.400	474.68	ppb	26.400	5.56%
QC value within limits for B 249.677 Recovery = 94.94%								
Ba 233.527†	20188.6	485.53	µg/L	32.628	485.53	ppb	32.628	6.72%
QC value within limits for Ba 233.527 Recovery = 97.11%								
Be 313.107†	814940.4	483.49	µg/L	27.416	483.49	ppb	27.416	5.67%
QC value within limits for Be 313.107 Recovery = 96.70%								
Ca 317.933Radial†	5825.7	4976.2	µg/L	13.94	4976.2	ppb	13.94	0.28%
QC value within limits for Ca 317.933Radial Recovery = 99.52%								
Cd 226.502†	19610.9	489.02	µg/L	34.065	489.02	ppb	34.065	6.97%
QC value within limits for Cd 226.502 Recovery = 97.80%								
Co 228.616†	10755.3	486.52	µg/L	37.669	486.52	ppb	37.669	7.74%

QC value within limits for Co 228.616 Recovery = 97.30%

Cr 267.716†	23993.4	482.21 µg/L	46.358	482.21 ppb	46.358	9.61%

QC value within limits for Cr 267.716 Recovery = 96.44%

Cu 324.752†	72886.7	476.48 µg/L	35.555	476.48 ppb	35.555	7.46%

QC value within limits for Cu 324.752 Recovery = 95.30%

Fe 238.204 Radial†	649.5	5133.2 µg/L	35.15	5133.2 ppb	35.15	0.68%

QC value within limits for Fe 238.204 Radial Recovery = 102.66%

K 766.490 Radial†	7551.3	4931.9 µg/L	27.89	4931.9 ppb	27.89	0.57%

QC value within limits for K 766.490 Radial Recovery = 98.64%

Mg 279.077 IEC†	564.4	5047.6 µg/L	36.69	5047.6 ppb	36.69	0.73%

QC value within limits for Mg 279.077 IEC Recovery = 100.95%

Mn 257.610†	157596.1	494.00 µg/L	26.909	494.00 ppb	26.909	5.45%

QC value within limits for Mn 257.610 Recovery = 98.80%

Mo 202.031†	4876.2	477.70 µg/L	59.931	477.70 ppb	59.931	12.55%

QC value within limits for Mo 202.031 Recovery = 95.54%

Na 589.592 Radial†	32427.9	9960.0 µg/L	26.00	9960.0 ppb	26.00	0.26%

QC value within limits for Na 589.592 Radial Recovery = 99.60%

Ni 231.604†	9784.6	487.24 µg/L	37.359	487.24 ppb	37.359	7.67%

QC value within limits for Ni 231.604 Recovery = 97.45%

P 214.914†	1214.2	2358.2 µg/L	266.40	2358.2 ppb	266.40	11.30%

QC value within limits for P 214.914 Recovery = 94.33%

Pb 220.353†	1979.5	481.35 µg/L	48.976	481.35 ppb	48.976	10.17%

QC value within limits for Pb 220.353 Recovery = 96.27%

S 181.975 Axial†	231.1	958.52 µg/L	80.559	958.52 ppb	80.559	8.40%

QC value within limits for S 181.975 Axial Recovery = 95.85%

Sb 206.836†	520.9	480.14 µg/L	58.372	480.14 ppb	58.372	12.16%

QC value within limits for Sb 206.836 Recovery = 96.03%

Se 196.026†	349.9	499.46 µg/L	46.321	499.46 ppb	46.321	9.27%

QC value within limits for Se 196.026 Recovery = 99.89%

SiO2†	26478.4	5226.5 µg/L	316.05	5226.5 ppb	316.05	6.05%

QC value within limits for SiO2 Recovery = 97.74%

Si 251.611†	32155.7	2444.5 µg/L	147.62	2444.5 ppb	147.62	6.04%

QC value within limits for Si 251.611 Recovery = 97.78%

Sn 189.927†	1138.9	480.33 µg/L	62.530	480.33 ppb	62.530	13.02%

QC value within limits for Sn 189.927 Recovery = 96.07%

Sr 421.552†	52729.8	486.44 µg/L	1.088	486.44 ppb	1.088	0.22%

QC value within limits for Sr 421.552 Recovery = 97.29%

Ti 334.940†	216853.8	479.41 µg/L	29.286	479.41 ppb	29.286	6.11%

QC value within limits for Ti 334.940 Recovery = 95.88%

Tl 190.801†	369.4	485.57 µg/L	39.170	485.57 ppb	39.170	8.07%

QC value within limits for Tl 190.801 Recovery = 97.11%

U 409.014†	5781.5	479.34 µg/L	45.254	479.34 ppb	45.254	9.44%

QC value within limits for U 409.014 Recovery = 95.87%

V 292.402†	49009.2	483.50 µg/L	40.407	483.50 ppb	40.407	8.36%

QC value within limits for V 292.402 Recovery = 96.70%

Zn 213.857†	20845.6	485.62 µg/L	37.132	485.62 ppb	37.132	7.65%

QC value within limits for Zn 213.857 Recovery = 97.12%

All analyte(s) passed QC.

Sequence No.: 53
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 20:39:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57162.5	57162.5	101	%			20:40:03
1	Al 396.153Radial†	-20.6	-27.7	-19.312	µg/L	-19.312	ppb	20:40:03
1	Ca 317.933Radial†	195.3	-18.2	-15.572	µg/L	-15.572	ppb	20:40:24
1	Fe 238.204 Radial†	18.3	1.6	12.247	µg/L	12.247	ppb	20:40:24
1	K 766.490 Radial†	190.9	23.7	15.502	µg/L	15.502	ppb	20:40:03
1	Mg 279.077 IEC†	9.0	-3.9	-34.969	µg/L	-34.969	ppb	20:40:24
1	Na 589.592 Radial†	476.5	-1.2	-0.3760	µg/L	-0.3760	ppb	20:40:03
1	Sr 421.552†	42.5	13.2	0.1218	µg/L	0.1218	ppb	20:40:03
1	Sc 361.383	2005809.0	2005809.0	102.17	%			20:41:26
1	Y 371.029	1386566.9	1386566.9	102.50	%			20:41:26
1	Ag 328.068†	-356.9	52.3	0.3879	µg/L	0.3879	ppb	20:41:31
1	As 188.979†	-5.8	-5.3	-9.4245	µg/L	-9.4245	ppb	20:41:52
1	B 249.677†	364.0	-27.9	-1.1423	µg/L	-1.1423	ppb	20:41:52
1	Ba 233.527†	-8.2	9.1	0.2179	µg/L	0.2179	ppb	20:41:52
1	Be 313.107†	-2726.8	187.0	0.1108	µg/L	0.1108	ppb	20:41:31
1	Cd 226.502†	-147.9	-3.1	-0.0778	µg/L	-0.0778	ppb	20:41:52
1	Co 228.616†	7.1	5.0	0.2268	µg/L	0.2268	ppb	20:41:52
1	Cr 267.716†	-43.6	7.7	0.1543	µg/L	0.1543	ppb	20:41:31
1	Cu 324.752†	2639.9	39.9	0.2624	µg/L	0.2624	ppb	20:41:31
1	Mn 257.610†	-151.5	107.7	0.3403	µg/L	0.3403	ppb	20:41:52
1	Mo 202.031†	6.4	11.6	1.1391	µg/L	1.1391	ppb	20:41:52
1	Ni 231.604†	316.5	-2.6	-0.1301	µg/L	-0.1301	ppb	20:41:52
1	P 214.914†	12.1	-3.5	-7.0029	µg/L	-7.0029	ppb	20:41:52
1	Pb 220.353†	81.5	-11.1	-2.7059	µg/L	-2.7059	ppb	20:41:52
1	S 181.975 Axial†	13.5	-5.7	-23.814	µg/L	-23.814	ppb	20:41:52
1	Sb 206.836†	24.3	1.2	1.1646	µg/L	1.1646	ppb	20:41:52
1	Se 196.026†	7.0	-12.5	-17.428	µg/L	-17.428	ppb	20:41:52
1	SiO2†	1501.0	77.5	15.292	µg/L	15.292	ppb	20:41:31
1	Si 251.611†	421.6	102.0	7.7577	µg/L	7.7577	ppb	20:41:52
1	Sn 189.927†	1.5	1.1	0.4747	µg/L	0.4747	ppb	20:41:52
1	Ti 334.940†	398.8	215.3	0.4788	µg/L	0.4788	ppb	20:41:31
1	Tl 190.801†	-25.8	-2.8	-3.6663	µg/L	-3.6663	ppb	20:41:52
1	U 409.014†	-80.7	-1.9	-0.1586	µg/L	-0.1586	ppb	20:41:31
1	V 292.402†	-54.6	-8.7	-0.0740	µg/L	-0.0740	ppb	20:41:31
1	Zn 213.857†	530.1	-15.6	-0.3645	µg/L	-0.3645	ppb	20:41:52
2	Sc RADIAL	57110.3	57110.3	101	%			20:40:29
2	Al 396.153Radial†	-14.1	-21.4	-14.870	µg/L	-14.870	ppb	20:40:29
2	Ca 317.933Radial†	198.8	-14.6	-12.455	µg/L	-12.455	ppb	20:40:49
2	Fe 238.204 Radial†	16.0	-0.7	-5.6974	µg/L	-5.6974	ppb	20:40:49
2	K 766.490 Radial†	221.1	53.7	35.087	µg/L	35.087	ppb	20:40:29
2	Mg 279.077 IEC†	11.7	-1.2	-10.895	µg/L	-10.895	ppb	20:40:49
2	Na 589.592 Radial†	429.7	-47.1	-14.471	µg/L	-14.471	ppb	20:40:29
2	Sr 421.552†	18.0	-11.0	-0.1015	µg/L	-0.1015	ppb	20:40:29
2	Sc 361.383	2018163.8	2018163.8	102.80	%			20:41:58
2	Y 371.029	1394669.2	1394669.2	103.10	%			20:41:58
2	Ag 328.068†	-380.5	31.5	0.2331	µg/L	0.2331	ppb	20:42:03
2	As 188.979†	-3.5	-2.9	-5.2309	µg/L	-5.2309	ppb	20:42:24
2	B 249.677†	356.6	-37.3	-1.5164	µg/L	-1.5164	ppb	20:42:24
2	Ba 233.527†	0.7	17.8	0.4272	µg/L	0.4272	ppb	20:42:24
2	Be 313.107†	-2645.1	282.8	0.1677	µg/L	0.1677	ppb	20:42:03
2	Cd 226.502†	-142.5	3.0	0.0759	µg/L	0.0759	ppb	20:42:24
2	Co 228.616†	8.4	6.3	0.2840	µg/L	0.2840	ppb	20:42:24
2	Cr 267.716†	-35.6	15.8	0.3172	µg/L	0.3172	ppb	20:42:03
2	Cu 324.752†	2611.1	-3.9	-0.0261	µg/L	-0.0261	ppb	20:42:03
2	Mn 257.610†	-153.4	106.8	0.3340	µg/L	0.3340	ppb	20:42:24
2	Mo 202.031†	1.6	6.9	0.6745	µg/L	0.6745	ppb	20:42:24
2	Ni 231.604†	310.9	-9.9	-0.4961	µg/L	-0.4961	ppb	20:42:24
2	P 214.914†	14.4	-1.3	-2.5139	µg/L	-2.5139	ppb	20:42:24
2	Pb 220.353†	85.6	-7.7	-1.8763	µg/L	-1.8763	ppb	20:42:24

2	S 181.975 Axial†	16.1	-3.2	-13.393 µg/L	-13.393 ppb	20:42:24
2	Sb 206.836†	24.8	1.7	1.5353 µg/L	1.5353 ppb	20:42:24
2	Se 196.026†	18.4	-1.4	-1.9764 µg/L	-1.9764 ppb	20:42:24
2	SiO2†	1495.4	63.0	12.440 µg/L	12.440 ppb	20:42:03
2	Si 251.611†	417.9	95.9	7.2895 µg/L	7.2895 ppb	20:42:24
2	Sn 189.927†	7.5	6.9	2.9027 µg/L	2.9027 ppb	20:42:24
2	Ti 334.940†	363.4	178.5	0.3955 µg/L	0.3955 ppb	20:42:03
2	Tl 190.801†	-20.3	2.6	3.4259 µg/L	3.4259 ppb	20:42:24
2	U 409.014†	-48.9	29.5	2.4528 µg/L	2.4528 ppb	20:42:03
2	V 292.402†	-44.8	1.2	0.0192 µg/L	0.0192 ppb	20:42:03
2	Zn 213.857†	537.2	-11.8	-0.2740 µg/L	-0.2740 ppb	20:42:24
3	Sc RADIAL	56287.1	56287.1	99.6 %		20:40:55
3	Al 396.153Radial†	-17.5	-24.9	-17.369 µg/L	-17.369 ppb	20:40:55
3	Ca 317.933Radial†	205.6	-4.9	-4.1718 µg/L	-4.1718 ppb	20:41:15
3	Fe 238.204 Radial†	18.7	2.2	17.059 µg/L	17.059 ppb	20:41:15
3	K 766.490 Radial†	216.2	52.0	33.972 µg/L	33.972 ppb	20:40:55
3	Mg 279.077 IEC†	14.3	1.5	13.643 µg/L	13.643 ppb	20:41:15
3	Na 589.592 Radial†	474.9	4.5	1.3843 µg/L	1.3843 ppb	20:40:55
3	Sr 421.552†	69.4	40.8	0.3766 µg/L	0.3766 ppb	20:40:55
3	Sc 361.383	2011137.2	2011137.2	102.45 %		20:42:30
3	Y 371.029	1391137.6	1391137.6	102.84 %		20:42:30
3	Ag 328.068†	-401.5	9.7	0.0756 µg/L	0.0756 ppb	20:42:35
3	As 188.979†	-0.8	-0.3	-0.5665 µg/L	-0.5665 ppb	20:42:56
3	B 249.677†	346.6	-45.8	-1.8768 µg/L	-1.8768 ppb	20:42:56
3	Ba 233.527†	-8.1	9.2	0.2209 µg/L	0.2209 ppb	20:42:56
3	Be 313.107†	-2811.5	111.4	0.0659 µg/L	0.0659 ppb	20:42:35
3	Cd 226.502†	-144.9	0.2	0.0027 µg/L	0.0027 ppb	20:42:56
3	Co 228.616†	2.5	0.5	0.0230 µg/L	0.0230 ppb	20:42:56
3	Cr 267.716†	-35.3	16.0	0.3209 µg/L	0.3209 ppb	20:42:35
3	Cu 324.752†	2596.5	-9.2	-0.0576 µg/L	-0.0576 ppb	20:42:35
3	Mn 257.610†	-144.2	115.3	0.3628 µg/L	0.3628 ppb	20:42:56
3	Mo 202.031†	5.0	10.2	1.0037 µg/L	1.0037 ppb	20:42:56
3	Ni 231.604†	304.8	-14.8	-0.7372 µg/L	-0.7372 ppb	20:42:56
3	P 214.914†	12.9	-2.8	-5.4792 µg/L	-5.4792 ppb	20:42:56
3	Pb 220.353†	85.3	-7.7	-1.8682 µg/L	-1.8682 ppb	20:42:56
3	S 181.975 Axial†	20.2	0.8	3.1941 µg/L	3.1941 ppb	20:42:56
3	Sb 206.836†	18.9	-4.0	-3.6766 µg/L	-3.6766 ppb	20:42:56
3	Se 196.026†	18.1	-1.7	-2.3416 µg/L	-2.3416 ppb	20:42:56
3	SiO2†	1495.2	67.9	13.403 µg/L	13.403 ppb	20:42:35
3	Si 251.611†	434.6	113.6	8.6363 µg/L	8.6363 ppb	20:42:56
3	Sn 189.927†	2.2	1.8	0.7385 µg/L	0.7385 ppb	20:42:56
3	Ti 334.940†	476.2	289.8	0.6400 µg/L	0.6400 ppb	20:42:35
3	Tl 190.801†	-22.5	0.4	0.5912 µg/L	0.5912 ppb	20:42:56
3	U 409.014†	-60.8	17.7	1.4714 µg/L	1.4714 ppb	20:42:35
3	V 292.402†	-1.0	43.8	0.4391 µg/L	0.4391 ppb	20:42:35
3	Zn 213.857†	528.9	-18.1	-0.4235 µg/L	-0.4235 ppb	20:42:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2011703.4	102.47	%	0.316				0.31%
Sc RADIAL	56853.3	101	%	0.9				0.86%
Y 371.029	1390791.2	102.81	%	0.300				0.29%
Ag 328.068†	31.2	0.2322	µg/L	0.15616	0.2322	ppb	0.15616	67.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-24.7	-17.184	µg/L	2.2266	-17.184	ppb	2.2266	12.96%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-5.0740	µg/L	4.43112	-5.0740	ppb	4.43112	87.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-37.0	-1.5118	µg/L	0.36725	-1.5118	ppb	0.36725	24.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.0	0.2887	µg/L	0.11995	0.2887	ppb	0.11995	41.55%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.7	0.1148	µg/L	0.05103	0.1148	ppb	0.05103	44.46%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-12.6	-10.733	µg/L	5.8919	-10.733	ppb	5.8919	54.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	0.1	0.0002	µg/L	0.07690	0.0002	ppb	0.07690	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.9	0.1779	µg/L	0.13721	0.1779	ppb	0.13721	77.12%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              13.1      0.2641 µg/L       0.09516      0.2641 ppb       0.09516  36.03%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               9.0      0.0596 µg/L       0.17639      0.0596 ppb       0.17639 296.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.0      7.8695 µg/L      11.99309      7.8695 ppb      11.99309 152.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        43.2      28.187 µg/L       10.9995      28.187 ppb       10.9995  39.02%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.2     -10.740 µg/L       24.3062     -10.740 ppb       24.3062 226.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             109.9      0.3457 µg/L       0.01513      0.3457 ppb       0.01513   4.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.6      0.9391 µg/L       0.23895      0.9391 ppb       0.23895  25.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -14.6     -4.4874 µg/L       8.69036     -4.4874 ppb       8.69036 193.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -9.1     -0.4545 µg/L       0.30571     -0.4545 ppb       0.30571  67.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.5     -4.9987 µg/L       2.28274     -4.9987 ppb       2.28274  45.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -8.8     -2.1501 µg/L       0.48133     -2.1501 ppb       0.48133  22.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.7     -11.337 µg/L       13.6207     -11.337 ppb       13.6207 120.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.4     -0.3256 µg/L       2.90798     -0.3256 ppb       2.90798 893.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -5.2     -7.2486 µg/L       8.81736     -7.2486 ppb       8.81736 121.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    69.5      13.712 µg/L        1.4510      13.712 ppb        1.4510  10.58%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             103.8      7.8945 µg/L       0.68372      7.8945 ppb       0.68372   8.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.3      1.3720 µg/L       1.33219      1.3720 ppb       1.33219  97.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              14.3      0.1323 µg/L       0.23923      0.1323 ppb       0.23923 180.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             227.9      0.5048 µg/L       0.12431      0.5048 ppb       0.12431  24.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.1      0.1169 µg/L       3.56976      0.1169 ppb       3.56976 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               15.1      1.2552 µg/L       1.31907      1.2552 ppb       1.31907 105.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               12.1      0.1281 µg/L       0.27331      0.1281 ppb       0.27331 213.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -15.2     -0.3540 µg/L       0.07531     -0.3540 ppb       0.07531  21.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 21:08:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58780.4	58780.4	104	%			21:08:58
1	Al 396.153Radial†	7195.1	6908.1	4795.0	µg/L	4795.0	ppb	21:08:58
1	Ca 317.933Radial†	6074.4	5627.0	4806.5	µg/L	4806.5	ppb	21:09:18
1	Fe 238.204 Radial†	666.1	623.6	4928.9	µg/L	4928.9	ppb	21:09:18
1	K 766.490 Radial†	7823.5	7354.4	4803.3	µg/L	4803.3	ppb	21:08:58
1	Mg 279.077 IEC†	587.1	551.5	4933.1	µg/L	4933.1	ppb	21:09:18
1	Na 589.592 Radial†	33229.4	31465.6	9664.4	µg/L	9664.4	ppb	21:08:58
1	Sr 421.552†	53405.2	51300.6	473.26	µg/L	473.26	ppb	21:08:58
1	Sc 361.383	2031693.4	2031693.4	103.49	%			21:10:22
1	Y 371.029	1400531.0	1400531.0	103.53	%			21:10:22
1	Ag 328.068†	67476.4	65600.6	489.51	µg/L	489.51	ppb	21:10:27
1	As 188.979†	292.3	282.9	506.06	µg/L	506.06	ppb	21:10:48
1	B 249.677†	12687.3	11875.0	482.23	µg/L	482.23	ppb	21:10:27
1	Ba 233.527†	21301.5	20599.6	495.43	µg/L	495.43	ppb	21:10:27
1	Be 313.107†	857576.3	831487.1	493.30	µg/L	493.30	ppb	21:10:22
1	Cd 226.502†	20668.3	20112.4	501.57	µg/L	501.57	ppb	21:10:27
1	Co 228.616†	11438.4	11050.4	499.89	µg/L	499.89	ppb	21:10:27
1	Cr 267.716†	25764.0	24944.8	501.33	µg/L	501.33	ppb	21:10:27
1	Cu 324.752†	80279.0	75025.7	490.41	µg/L	490.41	ppb	21:10:27
1	Mn 257.610†	165571.7	160239.4	502.25	µg/L	502.25	ppb	21:10:22
1	Mo 202.031†	5439.6	5261.4	515.41	µg/L	515.41	ppb	21:10:48
1	Ni 231.604†	10750.1	10074.9	501.70	µg/L	501.70	ppb	21:10:27
1	P 214.914†	1349.1	1288.2	2503.9	µg/L	2503.9	ppb	21:10:48
1	Pb 220.353†	2254.8	2087.7	507.72	µg/L	507.72	ppb	21:10:48
1	S 181.975 Axial†	277.5	249.2	1033.4	µg/L	1033.4	ppb	21:10:48
1	Sb 206.836†	587.9	545.6	503.19	µg/L	503.19	ppb	21:10:48
1	Se 196.026†	400.3	367.5	523.81	µg/L	523.81	ppb	21:10:48
1	SiO2†	29116.0	26741.7	5278.5	µg/L	5278.5	ppb	21:10:27
1	Si 251.611†	33907.1	32452.1	2467.1	µg/L	2467.1	ppb	21:10:27
1	Sn 189.927†	1278.1	1234.6	520.67	µg/L	520.67	ppb	21:10:48
1	Ti 334.940†	229666.3	221739.6	490.22	µg/L	490.22	ppb	21:10:22
1	Tl 190.801†	374.5	384.2	504.96	µg/L	504.96	ppb	21:10:48
1	U 409.014†	6113.1	5983.9	496.19	µg/L	496.19	ppb	21:10:27
1	V 292.402†	52349.3	50627.2	499.60	µg/L	499.60	ppb	21:10:27
1	Zn 213.857†	22683.3	21383.2	498.16	µg/L	498.16	ppb	21:10:27
2	Sc RADIAL	57808.7	57808.7	102	%			21:09:24
2	Al 396.153Radial†	7047.8	6880.4	4776.2	µg/L	4776.2	ppb	21:09:24
2	Ca 317.933Radial†	6096.5	5746.7	4908.7	µg/L	4908.7	ppb	21:09:44
2	Fe 238.204 Radial†	663.6	632.0	4994.7	µg/L	4994.7	ppb	21:09:44
2	K 766.490 Radial†	7642.6	7304.0	4770.4	µg/L	4770.4	ppb	21:09:24
2	Mg 279.077 IEC†	579.2	553.3	4948.6	µg/L	4948.6	ppb	21:09:44
2	Na 589.592 Radial†	32775.0	31558.4	9692.9	µg/L	9692.9	ppb	21:09:24
2	Sr 421.552†	52410.5	51191.2	472.25	µg/L	472.25	ppb	21:09:24
2	Sc 361.383	2049495.0	2049495.0	104.40	%			21:10:55
2	Y 371.029	1411660.7	1411660.7	104.35	%			21:10:55
2	Ag 328.068†	67550.5	65105.2	485.82	µg/L	485.82	ppb	21:11:01
2	As 188.979†	289.6	277.9	497.13	µg/L	497.13	ppb	21:11:21
2	B 249.677†	12725.6	11805.1	479.34	µg/L	479.34	ppb	21:11:01
2	Ba 233.527†	21349.4	20466.7	492.23	µg/L	492.23	ppb	21:11:01
2	Be 313.107†	866033.8	832390.8	493.84	µg/L	493.84	ppb	21:10:55
2	Cd 226.502†	20727.2	19995.3	498.64	µg/L	498.64	ppb	21:11:01
2	Co 228.616†	11460.7	10975.7	496.49	µg/L	496.49	ppb	21:11:01
2	Cr 267.716†	25871.8	24831.8	499.06	µg/L	499.06	ppb	21:11:01
2	Cu 324.752†	80404.8	74472.4	486.81	µg/L	486.81	ppb	21:11:01
2	Mn 257.610†	167118.2	160331.1	502.55	µg/L	502.55	ppb	21:10:55
2	Mo 202.031†	5254.1	5038.0	493.54	µg/L	493.54	ppb	21:11:21
2	Ni 231.604†	10763.2	9997.2	497.83	µg/L	497.83	ppb	21:11:01
2	P 214.914†	1302.2	1232.0	2392.5	µg/L	2392.5	ppb	21:11:21
2	Pb 220.353†	2211.3	2027.1	492.93	µg/L	492.93	ppb	21:11:21

2	S 181.975 Axial†	268.4	238.1	987.50 µg/L	987.50 ppb	21:11:21
2	Sb 206.836†	582.5	535.4	493.50 µg/L	493.50 ppb	21:11:21
2	Se 196.026†	387.4	351.8	501.93 µg/L	501.93 ppb	21:11:21
2	SiO2†	29211.0	26588.3	5248.2 µg/L	5248.2 ppb	21:11:01
2	Si 251.611†	34096.5	32348.9	2459.2 µg/L	2459.2 ppb	21:11:01
2	Sn 189.927†	1232.7	1180.4	497.82 µg/L	497.82 ppb	21:11:21
2	Ti 334.940†	231940.6	221990.5	490.78 µg/L	490.78 ppb	21:10:55
2	Tl 190.801†	370.0	376.8	495.24 µg/L	495.24 ppb	21:11:21
2	U 409.014†	6104.7	5924.5	491.24 µg/L	491.24 ppb	21:11:01
2	V 292.402†	52450.2	50284.5	496.09 µg/L	496.09 ppb	21:11:01
2	Zn 213.857†	22753.7	21260.4	495.30 µg/L	495.30 ppb	21:11:01
3	Sc RADIAL	57645.3	57645.3	102 %		21:09:50
3	Al 396.153Radial†	7101.7	6952.7	4828.5 µg/L	4828.5 ppb	21:09:50
3	Ca 317.933Radial†	6127.9	5794.4	4949.5 µg/L	4949.5 ppb	21:10:10
3	Fe 238.204 Radial†	665.9	636.0	5025.6 µg/L	5025.6 ppb	21:10:10
3	K 766.490 Radial†	7687.0	7368.7	4812.6 µg/L	4812.6 ppb	21:09:50
3	Mg 279.077 IEC†	588.9	564.4	5046.2 µg/L	5046.2 ppb	21:10:10
3	Na 589.592 Radial†	32797.2	31670.9	9727.5 µg/L	9727.5 ppb	21:09:50
3	Sr 421.552†	52594.3	51516.6	475.25 µg/L	475.25 ppb	21:09:50
3	Sc 361.383	2043330.2	2043330.2	104.09 %		21:11:28
3	Y 371.029	1408836.0	1408836.0	104.15 %		21:11:28
3	Ag 328.068†	61712.7	59691.8	445.28 µg/L	445.28 ppb	21:11:34
3	As 188.979†	240.0	231.0	413.29 µg/L	413.29 ppb	21:11:54
3	B 249.677†	11528.4	10691.7	433.82 µg/L	433.82 ppb	21:11:34
3	Ba 233.527†	18793.6	18072.9	434.64 µg/L	434.64 ppb	21:11:34
3	Be 313.107†	773952.6	746427.0	442.84 µg/L	442.84 ppb	21:11:28
3	Cd 226.502†	18104.4	17535.4	437.21 µg/L	437.21 ppb	21:11:34
3	Co 228.616†	9919.4	9528.1	430.96 µg/L	430.96 ppb	21:11:34
3	Cr 267.716†	21628.5	20829.9	418.64 µg/L	418.64 ppb	21:11:34
3	Cu 324.752†	70293.2	64990.1	424.92 µg/L	424.92 ppb	21:11:34
3	Mn 257.610†	150318.2	144673.6	453.51 µg/L	453.51 ppb	21:11:28
3	Mo 202.031†	4250.4	4088.9	400.60 µg/L	400.60 ppb	21:11:54
3	Ni 231.604†	9317.9	8639.7	430.24 µg/L	430.24 ppb	21:11:34
3	P 214.914†	1076.0	1018.4	1974.8 µg/L	1974.8 ppb	21:11:54
3	Pb 220.353†	1875.8	1711.2	416.06 µg/L	416.06 ppb	21:11:54
3	S 181.975 Axial†	231.3	203.3	842.98 µg/L	842.98 ppb	21:11:54
3	Sb 206.836†	484.5	443.0	408.08 µg/L	408.08 ppb	21:11:54
3	Se 196.026†	334.8	302.4	432.47 µg/L	432.47 ppb	21:11:54
3	SiO2†	26265.0	23842.4	4706.2 µg/L	4706.2 ppb	21:11:34
3	Si 251.611†	30430.4	28925.2	2199.0 µg/L	2199.0 ppb	21:11:34
3	Sn 189.927†	990.4	951.2	401.15 µg/L	401.15 ppb	21:11:54
3	Ti 334.940†	205711.5	197461.3	436.51 µg/L	436.51 ppb	21:11:28
3	Tl 190.801†	323.8	333.4	438.43 µg/L	438.43 ppb	21:11:54
3	U 409.014†	5199.4	5072.4	420.44 µg/L	420.44 ppb	21:11:34
3	V 292.402†	45058.2	43334.2	427.38 µg/L	427.38 ppb	21:11:34
3	Zn 213.857†	19790.2	18479.0	430.43 µg/L	430.43 ppb	21:11:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2041506.2	103.99	%	0.460				0.44%
Sc RADIAL	58078.1	103	%	1.1				1.06%
Y 371.029	1407009.2	104.01	%	0.428				0.41%
Ag 328.068†	63465.9	473.53	µg/L	24.543	473.53	ppb	24.543	5.18%
QC value within limits for Ag 328.068 Recovery = 94.71%								
Al 396.153Radial†	6913.7	4799.9	µg/L	26.45	4799.9	ppb	26.45	0.55%
QC value within limits for Al 396.153Radial Recovery = 96.00%								
As 188.979†	263.9	472.16	µg/L	51.179	472.16	ppb	51.179	10.84%
QC value within limits for As 188.979 Recovery = 94.43%								
B 249.677†	11457.3	465.13	µg/L	27.155	465.13	ppb	27.155	5.84%
QC value within limits for B 249.677 Recovery = 93.03%								
Ba 233.527†	19713.1	474.10	µg/L	34.210	474.10	ppb	34.210	7.22%
QC value within limits for Ba 233.527 Recovery = 94.82%								
Be 313.107†	803435.0	476.66	µg/L	29.291	476.66	ppb	29.291	6.15%
QC value within limits for Be 313.107 Recovery = 95.33%								
Ca 317.933Radial†	5722.7	4888.2	µg/L	73.67	4888.2	ppb	73.67	1.51%
QC value within limits for Ca 317.933Radial Recovery = 97.76%								
Cd 226.502†	19214.4	479.14	µg/L	36.339	479.14	ppb	36.339	7.58%
QC value within limits for Cd 226.502 Recovery = 95.83%								
Co 228.616†	10518.1	475.78	µg/L	38.855	475.78	ppb	38.855	8.17%

QC value within limits for Co 228.616 Recovery = 95.16%						
Cr 267.716†	23535.5	473.01 µg/L	47.102	473.01 ppb	47.102	9.96%
QC value within limits for Cr 267.716 Recovery = 94.60%						
Cu 324.752†	71496.1	467.38 µg/L	36.817	467.38 ppb	36.817	7.88%
QC value within limits for Cu 324.752 Recovery = 93.48%						
Fe 238.204 Radial†	630.5	4983.1 µg/L	49.36	4983.1 ppb	49.36	0.99%
QC value within limits for Fe 238.204 Radial Recovery = 99.66%						
K 766.490 Radial†	7342.4	4795.4 µg/L	22.20	4795.4 ppb	22.20	0.46%
QC value within limits for K 766.490 Radial Recovery = 95.91%						
Mg 279.077 IEC†	556.4	4976.0 µg/L	61.30	4976.0 ppb	61.30	1.23%
QC value within limits for Mg 279.077 IEC Recovery = 99.52%						
Mn 257.610†	155081.3	486.10 µg/L	28.223	486.10 ppb	28.223	5.81%
QC value within limits for Mn 257.610 Recovery = 97.22%						
Mo 202.031†	4796.1	469.85 µg/L	60.963	469.85 ppb	60.963	12.97%
QC value within limits for Mo 202.031 Recovery = 93.97%						
Na 589.592 Radial†	31564.9	9695.0 µg/L	31.58	9695.0 ppb	31.58	0.33%
QC value within limits for Na 589.592 Radial Recovery = 96.95%						
Ni 231.604†	9570.6	476.59 µg/L	40.187	476.59 ppb	40.187	8.43%
QC value within limits for Ni 231.604 Recovery = 95.32%						
P 214.914†	1179.5	2290.4 µg/L	278.94	2290.4 ppb	278.94	12.18%
QC value within limits for P 214.914 Recovery = 91.62%						
Pb 220.353†	1942.0	472.24 µg/L	49.211	472.24 ppb	49.211	10.42%
QC value within limits for Pb 220.353 Recovery = 94.45%						
S 181.975 Axial†	230.2	954.62 µg/L	99.373	954.62 ppb	99.373	10.41%
QC value within limits for S 181.975 Axial Recovery = 95.46%						
Sb 206.836†	508.0	468.26 µg/L	52.337	468.26 ppb	52.337	11.18%
QC value within limits for Sb 206.836 Recovery = 93.65%						
Se 196.026†	340.5	486.07 µg/L	47.691	486.07 ppb	47.691	9.81%
QC value within limits for Se 196.026 Recovery = 97.21%						
SiO2†	25724.1	5077.6 µg/L	322.02	5077.6 ppb	322.02	6.34%
QC value within limits for SiO2 Recovery = 94.95%						
Si 251.611†	31242.1	2375.1 µg/L	152.58	2375.1 ppb	152.58	6.42%
QC value within limits for Si 251.611 Recovery = 95.00%						
Sn 189.927†	1122.0	473.21 µg/L	63.445	473.21 ppb	63.445	13.41%
QC value within limits for Sn 189.927 Recovery = 94.64%						
Sr 421.552†	51336.1	473.58 µg/L	1.527	473.58 ppb	1.527	0.32%
QC value within limits for Sr 421.552 Recovery = 94.72%						
Ti 334.940†	213730.5	472.50 µg/L	31.174	472.50 ppb	31.174	6.60%
QC value within limits for Ti 334.940 Recovery = 94.50%						
Tl 190.801†	364.8	479.54 µg/L	35.938	479.54 ppb	35.938	7.49%
QC value within limits for Tl 190.801 Recovery = 95.91%						
U 409.014†	5660.3	469.29 µg/L	42.377	469.29 ppb	42.377	9.03%
QC value within limits for U 409.014 Recovery = 93.86%						
V 292.402†	48082.0	474.36 µg/L	40.718	474.36 ppb	40.718	8.58%
QC value within limits for V 292.402 Recovery = 94.87%						
Zn 213.857†	20374.2	474.63 µg/L	38.303	474.63 ppb	38.303	8.07%
QC value within limits for Zn 213.857 Recovery = 94.93%						

All analyte(s) passed QC.

Sequence No.: 62 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/19/2010 21:12:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57648.5	57648.5	102	%			21:12:37
1	Al 396.153Radial†	-14.7	-21.7	-15.138	µg/L	-15.138	ppb	21:12:37
1	Ca 317.933Radial†	203.7	-11.6	-9.9121	µg/L	-9.9121	ppb	21:12:58
1	Fe 238.204 Radial†	16.4	-0.5	-4.2458	µg/L	-4.2458	ppb	21:12:58
1	K 766.490 Radial†	239.5	69.8	45.559	µg/L	45.559	ppb	21:12:37
1	Mg 279.077 IEC†	8.9	-4.1	-36.403	µg/L	-36.403	ppb	21:12:58
1	Na 589.592 Radial†	512.1	29.6	9.0983	µg/L	9.0983	ppb	21:12:37
1	Sr 421.552†	48.1	18.3	0.1688	µg/L	0.1688	ppb	21:12:37
1	Sc 361.383	2024672.5	2024672.5	103.14	%			21:14:00
1	Y 371.029	1400432.3	1400432.3	103.52	%			21:14:00
1	Ag 328.068†	-413.0	1.2	0.0111	µg/L	0.0111	ppb	21:14:05
1	As 188.979†	-0.7	-0.3	-0.4624	µg/L	-0.4624	ppb	21:14:26
1	B 249.677†	378.7	-16.9	-0.6888	µg/L	-0.6888	ppb	21:14:26
1	Ba 233.527†	-12.8	4.6	0.1123	µg/L	0.1123	ppb	21:14:26
1	Be 313.107†	-2775.1	164.9	0.0978	µg/L	0.0978	ppb	21:14:05
1	Cd 226.502†	-135.5	10.3	0.2573	µg/L	0.2573	ppb	21:14:26
1	Co 228.616†	7.3	5.2	0.2337	µg/L	0.2337	ppb	21:14:26
1	Cr 267.716†	-69.0	-16.5	-0.3312	µg/L	-0.3312	ppb	21:14:05
1	Cu 324.752†	2629.4	5.8	0.0370	µg/L	0.0370	ppb	21:14:05
1	Mn 257.610†	-259.5	4.4	0.0146	µg/L	0.0146	ppb	21:14:26
1	Mo 202.031†	0.2	5.6	0.5442	µg/L	0.5442	ppb	21:14:26
1	Ni 231.604†	315.8	-6.1	-0.3065	µg/L	-0.3065	ppb	21:14:26
1	P 214.914†	22.8	6.8	13.475	µg/L	13.475	ppb	21:14:26
1	Pb 220.353†	88.5	-5.2	-1.2633	µg/L	-1.2633	ppb	21:14:26
1	S 181.975 Axial†	14.4	-5.0	-20.717	µg/L	-20.717	ppb	21:14:26
1	Sb 206.836†	29.4	6.0	5.5139	µg/L	5.5139	ppb	21:14:26
1	Se 196.026†	18.0	-1.8	-2.5508	µg/L	-2.5508	ppb	21:14:26
1	SiO2†	1453.6	17.9	3.5281	µg/L	3.5281	ppb	21:14:05
1	Si 251.611†	344.2	23.1	1.7570	µg/L	1.7570	ppb	21:14:26
1	Sn 189.927†	6.9	6.3	2.6452	µg/L	2.6452	ppb	21:14:26
1	Ti 334.940†	260.8	77.8	0.1748	µg/L	0.1748	ppb	21:14:05
1	Tl 190.801†	-22.9	0.2	0.2097	µg/L	0.2097	ppb	21:14:26
1	U 409.014†	13.7	90.4	7.5095	µg/L	7.5095	ppb	21:14:05
1	V 292.402†	-3.7	41.2	0.4118	µg/L	0.4118	ppb	21:14:05
1	Zn 213.857†	548.2	-2.9	-0.0641	µg/L	-0.0641	ppb	21:14:26
2	Sc RADIAL	57532.9	57532.9	102	%			21:13:03
2	Al 396.153Radial†	12.0	4.4	3.0811	µg/L	3.0811	ppb	21:13:03
2	Ca 317.933Radial†	199.1	-15.8	-13.477	µg/L	-13.477	ppb	21:13:24
2	Fe 238.204 Radial†	16.8	-0.1	-0.4573	µg/L	-0.4573	ppb	21:13:24
2	K 766.490 Radial†	217.9	49.0	32.018	µg/L	32.018	ppb	21:13:03
2	Mg 279.077 IEC†	13.2	0.1	1.1462	µg/L	1.1462	ppb	21:13:24
2	Na 589.592 Radial†	531.4	49.6	15.230	µg/L	15.230	ppb	21:13:03
2	Sr 421.552†	44.8	15.2	0.1403	µg/L	0.1403	ppb	21:13:03
2	Sc 361.383	2034376.0	2034376.0	103.63	%			21:14:32
2	Y 371.029	1406950.8	1406950.8	104.01	%			21:14:32
2	Ag 328.068†	-398.7	16.9	0.1249	µg/L	0.1249	ppb	21:14:37
2	As 188.979†	3.7	4.1	7.2905	µg/L	7.2905	ppb	21:14:58
2	B 249.677†	367.6	-29.4	-1.1995	µg/L	-1.1995	ppb	21:14:58
2	Ba 233.527†	-11.7	5.8	0.1382	µg/L	0.1382	ppb	21:14:58
2	Be 313.107†	-2725.4	225.8	0.1339	µg/L	0.1339	ppb	21:14:37
2	Cd 226.502†	-127.6	18.5	0.4618	µg/L	0.4618	ppb	21:14:58
2	Co 228.616†	1.0	-1.0	-0.0440	µg/L	-0.0440	ppb	21:14:58
2	Cr 267.716†	-41.5	10.4	0.2082	µg/L	0.2082	ppb	21:14:37
2	Cu 324.752†	2590.3	-44.1	-0.2880	µg/L	-0.2880	ppb	21:14:37
2	Mn 257.610†	-252.5	12.4	0.0387	µg/L	0.0387	ppb	21:14:58
2	Mo 202.031†	-1.6	3.8	0.3741	µg/L	0.3741	ppb	21:14:58
2	Ni 231.604†	312.0	-11.3	-0.5640	µg/L	-0.5640	ppb	21:14:58
2	P 214.914†	12.2	-3.6	-7.0402	µg/L	-7.0402	ppb	21:14:58
2	Pb 220.353†	83.5	-10.4	-2.5295	µg/L	-2.5295	ppb	21:14:58

2	S 181.975 Axial†	19.3	-0.3	-1.1792 µg/L	-1.1792 ppb	21:14:58
2	Sb 206.836†	27.7	4.2	3.8619 µg/L	3.8619 ppb	21:14:58
2	Se 196.026†	19.1	-0.8	-1.1798 µg/L	-1.1798 ppb	21:14:58
2	SiO2†	1460.9	18.1	3.5783 µg/L	3.5783 ppb	21:14:37
2	Si 251.611†	357.2	34.1	2.5907 µg/L	2.5907 ppb	21:14:58
2	Sn 189.927†	1.7	1.3	0.5463 µg/L	0.5463 ppb	21:14:58
2	Ti 334.940†	290.1	104.9	0.2318 µg/L	0.2318 ppb	21:14:37
2	Tl 190.801†	-21.1	2.0	2.6077 µg/L	2.6077 ppb	21:14:58
2	U 409.014†	-69.8	9.7	0.8107 µg/L	0.8107 ppb	21:14:37
2	V 292.402†	-49.8	-3.3	-0.0276 µg/L	-0.0276 ppb	21:14:37
2	Zn 213.857†	547.2	-6.4	-0.1467 µg/L	-0.1467 ppb	21:14:58
3	Sc RADIAL	57754.3	57754.3	102 %		21:13:29
3	Al 396.153Radial†	-7.4	-14.6	-10.181 µg/L	-10.181 ppb	21:13:29
3	Ca 317.933Radial†	198.7	-16.9	-14.434 µg/L	-14.434 ppb	21:13:50
3	Fe 238.204 Radial†	15.1	-1.8	-14.173 µg/L	-14.173 ppb	21:13:50
3	K 766.490 Radial†	210.2	40.6	26.521 µg/L	26.521 ppb	21:13:29
3	Mg 279.077 IEC†	12.2	-0.9	-7.7282 µg/L	-7.7282 ppb	21:13:50
3	Na 589.592 Radial†	514.7	31.3	9.6113 µg/L	9.6113 ppb	21:13:29
3	Sr 421.552†	36.6	7.0	0.0646 µg/L	0.0646 ppb	21:13:29
3	Sc 361.383	2036784.5	2036784.5	103.75 %		21:15:04
3	Y 371.029	1408626.3	1408626.3	104.13 %		21:15:04
3	Ag 328.068†	-389.3	26.4	0.1980 µg/L	0.1980 ppb	21:15:10
3	As 188.979†	1.3	1.8	3.1417 µg/L	3.1417 ppb	21:15:30
3	B 249.677†	362.6	-34.7	-1.4060 µg/L	-1.4060 ppb	21:15:30
3	Ba 233.527†	-7.2	10.1	0.2434 µg/L	0.2434 ppb	21:15:30
3	Be 313.107†	-2768.8	187.1	0.1110 µg/L	0.1110 ppb	21:15:10
3	Cd 226.502†	-144.7	2.2	0.0556 µg/L	0.0556 ppb	21:15:30
3	Co 228.616†	-8.3	-9.9	-0.4480 µg/L	-0.4480 ppb	21:15:30
3	Cr 267.716†	-54.9	-2.5	-0.0503 µg/L	-0.0503 ppb	21:15:10
3	Cu 324.752†	2622.8	-15.8	-0.1051 µg/L	-0.1051 ppb	21:15:10
3	Mn 257.610†	-264.4	1.2	0.0020 µg/L	0.0020 ppb	21:15:30
3	Mo 202.031†	-0.5	4.9	0.4803 µg/L	0.4803 ppb	21:15:30
3	Ni 231.604†	316.5	-7.3	-0.3620 µg/L	-0.3620 ppb	21:15:30
3	P 214.914†	15.2	-0.7	-1.2959 µg/L	-1.2959 ppb	21:15:30
3	Pb 220.353†	89.8	-4.4	-1.0668 µg/L	-1.0668 ppb	21:15:30
3	S 181.975 Axial†	20.3	0.6	2.6598 µg/L	2.6598 ppb	21:15:30
3	Sb 206.836†	20.9	-2.4	-2.1959 µg/L	-2.1959 ppb	21:15:30
3	Se 196.026†	19.2	-0.8	-1.1695 µg/L	-1.1695 ppb	21:15:30
3	SiO2†	1478.1	33.0	6.5234 µg/L	6.5234 ppb	21:15:10
3	Si 251.611†	346.7	23.5	1.7856 µg/L	1.7856 ppb	21:15:30
3	Sn 189.927†	2.2	1.7	0.7297 µg/L	0.7297 ppb	21:15:30
3	Ti 334.940†	181.9	0.3	0.0010 µg/L	0.0010 ppb	21:15:10
3	Tl 190.801†	-25.3	-2.0	-2.6178 µg/L	-2.6178 ppb	21:15:30
3	U 409.014†	-25.5	52.5	4.3661 µg/L	4.3661 ppb	21:15:10
3	V 292.402†	9.1	53.5	0.5276 µg/L	0.5276 ppb	21:15:10
3	Zn 213.857†	536.2	-17.6	-0.4107 µg/L	-0.4107 ppb	21:15:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2031944.3	103.51	%	0.327				0.32%
Sc RADIAL	57645.2	102	%	0.2				0.19%
Y 371.029	1405336.4	103.89	%	0.320				0.31%
Ag 328.068†	14.8	0.1113	µg/L	0.09420	0.1113	ppb	0.09420	84.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.6	-7.4128	µg/L	9.41994	-7.4128	ppb	9.41994	127.08%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	3.3232	µg/L	3.87965	3.3232	ppb	3.87965	116.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-27.0	-1.0981	µg/L	0.36915	-1.0981	ppb	0.36915	33.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.8	0.1646	µg/L	0.06947	0.1646	ppb	0.06947	42.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	192.6	0.1142	µg/L	0.01827	0.1142	ppb	0.01827	15.99%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-14.8	-12.608	µg/L	2.3832	-12.608	ppb	2.3832	18.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.3	0.2582	µg/L	0.20309	0.2582	ppb	0.20309	78.66%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.9	-0.0861	µg/L	0.34278	-0.0861	ppb	0.34278	398.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.9     -0.0578 µg/L       0.26977     -0.0578 ppb        0.26977 467.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -18.1     -0.1187 µg/L       0.16294     -0.1187 ppb        0.16294 137.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.8     -6.2921 µg/L       7.08315     -6.2921 ppb        7.08315 112.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        53.1      34.699 µg/L        9.7985      34.699 ppb         9.7985  28.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.6     -14.328 µg/L       19.6256     -14.328 ppb        19.6256 136.97%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               6.0      0.0185 µg/L       0.01862      0.0185 ppb        0.01862 100.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.8      0.4662 µg/L       0.08595      0.4662 ppb        0.08595  18.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       36.8      11.313 µg/L        3.4017      11.313 ppb         3.4017  30.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -8.2     -0.4108 µg/L       0.13551     -0.4108 ppb        0.13551  32.98%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.8      1.7128 µg/L      10.58316      1.7128 ppb       10.58316 617.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.7     -1.6199 µg/L       0.79389     -1.6199 ppb        0.79389  49.01%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.5     -6.4120 µg/L      12.53600     -6.4120 ppb       12.53600 195.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.6      2.3933 µg/L       4.05930      2.3933 ppb        4.05930 169.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.2     -1.6333 µg/L       0.79453     -1.6333 ppb        0.79453  48.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    23.0      4.5433 µg/L       1.71504      4.5433 ppb        1.71504  37.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              26.9      2.0444 µg/L       0.47330      2.0444 ppb        0.47330  23.15%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.1      1.3071 µg/L       1.16248      1.3071 ppb        1.16248  88.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              13.5      0.1246 µg/L       0.05381      0.1246 ppb        0.05381  43.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              61.0      0.1359 µg/L       0.12021      0.1359 ppb        0.12021  88.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.0      0.0665 µg/L       2.61569      0.0665 ppb        2.61569 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               50.9      4.2288 µg/L       3.35151      4.2288 ppb        3.35151  79.26%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               30.5      0.3039 µg/L       0.29290      0.3039 ppb        0.29290  96.38%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -9.0     -0.2072 µg/L       0.18103     -0.2072 ppb        0.18103  87.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/19/2010 21:19:47 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\optima1\Sample Information\021910G.SIF
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1 **Autosampler Location: 201**
Sample ID: 1202032567|948744|1 **Date Collected: 2/19/2010 21:19:49**
Analyst: JWJ **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202032567|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57402.4	57402.4	102	%			21:20:27
1	Al 396.153Radial†	33.1	25.2	17.546	µg/L	17.546	ppb	21:20:27
1	Ca 317.933Radial†	245.5	30.3	25.921	µg/L	25.921	ppb	21:20:48
1	Fe 238.204 Radial†	31.7	14.6	115.00	µg/L	115.00	ppb	21:20:48
1	K 766.490 Radial†	271.7	102.5	66.927	µg/L	66.927	ppb	21:20:27
1	Mg 279.077 IEC†	11.1	-1.9	-17.242	µg/L	-17.242	ppb	21:20:48
1	Na 589.592 Radial†	537.0	56.4	17.310	µg/L	17.310	ppb	21:20:27
1	Sr 421.552†	100.6	70.2	0.6479	µg/L	0.6479	ppb	21:20:27
1	Sc 361.383	2016368.8	2016368.8	102.71	%			21:21:49
1	Y 371.029	1392342.5	1392342.5	102.93	%			21:21:49
1	Ag 328.068†	-415.2	-2.6	-0.0122	µg/L	-0.0122	ppb	21:21:55
1	As 188.979†	4.8	5.1	9.1786	µg/L	9.1786	ppb	21:22:16
1	B 249.677†	385.0	-9.3	-0.4355	µg/L	-0.4355	ppb	21:22:16
1	Ba 233.527†	12.2	29.0	0.6957	µg/L	0.6957	ppb	21:22:16
1	Be 313.107†	-2443.5	476.8	0.2819	µg/L	0.2819	ppb	21:21:55
1	Cd 226.502†	-122.1	22.8	0.5579	µg/L	0.5579	ppb	21:22:16
1	Co 228.616†	18.6	16.2	0.7261	µg/L	0.7261	ppb	21:22:16
1	Cr 267.716†	88.8	136.8	2.7477	µg/L	2.7477	ppb	21:21:55
1	Cu 324.752†	2850.5	231.5	1.5270	µg/L	1.5270	ppb	21:21:55
1	Mn 257.610†	729.8	966.6	3.0428	µg/L	3.0428	ppb	21:21:55
1	Mo 202.031†	-5.1	0.4	0.0394	µg/L	0.0394	ppb	21:22:16
1	Ni 231.604†	341.5	20.1	1.0035	µg/L	1.0035	ppb	21:22:16
1	P 214.914†	12.8	-2.8	-5.8269	µg/L	-5.8269	ppb	21:22:16
1	Pb 220.353†	89.4	-3.9	-0.9607	µg/L	-0.9607	ppb	21:22:16
1	S 181.975 Axial†	19.3	-0.2	-0.7557	µg/L	-0.7557	ppb	21:22:16
1	Sb 206.836†	20.9	-2.2	-2.0246	µg/L	-2.0246	ppb	21:22:16
1	Se 196.026†	19.2	-0.6	-0.4825	µg/L	-0.4825	ppb	21:22:16
1	SiO2†	2318.2	865.5	170.83	µg/L	170.83	ppb	21:21:55
1	Si 251.611†	1340.0	994.0	75.567	µg/L	75.567	ppb	21:22:16
1	Sn 189.927†	8.7	8.1	3.3919	µg/L	3.3919	ppb	21:22:16
1	Ti 334.940†	1513.8	1298.8	2.8750	µg/L	2.8750	ppb	21:21:55
1	Tl 190.801†	-15.6	7.2	9.4177	µg/L	9.4177	ppb	21:22:16
1	U 409.014†	-72.6	6.4	0.5170	µg/L	0.5170	ppb	21:21:55
1	V 292.402†	-48.6	-2.6	-0.0042	µg/L	-0.0042	ppb	21:21:55
1	Zn 213.857†	756.4	202.0	4.7290	µg/L	4.7290	ppb	21:22:16
2	Sc RADIAL	56982.6	56982.6	101	%			21:20:53
2	Al 396.153Radial†	31.2	23.6	16.416	µg/L	16.416	ppb	21:20:53
2	Ca 317.933Radial†	236.4	23.1	19.768	µg/L	19.768	ppb	21:21:14
2	Fe 238.204 Radial†	29.0	12.1	95.817	µg/L	95.817	ppb	21:21:14
2	K 766.490 Radial†	250.4	83.3	54.377	µg/L	54.377	ppb	21:20:53
2	Mg 279.077 IEC†	14.2	1.2	11.008	µg/L	11.008	ppb	21:21:14
2	Na 589.592 Radial†	531.7	55.0	16.895	µg/L	16.895	ppb	21:20:53
2	Sr 421.552†	104.2	74.5	0.6873	µg/L	0.6873	ppb	21:20:53
2	Sc 361.383	1992597.0	1992597.0	101.50	%			21:22:22
2	Y 371.029	1375290.5	1375290.5	101.67	%			21:22:22
2	Ag 328.068†	-388.6	18.8	0.1460	µg/L	0.1460	ppb	21:22:27
2	As 188.979†	-6.3	-5.7	-10.301	µg/L	-10.301	ppb	21:22:48

2	B 249.677†	381.1	-8.7	-0.4014 µg/L	-0.4014 ppb	21:22:48
2	Ba 233.527†	13.4	30.3	0.7280 µg/L	0.7280 ppb	21:22:48
2	Be 313.107†	-2307.9	582.0	0.3443 µg/L	0.3443 ppb	21:22:27
2	Cd 226.502†	-131.4	12.2	0.2949 µg/L	0.2949 ppb	21:22:48
2	Co 228.616†	16.2	14.0	0.6277 µg/L	0.6277 ppb	21:22:48
2	Cr 267.716†	68.3	117.7	2.3641 µg/L	2.3641 ppb	21:22:27
2	Cu 324.752†	2848.7	262.8	1.7289 µg/L	1.7289 ppb	21:22:27
2	Mn 257.610†	685.1	931.0	2.9277 µg/L	2.9277 ppb	21:22:27
2	Mo 202.031†	-2.7	2.7	0.2670 µg/L	0.2670 ppb	21:22:48
2	Ni 231.604†	331.4	14.1	0.7050 µg/L	0.7050 ppb	21:22:48
2	P 214.914†	12.9	-2.7	-5.5407 µg/L	-5.5407 ppb	21:22:48
2	Pb 220.353†	87.9	-4.3	-1.0494 µg/L	-1.0494 ppb	21:22:48
2	S 181.975 Axial†	15.4	-3.7	-15.465 µg/L	-15.465 ppb	21:22:48
2	Sb 206.836†	17.7	-5.1	-4.6964 µg/L	-4.6964 ppb	21:22:48
2	Se 196.026†	21.7	2.1	3.1412 µg/L	3.1412 ppb	21:22:48
2	SiO2†	2305.8	880.1	173.72 µg/L	173.72 ppb	21:22:27
2	Si 251.611†	1352.4	1021.8	77.676 µg/L	77.676 ppb	21:22:48
2	Sn 189.927†	3.9	3.5	1.4633 µg/L	1.4633 ppb	21:22:48
2	Ti 334.940†	1550.8	1352.8	2.9922 µg/L	2.9922 ppb	21:22:27
2	Tl 190.801†	-23.5	-0.8	-0.9704 µg/L	-0.9704 ppb	21:22:48
2	U 409.014†	-130.4	-51.3	-4.2803 µg/L	-4.2803 ppb	21:22:27
2	V 292.402†	-29.7	15.5	0.1651 µg/L	0.1651 ppb	21:22:27
2	Zn 213.857†	737.3	192.0	4.4941 µg/L	4.4941 ppb	21:22:48
3	Sc RADIAL	56926.8	56926.8	101 %		21:21:19
3	Al 396.153Radial†	42.5	34.8	24.220 µg/L	24.220 ppb	21:21:19
3	Ca 317.933Radial†	234.1	21.1	18.004 µg/L	18.004 ppb	21:21:39
3	Fe 238.204 Radial†	30.7	13.9	109.47 µg/L	109.47 ppb	21:21:39
3	K 766.490 Radial†	228.2	61.5	40.170 µg/L	40.170 ppb	21:21:19
3	Mg 279.077 IEC†	11.0	-1.9	-16.752 µg/L	-16.752 ppb	21:21:39
3	Na 589.592 Radial†	512.5	36.4	11.177 µg/L	11.177 ppb	21:21:19
3	Sr 421.552†	118.3	88.6	0.8173 µg/L	0.8173 ppb	21:21:19
3	Sc 361.383	2010428.8	2010428.8	102.41 %		21:22:54
3	Y 371.029	1388252.8	1388252.8	102.62 %		21:22:54
3	Ag 328.068†	-352.9	57.0	0.4329 µg/L	0.4329 ppb	21:22:59
3	As 188.979†	-2.3	-1.8	-3.2859 µg/L	-3.2859 ppb	21:23:20
3	B 249.677†	374.4	-18.5	-0.8076 µg/L	-0.8076 ppb	21:23:20
3	Ba 233.527†	4.9	21.9	0.5260 µg/L	0.5260 ppb	21:23:20
3	Be 313.107†	-2407.9	504.4	0.2983 µg/L	0.2983 ppb	21:22:59
3	Cd 226.502†	-130.0	14.8	0.3559 µg/L	0.3559 ppb	21:23:20
3	Co 228.616†	11.6	9.4	0.4189 µg/L	0.4189 ppb	21:23:20
3	Cr 267.716†	67.3	116.1	2.3330 µg/L	2.3330 ppb	21:22:59
3	Cu 324.752†	2867.2	255.9	1.6859 µg/L	1.6859 ppb	21:22:59
3	Mn 257.610†	656.7	897.3	2.8251 µg/L	2.8251 ppb	21:22:59
3	Mo 202.031†	5.1	10.3	1.0146 µg/L	1.0146 ppb	21:23:20
3	Ni 231.604†	323.1	3.2	0.1582 µg/L	0.1582 ppb	21:23:20
3	P 214.914†	6.0	-9.4	-18.929 µg/L	-18.929 ppb	21:23:20
3	Pb 220.353†	89.4	-3.6	-0.8784 µg/L	-0.8784 ppb	21:23:20
3	S 181.975 Axial†	15.2	-4.1	-17.137 µg/L	-17.137 ppb	21:23:20
3	Sb 206.836†	19.9	-3.1	-2.8529 µg/L	-2.8529 ppb	21:23:20
3	Se 196.026†	8.9	-10.6	-14.586 µg/L	-14.586 ppb	21:23:20
3	SiO2†	2301.1	855.4	168.84 µg/L	168.84 ppb	21:22:59
3	Si 251.611†	1282.3	941.5	71.577 µg/L	71.577 ppb	21:23:20
3	Sn 189.927†	5.1	4.6	1.9188 µg/L	1.9188 ppb	21:23:20
3	Ti 334.940†	1496.9	1286.6	2.8479 µg/L	2.8479 ppb	21:22:59
3	Tl 190.801†	-22.7	0.2	0.2878 µg/L	0.2878 ppb	21:23:20
3	U 409.014†	-95.2	-15.9	-1.3389 µg/L	-1.3389 ppb	21:22:59
3	V 292.402†	11.1	55.6	0.5665 µg/L	0.5665 ppb	21:22:59
3	Zn 213.857†	733.3	181.6	4.2532 µg/L	4.2532 ppb	21:23:20

Mean Data: 1202032567|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2006464.9	102.21	%	0.630				0.62%
Sc RADIAL	57103.9	101	%	0.5				0.46%
Y 371.029	1385295.3	102.41	%	0.658				0.64%
Ag 328.068†	24.4	0.1889	µg/L	0.22561	0.1889	ppb	0.22561	119.44%
Al 396.153Radial†	27.9	19.394	µg/L	4.2175	19.394	ppb	4.2175	21.75%
As 188.979†	-0.8	-1.4693	µg/L	9.86596	-1.4693	ppb	9.86596	671.45%
B 249.677†	-12.2	-0.5482	µg/L	0.22531	-0.5482	ppb	0.22531	41.10%
Ba 233.527†	27.1	0.6499	µg/L	0.10851	0.6499	ppb	0.10851	16.70%

Be 313.107†	521.1	0.3081	µg/L	0.03235	0.3081	ppb	0.03235 10.50%
Ca 317.933Radial†	24.9	21.231	µg/L	4.1563	21.231	ppb	4.1563 19.58%
Cd 226.502†	16.6	0.4029	µg/L	0.13762	0.4029	ppb	0.13762 34.16%
Co 228.616†	13.2	0.5909	µg/L	0.15687	0.5909	ppb	0.15687 26.55%
Cr 267.716†	123.5	2.4816	µg/L	0.23095	2.4816	ppb	0.23095 9.31%
Cu 324.752†	250.1	1.6473	µg/L	0.10634	1.6473	ppb	0.10634 6.46%
Fe 238.204 Radial†	13.5	106.76	µg/L	9.876	106.76	ppb	9.876 9.25%
K 766.490 Radial†	82.4	53.824	µg/L	13.3869	53.824	ppb	13.3869 24.87%
Mg 279.077 IEC†	-0.8	-7.6618	µg/L	16.17055	-7.6618	ppb	16.17055 211.05%
Mn 257.610†	931.6	2.9319	µg/L	0.10890	2.9319	ppb	0.10890 3.71%
Mo 202.031†	4.5	0.4403	µg/L	0.51021	0.4403	ppb	0.51021 115.87%
Na 589.592 Radial†	49.3	15.128	µg/L	3.4272	15.128	ppb	3.4272 22.66%
Ni 231.604†	12.5	0.6222	µg/L	0.42868	0.6222	ppb	0.42868 68.90%
P 214.914†	-5.0	-10.099	µg/L	7.6485	-10.099	ppb	7.6485 75.74%
Pb 220.353†	-3.9	-0.9628	µg/L	0.08552	-0.9628	ppb	0.08552 8.88%
S 181.975 Axial†	-2.7	-11.119	µg/L	9.0141	-11.119	ppb	9.0141 81.07%
Sb 206.836†	-3.5	-3.1913	µg/L	1.36765	-3.1913	ppb	1.36765 42.86%
Se 196.026†	-3.0	-3.9757	µg/L	9.36552	-3.9757	ppb	9.36552 235.57%
SiO2†	867.0	171.13	µg/L	2.453	171.13	ppb	2.453 1.43%
Si 251.611†	985.8	74.940	µg/L	3.0976	74.940	ppb	3.0976 4.13%
Sn 189.927†	5.4	2.2580	µg/L	1.00802	2.2580	ppb	1.00802 44.64%
Sr 421.552†	77.8	0.7175	µg/L	0.08863	0.7175	ppb	0.08863 12.35%
Ti 334.940†	1312.8	2.9051	µg/L	0.07670	2.9051	ppb	0.07670 2.64%
Tl 190.801†	2.2	2.9117	µg/L	5.66939	2.9117	ppb	5.66939 194.71%
U 409.014†	-20.3	-1.7007	µg/L	2.41905	-1.7007	ppb	2.41905 142.24%
V 292.402†	22.8	0.2425	µg/L	0.29312	0.2425	ppb	0.29312 120.90%
Zn 213.857†	191.9	4.4921	µg/L	0.23794	4.4921	ppb	0.23794 5.30%

Sequence No.: 2
Sample ID: 1202032572|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 202
Date Collected: 2/19/2010 21:23:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032572|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58415.3	58415.3	103	%			21:24:08
1	Al 396.153Radial†	135383.6	130927.3	91069	µg/L	91069	ppb	21:24:03
1	Ca 317.933Radial†	123850.9	119569.7	102130	µg/L	102130	ppb	21:24:03
1	Fe 238.204 Radial†	26903.3	26002.7	205100	µg/L	205100	ppb	21:24:08
1	K 766.490 Radial†	65406.2	63091.8	41206	µg/L	41206	ppb	21:24:03
1	Mg 279.077 IEC†	4657.3	4491.5	39938	µg/L	39938	ppb	21:24:08
1	Na 589.592 Radial†	34747.5	33133.4	10177	µg/L	10177	ppb	21:24:03
1	Sr 421.552†	258713.6	250183.0	2308.0	µg/L	2308.0	ppb	21:24:03
1	Sc 361.383	2042875.3	2042875.3	104.06	%			21:24:43
1	Y 371.029	1442097.3	1442097.3	106.60	%			21:24:43
1	Ag 328.068†	41321.7	40110.1	318.21	µg/L	318.21	ppb	21:24:49
1	As 188.979†	652.8	627.8	1130.7	µg/L	1130.7	ppb	21:25:10
1	B 249.677†	39577.8	37648.5	1431.3	µg/L	1431.3	ppb	21:24:49
1	Ba 233.527†	90297.4	86789.1	2085.8	µg/L	2085.8	ppb	21:24:49
1	Be 313.107†	1446764.3	1393137.2	824.64	µg/L	824.64	ppb	21:24:43
1	Cd 226.502†	26065.8	25189.8	606.44	µg/L	606.44	ppb	21:24:49
1	Co 228.616†	22074.0	21210.3	949.03	µg/L	949.03	ppb	21:24:49
1	Cr 267.716†	124315.1	119512.1	2401.2	µg/L	2401.2	ppb	21:24:49
1	Cu 324.752†	293462.6	279461.8	1852.7	µg/L	1852.7	ppb	21:24:49
1	Mn 257.610†	1904676.7	1830572.7	5758.1	µg/L	5758.1	ppb	21:24:43
1	Mo 202.031†	5538.3	5327.5	529.49	µg/L	529.49	ppb	21:25:10
1	Ni 231.604†	28651.2	27220.3	1358.4	µg/L	1358.4	ppb	21:24:49
1	P 214.914†	4607.1	4411.9	8419.2	µg/L	8419.2	ppb	21:25:10
1	Pb 220.353†	3953.3	3708.0	897.13	µg/L	897.13	ppb	21:25:10
1	S 181.975 Axial†	1039.4	979.9	4063.7	µg/L	4063.7	ppb	21:25:10
1	Sb 206.836†	1591.0	1506.4	1355.3	µg/L	1355.3	ppb	21:25:10
1	Se 196.026†	2204.1	2098.7	3443.8	µg/L	3443.8	ppb	21:25:10
1	SiO2†	371338.5	355449.6	70161	µg/L	70161	ppb	21:24:49
1	Si 251.611†	456663.7	438524.6	33337	µg/L	33337	ppb	21:24:43
1	Sn 189.927†	2865.1	2752.9	1143.3	µg/L	1143.3	ppb	21:25:10
1	Ti 334.940†	2707857.0	2601965.1	5754.6	µg/L	5754.6	ppb	21:24:43
1	Tl 190.801†	940.5	926.2	1299.5	µg/L	1299.5	ppb	21:25:10
1	U 409.014†	-1505.1	-1369.2	-148.50	µg/L	-148.50	ppb	21:24:49
1	V 292.402†	132215.8	127098.7	1272.2	µg/L	1272.2	ppb	21:24:49
1	Zn 213.857†	266531.9	255591.9	5975.6	µg/L	5975.6	ppb	21:24:49
2	Sc RADIAL	57081.8	57081.8	101	%			21:24:19
2	Al 396.153Radial†	136000.1	134596.2	93622	µg/L	93622	ppb	21:24:14
2	Ca 317.933Radial†	124362.6	122874.2	104960	µg/L	104960	ppb	21:24:14
2	Fe 238.204 Radial†	27303.6	27006.6	213020	µg/L	213020	ppb	21:24:19
2	K 766.490 Radial†	65567.7	64729.4	42276	µg/L	42276	ppb	21:24:14
2	Mg 279.077 IEC†	4708.7	4647.5	41324	µg/L	41324	ppb	21:24:19
2	Na 589.592 Radial†	34864.8	34034.6	10453	µg/L	10453	ppb	21:24:14
2	Sr 421.552†	259749.9	257053.6	2371.4	µg/L	2371.4	ppb	21:24:14
2	Sc 361.383	2038446.5	2038446.5	103.84	%			21:25:17
2	Y 371.029	1439111.3	1439111.3	106.38	%			21:25:17
2	Ag 328.068†	41317.9	40192.7	319.32	µg/L	319.32	ppb	21:25:23
2	As 188.979†	654.5	630.8	1136.4	µg/L	1136.4	ppb	21:25:44
2	B 249.677†	39451.5	37609.5	1425.6	µg/L	1425.6	ppb	21:25:23
2	Ba 233.527†	90012.7	86703.5	2083.7	µg/L	2083.7	ppb	21:25:23
2	Be 313.107†	1445115.4	1394569.8	825.49	µg/L	825.49	ppb	21:25:17
2	Cd 226.502†	26076.4	25254.5	607.16	µg/L	607.16	ppb	21:25:23
2	Co 228.616†	22015.0	21199.5	948.53	µg/L	948.53	ppb	21:25:23
2	Cr 267.716†	123858.9	119332.3	2397.6	µg/L	2397.6	ppb	21:25:23
2	Cu 324.752†	293092.4	279718.1	1855.5	µg/L	1855.5	ppb	21:25:23
2	Mn 257.610†	1901135.8	1831139.2	5760.9	µg/L	5760.9	ppb	21:25:17
2	Mo 202.031†	5546.1	5346.5	531.65	µg/L	531.65	ppb	21:25:44
2	Ni 231.604†	28564.1	27196.2	1357.3	µg/L	1357.3	ppb	21:25:23
2	P 214.914†	4614.7	4428.8	8446.8	µg/L	8446.8	ppb	21:25:44
2	Pb 220.353†	3949.7	3712.8	898.13	µg/L	898.13	ppb	21:25:44

2	S 181.975 Axial†	1031.2	974.1	4039.7 µg/L	4039.7 ppb	21:25:44
2	Sb 206.836†	1589.1	1507.8	1356.5 µg/L	1356.5 ppb	21:25:44
2	Se 196.026†	2189.0	2088.7	3449.5 µg/L	3449.5 ppb	21:25:44
2	SiO2†	370543.2	355459.0	70163 µg/L	70163 ppb	21:25:23
2	Si 251.611†	455929.2	438770.6	33356 µg/L	33356 ppb	21:25:17
2	Sn 189.927†	2861.1	2755.0	1143.4 µg/L	1143.4 ppb	21:25:44
2	Ti 334.940†	2705061.5	2604926.3	5761.1 µg/L	5761.1 ppb	21:25:17
2	Tl 190.801†	951.9	939.1	1317.4 µg/L	1317.4 ppb	21:25:44
2	U 409.014†	-1394.1	-1265.5	-141.15 µg/L	-141.15 ppb	21:25:23
2	V 292.402†	131858.0	127030.2	1272.5 µg/L	1272.5 ppb	21:25:23
2	Zn 213.857†	265787.2	255431.2	5971.4 µg/L	5971.4 ppb	21:25:23
3	Sc RADIAL	58186.2	58186.2	103 %		21:24:30
3	Al 396.153Radial†	135762.9	131811.0	91684 µg/L	91684 ppb	21:24:25
3	Ca 317.933Radial†	123845.5	120035.9	102530 µg/L	102530 ppb	21:24:25
3	Fe 238.204 Radial†	26783.7	25988.9	204990 µg/L	204990 ppb	21:24:30
3	K 766.490 Radial†	65199.2	63139.9	41238 µg/L	41238 ppb	21:24:25
3	Mg 279.077 IEC†	4638.8	4491.2	39936 µg/L	39936 ppb	21:24:30
3	Na 589.592 Radial†	34725.9	33244.8	10211 µg/L	10211 ppb	21:24:25
3	Sr 421.552†	258790.6	251242.7	2317.8 µg/L	2317.8 ppb	21:24:25
3	Sc 361.383	2028308.4	2028308.4	103.32 %		21:25:51
3	Y 371.029	1431622.5	1431622.5	105.83 %		21:25:51
3	Ag 328.068†	40828.9	39918.2	316.73 µg/L	316.73 ppb	21:25:57
3	As 188.979†	648.4	628.0	1131.2 µg/L	1131.2 ppb	21:26:17
3	B 249.677†	39045.9	37406.8	1421.5 µg/L	1421.5 ppb	21:25:57
3	Ba 233.527†	89093.4	86247.1	2072.8 µg/L	2072.8 ppb	21:25:57
3	Be 313.107†	1431602.3	1388447.1	821.86 µg/L	821.86 ppb	21:25:51
3	Cd 226.502†	25795.0	25107.7	604.40 µg/L	604.40 ppb	21:25:57
3	Co 228.616†	21826.5	21123.0	945.11 µg/L	945.11 ppb	21:25:57
3	Cr 267.716†	122499.8	118613.1	2383.2 µg/L	2383.2 ppb	21:25:57
3	Cu 324.752†	289925.9	278064.1	1843.6 µg/L	1843.6 ppb	21:25:57
3	Mn 257.610†	1881784.2	1821560.8	5729.9 µg/L	5729.9 ppb	21:25:51
3	Mo 202.031†	5528.7	5356.3	532.31 µg/L	532.31 ppb	21:26:17
3	Ni 231.604†	28328.8	27106.0	1352.7 µg/L	1352.7 ppb	21:25:57
3	P 214.914†	4597.5	4434.4	8465.0 µg/L	8465.0 ppb	21:26:17
3	Pb 220.353†	3928.9	3711.7	898.08 µg/L	898.08 ppb	21:26:17
3	S 181.975 Axial†	1035.5	983.2	4077.5 µg/L	4077.5 ppb	21:26:17
3	Sb 206.836†	1591.4	1517.8	1366.0 µg/L	1366.0 ppb	21:26:17
3	Se 196.026†	2185.1	2095.5	3439.0 µg/L	3439.0 ppb	21:26:17
3	SiO2†	366957.6	353772.3	69830 µg/L	69830 ppb	21:25:57
3	Si 251.611†	452269.8	437423.5	33254 µg/L	33254 ppb	21:25:51
3	Sn 189.927†	2855.3	2763.1	1147.6 µg/L	1147.6 ppb	21:26:17
3	Ti 334.940†	2681639.4	2595278.1	5739.8 µg/L	5739.8 ppb	21:25:51
3	Tl 190.801†	936.9	929.1	1303.1 µg/L	1303.1 ppb	21:26:17
3	U 409.014†	-1316.4	-1197.0	-134.20 µg/L	-134.20 ppb	21:25:57
3	V 292.402†	130478.2	126329.4	1264.7 µg/L	1264.7 ppb	21:25:57
3	Zn 213.857†	263037.4	254049.2	5939.5 µg/L	5939.5 ppb	21:25:57

Mean Data: 1202032572|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2036543.4	103.74	%	0.380				0.37%
Sc RADIAL	57894.4	102	%	1.3				1.23%
Y 371.029	1437610.4	106.27	%	0.399				0.38%
Ag 328.068†	40073.7	318.09	µg/L	1.296	318.09	ppb	1.296	0.41%
Al 396.153Radial†	132444.8	92125	µg/L	1332.0	92125	ppb	1332.0	1.45%
As 188.979†	628.9	1132.8	µg/L	3.17	1132.8	ppb	3.17	0.28%
B 249.677†	37555.0	1426.1	µg/L	4.93	1426.1	ppb	4.93	0.35%
Ba 233.527†	86579.9	2080.8	µg/L	7.00	2080.8	ppb	7.00	0.34%
Be 313.107†	1392051.4	824.00	µg/L	1.897	824.00	ppb	1.897	0.23%
Ca 317.933Radial†	120826.6	103210	µg/L	1527.7	103210	ppb	1527.7	1.48%
Cd 226.502†	25184.0	606.00	µg/L	1.432	606.00	ppb	1.432	0.24%
Co 228.616†	21177.6	947.55	µg/L	2.133	947.55	ppb	2.133	0.23%
Cr 267.716†	119152.5	2394.0	µg/L	9.56	2394.0	ppb	9.56	0.40%
Cu 324.752†	279081.3	1850.6	µg/L	6.23	1850.6	ppb	6.23	0.34%
Fe 238.204 Radial†	26332.7	207700	µg/L	4603.1	207700	ppb	4603.1	2.22%
K 766.490 Radial†	63653.7	41573	µg/L	608.6	41573	ppb	608.6	1.46%
Mg 279.077 IEC†	4543.4	40400	µg/L	800.9	40400	ppb	800.9	1.98%
Mn 257.610†	1827757.5	5749.7	µg/L	17.16	5749.7	ppb	17.16	0.30%
Mo 202.031†	5343.4	531.15	µg/L	1.477	531.15	ppb	1.477	0.28%
Na 589.592 Radial†	33470.9	10280	µg/L	150.9	10280	ppb	150.9	1.47%

Ni 231.604†	27174.2	1356.2 µg/L	3.02	1356.2 ppb	3.02	0.22%
P 214.914†	4425.0	8443.6 µg/L	23.07	8443.6 ppb	23.07	0.27%
Pb 220.353†	3710.8	897.78 µg/L	0.560	897.78 ppb	0.560	0.06%
S 181.975 Axial†	979.1	4060.3 µg/L	19.10	4060.3 ppb	19.10	0.47%
Sb 206.836†	1510.7	1359.3 µg/L	5.87	1359.3 ppb	5.87	0.43%
Se 196.026†	2094.3	3444.1 µg/L	5.24	3444.1 ppb	5.24	0.15%
SiO2†	354893.6	70051 µg/L	191.7	70051 ppb	191.7	0.27%
Si 251.611†	438239.6	33316 µg/L	54.5	33316 ppb	54.5	0.16%
Sn 189.927†	2757.0	1144.8 µg/L	2.45	1144.8 ppb	2.45	0.21%
Sr 421.552†	252826.4	2332.4 µg/L	34.12	2332.4 ppb	34.12	1.46%
Ti 334.940†	2600723.2	5751.8 µg/L	10.90	5751.8 ppb	10.90	0.19%
Tl 190.801†	931.5	1306.7 µg/L	9.44	1306.7 ppb	9.44	0.72%
U 409.014†	-1277.2	-141.28 µg/L	7.151	-141.28 ppb	7.151	5.06%
V 292.402†	126819.5	1269.8 µg/L	4.42	1269.8 ppb	4.42	0.35%
Zn 213.857†	255024.1	5962.2 µg/L	19.76	5962.2 ppb	19.76	0.33%

Sequence No.: 4
Sample ID: 1202032568|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 204
Date Collected: 2/19/2010 21:30:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032568|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57977.6	57977.6	103	%			21:30:37
1	Al 396.153Radial†	14352.3	13978.1	9723.8	µg/L	9723.8	ppb	21:30:37
1	Ca 317.933Radial†	20878.2	20133.3	17197	µg/L	17197	ppb	21:30:37
1	Fe 238.204 Radial†	5772.2	5608.1	44230	µg/L	44230	ppb	21:30:57
1	K 766.490 Radial†	4210.7	3938.1	2572.0	µg/L	2572.0	ppb	21:30:37
1	Mg 279.077 IEC†	314.4	293.5	2576.6	µg/L	2576.6	ppb	21:30:57
1	Na 589.592 Radial†	3884.4	3312.9	1017.5	µg/L	1017.5	ppb	21:30:37
1	Sr 421.552†	4227.2	4090.3	37.734	µg/L	37.734	ppb	21:30:37
1	Sc 361.383	2033725.5	2033725.5	103.60	%			21:32:01
1	Y 371.029	1461158.8	1461158.8	108.01	%			21:32:01
1	Ag 328.068†	-327.0	85.9	3.6619	µg/L	3.6619	ppb	21:32:07
1	As 188.979†	-1.3	-0.8	0.1909	µg/L	0.1909	ppb	21:32:27
1	B 249.677†	610.9	205.6	-14.273	µg/L	-14.273	ppb	21:32:07
1	Ba 233.527†	7916.5	7658.7	183.93	µg/L	183.93	ppb	21:32:07
1	Be 313.107†	3491.0	6225.5	3.3595	µg/L	3.3595	ppb	21:32:07
1	Cd 226.502†	17.4	158.5	-0.9181	µg/L	-0.9181	ppb	21:32:27
1	Co 228.616†	245.2	234.7	8.7972	µg/L	8.7972	ppb	21:32:27
1	Cr 267.716†	13700.2	13274.9	266.65	µg/L	266.65	ppb	21:32:07
1	Cu 324.752†	25242.1	21822.0	148.59	µg/L	148.59	ppb	21:32:07
1	Mn 257.610†	532113.6	513896.0	1615.1	µg/L	1615.1	ppb	21:32:01
1	Mo 202.031†	48.0	51.7	6.7431	µg/L	6.7431	ppb	21:32:27
1	Ni 231.604†	2958.5	2543.5	127.35	µg/L	127.35	ppb	21:32:27
1	P 214.914†	528.9	495.2	932.55	µg/L	932.55	ppb	21:32:27
1	Pb 220.353†	280.2	179.5	42.346	µg/L	42.346	ppb	21:32:27
1	S 181.975 Axial†	79.5	57.8	239.58	µg/L	239.58	ppb	21:32:27
1	Sb 206.836†	28.1	4.7	-0.1555	µg/L	-0.1555	ppb	21:32:27
1	Se 196.026†	-16.0	-34.8	64.941	µg/L	64.941	ppb	21:32:27
1	SiO2†	144080.4	137686.7	27178	µg/L	27178	ppb	21:32:07
1	Si 251.611†	175448.0	169046.3	12851	µg/L	12851	ppb	21:32:01
1	Sn 189.927†	44.6	42.7	13.497	µg/L	13.497	ppb	21:32:27
1	Ti 334.940†	412379.5	397887.7	880.28	µg/L	880.28	ppb	21:32:01
1	Tl 190.801†	-38.4	-14.7	0.3212	µg/L	0.3212	ppb	21:32:27
1	U 409.014†	-1113.3	-997.5	-90.078	µg/L	-90.078	ppb	21:32:07
1	V 292.402†	3803.1	3715.8	41.985	µg/L	41.985	ppb	21:32:07
1	Zn 213.857†	10256.9	9366.4	216.71	µg/L	216.71	ppb	21:32:07
2	Sc RADIAL	58045.1	58045.1	103	%			21:31:03
2	Al 396.153Radial†	14409.0	14017.0	9750.9	µg/L	9750.9	ppb	21:31:03
2	Ca 317.933Radial†	20896.9	20127.9	17193	µg/L	17193	ppb	21:31:03
2	Fe 238.204 Radial†	5726.2	5556.8	43826	µg/L	43826	ppb	21:31:23
2	K 766.490 Radial†	4248.2	3969.8	2592.8	µg/L	2592.8	ppb	21:31:03
2	Mg 279.077 IEC†	310.1	289.0	2536.4	µg/L	2536.4	ppb	21:31:23
2	Na 589.592 Radial†	3934.4	3357.2	1031.1	µg/L	1031.1	ppb	21:31:03
2	Sr 421.552†	4246.4	4104.3	37.863	µg/L	37.863	ppb	21:31:03
2	Sc 361.383	2044572.9	2044572.9	104.15	%			21:32:34
2	Y 371.029	1468740.2	1468740.2	108.57	%			21:32:34
2	Ag 328.068†	-291.0	122.2	3.9024	µg/L	3.9024	ppb	21:32:40
2	As 188.979†	3.8	4.1	8.9178	µg/L	8.9178	ppb	21:33:01
2	B 249.677†	630.9	221.6	-13.416	µg/L	-13.416	ppb	21:32:40
2	Ba 233.527†	7860.6	7564.5	181.67	µg/L	181.67	ppb	21:32:40
2	Be 313.107†	3336.8	6059.6	3.2626	µg/L	3.2626	ppb	21:32:40
2	Cd 226.502†	18.4	159.4	-0.8530	µg/L	-0.8530	ppb	21:33:01
2	Co 228.616†	243.3	231.7	8.6680	µg/L	8.6680	ppb	21:33:01
2	Cr 267.716†	13596.5	13105.2	263.24	µg/L	263.24	ppb	21:32:40
2	Cu 324.752†	25048.0	21506.4	146.47	µg/L	146.47	ppb	21:32:40
2	Mn 257.610†	532006.9	511068.5	1606.1	µg/L	1606.1	ppb	21:32:34
2	Mo 202.031†	44.4	48.0	6.3620	µg/L	6.3620	ppb	21:33:01
2	Ni 231.604†	2928.3	2499.3	125.15	µg/L	125.15	ppb	21:33:01
2	P 214.914†	521.2	485.1	913.15	µg/L	913.15	ppb	21:33:01
2	Pb 220.353†	283.3	181.0	42.756	µg/L	42.756	ppb	21:33:01

2	S 181.975 Axial†	81.1	59.0	244.47 µg/L	244.47 ppb	21:33:01
2	Sb 206.836†	32.7	8.9	3.7987 µg/L	3.7987 ppb	21:33:01
2	Se 196.026†	-12.5	-31.3	68.780 µg/L	68.780 ppb	21:33:01
2	SiO2†	143450.1	136343.7	26912 µg/L	26912 ppb	21:32:40
2	Si 251.611†	175216.6	167925.6	12766 µg/L	12766 ppb	21:32:34
2	Sn 189.927†	44.3	42.2	13.333 µg/L	13.333 ppb	21:33:01
2	Ti 334.940†	412600.6	395988.1	876.08 µg/L	876.08 ppb	21:32:34
2	Tl 190.801†	-31.7	-8.1	8.8023 µg/L	8.8023 ppb	21:33:01
2	U 409.014†	-1276.7	-1148.8	-102.59 µg/L	-102.59 ppb	21:32:40
2	V 292.402†	3778.0	3672.3	41.489 µg/L	41.489 ppb	21:32:40
2	Zn 213.857†	10181.3	9241.3	213.81 µg/L	213.81 ppb	21:32:40
3	Sc RADIAL	58547.0	58547.0	104 %		21:31:29
3	Al 396.153Radial†	14467.3	13953.0	9706.4 µg/L	9706.4 ppb	21:31:29
3	Ca 317.933Radial†	21082.9	20132.9	17197 µg/L	17197 ppb	21:31:29
3	Fe 238.204 Radial†	5738.5	5520.9	43543 µg/L	43543 ppb	21:31:49
3	K 766.490 Radial†	4262.7	3948.3	2578.7 µg/L	2578.7 ppb	21:31:29
3	Mg 279.077 IEC†	305.2	281.7	2471.2 µg/L	2471.2 ppb	21:31:49
3	Na 589.592 Radial†	3880.8	3272.6	1005.2 µg/L	1005.2 ppb	21:31:29
3	Sr 421.552†	4230.5	4053.4	37.393 µg/L	37.393 ppb	21:31:29
3	Sc 361.383	2037668.7	2037668.7	103.80 %		21:33:08
3	Y 371.029	1462773.2	1462773.2	108.13 %		21:33:08
3	Ag 328.068†	-258.4	152.7	4.0997 µg/L	4.0997 ppb	21:33:14
3	As 188.979†	0.4	0.9	3.2193 µg/L	3.2193 ppb	21:33:34
3	B 249.677†	557.6	153.1	-16.086 µg/L	-16.086 ppb	21:33:14
3	Ba 233.527†	7474.5	7218.1	173.35 µg/L	173.35 ppb	21:33:14
3	Be 313.107†	3041.7	5786.1	3.1126 µg/L	3.1126 ppb	21:33:14
3	Cd 226.502†	2.9	144.4	-1.2049 µg/L	-1.2049 ppb	21:33:34
3	Co 228.616†	207.3	197.8	7.2019 µg/L	7.2019 ppb	21:33:34
3	Cr 267.716†	12738.4	12322.7	247.53 µg/L	247.53 ppb	21:33:14
3	Cu 324.752†	23903.3	20485.1	139.77 µg/L	139.77 ppb	21:33:14
3	Mn 257.610†	512432.8	493941.3	1552.5 µg/L	1552.5 ppb	21:33:08
3	Mo 202.031†	43.9	47.6	6.3196 µg/L	6.3196 ppb	21:33:34
3	Ni 231.604†	2674.5	2264.3	113.43 µg/L	113.43 ppb	21:33:34
3	P 214.914†	473.7	441.1	826.81 µg/L	826.81 ppb	21:33:34
3	Pb 220.353†	262.5	161.9	38.110 µg/L	38.110 ppb	21:33:34
3	S 181.975 Axial†	74.1	52.5	217.61 µg/L	217.61 ppb	21:33:34
3	Sb 206.836†	32.1	8.4	3.4877 µg/L	3.4877 ppb	21:33:34
3	Se 196.026†	-3.3	-22.5	80.382 µg/L	80.382 ppb	21:33:34
3	SiO2†	137755.9	131324.5	25922 µg/L	25922 ppb	21:33:14
3	Si 251.611†	170091.9	163558.4	12434 µg/L	12434 ppb	21:33:08
3	Sn 189.927†	39.4	37.6	11.417 µg/L	11.417 ppb	21:33:34
3	Ti 334.940†	396084.7	381418.7	843.86 µg/L	843.86 ppb	21:33:08
3	Tl 190.801†	-34.2	-10.6	5.0221 µg/L	5.0221 ppb	21:33:34
3	U 409.014†	-977.5	-864.7	-78.943 µg/L	-78.943 ppb	21:33:14
3	V 292.402†	3594.5	3507.7	39.840 µg/L	39.840 ppb	21:33:14
3	Zn 213.857†	9726.9	8836.6	204.39 µg/L	204.39 ppb	21:33:14

Mean Data: 1202032568|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2038655.7	103.85	%	0.280				0.27%
Sc RADIAL	58189.9	103	%	0.6				0.53%
Y 371.029	1464224.1	108.24	%	0.295				0.27%
Ag 328.068†	120.3	3.8880	µg/L	0.21921	3.8880	ppb	0.21921	5.64%
Al 396.153Radial†	13982.7	9727.0	µg/L	22.44	9727.0	ppb	22.44	0.23%
As 188.979†	1.4	4.1093	µg/L	4.43100	4.1093	ppb	4.43100	107.83%
B 249.677†	193.4	-14.592	µg/L	1.3635	-14.592	ppb	1.3635	9.34%
Ba 233.527†	7480.4	179.65	µg/L	5.572	179.65	ppb	5.572	3.10%
Be 313.107†	6023.7	3.2449	µg/L	0.12440	3.2449	ppb	0.12440	3.83%
Ca 317.933Radial†	20131.3	17196	µg/L	2.6	17196	ppb	2.6	0.02%
Cd 226.502†	154.1	-0.9920	µg/L	0.18723	-0.9920	ppb	0.18723	18.87%
Co 228.616†	221.4	8.2224	µg/L	0.88614	8.2224	ppb	0.88614	10.78%
Cr 267.716†	12901.0	259.14	µg/L	10.202	259.14	ppb	10.202	3.94%
Cu 324.752†	21271.2	144.94	µg/L	4.606	144.94	ppb	4.606	3.18%
Fe 238.204 Radial†	5561.9	43866	µg/L	345.6	43866	ppb	345.6	0.79%
K 766.490 Radial†	3952.1	2581.2	µg/L	10.58	2581.2	ppb	10.58	0.41%
Mg 279.077 IEC†	288.1	2528.1	µg/L	53.18	2528.1	ppb	53.18	2.10%
Mn 257.610†	506301.9	1591.2	µg/L	33.85	1591.2	ppb	33.85	2.13%
Mo 202.031†	49.1	6.4749	µg/L	0.23323	6.4749	ppb	0.23323	3.60%
Na 589.592 Radial†	3314.2	1017.9	µg/L	12.99	1017.9	ppb	12.99	1.28%

Ni 231.604†	2435.7	121.98	µg/L	7.482	121.98	ppb	7.482	6.13%
P 214.914†	473.8	890.83	µg/L	56.292	890.83	ppb	56.292	6.32%
Pb 220.353†	174.2	41.071	µg/L	2.5724	41.071	ppb	2.5724	6.26%
S 181.975 Axial†	56.4	233.88	µg/L	14.307	233.88	ppb	14.307	6.12%
Sb 206.836†	7.3	2.3770	µg/L	2.19872	2.3770	ppb	2.19872	92.50%
Se 196.026†	-29.5	71.368	µg/L	8.0390	71.368	ppb	8.0390	11.26%
SiO2†	135118.3	26671	µg/L	661.9	26671	ppb	661.9	2.48%
Si 251.611†	166843.4	12684	µg/L	220.4	12684	ppb	220.4	1.74%
Sn 189.927†	40.8	12.749	µg/L	1.1564	12.749	ppb	1.1564	9.07%
Sr 421.552†	4082.7	37.663	µg/L	0.2424	37.663	ppb	0.2424	0.64%
Ti 334.940†	391764.8	866.74	µg/L	19.928	866.74	ppb	19.928	2.30%
Tl 190.801†	-11.1	4.7152	µg/L	4.24883	4.7152	ppb	4.24883	90.11%
U 409.014†	-1003.7	-90.536	µg/L	11.8288	-90.536	ppb	11.8288	13.07%
V 292.402†	3631.9	41.105	µg/L	1.1227	41.105	ppb	1.1227	2.73%
Zn 213.857†	9148.1	211.64	µg/L	6.439	211.64	ppb	6.439	3.04%

Sequence No.: 5
Sample ID: 1202032570|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 205
Date Collected: 2/19/2010 21:33:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032570|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59019.0	59019.0	104	%			21:34:16
1	Al 396.153Radial†	31626.3	30266.8	21045	µg/L	21045	ppb	21:34:16
1	Ca 317.933Radial†	19945.0	18881.0	16128	µg/L	16128	ppb	21:34:16
1	Fe 238.204 Radial†	6590.4	6292.1	49635	µg/L	49635	ppb	21:34:36
1	K 766.490 Radial†	13042.1	12319.5	8046.1	µg/L	8046.1	ppb	21:34:16
1	Mg 279.077 IEC†	1048.0	990.4	8807.7	µg/L	8807.7	ppb	21:34:36
1	Na 589.592 Radial†	21553.7	20159.9	6192.0	µg/L	6192.0	ppb	21:34:16
1	Sr 421.552†	56371.5	53932.5	497.54	µg/L	497.54	ppb	21:34:16
1	Sc 361.383	2052596.8	2052596.8	104.56	%			21:35:42
1	Y 371.029	1502368.7	1502368.7	111.06	%			21:35:42
1	Ag 328.068†	65725.7	63262.2	475.14	µg/L	475.14	ppb	21:35:47
1	As 188.979†	294.7	282.3	507.10	µg/L	507.10	ppb	21:36:08
1	B 249.677†	12919.0	11971.6	462.98	µg/L	462.98	ppb	21:35:47
1	Ba 233.527†	28416.7	27195.0	653.80	µg/L	653.80	ppb	21:35:47
1	Be 313.107†	866931.1	831995.4	493.18	µg/L	493.18	ppb	21:35:42
1	Cd 226.502†	20408.9	19660.9	485.29	µg/L	485.29	ppb	21:35:47
1	Co 228.616†	11225.4	10734.1	483.21	µg/L	483.21	ppb	21:35:47
1	Cr 267.716†	30615.4	29331.2	589.45	µg/L	589.45	ppb	21:35:47
1	Cu 324.752†	86615.8	80296.3	531.03	µg/L	531.03	ppb	21:35:47
1	Mn 257.610†	704496.9	674042.5	2117.0	µg/L	2117.0	ppb	21:35:42
1	Mo 202.031†	5131.9	4913.6	483.05	µg/L	483.05	ppb	21:36:08
1	Ni 231.604†	11589.0	10771.5	537.02	µg/L	537.02	ppb	21:35:47
1	P 214.914†	725.7	678.7	1261.7	µg/L	1261.7	ppb	21:36:08
1	Pb 220.353†	2325.3	2133.0	517.91	µg/L	517.91	ppb	21:36:08
1	S 181.975 Axial†	1323.8	1247.2	5172.0	µg/L	5172.0	ppb	21:36:08
1	Sb 206.836†	558.9	512.0	469.81	µg/L	469.81	ppb	21:36:08
1	Se 196.026†	363.3	328.2	584.20	µg/L	584.20	ppb	21:36:08
1	SiO2†	258873.9	246197.4	48596	µg/L	48596	ppb	21:35:42
1	Si 251.611†	310698.8	296844.1	22567	µg/L	22567	ppb	21:35:42
1	Sn 189.927†	1264.0	1208.6	505.34	µg/L	505.34	ppb	21:36:08
1	Ti 334.940†	759508.3	726224.7	1606.1	µg/L	1606.1	ppb	21:35:42
1	Tl 190.801†	349.6	356.7	491.96	µg/L	491.96	ppb	21:36:08
1	U 409.014†	4444.3	4327.6	351.67	µg/L	351.67	ppb	21:35:42
1	V 292.402†	55037.7	52683.3	524.69	µg/L	524.69	ppb	21:35:47
1	Zn 213.857†	31689.3	29773.5	692.46	µg/L	692.46	ppb	21:35:47
2	Sc RADIAL	58925.7	58925.7	104	%			21:34:42
2	Al 396.153Radial†	31645.2	30332.9	21091	µg/L	21091	ppb	21:34:42
2	Ca 317.933Radial†	19929.7	18896.6	16141	µg/L	16141	ppb	21:34:42
2	Fe 238.204 Radial†	6578.0	6290.1	49620	µg/L	49620	ppb	21:35:02
2	K 766.490 Radial†	13105.7	12400.3	8098.8	µg/L	8098.8	ppb	21:34:42
2	Mg 279.077 IEC†	1036.4	980.8	8722.5	µg/L	8722.5	ppb	21:35:02
2	Na 589.592 Radial†	21556.7	20195.5	6202.9	µg/L	6202.9	ppb	21:34:42
2	Sr 421.552†	56346.0	53993.5	498.10	µg/L	498.10	ppb	21:34:42
2	Sc 361.383	2055614.8	2055614.8	104.71	%			21:36:16
2	Y 371.029	1503879.5	1503879.5	111.17	%			21:36:16
2	Ag 328.068†	65625.8	63074.5	473.72	µg/L	473.72	ppb	21:36:22
2	As 188.979†	292.2	279.5	502.08	µg/L	502.08	ppb	21:36:42
2	B 249.677†	12868.3	11905.1	460.27	µg/L	460.27	ppb	21:36:22
2	Ba 233.527†	28304.1	27047.6	650.26	µg/L	650.26	ppb	21:36:22
2	Be 313.107†	868910.6	832668.5	493.58	µg/L	493.58	ppb	21:36:16
2	Cd 226.502†	20262.2	19492.2	481.08	µg/L	481.08	ppb	21:36:22
2	Co 228.616†	11192.7	10687.1	481.07	µg/L	481.07	ppb	21:36:22
2	Cr 267.716†	30478.9	29157.8	585.96	µg/L	585.96	ppb	21:36:22
2	Cu 324.752†	86339.1	79910.5	528.51	µg/L	528.51	ppb	21:36:22
2	Mn 257.610†	706641.0	675100.8	2120.3	µg/L	2120.3	ppb	21:36:16
2	Mo 202.031†	5044.0	4822.4	474.12	µg/L	474.12	ppb	21:36:42
2	Ni 231.604†	11517.9	10687.3	532.82	µg/L	532.82	ppb	21:36:22
2	P 214.914†	713.2	665.8	1236.3	µg/L	1236.3	ppb	21:36:42
2	Pb 220.353†	2301.6	2107.1	511.59	µg/L	511.59	ppb	21:36:42

2	S 181.975 Axial†	1313.6	1235.6	5123.8 µg/L	5123.8 ppb	21:36:42
2	Sb 206.836†	548.0	500.9	459.48 µg/L	459.48 ppb	21:36:42
2	Se 196.026†	368.3	332.4	590.15 µg/L	590.15 ppb	21:36:42
2	SiO2†	259539.5	246469.6	48650 µg/L	48650 ppb	21:36:16
2	Si 251.611†	311361.5	297040.7	22582 µg/L	22582 ppb	21:36:16
2	Sn 189.927†	1255.4	1198.6	501.11 µg/L	501.11 ppb	21:36:42
2	Ti 334.940†	761157.2	726732.9	1607.3 µg/L	1607.3 ppb	21:36:16
2	Tl 190.801†	354.6	361.1	497.62 µg/L	497.62 ppb	21:36:42
2	U 409.014†	4515.8	4389.7	356.84 µg/L	356.84 ppb	21:36:16
2	V 292.402†	54783.5	52363.2	521.50 µg/L	521.50 ppb	21:36:22
2	Zn 213.857†	31547.6	29593.7	688.27 µg/L	688.27 ppb	21:36:22
3	Sc RADIAL	58788.9	58788.9	104 %		21:35:08
3	Al 396.153Radial†	31466.7	30231.9	21022 µg/L	21022 ppb	21:35:08
3	Ca 317.933Radial†	19759.9	18777.8	16040 µg/L	16040 ppb	21:35:08
3	Fe 238.204 Radial†	6545.5	6273.6	49489 µg/L	49489 ppb	21:35:28
3	K 766.490 Radial†	13001.9	12329.7	8052.8 µg/L	8052.8 ppb	21:35:08
3	Mg 279.077 IEC†	1041.4	988.0	8785.8 µg/L	8785.8 ppb	21:35:28
3	Na 589.592 Radial†	21495.8	20185.1	6199.7 µg/L	6199.7 ppb	21:35:08
3	Sr 421.552†	56110.8	53893.2	497.17 µg/L	497.17 ppb	21:35:08
3	Sc 361.383	2060110.6	2060110.6	104.94 %		21:36:50
3	Y 371.029	1502209.7	1502209.7	111.05 %		21:36:50
3	Ag 328.068†	63802.4	61200.1	459.61 µg/L	459.61 ppb	21:36:56
3	As 188.979†	264.4	252.4	453.59 µg/L	453.59 ppb	21:37:16
3	B 249.677†	12340.9	11375.8	438.70 µg/L	438.70 ppb	21:36:56
3	Ba 233.527†	26775.3	25531.8	613.81 µg/L	613.81 ppb	21:36:56
3	Be 313.107†	824987.0	789002.0	467.70 µg/L	467.70 ppb	21:36:50
3	Cd 226.502†	19407.3	18635.3	459.69 µg/L	459.69 ppb	21:36:56
3	Co 228.616†	10520.6	10023.3	451.15 µg/L	451.15 ppb	21:36:56
3	Cr 267.716†	28475.0	27184.8	546.31 µg/L	546.31 ppb	21:36:56
3	Cu 324.752†	81724.2	75332.9	498.61 µg/L	498.61 ppb	21:36:56
3	Mn 257.610†	673174.6	641737.3	2015.8 µg/L	2015.8 ppb	21:36:50
3	Mo 202.031†	4570.1	4360.2	428.86 µg/L	428.86 ppb	21:37:16
3	Ni 231.604†	10886.3	10061.4	501.66 µg/L	501.66 ppb	21:36:56
3	P 214.914†	670.3	623.4	1155.0 µg/L	1155.0 ppb	21:37:16
3	Pb 220.353†	2148.6	1956.5	474.91 µg/L	474.91 ppb	21:37:16
3	S 181.975 Axial†	1223.8	1147.2	4757.5 µg/L	4757.5 ppb	21:37:16
3	Sb 206.836†	502.7	456.5	418.51 µg/L	418.51 ppb	21:37:16
3	Se 196.026†	331.1	296.2	538.96 µg/L	538.96 ppb	21:37:16
3	SiO2†	249639.0	236494.3	46681 µg/L	46681 ppb	21:36:50
3	Si 251.611†	299443.4	285034.9	21669 µg/L	21669 ppb	21:36:50
3	Sn 189.927†	1135.2	1081.4	451.71 µg/L	451.71 ppb	21:37:16
3	Ti 334.940†	720176.9	686095.7	1517.4 µg/L	1517.4 ppb	21:36:50
3	Tl 190.801†	317.2	324.6	449.16 µg/L	449.16 ppb	21:37:16
3	U 409.014†	4313.5	4187.5	340.06 µg/L	340.06 ppb	21:36:50
3	V 292.402†	51369.5	48995.8	488.21 µg/L	488.21 ppb	21:36:56
3	Zn 213.857†	30058.2	28108.6	653.61 µg/L	653.61 ppb	21:36:56

Mean Data: 1202032570|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2056107.4	104.74	%	0.193				0.18%
Sc RADIAL	58911.2	104	%	0.2				0.20%
Y 371.029	1502819.3	111.09	%	0.068				0.06%
Ag 328.068†	62512.3	469.49	µg/L	8.583	469.49	ppb	8.583	1.83%
Al 396.153Radial†	30277.2	21053	µg/L	35.3	21053	ppb	35.3	0.17%
As 188.979†	271.4	487.59	µg/L	29.555	487.59	ppb	29.555	6.06%
B 249.677†	11750.8	453.98	µg/L	13.305	453.98	ppb	13.305	2.93%
Ba 233.527†	26591.5	639.29	µg/L	22.138	639.29	ppb	22.138	3.46%
Be 313.107†	817888.7	484.82	µg/L	14.829	484.82	ppb	14.829	3.06%
Ca 317.933Radial†	18851.8	16103	µg/L	55.1	16103	ppb	55.1	0.34%
Cd 226.502†	19262.8	475.35	µg/L	13.726	475.35	ppb	13.726	2.89%
Co 228.616†	10481.5	471.81	µg/L	17.920	471.81	ppb	17.920	3.80%
Cr 267.716†	28557.9	573.91	µg/L	23.961	573.91	ppb	23.961	4.17%
Cu 324.752†	78513.2	519.38	µg/L	18.034	519.38	ppb	18.034	3.47%
Fe 238.204 Radial†	6285.3	49581	µg/L	80.5	49581	ppb	80.5	0.16%
K 766.490 Radial†	12349.8	8065.9	µg/L	28.73	8065.9	ppb	28.73	0.36%
Mg 279.077 IEC†	986.4	8772.0	µg/L	44.26	8772.0	ppb	44.26	0.50%
Mn 257.610†	663626.9	2084.4	µg/L	59.40	2084.4	ppb	59.40	2.85%
Mo 202.031†	4698.7	462.01	µg/L	29.054	462.01	ppb	29.054	6.29%
Na 589.592 Radial†	20180.2	6198.2	µg/L	5.62	6198.2	ppb	5.62	0.09%

Ni 231.604†	10506.7	523.84 µg/L	19.318	523.84 ppb	19.318	3.69%
P 214.914†	656.0	1217.7 µg/L	55.75	1217.7 ppb	55.75	4.58%
Pb 220.353†	2065.5	501.47 µg/L	23.220	501.47 ppb	23.220	4.63%
S 181.975 Axial†	1210.0	5017.8 µg/L	226.65	5017.8 ppb	226.65	4.52%
Sb 206.836†	489.8	449.27 µg/L	27.132	449.27 ppb	27.132	6.04%
Se 196.026†	318.9	571.11 µg/L	27.997	571.11 ppb	27.997	4.90%
SiO2†	243053.8	47976 µg/L	1121.6	47976 ppb	1121.6	2.34%
Si 251.611†	292973.2	22272 µg/L	522.7	22272 ppb	522.7	2.35%
Sn 189.927†	1162.8	486.05 µg/L	29.818	486.05 ppb	29.818	6.13%
Sr 421.552†	53939.7	497.60 µg/L	0.466	497.60 ppb	0.466	0.09%
Ti 334.940†	713017.7	1576.9 µg/L	51.58	1576.9 ppb	51.58	3.27%
Tl 190.801†	347.5	479.58 µg/L	26.496	479.58 ppb	26.496	5.52%
U 409.014†	4301.6	349.52 µg/L	8.592	349.52 ppb	8.592	2.46%
V 292.402†	51347.4	511.47 µg/L	20.204	511.47 ppb	20.204	3.95%
Zn 213.857†	29158.6	678.11 µg/L	21.320	678.11 ppb	21.320	3.14%

Sequence No.: 6
Sample ID: 1202032571|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 206
Date Collected: 2/19/2010 21:37:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032571|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59069.1	59069.1	105	%			21:37:58
1	Al 396.153Radial†	29353.5	28067.3	19515	µg/L	19515	ppb	21:37:58
1	Ca 317.933Radial†	14054.2	13230.6	11301	µg/L	11301	ppb	21:38:19
1	Fe 238.204 Radial†	5910.9	5636.8	44467	µg/L	44467	ppb	21:38:19
1	K 766.490 Radial†	12276.9	11577.0	7561.1	µg/L	7561.1	ppb	21:37:58
1	Mg 279.077 IEC†	1002.0	945.5	8412.3	µg/L	8412.3	ppb	21:38:19
1	Na 589.592 Radial†	21518.6	20108.9	6176.3	µg/L	6176.3	ppb	21:37:58
1	Sr 421.552†	55106.5	52676.8	485.95	µg/L	485.95	ppb	21:37:58
1	Sc 361.383	2052886.2	2052886.2	104.57	%			21:39:24
1	Y 371.029	1493298.8	1493298.8	110.39	%			21:39:24
1	Ag 328.068†	66676.3	64162.4	481.40	µg/L	481.40	ppb	21:39:29
1	As 188.979†	289.6	277.4	498.26	µg/L	498.26	ppb	21:39:50
1	B 249.677†	12940.7	11990.7	466.38	µg/L	466.38	ppb	21:39:29
1	Ba 233.527†	26394.1	25257.1	607.26	µg/L	607.26	ppb	21:39:29
1	Be 313.107†	877307.6	841801.3	499.03	µg/L	499.03	ppb	21:39:24
1	Cd 226.502†	20800.7	20032.8	495.14	µg/L	495.14	ppb	21:39:29
1	Co 228.616†	11324.3	10827.2	487.59	µg/L	487.59	ppb	21:39:29
1	Cr 267.716†	28068.7	26891.7	540.44	µg/L	540.44	ppb	21:39:29
1	Cu 324.752†	86472.2	80147.3	529.34	µg/L	529.34	ppb	21:39:29
1	Mn 257.610†	686738.5	656965.5	2062.9	µg/L	2062.9	ppb	21:39:24
1	Mo 202.031†	5108.1	4890.1	480.56	µg/L	480.56	ppb	21:39:50
1	Ni 231.604†	11306.0	10499.3	523.38	µg/L	523.38	ppb	21:39:29
1	P 214.914†	703.7	657.6	1223.9	µg/L	1223.9	ppb	21:39:50
1	Pb 220.353†	2313.2	2121.1	515.08	µg/L	515.08	ppb	21:39:50
1	S 181.975 Axial†	1321.7	1245.0	5162.9	µg/L	5162.9	ppb	21:39:50
1	Sb 206.836†	559.6	512.7	471.37	µg/L	471.37	ppb	21:39:50
1	Se 196.026†	367.1	331.8	576.80	µg/L	576.80	ppb	21:39:50
1	SiO2†	230492.1	219021.8	43232	µg/L	43232	ppb	21:39:24
1	Si 251.611†	276277.8	263886.4	20061	µg/L	20061	ppb	21:39:24
1	Sn 189.927†	1286.7	1230.0	514.92	µg/L	514.92	ppb	21:39:50
1	Ti 334.940†	720586.5	688902.4	1523.5	µg/L	1523.5	ppb	21:39:24
1	Tl 190.801†	355.0	361.9	497.32	µg/L	497.32	ppb	21:39:50
1	U 409.014†	4794.7	4662.1	380.48	µg/L	380.48	ppb	21:39:24
1	V 292.402†	53826.5	51517.6	512.62	µg/L	512.62	ppb	21:39:29
1	Zn 213.857†	31534.2	29620.9	689.21	µg/L	689.21	ppb	21:39:29
2	Sc RADIAL	58915.2	58915.2	104	%			21:38:24
2	Al 396.153Radial†	29688.1	28461.5	19790	µg/L	19790	ppb	21:38:24
2	Ca 317.933Radial†	14146.0	13353.8	11407	µg/L	11407	ppb	21:38:45
2	Fe 238.204 Radial†	5935.5	5675.2	44770	µg/L	44770	ppb	21:38:45
2	K 766.490 Radial†	12397.0	11722.9	7656.4	µg/L	7656.4	ppb	21:38:24
2	Mg 279.077 IEC†	1011.2	956.8	8513.2	µg/L	8513.2	ppb	21:38:45
2	Na 589.592 Radial†	21769.7	20403.4	6266.8	µg/L	6266.8	ppb	21:38:24
2	Sr 421.552†	55739.2	53421.3	492.82	µg/L	492.82	ppb	21:38:24
2	Sc 361.383	2046644.5	2046644.5	104.25	%			21:39:58
2	Y 371.029	1489520.7	1489520.7	110.11	%			21:39:58
2	Ag 328.068†	66571.6	64256.4	482.12	µg/L	482.12	ppb	21:40:04
2	As 188.979†	289.0	277.7	498.72	µg/L	498.72	ppb	21:40:24
2	B 249.677†	12836.5	11928.4	463.68	µg/L	463.68	ppb	21:40:04
2	Ba 233.527†	26346.6	25288.4	608.01	µg/L	608.01	ppb	21:40:04
2	Be 313.107†	879492.5	846455.6	501.79	µg/L	501.79	ppb	21:39:58
2	Cd 226.502†	20745.2	20040.2	495.29	µg/L	495.29	ppb	21:40:04
2	Co 228.616†	11337.4	10872.7	489.64	µg/L	489.64	ppb	21:40:04
2	Cr 267.716†	28074.9	26979.5	542.21	µg/L	542.21	ppb	21:40:04
2	Cu 324.752†	86335.2	80268.1	530.17	µg/L	530.17	ppb	21:40:04
2	Mn 257.610†	687683.7	659875.0	2072.0	µg/L	2072.0	ppb	21:39:58
2	Mo 202.031†	5073.7	4871.9	478.79	µg/L	478.79	ppb	21:40:24
2	Ni 231.604†	11280.6	10507.8	523.81	µg/L	523.81	ppb	21:40:04
2	P 214.914†	699.4	655.5	1219.5	µg/L	1219.5	ppb	21:40:24
2	Pb 220.353†	2303.1	2118.2	514.38	µg/L	514.38	ppb	21:40:24

2	S 181.975 Axial†	1320.9	1248.1	5175.7 µg/L	5175.7 ppb	21:40:24
2	Sb 206.836†	555.4	510.3	469.09 µg/L	469.09 ppb	21:40:24
2	Se 196.026†	367.5	333.2	579.51 µg/L	579.51 ppb	21:40:24
2	SiO2†	231280.4	220450.2	43514 µg/L	43514 ppb	21:39:58
2	Si 251.611†	277304.5	265676.9	20197 µg/L	20197 ppb	21:39:58
2	Sn 189.927†	1274.5	1222.2	511.58 µg/L	511.58 ppb	21:40:24
2	Ti 334.940†	722270.4	692619.1	1531.7 µg/L	1531.7 ppb	21:39:58
2	Tl 190.801†	358.8	366.5	503.52 µg/L	503.52 ppb	21:40:24
2	U 409.014†	4784.3	4666.1	380.77 µg/L	380.77 ppb	21:39:58
2	V 292.402†	53756.2	51607.1	513.52 µg/L	513.52 ppb	21:40:04
2	Zn 213.857†	31484.2	29664.9	690.21 µg/L	690.21 ppb	21:40:04
3	Sc RADIAL	59416.2	59416.2	105 %		21:38:50
3	Al 396.153Radial†	29760.7	28290.4	19672 µg/L	19672 ppb	21:38:50
3	Ca 317.933Radial†	14086.4	13182.7	11260 µg/L	11260 ppb	21:39:10
3	Fe 238.204 Radial†	5910.2	5603.1	44201 µg/L	44201 ppb	21:39:10
3	K 766.490 Radial†	12421.7	11646.1	7606.3 µg/L	7606.3 ppb	21:38:50
3	Mg 279.077 IEC†	1004.5	942.3	8383.2 µg/L	8383.2 ppb	21:39:10
3	Na 589.592 Radial†	21802.9	20259.0	6222.4 µg/L	6222.4 ppb	21:38:50
3	Sr 421.552†	55779.4	53008.8	489.01 µg/L	489.01 ppb	21:38:50
3	Sc 361.383	2047214.8	2047214.8	104.28 %		21:40:32
3	Y 371.029	1484735.9	1484735.9	109.76 %		21:40:32
3	Ag 328.068†	64126.4	61893.8	464.32 µg/L	464.32 ppb	21:40:38
3	As 188.979†	267.2	256.7	461.22 µg/L	461.22 ppb	21:40:58
3	B 249.677†	12317.1	11427.0	443.46 µg/L	443.46 ppb	21:40:38
3	Ba 233.527†	24548.4	23557.0	566.37 µg/L	566.37 ppb	21:40:38
3	Be 313.107†	833152.5	801784.1	475.31 µg/L	475.31 ppb	21:40:32
3	Cd 226.502†	19491.6	18832.6	465.19 µg/L	465.19 ppb	21:40:38
3	Co 228.616†	10452.4	10021.1	451.20 µg/L	451.20 ppb	21:40:38
3	Cr 267.716†	25651.1	24647.8	495.35 µg/L	495.35 ppb	21:40:38
3	Cu 324.752†	80243.2	74403.3	491.81 µg/L	491.81 ppb	21:40:38
3	Mn 257.610†	653566.1	626975.1	1968.9 µg/L	1968.9 ppb	21:40:32
3	Mo 202.031†	4516.6	4336.4	426.33 µg/L	426.33 ppb	21:40:58
3	Ni 231.604†	10444.9	9703.5	483.75 µg/L	483.75 ppb	21:40:38
3	P 214.914†	640.3	598.6	1110.5 µg/L	1110.5 ppb	21:40:58
3	Pb 220.353†	2114.6	1936.8	470.24 µg/L	470.24 ppb	21:40:58
3	S 181.975 Axial†	1216.3	1147.4	4758.3 µg/L	4758.3 ppb	21:40:58
3	Sb 206.836†	507.7	464.4	426.65 µg/L	426.65 ppb	21:40:58
3	Se 196.026†	337.9	304.7	538.13 µg/L	538.13 ppb	21:40:58
3	SiO2†	222644.6	212107.3	41867 µg/L	41867 ppb	21:40:32
3	Si 251.611†	266723.5	255456.4	19420 µg/L	19420 ppb	21:40:32
3	Sn 189.927†	1134.2	1087.2	454.72 µg/L	454.72 ppb	21:40:58
3	Ti 334.940†	681996.7	653806.8	1445.9 µg/L	1445.9 ppb	21:40:32
3	Tl 190.801†	329.4	338.2	465.66 µg/L	465.66 ppb	21:40:58
3	U 409.014†	4466.8	4360.4	355.46 µg/L	355.46 ppb	21:40:32
3	V 292.402†	49417.8	47432.5	472.24 µg/L	472.24 ppb	21:40:38
3	Zn 213.857†	29442.9	27699.0	644.36 µg/L	644.36 ppb	21:40:38

Mean Data: 1202032571|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sc 361.383	2048915.2	104.37	%	0.176				0.17%
Sc RADIAL	59133.5	105	%	0.5				0.43%
Y 371.029	1489185.1	110.09	%	0.317				0.29%
Ag 328.068†	63437.5	475.95	µg/L	10.078	475.95	ppb	10.078	2.12%
Al 396.153Radial†	28273.1	19659	µg/L	137.6	19659	ppb	137.6	0.70%
As 188.979†	270.6	486.07	µg/L	21.520	486.07	ppb	21.520	4.43%
B 249.677†	11782.1	457.84	µg/L	12.523	457.84	ppb	12.523	2.74%
Ba 233.527†	24700.8	593.88	µg/L	23.826	593.88	ppb	23.826	4.01%
Be 313.107†	830013.7	492.05	µg/L	14.557	492.05	ppb	14.557	2.96%
Ca 317.933Radial†	13255.7	11323	µg/L	75.4	11323	ppb	75.4	0.67%
Cd 226.502†	19635.2	485.21	µg/L	17.332	485.21	ppb	17.332	3.57%
Co 228.616†	10573.7	476.14	µg/L	21.625	476.14	ppb	21.625	4.54%
Cr 267.716†	26173.0	526.00	µg/L	26.560	526.00	ppb	26.560	5.05%
Cu 324.752†	78272.9	517.11	µg/L	21.912	517.11	ppb	21.912	4.24%
Fe 238.204 Radial†	5638.4	44479	µg/L	284.9	44479	ppb	284.9	0.64%
K 766.490 Radial†	11648.7	7607.9	µg/L	47.68	7607.9	ppb	47.68	0.63%
Mg 279.077 IEC†	948.2	8436.2	µg/L	68.22	8436.2	ppb	68.22	0.81%
Mn 257.610†	647938.5	2034.6	µg/L	57.07	2034.6	ppb	57.07	2.80%
Mo 202.031†	4699.5	461.89	µg/L	30.814	461.89	ppb	30.814	6.67%
Na 589.592 Radial†	20257.1	6221.8	µg/L	45.24	6221.8	ppb	45.24	0.73%

Ni 231.604†	10236.9	510.31 µg/L	23.004	510.31 ppb	23.004	4.51%
P 214.914†	637.2	1184.6 µg/L	64.24	1184.6 ppb	64.24	5.42%
Pb 220.353†	2058.7	499.90 µg/L	25.690	499.90 ppb	25.690	5.14%
S 181.975 Axial†	1213.5	5032.3 µg/L	237.39	5032.3 ppb	237.39	4.72%
Sb 206.836†	495.8	455.70 µg/L	25.186	455.70 ppb	25.186	5.53%
Se 196.026†	323.2	564.81 µg/L	23.147	564.81 ppb	23.147	4.10%
SiO2†	217193.1	42871 µg/L	880.7	42871 ppb	880.7	2.05%
Si 251.611†	261673.2	19893 µg/L	414.9	19893 ppb	414.9	2.09%
Sn 189.927†	1179.8	493.74 µg/L	33.831	493.74 ppb	33.831	6.85%
Sr 421.552†	53035.6	489.26 µg/L	3.441	489.26 ppb	3.441	0.70%
Ti 334.940†	678442.8	1500.4 µg/L	47.37	1500.4 ppb	47.37	3.16%
Tl 190.801†	355.5	488.84 µg/L	20.308	488.84 ppb	20.308	4.15%
U 409.014†	4562.9	372.23 µg/L	14.530	372.23 ppb	14.530	3.90%
V 292.402†	50185.8	499.46 µg/L	23.583	499.46 ppb	23.583	4.72%
Zn 213.857†	28994.9	674.59 µg/L	26.185	674.59 ppb	26.185	3.88%

Sequence No.: 7
Sample ID: 1202032569|948744|5
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 207
Date Collected: 2/19/2010 21:41:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032569|948744|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58658.9	58658.9	104	%			21:41:40
1	Al 396.153Radial†	2684.9	2578.5	1793.7	µg/L	1793.7	ppb	21:41:40
1	Ca 317.933Radial†	3333.7	2999.5	2562.1	µg/L	2562.1	ppb	21:41:40
1	Fe 238.204 Radial†	1110.9	1053.3	8307.5	µg/L	8307.5	ppb	21:42:00
1	K 766.490 Radial†	929.8	730.5	477.09	µg/L	477.09	ppb	21:41:40
1	Mg 279.077 IEC†	63.9	48.7	426.64	µg/L	426.64	ppb	21:42:00
1	Na 589.592 Radial†	1130.6	616.7	189.42	µg/L	189.42	ppb	21:41:40
1	Sr 421.552†	682.4	628.5	5.7977	µg/L	5.7977	ppb	21:41:40
1	Sc 361.383	2054721.9	2054721.9	104.67	%			21:43:02
1	Y 371.029	1430917.5	1430917.5	105.78	%			21:43:02
1	Ag 328.068†	-389.0	29.9	0.7917	µg/L	0.7917	ppb	21:43:08
1	As 188.979†	4.2	4.4	8.3221	µg/L	8.3221	ppb	21:43:28
1	B 249.677†	419.8	17.0	-3.6285	µg/L	-3.6285	ppb	21:43:08
1	Ba 233.527†	964.8	938.9	22.553	µg/L	22.553	ppb	21:43:28
1	Be 313.107†	-1441.8	1478.1	0.8150	µg/L	0.8150	ppb	21:43:08
1	Cd 226.502†	-99.8	46.3	0.2197	µg/L	0.2197	ppb	21:43:28
1	Co 228.616†	46.9	42.9	1.6003	µg/L	1.6003	ppb	21:43:28
1	Cr 267.716†	419.7	451.4	9.0701	µg/L	9.0701	ppb	21:43:08
1	Cu 324.752†	3385.2	690.6	5.6624	µg/L	5.6624	ppb	21:43:08
1	Mn 257.610†	102233.7	97932.0	307.76	µg/L	307.76	ppb	21:43:08
1	Mo 202.031†	0.0	5.4	0.8418	µg/L	0.8418	ppb	21:43:28
1	Ni 231.604†	402.4	72.1	3.7020	µg/L	3.7020	ppb	21:43:28
1	P 214.914†	87.1	67.9	127.70	µg/L	127.70	ppb	21:43:28
1	Pb 220.353†	113.5	17.5	4.0338	µg/L	4.0338	ppb	21:43:28
1	S 181.975 Axial†	25.4	5.3	22.077	µg/L	22.077	ppb	21:43:28
1	Sb 206.836†	26.6	2.9	2.3560	µg/L	2.3560	ppb	21:43:28
1	Se 196.026†	7.6	-12.1	4.6640	µg/L	4.6640	ppb	21:43:28
1	SiO2†	28335.2	25680.4	5069.0	µg/L	5069.0	ppb	21:43:08
1	Si 251.611†	32807.9	31034.6	2359.3	µg/L	2359.3	ppb	21:43:08
1	Sn 189.927†	4.2	3.6	0.6758	µg/L	0.6758	ppb	21:43:28
1	Ti 334.940†	77513.6	73882.9	163.45	µg/L	163.45	ppb	21:43:08
1	Tl 190.801†	-22.8	0.6	4.4769	µg/L	4.4769	ppb	21:43:28
1	U 409.014†	-238.4	-150.7	-13.828	µg/L	-13.828	ppb	21:43:08
1	V 292.402†	713.4	726.3	8.0677	µg/L	8.0677	ppb	21:43:08
1	Zn 213.857†	2320.0	1682.2	39.024	µg/L	39.024	ppb	21:43:28
2	Sc RADIAL	58271.8	58271.8	103	%			21:42:06
2	Al 396.153Radial†	2672.3	2583.5	1797.2	µg/L	1797.2	ppb	21:42:06
2	Ca 317.933Radial†	3327.2	3014.5	2574.9	µg/L	2574.9	ppb	21:42:06
2	Fe 238.204 Radial†	1101.6	1051.5	8292.8	µg/L	8292.8	ppb	21:42:26
2	K 766.490 Radial†	984.9	789.9	515.88	µg/L	515.88	ppb	21:42:06
2	Mg 279.077 IEC†	61.6	46.9	410.69	µg/L	410.69	ppb	21:42:26
2	Na 589.592 Radial†	1082.7	577.5	177.37	µg/L	177.37	ppb	21:42:06
2	Sr 421.552†	719.5	668.7	6.1691	µg/L	6.1691	ppb	21:42:06
2	Sc 361.383	2058109.7	2058109.7	104.84	%			21:43:34
2	Y 371.029	1432626.2	1432626.2	105.90	%			21:43:34
2	Ag 328.068†	-455.1	-32.5	0.3254	µg/L	0.3254	ppb	21:43:40
2	As 188.979†	-0.9	-0.4	-0.4394	µg/L	-0.4394	ppb	21:44:01
2	B 249.677†	400.1	-2.5	-4.4150	µg/L	-4.4150	ppb	21:43:40
2	Ba 233.527†	955.4	928.3	22.299	µg/L	22.299	ppb	21:44:01
2	Be 313.107†	-1494.0	1430.7	0.7867	µg/L	0.7867	ppb	21:43:40
2	Cd 226.502†	-105.7	40.8	0.0853	µg/L	0.0853	ppb	21:44:01
2	Co 228.616†	35.0	31.5	1.0843	µg/L	1.0843	ppb	21:44:01
2	Cr 267.716†	367.1	400.5	8.0484	µg/L	8.0484	ppb	21:43:40
2	Cu 324.752†	3401.7	701.0	5.7282	µg/L	5.7282	ppb	21:43:40
2	Mn 257.610†	102980.1	98483.2	309.49	µg/L	309.49	ppb	21:43:40
2	Mo 202.031†	1.1	6.4	0.9458	µg/L	0.9458	ppb	21:44:01
2	Ni 231.604†	404.0	73.0	3.7462	µg/L	3.7462	ppb	21:44:01
2	P 214.914†	83.2	64.0	119.95	µg/L	119.95	ppb	21:44:01
2	Pb 220.353†	104.5	8.8	1.9277	µg/L	1.9277	ppb	21:44:01

2	S 181.975 Axial†	28.0	7.7	32.087 µg/L	32.087 ppb	21:44:01
2	Sb 206.836†	24.3	0.7	0.3479 µg/L	0.3479 ppb	21:44:01
2	Se 196.026†	7.8	-11.9	4.8853 µg/L	4.8853 ppb	21:44:01
2	SiO2†	28321.8	25623.1	5057.7 µg/L	5057.7 ppb	21:43:40
2	Si 251.611†	32775.5	30952.1	2353.0 µg/L	2353.0 ppb	21:43:40
2	Sn 189.927†	0.1	-0.2	-0.9506 µg/L	-0.9506 ppb	21:44:01
2	Ti 334.940†	77816.9	74050.3	163.82 µg/L	163.82 ppb	21:43:40
2	Tl 190.801†	-30.8	-7.0	-5.4109 µg/L	-5.4109 ppb	21:44:01
2	U 409.014†	-279.1	-189.2	-17.028 µg/L	-17.028 ppb	21:43:40
2	V 292.402†	666.5	680.5	7.6145 µg/L	7.6145 ppb	21:43:40
2	Zn 213.857†	2276.0	1636.5	37.954 µg/L	37.954 ppb	21:44:01
3	Sc RADIAL	58638.0	58638.0	104 %		21:42:32
3	Al 396.153Radial†	2676.6	2571.4	1788.8 µg/L	1788.8 ppb	21:42:32
3	Ca 317.933Radial†	3341.0	3007.7	2569.1 µg/L	2569.1 ppb	21:42:32
3	Fe 238.204 Radial†	1100.9	1044.1	8234.9 µg/L	8234.9 ppb	21:42:52
3	K 766.490 Radial†	958.8	758.7	495.55 µg/L	495.55 ppb	21:42:32
3	Mg 279.077 IEC†	64.0	48.8	427.79 µg/L	427.79 ppb	21:42:52
3	Na 589.592 Radial†	1093.1	581.0	178.45 µg/L	178.45 ppb	21:42:32
3	Sr 421.552†	666.4	613.3	5.6577 µg/L	5.6577 ppb	21:42:32
3	Sc 361.383	2054723.4	2054723.4	104.67 %		21:44:07
3	Y 371.029	1429264.8	1429264.8	105.66 %		21:44:07
3	Ag 328.068†	-471.6	-49.0	0.1984 µg/L	0.1984 ppb	21:44:12
3	As 188.979†	-1.4	-0.8	-1.1528 µg/L	-1.1528 ppb	21:44:33
3	B 249.677†	436.9	33.3	-2.9277 µg/L	-2.9277 ppb	21:44:12
3	Ba 233.527†	808.0	789.0	18.954 µg/L	18.954 ppb	21:44:33
3	Be 313.107†	-1582.9	1343.3	0.7419 µg/L	0.7419 ppb	21:44:12
3	Cd 226.502†	-115.0	31.8	-0.1348 µg/L	-0.1348 ppb	21:44:33
3	Co 228.616†	37.9	34.3	1.2517 µg/L	1.2517 ppb	21:44:33
3	Cr 267.716†	325.7	361.5	7.2652 µg/L	7.2652 ppb	21:44:12
3	Cu 324.752†	3269.0	579.5	4.9275 µg/L	4.9275 ppb	21:44:12
3	Mn 257.610†	92161.6	88308.8	277.62 µg/L	277.62 ppb	21:44:12
3	Mo 202.031†	2.9	8.1	1.1109 µg/L	1.1109 ppb	21:44:33
3	Ni 231.604†	389.3	59.6	3.0763 µg/L	3.0763 ppb	21:44:33
3	P 214.914†	74.0	55.4	103.07 µg/L	103.07 ppb	21:44:33
3	Pb 220.353†	113.5	17.5	4.0598 µg/L	4.0598 ppb	21:44:33
3	S 181.975 Axial†	21.7	1.8	7.2986 µg/L	7.2986 ppb	21:44:33
3	Sb 206.836†	23.1	-0.5	-0.7245 µg/L	-0.7245 ppb	21:44:33
3	Se 196.026†	21.6	1.4	23.330 µg/L	23.330 ppb	21:44:33
3	SiO2†	26156.7	23599.0	4658.1 µg/L	4658.1 ppb	21:44:12
3	Si 251.611†	30123.9	28470.3	2164.4 µg/L	2164.4 ppb	21:44:12
3	Sn 189.927†	1.5	1.1	-0.3945 µg/L	-0.3945 ppb	21:44:33
3	Ti 334.940†	68948.2	65699.4	145.35 µg/L	145.35 ppb	21:44:12
3	Tl 190.801†	-29.7	-6.0	-4.3131 µg/L	-4.3131 ppb	21:44:33
3	U 409.014†	-368.0	-274.5	-24.111 µg/L	-24.111 ppb	21:44:12
3	V 292.402†	643.4	659.4	7.3948 µg/L	7.3948 ppb	21:44:12
3	Zn 213.857†	1996.2	1372.8	31.773 µg/L	31.773 ppb	21:44:33

Mean Data: 1202032569|948744|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2055851.6	104.72	%	0.100				0.10%
Sc RADIAL	58522.9	104	%	0.4				0.37%
Y 371.029	1430936.2	105.78	%	0.124				0.12%
Ag 328.068†	-17.2	0.4385	µg/L	0.31241	0.4385	ppb	0.31241	71.25%
Al 396.153Radial†	2577.8	1793.2	µg/L	4.21	1793.2	ppb	4.21	0.23%
As 188.979†	1.1	2.2433	µg/L	5.27646	2.2433	ppb	5.27646	235.21%
B 249.677†	15.9	-3.6571	µg/L	0.74403	-3.6571	ppb	0.74403	20.35%
Ba 233.527†	885.4	21.269	µg/L	2.0083	21.269	ppb	2.0083	9.44%
Be 313.107†	1417.4	0.7812	µg/L	0.03686	0.7812	ppb	0.03686	4.72%
Ca 317.933Radial†	3007.2	2568.7	µg/L	6.42	2568.7	ppb	6.42	0.25%
Cd 226.502†	39.6	0.0567	µg/L	0.17899	0.0567	ppb	0.17899	315.54%
Co 228.616†	36.2	1.3121	µg/L	0.26323	1.3121	ppb	0.26323	20.06%
Cr 267.716†	404.5	8.1279	µg/L	0.90504	8.1279	ppb	0.90504	11.13%
Cu 324.752†	657.0	5.4394	µg/L	0.44448	5.4394	ppb	0.44448	8.17%
Fe 238.204 Radial†	1049.6	8278.4	µg/L	38.39	8278.4	ppb	38.39	0.46%
K 766.490 Radial†	759.7	496.17	µg/L	19.399	496.17	ppb	19.399	3.91%
Mg 279.077 IEC†	48.2	421.71	µg/L	9.556	421.71	ppb	9.556	2.27%
Mn 257.610†	94908.0	298.29	µg/L	17.923	298.29	ppb	17.923	6.01%
Mo 202.031†	6.7	0.9662	µg/L	0.13570	0.9662	ppb	0.13570	14.05%
Na 589.592 Radial†	591.7	181.75	µg/L	6.669	181.75	ppb	6.669	3.67%

Ni 231.604†	68.3	3.5082	µg/L	0.37471	3.5082	ppb	0.37471 10.68%
P 214.914†	62.4	116.91	µg/L	12.591	116.91	ppb	12.591 10.77%
Pb 220.353†	14.6	3.3404	µg/L	1.22348	3.3404	ppb	1.22348 36.63%
S 181.975 Axial†	4.9	20.488	µg/L	12.4703	20.488	ppb	12.4703 60.87%
Sb 206.836†	1.1	0.6598	µg/L	1.56375	0.6598	ppb	1.56375 237.00%
Se 196.026†	-7.5	10.960	µg/L	10.7133	10.960	ppb	10.7133 97.75%
SiO2†	24967.5	4928.3	µg/L	234.00	4928.3	ppb	234.00 4.75%
Si 251.611†	30152.3	2292.2	µg/L	110.79	2292.2	ppb	110.79 4.83%
Sn 189.927†	1.5	-0.2231	µg/L	0.82664	-0.2231	ppb	0.82664 370.50%
Sr 421.552†	636.8	5.8748	µg/L	0.26427	5.8748	ppb	0.26427 4.50%
Ti 334.940†	71210.8	157.54	µg/L	10.561	157.54	ppb	10.561 6.70%
Tl 190.801†	-4.1	-1.7490	µg/L	5.41968	-1.7490	ppb	5.41968 309.86%
U 409.014†	-204.8	-18.322	µg/L	5.2619	-18.322	ppb	5.2619 28.72%
V 292.402†	688.7	7.6924	µg/L	0.34313	7.6924	ppb	0.34313 4.46%
Zn 213.857†	1563.8	36.250	µg/L	3.9144	36.250	ppb	3.9144 10.80%

Sequence No.: 10 | **Autosampler Location: 7**
Sample ID: CCV | **Date Collected: 2/19/2010 21:52:01**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58294.3	58294.3	103	%			21:52:41
1	Al 396.153Radial†	7182.0	6953.0	4826.2	µg/L	4826.2	ppb	21:52:41
1	Ca 317.933Radial†	6144.9	5744.1	4906.5	µg/L	4906.5	ppb	21:53:01
1	Fe 238.204 Radial†	674.3	636.9	5034.3	µg/L	5034.3	ppb	21:53:01
1	K 766.490 Radial†	7708.3	7305.5	4771.3	µg/L	4771.3	ppb	21:52:41
1	Mg 279.077 IEC†	585.5	554.7	4961.5	µg/L	4961.5	ppb	21:53:01
1	Na 589.592 Radial†	33172.0	31676.2	9729.1	µg/L	9729.1	ppb	21:52:41
1	Sr 421.552†	53074.5	51408.1	474.25	µg/L	474.25	ppb	21:52:41
1	Sc 361.383	2038801.4	2038801.4	103.86	%			21:54:04
1	Y 371.029	1405502.7	1405502.7	103.90	%			21:54:04
1	Ag 328.068†	68855.2	66700.9	497.72	µg/L	497.72	ppb	21:54:10
1	As 188.979†	301.6	290.9	520.35	µg/L	520.35	ppb	21:54:30
1	B 249.677†	12936.2	12071.9	490.21	µg/L	490.21	ppb	21:54:10
1	Ba 233.527†	21777.9	20986.5	504.73	µg/L	504.73	ppb	21:54:10
1	Be 313.107†	877883.1	848151.2	503.19	µg/L	503.19	ppb	21:54:04
1	Cd 226.502†	21105.9	20464.1	510.33	µg/L	510.33	ppb	21:54:10
1	Co 228.616†	11658.9	11224.2	507.74	µg/L	507.74	ppb	21:54:10
1	Cr 267.716†	26274.1	25349.1	509.46	µg/L	509.46	ppb	21:54:10
1	Cu 324.752†	81876.3	76293.3	498.70	µg/L	498.70	ppb	21:54:10
1	Mn 257.610†	169788.5	163741.9	513.23	µg/L	513.23	ppb	21:54:04
1	Mo 202.031†	5498.7	5299.9	519.19	µg/L	519.19	ppb	21:54:30
1	Ni 231.604†	10915.6	10198.1	507.83	µg/L	507.83	ppb	21:54:10
1	P 214.914†	1366.5	1300.5	2527.2	µg/L	2527.2	ppb	21:54:30
1	Pb 220.353†	2295.3	2119.1	515.34	µg/L	515.34	ppb	21:54:30
1	S 181.975 Axial†	270.9	241.9	1003.1	µg/L	1003.1	ppb	21:54:30
1	Sb 206.836†	593.9	549.4	506.62	µg/L	506.62	ppb	21:54:30
1	Se 196.026†	409.1	374.6	534.08	µg/L	534.08	ppb	21:54:30
1	SiO2†	29747.3	27251.5	5379.1	µg/L	5379.1	ppb	21:54:10
1	Si 251.611†	34761.7	33160.6	2520.9	µg/L	2520.9	ppb	21:54:10
1	Sn 189.927†	1289.3	1241.1	523.40	µg/L	523.40	ppb	21:54:30
1	Ti 334.940†	235226.3	226319.5	500.36	µg/L	500.36	ppb	21:54:04
1	Tl 190.801†	380.7	389.0	511.20	µg/L	511.20	ppb	21:54:30
1	U 409.014†	6210.9	6057.5	502.28	µg/L	502.28	ppb	21:54:10
1	V 292.402†	53474.0	51533.7	508.50	µg/L	508.50	ppb	21:54:10
1	Zn 213.857†	23135.3	21742.1	506.54	µg/L	506.54	ppb	21:54:10
2	Sc RADIAL	58681.1	58681.1	104	%			21:53:06
2	Al 396.153Radial†	7270.0	6991.8	4853.5	µg/L	4853.5	ppb	21:53:06
2	Ca 317.933Radial†	6085.0	5647.1	4823.6	µg/L	4823.6	ppb	21:53:27
2	Fe 238.204 Radial†	670.2	628.7	4969.3	µg/L	4969.3	ppb	21:53:27
2	K 766.490 Radial†	7805.0	7349.3	4800.0	µg/L	4800.0	ppb	21:53:06
2	Mg 279.077 IEC†	586.2	551.6	4933.9	µg/L	4933.9	ppb	21:53:27
2	Na 589.592 Radial†	33396.3	31680.3	9730.4	µg/L	9730.4	ppb	21:53:06
2	Sr 421.552†	53644.8	51618.1	476.18	µg/L	476.18	ppb	21:53:06
2	Sc 361.383	2035611.6	2035611.6	103.69	%			21:54:38
2	Y 371.029	1402256.7	1402256.7	103.66	%			21:54:38
2	Ag 328.068†	68542.9	66503.5	496.25	µg/L	496.25	ppb	21:54:43
2	As 188.979†	295.1	285.0	509.86	µg/L	509.86	ppb	21:55:04
2	B 249.677†	12897.2	12053.8	489.51	µg/L	489.51	ppb	21:54:43
2	Ba 233.527†	21658.8	20904.6	502.76	µg/L	502.76	ppb	21:54:43
2	Be 313.107†	876936.1	848562.5	503.44	µg/L	503.44	ppb	21:54:38
2	Cd 226.502†	20999.3	20393.1	508.57	µg/L	508.57	ppb	21:54:43
2	Co 228.616†	11591.9	11177.2	505.60	µg/L	505.60	ppb	21:54:43
2	Cr 267.716†	26197.4	25314.8	508.77	µg/L	508.77	ppb	21:54:43
2	Cu 324.752†	81474.1	76028.9	496.97	µg/L	496.97	ppb	21:54:43
2	Mn 257.610†	169436.5	163658.6	512.96	µg/L	512.96	ppb	21:54:38
2	Mo 202.031†	5362.1	5176.5	507.10	µg/L	507.10	ppb	21:55:04
2	Ni 231.604†	10886.7	10186.7	507.26	µg/L	507.26	ppb	21:54:43
2	P 214.914†	1342.5	1279.3	2485.4	µg/L	2485.4	ppb	21:55:04
2	Pb 220.353†	2248.7	2077.6	505.24	µg/L	505.24	ppb	21:55:04

2	S 181.975 Axial†	273.9	245.2	1016.8 µg/L	1016.8 ppb	21:55:04
2	Sb 206.836†	581.9	538.7	496.67 µg/L	496.67 ppb	21:55:04
2	Se 196.026†	397.7	364.2	519.29 µg/L	519.29 ppb	21:55:04
2	SiO2†	29634.0	27187.2	5366.4 µg/L	5366.4 ppb	21:54:43
2	Si 251.611†	34631.9	33087.9	2515.4 µg/L	2515.4 ppb	21:54:43
2	Sn 189.927†	1251.2	1206.2	508.72 µg/L	508.72 ppb	21:55:04
2	Ti 334.940†	234968.5	226425.8	500.59 µg/L	500.59 ppb	21:54:38
2	Tl 190.801†	379.2	388.0	510.01 µg/L	510.01 ppb	21:55:04
2	U 409.014†	6096.3	5956.3	493.89 µg/L	493.89 ppb	21:54:43
2	V 292.402†	53226.6	51375.9	506.85 µg/L	506.85 ppb	21:54:43
2	Zn 213.857†	23007.5	21653.8	504.47 µg/L	504.47 ppb	21:54:43
3	Sc RADIAL	57886.6	57886.6	102 %		21:53:32
3	Al 396.153Radial†	7257.6	7075.9	4913.9 µg/L	4913.9 ppb	21:53:32
3	Ca 317.933Radial†	6157.6	5798.4	4952.8 µg/L	4952.8 ppb	21:53:53
3	Fe 238.204 Radial†	675.4	642.6	5077.7 µg/L	5077.7 ppb	21:53:53
3	K 766.490 Radial†	7760.4	7409.0	4838.9 µg/L	4838.9 ppb	21:53:32
3	Mg 279.077 IEC†	588.1	561.1	5017.3 µg/L	5017.3 ppb	21:53:53
3	Na 589.592 Radial†	33284.0	32012.0	9832.3 µg/L	9832.3 ppb	21:53:32
3	Sr 421.552†	53489.2	52175.1	481.32 µg/L	481.32 ppb	21:53:32
3	Sc 361.383	2029490.9	2029490.9	103.38 %		21:55:11
3	Y 371.029	1398933.7	1398933.7	103.41 %		21:55:11
3	Ag 328.068†	63112.5	61450.2	458.38 µg/L	458.38 ppb	21:55:16
3	As 188.979†	245.3	237.8	425.38 µg/L	425.38 ppb	21:55:37
3	B 249.677†	11837.4	11066.1	449.07 µg/L	449.07 ppb	21:55:16
3	Ba 233.527†	19154.5	18545.2	446.00 µg/L	446.00 ppb	21:55:16
3	Be 313.107†	788293.6	765369.5	454.08 µg/L	454.08 ppb	21:55:11
3	Cd 226.502†	18488.3	18025.4	449.44 µg/L	449.44 ppb	21:55:16
3	Co 228.616†	10118.0	9785.2	442.59 µg/L	442.59 ppb	21:55:16
3	Cr 267.716†	22060.3	21389.3	429.88 µg/L	429.88 ppb	21:55:16
3	Cu 324.752†	71764.5	66873.8	437.22 µg/L	437.22 ppb	21:55:16
3	Mn 257.610†	153169.4	148416.2	465.24 µg/L	465.24 ppb	21:55:11
3	Mo 202.031†	4341.5	4204.8	411.96 µg/L	411.96 ppb	21:55:37
3	Ni 231.604†	9550.0	8925.4	444.46 µg/L	444.46 ppb	21:55:16
3	P 214.914†	1104.5	1053.0	2042.0 µg/L	2042.0 ppb	21:55:37
3	Pb 220.353†	1894.1	1741.3	423.37 µg/L	423.37 ppb	21:55:37
3	S 181.975 Axial†	230.7	204.2	846.98 µg/L	846.98 ppb	21:55:37
3	Sb 206.836†	492.3	453.7	417.96 µg/L	417.96 ppb	21:55:37
3	Se 196.026†	339.0	308.6	441.39 µg/L	441.39 ppb	21:55:37
3	SiO2†	26881.8	24611.1	4857.9 µg/L	4857.9 ppb	21:55:16
3	Si 251.611†	31176.8	29846.6	2269.0 µg/L	2269.0 ppb	21:55:16
3	Sn 189.927†	996.0	963.1	406.17 µg/L	406.17 ppb	21:55:37
3	Ti 334.940†	209447.8	202423.1	447.49 µg/L	447.49 ppb	21:55:11
3	Tl 190.801†	327.8	339.5	446.42 µg/L	446.42 ppb	21:55:37
3	U 409.014†	5220.1	5126.5	424.93 µg/L	424.93 ppb	21:55:16
3	V 292.402†	46012.1	44552.1	439.38 µg/L	439.38 ppb	21:55:16
3	Zn 213.857†	20191.8	18997.1	442.51 µg/L	442.51 ppb	21:55:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2034634.6	103.64	%	0.241				0.23%
Sc RADIAL	58287.3	103	%	0.7				0.68%
Y 371.029	1402231.0	103.66	%	0.243				0.23%
Ag 328.068†	64884.9	484.12	µg/L	22.300	484.12	ppb	22.300	4.61%
QC value within limits for Ag 328.068 Recovery = 96.82%								
Al 396.153Radial†	7006.9	4864.5	µg/L	44.88	4864.5	ppb	44.88	0.92%
QC value within limits for Al 396.153Radial Recovery = 97.29%								
As 188.979†	271.2	485.20	µg/L	52.069	485.20	ppb	52.069	10.73%
QC value within limits for As 188.979 Recovery = 97.04%								
B 249.677†	11730.6	476.26	µg/L	23.552	476.26	ppb	23.552	4.95%
QC value within limits for B 249.677 Recovery = 95.25%								
Ba 233.527†	20145.4	484.50	µg/L	33.355	484.50	ppb	33.355	6.88%
QC value within limits for Ba 233.527 Recovery = 96.90%								
Be 313.107†	820694.4	486.90	µg/L	28.425	486.90	ppb	28.425	5.84%
QC value within limits for Be 313.107 Recovery = 97.38%								
Ca 317.933Radial†	5729.8	4894.3	µg/L	65.45	4894.3	ppb	65.45	1.34%
QC value within limits for Ca 317.933Radial Recovery = 97.89%								
Cd 226.502†	19627.6	489.45	µg/L	34.658	489.45	ppb	34.658	7.08%
QC value within limits for Cd 226.502 Recovery = 97.89%								
Co 228.616†	10728.9	485.31	µg/L	37.015	485.31	ppb	37.015	7.63%

QC value within limits for Co 228.616 Recovery = 97.06%

Cr 267.716†	24017.7	482.70 µg/L	45.746	482.70 ppb	45.746	9.48%
QC value within limits for Cr 267.716 Recovery = 96.54%						
Cu 324.752†	73065.3	477.63 µg/L	35.005	477.63 ppb	35.005	7.33%
QC value within limits for Cu 324.752 Recovery = 95.53%						
Fe 238.204 Radial†	636.1	5027.1 µg/L	54.54	5027.1 ppb	54.54	1.08%
QC value within limits for Fe 238.204 Radial Recovery = 100.54%						
K 766.490 Radial†	7354.6	4803.4 µg/L	33.93	4803.4 ppb	33.93	0.71%
QC value within limits for K 766.490 Radial Recovery = 96.07%						
Mg 279.077 IEC†	555.8	4970.9 µg/L	42.48	4970.9 ppb	42.48	0.85%
QC value within limits for Mg 279.077 IEC Recovery = 99.42%						
Mn 257.610†	158605.5	497.15 µg/L	27.629	497.15 ppb	27.629	5.56%
QC value within limits for Mn 257.610 Recovery = 99.43%						
Mo 202.031†	4893.7	479.42 µg/L	58.734	479.42 ppb	58.734	12.25%
QC value within limits for Mo 202.031 Recovery = 95.88%						
Na 589.592 Radial†	31789.5	9763.9 µg/L	59.18	9763.9 ppb	59.18	0.61%
QC value within limits for Na 589.592 Radial Recovery = 97.64%						
Ni 231.604†	9770.1	486.52 µg/L	36.423	486.52 ppb	36.423	7.49%
QC value within limits for Ni 231.604 Recovery = 97.30%						
P 214.914†	1210.9	2351.5 µg/L	268.87	2351.5 ppb	268.87	11.43%
QC value within limits for P 214.914 Recovery = 94.06%						
Pb 220.353†	1979.3	481.31 µg/L	50.440	481.31 ppb	50.440	10.48%
QC value within limits for Pb 220.353 Recovery = 96.26%						
S 181.975 Axial†	230.4	955.62 µg/L	94.337	955.62 ppb	94.337	9.87%
QC value within limits for S 181.975 Axial Recovery = 95.56%						
Sb 206.836†	513.9	473.75 µg/L	48.569	473.75 ppb	48.569	10.25%
QC value within limits for Sb 206.836 Recovery = 94.75%						
Se 196.026†	349.1	498.25 µg/L	49.795	498.25 ppb	49.795	9.99%
QC value within limits for Se 196.026 Recovery = 99.65%						
SiO2†	26349.9	5201.1 µg/L	297.31	5201.1 ppb	297.31	5.72%
QC value within limits for SiO2 Recovery = 97.26%						
Si 251.611†	32031.7	2435.1 µg/L	143.89	2435.1 ppb	143.89	5.91%
QC value within limits for Si 251.611 Recovery = 97.40%						
Sn 189.927†	1136.8	479.43 µg/L	63.868	479.43 ppb	63.868	13.32%
QC value within limits for Sn 189.927 Recovery = 95.89%						
Sr 421.552†	51733.8	477.25 µg/L	3.657	477.25 ppb	3.657	0.77%
QC value within limits for Sr 421.552 Recovery = 95.45%						
Ti 334.940†	218389.5	482.81 µg/L	30.592	482.81 ppb	30.592	6.34%
QC value within limits for Ti 334.940 Recovery = 96.56%						
Tl 190.801†	372.2	489.21 µg/L	37.063	489.21 ppb	37.063	7.58%
QC value within limits for Tl 190.801 Recovery = 97.84%						
U 409.014†	5713.4	473.70 µg/L	42.447	473.70 ppb	42.447	8.96%
QC value within limits for U 409.014 Recovery = 94.74%						
V 292.402†	49153.9	484.91 µg/L	39.441	484.91 ppb	39.441	8.13%
QC value within limits for V 292.402 Recovery = 96.98%						
Zn 213.857†	20797.7	484.50 µg/L	36.387	484.50 ppb	36.387	7.51%
QC value within limits for Zn 213.857 Recovery = 96.90%						

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 21:55:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56008.4	56008.4	99.1	%			21:56:19
1	Al 396.153Radial†	-22.0	-29.6	-20.580	µg/L	-20.580	ppb	21:56:19
1	Ca 317.933Radial†	199.9	-9.6	-8.2382	µg/L	-8.2382	ppb	21:56:40
1	Fe 238.204 Radial†	17.9	1.5	11.526	µg/L	11.526	ppb	21:56:40
1	K 766.490 Radial†	220.6	57.6	37.606	µg/L	37.606	ppb	21:56:19
1	Mg 279.077 IEC†	11.6	-1.1	-9.8037	µg/L	-9.8037	ppb	21:56:40
1	Na 589.592 Radial†	493.3	25.4	7.7861	µg/L	7.7861	ppb	21:56:19
1	Sr 421.552†	76.4	48.2	0.4449	µg/L	0.4449	ppb	21:56:19
1	Sc 361.383	2005725.5	2005725.5	102.17	%			21:57:41
1	Y 371.029	1388119.7	1388119.7	102.61	%			21:57:41
1	Ag 328.068†	-414.5	-4.1	-0.0292	µg/L	-0.0292	ppb	21:57:47
1	As 188.979†	-0.2	0.2	0.3889	µg/L	0.3889	ppb	21:58:07
1	B 249.677†	373.9	-18.2	-0.7465	µg/L	-0.7465	ppb	21:58:07
1	Ba 233.527†	-14.8	2.6	0.0623	µg/L	0.0623	ppb	21:58:07
1	Be 313.107†	-2754.8	159.4	0.0946	µg/L	0.0946	ppb	21:57:47
1	Cd 226.502†	-146.2	-1.4	-0.0360	µg/L	-0.0360	ppb	21:58:07
1	Co 228.616†	0.9	-1.0	-0.0474	µg/L	-0.0474	ppb	21:58:07
1	Cr 267.716†	-37.0	14.2	0.2854	µg/L	0.2854	ppb	21:57:47
1	Cu 324.752†	2573.5	-24.9	-0.1610	µg/L	-0.1610	ppb	21:57:47
1	Mn 257.610†	-199.9	60.3	0.1908	µg/L	0.1908	ppb	21:58:07
1	Mo 202.031†	0.2	5.5	0.5418	µg/L	0.5418	ppb	21:58:07
1	Ni 231.604†	310.8	-8.1	-0.4047	µg/L	-0.4047	ppb	21:58:07
1	P 214.914†	12.5	-3.1	-6.0711	µg/L	-6.0711	ppb	21:58:07
1	Pb 220.353†	85.5	-7.3	-1.7723	µg/L	-1.7723	ppb	21:58:07
1	S 181.975 Axial†	18.2	-1.2	-4.7784	µg/L	-4.7784	ppb	21:58:07
1	Sb 206.836†	26.7	3.7	3.3830	µg/L	3.3830	ppb	21:58:07
1	Se 196.026†	14.0	-5.6	-7.7903	µg/L	-7.7903	ppb	21:58:07
1	SiO2†	1480.0	57.0	11.258	µg/L	11.258	ppb	21:57:47
1	Si 251.611†	360.8	42.5	3.2304	µg/L	3.2304	ppb	21:58:07
1	Sn 189.927†	5.1	4.6	1.9521	µg/L	1.9521	ppb	21:58:07
1	Ti 334.940†	260.5	80.0	0.1775	µg/L	0.1775	ppb	21:57:47
1	Tl 190.801†	-26.0	-3.1	-4.0069	µg/L	-4.0069	ppb	21:58:07
1	U 409.014†	-86.5	-7.5	-0.6279	µg/L	-0.6279	ppb	21:57:47
1	V 292.402†	-37.7	7.9	0.0821	µg/L	0.0821	ppb	21:57:47
1	Zn 213.857†	552.4	6.2	0.1486	µg/L	0.1486	ppb	21:58:07
2	Sc RADIAL	57173.7	57173.7	101	%			21:56:45
2	Al 396.153Radial†	-31.7	-38.7	-26.934	µg/L	-26.934	ppb	21:56:45
2	Ca 317.933Radial†	191.8	-21.7	-18.545	µg/L	-18.545	ppb	21:57:05
2	Fe 238.204 Radial†	17.2	0.4	3.3000	µg/L	3.3000	ppb	21:57:05
2	K 766.490 Radial†	225.8	58.1	37.968	µg/L	37.968	ppb	21:56:45
2	Mg 279.077 IEC†	9.7	-3.2	-28.801	µg/L	-28.801	ppb	21:57:05
2	Na 589.592 Radial†	447.5	-30.0	-9.2124	µg/L	-9.2124	ppb	21:56:45
2	Sr 421.552†	50.5	21.1	0.1949	µg/L	0.1949	ppb	21:56:45
2	Sc 361.383	2026912.1	2026912.1	103.25	%			21:58:13
2	Y 371.029	1401779.3	1401779.3	103.62	%			21:58:13
2	Ag 328.068†	-380.0	33.5	0.2477	µg/L	0.2477	ppb	21:58:19
2	As 188.979†	-0.5	-0.1	-0.1267	µg/L	-0.1267	ppb	21:58:39
2	B 249.677†	375.7	-20.3	-0.8273	µg/L	-0.8273	ppb	21:58:39
2	Ba 233.527†	-18.4	-0.7	-0.0176	µg/L	-0.0176	ppb	21:58:39
2	Be 313.107†	-2695.7	244.9	0.1452	µg/L	0.1452	ppb	21:58:19
2	Cd 226.502†	-138.0	8.1	0.2002	µg/L	0.2002	ppb	21:58:39
2	Co 228.616†	2.7	0.7	0.0322	µg/L	0.0322	ppb	21:58:39
2	Cr 267.716†	-33.8	17.6	0.3538	µg/L	0.3538	ppb	21:58:19
2	Cu 324.752†	2615.0	-11.1	-0.0717	µg/L	-0.0717	ppb	21:58:19
2	Mn 257.610†	-217.0	45.8	0.1451	µg/L	0.1451	ppb	21:58:39
2	Mo 202.031†	-0.5	4.9	0.4797	µg/L	0.4797	ppb	21:58:39
2	Ni 231.604†	315.6	-6.7	-0.3341	µg/L	-0.3341	ppb	21:58:39
2	P 214.914†	6.6	-9.0	-17.706	µg/L	-17.706	ppb	21:58:39
2	Pb 220.353†	96.0	2.0	0.4801	µg/L	0.4801	ppb	21:58:39

2	S 181.975 Axial†	17.3	-2.2	-9.1795 µg/L	-9.1795 ppb	21:58:39
2	Sb 206.836†	20.9	-2.3	-2.0746 µg/L	-2.0746 ppb	21:58:39
2	Se 196.026†	11.9	-7.8	-10.865 µg/L	-10.865 ppb	21:58:39
2	SiO2†	1472.8	34.8	6.8766 µg/L	6.8766 ppb	21:58:19
2	Si 251.611†	396.0	72.9	5.5446 µg/L	5.5446 ppb	21:58:39
2	Sn 189.927†	5.5	5.0	2.0997 µg/L	2.0997 ppb	21:58:39
2	Ti 334.940†	289.3	105.2	0.2346 µg/L	0.2346 ppb	21:58:19
2	Tl 190.801†	-22.0	1.1	1.4215 µg/L	1.4215 ppb	21:58:39
2	U 409.014†	-13.9	63.6	5.2886 µg/L	5.2886 ppb	21:58:19
2	V 292.402†	-61.5	-14.8	-0.1337 µg/L	-0.1337 ppb	21:58:19
2	Zn 213.857†	550.0	-1.7	-0.0370 µg/L	-0.0370 ppb	21:58:39
3	Sc RADIAL	56372.6	56372.6	99.8 %		21:57:11
3	Al 396.153Radial†	-29.3	-36.7	-25.549 µg/L	-25.549 ppb	21:57:11
3	Ca 317.933Radial†	191.2	-19.7	-16.825 µg/L	-16.825 ppb	21:57:31
3	Fe 238.204 Radial†	16.1	-0.4	-3.3964 µg/L	-3.3964 ppb	21:57:31
3	K 766.490 Radial†	211.8	47.3	30.861 µg/L	30.861 ppb	21:57:11
3	Mg 279.077 IEC†	13.6	0.8	7.2890 µg/L	7.2890 ppb	21:57:31
3	Na 589.592 Radial†	501.0	29.9	9.1712 µg/L	9.1712 ppb	21:57:11
3	Sr 421.552†	52.9	24.2	0.2232 µg/L	0.2232 ppb	21:57:11
3	Sc 361.383	2000712.7	2000712.7	101.91 %		21:58:46
3	Y 371.029	1384703.1	1384703.1	102.36 %		21:58:46
3	Ag 328.068†	-421.1	-11.6	-0.0829 µg/L	-0.0829 ppb	21:58:51
3	As 188.979†	1.5	1.9	3.3848 µg/L	3.3848 ppb	21:59:12
3	B 249.677†	368.1	-22.9	-0.9332 µg/L	-0.9332 ppb	21:59:12
3	Ba 233.527†	-8.4	8.8	0.2121 µg/L	0.2121 ppb	21:59:12
3	Be 313.107†	-2743.0	164.2	0.0974 µg/L	0.0974 ppb	21:58:51
3	Cd 226.502†	-139.1	5.2	0.1301 µg/L	0.1301 ppb	21:59:12
3	Co 228.616†	11.1	9.0	0.4061 µg/L	0.4061 ppb	21:59:12
3	Cr 267.716†	-57.8	-6.4	-0.1274 µg/L	-0.1274 ppb	21:58:51
3	Cu 324.752†	2614.2	21.4	0.1392 µg/L	0.1392 ppb	21:58:51
3	Mn 257.610†	-214.3	45.7	0.1425 µg/L	0.1425 ppb	21:59:12
3	Mo 202.031†	-1.4	4.0	0.3871 µg/L	0.3871 ppb	21:59:12
3	Ni 231.604†	307.7	-10.4	-0.5197 µg/L	-0.5197 ppb	21:59:12
3	P 214.914†	8.3	-7.2	-14.189 µg/L	-14.189 ppb	21:59:12
3	Pb 220.353†	80.5	-12.0	-2.9118 µg/L	-2.9118 ppb	21:59:12
3	S 181.975 Axial†	16.3	-2.9	-12.028 µg/L	-12.028 ppb	21:59:12
3	Sb 206.836†	20.6	-2.3	-2.1004 µg/L	-2.1004 ppb	21:59:12
3	Se 196.026†	16.0	-3.6	-5.0557 µg/L	-5.0557 ppb	21:59:12
3	SiO2†	1465.4	46.3	9.1427 µg/L	9.1427 ppb	21:58:51
3	Si 251.611†	387.9	70.0	5.3210 µg/L	5.3210 ppb	21:59:12
3	Sn 189.927†	6.0	5.5	2.3403 µg/L	2.3403 ppb	21:59:12
3	Ti 334.940†	247.3	67.7	0.1488 µg/L	0.1488 ppb	21:58:51
3	Tl 190.801†	-19.0	3.7	4.8315 µg/L	4.8315 ppb	21:59:12
3	U 409.014†	-77.0	1.6	0.1327 µg/L	0.1327 ppb	21:58:51
3	V 292.402†	6.4	51.0	0.4995 µg/L	0.4995 ppb	21:58:51
3	Zn 213.857†	535.6	-8.9	-0.2068 µg/L	-0.2068 ppb	21:59:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2011116.8	102.44	%	0.708				0.69%
Sc RADIAL	56518.2	100	%	1.1				1.05%
Y 371.029	1391534.0	102.87	%	0.668				0.65%
Ag 328.068†	5.9	0.0452	µg/L	0.17741	0.0452	ppb	0.17741	392.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-35.0	-24.355	µg/L	3.3414	-24.355	ppb	3.3414	13.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.7	1.2156	µg/L	1.89611	1.2156	ppb	1.89611	155.98%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-20.5	-0.8357	µg/L	0.09366	-0.8357	ppb	0.09366	11.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.6	0.0856	µg/L	0.11658	0.0856	ppb	0.11658	136.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	189.5	0.1124	µg/L	0.02848	0.1124	ppb	0.02848	25.34%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.0	-14.536	µg/L	5.5217	-14.536	ppb	5.5217	37.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.0	0.0981	µg/L	0.12132	0.0981	ppb	0.12132	123.63%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.9	0.1303	µg/L	0.24215	0.1303	ppb	0.24215	185.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                8.5      0.1706 µg/L       0.26030      0.1706 ppb        0.26030 152.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -4.9     -0.0312 µg/L       0.15414     -0.0312 ppb        0.15414 494.08%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.5      3.8100 µg/L       7.47451      3.8100 ppb        7.47451 196.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         54.3      35.478 µg/L        4.0031      35.478 ppb         4.0031  11.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.2     -10.439 µg/L       18.0534     -10.439 ppb        18.0534 172.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               50.6      0.1594 µg/L       0.02719      0.1594 ppb        0.02719  17.05%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.8      0.4696 µg/L       0.07785      0.4696 ppb        0.07785  16.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         8.4      2.5817 µg/L      10.23739      2.5817 ppb       10.23739 396.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.4     -0.4195 µg/L       0.09366     -0.4195 ppb        0.09366  22.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.4     -12.655 µg/L        5.9671     -12.655 ppb         5.9671  47.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.8     -1.4013 µg/L       1.72611     -1.4013 ppb        1.72611 123.18%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.1     -8.6621 µg/L       3.65257     -8.6621 ppb        3.65257  42.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.3     -0.2640 µg/L       3.15844     -0.2640 ppb        3.15844 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -5.6     -7.9035 µg/L       2.90606     -7.9035 ppb        2.90606  36.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     46.1      9.0923 µg/L       2.19093      9.0923 ppb        2.19093  24.10%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               61.8      4.6987 µg/L       1.27646      4.6987 ppb        1.27646  27.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.1      2.1307 µg/L       0.19595      2.1307 ppb        0.19595   9.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               31.2      0.2877 µg/L       0.13693      0.2877 ppb        0.13693  47.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               84.3      0.1870 µg/L       0.04366      0.1870 ppb        0.04366  23.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.6      0.7487 µg/L       4.45745      0.7487 ppb        4.45745 595.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                19.2      1.5978 µg/L       3.21889      1.5978 ppb        3.21889 201.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                14.7      0.1493 µg/L       0.32188      0.1493 ppb        0.32188 215.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -1.5     -0.0317 µg/L       0.17777     -0.0317 ppb        0.17777 560.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: 245960001|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 215
Date Collected: 2/19/2010 22:17:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960001|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58745.0	58745.0	104	%			22:18:12
1	Al 396.153Radial†	189309.0	182053.0	126650	µg/L	126650	ppb	22:18:12
1	Ca 317.933Radial†	32287.1	30839.5	26342	µg/L	26342	ppb	22:18:33
1	Fe 238.204 Radial†	17486.9	16800.8	132510	µg/L	132510	ppb	22:18:33
1	K 766.490 Radial†	27485.0	26267.7	17156	µg/L	17156	ppb	22:18:12
1	Mg 279.077 IEC†	2531.4	2421.7	21506	µg/L	21506	ppb	22:18:33
1	Na 589.592 Radial†	3502.2	2895.9	889.45	µg/L	889.45	ppb	22:18:33
1	Sr 421.552†	34246.9	32906.7	303.57	µg/L	303.57	ppb	22:18:12
1	Sc 361.383	2030755.5	2030755.5	103.45	%			22:19:38
1	Y 371.029	1438736.5	1438736.5	106.36	%			22:19:38
1	Ag 328.068†	-1912.9	-1447.6	-0.7193	µg/L	-0.7193	ppb	22:19:43
1	As 188.979†	13.6	13.6	30.776	µg/L	30.776	ppb	22:20:04
1	B 249.677†	1236.3	811.0	-35.924	µg/L	-35.924	ppb	22:19:43
1	Ba 233.527†	84173.6	81387.2	1954.3	µg/L	1954.3	ppb	22:19:43
1	Be 313.107†	21504.8	23644.3	12.147	µg/L	12.147	ppb	22:19:43
1	Cd 226.502†	358.4	488.1	-2.7105	µg/L	-2.7105	ppb	22:19:43
1	Co 228.616†	1530.5	1477.6	56.584	µg/L	56.584	ppb	22:20:04
1	Cr 267.716†	5242.5	5118.3	102.96	µg/L	102.96	ppb	22:19:43
1	Cu 324.752†	12161.3	9212.5	78.553	µg/L	78.553	ppb	22:19:43
1	Mn 257.610†	1132864.1	1095389.3	3447.0	µg/L	3447.0	ppb	22:19:38
1	Mo 202.031†	-21.6	-15.5	3.5145	µg/L	3.5145	ppb	22:20:04
1	Ni 231.604†	2148.3	1764.4	89.599	µg/L	89.599	ppb	22:20:04
1	P 214.914†	668.0	630.4	1170.4	µg/L	1170.4	ppb	22:20:04
1	Pb 220.353†	651.1	538.4	132.81	µg/L	132.81	ppb	22:20:04
1	S 181.975 Axial†	157.0	132.9	550.97	µg/L	550.97	ppb	22:20:04
1	Sb 206.836†	34.5	10.9	6.4845	µg/L	6.4845	ppb	22:20:04
1	Se 196.026†	-41.1	-59.1	252.64	µg/L	252.64	ppb	22:20:04
1	SiO2†	345271.6	332380.5	65608	µg/L	65608	ppb	22:19:38
1	Si 251.611†	414275.6	400167.3	30421	µg/L	30421	ppb	22:19:38
1	Sn 189.927†	-37.8	-36.9	-27.264	µg/L	-27.264	ppb	22:20:04
1	Ti 334.940†	2315153.0	2237870.1	4949.4	µg/L	4949.4	ppb	22:19:38
1	Tl 190.801†	-76.0	-51.1	17.087	µg/L	17.087	ppb	22:20:04
1	U 409.014†	-1254.7	-1135.8	-114.39	µg/L	-114.39	ppb	22:19:38
1	V 292.402†	26590.3	25749.5	266.66	µg/L	266.66	ppb	22:19:43
1	Zn 213.857†	12628.2	11673.2	265.86	µg/L	265.86	ppb	22:19:43
2	Sc RADIAL	59363.7	59363.7	105	%			22:18:38
2	Al 396.153Radial†	189878.0	180696.9	125700	µg/L	125700	ppb	22:18:38
2	Ca 317.933Radial†	32424.1	30646.3	26177	µg/L	26177	ppb	22:18:59
2	Fe 238.204 Radial†	17583.3	16717.3	131850	µg/L	131850	ppb	22:18:59
2	K 766.490 Radial†	27631.7	26131.7	17067	µg/L	17067	ppb	22:18:38
2	Mg 279.077 IEC†	2541.9	2406.3	21368	µg/L	21368	ppb	22:18:59
2	Na 589.592 Radial†	3515.3	2873.3	882.51	µg/L	882.51	ppb	22:18:59
2	Sr 421.552†	34419.0	32727.3	301.91	µg/L	301.91	ppb	22:18:38
2	Sc 361.383	2043828.3	2043828.3	104.11	%			22:20:12
2	Y 371.029	1447803.4	1447803.4	107.03	%			22:20:12
2	Ag 328.068†	-1925.5	-1447.8	-0.7978	µg/L	-0.7978	ppb	22:20:17
2	As 188.979†	7.7	7.8	20.328	µg/L	20.328	ppb	22:20:38
2	B 249.677†	1257.8	824.0	-35.053	µg/L	-35.053	ppb	22:20:17
2	Ba 233.527†	83139.1	79873.1	1918.0	µg/L	1918.0	ppb	22:20:17
2	Be 313.107†	21368.1	23380.0	12.004	µg/L	12.004	ppb	22:20:17
2	Cd 226.502†	364.7	492.0	-2.5439	µg/L	-2.5439	ppb	22:20:17
2	Co 228.616†	1517.6	1455.7	55.669	µg/L	55.669	ppb	22:20:38
2	Cr 267.716†	5144.1	4991.4	100.41	µg/L	100.41	ppb	22:20:17
2	Cu 324.752†	12083.5	9062.6	77.483	µg/L	77.483	ppb	22:20:17
2	Mn 257.610†	1130593.6	1086203.7	3418.1	µg/L	3418.1	ppb	22:20:12
2	Mo 202.031†	-20.1	-13.9	3.6467	µg/L	3.6467	ppb	22:20:38
2	Ni 231.604†	2105.1	1709.6	86.861	µg/L	86.861	ppb	22:20:38
2	P 214.914†	666.2	624.5	1159.1	µg/L	1159.1	ppb	22:20:38
2	Pb 220.353†	654.6	537.8	132.64	µg/L	132.64	ppb	22:20:38

2	S 181.975 Axial†	155.0	129.9	538.84 µg/L	538.84 ppb	22:20:38
2	Sb 206.836†	30.7	7.0	2.9690 µg/L	2.9690 ppb	22:20:38
2	Se 196.026†	-54.7	-71.9	233.03 µg/L	233.03 ppb	22:20:38
2	SiO2†	344790.1	329783.2	65095 µg/L	65095 ppb	22:20:12
2	Si 251.611†	413797.7	397146.7	30192 µg/L	30192 ppb	22:20:12
2	Sn 189.927†	-35.8	-34.7	-26.314 µg/L	-26.314 ppb	22:20:38
2	Ti 334.940†	2312703.0	2221201.9	4912.5 µg/L	4912.5 ppb	22:20:12
2	Tl 190.801†	-81.8	-56.2	9.9026 µg/L	9.9026 ppb	22:20:38
2	U 409.014†	-1311.3	-1182.5	-118.17 µg/L	-118.17 ppb	22:20:12
2	V 292.402†	26194.3	25204.7	261.26 µg/L	261.26 ppb	22:20:17
2	Zn 213.857†	12552.0	11521.9	262.37 µg/L	262.37 ppb	22:20:17
3	Sc RADIAL	59494.9	59494.9	105 %		22:19:04
3	Al 396.153Radial†	192936.3	183202.5	127450 µg/L	127450 ppb	22:19:04
3	Ca 317.933Radial†	32407.0	30562.0	26105 µg/L	26105 ppb	22:19:25
3	Fe 238.204 Radial†	17610.4	16706.0	131760 µg/L	131760 ppb	22:19:25
3	K 766.490 Radial†	27958.2	26383.7	17232 µg/L	17232 ppb	22:19:04
3	Mg 279.077 IEC†	2539.8	2398.9	21303 µg/L	21303 ppb	22:19:25
3	Na 589.592 Radial†	3499.9	2851.3	875.75 µg/L	875.75 ppb	22:19:25
3	Sr 421.552†	35009.9	33216.2	306.42 µg/L	306.42 ppb	22:19:04
3	Sc 361.383	2024486.8	2024486.8	103.13 %		22:20:46
3	Y 371.029	1432198.1	1432198.1	105.87 %		22:20:46
3	Ag 328.068†	-1867.8	-1409.5	-0.5860 µg/L	-0.5860 ppb	22:20:51
3	As 188.979†	10.4	10.6	25.230 µg/L	25.230 ppb	22:21:12
3	B 249.677†	1199.9	779.4	-36.832 µg/L	-36.832 ppb	22:20:51
3	Ba 233.527†	79677.4	77279.2	1855.7 µg/L	1855.7 ppb	22:20:51
3	Be 313.107†	19987.8	22237.7	11.394 µg/L	11.394 ppb	22:20:51
3	Cd 226.502†	329.2	460.9	-3.3148 µg/L	-3.3148 ppb	22:20:51
3	Co 228.616†	1380.7	1336.9	50.658 µg/L	50.658 ppb	22:21:12
3	Cr 267.716†	4887.6	4789.8	96.353 µg/L	96.353 ppb	22:20:51
3	Cu 324.752†	11747.1	8847.3	76.065 µg/L	76.065 ppb	22:20:51
3	Mn 257.610†	1085738.1	1053082.8	3314.4 µg/L	3314.4 ppb	22:20:46
3	Mo 202.031†	-28.6	-22.4	2.8179 µg/L	2.8179 ppb	22:21:12
3	Ni 231.604†	1942.1	1570.9	79.948 µg/L	79.948 ppb	22:21:12
3	P 214.914†	601.4	567.9	1047.7 µg/L	1047.7 ppb	22:21:12
3	Pb 220.353†	602.4	493.2	121.90 µg/L	121.90 ppb	22:21:12
3	S 181.975 Axial†	147.2	123.8	513.36 µg/L	513.36 ppb	22:21:12
3	Sb 206.836†	37.2	13.6	9.1093 µg/L	9.1093 ppb	22:21:12
3	Se 196.026†	-43.4	-61.4	247.56 µg/L	247.56 ppb	22:21:12
3	SiO2†	334139.6	322619.5	63681 µg/L	63681 ppb	22:20:46
3	Si 251.611†	400840.1	388379.1	29525 µg/L	29525 ppb	22:20:46
3	Sn 189.927†	-36.3	-35.6	-26.672 µg/L	-26.672 ppb	22:21:12
3	Ti 334.940†	2207924.2	2140821.7	4734.7 µg/L	4734.7 ppb	22:20:46
3	Tl 190.801†	-64.1	-39.8	29.382 µg/L	29.382 ppb	22:21:12
3	U 409.014†	-1248.9	-1134.0	-114.12 µg/L	-114.12 ppb	22:20:46
3	V 292.402†	24884.1	24174.6	251.20 µg/L	251.20 ppb	22:20:51
3	Zn 213.857†	11985.2	11087.5	252.22 µg/L	252.22 ppb	22:20:51

Mean Data: 245960001|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2033023.5	103.56	%	0.503				0.49%
Sc RADIAL	59201.2	105	%	0.7				0.68%
Y 371.029	1439579.3	106.42	%	0.579				0.54%
Ag 328.068†	-1435.0	-0.7010	µg/L	0.10708	-0.7010	ppb	0.10708	15.27%
Al 396.153Radial†	181984.1	126600	µg/L	872.5	126600	ppb	872.5	0.69%
As 188.979†	10.7	25.445	µg/L	5.2274	25.445	ppb	5.2274	20.54%
B 249.677†	804.8	-35.936	µg/L	0.8900	-35.936	ppb	0.8900	2.48%
Ba 233.527†	79513.2	1909.3	µg/L	49.89	1909.3	ppb	49.89	2.61%
Be 313.107†	23087.3	11.848	µg/L	0.4000	11.848	ppb	0.4000	3.38%
Ca 317.933Radial†	30682.6	26208	µg/L	121.5	26208	ppb	121.5	0.46%
Cd 226.502†	480.3	-2.8564	µg/L	0.40562	-2.8564	ppb	0.40562	14.20%
Co 228.616†	1423.4	54.304	µg/L	3.1902	54.304	ppb	3.1902	5.87%
Cr 267.716†	4966.5	99.907	µg/L	3.3317	99.907	ppb	3.3317	3.33%
Cu 324.752†	9040.8	77.367	µg/L	1.2479	77.367	ppb	1.2479	1.61%
Fe 238.204 Radial†	16741.4	132040	µg/L	408.3	132040	ppb	408.3	0.31%
K 766.490 Radial†	26261.0	17152	µg/L	82.4	17152	ppb	82.4	0.48%
Mg 279.077 IEC†	2409.0	21392	µg/L	103.4	21392	ppb	103.4	0.48%
Mn 257.610†	1078225.3	3393.2	µg/L	69.72	3393.2	ppb	69.72	2.05%
Mo 202.031†	-17.3	3.3264	µg/L	0.44527	3.3264	ppb	0.44527	13.39%
Na 589.592 Radial†	2873.5	882.57	µg/L	6.849	882.57	ppb	6.849	0.78%

Ni 231.604†	1681.7	85.470 µg/L	4.9736	85.470 ppb	4.9736	5.82%
P 214.914†	607.6	1125.8 µg/L	67.84	1125.8 ppb	67.84	6.03%
Pb 220.353†	523.2	129.11 µg/L	6.252	129.11 ppb	6.252	4.84%
S 181.975 Axial†	128.9	534.39 µg/L	19.195	534.39 ppb	19.195	3.59%
Sb 206.836†	10.5	6.1876 µg/L	3.08088	6.1876 ppb	3.08088	49.79%
Se 196.026†	-64.1	244.41 µg/L	10.174	244.41 ppb	10.174	4.16%
SiO2†	328261.1	64794 µg/L	997.9	64794 ppb	997.9	1.54%
Si 251.611†	395231.0	30046 µg/L	465.5	30046 ppb	465.5	1.55%
Sn 189.927†	-35.7	-26.750 µg/L	0.4797	-26.750 ppb	0.4797	1.79%
Sr 421.552†	32950.1	303.97 µg/L	2.281	303.97 ppb	2.281	0.75%
Ti 334.940†	2199964.6	4865.5 µg/L	114.79	4865.5 ppb	114.79	2.36%
Tl 190.801†	-49.0	18.790 µg/L	9.8505	18.790 ppb	9.8505	52.42%
U 409.014†	-1150.7	-115.56 µg/L	2.261	-115.56 ppb	2.261	1.96%
V 292.402†	25042.9	259.71 µg/L	7.844	259.71 ppb	7.844	3.02%
Zn 213.857†	11427.5	260.15 µg/L	7.090	260.15 ppb	7.090	2.73%

Sequence No.: 18
Sample ID: 245960002|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 216
Date Collected: 2/19/2010 22:21:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960002|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	58162.3	58162.3	103	%			22:21:54
1	Al 396.153Radial†	110465.8	107293.0	74639	µg/L	74639	ppb	22:21:54
1	Ca 317.933Radial†	20219.2	19428.6	16596	µg/L	16596	ppb	22:22:14
1	Fe 238.204 Radial†	14335.3	13908.0	109690	µg/L	109690	ppb	22:22:14
1	K 766.490 Radial†	21185.8	20413.8	13333	µg/L	13333	ppb	22:21:54
1	Mg 279.077 IEC†	1527.6	1471.0	13032	µg/L	13032	ppb	22:22:14
1	Na 589.592 Radial†	2888.4	2333.4	716.69	µg/L	716.69	ppb	22:22:14
1	Sr 421.552†	19697.1	19103.9	176.24	µg/L	176.24	ppb	22:21:54
1	Sc 361.383	2036604.6	2036604.6	103.74	%			22:23:19
1	Y 371.029	1439351.8	1439351.8	106.40	%			22:23:19
1	Ag 328.068†	-1586.1	-1127.2	-0.3213	µg/L	-0.3213	ppb	22:23:25
1	As 188.979†	8.3	8.4	20.580	µg/L	20.580	ppb	22:23:45
1	B 249.677†	1107.6	683.5	-29.246	µg/L	-29.246	ppb	22:23:25
1	Ba 233.527†	55075.7	53105.5	1275.2	µg/L	1275.2	ppb	22:23:25
1	Be 313.107†	13770.1	16129.0	8.0709	µg/L	8.0709	ppb	22:23:25
1	Cd 226.502†	351.6	480.6	-0.3532	µg/L	-0.3532	ppb	22:23:45
1	Co 228.616†	1417.0	1364.0	53.548	µg/L	53.548	ppb	22:23:45
1	Cr 267.716†	4205.9	4104.5	82.548	µg/L	82.548	ppb	22:23:25
1	Cu 324.752†	15147.2	12056.9	93.949	µg/L	93.949	ppb	22:23:25
1	Mn 257.610†	808710.6	779786.8	2456.0	µg/L	2456.0	ppb	22:23:19
1	Mo 202.031†	19.7	24.4	6.5554	µg/L	6.5554	ppb	22:23:45
1	Ni 231.604†	1497.7	1131.3	57.747	µg/L	57.747	ppb	22:23:45
1	P 214.914†	817.5	772.6	1453.7	µg/L	1453.7	ppb	22:23:45
1	Pb 220.353†	2274.6	2101.6	510.67	µg/L	510.67	ppb	22:23:45
1	S 181.975 Axial†	220.8	193.9	804.25	µg/L	804.25	ppb	22:23:45
1	Sb 206.836†	33.3	9.6	6.4942	µg/L	6.4942	ppb	22:23:45
1	Se 196.026†	-40.8	-58.6	201.23	µg/L	201.23	ppb	22:23:45
1	SiO2†	334903.3	321427.8	63446	µg/L	63446	ppb	22:23:19
1	Si 251.611†	401645.2	386842.4	29409	µg/L	29409	ppb	22:23:19
1	Sn 189.927†	-20.6	-20.3	-18.781	µg/L	-18.781	ppb	22:23:45
1	Ti 334.940†	1848630.5	1781753.2	3940.9	µg/L	3940.9	ppb	22:23:19
1	Tl 190.801†	-58.1	-33.6	20.504	µg/L	20.504	ppb	22:23:45
1	U 409.014†	14.3	90.9	-8.7104	µg/L	-8.7104	ppb	22:23:25
1	V 292.402†	17997.0	17392.4	182.62	µg/L	182.62	ppb	22:23:25
1	Zn 213.857†	14695.8	13631.1	313.47	µg/L	313.47	ppb	22:23:25
2	Sc RADIAL	58695.3	58695.3	104	%			22:22:20
2	Al 396.153Radial†	110885.6	106722.6	74242	µg/L	74242	ppb	22:22:20
2	Ca 317.933Radial†	20190.1	19222.1	16419	µg/L	16419	ppb	22:22:41
2	Fe 238.204 Radial†	14299.7	13747.2	108420	µg/L	108420	ppb	22:22:41
2	K 766.490 Radial†	21288.8	20326.0	13275	µg/L	13275	ppb	22:22:20
2	Mg 279.077 IEC†	1523.9	1454.0	12881	µg/L	12881	ppb	22:22:41
2	Na 589.592 Radial†	2881.2	2301.1	706.75	µg/L	706.75	ppb	22:22:41
2	Sr 421.552†	19792.1	19021.5	175.48	µg/L	175.48	ppb	22:22:20
2	Sc 361.383	2037663.0	2037663.0	103.80	%			22:23:52
2	Y 371.029	1439818.0	1439818.0	106.44	%			22:23:52
2	Ag 328.068†	-1568.2	-1109.2	-0.2738	µg/L	-0.2738	ppb	22:23:58
2	As 188.979†	5.5	5.8	15.769	µg/L	15.769	ppb	22:24:18
2	B 249.677†	1128.0	702.6	-27.810	µg/L	-27.810	ppb	22:23:58
2	Ba 233.527†	54649.1	52666.9	1264.7	µg/L	1264.7	ppb	22:23:58
2	Be 313.107†	13685.2	16040.2	8.0219	µg/L	8.0219	ppb	22:23:58
2	Cd 226.502†	344.4	473.5	-0.3868	µg/L	-0.3868	ppb	22:24:18
2	Co 228.616†	1387.2	1334.6	52.235	µg/L	52.235	ppb	22:24:18
2	Cr 267.716†	4148.4	4047.0	81.391	µg/L	81.391	ppb	22:23:58
2	Cu 324.752†	15015.9	11922.8	92.897	µg/L	92.897	ppb	22:23:58
2	Mn 257.610†	806761.3	777503.8	2448.7	µg/L	2448.7	ppb	22:23:52
2	Mo 202.031†	14.3	19.1	5.9881	µg/L	5.9881	ppb	22:24:18
2	Ni 231.604†	1480.6	1114.1	56.877	µg/L	56.877	ppb	22:24:18
2	P 214.914†	797.0	752.5	1414.9	µg/L	1414.9	ppb	22:24:18
2	Pb 220.353†	2266.6	2092.8	508.56	µg/L	508.56	ppb	22:24:18

2	S 181.975 Axial†	213.1	186.4	772.95 µg/L	772.95 ppb	22:24:18
2	Sb 206.836†	31.3	7.6	4.6817 µg/L	4.6817 ppb	22:24:18
2	Se 196.026†	-44.1	-61.8	193.42 µg/L	193.42 ppb	22:24:18
2	SiO2†	334470.9	320843.5	63330 µg/L	63330 ppb	22:23:52
2	Si 251.611†	400985.6	386005.8	29345 µg/L	29345 ppb	22:23:52
2	Sn 189.927†	-13.7	-13.5	-15.832 µg/L	-15.832 ppb	22:24:18
2	Ti 334.940†	1845091.8	1777418.3	3931.3 µg/L	3931.3 ppb	22:23:52
2	Tl 190.801†	-59.0	-34.5	19.110 µg/L	19.110 ppb	22:24:18
2	U 409.014†	40.8	116.3	-6.4058 µg/L	-6.4058 ppb	22:23:58
2	V 292.402†	17906.0	17295.7	181.52 µg/L	181.52 ppb	22:23:58
2	Zn 213.857†	14651.4	13581.0	312.37 µg/L	312.37 ppb	22:23:58
3	Sc RADIAL	58979.5	58979.5	104 %		22:22:46
3	Al 396.153Radial†	110617.1	105951.1	73705 µg/L	73705 ppb	22:22:46
3	Ca 317.933Radial†	20073.0	19016.4	16243 µg/L	16243 ppb	22:23:07
3	Fe 238.204 Radial†	14210.4	13595.3	107230 µg/L	107230 ppb	22:23:07
3	K 766.490 Radial†	21355.2	20290.9	13252 µg/L	13252 ppb	22:22:46
3	Mg 279.077 IEC†	1511.9	1435.4	12716 µg/L	12716 ppb	22:23:07
3	Na 589.592 Radial†	2869.7	2276.7	699.27 µg/L	699.27 ppb	22:23:07
3	Sr 421.552†	19749.8	18889.3	174.26 µg/L	174.26 ppb	22:22:46
3	Sc 361.383	2036951.3	2036951.3	103.76 %		22:24:26
3	Y 371.029	1437471.3	1437471.3	106.26 %		22:24:26
3	Ag 328.068†	-1543.7	-1086.1	-0.2376 µg/L	-0.2376 ppb	22:24:31
3	As 188.979†	8.0	8.1	19.952 µg/L	19.952 ppb	22:24:52
3	B 249.677†	1092.7	669.0	-28.561 µg/L	-28.561 ppb	22:24:31
3	Ba 233.527†	52316.0	50436.8	1211.1 µg/L	1211.1 ppb	22:24:31
3	Be 313.107†	12698.1	15093.5	7.5166 µg/L	7.5166 ppb	22:24:31
3	Cd 226.502†	294.9	425.9	-1.4439 µg/L	-1.4439 ppb	22:24:52
3	Co 228.616†	1269.9	1222.0	47.445 µg/L	47.445 ppb	22:24:52
3	Cr 267.716†	3914.8	3823.2	76.891 µg/L	76.891 ppb	22:24:31
3	Cu 324.752†	14485.7	11416.9	89.428 µg/L	89.428 ppb	22:24:31
3	Mn 257.610†	779742.3	751735.7	2367.8 µg/L	2367.8 ppb	22:24:26
3	Mo 202.031†	4.0	9.2	4.9744 µg/L	4.9744 ppb	22:24:52
3	Ni 231.604†	1373.4	1011.3	51.741 µg/L	51.741 ppb	22:24:52
3	P 214.914†	739.1	697.0	1306.2 µg/L	1306.2 ppb	22:24:52
3	Pb 220.353†	2093.7	1926.9	468.26 µg/L	468.26 ppb	22:24:52
3	S 181.975 Axial†	205.3	178.9	741.81 µg/L	741.81 ppb	22:24:52
3	Sb 206.836†	27.6	4.1	1.4609 µg/L	1.4609 ppb	22:24:52
3	Se 196.026†	-39.7	-57.6	196.24 µg/L	196.24 ppb	22:24:52
3	SiO2†	326046.0	312836.5	61750 µg/L	61750 ppb	22:24:26
3	Si 251.611†	390995.5	376512.8	28623 µg/L	28623 ppb	22:24:26
3	Sn 189.927†	-19.6	-19.3	-18.131 µg/L	-18.131 ppb	22:24:52
3	Ti 334.940†	1774725.7	1710223.8	3782.6 µg/L	3782.6 ppb	22:24:26
3	Tl 190.801†	-64.2	-39.5	10.802 µg/L	10.802 ppb	22:24:52
3	U 409.014†	32.1	108.0	-6.9242 µg/L	-6.9242 ppb	22:24:31
3	V 292.402†	16939.3	16370.0	172.34 µg/L	172.34 ppb	22:24:31
3	Zn 213.857†	14025.7	12982.9	298.43 µg/L	298.43 ppb	22:24:31

Mean Data: 245960002|948744|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2037073.0	103.77	%	0.027				0.03%
Sc RADIAL	58612.4	104	%	0.7				0.71%
Y 371.029	1438880.4	106.37	%	0.092				0.09%
Ag 328.068†	-1107.5	-0.2776	µg/L	0.04197	-0.2776	ppb	0.04197	15.12%
Al 396.153Radial†	106655.6	74195	µg/L	468.5	74195	ppb	468.5	0.63%
As 188.979†	7.4	18.767	µg/L	2.6151	18.767	ppb	2.6151	13.93%
B 249.677†	685.0	-28.539	µg/L	0.7186	-28.539	ppb	0.7186	2.52%
Ba 233.527†	52069.8	1250.3	µg/L	34.37	1250.3	ppb	34.37	2.75%
Be 313.107†	15754.2	7.8698	µg/L	0.30682	7.8698	ppb	0.30682	3.90%
Ca 317.933Radial†	19222.4	16419	µg/L	176.0	16419	ppb	176.0	1.07%
Cd 226.502†	460.0	-0.7280	µg/L	0.62025	-0.7280	ppb	0.62025	85.20%
Co 228.616†	1306.8	51.076	µg/L	3.2124	51.076	ppb	3.2124	6.29%
Cr 267.716†	3991.6	80.277	µg/L	2.9881	80.277	ppb	2.9881	3.72%
Cu 324.752†	11798.9	92.091	µg/L	2.3654	92.091	ppb	2.3654	2.57%
Fe 238.204 Radial†	13750.2	108450	µg/L	1233.2	108450	ppb	1233.2	1.14%
K 766.490 Radial†	20343.5	13287	µg/L	41.3	13287	ppb	41.3	0.31%
Mg 279.077 IEC†	1453.4	12876	µg/L	158.0	12876	ppb	158.0	1.23%
Mn 257.610†	769675.4	2424.2	µg/L	48.92	2424.2	ppb	48.92	2.02%
Mo 202.031†	17.5	5.8393	µg/L	0.80097	5.8393	ppb	0.80097	13.72%
Na 589.592 Radial†	2303.7	707.57	µg/L	8.738	707.57	ppb	8.738	1.23%

Ni 231.604†	1085.6	55.455 µg/L	3.2459	55.455 ppb	3.2459	5.85%
P 214.914†	740.7	1391.6 µg/L	76.49	1391.6 ppb	76.49	5.50%
Pb 220.353†	2040.4	495.83 µg/L	23.902	495.83 ppb	23.902	4.82%
S 181.975 Axial†	186.4	773.00 µg/L	31.221	773.00 ppb	31.221	4.04%
Sb 206.836†	7.1	4.2123 µg/L	2.54924	4.2123 ppb	2.54924	60.52%
Se 196.026†	-59.3	196.97 µg/L	3.957	196.97 ppb	3.957	2.01%
SiO2†	318369.3	62842 µg/L	947.5	62842 ppb	947.5	1.51%
Si 251.611†	383120.3	29126 µg/L	436.2	29126 ppb	436.2	1.50%
Sn 189.927†	-17.7	-17.581 µg/L	1.5496	-17.581 ppb	1.5496	8.81%
Sr 421.552†	19004.9	175.32 µg/L	0.999	175.32 ppb	0.999	0.57%
Ti 334.940†	1756465.1	3884.9 µg/L	88.71	3884.9 ppb	88.71	2.28%
Tl 190.801†	-35.8	16.805 µg/L	5.2453	16.805 ppb	5.2453	31.21%
U 409.014†	105.1	-7.3468 µg/L	1.20900	-7.3468 ppb	1.20900	16.46%
V 292.402†	17019.4	178.83 µg/L	5.643	178.83 ppb	5.643	3.16%
Zn 213.857†	13398.3	308.09 µg/L	8.383	308.09 ppb	8.383	2.72%

Sequence No.: 19
Sample ID: 245960003|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 217
Date Collected: 2/19/2010 22:25:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960003|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58562.1	58562.1	104	%			22:25:34
1	Al 396.153Radial†	182506.6	176059.2	122480	µg/L	122480	ppb	22:25:34
1	Ca 317.933Radial†	27794.0	26602.0	22723	µg/L	22723	ppb	22:25:55
1	Fe 238.204 Radial†	18203.7	17544.8	138380	µg/L	138380	ppb	22:25:55
1	K 766.490 Radial†	28904.2	27719.3	18104	µg/L	18104	ppb	22:25:34
1	Mg 279.077 IEC†	2600.0	2495.4	22158	µg/L	22158	ppb	22:25:55
1	Na 589.592 Radial†	2387.7	1831.3	562.46	µg/L	562.46	ppb	22:25:55
1	Sr 421.552†	33082.6	31886.4	294.16	µg/L	294.16	ppb	22:25:34
1	Sc 361.383	2007832.0	2007832.0	102.28	%			22:27:00
1	Y 371.029	1431331.4	1431331.4	105.81	%			22:27:00
1	Ag 328.068†	-2067.4	-1619.7	-1.5254	µg/L	-1.5254	ppb	22:27:05
1	As 188.979†	21.5	21.5	45.406	µg/L	45.406	ppb	22:27:26
1	B 249.677†	1282.2	869.6	-36.587	µg/L	-36.587	ppb	22:27:05
1	Ba 233.527†	82299.2	80483.6	1932.7	µg/L	1932.7	ppb	22:27:05
1	Be 313.107†	21480.3	23857.7	12.254	µg/L	12.254	ppb	22:27:05
1	Cd 226.502†	415.7	548.1	-1.8828	µg/L	-1.8828	ppb	22:27:05
1	Co 228.616†	1618.1	1580.1	61.118	µg/L	61.118	ppb	22:27:26
1	Cr 267.716†	5564.2	5490.7	110.45	µg/L	110.45	ppb	22:27:05
1	Cu 324.752†	11334.3	8538.1	74.967	µg/L	74.967	ppb	22:27:05
1	Mn 257.610†	1291997.3	1263482.0	3974.1	µg/L	3974.1	ppb	22:27:00
1	Mo 202.031†	-22.9	-17.0	3.5899	µg/L	3.5899	ppb	22:27:26
1	Ni 231.604†	2018.3	1661.0	84.514	µg/L	84.514	ppb	22:27:26
1	P 214.914†	703.0	672.0	1247.3	µg/L	1247.3	ppb	22:27:26
1	Pb 220.353†	685.9	579.7	142.41	µg/L	142.41	ppb	22:27:26
1	S 181.975 Axial†	187.4	164.3	681.42	µg/L	681.42	ppb	22:27:26
1	Sb 206.836†	38.7	15.3	10.785	µg/L	10.785	ppb	22:27:26
1	Se 196.026†	-55.5	-73.6	248.73	µg/L	248.73	ppb	22:27:26
1	SiO2†	384337.4	374387.1	73899	µg/L	73899	ppb	22:27:00
1	Si 251.611†	460795.8	450223.8	34227	µg/L	34227	ppb	22:27:00
1	Sn 189.927†	-38.5	-38.0	-28.276	µg/L	-28.276	ppb	22:27:26
1	Ti 334.940†	2312944.4	2261262.6	5001.0	µg/L	5001.0	ppb	22:27:00
1	Tl 190.801†	-71.7	-47.7	24.953	µg/L	24.953	ppb	22:27:26
1	U 409.014†	-1455.0	-1345.6	-132.41	µg/L	-132.41	ppb	22:27:00
1	V 292.402†	27877.4	27301.3	282.47	µg/L	282.47	ppb	22:27:05
1	Zn 213.857†	13351.5	12519.7	285.44	µg/L	285.44	ppb	22:27:05
2	Sc RADIAL	58659.0	58659.0	104	%			22:26:00
2	Al 396.153Radial†	183338.6	176569.6	122830	µg/L	122830	ppb	22:26:00
2	Ca 317.933Radial†	28018.0	26773.4	22869	µg/L	22869	ppb	22:26:21
2	Fe 238.204 Radial†	18357.8	17664.2	139320	µg/L	139320	ppb	22:26:21
2	K 766.490 Radial†	28930.2	27698.2	18090	µg/L	18090	ppb	22:26:00
2	Mg 279.077 IEC†	2621.5	2512.0	22305	µg/L	22305	ppb	22:26:21
2	Na 589.592 Radial†	2379.7	1819.7	558.91	µg/L	558.91	ppb	22:26:21
2	Sr 421.552†	33261.5	32006.0	295.26	µg/L	295.26	ppb	22:26:00
2	Sc 361.383	2001542.4	2001542.4	101.96	%			22:27:34
2	Y 371.029	1426472.2	1426472.2	105.45	%			22:27:34
2	Ag 328.068†	-2007.4	-1567.3	-1.0732	µg/L	-1.0732	ppb	22:27:39
2	As 188.979†	13.0	13.2	30.642	µg/L	30.642	ppb	22:28:00
2	B 249.677†	1265.0	856.6	-37.606	µg/L	-37.606	ppb	22:27:39
2	Ba 233.527†	82173.6	80613.2	1935.8	µg/L	1935.8	ppb	22:27:39
2	Be 313.107†	21644.7	24084.9	12.387	µg/L	12.387	ppb	22:27:39
2	Cd 226.502†	363.1	497.8	-3.2449	µg/L	-3.2449	ppb	22:27:39
2	Co 228.616†	1588.0	1555.6	60.001	µg/L	60.001	ppb	22:28:00
2	Cr 267.716†	5605.1	5547.9	111.60	µg/L	111.60	ppb	22:27:39
2	Cu 324.752†	11329.9	8568.7	75.297	µg/L	75.297	ppb	22:27:39
2	Mn 257.610†	1284841.6	1260433.1	3964.7	µg/L	3964.7	ppb	22:27:34
2	Mo 202.031†	-22.4	-16.6	3.6687	µg/L	3.6687	ppb	22:28:00
2	Ni 231.604†	1993.5	1642.9	83.624	µg/L	83.624	ppb	22:28:00
2	P 214.914†	697.4	668.7	1240.0	µg/L	1240.0	ppb	22:28:00
2	Pb 220.353†	679.2	575.3	141.31	µg/L	141.31	ppb	22:28:00

2	S 181.975 Axial†	191.0	168.4	698.35 µg/L	698.35 ppb	22:28:00
2	Sb 206.836†	44.9	21.5	16.493 µg/L	16.493 ppb	22:28:00
2	Se 196.026†	-55.8	-74.0	250.55 µg/L	250.55 ppb	22:28:00
2	SiO2†	383401.0	374649.4	73951 µg/L	73951 ppb	22:27:34
2	Si 251.611†	460030.2	450888.6	34277 µg/L	34277 ppb	22:27:34
2	Sn 189.927†	-43.3	-42.8	-30.376 µg/L	-30.376 ppb	22:28:00
2	Ti 334.940†	2307041.0	2262578.8	5003.9 µg/L	5003.9 ppb	22:27:34
2	Tl 190.801†	-76.1	-52.3	19.150 µg/L	19.150 ppb	22:28:00
2	U 409.014†	-1349.3	-1246.3	-124.31 µg/L	-124.31 ppb	22:27:34
2	V 292.402†	27854.2	27364.3	283.21 µg/L	283.21 ppb	22:27:39
2	Zn 213.857†	13281.7	12492.4	284.75 µg/L	284.75 ppb	22:27:39
3	Sc RADIAL	58406.2	58406.2	103 %		22:26:26
3	Al 396.153Radial†	184230.3	178196.4	123960 µg/L	123960 ppb	22:26:26
3	Ca 317.933Radial†	27960.9	26835.0	22922 µg/L	22922 ppb	22:26:46
3	Fe 238.204 Radial†	18344.3	17727.7	139820 µg/L	139820 ppb	22:26:46
3	K 766.490 Radial†	29116.2	27998.8	18286 µg/L	18286 ppb	22:26:26
3	Mg 279.077 IEC†	2612.0	2513.7	22320 µg/L	22320 ppb	22:26:46
3	Na 589.592 Radial†	2409.6	1858.6	570.86 µg/L	570.86 ppb	22:26:46
3	Sr 421.552†	33432.4	32309.9	298.06 µg/L	298.06 ppb	22:26:26
3	Sc 361.383	2001200.4	2001200.4	101.94 %		22:28:08
3	Y 371.029	1423880.9	1423880.9	105.26 %		22:28:08
3	Ag 328.068†	-1936.8	-1498.3	-0.6323 µg/L	-0.6323 ppb	22:28:13
3	As 188.979†	14.1	14.3	32.526 µg/L	32.526 ppb	22:28:34
3	B 249.677†	1210.3	803.1	-40.057 µg/L	-40.057 ppb	22:28:13
3	Ba 233.527†	78378.5	76904.1	1846.7 µg/L	1846.7 ppb	22:28:13
3	Be 313.107†	20121.2	22594.0	11.592 µg/L	11.592 ppb	22:28:13
3	Cd 226.502†	330.7	466.1	-4.1010 µg/L	-4.1010 ppb	22:28:13
3	Co 228.616†	1448.4	1418.9	54.304 µg/L	54.304 ppb	22:28:34
3	Cr 267.716†	5233.4	5184.2	104.28 µg/L	104.28 ppb	22:28:13
3	Cu 324.752†	10879.6	8128.8	72.495 µg/L	72.495 ppb	22:28:13
3	Mn 257.610†	1232391.7	1209196.7	3804.3 µg/L	3804.3 ppb	22:28:08
3	Mo 202.031†	-20.5	-14.7	3.8690 µg/L	3.8690 ppb	22:28:34
3	Ni 231.604†	1831.8	1484.6	75.750 µg/L	75.750 ppb	22:28:34
3	P 214.914†	625.4	598.2	1100.6 µg/L	1100.6 ppb	22:28:34
3	Pb 220.353†	635.7	532.6	131.00 µg/L	131.00 ppb	22:28:34
3	S 181.975 Axial†	177.1	154.8	641.80 µg/L	641.80 ppb	22:28:34
3	Sb 206.836†	33.9	10.7	6.6510 µg/L	6.6510 ppb	22:28:34
3	Se 196.026†	-52.2	-70.6	256.73 µg/L	256.73 ppb	22:28:34
3	SiO2†	370595.1	362151.5	71484 µg/L	71484 ppb	22:28:08
3	Si 251.611†	444309.3	435543.9	33111 µg/L	33111 ppb	22:28:08
3	Sn 189.927†	-38.4	-38.1	-28.441 µg/L	-28.441 ppb	22:28:34
3	Ti 334.940†	2198301.5	2156295.3	4768.8 µg/L	4768.8 ppb	22:28:08
3	Tl 190.801†	-77.0	-53.2	15.424 µg/L	15.424 ppb	22:28:34
3	U 409.014†	-1314.2	-1212.1	-121.54 µg/L	-121.54 ppb	22:28:08
3	V 292.402†	26246.1	25791.4	267.92 µg/L	267.92 ppb	22:28:13
3	Zn 213.857†	12742.1	11965.2	272.39 µg/L	272.39 ppb	22:28:13

Mean Data: 245960003|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2003524.9	102.06	%	0.190				0.19%
Sc RADIAL	58542.4	104	%	0.2				0.22%
Y 371.029	1427228.2	105.51	%	0.280				0.27%
Ag 328.068†	-1561.8	-1.0770	µg/L	0.44660	-1.0770	ppb	0.44660	41.47%
Al 396.153Radial†	176941.8	123090	µg/L	776.4	123090	ppb	776.4	0.63%
As 188.979†	16.3	36.191	µg/L	8.0357	36.191	ppb	8.0357	22.20%
B 249.677†	843.1	-38.083	µg/L	1.7838	-38.083	ppb	1.7838	4.68%
Ba 233.527†	79333.6	1905.0	µg/L	50.55	1905.0	ppb	50.55	2.65%
Be 313.107†	23512.2	12.078	µg/L	0.4258	12.078	ppb	0.4258	3.53%
Ca 317.933Radial†	26736.8	22838	µg/L	103.1	22838	ppb	103.1	0.45%
Cd 226.502†	504.0	-3.0762	µg/L	1.11864	-3.0762	ppb	1.11864	36.36%
Co 228.616†	1518.2	58.474	µg/L	3.6549	58.474	ppb	3.6549	6.25%
Cr 267.716†	5407.6	108.78	µg/L	3.933	108.78	ppb	3.933	3.62%
Cu 324.752†	8411.9	74.253	µg/L	1.5311	74.253	ppb	1.5311	2.06%
Fe 238.204 Radial†	17645.5	139170	µg/L	732.3	139170	ppb	732.3	0.53%
K 766.490 Radial†	27805.5	18160	µg/L	109.6	18160	ppb	109.6	0.60%
Mg 279.077 IEC†	2507.0	22261	µg/L	89.4	22261	ppb	89.4	0.40%
Mn 257.610†	1244370.6	3914.4	µg/L	95.43	3914.4	ppb	95.43	2.44%
Mo 202.031†	-16.1	3.7092	µg/L	0.14392	3.7092	ppb	0.14392	3.88%
Na 589.592 Radial†	1836.5	564.08	µg/L	6.137	564.08	ppb	6.137	1.09%

Ni 231.604†	1596.2	81.296 µg/L	4.8238	81.296 ppb	4.8238	5.93%
P 214.914†	646.3	1196.0 µg/L	82.67	1196.0 ppb	82.67	6.91%
Pb 220.353†	562.5	138.24 µg/L	6.295	138.24 ppb	6.295	4.55%
S 181.975 Axial†	162.5	673.86 µg/L	29.026	673.86 ppb	29.026	4.31%
Sb 206.836†	15.9	11.310 µg/L	4.9420	11.310 ppb	4.9420	43.70%
Se 196.026†	-72.7	252.00 µg/L	4.197	252.00 ppb	4.197	1.67%
SiO2†	370396.0	73111 µg/L	1409.6	73111 ppb	1409.6	1.93%
Si 251.611†	445552.1	33872 µg/L	659.4	33872 ppb	659.4	1.95%
Sn 189.927†	-39.6	-29.031 µg/L	1.1675	-29.031 ppb	1.1675	4.02%
Sr 421.552†	32067.5	295.83 µg/L	2.014	295.83 ppb	2.014	0.68%
Ti 334.940†	2226712.3	4924.6 µg/L	134.92	4924.6 ppb	134.92	2.74%
Tl 190.801†	-51.0	19.842 µg/L	4.8019	19.842 ppb	4.8019	24.20%
U 409.014†	-1268.0	-126.09 µg/L	5.653	-126.09 ppb	5.653	4.48%
V 292.402†	26819.0	277.87 µg/L	8.618	277.87 ppb	8.618	3.10%
Zn 213.857†	12325.8	280.86 µg/L	7.340	280.86 ppb	7.340	2.61%

Sequence No.: 20
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 22:28:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58682.4	58682.4	104	%			22:29:23
1	Al 396.153Radial†	7235.9	6958.9	4830.4	µg/L	4830.4	ppb	22:29:23
1	Ca 317.933Radial†	6077.6	5639.8	4817.4	µg/L	4817.4	ppb	22:29:43
1	Fe 238.204 Radial†	662.2	621.0	4908.0	µg/L	4908.0	ppb	22:29:43
1	K 766.490 Radial†	7780.1	7325.2	4784.2	µg/L	4784.2	ppb	22:29:23
1	Mg 279.077 IEC†	583.1	548.5	4906.8	µg/L	4906.8	ppb	22:29:43
1	Na 589.592 Radial†	33228.8	31518.4	9680.7	µg/L	9680.7	ppb	22:29:23
1	Sr 421.552†	53197.3	51186.2	472.20	µg/L	472.20	ppb	22:29:23
1	Sc 361.383	2035190.2	2035190.2	103.67	%			22:30:47
1	Y 371.029	1401651.0	1401651.0	103.61	%			22:30:47
1	Ag 328.068†	68081.1	66071.8	493.02	µg/L	493.02	ppb	22:30:52
1	As 188.979†	298.1	288.0	515.28	µg/L	515.28	ppb	22:31:13
1	B 249.677†	12768.6	11932.3	484.58	µg/L	484.58	ppb	22:30:52
1	Ba 233.527†	21458.8	20716.0	498.23	µg/L	498.23	ppb	22:30:52
1	Be 313.107†	860925.6	833294.1	494.38	µg/L	494.38	ppb	22:30:47
1	Cd 226.502†	20758.8	20165.3	502.89	µg/L	502.89	ppb	22:30:52
1	Co 228.616†	11490.7	11081.9	501.31	µg/L	501.31	ppb	22:30:52
1	Cr 267.716†	25945.3	25076.9	503.99	µg/L	503.99	ppb	22:30:52
1	Cu 324.752†	81109.4	75693.4	494.77	µg/L	494.77	ppb	22:30:52
1	Mn 257.610†	166674.7	161028.4	504.72	µg/L	504.72	ppb	22:30:47
1	Mo 202.031†	5452.5	5264.8	515.74	µg/L	515.74	ppb	22:31:13
1	Ni 231.604†	10771.6	10077.8	501.84	µg/L	501.84	ppb	22:30:52
1	P 214.914†	1361.8	1298.2	2523.1	µg/L	2523.1	ppb	22:31:13
1	Pb 220.353†	2268.4	2097.1	509.99	µg/L	509.99	ppb	22:31:13
1	S 181.975 Axial†	268.9	240.4	997.00	µg/L	997.00	ppb	22:31:13
1	Sb 206.836†	597.4	553.7	510.63	µg/L	510.63	ppb	22:31:13
1	Se 196.026†	391.9	358.7	511.47	µg/L	511.47	ppb	22:31:13
1	SiO2†	29507.1	27070.6	5343.4	µg/L	5343.4	ppb	22:30:52
1	Si 251.611†	34360.3	32832.9	2496.0	µg/L	2496.0	ppb	22:30:52
1	Sn 189.927†	1270.7	1225.3	516.77	µg/L	516.77	ppb	22:31:13
1	Ti 334.940†	231793.7	223410.4	493.92	µg/L	493.92	ppb	22:30:47
1	Tl 190.801†	377.5	386.5	507.97	µg/L	507.97	ppb	22:31:13
1	U 409.014†	6219.6	6076.5	503.89	µg/L	503.89	ppb	22:30:52
1	V 292.402†	52782.3	50957.9	502.84	µg/L	502.84	ppb	22:30:52
1	Zn 213.857†	22807.5	21465.4	500.08	µg/L	500.08	ppb	22:30:52
2	Sc RADIAL	58445.8	58445.8	103	%			22:29:48
2	Al 396.153Radial†	7285.7	7035.2	4883.8	µg/L	4883.8	ppb	22:29:48
2	Ca 317.933Radial†	6104.1	5689.2	4859.6	µg/L	4859.6	ppb	22:30:09
2	Fe 238.204 Radial†	671.9	632.9	5002.2	µg/L	5002.2	ppb	22:30:09
2	K 766.490 Radial†	7782.7	7358.0	4805.7	µg/L	4805.7	ppb	22:29:48
2	Mg 279.077 IEC†	586.2	553.8	4953.4	µg/L	4953.4	ppb	22:30:09
2	Na 589.592 Radial†	33236.1	31654.9	9722.6	µg/L	9722.6	ppb	22:29:48
2	Sr 421.552†	53434.9	51623.1	476.23	µg/L	476.23	ppb	22:29:48
2	Sc 361.383	2040505.4	2040505.4	103.94	%			22:31:20
2	Y 371.029	1405592.5	1405592.5	103.91	%			22:31:20
2	Ag 328.068†	67790.7	65621.3	489.67	µg/L	489.67	ppb	22:31:25
2	As 188.979†	293.5	282.9	506.01	µg/L	506.01	ppb	22:31:46
2	B 249.677†	12709.5	11843.4	480.90	µg/L	480.90	ppb	22:31:25
2	Ba 233.527†	21391.2	20597.0	495.37	µg/L	495.37	ppb	22:31:25
2	Be 313.107†	866523.4	836516.5	496.29	µg/L	496.29	ppb	22:31:20
2	Cd 226.502†	20685.6	20042.8	499.82	µg/L	499.82	ppb	22:31:25
2	Co 228.616†	11439.3	11003.5	497.74	µg/L	497.74	ppb	22:31:25
2	Cr 267.716†	25899.7	24967.8	501.80	µg/L	501.80	ppb	22:31:25
2	Cu 324.752†	80721.9	75116.8	491.02	µg/L	491.02	ppb	22:31:25
2	Mn 257.610†	167447.7	161353.3	505.75	µg/L	505.75	ppb	22:31:20
2	Mo 202.031†	5299.9	5104.2	500.03	µg/L	500.03	ppb	22:31:46
2	Ni 231.604†	10731.8	10012.5	498.59	µg/L	498.59	ppb	22:31:25
2	P 214.914†	1332.5	1266.7	2460.8	µg/L	2460.8	ppb	22:31:46
2	Pb 220.353†	2217.0	2041.9	496.54	µg/L	496.54	ppb	22:31:46

2	S 181.975 Axial†	267.7	238.6	989.64 µg/L	989.64 ppb	22:31:46
2	Sb 206.836†	589.1	544.2	501.70 µg/L	501.70 ppb	22:31:46
2	Se 196.026†	397.6	363.2	517.93 µg/L	517.93 ppb	22:31:46
2	SiO2†	29480.5	26970.9	5323.7 µg/L	5323.7 ppb	22:31:25
2	Si 251.611†	34410.2	32794.6	2493.1 µg/L	2493.1 ppb	22:31:25
2	Sn 189.927†	1238.8	1191.5	502.49 µg/L	502.49 ppb	22:31:46
2	Ti 334.940†	233343.5	224319.0	495.93 µg/L	495.93 ppb	22:31:20
2	Tl 190.801†	367.3	375.8	494.02 µg/L	494.02 ppb	22:31:46
2	U 409.014†	6220.8	6061.9	502.66 µg/L	502.66 ppb	22:31:25
2	V 292.402†	52607.1	50656.7	499.78 µg/L	499.78 ppb	22:31:25
2	Zn 213.857†	22751.7	21354.5	497.50 µg/L	497.50 ppb	22:31:25
3	Sc RADIAL	58365.6	58365.6	103 %		22:30:14
3	Al 396.153Radial†	7315.7	7074.0	4912.7 µg/L	4912.7 ppb	22:30:14
3	Ca 317.933Radial†	6114.6	5707.4	4875.1 µg/L	4875.1 ppb	22:30:35
3	Fe 238.204 Radial†	676.6	638.4	5044.0 µg/L	5044.0 ppb	22:30:35
3	K 766.490 Radial†	7852.7	7436.1	4856.6 µg/L	4856.6 ppb	22:30:14
3	Mg 279.077 IEC†	588.1	556.4	4975.0 µg/L	4975.0 ppb	22:30:35
3	Na 589.592 Radial†	33380.9	31839.2	9779.2 µg/L	9779.2 ppb	22:30:14
3	Sr 421.552†	53545.1	51800.8	477.87 µg/L	477.87 ppb	22:30:14
3	Sc 361.383	2043729.2	2043729.2	104.11 %		22:31:53
3	Y 371.029	1408593.8	1408593.8	104.13 %		22:31:53
3	Ag 328.068†	63043.1	60958.1	454.71 µg/L	454.71 ppb	22:31:59
3	As 188.979†	236.2	227.4	406.78 µg/L	406.78 ppb	22:32:19
3	B 249.677†	11737.4	10890.3	441.92 µg/L	441.92 ppb	22:31:59
3	Ba 233.527†	19144.9	18406.8	442.67 µg/L	442.67 ppb	22:31:59
3	Be 313.107†	787482.0	759277.6	450.47 µg/L	450.47 ppb	22:31:53
3	Cd 226.502†	18429.0	17843.8	444.91 µg/L	444.91 ppb	22:31:59
3	Co 228.616†	10101.0	9700.6	438.75 µg/L	438.75 ppb	22:31:59
3	Cr 267.716†	22032.4	21213.7	426.35 µg/L	426.35 ppb	22:31:59
3	Cu 324.752†	71814.1	66437.9	434.37 µg/L	434.37 ppb	22:31:59
3	Mn 257.610†	153006.9	147227.9	461.52 µg/L	461.52 ppb	22:31:53
3	Mo 202.031†	4291.5	4127.6	404.39 µg/L	404.39 ppb	22:32:19
3	Ni 231.604†	9506.0	8818.7	439.15 µg/L	439.15 ppb	22:31:59
3	P 214.914†	1088.9	1030.6	1997.8 µg/L	1997.8 ppb	22:32:19
3	Pb 220.353†	1879.9	1714.8	416.92 µg/L	416.92 ppb	22:32:19
3	S 181.975 Axial†	233.9	205.7	853.14 µg/L	853.14 ppb	22:32:19
3	Sb 206.836†	487.4	445.7	410.48 µg/L	410.48 ppb	22:32:19
3	Se 196.026†	334.7	302.2	432.42 µg/L	432.42 ppb	22:32:19
3	SiO2†	26915.4	24462.2	4828.5 µg/L	4828.5 ppb	22:31:59
3	Si 251.611†	31276.8	29732.5	2260.3 µg/L	2260.3 ppb	22:31:59
3	Sn 189.927†	992.2	952.7	401.80 µg/L	401.80 ppb	22:32:19
3	Ti 334.940†	210120.3	201657.6	445.80 µg/L	445.80 ppb	22:31:53
3	Tl 190.801†	321.4	331.1	435.55 µg/L	435.55 ppb	22:32:19
3	U 409.014†	5208.6	5080.2	421.09 µg/L	421.09 ppb	22:31:59
3	V 292.402†	46007.3	44237.5	436.24 µg/L	436.24 ppb	22:31:59
3	Zn 213.857†	20128.9	18800.6	437.93 µg/L	437.93 ppb	22:31:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2039808.3	103.91	%	0.220				0.21%
Sc RADIAL	58497.9	104	%	0.3				0.28%
Y 371.029	1405279.1	103.88	%	0.257				0.25%
Ag 328.068†	64217.1	479.13	µg/L	21.214	479.13	ppb	21.214	4.43%
QC value within limits for Ag 328.068 Recovery = 95.83%								
Al 396.153Radial†	7022.7	4875.6	µg/L	41.78	4875.6	ppb	41.78	0.86%
QC value within limits for Al 396.153Radial Recovery = 97.51%								
As 188.979†	266.1	476.03	µg/L	60.144	476.03	ppb	60.144	12.63%
QC value within limits for As 188.979 Recovery = 95.21%								
B 249.677†	11555.3	469.13	µg/L	23.641	469.13	ppb	23.641	5.04%
QC value within limits for B 249.677 Recovery = 93.83%								
Ba 233.527†	19906.6	478.76	µg/L	31.281	478.76	ppb	31.281	6.53%
QC value within limits for Ba 233.527 Recovery = 95.75%								
Be 313.107†	809696.0	480.38	µg/L	25.921	480.38	ppb	25.921	5.40%
QC value within limits for Be 313.107 Recovery = 96.08%								
Ca 317.933Radial†	5678.8	4850.7	µg/L	29.85	4850.7	ppb	29.85	0.62%
QC value within limits for Ca 317.933Radial Recovery = 97.01%								
Cd 226.502†	19350.6	482.54	µg/L	32.625	482.54	ppb	32.625	6.76%
QC value within limits for Cd 226.502 Recovery = 96.51%								
Co 228.616†	10595.3	479.27	µg/L	35.131	479.27	ppb	35.131	7.33%

QC value within limits for Co 228.616 Recovery = 95.85%

Cr 267.716†	23752.8	477.38 µg/L	44.202	477.38 ppb	44.202	9.26%
QC value within limits for Cr 267.716 Recovery = 95.48%						
Cu 324.752†	72416.0	473.39 µg/L	33.839	473.39 ppb	33.839	7.15%
QC value within limits for Cu 324.752 Recovery = 94.68%						
Fe 238.204 Radial†	630.7	4984.7 µg/L	69.64	4984.7 ppb	69.64	1.40%
QC value within limits for Fe 238.204 Radial Recovery = 99.69%						
K 766.490 Radial†	7373.1	4815.5 µg/L	37.19	4815.5 ppb	37.19	0.77%
QC value within limits for K 766.490 Radial Recovery = 96.31%						
Mg 279.077 IEC†	552.9	4945.1 µg/L	34.85	4945.1 ppb	34.85	0.70%
QC value within limits for Mg 279.077 IEC Recovery = 98.90%						
Mn 257.610†	156536.5	490.66 µg/L	25.244	490.66 ppb	25.244	5.14%
QC value within limits for Mn 257.610 Recovery = 98.13%						
Mo 202.031†	4832.2	473.39 µg/L	60.270	473.39 ppb	60.270	12.73%
QC value within limits for Mo 202.031 Recovery = 94.68%						
Na 589.592 Radial†	31670.8	9727.5 µg/L	49.45	9727.5 ppb	49.45	0.51%
QC value within limits for Na 589.592 Radial Recovery = 97.27%						
Ni 231.604†	9636.3	479.86 µg/L	35.292	479.86 ppb	35.292	7.35%
QC value within limits for Ni 231.604 Recovery = 95.97%						
P 214.914†	1198.5	2327.3 µg/L	286.98	2327.3 ppb	286.98	12.33%
QC value within limits for P 214.914 Recovery = 93.09%						
Pb 220.353†	1951.3	474.48 µg/L	50.304	474.48 ppb	50.304	10.60%
QC value within limits for Pb 220.353 Recovery = 94.90%						
S 181.975 Axial†	228.3	946.59 µg/L	81.017	946.59 ppb	81.017	8.56%
QC value within limits for S 181.975 Axial Recovery = 94.66%						
Sb 206.836†	514.5	474.27 µg/L	55.421	474.27 ppb	55.421	11.69%
QC value within limits for Sb 206.836 Recovery = 94.85%						
Se 196.026†	341.4	487.28 µg/L	47.618	487.28 ppb	47.618	9.77%
QC value within limits for Se 196.026 Recovery = 97.46%						
SiO2†	26167.9	5165.2 µg/L	291.74	5165.2 ppb	291.74	5.65%
QC value within limits for SiO2 Recovery = 96.59%						
Si 251.611†	31786.7	2416.5 µg/L	135.25	2416.5 ppb	135.25	5.60%
QC value within limits for Si 251.611 Recovery = 96.66%						
Sn 189.927†	1123.2	473.68 µg/L	62.666	473.68 ppb	62.666	13.23%
QC value within limits for Sn 189.927 Recovery = 94.74%						
Sr 421.552†	51536.7	475.43 µg/L	2.918	475.43 ppb	2.918	0.61%
QC value within limits for Sr 421.552 Recovery = 95.09%						
Ti 334.940†	216462.3	478.55 µg/L	28.383	478.55 ppb	28.383	5.93%
QC value within limits for Ti 334.940 Recovery = 95.71%						
Tl 190.801†	364.5	479.18 µg/L	38.424	479.18 ppb	38.424	8.02%
QC value within limits for Tl 190.801 Recovery = 95.84%						
U 409.014†	5739.5	475.88 µg/L	47.453	475.88 ppb	47.453	9.97%
QC value within limits for U 409.014 Recovery = 95.18%						
V 292.402†	48617.4	479.62 µg/L	37.602	479.62 ppb	37.602	7.84%
QC value within limits for V 292.402 Recovery = 95.92%						
Zn 213.857†	20540.2	478.50 µg/L	35.162	478.50 ppb	35.162	7.35%
QC value within limits for Zn 213.857 Recovery = 95.70%						

All analyte(s) passed QC.

Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 22:32:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57585.6	57585.6	102	%			22:33:01
1	Al 396.153Radial†	5.3	-2.2	-1.5487	µg/L	-1.5487	ppb	22:33:01
1	Ca 317.933Radial†	199.5	-15.5	-13.282	µg/L	-13.282	ppb	22:33:21
1	Fe 238.204 Radial†	20.4	3.4	26.948	µg/L	26.948	ppb	22:33:21
1	K 766.490 Radial†	158.3	-9.7	-6.3145	µg/L	-6.3145	ppb	22:33:01
1	Mg 279.077 IEC†	8.9	-4.1	-36.991	µg/L	-36.991	ppb	22:33:21
1	Na 589.592 Radial†	494.2	12.6	3.8754	µg/L	3.8754	ppb	22:33:01
1	Sr 421.552†	59.2	29.3	0.2704	µg/L	0.2704	ppb	22:33:01
1	Sc 361.383	2051484.5	2051484.5	104.50	%			22:34:23
1	Y 371.029	1418561.0	1418561.0	104.86	%			22:34:23
1	Ag 328.068†	-445.9	-25.1	-0.1823	µg/L	-0.1823	ppb	22:34:29
1	As 188.979†	-1.0	-0.5	-0.8315	µg/L	-0.8315	ppb	22:34:50
1	B 249.677†	342.4	-56.5	-2.3170	µg/L	-2.3170	ppb	22:34:50
1	Ba 233.527†	-1.6	15.5	0.3732	µg/L	0.3732	ppb	22:34:50
1	Be 313.107†	-2684.5	286.8	0.1700	µg/L	0.1700	ppb	22:34:29
1	Cd 226.502†	-134.7	12.8	0.3141	µg/L	0.3141	ppb	22:34:50
1	Co 228.616†	5.1	3.0	0.1333	µg/L	0.1333	ppb	22:34:50
1	Cr 267.716†	-65.0	-11.8	-0.2372	µg/L	-0.2372	ppb	22:34:29
1	Cu 324.752†	2592.8	-62.6	-0.4051	µg/L	-0.4051	ppb	22:34:29
1	Mn 257.610†	-124.4	137.0	0.4341	µg/L	0.4341	ppb	22:34:50
1	Mo 202.031†	5.4	10.5	1.0332	µg/L	1.0332	ppb	22:34:50
1	Ni 231.604†	295.9	-29.2	-1.4535	µg/L	-1.4535	ppb	22:34:50
1	P 214.914†	14.2	-1.7	-3.4035	µg/L	-3.4035	ppb	22:34:50
1	Pb 220.353†	72.1	-21.9	-5.3315	µg/L	-5.3315	ppb	22:34:50
1	S 181.975 Axial†	15.1	-4.5	-18.600	µg/L	-18.600	ppb	22:34:50
1	Sb 206.836†	20.6	-2.8	-2.5618	µg/L	-2.5618	ppb	22:34:50
1	Se 196.026†	11.2	-8.6	-11.983	µg/L	-11.983	ppb	22:34:50
1	SiO2†	1533.6	76.0	14.992	µg/L	14.992	ppb	22:34:29
1	Si 251.611†	415.1	86.5	6.5795	µg/L	6.5795	ppb	22:34:50
1	Sn 189.927†	6.3	5.6	2.3743	µg/L	2.3743	ppb	22:34:50
1	Ti 334.940†	459.3	264.5	0.5877	µg/L	0.5877	ppb	22:34:29
1	Tl 190.801†	-16.4	6.7	8.6669	µg/L	8.6669	ppb	22:34:50
1	U 409.014†	-23.7	54.4	4.5141	µg/L	4.5141	ppb	22:34:29
1	V 292.402†	-14.3	31.1	0.3185	µg/L	0.3185	ppb	22:34:29
1	Zn 213.857†	548.1	-9.9	-0.2254	µg/L	-0.2254	ppb	22:34:50
2	Sc RADIAL	57789.7	57789.7	102	%			22:33:27
2	Al 396.153Radial†	21.4	13.5	9.3709	µg/L	9.3709	ppb	22:33:27
2	Ca 317.933Radial†	195.9	-19.7	-16.863	µg/L	-16.863	ppb	22:33:47
2	Fe 238.204 Radial†	20.7	3.6	28.742	µg/L	28.742	ppb	22:33:47
2	K 766.490 Radial†	226.2	56.1	36.646	µg/L	36.646	ppb	22:33:27
2	Mg 279.077 IEC†	16.1	2.9	26.324	µg/L	26.324	ppb	22:33:47
2	Na 589.592 Radial†	490.2	7.0	2.1478	µg/L	2.1478	ppb	22:33:27
2	Sr 421.552†	22.7	-6.6	-0.0609	µg/L	-0.0609	ppb	22:33:27
2	Sc 361.383	2059030.4	2059030.4	104.89	%			22:34:56
2	Y 371.029	1423097.5	1423097.5	105.20	%			22:34:56
2	Ag 328.068†	-410.0	10.7	0.0820	µg/L	0.0820	ppb	22:35:01
2	As 188.979†	0.0	0.5	0.8834	µg/L	0.8834	ppb	22:35:22
2	B 249.677†	341.5	-58.6	-2.4029	µg/L	-2.4029	ppb	22:35:22
2	Ba 233.527†	-2.3	14.9	0.3573	µg/L	0.3573	ppb	22:35:22
2	Be 313.107†	-2672.8	307.4	0.1821	µg/L	0.1821	ppb	22:35:01
2	Cd 226.502†	-134.9	13.0	0.3213	µg/L	0.3213	ppb	22:35:22
2	Co 228.616†	2.8	0.8	0.0344	µg/L	0.0344	ppb	22:35:22
2	Cr 267.716†	-81.2	-27.0	-0.5422	µg/L	-0.5422	ppb	22:35:01
2	Cu 324.752†	2590.0	-74.3	-0.4813	µg/L	-0.4813	ppb	22:35:01
2	Mn 257.610†	-125.4	136.4	0.4300	µg/L	0.4300	ppb	22:35:22
2	Mo 202.031†	10.9	15.7	1.5422	µg/L	1.5422	ppb	22:35:22
2	Ni 231.604†	311.0	-15.8	-0.7893	µg/L	-0.7893	ppb	22:35:22
2	P 214.914†	11.5	-4.4	-8.6739	µg/L	-8.6739	ppb	22:35:22
2	Pb 220.353†	84.7	-10.2	-2.4785	µg/L	-2.4785	ppb	22:35:22

2	S 181.975 Axial†	13.6	-5.9	-24.609 µg/L	-24.609 ppb	22:35:22
2	Sb 206.836†	20.6	-2.9	-2.6273 µg/L	-2.6273 ppb	22:35:22
2	Se 196.026†	13.7	-6.2	-8.6858 µg/L	-8.6858 ppb	22:35:22
2	SiO2†	1497.0	35.7	7.0424 µg/L	7.0424 ppb	22:35:01
2	Si 251.611†	415.0	85.0	6.4614 µg/L	6.4614 ppb	22:35:22
2	Sn 189.927†	-0.4	-0.8	-0.3270 µg/L	-0.3270 ppb	22:35:22
2	Ti 334.940†	561.8	360.6	0.7953 µg/L	0.7953 ppb	22:35:01
2	Tl 190.801†	-23.2	0.3	0.4055 µg/L	0.4055 ppb	22:35:22
2	U 409.014†	-36.1	42.7	3.5443 µg/L	3.5443 ppb	22:35:01
2	V 292.402†	-37.1	9.3	0.1087 µg/L	0.1087 ppb	22:35:01
2	Zn 213.857†	547.0	-12.9	-0.3007 µg/L	-0.3007 ppb	22:35:22
3	Sc RADIAL	58397.7	58397.7	103 %		22:33:53
3	Al 396.153Radial†	22.9	14.8	10.265 µg/L	10.265 ppb	22:33:53
3	Ca 317.933Radial†	200.0	-17.8	-15.186 µg/L	-15.186 ppb	22:34:13
3	Fe 238.204 Radial†	19.3	2.1	16.862 µg/L	16.862 ppb	22:34:13
3	K 766.490 Radial†	136.3	-33.1	-21.647 µg/L	-21.647 ppb	22:33:53
3	Mg 279.077 IEC†	14.6	1.3	11.823 µg/L	11.823 ppb	22:34:13
3	Na 589.592 Radial†	421.2	-64.8	-19.889 µg/L	-19.889 ppb	22:33:53
3	Sr 421.552†	64.0	33.2	0.3059 µg/L	0.3059 ppb	22:33:53
3	Sc 361.383	2079286.4	2079286.4	105.92 %		22:35:28
3	Y 371.029	1436370.2	1436370.2	106.18 %		22:35:28
3	Ag 328.068†	-401.1	23.0	0.1715 µg/L	0.1715 ppb	22:35:33
3	As 188.979†	-1.6	-1.1	-1.9606 µg/L	-1.9606 ppb	22:35:54
3	B 249.677†	336.5	-66.4	-2.7154 µg/L	-2.7154 ppb	22:35:54
3	Ba 233.527†	1.7	18.7	0.4487 µg/L	0.4487 ppb	22:35:54
3	Be 313.107†	-2775.1	235.6	0.1396 µg/L	0.1396 ppb	22:35:33
3	Cd 226.502†	-139.5	10.0	0.2455 µg/L	0.2455 ppb	22:35:54
3	Co 228.616†	10.9	8.4	0.3796 µg/L	0.3796 ppb	22:35:54
3	Cr 267.716†	-70.2	-15.9	-0.3195 µg/L	-0.3195 ppb	22:35:33
3	Cu 324.752†	2569.1	-118.2	-0.7690 µg/L	-0.7690 ppb	22:35:33
3	Mn 257.610†	-151.1	113.3	0.3567 µg/L	0.3567 ppb	22:35:54
3	Mo 202.031†	3.0	8.2	0.8026 µg/L	0.8026 ppb	22:35:54
3	Ni 231.604†	308.0	-21.5	-1.0742 µg/L	-1.0742 ppb	22:35:54
3	P 214.914†	13.2	-2.9	-5.5667 µg/L	-5.5667 ppb	22:35:54
3	Pb 220.353†	82.0	-13.5	-3.2847 µg/L	-3.2847 ppb	22:35:54
3	S 181.975 Axial†	14.9	-4.9	-20.286 µg/L	-20.286 ppb	22:35:54
3	Sb 206.836†	22.1	-1.6	-1.4644 µg/L	-1.4644 ppb	22:35:54
3	Se 196.026†	20.9	0.5	0.6738 µg/L	0.6738 ppb	22:35:54
3	SiO2†	1489.3	14.6	2.8738 µg/L	2.8738 ppb	22:35:33
3	Si 251.611†	397.3	64.5	4.9030 µg/L	4.9030 ppb	22:35:54
3	Sn 189.927†	6.3	5.5	2.3325 µg/L	2.3325 ppb	22:35:54
3	Ti 334.940†	437.9	238.4	0.5262 µg/L	0.5262 ppb	22:35:33
3	Tl 190.801†	-21.4	2.1	2.7949 µg/L	2.7949 ppb	22:35:54
3	U 409.014†	-23.5	54.9	4.5578 µg/L	4.5578 ppb	22:35:33
3	V 292.402†	-40.4	6.6	0.0767 µg/L	0.0767 ppb	22:35:33
3	Zn 213.857†	544.4	-20.4	-0.4742 µg/L	-0.4742 ppb	22:35:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sc 361.383	2063267.1	105.10	%	0.732				0.70%
Sc RADIAL	57924.4	103	%	0.7				0.73%
Y 371.029	1426009.6	105.42	%	0.684				0.65%
Ag 328.068†	2.9	0.0237	µg/L	0.18398	0.0237	ppb	0.18398	775.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.7	6.0290	µg/L	6.57768	6.0290	ppb	6.57768	109.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.4	-0.6362	µg/L	1.43200	-0.6362	ppb	1.43200	225.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-60.5	-2.4784	µg/L	0.20968	-2.4784	ppb	0.20968	8.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.4	0.3931	µg/L	0.04879	0.3931	ppb	0.04879	12.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	276.6	0.1639	µg/L	0.02189	0.1639	ppb	0.02189	13.35%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.7	-15.110	µg/L	1.7919	-15.110	ppb	1.7919	11.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.9	0.2936	µg/L	0.04185	0.2936	ppb	0.04185	14.25%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.0	0.1824	µg/L	0.17774	0.1824	ppb	0.17774	97.43%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -18.2     -0.3663 µg/L       0.15776     -0.3663 ppb        0.15776  43.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -85.1     -0.5518 µg/L       0.19193     -0.5518 ppb        0.19193  34.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         3.1      24.184 µg/L        6.4042      24.184 ppb         6.4042  26.48%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          4.4      2.8948 µg/L      30.21809      2.8948 ppb       30.21809 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.0      0.3851 µg/L      33.17092      0.3851 ppb       33.17092 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              128.9      0.4069 µg/L       0.04360      0.4069 ppb        0.04360  10.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               11.5      1.1260 µg/L       0.37846      1.1260 ppb        0.37846  33.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -15.0     -4.6218 µg/L      13.24967     -4.6218 ppb       13.24967 286.68%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -22.2     -1.1057 µg/L       0.33322     -1.1057 ppb        0.33322  30.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -3.0     -5.8814 µg/L       2.64922     -5.8814 ppb        2.64922  45.04%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -15.2     -3.6982 µg/L       1.47080     -3.6982 ppb        1.47080  39.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -5.1     -21.165 µg/L        3.0996     -21.165 ppb         3.0996  14.64%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.4     -2.2178 µg/L       0.65333     -2.2178 ppb        0.65333  29.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.8     -6.6652 µg/L       6.56608     -6.6652 ppb        6.56608  98.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     42.1      8.3028 µg/L       6.15672      8.3028 ppb        6.15672  74.15%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               78.7      5.9813 µg/L       0.93570      5.9813 ppb        0.93570  15.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.5      1.4599 µg/L       1.54769      1.4599 ppb        1.54769 106.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               18.6      0.1718 µg/L       0.20227      0.1718 ppb        0.20227 117.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              287.8      0.6364 µg/L       0.14099      0.6364 ppb        0.14099  22.15%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.0      3.9558 µg/L       4.25132      3.9558 ppb        4.25132 107.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                50.6      4.2054 µg/L       0.57295      4.2054 ppb        0.57295  13.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                15.7      0.1680 µg/L       0.13134      0.1680 ppb        0.13134  78.20%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -14.4     -0.3334 µg/L       0.12760     -0.3334 ppb        0.12760  38.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 22
Sample ID: 245960004|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 218
Date Collected: 2/19/2010 22:36:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960004|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59192.2	59192.2	105	%			22:36:43
1	Al 396.153Radial†	201371.4	192190.4	133700	µg/L	133700	ppb	22:36:43
1	Ca 317.933Radial†	40267.2	38221.6	32648	µg/L	32648	ppb	22:36:43
1	Fe 238.204 Radial†	17552.9	16736.7	132000	µg/L	132000	ppb	22:37:03
1	K 766.490 Radial†	26008.5	24658.7	16105	µg/L	16105	ppb	22:36:43
1	Mg 279.077 IEC†	2521.5	2393.8	21257	µg/L	21257	ppb	22:37:03
1	Na 589.592 Radial†	2993.7	2385.1	732.57	µg/L	732.57	ppb	22:37:03
1	Sr 421.552†	35468.4	33823.8	312.03	µg/L	312.03	ppb	22:36:43
1	Sc 361.383	2052607.0	2052607.0	104.56	%			22:38:08
1	Y 371.029	1477195.2	1477195.2	109.20	%			22:38:08
1	Ag 328.068†	-2015.1	-1525.7	-1.3698	µg/L	-1.3698	ppb	22:38:14
1	As 188.979†	11.5	11.5	26.522	µg/L	26.522	ppb	22:38:34
1	B 249.677†	1275.0	835.2	-34.680	µg/L	-34.680	ppb	22:38:14
1	Ba 233.527†	89008.7	85145.2	2044.5	µg/L	2044.5	ppb	22:38:14
1	Be 313.107†	24255.5	26053.8	13.597	µg/L	13.597	ppb	22:38:14
1	Cd 226.502†	379.1	504.3	-2.2649	µg/L	-2.2649	ppb	22:38:14
1	Co 228.616†	1420.8	1356.9	51.231	µg/L	51.231	ppb	22:38:34
1	Cr 267.716†	5038.8	4869.5	97.960	µg/L	97.960	ppb	22:38:14
1	Cu 324.752†	11076.5	8049.9	70.894	µg/L	70.894	ppb	22:38:14
1	Mn 257.610†	1109229.8	1061127.0	3339.6	µg/L	3339.6	ppb	22:38:08
1	Mo 202.031†	-21.9	-15.6	3.4909	µg/L	3.4909	ppb	22:38:34
1	Ni 231.604†	1886.4	1491.8	76.011	µg/L	76.011	ppb	22:38:34
1	P 214.914†	980.3	922.2	1751.3	µg/L	1751.3	ppb	22:38:34
1	Pb 220.353†	643.9	524.9	129.97	µg/L	129.97	ppb	22:38:34
1	S 181.975 Axial†	162.6	136.6	566.29	µg/L	566.29	ppb	22:38:34
1	Sb 206.836†	30.8	7.0	2.4205	µg/L	2.4205	ppb	22:38:34
1	Se 196.026†	-52.8	-69.8	234.69	µg/L	234.69	ppb	22:38:34
1	SiO2†	380272.1	362301.9	71514	µg/L	71514	ppb	22:38:08
1	Si 251.611†	456185.2	435986.3	33145	µg/L	33145	ppb	22:38:08
1	Sn 189.927†	-39.0	-37.7	-27.617	µg/L	-27.617	ppb	22:38:34
1	Ti 334.940†	2314624.6	2213539.3	4895.7	µg/L	4895.7	ppb	22:38:08
1	Tl 190.801†	-78.1	-52.3	14.522	µg/L	14.522	ppb	22:38:34
1	U 409.014†	-1630.6	-1482.5	-143.51	µg/L	-143.51	ppb	22:38:08
1	V 292.402†	26224.1	25125.5	260.48	µg/L	260.48	ppb	22:38:14
1	Zn 213.857†	12279.0	11209.3	255.09	µg/L	255.09	ppb	22:38:14
2	Sc RADIAL	60134.6	60134.6	106	%			22:37:09
2	Al 396.153Radial†	204514.9	192131.6	133660	µg/L	133660	ppb	22:37:09
2	Ca 317.933Radial†	40926.8	38238.9	32663	µg/L	32663	ppb	22:37:09
2	Fe 238.204 Radial†	17466.5	16393.0	129290	µg/L	129290	ppb	22:37:29
2	K 766.490 Radial†	26375.7	24614.6	16076	µg/L	16076	ppb	22:37:09
2	Mg 279.077 IEC†	2521.6	2356.2	20923	µg/L	20923	ppb	22:37:29
2	Na 589.592 Radial†	2988.6	2335.5	717.34	µg/L	717.34	ppb	22:37:29
2	Sr 421.552†	36066.9	33855.6	312.32	µg/L	312.32	ppb	22:37:09
2	Sc 361.383	2051851.3	2051851.3	104.52	%			22:38:42
2	Y 371.029	1476243.0	1476243.0	109.13	%			22:38:42
2	Ag 328.068†	-2011.2	-1522.6	-1.5244	µg/L	-1.5244	ppb	22:38:48
2	As 188.979†	26.5	25.8	52.012	µg/L	52.012	ppb	22:39:08
2	B 249.677†	1263.6	824.8	-33.690	µg/L	-33.690	ppb	22:38:48
2	Ba 233.527†	88739.8	84919.3	2039.1	µg/L	2039.1	ppb	22:38:48
2	Be 313.107†	24047.7	25863.5	13.497	µg/L	13.497	ppb	22:38:48
2	Cd 226.502†	341.6	468.5	-2.8512	µg/L	-2.8512	ppb	22:38:48
2	Co 228.616†	1390.7	1328.6	50.015	µg/L	50.015	ppb	22:39:08
2	Cr 267.716†	5021.8	4855.1	97.669	µg/L	97.669	ppb	22:38:48
2	Cu 324.752†	11118.3	8093.8	70.803	µg/L	70.803	ppb	22:38:48
2	Mn 257.610†	1099969.3	1052657.6	3312.8	µg/L	3312.8	ppb	22:38:42
2	Mo 202.031†	-23.5	-17.1	3.2339	µg/L	3.2339	ppb	22:39:08
2	Ni 231.604†	1888.5	1494.5	76.108	µg/L	76.108	ppb	22:39:08
2	P 214.914†	992.1	933.8	1776.5	µg/L	1776.5	ppb	22:39:08
2	Pb 220.353†	654.8	535.6	132.66	µg/L	132.66	ppb	22:39:08

2	S 181.975 Axial†	164.1	138.0	572.39 µg/L	572.39 ppb	22:39:08
2	Sb 206.836†	26.1	2.4	-1.7284 µg/L	-1.7284 ppb	22:39:08
2	Se 196.026†	-49.1	-66.3	232.51 µg/L	232.51 ppb	22:39:08
2	SiO2†	377744.1	360017.1	71063 µg/L	71063 ppb	22:38:42
2	Si 251.611†	453111.4	433206.1	32933 µg/L	32933 ppb	22:38:42
2	Sn 189.927†	-42.8	-41.3	-28.886 µg/L	-28.886 ppb	22:39:08
2	Ti 334.940†	2298531.8	2198957.6	4863.4 µg/L	4863.4 ppb	22:38:42
2	Tl 190.801†	-73.1	-47.6	19.815 µg/L	19.815 ppb	22:39:08
2	U 409.014†	-1576.6	-1431.3	-138.88 µg/L	-138.88 ppb	22:38:42
2	V 292.402†	26107.2	25023.0	259.16 µg/L	259.16 ppb	22:38:48
2	Zn 213.857†	12266.8	11201.9	255.06 µg/L	255.06 ppb	22:38:48
3	Sc RADIAL	59452.2	59452.2	105 %		22:37:34
3	Al 396.153Radial†	203154.0	193043.7	134290 µg/L	134290 ppb	22:37:34
3	Ca 317.933Radial†	40441.5	38219.0	32646 µg/L	32646 ppb	22:37:34
3	Fe 238.204 Radial†	17590.1	16698.8	131700 µg/L	131700 ppb	22:37:55
3	K 766.490 Radial†	26190.7	24723.2	16147 µg/L	16147 ppb	22:37:34
3	Mg 279.077 IEC†	2527.4	2388.9	21213 µg/L	21213 ppb	22:37:55
3	Na 589.592 Radial†	3006.1	2384.4	732.35 µg/L	732.35 ppb	22:37:55
3	Sr 421.552†	35762.9	33955.5	313.24 µg/L	313.24 ppb	22:37:34
3	Sc 361.383	2059273.5	2059273.5	104.90 %		22:39:16
3	Y 371.029	1478569.7	1478569.7	109.30 %		22:39:16
3	Ag 328.068†	-1927.3	-1435.7	-0.8355 µg/L	-0.8355 ppb	22:39:21
3	As 188.979†	9.2	9.2	22.452 µg/L	22.452 ppb	22:39:42
3	B 249.677†	1206.6	766.2	-37.353 µg/L	-37.353 ppb	22:39:21
3	Ba 233.527†	83945.3	80042.7	1922.0 µg/L	1922.0 ppb	22:39:21
3	Be 313.107†	22424.4	24233.0	12.609 µg/L	12.609 ppb	22:39:21
3	Cd 226.502†	353.2	478.4	-2.8832 µg/L	-2.8832 ppb	22:39:21
3	Co 228.616†	1260.1	1199.4	44.600 µg/L	44.600 ppb	22:39:42
3	Cr 267.716†	4615.2	4450.1	89.525 µg/L	89.525 ppb	22:39:21
3	Cu 324.752†	10522.0	7487.0	67.178 µg/L	67.178 ppb	22:39:21
3	Mn 257.610†	1062934.2	1013558.7	3190.6 µg/L	3190.6 ppb	22:39:16
3	Mo 202.031†	-12.8	-6.8	4.3367 µg/L	4.3367 ppb	22:39:42
3	Ni 231.604†	1732.6	1339.3	68.413 µg/L	68.413 ppb	22:39:42
3	P 214.914†	886.9	830.2	1570.0 µg/L	1570.0 ppb	22:39:42
3	Pb 220.353†	618.6	498.7	123.65 µg/L	123.65 ppb	22:39:42
3	S 181.975 Axial†	152.8	126.7	525.48 µg/L	525.48 ppb	22:39:42
3	Sb 206.836†	28.9	5.1	0.8148 µg/L	0.8148 ppb	22:39:42
3	Se 196.026†	-39.2	-56.6	252.36 µg/L	252.36 ppb	22:39:42
3	SiO2†	368610.0	350006.9	69087 µg/L	69087 ppb	22:39:16
3	Si 251.611†	442154.8	421198.6	32020 µg/L	32020 ppb	22:39:16
3	Sn 189.927†	-39.3	-37.8	-27.637 µg/L	-27.637 ppb	22:39:42
3	Ti 334.940†	2207679.9	2104421.6	4654.3 µg/L	4654.3 ppb	22:39:16
3	Tl 190.801†	-68.5	-43.0	23.959 µg/L	23.959 ppb	22:39:42
3	U 409.014†	-1437.1	-1292.9	-127.72 µg/L	-127.72 ppb	22:39:16
3	V 292.402†	24463.1	23365.6	243.29 µg/L	243.29 ppb	22:39:21
3	Zn 213.857†	11598.4	10522.4	239.03 µg/L	239.03 ppb	22:39:21

Mean Data: 245960004|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2054577.2	104.66	%	0.208				0.20%
Sc RADIAL	59593.0	105	%	0.9				0.82%
Y 371.029	1477336.0	109.21	%	0.086				0.08%
Ag 328.068†	-1494.6	-1.2432	µg/L	0.36144	-1.2432	ppb	0.36144	29.07%
Al 396.153Radial†	192455.2	133880	µg/L	355.1	133880	ppb	355.1	0.27%
As 188.979†	15.5	33.662	µg/L	16.0216	33.662	ppb	16.0216	47.60%
B 249.677†	808.7	-35.241	µg/L	1.8948	-35.241	ppb	1.8948	5.38%
Ba 233.527†	83369.1	2001.9	µg/L	69.23	2001.9	ppb	69.23	3.46%
Be 313.107†	25383.4	13.234	µg/L	0.5441	13.234	ppb	0.5441	4.11%
Ca 317.933Radial†	38226.5	32652	µg/L	9.2	32652	ppb	9.2	0.03%
Cd 226.502†	483.7	-2.6664	µg/L	0.34807	-2.6664	ppb	0.34807	13.05%
Co 228.616†	1295.0	48.615	µg/L	3.5301	48.615	ppb	3.5301	7.26%
Cr 267.716†	4724.9	95.051	µg/L	4.7883	95.051	ppb	4.7883	5.04%
Cu 324.752†	7876.9	69.625	µg/L	2.1197	69.625	ppb	2.1197	3.04%
Fe 238.204 Radial†	16609.5	131000	µg/L	1486.3	131000	ppb	1486.3	1.13%
K 766.490 Radial†	24665.5	16109	µg/L	35.7	16109	ppb	35.7	0.22%
Mg 279.077 IEC†	2379.6	21131	µg/L	181.2	21131	ppb	181.2	0.86%
Mn 257.610†	1042447.7	3281.0	µg/L	79.41	3281.0	ppb	79.41	2.42%
Mo 202.031†	-13.2	3.6872	µg/L	0.57697	3.6872	ppb	0.57697	15.65%
Na 589.592 Radial†	2368.4	727.42	µg/L	8.728	727.42	ppb	8.728	1.20%

Ni 231.604†	1441.9	73.511 µg/L	4.4149	73.511 ppb	4.4149	6.01%
P 214.914†	895.4	1699.3 µg/L	112.67	1699.3 ppb	112.67	6.63%
Pb 220.353†	519.7	128.76 µg/L	4.628	128.76 ppb	4.628	3.59%
S 181.975 Axial†	133.8	554.72 µg/L	25.507	554.72 ppb	25.507	4.60%
Sb 206.836†	4.8	0.5023 µg/L	2.09202	0.5023 ppb	2.09202	416.49%
Se 196.026†	-64.2	239.85 µg/L	10.888	239.85 ppb	10.888	4.54%
SiO2†	357442.0	70554 µg/L	1290.8	70554 ppb	1290.8	1.83%
Si 251.611†	430130.4	32699 µg/L	597.5	32699 ppb	597.5	1.83%
Sn 189.927†	-38.9	-28.046 µg/L	0.7267	-28.046 ppb	0.7267	2.59%
Sr 421.552†	33878.3	312.53 µg/L	0.634	312.53 ppb	0.634	0.20%
Ti 334.940†	2172306.2	4804.5 µg/L	131.06	4804.5 ppb	131.06	2.73%
Tl 190.801†	-47.6	19.432 µg/L	4.7302	19.432 ppb	4.7302	24.34%
U 409.014†	-1402.2	-136.70 µg/L	8.117	-136.70 ppb	8.117	5.94%
V 292.402†	24504.7	254.31 µg/L	9.563	254.31 ppb	9.563	3.76%
Zn 213.857†	10977.9	249.73 µg/L	9.264	249.73 ppb	9.264	3.71%

Sequence No.: 23
Sample ID: 245960005|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 219
Date Collected: 2/19/2010 22:39:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960005|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59834.8	59834.8	106	%			22:40:24
1	Al 396.153Radial†	182554.6	172359.7	119900	µg/L	119900	ppb	22:40:24
1	Ca 317.933Radial†	32098.4	30095.8	25707	µg/L	25707	ppb	22:40:45
1	Fe 238.204 Radial†	15708.4	14815.2	116850	µg/L	116850	ppb	22:40:45
1	K 766.490 Radial†	25893.7	24283.7	15860	µg/L	15860	ppb	22:40:24
1	Mg 279.077 IEC†	2321.7	2179.3	19356	µg/L	19356	ppb	22:40:45
1	Na 589.592 Radial†	3496.2	2828.9	868.88	µg/L	868.88	ppb	22:40:45
1	Sr 421.552†	31470.7	29685.6	273.85	µg/L	273.85	ppb	22:40:24
1	Sc 361.383	2051963.7	2051963.7	104.53	%			22:41:50
1	Y 371.029	1460898.7	1460898.7	107.99	%			22:41:50
1	Ag 328.068†	-1870.6	-1388.0	-1.4850	µg/L	-1.4850	ppb	22:41:55
1	As 188.979†	14.3	14.2	30.854	µg/L	30.854	ppb	22:42:16
1	B 249.677†	1130.2	697.1	-32.414	µg/L	-32.414	ppb	22:41:55
1	Ba 233.527†	80875.2	77390.6	1858.3	µg/L	1858.3	ppb	22:41:55
1	Be 313.107†	21850.5	23760.1	12.414	µg/L	12.414	ppb	22:41:55
1	Cd 226.502†	317.0	444.9	-2.0345	µg/L	-2.0345	ppb	22:42:16
1	Co 228.616†	1229.1	1173.9	43.920	µg/L	43.920	ppb	22:42:16
1	Cr 267.716†	4608.3	4459.1	89.700	µg/L	89.700	ppb	22:41:55
1	Cu 324.752†	9772.0	6805.2	60.662	µg/L	60.662	ppb	22:41:55
1	Mn 257.610†	934741.4	894525.9	2816.0	µg/L	2816.0	ppb	22:41:50
1	Mo 202.031†	-20.0	-13.7	3.0944	µg/L	3.0944	ppb	22:42:16
1	Ni 231.604†	1846.3	1454.1	73.940	µg/L	73.940	ppb	22:42:16
1	P 214.914†	623.5	581.2	1085.4	µg/L	1085.4	ppb	22:42:16
1	Pb 220.353†	659.2	539.7	133.38	µg/L	133.38	ppb	22:42:16
1	S 181.975 Axial†	233.1	204.0	846.13	µg/L	846.13	ppb	22:42:16
1	Sb 206.836†	38.6	14.5	10.003	µg/L	10.003	ppb	22:42:16
1	Se 196.026†	-47.9	-65.1	203.42	µg/L	203.42	ppb	22:42:16
1	SiO2†	353292.7	336604.6	66441	µg/L	66441	ppb	22:41:50
1	Si 251.611†	423659.0	405005.2	30789	µg/L	30789	ppb	22:41:50
1	Sn 189.927†	-42.0	-40.6	-27.420	µg/L	-27.420	ppb	22:42:16
1	Ti 334.940†	2092675.0	2001893.4	4427.5	µg/L	4427.5	ppb	22:41:50
1	Tl 190.801†	-71.3	-45.8	14.197	µg/L	14.197	ppb	22:42:16
1	U 409.014†	-1302.6	-1169.1	-114.95	µg/L	-114.95	ppb	22:41:50
1	V 292.402†	23284.4	22321.0	231.37	µg/L	231.37	ppb	22:41:55
1	Zn 213.857†	11365.0	10338.5	235.51	µg/L	235.51	ppb	22:41:55
2	Sc RADIAL	59969.1	59969.1	106	%			22:40:50
2	Al 396.153Radial†	182777.1	172183.1	119780	µg/L	119780	ppb	22:40:50
2	Ca 317.933Radial†	32163.9	30089.7	25702	µg/L	25702	ppb	22:41:11
2	Fe 238.204 Radial†	15751.8	14822.9	116910	µg/L	116910	ppb	22:41:11
2	K 766.490 Radial†	25867.9	24204.7	15808	µg/L	15808	ppb	22:40:50
2	Mg 279.077 IEC†	2327.5	2179.8	19360	µg/L	19360	ppb	22:41:11
2	Na 589.592 Radial†	3504.0	2828.8	868.85	µg/L	868.85	ppb	22:41:11
2	Sr 421.552†	31496.8	29643.7	273.47	µg/L	273.47	ppb	22:40:50
2	Sc 361.383	2056719.8	2056719.8	104.77	%			22:42:24
2	Y 371.029	1463822.7	1463822.7	108.21	%			22:42:24
2	Ag 328.068†	-1925.5	-1436.3	-1.8336	µg/L	-1.8336	ppb	22:42:29
2	As 188.979†	13.3	13.1	28.990	µg/L	28.990	ppb	22:42:50
2	B 249.677†	1113.5	678.7	-33.194	µg/L	-33.194	ppb	22:42:29
2	Ba 233.527†	81727.8	78025.5	1873.6	µg/L	1873.6	ppb	22:42:29
2	Be 313.107†	22105.3	23955.0	12.530	µg/L	12.530	ppb	22:42:29
2	Cd 226.502†	306.7	434.4	-2.3045	µg/L	-2.3045	ppb	22:42:50
2	Co 228.616†	1235.6	1177.4	44.080	µg/L	44.080	ppb	22:42:50
2	Cr 267.716†	4681.4	4518.7	90.897	µg/L	90.897	ppb	22:42:29
2	Cu 324.752†	9863.0	6870.4	61.097	µg/L	61.097	ppb	22:42:29
2	Mn 257.610†	936654.1	894283.6	2815.2	µg/L	2815.2	ppb	22:42:24
2	Mo 202.031†	-19.6	-13.3	3.1363	µg/L	3.1363	ppb	22:42:50
2	Ni 231.604†	1831.2	1435.5	73.016	µg/L	73.016	ppb	22:42:50
2	P 214.914†	627.8	583.9	1090.6	µg/L	1090.6	ppb	22:42:50
2	Pb 220.353†	647.7	527.3	130.35	µg/L	130.35	ppb	22:42:50

2	S 181.975 Axial†	226.6	197.3	818.24 µg/L	818.24 ppb	22:42:50
2	Sb 206.836†	33.3	9.3	5.2737 µg/L	5.2737 ppb	22:42:50
2	Se 196.026†	-51.3	-68.3	199.21 µg/L	199.21 ppb	22:42:50
2	SiO2†	354339.5	336822.2	66484 µg/L	66484 ppb	22:42:24
2	Si 251.611†	425033.5	405379.9	30818 µg/L	30818 ppb	22:42:24
2	Sn 189.927†	-40.3	-38.8	-26.671 µg/L	-26.671 ppb	22:42:50
2	Ti 334.940†	2097310.8	2001688.5	4427.0 µg/L	4427.0 ppb	22:42:24
2	Tl 190.801†	-71.4	-45.8	14.146 µg/L	14.146 ppb	22:42:50
2	U 409.014†	-1389.4	-1249.1	-121.60 µg/L	-121.60 ppb	22:42:24
2	V 292.402†	23431.0	22409.4	232.24 µg/L	232.24 ppb	22:42:29
2	Zn 213.857†	11476.9	10420.2	237.43 µg/L	237.43 ppb	22:42:29
3	Sc RADIAL	60061.0	60061.0	106 %		22:41:16
3	Al 396.153Radial†	182908.8	172043.3	119680 µg/L	119680 ppb	22:41:16
3	Ca 317.933Radial†	32162.9	30042.3	25662 µg/L	25662 ppb	22:41:37
3	Fe 238.204 Radial†	15741.2	14790.2	116650 µg/L	116650 ppb	22:41:37
3	K 766.490 Radial†	25847.5	24148.2	15772 µg/L	15772 ppb	22:41:16
3	Mg 279.077 IEC†	2331.9	2180.6	19368 µg/L	19368 ppb	22:41:37
3	Na 589.592 Radial†	3515.7	2834.8	870.69 µg/L	870.69 ppb	22:41:37
3	Sr 421.552†	31486.3	29588.3	272.96 µg/L	272.96 ppb	22:41:16
3	Sc 361.383	2054274.1	2054274.1	104.64 %		22:42:58
3	Y 371.029	1459758.7	1459758.7	107.91 %		22:42:58
3	Ag 328.068†	-1785.2	-1304.4	-0.9494 µg/L	-0.9494 ppb	22:43:03
3	As 188.979†	14.1	13.9	30.395 µg/L	30.395 ppb	22:43:24
3	B 249.677†	1124.9	690.9	-32.573 µg/L	-32.573 ppb	22:43:03
3	Ba 233.527†	78082.9	74635.2	1792.2 µg/L	1792.2 ppb	22:43:03
3	Be 313.107†	20575.9	22518.6	11.747 µg/L	11.747 ppb	22:43:03
3	Cd 226.502†	264.4	394.4	-3.2804 µg/L	-3.2804 ppb	22:43:24
3	Co 228.616†	1110.7	1059.5	39.118 µg/L	39.118 ppb	22:43:24
3	Cr 267.716†	4357.9	4214.9	84.788 µg/L	84.788 ppb	22:43:03
3	Cu 324.752†	9532.5	6565.8	59.073 µg/L	59.073 ppb	22:43:03
3	Mn 257.610†	902735.6	862934.6	2717.0 µg/L	2717.0 ppb	22:42:58
3	Mo 202.031†	-19.0	-12.8	3.1823 µg/L	3.1823 ppb	22:43:24
3	Ni 231.604†	1691.0	1303.6	66.442 µg/L	66.442 ppb	22:43:24
3	P 214.914†	564.7	524.3	973.12 µg/L	973.12 ppb	22:43:24
3	Pb 220.353†	618.8	500.4	123.83 µg/L	123.83 ppb	22:43:24
3	S 181.975 Axial†	207.7	179.6	744.67 µg/L	744.67 ppb	22:43:24
3	Sb 206.836†	37.6	13.4	9.0961 µg/L	9.0961 ppb	22:43:24
3	Se 196.026†	-42.7	-60.1	209.97 µg/L	209.97 ppb	22:43:24
3	SiO2†	343995.6	327339.9	64613 µg/L	64613 ppb	22:42:58
3	Si 251.611†	412846.5	394216.7	29969 µg/L	29969 ppb	22:42:58
3	Sn 189.927†	-35.9	-34.7	-24.900 µg/L	-24.900 ppb	22:43:24
3	Ti 334.940†	2009258.7	1919926.8	4246.2 µg/L	4246.2 ppb	22:42:58
3	Tl 190.801†	-70.1	-44.6	13.756 µg/L	13.756 ppb	22:43:24
3	U 409.014†	-1441.0	-1299.9	-125.78 µg/L	-125.78 ppb	22:42:58
3	V 292.402†	22155.9	21217.5	220.57 µg/L	220.57 ppb	22:43:03
3	Zn 213.857†	10997.5	9975.1	227.03 µg/L	227.03 ppb	22:43:03

Mean Data: 245960005|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2054319.2	104.65	%	0.121				0.12%
Sc RADIAL	59955.0	106	%	0.2				0.19%
Y 371.029	1461493.4	108.04	%	0.155				0.14%
Ag 328.068†	-1376.2	-1.4226	µg/L	0.44538	-1.4226	ppb	0.44538	31.31%
Al 396.153Radial†	172195.4	119790	µg/L	110.3	119790	ppb	110.3	0.09%
As 188.979†	13.7	30.080	µg/L	0.9714	30.080	ppb	0.9714	3.23%
B 249.677†	688.9	-32.727	µg/L	0.4122	-32.727	ppb	0.4122	1.26%
Ba 233.527†	76683.8	1841.3	µg/L	43.28	1841.3	ppb	43.28	2.35%
Be 313.107†	23411.3	12.230	µg/L	0.4230	12.230	ppb	0.4230	3.46%
Ca 317.933Radial†	30075.9	25690	µg/L	25.0	25690	ppb	25.0	0.10%
Cd 226.502†	424.6	-2.5398	µg/L	0.65540	-2.5398	ppb	0.65540	25.80%
Co 228.616†	1137.0	42.373	µg/L	2.8196	42.373	ppb	2.8196	6.65%
Cr 267.716†	4397.6	88.462	µg/L	3.2371	88.462	ppb	3.2371	3.66%
Cu 324.752†	6747.1	60.277	µg/L	1.0656	60.277	ppb	1.0656	1.77%
Fe 238.204 Radial†	14809.4	116800	µg/L	134.9	116800	ppb	134.9	0.12%
K 766.490 Radial†	24212.2	15813	µg/L	44.5	15813	ppb	44.5	0.28%
Mg 279.077 IEC†	2179.9	19361	µg/L	6.1	19361	ppb	6.1	0.03%
Mn 257.610†	883914.7	2782.8	µg/L	56.92	2782.8	ppb	56.92	2.05%
Mo 202.031†	-13.3	3.1377	µg/L	0.04396	3.1377	ppb	0.04396	1.40%
Na 589.592 Radial†	2830.8	869.47	µg/L	1.051	869.47	ppb	1.051	0.12%

Ni 231.604†	1397.7	71.133 µg/L	4.0881	71.133 ppb	4.0881	5.75%
P 214.914†	563.1	1049.7 µg/L	66.37	1049.7 ppb	66.37	6.32%
Pb 220.353†	522.5	129.18 µg/L	4.881	129.18 ppb	4.881	3.78%
S 181.975 Axial†	193.6	803.01 µg/L	52.417	803.01 ppb	52.417	6.53%
Sb 206.836†	12.4	8.1243 µg/L	2.50994	8.1243 ppb	2.50994	30.89%
Se 196.026†	-64.5	204.20 µg/L	5.420	204.20 ppb	5.420	2.65%
SiO2†	333588.9	65846 µg/L	1068.4	65846 ppb	1068.4	1.62%
Si 251.611†	401533.9	30525 µg/L	482.0	30525 ppb	482.0	1.58%
Sn 189.927†	-38.0	-26.330 µg/L	1.2940	-26.330 ppb	1.2940	4.91%
Sr 421.552†	29639.2	273.43 µg/L	0.450	273.43 ppb	0.450	0.16%
Ti 334.940†	1974502.9	4366.9 µg/L	104.56	4366.9 ppb	104.56	2.39%
Tl 190.801†	-45.4	14.033 µg/L	0.2411	14.033 ppb	0.2411	1.72%
U 409.014†	-1239.4	-120.78 µg/L	5.466	-120.78 ppb	5.466	4.53%
V 292.402†	21982.6	228.06 µg/L	6.499	228.06 ppb	6.499	2.85%
Zn 213.857†	10244.6	233.32 µg/L	5.534	233.32 ppb	5.534	2.37%

Sequence No.: 24
Sample ID: 245960006|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 220
Date Collected: 2/19/2010 22:43:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960006|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59035.0	59035.0	104	%			22:44:07
1	Al 396.153Radial†	114132.2	109215.4	75976	µg/L	75976	ppb	22:44:07
1	Ca 317.933Radial†	22718.4	21529.9	18390	µg/L	18390	ppb	22:44:27
1	Fe 238.204 Radial†	13770.9	13162.0	103810	µg/L	103810	ppb	22:44:27
1	K 766.490 Radial†	26924.2	25601.1	16720	µg/L	16720	ppb	22:44:07
1	Mg 279.077 IEC†	1771.2	1682.2	14926	µg/L	14926	ppb	22:44:27
1	Na 589.592 Radial†	1798.3	1248.7	383.54	µg/L	383.54	ppb	22:44:27
1	Sr 421.552†	23299.3	22268.3	205.43	µg/L	205.43	ppb	22:44:07
1	Sc 361.383	2048919.0	2048919.0	104.37	%			22:45:31
1	Y 371.029	1443241.1	1443241.1	106.69	%			22:45:31
1	Ag 328.068†	-1606.4	-1137.6	-0.5642	µg/L	-0.5642	ppb	22:45:37
1	As 188.979†	8.4	8.5	20.249	µg/L	20.249	ppb	22:45:58
1	B 249.677†	1273.4	835.9	-19.933	µg/L	-19.933	ppb	22:45:37
1	Ba 233.527†	67917.7	65090.7	1563.0	µg/L	1563.0	ppb	22:45:37
1	Be 313.107†	15757.3	17953.2	9.0800	µg/L	9.0800	ppb	22:45:37
1	Cd 226.502†	276.7	406.8	-1.5161	µg/L	-1.5161	ppb	22:45:58
1	Co 228.616†	1900.9	1819.4	73.767	µg/L	73.767	ppb	22:45:58
1	Cr 267.716†	5240.1	5071.1	101.98	µg/L	101.98	ppb	22:45:37
1	Cu 324.752†	11558.8	8531.0	70.115	µg/L	70.115	ppb	22:45:37
1	Mn 257.610†	1678113.0	1608097.5	5049.0	µg/L	5049.0	ppb	22:45:31
1	Mo 202.031†	-9.5	-3.8	3.5764	µg/L	3.5764	ppb	22:45:58
1	Ni 231.604†	1772.8	1386.3	70.356	µg/L	70.356	ppb	22:45:58
1	P 214.914†	963.2	907.5	1728.3	µg/L	1728.3	ppb	22:45:58
1	Pb 220.353†	697.5	577.4	140.48	µg/L	140.48	ppb	22:45:58
1	S 181.975 Axial†	297.7	266.3	1104.2	µg/L	1104.2	ppb	22:45:58
1	Sb 206.836†	35.7	11.7	8.0205	µg/L	8.0205	ppb	22:45:58
1	Se 196.026†	-42.9	-60.5	180.36	µg/L	180.36	ppb	22:45:58
1	SiO2†	335445.3	320006.9	63165	µg/L	63165	ppb	22:45:31
1	Si 251.611†	402371.7	385211.6	29285	µg/L	29285	ppb	22:45:31
1	Sn 189.927†	-37.7	-36.5	-24.767	µg/L	-24.767	ppb	22:45:58
1	Ti 334.940†	1950846.8	1868979.4	4133.7	µg/L	4133.7	ppb	22:45:31
1	Tl 190.801†	-71.2	-45.8	16.029	µg/L	16.029	ppb	22:45:58
1	U 409.014†	76.9	150.8	-3.0254	µg/L	-3.0254	ppb	22:45:37
1	V 292.402†	21421.5	20569.2	212.91	µg/L	212.91	ppb	22:45:37
1	Zn 213.857†	13262.0	12172.3	279.40	µg/L	279.40	ppb	22:45:37
2	Sc RADIAL	59809.3	59809.3	106	%			22:44:33
2	Al 396.153Radial†	115808.4	109384.9	76094	µg/L	76094	ppb	22:44:33
2	Ca 317.933Radial†	22773.4	21300.4	18194	µg/L	18194	ppb	22:44:53
2	Fe 238.204 Radial†	13789.3	13008.8	102600	µg/L	102600	ppb	22:44:53
2	K 766.490 Radial†	27315.1	25636.7	16744	µg/L	16744	ppb	22:44:33
2	Mg 279.077 IEC†	1767.3	1656.5	14698	µg/L	14698	ppb	22:44:53
2	Na 589.592 Radial†	1800.3	1228.4	377.29	µg/L	377.29	ppb	22:44:53
2	Sr 421.552†	23610.2	22273.3	205.47	µg/L	205.47	ppb	22:44:33
2	Sc 361.383	2041994.1	2041994.1	104.02	%			22:46:05
2	Y 371.029	1440109.8	1440109.8	106.46	%			22:46:05
2	Ag 328.068†	-1593.6	-1130.4	-0.5750	µg/L	-0.5750	ppb	22:46:10
2	As 188.979†	15.7	15.6	32.919	µg/L	32.919	ppb	22:46:31
2	B 249.677†	1265.1	832.1	-19.457	µg/L	-19.457	ppb	22:46:10
2	Ba 233.527†	68131.8	65517.2	1573.2	µg/L	1573.2	ppb	22:46:10
2	Be 313.107†	15840.0	18083.9	9.1429	µg/L	9.1429	ppb	22:46:10
2	Cd 226.502†	284.9	415.6	-1.1586	µg/L	-1.1586	ppb	22:46:31
2	Co 228.616†	1898.6	1823.3	73.865	µg/L	73.865	ppb	22:46:31
2	Cr 267.716†	5265.8	5112.8	102.82	µg/L	102.82	ppb	22:46:10
2	Cu 324.752†	11597.3	8605.6	70.434	µg/L	70.434	ppb	22:46:10
2	Mn 257.610†	1689266.9	1624273.1	5099.5	µg/L	5099.5	ppb	22:46:05
2	Mo 202.031†	-6.5	-0.9	3.8103	µg/L	3.8103	ppb	22:46:31
2	Ni 231.604†	1766.6	1386.0	70.328	µg/L	70.328	ppb	22:46:31
2	P 214.914†	964.7	912.1	1738.2	µg/L	1738.2	ppb	22:46:31
2	Pb 220.353†	703.9	585.8	142.57	µg/L	142.57	ppb	22:46:31

2	S 181.975 Axial†	302.0	271.4	1125.3 µg/L	1125.3 ppb	22:46:31
2	Sb 206.836†	27.2	3.7	0.6402 µg/L	0.6402 ppb	22:46:31
2	Se 196.026†	-29.0	-47.2	195.96 µg/L	195.96 ppb	22:46:31
2	SiO2†	337032.6	322622.8	63682 µg/L	63682 ppb	22:46:05
2	Si 251.611†	404128.6	388208.1	29512 µg/L	29512 ppb	22:46:05
2	Sn 189.927†	-39.1	-38.0	-25.311 µg/L	-25.311 ppb	22:46:31
2	Ti 334.940†	1962433.9	1886457.7	4172.4 µg/L	4172.4 ppb	22:46:05
2	Tl 190.801†	-64.8	-39.9	24.155 µg/L	24.155 ppb	22:46:31
2	U 409.014†	92.0	165.5	-1.6191 µg/L	-1.6191 ppb	22:46:10
2	V 292.402†	21551.7	20764.0	214.68 µg/L	214.68 ppb	22:46:10
2	Zn 213.857†	13328.0	12278.8	281.97 µg/L	281.97 ppb	22:46:10
3	Sc RADIAL	58892.7	58892.7	104 %		22:44:58
3	Al 396.153Radial†	114976.4	110289.2	76723 µg/L	76723 ppb	22:44:58
3	Ca 317.933Radial†	22664.9	21531.1	18391 µg/L	18391 ppb	22:45:19
3	Fe 238.204 Radial†	13751.3	13175.0	103910 µg/L	103910 ppb	22:45:19
3	K 766.490 Radial†	27098.9	25830.9	16871 µg/L	16871 ppb	22:44:58
3	Mg 279.077 IEC†	1776.9	1691.8	15011 µg/L	15011 ppb	22:45:19
3	Na 589.592 Radial†	1804.1	1258.4	386.52 µg/L	386.52 ppb	22:45:19
3	Sr 421.552†	23404.9	22423.5	206.86 µg/L	206.86 ppb	22:44:58
3	Sc 361.383	2036171.7	2036171.7	103.72 %		22:46:38
3	Y 371.029	1434644.4	1434644.4	106.05 %		22:46:38
3	Ag 328.068†	-1549.6	-1092.4	-0.2724 µg/L	-0.2724 ppb	22:46:44
3	As 188.979†	13.6	13.6	29.447 µg/L	29.447 ppb	22:47:04
3	B 249.677†	1266.5	836.9	-19.954 µg/L	-19.954 ppb	22:46:44
3	Ba 233.527†	65471.1	63139.2	1516.1 µg/L	1516.1 ppb	22:46:44
3	Be 313.107†	14907.8	17228.7	8.6934 µg/L	8.6934 ppb	22:46:44
3	Cd 226.502†	247.4	380.2	-2.1955 µg/L	-2.1955 ppb	22:47:04
3	Co 228.616†	1738.4	1674.1	67.424 µg/L	67.424 ppb	22:47:04
3	Cr 267.716†	4963.7	4836.0	97.255 µg/L	97.255 ppb	22:46:44
3	Cu 324.752†	11174.8	8230.2	68.166 µg/L	68.166 ppb	22:46:44
3	Mn 257.610†	1631947.6	1573654.0	4941.1 µg/L	4941.1 ppb	22:46:38
3	Mo 202.031†	-7.1	-1.5	3.8008 µg/L	3.8008 ppb	22:47:04
3	Ni 231.604†	1643.2	1271.9	64.667 µg/L	64.667 ppb	22:47:04
3	P 214.914†	888.3	841.1	1597.0 µg/L	1597.0 ppb	22:47:04
3	Pb 220.353†	660.3	545.7	132.81 µg/L	132.81 ppb	22:47:04
3	S 181.975 Axial†	289.6	260.3	1079.3 µg/L	1079.3 ppb	22:47:04
3	Sb 206.836†	31.6	8.0	4.6531 µg/L	4.6531 ppb	22:47:04
3	Se 196.026†	-29.9	-48.2	197.80 µg/L	197.80 ppb	22:47:04
3	SiO2†	328212.9	315046.0	62186 µg/L	62186 ppb	22:46:38
3	Si 251.611†	393568.0	379137.3	28823 µg/L	28823 ppb	22:46:38
3	Sn 189.927†	-33.7	-32.8	-23.235 µg/L	-23.235 ppb	22:47:04
3	Ti 334.940†	1885341.7	1817526.1	4019.9 µg/L	4019.9 ppb	22:46:38
3	Tl 190.801†	-65.7	-41.0	20.999 µg/L	20.999 ppb	22:47:04
3	U 409.014†	152.3	223.9	3.0392 µg/L	3.0392 ppb	22:46:44
3	V 292.402†	20495.4	19804.8	205.47 µg/L	205.47 ppb	22:46:44
3	Zn 213.857†	12838.4	11843.4	271.70 µg/L	271.70 ppb	22:46:44

Mean Data: 245960006|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2042361.6	104.04	%	0.325				0.31%
Sc RADIAL	59245.7	105	%	0.9				0.83%
Y 371.029	1439331.8	106.40	%	0.322				0.30%
Ag 328.068†	-1120.1	-0.4706	µg/L	0.17165	-0.4706	ppb	0.17165	36.48%
Al 396.153Radial†	109629.8	76264	µg/L	401.6	76264	ppb	401.6	0.53%
As 188.979†	12.5	27.538	µg/L	6.5471	27.538	ppb	6.5471	23.77%
B 249.677†	835.0	-19.781	µg/L	0.2810	-19.781	ppb	0.2810	1.42%
Ba 233.527†	64582.4	1550.8	µg/L	30.45	1550.8	ppb	30.45	1.96%
Be 313.107†	17755.2	8.9721	µg/L	0.24340	8.9721	ppb	0.24340	2.71%
Ca 317.933Radial†	21453.8	18325	µg/L	113.5	18325	ppb	113.5	0.62%
Cd 226.502†	400.9	-1.6234	µg/L	0.52669	-1.6234	ppb	0.52669	32.44%
Co 228.616†	1772.3	71.685	µg/L	3.6906	71.685	ppb	3.6906	5.15%
Cr 267.716†	5006.6	100.68	µg/L	3.000	100.68	ppb	3.000	2.98%
Cu 324.752†	8455.6	69.572	µg/L	1.2279	69.572	ppb	1.2279	1.76%
Fe 238.204 Radial†	13115.2	103440	µg/L	729.0	103440	ppb	729.0	0.70%
K 766.490 Radial†	25689.6	16778	µg/L	80.8	16778	ppb	80.8	0.48%
Mg 279.077 IEC†	1676.8	14878	µg/L	162.0	14878	ppb	162.0	1.09%
Mn 257.610†	1602008.2	5029.9	µg/L	80.89	5029.9	ppb	80.89	1.61%
Mo 202.031†	-2.1	3.7292	µg/L	0.13238	3.7292	ppb	0.13238	3.55%
Na 589.592 Radial†	1245.2	382.45	µg/L	4.715	382.45	ppb	4.715	1.23%

Ni 231.604†	1348.1	68.450 µg/L	3.2768	68.450 ppb	3.2768	4.79%
P 214.914†	886.9	1687.8 µg/L	78.81	1687.8 ppb	78.81	4.67%
Pb 220.353†	569.6	138.62 µg/L	5.142	138.62 ppb	5.142	3.71%
S 181.975 Axial†	266.0	1103.0 µg/L	23.02	1103.0 ppb	23.02	2.09%
Sb 206.836†	7.8	4.4379 µg/L	3.69484	4.4379 ppb	3.69484	83.26%
Se 196.026†	-51.9	191.37 µg/L	9.582	191.37 ppb	9.582	5.01%
SiO2†	319225.2	63011 µg/L	759.6	63011 ppb	759.6	1.21%
Si 251.611†	384185.7	29207 µg/L	351.3	29207 ppb	351.3	1.20%
Sn 189.927†	-35.8	-24.438 µg/L	1.0766	-24.438 ppb	1.0766	4.41%
Sr 421.552†	22321.7	205.92 µg/L	0.813	205.92 ppb	0.813	0.39%
Ti 334.940†	1857654.4	4108.7 µg/L	79.28	4108.7 ppb	79.28	1.93%
Tl 190.801†	-42.2	20.394 µg/L	4.0966	20.394 ppb	4.0966	20.09%
U 409.014†	180.1	-0.5351 µg/L	3.17427	-0.5351 ppb	3.17427	593.19%
V 292.402†	20379.3	211.02 µg/L	4.884	211.02 ppb	4.884	2.31%
Zn 213.857†	12098.2	277.69 µg/L	5.343	277.69 ppb	5.343	1.92%

Sequence No.: 25
Sample ID: 245960007|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 221
Date Collected: 2/19/2010 22:47:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960007|948744|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59411.7	59411.7	105	%			22:47:46
1	Al 396.153Radial†	208928.9	198667.0	138200	µg/L	138200	ppb	22:47:46
1	Ca 317.933Radial†	29723.0	28052.8	23962	µg/L	23962	ppb	22:48:06
1	Fe 238.204 Radial†	19280.7	18317.8	144470	µg/L	144470	ppb	22:48:06
1	K 766.490 Radial†	28096.2	26552.2	17342	µg/L	17342	ppb	22:47:46
1	Mg 279.077 IEC†	2974.5	2815.7	25015	µg/L	25015	ppb	22:48:06
1	Na 589.592 Radial†	3073.3	2450.2	752.57	µg/L	752.57	ppb	22:48:06
1	Sr 421.552†	35904.2	34113.2	314.70	µg/L	314.70	ppb	22:47:46
1	Sc 361.383	2037183.7	2037183.7	103.77	%			22:49:12
1	Y 371.029	1438041.6	1438041.6	106.30	%			22:49:12
1	Ag 328.068†	-2122.9	-1644.1	-1.3539	µg/L	-1.3539	ppb	22:49:17
1	As 188.979†	20.1	19.8	42.697	µg/L	42.697	ppb	22:49:38
1	B 249.677†	1340.4	907.6	-38.201	µg/L	-38.201	ppb	22:49:17
1	Ba 233.527†	77230.8	74440.0	1787.6	µg/L	1787.6	ppb	22:49:17
1	Be 313.107†	21746.3	23811.4	12.315	µg/L	12.315	ppb	22:49:17
1	Cd 226.502†	434.1	560.0	-2.2705	µg/L	-2.2705	ppb	22:49:17
1	Co 228.616†	1767.7	1701.5	67.100	µg/L	67.100	ppb	22:49:38
1	Cr 267.716†	6205.7	6030.5	121.29	µg/L	121.29	ppb	22:49:17
1	Cu 324.752†	10823.0	7885.8	71.556	µg/L	71.556	ppb	22:49:17
1	Mn 257.610†	1330451.2	1282337.3	4033.9	µg/L	4033.9	ppb	22:49:12
1	Mo 202.031†	-15.2	-9.3	4.5776	µg/L	4.5776	ppb	22:49:38
1	Ni 231.604†	2148.2	1757.8	89.411	µg/L	89.411	ppb	22:49:38
1	P 214.914†	648.7	609.7	1124.0	µg/L	1124.0	ppb	22:49:38
1	Pb 220.353†	704.7	588.1	145.10	µg/L	145.10	ppb	22:49:38
1	S 181.975 Axial†	166.5	141.6	587.01	µg/L	587.01	ppb	22:49:38
1	Sb 206.836†	28.7	5.1	1.2300	µg/L	1.2300	ppb	22:49:38
1	Se 196.026†	-59.1	-76.3	258.75	µg/L	258.75	ppb	22:49:38
1	SiO2†	378951.7	363782.9	71806	µg/L	71806	ppb	22:49:12
1	Si 251.611†	454347.3	437518.4	33261	µg/L	33261	ppb	22:49:12
1	Sn 189.927†	-32.7	-31.9	-26.017	µg/L	-26.017	ppb	22:49:38
1	Ti 334.940†	2238030.0	2156489.1	4769.0	µg/L	4769.0	ppb	22:49:12
1	Tl 190.801†	-79.2	-53.9	17.111	µg/L	17.111	ppb	22:49:38
1	U 409.014†	-1487.0	-1355.9	-134.20	µg/L	-134.20	ppb	22:49:12
1	V 292.402†	27767.7	26802.9	278.36	µg/L	278.36	ppb	22:49:17
1	Zn 213.857†	13937.2	12896.1	293.80	µg/L	293.80	ppb	22:49:17
2	Sc RADIAL	59297.3	59297.3	105	%			22:48:12
2	Al 396.153Radial†	208768.9	198897.7	138360	µg/L	138360	ppb	22:48:12
2	Ca 317.933Radial†	29783.7	28165.2	24058	µg/L	24058	ppb	22:48:32
2	Fe 238.204 Radial†	19278.1	18350.7	144730	µg/L	144730	ppb	22:48:32
2	K 766.490 Radial†	28024.2	26535.1	17331	µg/L	17331	ppb	22:48:12
2	Mg 279.077 IEC†	2989.7	2835.6	25193	µg/L	25193	ppb	22:48:32
2	Na 589.592 Radial†	3067.2	2450.0	752.51	µg/L	752.51	ppb	22:48:32
2	Sr 421.552†	35782.3	34062.9	314.24	µg/L	314.24	ppb	22:48:12
2	Sc 361.383	2030760.1	2030760.1	103.45	%			22:49:45
2	Y 371.029	1434013.7	1434013.7	106.01	%			22:49:45
2	Ag 328.068†	-2142.1	-1669.2	-1.5326	µg/L	-1.5326	ppb	22:49:51
2	As 188.979†	7.8	8.0	21.534	µg/L	21.534	ppb	22:50:11
2	B 249.677†	1365.0	935.4	-37.203	µg/L	-37.203	ppb	22:49:51
2	Ba 233.527†	76597.4	74063.2	1778.5	µg/L	1778.5	ppb	22:49:51
2	Be 313.107†	21571.9	23709.1	12.251	µg/L	12.251	ppb	22:49:51
2	Cd 226.502†	419.0	546.7	-2.6333	µg/L	-2.6333	ppb	22:49:51
2	Co 228.616†	1738.0	1678.2	66.028	µg/L	66.028	ppb	22:50:11
2	Cr 267.716†	6149.1	5994.6	120.57	µg/L	120.57	ppb	22:49:51
2	Cu 324.752†	10907.0	8000.0	72.337	µg/L	72.337	ppb	22:49:51
2	Mn 257.610†	1326957.9	1283015.7	4036.0	µg/L	4036.0	ppb	22:49:45
2	Mo 202.031†	-23.1	-17.0	3.8361	µg/L	3.8361	ppb	22:50:11
2	Ni 231.604†	2100.9	1718.6	87.461	µg/L	87.461	ppb	22:50:11
2	P 214.914†	650.9	613.9	1132.0	µg/L	1132.0	ppb	22:50:11
2	Pb 220.353†	692.6	578.6	142.78	µg/L	142.78	ppb	22:50:11

2	S 181.975 Axial†	159.7	135.5	561.80 µg/L	561.80 ppb	22:50:11
2	Sb 206.836†	41.1	17.3	12.379 µg/L	12.379 ppb	22:50:11
2	Se 196.026†	-58.6	-75.9	259.74 µg/L	259.74 ppb	22:50:11
2	SiO2†	378106.2	364120.7	71873 µg/L	71873 ppb	22:49:45
2	Si 251.611†	453639.5	438219.1	33314 µg/L	33314 ppb	22:49:45
2	Sn 189.927†	-42.4	-41.4	-30.011 µg/L	-30.011 ppb	22:50:11
2	Ti 334.940†	2234653.7	2160047.1	4776.9 µg/L	4776.9 ppb	22:49:45
2	Tl 190.801†	-75.9	-51.0	20.978 µg/L	20.978 ppb	22:50:11
2	U 409.014†	-1573.6	-1444.1	-141.57 µg/L	-141.57 ppb	22:49:45
2	V 292.402†	27528.3	26656.1	276.94 µg/L	276.94 ppb	22:49:51
2	Zn 213.857†	13855.0	12859.1	292.92 µg/L	292.92 ppb	22:49:51
3	Sc RADIAL	59478.4	59478.4	105 %		22:48:38
3	Al 396.153Radial†	208661.1	198189.6	137870 µg/L	137870 ppb	22:48:38
3	Ca 317.933Radial†	29778.7	28074.1	23980 µg/L	23980 ppb	22:48:58
3	Fe 238.204 Radial†	19307.6	18322.8	144510 µg/L	144510 ppb	22:48:58
3	K 766.490 Radial†	28109.6	26534.9	17330 µg/L	17330 ppb	22:48:38
3	Mg 279.077 IEC†	2998.5	2835.3	25190 µg/L	25190 ppb	22:48:58
3	Na 589.592 Radial†	3061.7	2436.0	748.20 µg/L	748.20 ppb	22:48:58
3	Sr 421.552†	35806.0	33981.6	313.49 µg/L	313.49 ppb	22:48:38
3	Sc 361.383	2042728.0	2042728.0	104.06 %		22:50:19
3	Y 371.029	1441337.5	1441337.5	106.55 %		22:50:19
3	Ag 328.068†	-2014.5	-1534.4	-0.6464 µg/L	-0.6464 ppb	22:50:25
3	As 188.979†	19.2	18.9	40.950 µg/L	40.950 ppb	22:50:45
3	B 249.677†	1275.3	841.5	-40.929 µg/L	-40.929 ppb	22:50:25
3	Ba 233.527†	73411.3	70567.4	1694.6 µg/L	1694.6 ppb	22:50:25
3	Be 313.107†	20476.8	22534.5	11.625 µg/L	11.625 ppb	22:50:25
3	Cd 226.502†	365.1	492.5	-3.9681 µg/L	-3.9681 ppb	22:50:25
3	Co 228.616†	1571.7	1508.6	58.733 µg/L	58.733 ppb	22:50:45
3	Cr 267.716†	5782.3	5607.4	112.78 µg/L	112.78 ppb	22:50:25
3	Cu 324.752†	10540.5	7586.0	69.604 µg/L	69.604 ppb	22:50:25
3	Mn 257.610†	1290101.9	1240080.7	3901.5 µg/L	3901.5 ppb	22:50:19
3	Mo 202.031†	-22.4	-16.1	3.9108 µg/L	3.9108 ppb	22:50:45
3	Ni 231.604†	1940.7	1552.7	79.200 µg/L	79.200 ppb	22:50:45
3	P 214.914†	594.9	556.4	1018.4 µg/L	1018.4 ppb	22:50:45
3	Pb 220.353†	659.4	542.8	134.05 µg/L	134.05 ppb	22:50:45
3	S 181.975 Axial†	153.2	128.3	531.95 µg/L	531.95 ppb	22:50:45
3	Sb 206.836†	32.2	8.4	4.3306 µg/L	4.3306 ppb	22:50:45
3	Se 196.026†	-46.1	-63.6	276.41 µg/L	276.41 ppb	22:50:45
3	SiO2†	371081.6	355228.4	70117 µg/L	70117 ppb	22:50:19
3	Si 251.611†	445021.8	427368.0	32489 µg/L	32489 ppb	22:50:19
3	Sn 189.927†	-42.2	-40.9	-29.800 µg/L	-29.800 ppb	22:50:45
3	Ti 334.940†	2160279.2	2075914.8	4590.8 µg/L	4590.8 ppb	22:50:19
3	Tl 190.801†	-72.7	-47.4	23.449 µg/L	23.449 ppb	22:50:45
3	U 409.014†	-1420.5	-1288.0	-128.57 µg/L	-128.57 ppb	22:50:19
3	V 292.402†	26097.7	25125.4	262.00 µg/L	262.00 ppb	22:50:25
3	Zn 213.857†	13326.0	12272.3	279.20 µg/L	279.20 ppb	22:50:25

Mean Data: 245960007|948744|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2036890.6	103.76	%	0.305				0.29%
Sc RADIAL	59395.8	105	%	0.2				0.15%
Y 371.029	1437797.6	106.29	%	0.271				0.26%
Ag 328.068†	-1615.9	-1.1776	µg/L	0.46867	-1.1776	ppb	0.46867	39.80%
Al 396.153Radial†	198584.7	138150	µg/L	251.2	138150	ppb	251.2	0.18%
As 188.979†	15.6	35.060	µg/L	11.7468	35.060	ppb	11.7468	33.50%
B 249.677†	894.8	-38.778	µg/L	1.9288	-38.778	ppb	1.9288	4.97%
Ba 233.527†	73023.5	1753.5	µg/L	51.28	1753.5	ppb	51.28	2.92%
Be 313.107†	23351.6	12.063	µg/L	0.3813	12.063	ppb	0.3813	3.16%
Ca 317.933Radial†	28097.4	24000	µg/L	51.0	24000	ppb	51.0	0.21%
Cd 226.502†	533.1	-2.9573	µg/L	0.89396	-2.9573	ppb	0.89396	30.23%
Co 228.616†	1629.4	63.954	µg/L	4.5528	63.954	ppb	4.5528	7.12%
Cr 267.716†	5877.5	118.21	µg/L	4.718	118.21	ppb	4.718	3.99%
Cu 324.752†	7823.9	71.166	µg/L	1.4075	71.166	ppb	1.4075	1.98%
Fe 238.204 Radial†	18330.4	144570	µg/L	139.6	144570	ppb	139.6	0.10%
K 766.490 Radial†	26540.7	17334	µg/L	6.5	17334	ppb	6.5	0.04%
Mg 279.077 IEC†	2828.9	25133	µg/L	101.9	25133	ppb	101.9	0.41%
Mn 257.610†	1268477.9	3990.5	µg/L	77.03	3990.5	ppb	77.03	1.93%
Mo 202.031†	-14.1	4.1082	µg/L	0.40824	4.1082	ppb	0.40824	9.94%
Na 589.592 Radial†	2445.4	751.10	µg/L	2.506	751.10	ppb	2.506	0.33%

Ni 231.604†	1676.4	85.358 µg/L	5.4208	85.358 ppb	5.4208	6.35%
P 214.914†	593.3	1091.5 µg/L	63.39	1091.5 ppb	63.39	5.81%
Pb 220.353†	569.8	140.65 µg/L	5.824	140.65 ppb	5.824	4.14%
S 181.975 Axial†	135.1	560.25 µg/L	27.559	560.25 ppb	27.559	4.92%
Sb 206.836†	10.3	5.9799 µg/L	5.75455	5.9799 ppb	5.75455	96.23%
Se 196.026†	-71.9	264.97 µg/L	9.922	264.97 ppb	9.922	3.74%
SiO2†	361044.0	71265 µg/L	994.7	71265 ppb	994.7	1.40%
Si 251.611†	434368.5	33022 µg/L	461.7	33022 ppb	461.7	1.40%
Sn 189.927†	-38.1	-28.609 µg/L	2.2476	-28.609 ppb	2.2476	7.86%
Sr 421.552†	34052.5	314.14 µg/L	0.613	314.14 ppb	0.613	0.19%
Ti 334.940†	2130817.0	4712.2 µg/L	105.26	4712.2 ppb	105.26	2.23%
Tl 190.801†	-50.8	20.513 µg/L	3.1945	20.513 ppb	3.1945	15.57%
U 409.014†	-1362.7	-134.78 µg/L	6.520	-134.78 ppb	6.520	4.84%
V 292.402†	26194.8	272.43 µg/L	9.066	272.43 ppb	9.066	3.33%
Zn 213.857†	12675.8	288.64 µg/L	8.186	288.64 ppb	8.186	2.84%

Sequence No.: 26
Sample ID: 245960008|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 222
Date Collected: 2/19/2010 22:50:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960008|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59598.5	59598.5	105	%			22:51:27
1	Al 396.153Radial†	115112.0	109111.7	75904	µg/L	75904	ppb	22:51:27
1	Ca 317.933Radial†	21596.5	20260.9	17306	µg/L	17306	ppb	22:51:47
1	Fe 238.204 Radial†	12594.4	11922.1	94030	µg/L	94030	ppb	22:51:47
1	K 766.490 Radial†	22179.3	20859.6	13624	µg/L	13624	ppb	22:51:27
1	Mg 279.077 IEC†	1724.0	1621.4	14393	µg/L	14393	ppb	22:51:47
1	Na 589.592 Radial†	1786.3	1221.1	375.05	µg/L	375.05	ppb	22:51:47
1	Sr 421.552†	23340.7	22096.7	203.85	µg/L	203.85	ppb	22:51:27
1	Sc 361.383	2040003.9	2040003.9	103.92	%			22:52:52
1	Y 371.029	1440265.6	1440265.6	106.47	%			22:52:52
1	Ag 328.068†	-1539.3	-1079.7	-0.8406	µg/L	-0.8406	ppb	22:52:58
1	As 188.979†	14.3	14.3	30.098	µg/L	30.098	ppb	22:53:18
1	B 249.677†	1102.1	676.4	-21.374	µg/L	-21.374	ppb	22:52:58
1	Ba 233.527†	64023.7	61627.8	1479.8	µg/L	1479.8	ppb	22:52:58
1	Be 313.107†	14966.0	17257.7	8.7559	µg/L	8.7559	ppb	22:52:58
1	Cd 226.502†	251.1	383.3	-1.0103	µg/L	-1.0103	ppb	22:53:18
1	Co 228.616†	1158.0	1112.4	42.236	µg/L	42.236	ppb	22:53:18
1	Cr 267.716†	3879.2	3783.3	76.107	µg/L	76.107	ppb	22:52:58
1	Cu 324.752†	13237.4	10194.7	79.616	µg/L	79.616	ppb	22:52:58
1	Mn 257.610†	985463.0	948578.7	2982.4	µg/L	2982.4	ppb	22:52:52
1	Mo 202.031†	-13.9	-8.0	2.7881	µg/L	2.7881	ppb	22:53:18
1	Ni 231.604†	1468.5	1100.9	56.040	µg/L	56.040	ppb	22:53:18
1	P 214.914†	711.7	669.5	1263.9	µg/L	1263.9	ppb	22:53:18
1	Pb 220.353†	591.5	478.2	116.78	µg/L	116.78	ppb	22:53:18
1	S 181.975 Axial†	269.9	240.8	998.46	µg/L	998.46	ppb	22:53:18
1	Sb 206.836†	30.6	6.9	3.9958	µg/L	3.9958	ppb	22:53:18
1	Se 196.026†	-40.6	-58.3	157.37	µg/L	157.37	ppb	22:53:18
1	SiO2†	368492.2	353212.8	69720	µg/L	69720	ppb	22:52:52
1	Si 251.611†	441776.5	424816.1	32295	µg/L	32295	ppb	22:52:52
1	Sn 189.927†	-28.0	-27.3	-19.916	µg/L	-19.916	ppb	22:53:18
1	Ti 334.940†	1833100.8	1763839.5	3901.1	µg/L	3901.1	ppb	22:52:52
1	Tl 190.801†	-54.6	-30.2	24.612	µg/L	24.612	ppb	22:53:18
1	U 409.014†	-563.6	-465.3	-52.783	µg/L	-52.783	ppb	22:52:58
1	V 292.402†	19891.8	19186.8	198.18	µg/L	198.18	ppb	22:52:58
1	Zn 213.857†	11641.8	10668.6	244.66	µg/L	244.66	ppb	22:52:58
2	Sc RADIAL	60003.1	60003.1	106	%			22:51:53
2	Al 396.153Radial†	114831.2	108111.3	75208	µg/L	75208	ppb	22:51:53
2	Ca 317.933Radial†	21560.6	20089.0	17160	µg/L	17160	ppb	22:52:14
2	Fe 238.204 Radial†	12545.4	11795.5	93031	µg/L	93031	ppb	22:52:14
2	K 766.490 Radial†	22097.8	20641.1	13481	µg/L	13481	ppb	22:51:53
2	Mg 279.077 IEC†	1709.1	1596.4	14170	µg/L	14170	ppb	22:52:14
2	Na 589.592 Radial†	1798.5	1221.2	375.09	µg/L	375.09	ppb	22:52:14
2	Sr 421.552†	23275.1	21885.8	201.90	µg/L	201.90	ppb	22:51:53
2	Sc 361.383	2040972.5	2040972.5	103.97	%			22:53:26
2	Y 371.029	1441477.4	1441477.4	106.56	%			22:53:26
2	Ag 328.068†	-1528.1	-1068.2	-0.8400	µg/L	-0.8400	ppb	22:53:31
2	As 188.979†	13.6	13.6	28.814	µg/L	28.814	ppb	22:53:52
2	B 249.677†	1106.6	680.3	-20.696	µg/L	-20.696	ppb	22:53:31
2	Ba 233.527†	63061.7	60673.3	1456.9	µg/L	1456.9	ppb	22:53:31
2	Be 313.107†	14753.3	17046.3	8.6267	µg/L	8.6267	ppb	22:53:31
2	Cd 226.502†	244.1	376.5	-1.0681	µg/L	-1.0681	ppb	22:53:52
2	Co 228.616†	1131.2	1086.1	41.024	µg/L	41.024	ppb	22:53:52
2	Cr 267.716†	3847.6	3751.2	75.459	µg/L	75.459	ppb	22:53:31
2	Cu 324.752†	13114.6	10070.6	78.667	µg/L	78.667	ppb	22:53:31
2	Mn 257.610†	990273.3	952755.5	2995.4	µg/L	2995.4	ppb	22:53:26
2	Mo 202.031†	-1.2	4.2	3.9482	µg/L	3.9482	ppb	22:53:52
2	Ni 231.604†	1455.0	1087.2	55.346	µg/L	55.346	ppb	22:53:52
2	P 214.914†	710.9	668.5	1262.4	µg/L	1262.4	ppb	22:53:52
2	Pb 220.353†	578.2	465.2	113.61	µg/L	113.61	ppb	22:53:52

2	S 181.975 Axial†	267.6	238.4	988.78 µg/L	988.78 ppb	22:53:52
2	Sb 206.836†	28.7	5.2	2.3902 µg/L	2.3902 ppb	22:53:52
2	Se 196.026†	-34.3	-52.3	163.43 µg/L	163.43 ppb	22:53:52
2	SiO2†	369520.4	354033.6	69882 µg/L	69882 ppb	22:53:26
2	Si 251.611†	442776.5	425576.2	32353 µg/L	32353 ppb	22:53:26
2	Sn 189.927†	-30.1	-29.3	-20.676 µg/L	-20.676 ppb	22:53:52
2	Ti 334.940†	1838580.0	1768272.6	3911.0 µg/L	3911.0 ppb	22:53:26
2	Tl 190.801†	-60.2	-35.5	17.627 µg/L	17.627 ppb	22:53:52
2	U 409.014†	-545.3	-447.4	-51.148 µg/L	-51.148 ppb	22:53:31
2	V 292.402†	19554.7	18853.5	194.82 µg/L	194.82 ppb	22:53:31
2	Zn 213.857†	11486.2	10513.7	241.09 µg/L	241.09 ppb	22:53:31
3	Sc RADIAL	59571.3	59571.3	105 %		22:52:19
3	Al 396.153Radial†	114189.9	108286.9	75330 µg/L	75330 ppb	22:52:19
3	Ca 317.933Radial†	21552.6	20228.5	17279 µg/L	17279 ppb	22:52:40
3	Fe 238.204 Radial†	12534.6	11870.8	93625 µg/L	93625 ppb	22:52:40
3	K 766.490 Radial†	22026.6	20724.4	13535 µg/L	13535 ppb	22:52:19
3	Mg 279.077 IEC†	1717.6	1616.1	14346 µg/L	14346 ppb	22:52:40
3	Na 589.592 Radial†	1808.2	1242.6	381.67 µg/L	381.67 ppb	22:52:40
3	Sr 421.552†	23142.1	21918.5	202.20 µg/L	202.20 ppb	22:52:19
3	Sc 361.383	2032629.9	2032629.9	103.54 %		22:53:59
3	Y 371.029	1431786.4	1431786.4	105.84 %		22:53:59
3	Ag 328.068†	-1464.7	-1013.0	-0.4594 µg/L	-0.4594 ppb	22:54:05
3	As 188.979†	6.1	6.3	15.860 µg/L	15.860 ppb	22:54:25
3	B 249.677†	1068.1	647.4	-22.354 µg/L	-22.354 ppb	22:54:05
3	Ba 233.527†	59767.4	57740.6	1386.5 µg/L	1386.5 ppb	22:54:05
3	Be 313.107†	13625.9	16015.6	8.0925 µg/L	8.0925 ppb	22:54:05
3	Cd 226.502†	206.0	340.7	-2.0345 µg/L	-2.0345 ppb	22:54:25
3	Co 228.616†	1058.7	1020.6	38.482 µg/L	38.482 ppb	22:54:25
3	Cr 267.716†	3591.5	3519.0	70.790 µg/L	70.790 ppb	22:54:05
3	Cu 324.752†	12519.1	9547.3	75.333 µg/L	75.333 ppb	22:54:05
3	Mn 257.610†	937053.5	905265.0	2846.7 µg/L	2846.7 ppb	22:53:59
3	Mo 202.031†	-3.7	1.8	3.7347 µg/L	3.7347 ppb	22:54:25
3	Ni 231.604†	1336.5	978.5	49.938 µg/L	49.938 ppb	22:54:25
3	P 214.914†	652.3	614.7	1155.9 µg/L	1155.9 ppb	22:54:25
3	Pb 220.353†	534.2	425.0	103.83 µg/L	103.83 ppb	22:54:25
3	S 181.975 Axial†	250.4	222.9	924.43 µg/L	924.43 ppb	22:54:25
3	Sb 206.836†	30.7	7.1	4.2281 µg/L	4.2281 ppb	22:54:25
3	Se 196.026†	-25.5	-44.0	176.52 µg/L	176.52 ppb	22:54:25
3	SiO2†	353538.3	340056.8	67123 µg/L	67123 ppb	22:53:59
3	Si 251.611†	423959.9	409151.1	31104 µg/L	31104 ppb	22:53:59
3	Sn 189.927†	-27.2	-26.6	-19.587 µg/L	-19.587 ppb	22:54:25
3	Ti 334.940†	1735781.0	1676247.2	3707.4 µg/L	3707.4 ppb	22:53:59
3	Tl 190.801†	-59.9	-35.4	15.453 µg/L	15.453 ppb	22:54:25
3	U 409.014†	-523.3	-428.4	-49.658 µg/L	-49.658 ppb	22:54:05
3	V 292.402†	18412.1	17827.2	184.88 µg/L	184.88 ppb	22:54:05
3	Zn 213.857†	10903.2	9995.9	228.94 µg/L	228.94 ppb	22:54:05

Mean Data: 245960008|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2037868.7	103.81	%	0.232				0.22%
Sc RADIAL	59724.3	106	%	0.4				0.40%
Y 371.029	1437843.1	106.29	%	0.390				0.37%
Ag 328.068†	-1053.7	-0.7133	µg/L	0.21993	-0.7133	ppb	0.21993	30.83%
Al 396.153Radial†	108503.3	75481	µg/L	371.6	75481	ppb	371.6	0.49%
As 188.979†	11.4	24.924	µg/L	7.8763	24.924	ppb	7.8763	31.60%
B 249.677†	668.0	-21.474	µg/L	0.8335	-21.474	ppb	0.8335	3.88%
Ba 233.527†	60013.9	1441.1	µg/L	48.65	1441.1	ppb	48.65	3.38%
Be 313.107†	16773.2	8.4917	µg/L	0.35167	8.4917	ppb	0.35167	4.14%
Ca 317.933Radial†	20192.8	17248	µg/L	78.0	17248	ppb	78.0	0.45%
Cd 226.502†	366.8	-1.3709	µg/L	0.57537	-1.3709	ppb	0.57537	41.97%
Co 228.616†	1073.0	40.580	µg/L	1.9160	40.580	ppb	1.9160	4.72%
Cr 267.716†	3684.5	74.119	µg/L	2.9010	74.119	ppb	2.9010	3.91%
Cu 324.752†	9937.5	77.872	µg/L	2.2492	77.872	ppb	2.2492	2.89%
Fe 238.204 Radial†	11862.8	93562	µg/L	502.2	93562	ppb	502.2	0.54%
K 766.490 Radial†	20741.7	13547	µg/L	72.0	13547	ppb	72.0	0.53%
Mg 279.077 IEC†	1611.3	14303	µg/L	117.2	14303	ppb	117.2	0.82%
Mn 257.610†	935533.1	2941.5	µg/L	82.34	2941.5	ppb	82.34	2.80%
Mo 202.031†	-0.7	3.4903	µg/L	0.61743	3.4903	ppb	0.61743	17.69%
Na 589.592 Radial†	1228.3	377.27	µg/L	3.810	377.27	ppb	3.810	1.01%

Ni 231.604†	1055.5	53.775 µg/L	3.3405	53.775 ppb	3.3405	6.21%
P 214.914†	650.9	1227.4 µg/L	61.91	1227.4 ppb	61.91	5.04%
Pb 220.353†	456.1	111.41 µg/L	6.752	111.41 ppb	6.752	6.06%
S 181.975 Axial†	234.0	970.56 µg/L	40.240	970.56 ppb	40.240	4.15%
Sb 206.836†	6.4	3.5380 µg/L	1.00079	3.5380 ppb	1.00079	28.29%
Se 196.026†	-51.5	165.77 µg/L	9.788	165.77 ppb	9.788	5.90%
SiO2†	349101.0	68908 µg/L	1548.2	68908 ppb	1548.2	2.25%
Si 251.611†	419847.8	31918 µg/L	704.8	31918 ppb	704.8	2.21%
Sn 189.927†	-27.7	-20.060 µg/L	0.5580	-20.060 ppb	0.5580	2.78%
Sr 421.552†	21967.0	202.65 µg/L	1.047	202.65 ppb	1.047	0.52%
Ti 334.940†	1736119.8	3839.8 µg/L	114.81	3839.8 ppb	114.81	2.99%
Tl 190.801†	-33.7	19.231 µg/L	4.7855	19.231 ppb	4.7855	24.88%
U 409.014†	-447.0	-51.196 µg/L	1.5627	-51.196 ppb	1.5627	3.05%
V 292.402†	18622.5	192.62 µg/L	6.916	192.62 ppb	6.916	3.59%
Zn 213.857†	10392.8	238.23 µg/L	8.245	238.23 ppb	8.245	3.46%

Sequence No.: 27
Sample ID: 245960009|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 223
Date Collected: 2/19/2010 22:54:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960009|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58787.3	58787.3	104	%			22:55:07
1	Al 396.153Radial†	109131.8	104870.3	72953	µg/L	72953	ppb	22:55:07
1	Ca 317.933Radial†	18735.6	17794.0	15199	µg/L	15199	ppb	22:55:28
1	Fe 238.204 Radial†	11155.6	10704.1	84424	µg/L	84424	ppb	22:55:28
1	K 766.490 Radial†	21973.8	20952.2	13684	µg/L	13684	ppb	22:55:07
1	Mg 279.077 IEC†	1474.2	1403.9	12459	µg/L	12459	ppb	22:55:28
1	Na 589.592 Radial†	1894.3	1348.3	414.11	µg/L	414.11	ppb	22:55:28
1	Sr 421.552†	18638.7	17883.3	164.98	µg/L	164.98	ppb	22:55:07
1	Sc 361.383	2026776.1	2026776.1	103.24	%			22:56:32
1	Y 371.029	1424382.5	1424382.5	105.29	%			22:56:32
1	Ag 328.068†	-1411.3	-965.3	-0.8052	µg/L	-0.8052	ppb	22:56:38
1	As 188.979†	7.7	7.9	18.349	µg/L	18.349	ppb	22:56:58
1	B 249.677†	1055.5	638.2	-17.923	µg/L	-17.923	ppb	22:56:38
1	Ba 233.527†	52285.9	50660.8	1216.5	µg/L	1216.5	ppb	22:56:38
1	Be 313.107†	13064.9	15510.2	7.8205	µg/L	7.8205	ppb	22:56:38
1	Cd 226.502†	178.8	314.9	-1.6389	µg/L	-1.6389	ppb	22:56:58
1	Co 228.616†	1126.7	1089.3	41.747	µg/L	41.747	ppb	22:56:58
1	Cr 267.716†	3666.6	3601.8	72.442	µg/L	72.442	ppb	22:56:38
1	Cu 324.752†	9199.6	6366.9	53.295	µg/L	53.295	ppb	22:56:38
1	Mn 257.610†	877165.9	849872.2	2672.1	µg/L	2672.1	ppb	22:56:32
1	Mo 202.031†	-10.7	-5.0	2.7141	µg/L	2.7141	ppb	22:56:58
1	Ni 231.604†	1313.4	959.8	48.886	µg/L	48.886	ppb	22:56:58
1	P 214.914†	759.8	720.6	1374.6	µg/L	1374.6	ppb	22:56:58
1	Pb 220.353†	476.5	370.6	90.861	µg/L	90.861	ppb	22:56:58
1	S 181.975 Axial†	264.3	237.1	983.14	µg/L	983.14	ppb	22:56:58
1	Sb 206.836†	26.5	3.2	0.7737	µg/L	0.7737	ppb	22:56:58
1	Se 196.026†	-31.3	-49.6	145.72	µg/L	145.72	ppb	22:56:58
1	SiO2†	318217.8	306831.8	60565	µg/L	60565	ppb	22:56:32
1	Si 251.611†	381436.3	369145.6	28063	µg/L	28063	ppb	22:56:32
1	Sn 189.927†	-31.7	-31.1	-20.727	µg/L	-20.727	ppb	22:56:58
1	Ti 334.940†	1696586.3	1643125.4	3634.2	µg/L	3634.2	ppb	22:56:32
1	Tl 190.801†	-64.3	-39.9	7.0257	µg/L	7.0257	ppb	22:56:58
1	U 409.014†	-660.3	-562.5	-59.397	µg/L	-59.397	ppb	22:56:38
1	V 292.402†	16441.7	15970.0	165.68	µg/L	165.68	ppb	22:56:38
1	Zn 213.857†	8956.3	8140.6	185.99	µg/L	185.99	ppb	22:56:38
2	Sc RADIAL	59641.7	59641.7	106	%			22:55:33
2	Al 396.153Radial†	109497.2	103714.0	72149	µg/L	72149	ppb	22:55:33
2	Ca 317.933Radial†	18703.9	17506.0	14953	µg/L	14953	ppb	22:55:53
2	Fe 238.204 Radial†	11140.9	10536.6	83103	µg/L	83103	ppb	22:55:53
2	K 766.490 Radial†	22126.6	20794.4	13581	µg/L	13581	ppb	22:55:33
2	Mg 279.077 IEC†	1468.9	1378.6	12234	µg/L	12234	ppb	22:55:53
2	Na 589.592 Radial†	1871.9	1300.9	399.58	µg/L	399.58	ppb	22:55:53
2	Sr 421.552†	18810.1	17789.1	164.11	µg/L	164.11	ppb	22:55:33
2	Sc 361.383	2022068.6	2022068.6	103.00	%			22:57:05
2	Y 371.029	1420759.8	1420759.8	105.03	%			22:57:05
2	Ag 328.068†	-1359.3	-918.1	-0.5286	µg/L	-0.5286	ppb	22:57:11
2	As 188.979†	13.3	13.4	27.976	µg/L	27.976	ppb	22:57:31
2	B 249.677†	1057.1	642.1	-17.076	µg/L	-17.076	ppb	22:57:11
2	Ba 233.527†	52789.7	51267.8	1231.1	µg/L	1231.1	ppb	22:57:11
2	Be 313.107†	13116.4	15589.8	7.8826	µg/L	7.8826	ppb	22:57:11
2	Cd 226.502†	187.1	323.3	-1.2778	µg/L	-1.2778	ppb	22:57:31
2	Co 228.616†	1144.2	1108.9	42.714	µg/L	42.714	ppb	22:57:31
2	Cr 267.716†	3628.1	3572.7	71.858	µg/L	71.858	ppb	22:57:11
2	Cu 324.752†	9251.7	6438.3	53.577	µg/L	53.577	ppb	22:57:11
2	Mn 257.610†	864957.2	839997.4	2641.0	µg/L	2641.0	ppb	22:57:05
2	Mo 202.031†	-14.0	-8.2	2.3529	µg/L	2.3529	ppb	22:57:31
2	Ni 231.604†	1332.9	981.7	49.957	µg/L	49.957	ppb	22:57:31
2	P 214.914†	770.1	732.3	1398.5	µg/L	1398.5	ppb	22:57:31
2	Pb 220.353†	474.2	369.4	90.583	µg/L	90.583	ppb	22:57:31

2	S 181.975 Axial†	262.0	235.5	976.42 µg/L	976.42 ppb	22:57:31
2	Sb 206.836†	34.1	10.6	7.6153 µg/L	7.6153 ppb	22:57:31
2	Se 196.026†	-24.7	-43.3	151.24 µg/L	151.24 ppb	22:57:31
2	SiO2†	314458.7	303899.8	59986 µg/L	59986 ppb	22:57:05
2	Si 251.611†	376984.6	365683.9	27800 µg/L	27800 ppb	22:57:05
2	Sn 189.927†	-29.3	-28.9	-19.657 µg/L	-19.657 ppb	22:57:31
2	Ti 334.940†	1674374.5	1625387.0	3595.0 µg/L	3595.0 ppb	22:57:05
2	Tl 190.801†	-59.5	-35.4	12.104 µg/L	12.104 ppb	22:57:31
2	U 409.014†	-582.5	-488.5	-53.047 µg/L	-53.047 ppb	22:57:11
2	V 292.402†	16563.7	16125.5	167.05 µg/L	167.05 ppb	22:57:11
2	Zn 213.857†	9072.8	8273.9	189.19 µg/L	189.19 ppb	22:57:11
3	Sc RADIAL	58641.7	58641.7	104 %		22:55:59
3	Al 396.153Radial†	110346.7	106301.0	73949 µg/L	73949 ppb	22:55:59
3	Ca 317.933Radial†	18680.1	17785.2	15192 µg/L	15192 ppb	22:56:19
3	Fe 238.204 Radial†	11146.9	10722.4	84568 µg/L	84568 ppb	22:56:19
3	K 766.490 Radial†	22167.5	21191.3	13840 µg/L	13840 ppb	22:55:59
3	Mg 279.077 IEC†	1473.3	1406.5	12482 µg/L	12482 ppb	22:56:19
3	Na 589.592 Radial†	1878.0	1337.1	410.68 µg/L	410.68 ppb	22:56:19
3	Sr 421.552†	18848.0	18129.4	167.25 µg/L	167.25 ppb	22:55:59
3	Sc 361.383	2010546.7	2010546.7	102.42 %		22:57:39
3	Y 371.029	1413041.1	1413041.1	104.46 %		22:57:39
3	Ag 328.068†	-1324.5	-891.6	-0.3040 µg/L	-0.3040 ppb	22:57:44
3	As 188.979†	7.4	7.7	17.866 µg/L	17.866 ppb	22:58:05
3	B 249.677†	1034.9	626.4	-18.491 µg/L	-18.491 ppb	22:57:44
3	Ba 233.527†	49771.4	48614.4	1167.4 µg/L	1167.4 ppb	22:57:44
3	Be 313.107†	12126.8	14696.4	7.3789 µg/L	7.3789 ppb	22:57:44
3	Cd 226.502†	160.6	298.5	-2.0659 µg/L	-2.0659 ppb	22:58:05
3	Co 228.616†	1016.2	990.3	37.489 µg/L	37.489 ppb	22:58:05
3	Cr 267.716†	3393.5	3363.8	67.657 µg/L	67.657 ppb	22:57:44
3	Cu 324.752†	8868.4	6115.5	51.673 µg/L	51.673 ppb	22:57:44
3	Mn 257.610†	847683.9	827943.8	2603.5 µg/L	2603.5 ppb	22:57:39
3	Mo 202.031†	-6.6	-1.1	3.1031 µg/L	3.1031 ppb	22:58:05
3	Ni 231.604†	1242.9	901.2	45.970 µg/L	45.970 ppb	22:58:05
3	P 214.914†	694.2	662.5	1259.9 µg/L	1259.9 ppb	22:58:05
3	Pb 220.353†	436.3	335.0	82.266 µg/L	82.266 ppb	22:58:05
3	S 181.975 Axial†	246.9	222.2	921.34 µg/L	921.34 ppb	22:58:05
3	Sb 206.836†	35.0	11.7	8.6094 µg/L	8.6094 ppb	22:58:05
3	Se 196.026†	-24.8	-43.5	154.59 µg/L	154.59 ppb	22:58:05
3	SiO2†	310579.0	301861.1	59583 µg/L	59583 ppb	22:57:39
3	Si 251.611†	372319.6	363226.3	27613 µg/L	27613 ppb	22:57:39
3	Sn 189.927†	-32.6	-32.2	-21.190 µg/L	-21.190 ppb	22:58:05
3	Ti 334.940†	1632731.8	1594042.1	3525.6 µg/L	3525.6 ppb	22:57:39
3	Tl 190.801†	-50.8	-27.2	22.394 µg/L	22.394 ppb	22:58:05
3	U 409.014†	-546.2	-456.2	-50.585 µg/L	-50.585 ppb	22:57:44
3	V 292.402†	15452.8	15133.0	157.54 µg/L	157.54 ppb	22:57:44
3	Zn 213.857†	8557.9	7821.7	178.51 µg/L	178.51 ppb	22:57:44

Mean Data: 245960009|948744|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2019797.1	102.89	%	0.425				0.41%
Sc RADIAL	59023.6	104	%	1.0				0.92%
Y 371.029	1419394.4	104.93	%	0.428				0.41%
Ag 328.068†	-925.0	-0.5459	µg/L	0.25105	-0.5459	ppb	0.25105	45.99%
Al 396.153Radial†	104961.7	73017	µg/L	901.5	73017	ppb	901.5	1.23%
As 188.979†	9.7	21.397	µg/L	5.7029	21.397	ppb	5.7029	26.65%
B 249.677†	635.6	-17.830	µg/L	0.7118	-17.830	ppb	0.7118	3.99%
Ba 233.527†	50181.0	1205.0	µg/L	33.39	1205.0	ppb	33.39	2.77%
Be 313.107†	15265.5	7.6940	µg/L	0.27468	7.6940	ppb	0.27468	3.57%
Ca 317.933Radial†	17695.1	15115	µg/L	139.9	15115	ppb	139.9	0.93%
Cd 226.502†	312.2	-1.6609	µg/L	0.39453	-1.6609	ppb	0.39453	23.75%
Co 228.616†	1062.9	40.650	µg/L	2.7799	40.650	ppb	2.7799	6.84%
Cr 267.716†	3512.8	70.652	µg/L	2.6106	70.652	ppb	2.6106	3.69%
Cu 324.752†	6306.9	52.848	µg/L	1.0272	52.848	ppb	1.0272	1.94%
Fe 238.204 Radial†	10654.4	84031	µg/L	807.5	84031	ppb	807.5	0.96%
K 766.490 Radial†	20979.3	13702	µg/L	130.5	13702	ppb	130.5	0.95%
Mg 279.077 IEC†	1396.4	12392	µg/L	137.0	12392	ppb	137.0	1.11%
Mn 257.610†	839271.1	2638.9	µg/L	34.38	2638.9	ppb	34.38	1.30%
Mo 202.031†	-4.8	2.7234	µg/L	0.37520	2.7234	ppb	0.37520	13.78%
Na 589.592 Radial†	1328.8	408.12	µg/L	7.598	408.12	ppb	7.598	1.86%

Ni 231.604†	947.6	48.271 µg/L	2.0634	48.271 ppb	2.0634	4.27%
P 214.914†	705.1	1344.3 µg/L	74.10	1344.3 ppb	74.10	5.51%
Pb 220.353†	358.3	87.903 µg/L	4.8844	87.903 ppb	4.8844	5.56%
S 181.975 Axial†	231.6	960.30 µg/L	33.907	960.30 ppb	33.907	3.53%
Sb 206.836†	8.5	5.6661 µg/L	4.26602	5.6661 ppb	4.26602	75.29%
Se 196.026†	-45.5	150.52 µg/L	4.479	150.52 ppb	4.479	2.98%
SiO2†	304197.6	60045 µg/L	493.2	60045 ppb	493.2	0.82%
Si 251.611†	366018.6	27825 µg/L	226.1	27825 ppb	226.1	0.81%
Sn 189.927†	-30.7	-20.525 µg/L	0.7864	-20.525 ppb	0.7864	3.83%
Sr 421.552†	17933.9	165.44 µg/L	1.621	165.44 ppb	1.621	0.98%
Ti 334.940†	1620851.5	3584.9 µg/L	54.98	3584.9 ppb	54.98	1.53%
Tl 190.801†	-34.2	13.841 µg/L	7.8299	13.841 ppb	7.8299	56.57%
U 409.014†	-502.4	-54.343 µg/L	4.5464	-54.343 ppb	4.5464	8.37%
V 292.402†	15742.8	163.42 µg/L	5.138	163.42 ppb	5.138	3.14%
Zn 213.857†	8078.7	184.56 µg/L	5.478	184.56 ppb	5.478	2.97%

Sequence No.: 28
Sample ID: 245960010|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 224
Date Collected: 2/19/2010 22:58:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960010|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57733.7	57733.7	102	%			22:58:48
1	Al 396.153Radial†	78794.5	77097.5	53633	µg/L	53633	ppb	22:58:48
1	Ca 317.933Radial†	28130.8	27316.3	23333	µg/L	23333	ppb	22:58:48
1	Fe 238.204 Radial†	9296.1	9080.2	71615	µg/L	71615	ppb	22:59:08
1	K 766.490 Radial†	18318.3	17760.5	11600	µg/L	11600	ppb	22:58:48
1	Mg 279.077 IEC†	1173.4	1135.4	10072	µg/L	10072	ppb	22:59:08
1	Na 589.592 Radial†	2041.9	1525.9	468.68	µg/L	468.68	ppb	22:58:48
1	Sr 421.552†	17420.0	17017.7	156.99	µg/L	156.99	ppb	22:58:48
1	Sc 361.383	2026586.7	2026586.7	103.23	%			23:00:12
1	Y 371.029	1440983.7	1440983.7	106.52	%			23:00:12
1	Ag 328.068†	-1242.9	-802.4	-0.6306	µg/L	-0.6306	ppb	23:00:18
1	As 188.979†	3.8	4.1	10.301	µg/L	10.301	ppb	23:00:38
1	B 249.677†	933.2	519.8	-16.094	µg/L	-16.094	ppb	23:00:18
1	Ba 233.527†	39770.1	38541.7	925.50	µg/L	925.50	ppb	23:00:18
1	Be 313.107†	9734.5	12285.3	6.1676	µg/L	6.1676	ppb	23:00:18
1	Cd 226.502†	180.9	316.9	-0.1496	µg/L	-0.1496	ppb	23:00:38
1	Co 228.616†	765.1	739.2	27.323	µg/L	27.323	ppb	23:00:38
1	Cr 267.716†	2771.7	2735.3	55.016	µg/L	55.016	ppb	23:00:38
1	Cu 324.752†	16423.1	13365.0	97.195	µg/L	97.195	ppb	23:00:18
1	Mn 257.610†	660948.0	640505.0	2014.9	µg/L	2014.9	ppb	23:00:12
1	Mo 202.031†	12.5	17.5	4.4308	µg/L	4.4308	ppb	23:00:38
1	Ni 231.604†	1109.3	762.3	38.890	µg/L	38.890	ppb	23:00:38
1	P 214.914†	1652.6	1585.5	3087.0	µg/L	3087.0	ppb	23:00:38
1	Pb 220.353†	2787.9	2609.6	634.47	µg/L	634.47	ppb	23:00:38
1	S 181.975 Axial†	289.2	261.3	1083.4	µg/L	1083.4	ppb	23:00:38
1	Sb 206.836†	37.3	13.7	9.9300	µg/L	9.9300	ppb	23:00:38
1	Se 196.026†	-16.4	-35.2	130.86	µg/L	130.86	ppb	23:00:38
1	SiO2†	335884.6	323974.1	63948	µg/L	63948	ppb	23:00:12
1	Si 251.611†	402931.2	390002.0	29649	µg/L	29649	ppb	23:00:12
1	Sn 189.927†	-16.7	-16.5	-13.537	µg/L	-13.537	ppb	23:00:38
1	Ti 334.940†	1376591.9	1333305.9	2949.1	µg/L	2949.1	ppb	23:00:12
1	Tl 190.801†	-49.2	-25.2	13.237	µg/L	13.237	ppb	23:00:38
1	U 409.014†	-161.1	-79.0	-17.942	µg/L	-17.942	ppb	23:00:18
1	V 292.402†	12822.8	12466.0	130.05	µg/L	130.05	ppb	23:00:18
1	Zn 213.857†	11615.7	10717.6	247.16	µg/L	247.16	ppb	23:00:18
2	Sc RADIAL	58059.5	58059.5	103	%			22:59:13
2	Al 396.153Radial†	78779.8	76650.5	53322	µg/L	53322	ppb	22:59:13
2	Ca 317.933Radial†	28032.5	27066.1	23119	µg/L	23119	ppb	22:59:13
2	Fe 238.204 Radial†	9238.8	8973.4	70773	µg/L	70773	ppb	22:59:34
2	K 766.490 Radial†	18359.5	17700.0	11560	µg/L	11560	ppb	22:59:13
2	Mg 279.077 IEC†	1164.4	1120.3	9938.1	µg/L	9938.1	ppb	22:59:34
2	Na 589.592 Radial†	2049.9	1522.5	467.63	µg/L	467.63	ppb	22:59:13
2	Sr 421.552†	17426.6	16928.5	156.17	µg/L	156.17	ppb	22:59:13
2	Sc 361.383	2017133.9	2017133.9	102.75	%			23:00:46
2	Y 371.029	1434467.2	1434467.2	106.04	%			23:00:46
2	Ag 328.068†	-1188.9	-755.4	-0.3286	µg/L	-0.3286	ppb	23:00:51
2	As 188.979†	11.1	11.3	23.134	µg/L	23.134	ppb	23:01:12
2	B 249.677†	917.9	509.2	-16.089	µg/L	-16.089	ppb	23:00:51
2	Ba 233.527†	39836.8	38787.2	931.39	µg/L	931.39	ppb	23:00:51
2	Be 313.107†	9681.5	12278.0	6.1551	µg/L	6.1551	ppb	23:00:51
2	Cd 226.502†	164.1	301.4	-0.4426	µg/L	-0.4426	ppb	23:01:12
2	Co 228.616†	757.3	735.1	27.093	µg/L	27.093	ppb	23:01:12
2	Cr 267.716†	2748.6	2725.4	54.818	µg/L	54.818	ppb	23:01:12
2	Cu 324.752†	16545.6	13558.8	98.342	µg/L	98.342	ppb	23:00:51
2	Mn 257.610†	663090.9	645590.9	2030.7	µg/L	2030.7	ppb	23:00:46
2	Mo 202.031†	11.1	16.2	4.2742	µg/L	4.2742	ppb	23:01:12
2	Ni 231.604†	1087.3	745.9	38.061	µg/L	38.061	ppb	23:01:12
2	P 214.914†	1669.9	1609.8	3135.6	µg/L	3135.6	ppb	23:01:12
2	Pb 220.353†	2787.2	2621.7	637.39	µg/L	637.39	ppb	23:01:12

2	S 181.975 Axial†	291.9	265.1	1099.6 µg/L	1099.6 ppb	23:01:12
2	Sb 206.836†	36.7	13.2	9.4985 µg/L	9.4985 ppb	23:01:12
2	Se 196.026†	-25.9	-44.5	115.61 µg/L	115.61 ppb	23:01:12
2	SiO2†	336662.4	326255.8	64399 µg/L	64399 ppb	23:00:46
2	Si 251.611†	403611.6	392493.2	29838 µg/L	29838 ppb	23:00:46
2	Sn 189.927†	-23.5	-23.2	-16.278 µg/L	-16.278 ppb	23:01:12
2	Ti 334.940†	1380146.9	1343014.8	2970.6 µg/L	2970.6 ppb	23:00:46
2	Tl 190.801†	-52.6	-28.9	8.6662 µg/L	8.6662 ppb	23:01:12
2	U 409.014†	-53.8	24.7	-9.1961 µg/L	-9.1961 ppb	23:00:51
2	V 292.402†	12875.5	12575.5	131.02 µg/L	131.02 ppb	23:00:51
2	Zn 213.857†	11603.1	10758.0	248.16 µg/L	248.16 ppb	23:00:51
3	Sc RADIAL	58402.8	58402.8	103 %		22:59:39
3	Al 396.153Radial†	78235.3	75673.2	52642 µg/L	52642 ppb	22:59:39
3	Ca 317.933Radial†	27851.8	26731.0	22833 µg/L	22833 ppb	22:59:39
3	Fe 238.204 Radial†	9224.9	8907.1	70250 µg/L	70250 ppb	23:00:00
3	K 766.490 Radial†	18302.9	17540.2	11456 µg/L	11456 ppb	22:59:39
3	Mg 279.077 IEC†	1176.4	1125.2	9982.5 µg/L	9982.5 ppb	23:00:00
3	Na 589.592 Radial†	2027.1	1488.8	457.26 µg/L	457.26 ppb	22:59:39
3	Sr 421.552†	17307.3	16713.3	154.18 µg/L	154.18 ppb	22:59:39
3	Sc 361.383	2020216.4	2020216.4	102.91 %		23:01:19
3	Y 371.029	1433903.7	1433903.7	106.00 %		23:01:19
3	Ag 328.068†	-1144.4	-710.5	-0.0786 µg/L	-0.0786 ppb	23:01:24
3	As 188.979†	6.4	6.6	14.781 µg/L	14.781 ppb	23:01:45
3	B 249.677†	888.6	479.3	-17.041 µg/L	-17.041 ppb	23:01:24
3	Ba 233.527†	37781.3	36730.5	882.00 µg/L	882.00 ppb	23:01:24
3	Be 313.107†	8974.7	11576.8	5.7852 µg/L	5.7852 ppb	23:01:24
3	Cd 226.502†	154.6	291.9	-0.6229 µg/L	-0.6229 ppb	23:01:45
3	Co 228.616†	685.4	664.1	24.128 µg/L	24.128 ppb	23:01:45
3	Cr 267.716†	2466.8	2447.5	49.230 µg/L	49.230 ppb	23:01:45
3	Cu 324.752†	15715.7	12727.8	92.845 µg/L	92.845 ppb	23:01:24
3	Mn 257.610†	639471.4	621654.3	1955.7 µg/L	1955.7 ppb	23:01:19
3	Mo 202.031†	8.3	13.4	3.9833 µg/L	3.9833 ppb	23:01:45
3	Ni 231.604†	1024.1	682.8	34.917 µg/L	34.917 ppb	23:01:45
3	P 214.914†	1523.1	1464.7	2849.1 µg/L	2849.1 ppb	23:01:45
3	Pb 220.353†	2609.3	2444.6	594.34 µg/L	594.34 ppb	23:01:45
3	S 181.975 Axial†	269.7	243.2	1008.5 µg/L	1008.5 ppb	23:01:45
3	Sb 206.836†	31.1	7.7	4.5490 µg/L	4.5490 ppb	23:01:45
3	Se 196.026†	-17.3	-36.1	126.04 µg/L	126.04 ppb	23:01:45
3	SiO2†	327963.5	317302.8	62631 µg/L	62631 ppb	23:01:19
3	Si 251.611†	393328.9	381901.8	29033 µg/L	29033 ppb	23:01:19
3	Sn 189.927†	-17.2	-17.1	-13.652 µg/L	-13.652 ppb	23:01:45
3	Ti 334.940†	1325776.3	1288131.4	2849.2 µg/L	2849.2 ppb	23:01:19
3	Tl 190.801†	-57.7	-33.7	0.9108 µg/L	0.9108 ppb	23:01:45
3	U 409.014†	-15.6	61.9	-6.0163 µg/L	-6.0163 ppb	23:01:24
3	V 292.402†	12095.6	11798.5	123.38 µg/L	123.38 ppb	23:01:24
3	Zn 213.857†	10997.9	10152.7	234.00 µg/L	234.00 ppb	23:01:24

Mean Data: 245960010|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2021312.3	102.96	%	0.246				0.24%
Sc RADIAL	58065.3	103	%	0.6				0.58%
Y 371.029	1436451.5	106.19	%	0.291				0.27%
Ag 328.068†	-756.1	-0.3459	µg/L	0.27640	-0.3459	ppb	0.27640	79.90%
Al 396.153Radial†	76473.7	53199	µg/L	506.7	53199	ppb	506.7	0.95%
As 188.979†	7.3	16.072	µg/L	6.5127	16.072	ppb	6.5127	40.52%
B 249.677†	502.8	-16.408	µg/L	0.5483	-16.408	ppb	0.5483	3.34%
Ba 233.527†	38019.8	912.96	µg/L	26.974	912.96	ppb	26.974	2.95%
Be 313.107†	12046.7	6.0359	µg/L	0.21728	6.0359	ppb	0.21728	3.60%
Ca 317.933Radial†	27037.8	23095	µg/L	250.8	23095	ppb	250.8	1.09%
Cd 226.502†	303.4	-0.4050	µg/L	0.23890	-0.4050	ppb	0.23890	58.98%
Co 228.616†	712.8	26.181	µg/L	1.7824	26.181	ppb	1.7824	6.81%
Cr 267.716†	2636.1	53.021	µg/L	3.2846	53.021	ppb	3.2846	6.19%
Cu 324.752†	13217.2	96.127	µg/L	2.8998	96.127	ppb	2.8998	3.02%
Fe 238.204 Radial†	8986.9	70879	µg/L	688.7	70879	ppb	688.7	0.97%
K 766.490 Radial†	17666.9	11539	µg/L	74.3	11539	ppb	74.3	0.64%
Mg 279.077 IEC†	1126.9	9997.7	µg/L	68.40	9997.7	ppb	68.40	0.68%
Mn 257.610†	635916.7	2000.4	µg/L	39.55	2000.4	ppb	39.55	1.98%
Mo 202.031†	15.7	4.2294	µg/L	0.22705	4.2294	ppb	0.22705	5.37%
Na 589.592 Radial†	1512.4	464.52	µg/L	6.311	464.52	ppb	6.311	1.36%

Ni 231.604†	730.3	37.289 µg/L	2.0956	37.289 ppb	2.0956	5.62%
P 214.914†	1553.3	3023.9 µg/L	153.32	3023.9 ppb	153.32	5.07%
Pb 220.353†	2558.6	622.07 µg/L	24.055	622.07 ppb	24.055	3.87%
S 181.975 Axial†	256.5	1063.8 µg/L	48.60	1063.8 ppb	48.60	4.57%
Sb 206.836†	11.5	7.9925 µg/L	2.98995	7.9925 ppb	2.98995	37.41%
Se 196.026†	-38.6	124.17 µg/L	7.795	124.17 ppb	7.795	6.28%
SiO2†	322510.9	63659 µg/L	918.3	63659 ppb	918.3	1.44%
Si 251.611†	388132.3	29507 µg/L	421.0	29507 ppb	421.0	1.43%
Sn 189.927†	-19.0	-14.489 µg/L	1.5501	-14.489 ppb	1.5501	10.70%
Sr 421.552†	16886.5	155.78 µg/L	1.443	155.78 ppb	1.443	0.93%
Ti 334.940†	1321484.0	2923.0 µg/L	64.80	2923.0 ppb	64.80	2.22%
Tl 190.801†	-29.3	7.6046 µg/L	6.23116	7.6046 ppb	6.23116	81.94%
U 409.014†	2.5	-11.051 µg/L	6.1755	-11.051 ppb	6.1755	55.88%
V 292.402†	12280.0	128.15 µg/L	4.161	128.15 ppb	4.161	3.25%
Zn 213.857†	10542.7	243.11 µg/L	7.901	243.11 ppb	7.901	3.25%

Sequence No.: 29
Sample ID: 245960011|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 225
Date Collected: 2/19/2010 23:01:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960011|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58311.5	58311.5	103	%			23:02:27
1	Al 396.153Radial†	194329.5	188270.4	130970	µg/L	130970	ppb	23:02:27
1	Ca 317.933Radial†	36745.0	35389.4	30229	µg/L	30229	ppb	23:02:47
1	Fe 238.204 Radial†	17480.8	16919.9	133450	µg/L	133450	ppb	23:02:47
1	K 766.490 Radial†	27578.2	26554.4	17343	µg/L	17343	ppb	23:02:27
1	Mg 279.077 IEC†	2575.9	2482.9	22051	µg/L	22051	ppb	23:02:47
1	Na 589.592 Radial†	3599.1	3014.8	925.99	µg/L	925.99	ppb	23:02:47
1	Sr 421.552†	35962.5	34813.7	321.16	µg/L	321.16	ppb	23:02:27
1	Sc 361.383	1994684.2	1994684.2	101.61	%			23:03:53
1	Y 371.029	1417418.6	1417418.6	104.78	%			23:03:53
1	Ag 328.068†	-2026.7	-1593.0	-1.7294	µg/L	-1.7294	ppb	23:03:58
1	As 188.979†	16.6	16.8	36.225	µg/L	36.225	ppb	23:04:19
1	B 249.677†	1264.5	860.4	-34.401	µg/L	-34.401	ppb	23:03:58
1	Ba 233.527†	84822.3	83497.1	2005.0	µg/L	2005.0	ppb	23:03:58
1	Be 313.107†	21763.6	24274.9	12.497	µg/L	12.497	ppb	23:03:58
1	Cd 226.502†	364.4	500.3	-2.5250	µg/L	-2.5250	ppb	23:04:19
1	Co 228.616†	1437.0	1412.3	53.493	µg/L	53.493	ppb	23:04:19
1	Cr 267.716†	5124.0	5093.3	102.46	µg/L	102.46	ppb	23:03:58
1	Cu 324.752†	10563.6	7852.7	69.807	µg/L	69.807	ppb	23:03:58
1	Mn 257.610†	1111143.6	1093816.6	3442.2	µg/L	3442.2	ppb	23:03:53
1	Mo 202.031†	-21.8	-16.1	3.4946	µg/L	3.4946	ppb	23:04:19
1	Ni 231.604†	1867.4	1525.5	77.705	µg/L	77.705	ppb	23:04:19
1	P 214.914†	827.4	798.9	1505.4	µg/L	1505.4	ppb	23:04:19
1	Pb 220.353†	630.4	529.5	130.88	µg/L	130.88	ppb	23:04:19
1	S 181.975 Axial†	148.9	127.6	529.04	µg/L	529.04	ppb	23:04:19
1	Sb 206.836†	44.0	20.8	15.288	µg/L	15.288	ppb	23:04:19
1	Se 196.026†	-57.4	-75.8	230.11	µg/L	230.11	ppb	23:04:19
1	SiO2†	355406.0	348390.4	68768	µg/L	68768	ppb	23:03:53
1	Si 251.611†	426215.8	419160.6	31865	µg/L	31865	ppb	23:03:53
1	Sn 189.927†	-48.6	-48.2	-32.083	µg/L	-32.083	ppb	23:04:19
1	Ti 334.940†	2303536.3	2266909.6	5013.6	µg/L	5013.6	ppb	23:03:53
1	Tl 190.801†	-75.1	-51.5	17.174	µg/L	17.174	ppb	23:04:19
1	U 409.014†	-1482.3	-1381.7	-135.19	µg/L	-135.19	ppb	23:03:53
1	V 292.402†	26249.5	25878.9	268.01	µg/L	268.01	ppb	23:03:58
1	Zn 213.857†	12605.5	11871.6	270.51	µg/L	270.51	ppb	23:03:58
2	Sc RADIAL	58012.2	58012.2	103	%			23:02:53
2	Al 396.153Radial†	194388.0	189298.8	131690	µg/L	131690	ppb	23:02:53
2	Ca 317.933Radial†	36994.1	35815.7	30593	µg/L	30593	ppb	23:03:14
2	Fe 238.204 Radial†	17574.9	17098.8	134860	µg/L	134860	ppb	23:03:14
2	K 766.490 Radial†	27554.2	26668.9	17418	µg/L	17418	ppb	23:02:53
2	Mg 279.077 IEC†	2586.4	2505.9	22256	µg/L	22256	ppb	23:03:14
2	Na 589.592 Radial†	3620.5	3053.7	937.91	µg/L	937.91	ppb	23:03:14
2	Sr 421.552†	35984.6	35015.1	323.02	µg/L	323.02	ppb	23:02:53
2	Sc 361.383	2009474.3	2009474.3	102.36	%			23:04:26
2	Y 371.029	1426306.6	1426306.6	105.44	%			23:04:26
2	Ag 328.068†	-1999.9	-1552.1	-1.3412	µg/L	-1.3412	ppb	23:04:32
2	As 188.979†	7.1	7.4	19.420	µg/L	19.420	ppb	23:04:52
2	B 249.677†	1241.6	828.9	-36.422	µg/L	-36.422	ppb	23:04:32
2	Ba 233.527†	85083.6	83138.0	1996.4	µg/L	1996.4	ppb	23:04:32
2	Be 313.107†	21981.8	24330.4	12.533	µg/L	12.533	ppb	23:04:32
2	Cd 226.502†	362.2	495.6	-2.8044	µg/L	-2.8044	ppb	23:04:52
2	Co 228.616†	1426.7	1391.8	52.583	µg/L	52.583	ppb	23:04:52
2	Cr 267.716†	5172.8	5103.8	102.67	µg/L	102.67	ppb	23:04:32
2	Cu 324.752†	10640.1	7850.9	69.992	µg/L	69.992	ppb	23:04:32
2	Mn 257.610†	1117555.6	1092031.9	3436.8	µg/L	3436.8	ppb	23:04:26
2	Mo 202.031†	-21.6	-15.8	3.5819	µg/L	3.5819	ppb	23:04:52
2	Ni 231.604†	1852.1	1497.0	76.305	µg/L	76.305	ppb	23:04:52
2	P 214.914†	807.5	773.5	1454.2	µg/L	1454.2	ppb	23:04:52
2	Pb 220.353†	637.7	532.0	131.48	µg/L	131.48	ppb	23:04:52

2	S 181.975 Axial†	145.8	123.5	512.06 µg/L	512.06 ppb	23:04:52
2	Sb 206.836†	39.5	16.1	10.966 µg/L	10.966 ppb	23:04:52
2	Se 196.026†	-57.3	-75.3	234.44 µg/L	234.44 ppb	23:04:52
2	SiO2†	357405.5	347769.4	68645 µg/L	68645 ppb	23:04:26
2	Si 251.611†	428508.2	418312.8	31801 µg/L	31801 ppb	23:04:26
2	Sn 189.927†	-49.0	-48.3	-32.253 µg/L	-32.253 ppb	23:04:52
2	Ti 334.940†	2316739.8	2263122.3	5005.2 µg/L	5005.2 ppb	23:04:26
2	Tl 190.801†	-77.5	-53.3	15.004 µg/L	15.004 ppb	23:04:52
2	U 409.014†	-1430.3	-1320.2	-130.30 µg/L	-130.30 ppb	23:04:26
2	V 292.402†	26389.1	25825.1	267.65 µg/L	267.65 ppb	23:04:32
2	Zn 213.857†	12633.2	11807.3	268.93 µg/L	268.93 ppb	23:04:32
3	Sc RADIAL	58193.2	58193.2	103 %		23:03:19
3	Al 396.153Radial†	194421.9	188743.1	131300 µg/L	131300 ppb	23:03:19
3	Ca 317.933Radial†	36790.5	35506.1	30329 µg/L	30329 ppb	23:03:40
3	Fe 238.204 Radial†	17503.9	16976.7	133900 µg/L	133900 ppb	23:03:40
3	K 766.490 Radial†	27529.8	26561.7	17348 µg/L	17348 ppb	23:03:19
3	Mg 279.077 IEC†	2576.2	2488.3	22099 µg/L	22099 ppb	23:03:40
3	Na 589.592 Radial†	3621.0	3043.2	934.69 µg/L	934.69 ppb	23:03:40
3	Sr 421.552†	35977.5	34899.2	321.95 µg/L	321.95 ppb	23:03:19
3	Sc 361.383	1994945.2	1994945.2	101.62 %		23:05:00
3	Y 371.029	1414140.4	1414140.4	104.54 %		23:05:00
3	Ag 328.068†	-1860.6	-1429.3	-0.5787 µg/L	-0.5787 ppb	23:05:06
3	As 188.979†	8.7	9.0	22.296 µg/L	22.296 ppb	23:05:27
3	B 249.677†	1207.7	804.3	-36.928 µg/L	-36.928 ppb	23:05:06
3	Ba 233.527†	80965.7	79691.1	1913.6 µg/L	1913.6 ppb	23:05:06
3	Be 313.107†	20437.5	22967.1	11.802 µg/L	11.802 ppb	23:05:06
3	Cd 226.502†	321.9	458.5	-3.6275 µg/L	-3.6275 ppb	23:05:27
3	Co 228.616†	1293.3	1270.7	47.525 µg/L	47.525 ppb	23:05:27
3	Cr 267.716†	4883.5	4856.0	97.685 µg/L	97.685 ppb	23:05:06
3	Cu 324.752†	10221.1	7514.3	67.661 µg/L	67.661 ppb	23:05:06
3	Mn 257.610†	1071825.7	1054982.9	3320.6 µg/L	3320.6 ppb	23:05:00
3	Mo 202.031†	-23.6	-17.9	3.3377 µg/L	3.3377 ppb	23:05:27
3	Ni 231.604†	1710.3	1370.7	70.001 µg/L	70.001 ppb	23:05:27
3	P 214.914†	751.7	724.3	1357.7 µg/L	1357.7 ppb	23:05:27
3	Pb 220.353†	594.2	493.7	122.18 µg/L	122.18 ppb	23:05:27
3	S 181.975 Axial†	145.3	124.1	514.52 µg/L	514.52 ppb	23:05:27
3	Sb 206.836†	36.7	13.6	8.7517 µg/L	8.7517 ppb	23:05:27
3	Se 196.026†	-42.1	-60.8	252.42 µg/L	252.42 ppb	23:05:27
3	SiO2†	344977.8	338082.8	66733 µg/L	66733 ppb	23:05:00
3	Si 251.611†	413931.8	407017.7	30942 µg/L	30942 ppb	23:05:00
3	Sn 189.927†	-42.4	-42.1	-29.560 µg/L	-29.560 ppb	23:05:27
3	Ti 334.940†	2206103.4	2170734.3	4800.9 µg/L	4800.9 ppb	23:05:00
3	Tl 190.801†	-70.6	-47.1	20.716 µg/L	20.716 ppb	23:05:27
3	U 409.014†	-1377.9	-1278.8	-126.71 µg/L	-126.71 ppb	23:05:00
3	V 292.402†	24826.4	24475.1	254.38 µg/L	254.38 ppb	23:05:06
3	Zn 213.857†	12045.1	11318.5	257.55 µg/L	257.55 ppb	23:05:06

Mean Data: 245960011|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1999701.2	101.86	%	0.431				0.42%
Sc RADIAL	58172.3	103	%	0.3				0.26%
Y 371.029	1419288.5	104.92	%	0.465				0.44%
Ag 328.068†	-1524.8	-1.2164	µg/L	0.58540	-1.2164	ppb	0.58540	48.12%
Al 396.153Radial†	188770.8	131320	µg/L	358.1	131320	ppb	358.1	0.27%
As 188.979†	11.0	25.981	µg/L	8.9875	25.981	ppb	8.9875	34.59%
B 249.677†	831.2	-35.917	µg/L	1.3370	-35.917	ppb	1.3370	3.72%
Ba 233.527†	82108.7	1971.6	µg/L	50.46	1971.6	ppb	50.46	2.56%
Be 313.107†	23857.5	12.277	µg/L	0.4121	12.277	ppb	0.4121	3.36%
Ca 317.933Radial†	35570.4	30383	µg/L	188.2	30383	ppb	188.2	0.62%
Cd 226.502†	484.8	-2.9856	µg/L	0.57319	-2.9856	ppb	0.57319	19.20%
Co 228.616†	1358.3	51.200	µg/L	3.2152	51.200	ppb	3.2152	6.28%
Cr 267.716†	5017.7	100.94	µg/L	2.819	100.94	ppb	2.819	2.79%
Cu 324.752†	7739.3	69.153	µg/L	1.2957	69.153	ppb	1.2957	1.87%
Fe 238.204 Radial†	16998.5	134070	µg/L	721.2	134070	ppb	721.2	0.54%
K 766.490 Radial†	26595.0	17370	µg/L	41.9	17370	ppb	41.9	0.24%
Mg 279.077 IEC†	2492.4	22135	µg/L	107.2	22135	ppb	107.2	0.48%
Mn 257.610†	1080277.1	3399.8	µg/L	68.67	3399.8	ppb	68.67	2.02%
Mo 202.031†	-16.6	3.4714	µg/L	0.12371	3.4714	ppb	0.12371	3.56%
Na 589.592 Radial†	3037.2	932.86	µg/L	6.167	932.86	ppb	6.167	0.66%

Ni 231.604†	1464.4	74.670 µg/L	4.1041	74.670 ppb	4.1041	5.50%
P 214.914†	765.6	1439.1 µg/L	75.03	1439.1 ppb	75.03	5.21%
Pb 220.353†	518.4	128.18 µg/L	5.204	128.18 ppb	5.204	4.06%
S 181.975 Axial†	125.0	518.54 µg/L	9.177	518.54 ppb	9.177	1.77%
Sb 206.836†	16.9	11.669 µg/L	3.3241	11.669 ppb	3.3241	28.49%
Se 196.026†	-70.6	238.99 µg/L	11.831	238.99 ppb	11.831	4.95%
SiO2†	344747.5	68049 µg/L	1140.9	68049 ppb	1140.9	1.68%
Si 251.611†	414830.4	31536 µg/L	515.4	31536 ppb	515.4	1.63%
Sn 189.927†	-46.2	-31.299 µg/L	1.5081	-31.299 ppb	1.5081	4.82%
Sr 421.552†	34909.3	322.04 µg/L	0.932	322.04 ppb	0.932	0.29%
Ti 334.940†	2233588.7	4939.9 µg/L	120.49	4939.9 ppb	120.49	2.44%
Tl 190.801†	-50.6	17.632 µg/L	2.8830	17.632 ppb	2.8830	16.35%
U 409.014†	-1326.9	-130.73 µg/L	4.257	-130.73 ppb	4.257	3.26%
V 292.402†	25393.0	263.35 µg/L	7.770	263.35 ppb	7.770	2.95%
Zn 213.857†	11665.8	265.66 µg/L	7.072	265.66 ppb	7.072	2.66%

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 23:05:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57547.7	57547.7	102	%			23:06:14
1	Al 396.153Radial†	7371.7	7229.5	5018.7	µg/L	5018.7	ppb	23:06:14
1	Ca 317.933Radial†	6105.6	5782.7	4939.5	µg/L	4939.5	ppb	23:06:34
1	Fe 238.204 Radial†	677.8	648.8	5128.1	µg/L	5128.1	ppb	23:06:34
1	K 766.490 Radial†	7884.7	7575.6	4947.8	µg/L	4947.8	ppb	23:06:14
1	Mg 279.077 IEC†	592.4	568.8	5087.4	µg/L	5087.4	ppb	23:06:34
1	Na 589.592 Radial†	33515.4	32430.5	9960.8	µg/L	9960.8	ppb	23:06:14
1	Sr 421.552†	53729.8	52718.8	486.34	µg/L	486.34	ppb	23:06:14
1	Sc 361.383	2017392.3	2017392.3	102.76	%			23:07:38
1	Y 371.029	1390584.4	1390584.4	102.80	%			23:07:38
1	Ag 328.068†	68163.9	66731.8	497.94	µg/L	497.94	ppb	23:07:43
1	As 188.979†	293.3	285.9	511.44	µg/L	511.44	ppb	23:08:04
1	B 249.677†	12721.2	11994.8	487.02	µg/L	487.02	ppb	23:07:43
1	Ba 233.527†	21407.2	20848.3	501.41	µg/L	501.41	ppb	23:07:43
1	Be 313.107†	853098.2	833003.6	494.20	µg/L	494.20	ppb	23:07:38
1	Cd 226.502†	20695.3	20280.2	505.74	µg/L	505.74	ppb	23:07:43
1	Co 228.616†	11453.9	11143.8	504.11	µg/L	504.11	ppb	23:07:43
1	Cr 267.716†	25823.0	25178.7	506.03	µg/L	506.03	ppb	23:07:43
1	Cu 324.752†	81137.5	76410.9	499.48	µg/L	499.48	ppb	23:07:43
1	Mn 257.610†	165189.1	161001.2	504.66	µg/L	504.66	ppb	23:07:38
1	Mo 202.031†	5400.3	5260.4	515.32	µg/L	515.32	ppb	23:08:04
1	Ni 231.604†	10765.7	10163.7	506.12	µg/L	506.12	ppb	23:07:43
1	P 214.914†	1337.7	1286.4	2499.1	µg/L	2499.1	ppb	23:08:04
1	Pb 220.353†	2230.8	2079.9	505.79	µg/L	505.79	ppb	23:08:04
1	S 181.975 Axial†	266.5	240.4	997.09	µg/L	997.09	ppb	23:08:04
1	Sb 206.836†	602.9	564.2	520.17	µg/L	520.17	ppb	23:08:04
1	Se 196.026†	387.5	357.8	510.54	µg/L	510.54	ppb	23:08:04
1	SiO2†	29659.8	27470.3	5422.3	µg/L	5422.3	ppb	23:07:43
1	Si 251.611†	34569.1	33328.5	2533.7	µg/L	2533.7	ppb	23:07:43
1	Sn 189.927†	1265.3	1230.9	519.12	µg/L	519.12	ppb	23:08:04
1	Ti 334.940†	230288.9	223918.6	495.03	µg/L	495.03	ppb	23:07:38
1	Tl 190.801†	382.1	394.2	517.92	µg/L	517.92	ppb	23:08:04
1	U 409.014†	6115.9	6028.5	499.86	µg/L	499.86	ppb	23:07:43
1	V 292.402†	52555.8	51186.7	505.09	µg/L	505.09	ppb	23:07:43
1	Zn 213.857†	22705.6	21560.3	502.26	µg/L	502.26	ppb	23:07:43
2	Sc RADIAL	58133.5	58133.5	103	%			23:06:40
2	Al 396.153Radial†	7400.2	7184.4	4987.5	µg/L	4987.5	ppb	23:06:40
2	Ca 317.933Radial†	6079.1	5696.6	4865.9	µg/L	4865.9	ppb	23:07:00
2	Fe 238.204 Radial†	666.8	631.5	4990.8	µg/L	4990.8	ppb	23:07:00
2	K 766.490 Radial†	7854.7	7468.4	4877.7	µg/L	4877.7	ppb	23:06:40
2	Mg 279.077 IEC†	586.6	557.3	4984.4	µg/L	4984.4	ppb	23:07:00
2	Na 589.592 Radial†	33547.1	32129.7	9868.4	µg/L	9868.4	ppb	23:06:40
2	Sr 421.552†	53696.2	52154.6	481.13	µg/L	481.13	ppb	23:06:40
2	Sc 361.383	2020250.9	2020250.9	102.91	%			23:08:11
2	Y 371.029	1392254.8	1392254.8	102.92	%			23:08:11
2	Ag 328.068†	67963.7	66443.4	495.79	µg/L	495.79	ppb	23:08:17
2	As 188.979†	286.3	278.7	498.54	µg/L	498.54	ppb	23:08:37
2	B 249.677†	12735.8	11991.5	486.95	µg/L	486.95	ppb	23:08:17
2	Ba 233.527†	21372.1	20784.7	499.88	µg/L	499.88	ppb	23:08:17
2	Be 313.107†	852994.2	831727.9	493.45	µg/L	493.45	ppb	23:08:11
2	Cd 226.502†	20623.3	20181.8	503.29	µg/L	503.29	ppb	23:08:17
2	Co 228.616†	11402.9	11078.5	501.14	µg/L	501.14	ppb	23:08:17
2	Cr 267.716†	25758.8	25080.8	504.07	µg/L	504.07	ppb	23:08:17
2	Cu 324.752†	80891.5	76060.2	497.17	µg/L	497.17	ppb	23:08:17
2	Mn 257.610†	165915.6	161479.7	506.14	µg/L	506.14	ppb	23:08:11
2	Mo 202.031†	5271.3	5127.6	502.32	µg/L	502.32	ppb	23:08:37
2	Ni 231.604†	10727.4	10111.7	503.53	µg/L	503.53	ppb	23:08:17
2	P 214.914†	1325.0	1272.2	2471.2	µg/L	2471.2	ppb	23:08:37
2	Pb 220.353†	2215.0	2061.4	501.27	µg/L	501.27	ppb	23:08:37

2	S 181.975 Axial†	262.8	236.5	980.60 µg/L	980.60 ppb	23:08:37
2	Sb 206.836†	582.8	543.8	501.33 µg/L	501.33 ppb	23:08:37
2	Se 196.026†	386.4	356.2	508.06 µg/L	508.06 ppb	23:08:37
2	SiO2†	29491.0	27265.4	5381.8 µg/L	5381.8 ppb	23:08:17
2	Si 251.611†	34394.7	33111.4	2517.2 µg/L	2517.2 ppb	23:08:17
2	Sn 189.927†	1226.1	1191.1	502.33 µg/L	502.33 ppb	23:08:37
2	Ti 334.940†	230974.1	224267.3	495.81 µg/L	495.81 ppb	23:08:11
2	Tl 190.801†	376.6	388.4	510.38 µg/L	510.38 ppb	23:08:37
2	U 409.014†	6158.6	6061.5	502.63 µg/L	502.63 ppb	23:08:17
2	V 292.402†	52563.5	51121.8	504.34 µg/L	504.34 ppb	23:08:17
2	Zn 213.857†	22699.7	21523.3	501.42 µg/L	501.42 ppb	23:08:17
3	Sc RADIAL	58082.9	58082.9	103 %		23:07:06
3	Al 396.153Radial†	7360.7	7152.2	4967.1 µg/L	4967.1 ppb	23:07:06
3	Ca 317.933Radial†	6119.1	5740.6	4903.5 µg/L	4903.5 ppb	23:07:26
3	Fe 238.204 Radial†	671.6	636.7	5030.6 µg/L	5030.6 ppb	23:07:26
3	K 766.490 Radial†	7857.6	7477.9	4883.9 µg/L	4883.9 ppb	23:07:06
3	Mg 279.077 IEC†	592.2	563.2	5035.7 µg/L	5035.7 ppb	23:07:26
3	Na 589.592 Radial†	33558.5	32169.2	9880.5 µg/L	9880.5 ppb	23:07:06
3	Sr 421.552†	53798.8	52299.8	482.47 µg/L	482.47 ppb	23:07:06
3	Sc 361.383	2030492.5	2030492.5	103.43 %		23:08:44
3	Y 371.029	1399481.5	1399481.5	103.45 %		23:08:44
3	Ag 328.068†	61967.1	60312.6	449.89 µg/L	449.89 ppb	23:08:50
3	As 188.979†	236.7	229.3	410.26 µg/L	410.26 ppb	23:09:10
3	B 249.677†	11514.3	10748.1	436.11 µg/L	436.11 ppb	23:08:50
3	Ba 233.527†	18722.2	18118.1	435.73 µg/L	435.73 ppb	23:08:50
3	Be 313.107†	776418.3	753512.1	447.04 µg/L	447.04 ppb	23:08:44
3	Cd 226.502†	17928.8	17475.6	435.72 µg/L	435.72 ppb	23:08:50
3	Co 228.616†	9860.5	9531.4	431.09 µg/L	431.09 ppb	23:08:50
3	Cr 267.716†	21552.8	20888.1	419.81 µg/L	419.81 ppb	23:08:50
3	Cu 324.752†	70553.7	65668.9	429.35 µg/L	429.35 ppb	23:08:50
3	Mn 257.610†	151097.3	146339.8	458.73 µg/L	458.73 ppb	23:08:44
3	Mo 202.031†	4274.6	4138.1	405.42 µg/L	405.42 ppb	23:09:10
3	Ni 231.604†	9262.5	8642.8	430.39 µg/L	430.39 ppb	23:08:50
3	P 214.914†	1088.9	1037.4	2012.0 µg/L	2012.0 ppb	23:09:10
3	Pb 220.353†	1862.8	1710.1	415.78 µg/L	415.78 ppb	23:09:10
3	S 181.975 Axial†	230.4	203.8	845.05 µg/L	845.05 ppb	23:09:10
3	Sb 206.836†	487.9	449.2	413.81 µg/L	413.81 ppb	23:09:10
3	Se 196.026†	331.1	300.8	430.27 µg/L	430.27 ppb	23:09:10
3	SiO2†	26594.8	24320.8	4800.6 µg/L	4800.6 ppb	23:08:50
3	Si 251.611†	30776.4	29444.6	2238.4 µg/L	2238.4 ppb	23:08:50
3	Sn 189.927†	980.5	947.6	399.66 µg/L	399.66 ppb	23:09:10
3	Ti 334.940†	208127.5	201046.7	444.44 µg/L	444.44 ppb	23:08:44
3	Tl 190.801†	323.3	335.0	440.57 µg/L	440.57 ppb	23:09:10
3	U 409.014†	5266.7	5169.0	428.47 µg/L	428.47 ppb	23:08:50
3	V 292.402†	44963.5	43516.4	429.21 µg/L	429.21 ppb	23:08:50
3	Zn 213.857†	19740.8	18551.4	432.13 µg/L	432.13 ppb	23:08:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2022711.9	103.04	%	0.351				0.34%
Sc RADIAL	57921.3	103	%	0.6				0.56%
Y 371.029	1394106.9	103.06	%	0.350				0.34%
Ag 328.068†	64495.9	481.20	µg/L	27.143	481.20	ppb	27.143	5.64%
QC value within limits for Ag 328.068 Recovery = 96.24%								
Al 396.153Radial†	7188.7	4991.1	µg/L	25.95	4991.1	ppb	25.95	0.52%
QC value within limits for Al 396.153Radial Recovery = 99.82%								
As 188.979†	264.6	473.41	µg/L	55.075	473.41	ppb	55.075	11.63%
QC value within limits for As 188.979 Recovery = 94.68%								
B 249.677†	11578.1	470.03	µg/L	29.369	470.03	ppb	29.369	6.25%
QC value within limits for B 249.677 Recovery = 94.01%								
Ba 233.527†	19917.0	479.01	µg/L	37.487	479.01	ppb	37.487	7.83%
QC value within limits for Ba 233.527 Recovery = 95.80%								
Be 313.107†	806081.2	478.23	µg/L	27.011	478.23	ppb	27.011	5.65%
QC value within limits for Be 313.107 Recovery = 95.65%								
Ca 317.933Radial†	5740.0	4903.0	µg/L	36.79	4903.0	ppb	36.79	0.75%
QC value within limits for Ca 317.933Radial Recovery = 98.06%								
Cd 226.502†	19312.5	481.58	µg/L	39.737	481.58	ppb	39.737	8.25%
QC value within limits for Cd 226.502 Recovery = 96.32%								
Co 228.616†	10584.5	478.78	µg/L	41.325	478.78	ppb	41.325	8.63%

QC value within limits for Co 228.616 Recovery = 95.76%

Cr 267.716†	23715.8	476.64 µg/L	49.224	476.64 ppb	49.224	10.33%
QC value within limits for Cr 267.716 Recovery = 95.33%						
Cu 324.752†	72713.4	475.34 µg/L	39.841	475.34 ppb	39.841	8.38%
QC value within limits for Cu 324.752 Recovery = 95.07%						
Fe 238.204 Radial†	639.0	5049.9 µg/L	70.60	5049.9 ppb	70.60	1.40%
QC value within limits for Fe 238.204 Radial Recovery = 101.00%						
K 766.490 Radial†	7507.3	4903.1 µg/L	38.76	4903.1 ppb	38.76	0.79%
QC value within limits for K 766.490 Radial Recovery = 98.06%						
Mg 279.077 IEC†	563.1	5035.8 µg/L	51.50	5035.8 ppb	51.50	1.02%
QC value within limits for Mg 279.077 IEC Recovery = 100.72%						
Mn 257.610†	156273.5	489.84 µg/L	26.952	489.84 ppb	26.952	5.50%
QC value within limits for Mn 257.610 Recovery = 97.97%						
Mo 202.031†	4842.0	474.35 µg/L	60.048	474.35 ppb	60.048	12.66%
QC value within limits for Mo 202.031 Recovery = 94.87%						
Na 589.592 Radial†	32243.1	9903.3 µg/L	50.20	9903.3 ppb	50.20	0.51%
QC value within limits for Na 589.592 Radial Recovery = 99.03%						
Ni 231.604†	9639.4	480.01 µg/L	42.993	480.01 ppb	42.993	8.96%
QC value within limits for Ni 231.604 Recovery = 96.00%						
P 214.914†	1198.7	2327.4 µg/L	273.57	2327.4 ppb	273.57	11.75%
QC value within limits for P 214.914 Recovery = 93.10%						
Pb 220.353†	1950.4	474.28 µg/L	50.715	474.28 ppb	50.715	10.69%
QC value within limits for Pb 220.353 Recovery = 94.86%						
S 181.975 Axial†	226.9	940.92 µg/L	83.427	940.92 ppb	83.427	8.87%
QC value within limits for S 181.975 Axial Recovery = 94.09%						
Sb 206.836†	519.1	478.43 µg/L	56.755	478.43 ppb	56.755	11.86%
QC value within limits for Sb 206.836 Recovery = 95.69%						
Se 196.026†	338.2	482.96 µg/L	45.644	482.96 ppb	45.644	9.45%
QC value within limits for Se 196.026 Recovery = 96.59%						
SiO2†	26352.2	5201.6 µg/L	347.84	5201.6 ppb	347.84	6.69%
QC value within limits for SiO2 Recovery = 97.27%						
Si 251.611†	31961.5	2429.8 µg/L	165.91	2429.8 ppb	165.91	6.83%
QC value within limits for Si 251.611 Recovery = 97.19%						
Sn 189.927†	1123.2	473.71 µg/L	64.673	473.71 ppb	64.673	13.65%
QC value within limits for Sn 189.927 Recovery = 94.74%						
Sr 421.552†	52391.1	483.32 µg/L	2.703	483.32 ppb	2.703	0.56%
QC value within limits for Sr 421.552 Recovery = 96.66%						
Ti 334.940†	216410.9	478.43 µg/L	29.438	478.43 ppb	29.438	6.15%
QC value within limits for Ti 334.940 Recovery = 95.69%						
Tl 190.801†	372.5	489.62 µg/L	42.649	489.62 ppb	42.649	8.71%
QC value within limits for Tl 190.801 Recovery = 97.92%						
U 409.014†	5753.0	476.99 µg/L	42.039	476.99 ppb	42.039	8.81%
QC value within limits for U 409.014 Recovery = 95.40%						
V 292.402†	48608.3	479.54 µg/L	43.595	479.54 ppb	43.595	9.09%
QC value within limits for V 292.402 Recovery = 95.91%						
Zn 213.857†	20545.0	478.60 µg/L	40.255	478.60 ppb	40.255	8.41%
QC value within limits for Zn 213.857 Recovery = 95.72%						

All analyte(s) passed QC.

Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 23:09:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57057.7	57057.7	101	%			23:09:52
1	Al 396.153Radial†	16.4	8.9	6.1575	µg/L	6.1575	ppb	23:09:52
1	Ca 317.933Radial†	206.6	-6.7	-5.7540	µg/L	-5.7540	ppb	23:10:13
1	Fe 238.204 Radial†	21.4	4.6	36.351	µg/L	36.351	ppb	23:10:13
1	K 766.490 Radial†	188.9	22.0	14.383	µg/L	14.383	ppb	23:09:52
1	Mg 279.077 IEC†	12.9	-0.0	-0.3283	µg/L	-0.3283	ppb	23:10:13
1	Na 589.592 Radial†	447.3	-29.3	-8.9850	µg/L	-8.9850	ppb	23:09:52
1	Sr 421.552†	72.3	42.8	0.3950	µg/L	0.3950	ppb	23:09:52
1	Sc 361.383	2009889.0	2009889.0	102.38	%			23:11:15
1	Y 371.029	1389446.2	1389446.2	102.71	%			23:11:15
1	Ag 328.068†	-351.8	58.0	0.4309	µg/L	0.4309	ppb	23:11:20
1	As 188.979†	-0.6	-0.1	-0.1425	µg/L	-0.1425	ppb	23:11:41
1	B 249.677†	354.2	-38.1	-1.5742	µg/L	-1.5742	ppb	23:11:41
1	Ba 233.527†	3.5	20.5	0.4911	µg/L	0.4911	ppb	23:11:41
1	Be 313.107†	-2657.6	259.9	0.1538	µg/L	0.1538	ppb	23:11:20
1	Cd 226.502†	-137.1	7.8	0.1907	µg/L	0.1907	ppb	23:11:41
1	Co 228.616†	3.7	1.7	0.0748	µg/L	0.0748	ppb	23:11:41
1	Cr 267.716†	-72.7	-20.6	-0.4139	µg/L	-0.4139	ppb	23:11:20
1	Cu 324.752†	2570.7	-32.8	-0.2093	µg/L	-0.2093	ppb	23:11:20
1	Mn 257.610†	-93.2	165.0	0.5214	µg/L	0.5214	ppb	23:11:41
1	Mo 202.031†	3.5	8.8	0.8615	µg/L	0.8615	ppb	23:11:41
1	Ni 231.604†	315.5	-4.1	-0.2065	µg/L	-0.2065	ppb	23:11:41
1	P 214.914†	6.9	-8.6	-17.030	µg/L	-17.030	ppb	23:11:41
1	Pb 220.353†	80.2	-12.6	-3.0691	µg/L	-3.0691	ppb	23:11:41
1	S 181.975 Axial†	13.9	-5.3	-22.180	µg/L	-22.180	ppb	23:11:41
1	Sb 206.836†	21.7	-1.3	-1.1333	µg/L	-1.1333	ppb	23:11:41
1	Se 196.026†	18.3	-1.4	-1.9095	µg/L	-1.9095	ppb	23:11:41
1	SiO2†	1515.1	88.3	17.432	µg/L	17.432	ppb	23:11:20
1	Si 251.611†	427.0	106.4	8.0899	µg/L	8.0899	ppb	23:11:41
1	Sn 189.927†	4.7	4.2	1.7607	µg/L	1.7607	ppb	23:11:41
1	Ti 334.940†	771.1	578.1	1.2789	µg/L	1.2789	ppb	23:11:20
1	Tl 190.801†	-21.8	1.1	1.4577	µg/L	1.4577	ppb	23:11:41
1	U 409.014†	-16.0	61.5	5.1011	µg/L	5.1011	ppb	23:11:20
1	V 292.402†	-58.9	-12.8	-0.1096	µg/L	-0.1096	ppb	23:11:20
1	Zn 213.857†	542.3	-4.8	-0.1123	µg/L	-0.1123	ppb	23:11:41
2	Sc RADIAL	57071.4	57071.4	101	%			23:10:18
2	Al 396.153Radial†	8.3	0.9	0.5821	µg/L	0.5821	ppb	23:10:18
2	Ca 317.933Radial†	214.5	1.1	0.8983	µg/L	0.8983	ppb	23:10:39
2	Fe 238.204 Radial†	18.1	1.4	10.777	µg/L	10.777	ppb	23:10:39
2	K 766.490 Radial†	267.4	99.8	65.151	µg/L	65.151	ppb	23:10:18
2	Mg 279.077 IEC†	10.1	-2.8	-24.932	µg/L	-24.932	ppb	23:10:39
2	Na 589.592 Radial†	432.3	-44.2	-13.583	µg/L	-13.583	ppb	23:10:18
2	Sr 421.552†	50.5	21.2	0.1956	µg/L	0.1956	ppb	23:10:18
2	Sc 361.383	2020781.7	2020781.7	102.94	%			23:11:47
2	Y 371.029	1396749.0	1396749.0	103.25	%			23:11:47
2	Ag 328.068†	-396.9	16.1	0.1175	µg/L	0.1175	ppb	23:11:52
2	As 188.979†	0.7	1.2	2.0940	µg/L	2.0940	ppb	23:12:13
2	B 249.677†	344.3	-49.7	-2.0296	µg/L	-2.0296	ppb	23:12:13
2	Ba 233.527†	10.9	27.7	0.6639	µg/L	0.6639	ppb	23:12:13
2	Be 313.107†	-2676.0	256.0	0.1515	µg/L	0.1515	ppb	23:11:52
2	Cd 226.502†	-146.1	-0.3	-0.0086	µg/L	-0.0086	ppb	23:12:13
2	Co 228.616†	4.5	2.5	0.1093	µg/L	0.1093	ppb	23:12:13
2	Cr 267.716†	-64.9	-12.7	-0.2549	µg/L	-0.2549	ppb	23:11:52
2	Cu 324.752†	2583.3	-34.1	-0.2211	µg/L	-0.2211	ppb	23:11:52
2	Mn 257.610†	33.5	288.6	0.9061	µg/L	0.9061	ppb	23:12:13
2	Mo 202.031†	-0.1	5.2	0.5097	µg/L	0.5097	ppb	23:12:13
2	Ni 231.604†	310.4	-10.8	-0.5376	µg/L	-0.5376	ppb	23:12:13
2	P 214.914†	14.3	-1.5	-2.8930	µg/L	-2.8930	ppb	23:12:13
2	Pb 220.353†	90.6	-3.0	-0.7206	µg/L	-0.7206	ppb	23:12:13

2	S 181.975 Axial†	16.0	-3.4	-13.920 µg/L	-13.920 ppb	23:12:13
2	Sb 206.836†	23.1	-0.0	-0.0297 µg/L	-0.0297 ppb	23:12:13
2	Se 196.026†	15.7	-4.0	-5.6316 µg/L	-5.6316 ppb	23:12:13
2	SiO2†	1556.9	120.9	23.873 µg/L	23.873 ppb	23:11:52
2	Si 251.611†	460.7	136.9	10.406 µg/L	10.406 ppb	23:12:13
2	Sn 189.927†	-0.9	-1.2	-0.5120 µg/L	-0.5120 ppb	23:12:13
2	Ti 334.940†	740.4	544.2	1.2058 µg/L	1.2058 ppb	23:11:52
2	Tl 190.801†	-24.4	-1.3	-1.6505 µg/L	-1.6505 ppb	23:12:13
2	U 409.014†	-55.3	23.4	1.9414 µg/L	1.9414 ppb	23:11:52
2	V 292.402†	-83.3	-36.2	-0.3461 µg/L	-0.3461 ppb	23:11:52
2	Zn 213.857†	542.3	-7.6	-0.1746 µg/L	-0.1746 ppb	23:12:13
3	Sc RADIAL	57024.4	57024.4	101 %		23:10:44
3	Al 396.153Radial†	28.2	20.6	14.312 µg/L	14.312 ppb	23:10:44
3	Ca 317.933Radial†	203.6	-9.6	-8.1744 µg/L	-8.1744 ppb	23:11:04
3	Fe 238.204 Radial†	19.9	3.1	24.715 µg/L	24.715 ppb	23:11:04
3	K 766.490 Radial†	255.2	87.8	57.354 µg/L	57.354 ppb	23:10:44
3	Mg 279.077 IEC†	13.0	0.1	0.7509 µg/L	0.7509 ppb	23:11:04
3	Na 589.592 Radial†	480.3	3.7	1.1222 µg/L	1.1222 ppb	23:10:44
3	Sr 421.552†	41.1	11.9	0.1098 µg/L	0.1098 ppb	23:10:44
3	Sc 361.383	2015035.0	2015035.0	102.64 %		23:12:19
3	Y 371.029	1393345.2	1393345.2	103.00 %		23:12:19
3	Ag 328.068†	-399.3	12.6	0.0933 µg/L	0.0933 ppb	23:12:25
3	As 188.979†	1.9	2.3	4.1656 µg/L	4.1656 ppb	23:12:45
3	B 249.677†	334.7	-58.0	-2.3782 µg/L	-2.3782 ppb	23:12:45
3	Ba 233.527†	-4.7	12.5	0.2988 µg/L	0.2988 ppb	23:12:45
3	Be 313.107†	-2569.3	352.6	0.2090 µg/L	0.2090 ppb	23:12:25
3	Cd 226.502†	-138.5	6.8	0.1657 µg/L	0.1657 ppb	23:12:45
3	Co 228.616†	7.6	5.5	0.2480 µg/L	0.2480 ppb	23:12:45
3	Cr 267.716†	-72.8	-20.5	-0.4127 µg/L	-0.4127 ppb	23:12:25
3	Cu 324.752†	2608.3	-2.6	-0.0135 µg/L	-0.0135 ppb	23:12:25
3	Mn 257.610†	-109.2	149.6	0.4717 µg/L	0.4717 ppb	23:12:45
3	Mo 202.031†	8.3	13.4	1.3150 µg/L	1.3150 ppb	23:12:45
3	Ni 231.604†	307.9	-12.4	-0.6185 µg/L	-0.6185 ppb	23:12:45
3	P 214.914†	9.6	-6.0	-11.945 µg/L	-11.945 ppb	23:12:45
3	Pb 220.353†	89.3	-3.9	-0.9624 µg/L	-0.9624 ppb	23:12:45
3	S 181.975 Axial†	17.3	-2.1	-8.6936 µg/L	-8.6936 ppb	23:12:45
3	Sb 206.836†	27.2	4.0	3.6685 µg/L	3.6685 ppb	23:12:45
3	Se 196.026†	14.5	-5.2	-7.2537 µg/L	-7.2537 ppb	23:12:45
3	SiO2†	1511.8	81.3	16.045 µg/L	16.045 ppb	23:12:25
3	Si 251.611†	407.9	86.8	6.5981 µg/L	6.5981 ppb	23:12:45
3	Sn 189.927†	1.5	1.1	0.4522 µg/L	0.4522 ppb	23:12:45
3	Ti 334.940†	528.4	339.7	0.7514 µg/L	0.7514 ppb	23:12:25
3	Tl 190.801†	-23.3	-0.4	-0.4507 µg/L	-0.4507 ppb	23:12:45
3	U 409.014†	10.8	87.6	7.2739 µg/L	7.2739 ppb	23:12:25
3	V 292.402†	-68.0	-21.5	-0.1901 µg/L	-0.1901 ppb	23:12:25
3	Zn 213.857†	544.0	-4.4	-0.1013 µg/L	-0.1013 ppb	23:12:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sc 361.383	2015235.2	102.65	%	0.278				0.27%
Sc RADIAL	57051.2	101	%	0.0				0.04%
Y 371.029	1393180.1	102.99	%	0.270				0.26%
Ag 328.068†	28.9	0.2139	µg/L	0.18832	0.2139	ppb	0.18832	88.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.1	7.0174	µg/L	6.90546	7.0174	ppb	6.90546	98.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.1	2.0390	µg/L	2.15458	2.0390	ppb	2.15458	105.67%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-48.6	-1.9940	µg/L	0.40322	-1.9940	ppb	0.40322	20.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.2	0.4846	µg/L	0.18261	0.4846	ppb	0.18261	37.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	289.5	0.1714	µg/L	0.03254	0.1714	ppb	0.03254	18.99%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.1	-4.3434	µg/L	4.69799	-4.3434	ppb	4.69799	108.16%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.8	0.1159	µg/L	0.10856	0.1159	ppb	0.10856	93.64%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.2	0.1440	µg/L	0.09170	0.1440	ppb	0.09170	63.66%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	-17.9	-0.3605 µg/L	0.09147	-0.3605 ppb	0.09147	25.37%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-23.2	-0.1480 µg/L	0.11660	-0.1480 ppb	0.11660	78.79%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	3.0	23.948 µg/L	12.8041	23.948 ppb	12.8041	53.47%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	69.9	45.629 µg/L	27.3393	45.629 ppb	27.3393	59.92%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.9	-8.1699 µg/L	14.52675	-8.1699 ppb	14.52675	177.81%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	201.0	0.6331 µg/L	0.23777	0.6331 ppb	0.23777	37.56%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	9.1	0.8954 µg/L	0.40369	0.8954 ppb	0.40369	45.08%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-23.3	-7.1485 µg/L	7.52241	-7.1485 ppb	7.52241	105.23%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-9.1	-0.4542 µg/L	0.21833	-0.4542 ppb	0.21833	48.07%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-5.4	-10.623 µg/L	7.1608	-10.623 ppb	7.1608	67.41%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-6.5	-1.5841 µg/L	1.29178	-1.5841 ppb	1.29178	81.55%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-3.6	-14.931 µg/L	6.7999	-14.931 ppb	6.7999	45.54%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	0.9	0.8352 µg/L	2.51500	0.8352 ppb	2.51500	301.14%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-3.6	-4.9316 µg/L	2.73998	-4.9316 ppb	2.73998	55.56%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	96.8	19.116 µg/L	4.1770	19.116 ppb	4.1770	21.85%
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	110.0	8.3647 µg/L	1.91884	8.3647 ppb	1.91884	22.94%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	1.4	0.5669 µg/L	1.14067	0.5669 ppb	1.14067	201.20%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	25.3	0.2335 µg/L	0.14633	0.2335 ppb	0.14633	62.68%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	487.4	1.0787 µg/L	0.28581	1.0787 ppb	0.28581	26.50%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-0.2	-0.2145 µg/L	1.56752	-0.2145 ppb	1.56752	730.70%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	57.5	4.7722 µg/L	2.68141	4.7722 ppb	2.68141	56.19%
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-23.5	-0.2153 µg/L	0.12024	-0.2153 ppb	0.12024	55.85%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-5.6	-0.1294 µg/L	0.03957	-0.1294 ppb	0.03957	30.58%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 25, 2010 21:10:56
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1673
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4426.7	4426.686	125.624	2.8
	Mg	24.0	33968.1	33968.140	360.627	1.1
	Co	58.9	55712.4	55712.441	767.844	1.4
	Rh	102.9	102017.2	102017.216	1333.173	1.3
	In	114.9	112334.6	112334.589	1361.480	1.2
	Pb	208.0	82895.7	82895.659	1277.395	1.5
⌈>	Ba	137.9	106971.7	106971.669	1685.235	1.6
⌊	Ba++	69.0	2397.2	0.022	0.001	3.1
⌈>	Ce	139.9	138161.7	138161.712	925.788	0.7
⌊	CeO	155.9	2844.6	0.021	0.000	1.6
	Bkgd	220.0	6.4	6.400	1.817	28.4

Current Optimization File Data

Current Value	Description
0.80	Nebulizer Gas Flow
4.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
25.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.3	4785.5
Co	59	11	6.0	51167.5
In	115	11	6.8	111813.5

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	582	2080	0.638
Be	9.0	9.0	2035	2080	0.652
Mg	24.0	24.0	5692	2124	0.597
Mg	25.0	25.1	5932	2080	0.693
Mg	26.0	26.1	6174	2120	0.666
Co	58.9	59.0	14165	2170	0.619
Rh	102.9	102.9	24868	2230	0.691
In	114.9	114.9	27795	2260	0.675
Ce	139.9	139.9	33858	2280	0.745
Pb	206.0	206.0	49960	2428	0.744
Pb	207.0	207.0	50135	2385	0.687
Pb	208.0	208.0	50463	2430	0.733
U	238.1	238.0	57717	2470	0.741

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, February 26, 2010 05:50:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\Blank.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7		ug/L		126	
|	Be	9		ug/L		14	
|	B	11		ug/L		1785	
|	Na	23		ug/L		22685	
|	Mg	24		ug/L		6335	
|	Al	27		ug/L		6002	
|	P	31		ug/L		8023	
|	K	39		ug/L		545925	
|	Ca	43		ug/L		316	
>	Sc	45		ug/L		1270510	
|	V	51		ug/L		14063	
|	Cr	52		ug/L		7870	
|	Cr	53		ug/L		139450	
|	Mn	55		ug/L		1956	
|	Fe	57		ug/L		5598	
|	Co	59		ug/L		161	
|	Ni	60		ug/L		82	
|	Cu	63		ug/L		160	
⌊	Cu	65		ug/L		98	
⌈	Zn	66		ug/L		239	
|	Zn	67		ug/L		18403	
|	Zn	68		ug/L		1253	
>	Ge	74		ug/L		280707	
|	As	75		ug/L		488	
|	Se	77		ug/L		8588	
|	Se	82		ug/L		10	
⌊	Kr	83		ug/L		80	
⌈	Sr	88		ug/L		222	
|	Y	89		ug/L		51	
|	Ag	107		ug/L		69	
|	Cd	111		ug/L		22	
|	Cd	114		ug/L		37	
>	In	115		ug/L		151621	
|	Sn	120		ug/L		663	
|	Sb	121		ug/L		1969	
⌊	Sb	123		ug/L		1582	
⌈	Ba	135		ug/L		27	
|	Ba	137		ug/L		54	
|	Ho	165		ug/L		7	
>	Lu	175		ug/L		217268	
|	Tl	205		ug/L		498	
|	Pb	208		ug/L		2219	
|	Bi	209		ug/L		46	
⌊	U	238		ug/L		255	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Bi	209	Simple Linear	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, February 26, 2010 05:55:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\Standard 1.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**10.000**	**ug/L**	0.638	16504	0.013
|	Be	9	**10.000**	**ug/L**	1.800	4680	0.004
|	B	11	**20.000**	**ug/L**	5.882	10140	0.007
|	Na	23	**1000.000**	**ug/L**	1.551	3869748	3.013
|	Mg	24	**1000.000**	**ug/L**	2.342	2958261	2.312
|	Al	27	**1000.000**	**ug/L**	5.102	4638426	3.629
|	P	31	**1000.000**	**ug/L**	0.859	256552	0.195
|	K	39	**1000.000**	**ug/L**	1.162	5325916	3.742
|	Ca	43	**1000.000**	**ug/L**	0.760	11850	0.009
| >	Sc	45		**ug/L**		1276757	1276756.663
|	V	51	**10.000**	**ug/L**	3.287	69497	0.043
|	Cr	52	**10.000**	**ug/L**	1.467	53337	0.036
|	Cr	53		**ug/L**		122139	-0.014
|	Mn	55	**10.000**	**ug/L**	1.622	70697	0.054
|	Fe	57	**1000.000**	**ug/L**	0.713	141337	0.106
|	Co	59	**10.000**	**ug/L**	0.774	50894	0.040
|	Ni	60	**10.000**	**ug/L**	1.888	10902	0.008
|	Cu	63		**ug/L**		25838	0.020
⌊	Cu	65	**10.000**	**ug/L**	1.140	12853	0.010
⌈	Zn	66	**10.000**	**ug/L**	0.257	9041	0.031
|	Zn	67		**ug/L**		16653	-0.007
|	Zn	68		**ug/L**		7550	0.022
| >	Ge	74		**ug/L**		284152	284152.073
|	As	75	**10.000**	**ug/L**	1.396	9167	0.031
|	Se	77		**ug/L**		7691	-0.004
|	Se	82	**10.000**	**ug/L**	2.187	812	0.003
⌊	Kr	83		**ug/L**		66	-0.000
⌈	Sr	88	**10.000**	**ug/L**	0.917	103025	0.678
|	Y	89		**ug/L**		58	0.000
|	Ag	107	**10.000**	**ug/L**	0.412	39789	0.262
|	Cd	111	**10.000**	**ug/L**	0.921	9407	0.062
|	Cd	114		**ug/L**		21631	0.142
| >	In	115		**ug/L**		151551	151551.354
|	Sn	120	**10.000**	**ug/L**	0.342	39784	0.258
|	Sb	121	**10.000**	**ug/L**	2.022	34972	0.218
⌊	Sb	123		**ug/L**		27350	0.170
⌈	Ba	135		**ug/L**		9928	0.045
|	Ba	137	**10.000**	**ug/L**	1.549	17165	0.078
|	Ho	165		**ug/L**		6	-0.000
| >	Lu	175		**ug/L**		219029	219028.647
|	Tl	205	**10.000**	**ug/L**	2.414	76964	0.349
|	Pb	208	**10.000**	**ug/L**	1.774	143898	0.647
|	Bi	209		**ug/L**		73	0.000
⌊	U	238	**10.000**	**ug/L**	1.933	154654	0.705

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, February 26, 2010 06:01:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\Standard 2.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**99.970**	**ug/L**	1.932	138666	0.125
|	Be	9	**100.018**	**ug/L**	1.272	41413	0.037
|	B	11	**200.241**	**ug/L**	0.610	84360	0.074
|	Na	23	**10009.055**	**ug/L**	6.775	36914669	33.163
|	Mg	24	**10001.447**	**ug/L**	5.722	26108338	23.462
|	Al	27	**10000.450**	**ug/L**	3.702	40560277	36.455
|	P	31	**9997.836**	**ug/L**	0.644	2125857	1.905
|	K	39	**10005.454**	**ug/L**	2.286	44536970	39.596
|	Ca	43	**10000.004**	**ug/L**	0.542	100767	0.090
| >	Sc	45		**ug/L**		1112481	1112480.561
|	V	51	**100.010**	**ug/L**	0.677	499789	0.438
|	Cr	52	**100.033**	**ug/L**	0.824	416424	0.368
|	Cr	53		**ug/L**		153319	0.028
|	Mn	55	**99.995**	**ug/L**	0.458	597764	0.536
|	Fe	57	**9996.927**	**ug/L**	0.891	1151858	1.031
|	Co	59	**100.002**	**ug/L**	0.935	443239	0.398
|	Ni	60	**100.005**	**ug/L**	1.285	94838	0.085
|	Cu	63		**ug/L**		224096	0.201
⌊	Cu	65	**99.997**	**ug/L**	0.119	110906	0.100
⌈	Zn	66	**99.938**	**ug/L**	0.716	73805	0.291
|	Zn	67		**ug/L**		26702	0.040
|	Zn	68		**ug/L**		55287	0.214
| >	Ge	74		**ug/L**		252557	252557.059
|	As	75	**100.072**	**ug/L**	0.561	83567	0.329
|	Se	77		**ug/L**		12110	0.017
|	Se	82	**100.016**	**ug/L**	0.608	7250	0.029
⌊	Kr	83		**ug/L**		95	0.000
⌈	Sr	88	**99.975**	**ug/L**	0.621	907025	6.618
|	Y	89		**ug/L**		149	0.001
|	Ag	107	**99.980**	**ug/L**	1.009	352129	2.569
|	Cd	111	**100.010**	**ug/L**	1.745	85739	0.626
|	Cd	114		**ug/L**		197519	1.441
| >	In	115		**ug/L**		137036	137036.303
|	Sn	120	**100.016**	**ug/L**	0.398	359967	2.623
|	Sb	121	**100.084**	**ug/L**	2.160	327619	2.378
⌊	Sb	123		**ug/L**		257801	1.871
⌈	Ba	135		**ug/L**		91448	0.448
|	Ba	137	**100.018**	**ug/L**	1.236	162463	0.796
|	Ho	165		**ug/L**		13	0.000
| >	Lu	175		**ug/L**		204061	204060.953
|	Tl	205	**99.998**	**ug/L**	0.280	711179	3.483
|	Pb	208	**100.002**	**ug/L**	1.251	1324369	6.479
|	Bi	209		**ug/L**		159	0.001
⌊	U	238	**99.950**	**ug/L**	1.213	1369406	6.709

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
>	Sc	45					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Ag	107					
|	Cd	111					
|	Cd	114					
>	In	115					
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
>	Lu	175					
|	Tl	205					
|	Pb	208					
|	Bi	209					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, February 26, 2010 06:07:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 1.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**51.665**	**ug/L**	1.373	74489	0.064
|	Be	9	**51.014**	**ug/L**	1.111	21947	0.019
|	B	11	**102.379**	**ug/L**	0.878	45599	0.038
|	Na	23	**4689.922**	**ug/L**	6.851	17977549	15.539
|	Mg	24	**4986.687**	**ug/L**	4.777	13524249	11.698
|	Al	27	**4859.259**	**ug/L**	2.302	20476821	17.714
|	P	31	**4912.738**	**ug/L**	1.062	1088881	0.936
|	K	39	**4819.141**	**ug/L**	6.266	22534642	19.071
|	Ca	43	**4808.792**	**ug/L**	0.771	50486	0.043
|>	Sc	45		**ug/L**		1155645	1155644.889
|	V	51	**49.080**	**ug/L**	0.699	261285	0.215
|	Cr	52	**50.074**	**ug/L**	0.674	220105	0.184
|	Cr	53		**ug/L**		136686	0.009
|	Mn	55	**51.252**	**ug/L**	1.136	319155	0.275
|	Fe	57	**4919.736**	**ug/L**	1.079	591437	0.507
|	Co	59	**49.180**	**ug/L**	0.437	226493	0.196
|	Ni	60	**51.086**	**ug/L**	0.313	50357	0.044
|	Cu	63		**ug/L**		117624	0.102
⌊	Cu	65	**50.966**	**ug/L**	1.391	58764	0.051
⌈	Zn	66	**51.071**	**ug/L**	0.550	39292	0.149
|	Zn	67		**ug/L**		21331	0.016
|	Zn	68		**ug/L**		30351	0.111
|>	Ge	74		**ug/L**		262377	262377.192
|	As	75	**47.551**	**ug/L**	0.959	41494	0.156
|	Se	77		**ug/L**		9572	0.006
|	Se	82	**50.282**	**ug/L**	1.476	3791	0.014
⌊	Kr	83		**ug/L**		94	0.000
⌈	Sr	88	**51.239**	**ug/L**	0.929	477279	3.392
|	Y	89		**ug/L**		97	0.000
|	Ag	107	**51.589**	**ug/L**	0.618	186514	1.326
|	Cd	111	**49.964**	**ug/L**	1.983	43983	0.313
|	Cd	114		**ug/L**		102043	0.725
|>	In	115		**ug/L**		140669	140669.048
|	Sn	120	**53.097**	**ug/L**	1.534	196442	1.392
|	Sb	121	**52.907**	**ug/L**	2.712	178656	1.257
⌊	Sb	123		**ug/L**		140124	0.986
⌈	Ba	135		**ug/L**		47447	0.229
|	Ba	137	**50.572**	**ug/L**	1.938	83517	0.402
|	Ho	165		**ug/L**		22	0.000
|>	Lu	175		**ug/L**		207457	207456.982
|	Tl	205	**48.470**	**ug/L**	1.810	350650	1.688
|	Pb	208	**50.937**	**ug/L**	2.338	686578	3.300
|	Bi	209		**ug/L**		181	0.001
⌊	U	238	**54.450**	**ug/L**	2.223	758300	3.655

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	103.330				
|	Be	9	102.028				
|	B	11	102.379				
|	Na	23	93.798				
|	Mg	24	99.734				
|	Al	27	96.223				
|	P	31	98.255				
|	K	39	96.383				
|	Ca	43	96.176				
|>	Sc	45			91.0		
|	V	51	98.161				
|	Cr	52	100.148				
|	Cr	53					
|	Mn	55	102.505				
|	Fe	57	98.395				
|	Co	59	98.360				
|	Ni	60	102.173				
|	Cu	63					
⌊	Cu	65	101.932				
⌈	Zn	66	102.142				
|	Zn	67					
|	Zn	68					
|>	Ge	74			93.5		
|	As	75	95.102				
|	Se	77					
|	Se	82	100.564				
⌊	Kr	83					
⌈	Sr	88	102.478				
|	Y	89					
|	Ag	107	103.178				
|	Cd	111	99.928				
|	Cd	114					
|>	In	115			92.8		
|	Sn	120	106.194				
|	Sb	121	105.815				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	101.144				
|	Ho	165					
|>	Lu	175			95.5		
|	Tl	205	96.939				
|	Pb	208	101.874				
|	Bi	209					
⌊	U	238	108.900				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, February 26, 2010 06:13:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 2.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**0.004**	**ug/L**	98.511	133	0.000
|	Be	9	**0.002**	**ug/L**	722.061	15	0.000
|	B	11	**0.765**	**ug/L**	88.503	2141	0.000
|	Na	23	**-0.153**	**ug/L**	146.103	22017	-0.001
|	Mg	24	**-0.331**	**ug/L**	160.658	5334	-0.001
|	Al	27	**0.510**	**ug/L**	91.696	8336	0.002
|	P	31	**1.506**	**ug/L**	75.853	8378	0.000
|	K	39	**1.369**	**ug/L**	617.954	551818	0.005
|	Ca	43	**0.870**	**ug/L**	589.729	325	0.000
| >	Sc	45		**ug/L**		1269043	1269043.380
|	V	51	**0.360**	**ug/L**	125.632	16026	0.002
|	Cr	52	**-0.012**	**ug/L**	310.097	7804	-0.000
|	Cr	53		**ug/L**		142854	0.003
|	Mn	55	**-0.003**	**ug/L**	146.359	1932	-0.000
|	Fe	57	**0.850**	**ug/L**	19.174	5702	0.000
|	Co	59	**0.002**	**ug/L**	36.516	172	0.000
|	Ni	60	**0.008**	**ug/L**	157.020	90	0.000
|	Cu	63		**ug/L**		170	0.000
⌊	Cu	65	**0.012**	**ug/L**	50.591	114	0.000
⌈	Zn	66	**0.024**	**ug/L**	130.095	256	0.000
|	Zn	67		**ug/L**		19157	0.003
|	Zn	68		**ug/L**		1341	0.000
| >	Ge	74		**ug/L**		277939	277938.950
|	As	75	**0.256**	**ug/L**	139.993	717	0.001
|	Se	77		**ug/L**		8673	0.001
|	Se	82	**0.135**	**ug/L**	19.202	21	0.000
⌊	Kr	83		**ug/L**		76	-0.000
⌈	Sr	88	**-0.000**	**ug/L**	105.988	212	-0.000
|	Y	89		**ug/L**		59	0.000
|	Ag	107	**-0.002**	**ug/L**	71.460	61	-0.000
|	Cd	111	**0.002**	**ug/L**	102.723	24	0.000
|	Cd	114		**ug/L**		38	0.000
| >	In	115		**ug/L**		147383	147382.611
|	Sn	120	**0.025**	**ug/L**	73.119	742	0.001
|	Sb	121	**0.155**	**ug/L**	78.074	2453	0.004
⌊	Sb	123		**ug/L**		1925	0.003
⌈	Ba	135		**ug/L**		28	0.000
|	Ba	137	**-0.003**	**ug/L**	114.244	49	-0.000
|	Ho	165		**ug/L**		9	0.000
| >	Lu	175		**ug/L**		216001	216000.810
|	Tl	205	**0.010**	**ug/L**	118.720	571	0.000
|	Pb	208	**0.002**	**ug/L**	87.082	2229	0.000
|	Bi	209		**ug/L**		48	0.000
⌊	U	238	**-0.001**	**ug/L**	474.477	242	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, February 26, 2010 06:19:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 3.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.021**	**ug/L**	2.090	19556	0.015
	Be	9	**0.568**	**ug/L**	4.533	289	0.000
	B	11	**14.861**	**ug/L**	0.935	8988	0.006
	Na	23	**259.699**	**ug/L**	2.177	1139369	0.860
	Mg	24	**14.228**	**ug/L**	11.484	49754	0.033
	Al	27	**30.878**	**ug/L**	2.041	152139	0.113
	P	31	**49.961**	**ug/L**	2.181	20540	0.010
	K	39	**297.000**	**ug/L**	3.563	2082126	1.175
	Ca	43	**216.786**	**ug/L**	1.227	2863	0.002
>	Sc	45		**ug/L**		1297281	1297281.359
	V	51	**10.289**	**ug/L**	0.491	72838	0.045
	Cr	52	**10.699**	**ug/L**	1.453	59109	0.039
	Cr	53		**ug/L**		127807	-0.011
	Mn	55	**5.793**	**ug/L**	1.165	42262	0.031
	Fe	57	**112.822**	**ug/L**	1.621	20809	0.012
	Co	59	**1.111**	**ug/L**	1.461	5903	0.004
	Ni	60	**2.174**	**ug/L**	2.051	2486	0.002
	Cu	63		**ug/L**		3038	0.002
	Cu	65	**1.130**	**ug/L**	3.240	1561	0.001
	Zn	66	**12.000**	**ug/L**	0.622	10336	0.035
	Zn	67		**ug/L**		17481	-0.005
	Zn	68		**ug/L**		8541	0.025
>	Ge	74		**ug/L**		288427	288427.128
	As	75	**5.758**	**ug/L**	2.694	5965	0.019
	Se	77		**ug/L**		7456	-0.005
	Se	82	**6.051**	**ug/L**	5.402	510	0.002
	Kr	83		**ug/L**		73	-0.000
	Sr	88	**11.661**	**ug/L**	2.681	120917	0.772
	Y	89		**ug/L**		58	0.000
	Ag	107	**0.968**	**ug/L**	2.162	3959	0.025
	Cd	111	**1.082**	**ug/L**	4.116	1081	0.007
	Cd	114		**ug/L**		2508	0.016
>	In	115		**ug/L**		156409	156408.612
	Sn	120	**4.975**	**ug/L**	1.140	21084	0.130
	Sb	121	**2.552**	**ug/L**	3.155	11512	0.061
	Sb	123		**ug/L**		8906	0.047
	Ba	135		**ug/L**		2245	0.010
	Ba	137	**2.131**	**ug/L**	1.893	3884	0.017
	Ho	165		**ug/L**		7	-0.000
>	Lu	175		**ug/L**		225763	225762.505
	Tl	205	**1.051**	**ug/L**	1.131	8785	0.037
	Pb	208	**2.237**	**ug/L**	0.686	35025	0.145
	Bi	209		**ug/L**		75	0.000
	U	238	**0.246**	**ug/L**	2.327	3990	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	120.213				
|	Be	9	113.544				
|	B	11	99.072				
|	Na	23	103.880				
|	Mg	24	94.854				
|	Al	27	102.925				
|	P	31	99.921				
|	K	39	99.000				
|	Ca	43	108.393				
\>	Sc	45			102.1		
|	V	51	102.889				
|	Cr	52	106.986				
|	Cr	53					
|	Mn	55	115.851				
|	Fe	57	112.822				
|	Co	59	111.078				
|	Ni	60	108.717				
|	Cu	63					
⌊	Cu	65	113.046				
⌈	Zn	66	119.997				
|	Zn	67					
|	Zn	68					
\>	Ge	74			102.8		
|	As	75	115.170				
|	Se	77					
|	Se	82	121.013				
⌊	Kr	83					
⌈	Sr	88	116.607				
|	Y	89					
|	Ag	107	96.764				
|	Cd	111	108.227				
|	Cd	114					
\>	In	115			103.2		
|	Sn	120	99.492				
|	Sb	121	85.058				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	106.528				
|	Ho	165					
\>	Lu	175			103.9		
|	Tl	205	105.145				
|	Pb	208	111.838				
|	Bi	209					
⌊	U	238	122.904				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, February 26, 2010 06:25:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 4.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**0.126**	**ug/L**	20.273	231	0.000
|	Be	9	**0.104**	**ug/L**	23.672	45	0.000
|	B	11	**-0.974**	**ug/L**	13.646	939	-0.000
|	Na	23	**100919.643**	**ug/L**	3.075	301357933	334.375
|	Mg	24	**105013.769**	**ug/L**	1.832	222007322	246.349
|	Al	27	**106551.430**	**ug/L**	4.925	350007222	388.413
|	P	31	**104298.319**	**ug/L**	0.716	17910527	19.870
|	K	39	**101300.825**	**ug/L**	2.593	361618904	400.892
|	Ca	43	**98337.422**	**ug/L**	0.409	800652	0.888
\>	Sc	45		**ug/L**		901085	901085.246
|	V	51	**0.247**	**ug/L**	207.451	10951	0.001
|	Cr	52	**3.481**	**ug/L**	1.245	17126	0.013
|	Cr	53		**ug/L**		87615	-0.013
|	Mn	55	**6.126**	**ug/L**	0.627	30967	0.033
|	Fe	57	**99716.359**	**ug/L**	0.831	9270387	10.284
|	Co	59	**0.507**	**ug/L**	2.218	1932	0.002
|	Ni	60	**5.060**	**ug/L**	1.907	3941	0.004
|	Cu	63		**ug/L**		5567	0.006
⌊	Cu	65	**5.523**	**ug/L**	1.107	5027	0.006
⌈	Zn	66	**6.915**	**ug/L**	0.884	4273	0.020
|	Zn	67		**ug/L**		13562	0.001
|	Zn	68		**ug/L**		1674	0.004
\>	Ge	74		**ug/L**		203351	203350.597
|	As	75	**0.088**	**ug/L**	168.745	413	0.000
|	Se	77		**ug/L**		7182	0.005
|	Se	82	**-2.630**	**ug/L**	18.151	-146	-0.001
⌊	Kr	83		**ug/L**		254	0.001
⌈	Sr	88	**3.021**	**ug/L**	0.294	23486	0.200
|	Y	89		**ug/L**		341	0.003
|	Ag	107	**0.156**	**ug/L**	6.553	521	0.004
|	Cd	111	**0.714**	**ug/L**	33.833	537	0.004
|	Cd	114		**ug/L**		8795	0.075
\>	In	115		**ug/L**		116595	116595.345
|	Sn	120	**0.201**	**ug/L**	1.856	1125	0.005
|	Sb	121	**-0.280**	**ug/L**	10.998	739	-0.007
⌊	Sb	123		**ug/L**		623	-0.005
⌈	Ba	135		**ug/L**		660	0.003
|	Ba	137	**0.746**	**ug/L**	1.256	1136	0.006
|	Ho	165		**ug/L**		4486	0.024
\>	Lu	175		**ug/L**		183612	183611.924
|	Tl	205	**-0.025**	**ug/L**	3.607	260	-0.001
|	Pb	208	**0.259**	**ug/L**	8.256	4956	0.017
|	Bi	209		**ug/L**		2067	0.011
⌊	U	238	**-0.014**	**ug/L**	2.506	40	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23	100.920				
|	Mg	24	105.014				
|	Al	27	106.551				
|	P	31	104.298				
|	K	39	101.301				
|	Ca	43	98.337				
|>	Sc	45		70.9			
|	V	51					
|	Cr	52	105.494				
|	Cr	53					
|	Mn	55	105.627				
|	Fe	57	99.716				
|	Co	59	215.633				
|	Ni	60	152.880				
|	Cu	63					
⌊	Cu	65	165.363				
⌈	Zn	66	183.917				
|	Zn	67					
|	Zn	68					
|>	Ge	74		72.4			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88	102.057				
|	Y	89					
|	Ag	107					
|	Cd	111	160.819				
|	Cd	114					
|>	In	115		76.9			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	93.525				
|	Ho	165					
|>	Lu	175		84.5			
|	Tl	205					
|	Pb	208	137.046				
|	Bi	209					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 4	Cu	65	ICSA is out of limits
Ge 74 Int Std for QC	Ge	74	
In 115 Int Std for QC	In	115	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, February 26, 2010 06:31:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 5.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.675**	**ug/L**	1.221	23267	0.026
	Be	9	**20.750**	**ug/L**	0.525	6958	0.008
	B	11	**18.158**	**ug/L**	1.563	7339	0.007
	Na	23	**93114.964**	**ug/L**	3.203	277698986	308.516
	Mg	24	**94097.957**	**ug/L**	2.037	198665430	220.742
	Al	27	**92408.223**	**ug/L**	2.269	303153108	336.857
	P	31	**91493.569**	**ug/L**	0.734	15692742	17.431
	K	39	**88768.305**	**ug/L**	0.135	316549620	351.295
	Ca	43	**87701.142**	**ug/L**	0.523	713189	0.792
>	Sc	45		**ug/L**		899994	899994.310
	V	51	**20.185**	**ug/L**	1.302	89553	0.088
	Cr	52	**22.096**	**ug/L**	1.034	78754	0.081
	Cr	53		**ug/L**		91761	-0.008
	Mn	55	**25.006**	**ug/L**	0.277	121976	0.134
	Fe	57	**89038.445**	**ug/L**	0.756	8267922	9.182
	Co	59	**19.848**	**ug/L**	0.567	71256	0.079
	Ni	60	**23.613**	**ug/L**	0.276	18158	0.020
	Cu	63		**ug/L**		38816	0.043
	Cu	65	**23.486**	**ug/L**	1.381	21125	0.023
	Zn	66	**24.195**	**ug/L**	1.601	14477	0.071
	Zn	67		**ug/L**		15101	0.009
	Zn	68		**ug/L**		9655	0.043
>	Ge	74		**ug/L**		202799	202799.049
	As	75	**21.200**	**ug/L**	1.327	14494	0.070
	Se	77		**ug/L**		7475	0.006
	Se	82	**19.328**	**ug/L**	3.317	1131	0.006
	Kr	83		**ug/L**		234	0.001
	Sr	88	**22.542**	**ug/L**	0.884	174671	1.492
	Y	89		**ug/L**		318	0.002
	Ag	107	**19.000**	**ug/L**	1.501	57144	0.488
	Cd	111	**20.023**	**ug/L**	0.621	14667	0.125
	Cd	114		**ug/L**		40357	0.345
>	In	115		**ug/L**		116948	116948.329
	Sn	120	**20.090**	**ug/L**	1.121	62116	0.527
	Sb	121	**20.157**	**ug/L**	0.331	57538	0.479
	Sb	123		**ug/L**		45117	0.375
	Ba	135		**ug/L**		16338	0.087
	Ba	137	**19.469**	**ug/L**	0.948	29155	0.155
	Ho	165		**ug/L**		4098	0.022
>	Lu	175		**ug/L**		187894	187893.956
	Tl	205	**19.011**	**ug/L**	1.046	124833	0.662
	Pb	208	**19.488**	**ug/L**	1.323	239139	1.263
	Bi	209		**ug/L**		2022	0.011
	U	238	**22.170**	**ug/L**	1.643	279819	1.488

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	103.375				
|	Be	9	103.749				
|	B	11	90.792				
|	Na	23	93.115				
|	Mg	24	94.098				
|	Al	27	92.408				
|	P	31	91.494				
|	K	39	88.768				
|	Ca	43	87.701				
|>	Sc	45		70.8			
|	V	51	100.926				
|	Cr	52	94.834				
|	Cr	53					
|	Mn	55	96.924				
|	Fe	57	89.038				
|	Co	59	98.088				
|	Ni	60	104.021				
|	Cu	63					
⌊	Cu	65	100.624				
⌈	Zn	66	101.830				
|	Zn	67					
|	Zn	68					
|>	Ge	74		72.2			
|	As	75	105.998				
|	Se	77					
|	Se	82	96.638				
⌊	Kr	83					
⌈	Sr	88	98.181				
|	Y	89					
|	Ag	107	95.002				
|	Cd	111	97.943				
|	Cd	114					
|>	In	115		77.1			
|	Sn	120	100.449				
|	Sb	121	100.783				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	93.612				
|	Ho	165					
|>	Lu	175		86.5			
|	Tl	205	95.053				
|	Pb	208	96.476				
|	Bi	209					
⌊	U	238	110.851				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
In 115 Int Std for QC	In	115	

QC Action

QC Action Line: Continue

Sample ID: QC Std 5

Report Date/Time: Friday, February 26, 2010 06:33:47

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 06:37:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.268**	**ug/L**	0.896	73915	0.065
	Be	9	**50.343**	**ug/L**	1.074	21241	0.019
	B	11	**97.088**	**ug/L**	3.391	42504	0.036
	Na	23	**4538.176**	**ug/L**	1.352	17065169	15.036
	Mg	24	**4960.643**	**ug/L**	7.779	13191951	11.637
	Al	27	**4758.078**	**ug/L**	3.900	19670970	17.345
	P	31	**4807.572**	**ug/L**	0.622	1045263	0.916
	K	39	**4445.527**	**ug/L**	1.292	20427564	17.593
	Ca	43	**4740.503**	**ug/L**	0.339	48817	0.043
>	Sc	45		**ug/L**		1133476	1133475.771
	V	51	**48.999**	**ug/L**	1.180	255868	0.215
	Cr	52	**49.804**	**ug/L**	0.403	214752	0.183
	Cr	53		**ug/L**		127801	0.003
	Mn	55	**50.662**	**ug/L**	0.433	309428	0.271
	Fe	57	**4885.558**	**ug/L**	0.935	576068	0.504
	Co	59	**49.252**	**ug/L**	0.613	222465	0.196
	Ni	60	**50.843**	**ug/L**	1.356	49151	0.043
	Cu	63		**ug/L**		114665	0.101
	Cu	65	**50.519**	**ug/L**	2.249	57122	0.050
	Zn	66	**51.360**	**ug/L**	1.026	38819	0.150
	Zn	67		**ug/L**		20756	0.015
	Zn	68		**ug/L**		29294	0.109
>	Ge	74		**ug/L**		257785	257784.719
	As	75	**47.006**	**ug/L**	2.392	40301	0.155
	Se	77		**ug/L**		8835	0.004
	Se	82	**50.546**	**ug/L**	1.335	3745	0.014
	Kr	83		**ug/L**		79	0.000
	Sr	88	**50.677**	**ug/L**	1.395	475585	3.354
	Y	89		**ug/L**		94	0.000
	Ag	107	**50.481**	**ug/L**	1.863	183864	1.297
	Cd	111	**49.649**	**ug/L**	3.463	44026	0.311
	Cd	114		**ug/L**		102471	0.723
>	In	115		**ug/L**		141737	141737.432
	Sn	120	**52.872**	**ug/L**	2.236	197065	1.386
	Sb	121	**51.944**	**ug/L**	0.623	176800	1.234
	Sb	123		**ug/L**		138842	0.969
	Ba	135		**ug/L**		47305	0.220
	Ba	137	**48.758**	**ug/L**	1.723	83314	0.388
	Ho	165		**ug/L**		19	0.000
>	Lu	175		**ug/L**		214625	214624.896
	Tl	205	**48.520**	**ug/L**	0.666	363179	1.690
	Pb	208	**50.564**	**ug/L**	1.001	705281	3.276
	Bi	209		**ug/L**		188	0.001
	U	238	**53.515**	**ug/L**	1.739	771171	3.592

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	104.536				
	Be	9	100.687				
	B	11	97.088				
	Na	23	90.764				
	Mg	24	99.213				
	Al	27	94.219				
	P	31	96.151				
	K	39	88.911				
	Ca	43	94.810				
>	Sc	45			89.2		
	V	51	97.998				
	Cr	52	99.608				
	Cr	53					
	Mn	55	101.323				
	Fe	57	97.711				
	Co	59	98.504				
	Ni	60	101.686				
	Cu	63					
	Cu	65	101.037				
	Zn	66	102.719				
	Zn	67					
	Zn	68					
>	Ge	74			91.8		
	As	75	94.012				
	Se	77					
	Se	82	101.092				
	Kr	83					
	Sr	88	101.354				
	Y	89					
	Ag	107	100.962				
	Cd	111	99.297				
	Cd	114					
>	In	115			93.5		
	Sn	120	105.744				
	Sb	121	103.888				
	Sb	123					
	Ba	135					
	Ba	137	97.515				
	Ho	165					
>	Lu	175			98.8		
	Tl	205	97.041				
	Pb	208	101.129				
	Bi	209					
	U	238	107.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 06:43:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.070**	**ug/L**	9.061	239	0.000
	Be	9	**-0.003**	**ug/L**	117.082	13	-0.000
	B	11	**-0.488**	**ug/L**	111.127	1570	-0.000
	Na	23	**3.557**	**ug/L**	46.983	38052	0.012
	Mg	24	**1.858**	**ug/L**	30.250	12005	0.004
	Al	27	**1.054**	**ug/L**	19.249	11004	0.004
	P	31	**1.663**	**ug/L**	95.414	8515	0.000
	K	39	**-3.745**	**ug/L**	263.668	532811	-0.015
	Ca	43	**-1.038**	**ug/L**	353.284	307	-0.000
>	Sc	45		**ug/L**		1284207	1284207.092
	V	51	**0.207**	**ug/L**	196.330	15374	0.001
	Cr	52	**-0.273**	**ug/L**	4.431	6667	-0.001
	Cr	53		**ug/L**		133597	-0.006
	Mn	55	**-0.037**	**ug/L**	14.693	1721	-0.000
	Fe	57	**-2.999**	**ug/L**	36.196	5261	-0.000
	Co	59	**-0.002**	**ug/L**	166.299	155	-0.000
	Ni	60	**-0.008**	**ug/L**	42.687	74	-0.000
	Cu	63		**ug/L**		167	0.000
	Cu	65	**0.005**	**ug/L**	50.672	106	0.000
	Zn	66	**0.045**	**ug/L**	60.848	274	0.000
	Zn	67		**ug/L**		18311	0.000
	Zn	68		**ug/L**		1286	0.000
>	Ge	74		**ug/L**		278705	278705.348
	As	75	**0.797**	**ug/L**	27.637	1216	0.003
	Se	77		**ug/L**		7696	-0.003
	Se	82	**0.043**	**ug/L**	131.154	13	0.000
	Kr	83		**ug/L**		77	-0.000
	Sr	88	**-0.001**	**ug/L**	281.876	220	-0.000
	Y	89		**ug/L**		43	-0.000
	Ag	107	**0.002**	**ug/L**	97.220	80	0.000
	Cd	111	**0.000**	**ug/L**	1943.984	23	0.000
	Cd	114		**ug/L**		38	0.000
>	In	115		**ug/L**		154330	154329.538
	Sn	120	**-0.016**	**ug/L**	58.732	610	-0.000
	Sb	121	**-0.091**	**ug/L**	108.759	1673	-0.002
	Sb	123		**ug/L**		1290	-0.002
	Ba	135		**ug/L**		27	-0.000
	Ba	137	**-0.005**	**ug/L**	17.301	49	-0.000
	Ho	165		**ug/L**		12	0.000
>	Lu	175		**ug/L**		232238	232237.949
	Tl	205	**0.003**	**ug/L**	347.294	559	0.000
	Pb	208	**-0.002**	**ug/L**	23.406	2347	-0.000
	Bi	209		**ug/L**		60	0.000
	U	238	**-0.003**	**ug/L**	106.736	232	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Friday, February 26, 2010 06:48:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 10.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1030.290**	**ug/L**	0.073	1172009	1.283
	Be	9	**1055.505**	**ug/L**	0.317	358598	0.393
	B	11	**-1.507**	**ug/L**	7.257	771	-0.001
	Na	23	**48968.547**	**ug/L**	2.692	148162057	162.247
	Mg	24	**51818.692**	**ug/L**	1.913	111003661	121.560
	Al	27	**50419.739**	**ug/L**	2.105	167835631	183.796
	P	31	**24092.784**	**ug/L**	0.652	4197022	4.590
	K	39	**48105.347**	**ug/L**	3.804	174244241	190.374
	Ca	43	**48835.884**	**ug/L**	0.643	403049	0.441
>	Sc	45		**ug/L**		913154	913153.783
	V	51	**974.339**	**ug/L**	0.268	3908083	4.269
	Cr	52	**970.749**	**ug/L**	0.425	3267656	3.572
	Cr	53		**ug/L**		489394	0.426
	Mn	55	**941.260**	**ug/L**	0.341	4606902	5.044
	Fe	57	**47372.075**	**ug/L**	0.201	4465176	4.885
	Co	59	**941.118**	**ug/L**	0.262	3422650	3.748
	Ni	60	**963.843**	**ug/L**	0.527	749676	0.821
	Cu	63		**ug/L**		1631240	1.786
	Cu	65	**928.793**	**ug/L**	0.162	844959	0.925
	Zn	66	**2238.002**	**ug/L**	0.214	1353662	6.525
	Zn	67		**ug/L**		248701	1.133
	Zn	68		**ug/L**		1005610	4.843
>	Ge	74		**ug/L**		207430	207429.832
	As	75	**929.761**	**ug/L**	0.309	634736	3.058
	Se	77		**ug/L**		28418	0.106
	Se	82	**498.805**	**ug/L**	0.122	29670	0.143
	Kr	83		**ug/L**		157	0.000
	Sr	88	**944.924**	**ug/L**	1.004	7182801	62.548
	Y	89		**ug/L**		346	0.003
	Ag	107	**248.817**	**ug/L**	1.243	734179	6.393
	Cd	111	**977.803**	**ug/L**	1.539	702456	6.117
	Cd	114		**ug/L**		1562394	13.605
>	In	115		**ug/L**		114841	114841.471
	Sn	120	**999.798**	**ug/L**	0.700	3011183	26.216
	Sb	121	**265.780**	**ug/L**	1.228	726795	6.316
	Sb	123		**ug/L**		575653	5.002
	Ba	135		**ug/L**		791773	4.296
	Ba	137	**918.687**	**ug/L**	0.956	1347266	7.311
	Ho	165		**ug/L**		59	0.000
>	Lu	175		**ug/L**		184292	184291.639
	Tl	205	**452.273**	**ug/L**	1.299	2903572	15.753
	Pb	208	**4753.944**	**ug/L**	0.309	56767003	308.022
	Bi	209		**ug/L**		1467	0.008
	U	238	**5010.756**	**ug/L**	0.637	61986383	336.357

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	103.029				
|	Be	9	105.550				
|	B	11					
|	Na	23	97.937				
|	Mg	24	103.637				
|	Al	27	100.839				
|	P	31	96.371				
|	K	39	96.211				
|	Ca	43	97.672				
|>	Sc	45			71.9		
|	V	51	97.434				
|	Cr	52	97.075				
|	Cr	53					
|	Mn	55	94.126				
|	Fe	57	94.744				
|	Co	59	94.112				
|	Ni	60	96.384				
|	Cu	63					
⌊	Cu	65	92.879				
⌈	Zn	66	89.520				
|	Zn	67					
|	Zn	68					
|>	Ge	74			73.9		
|	As	75	92.976				
|	Se	77					
|	Se	82	99.761				
⌊	Kr	83					
⌈	Sr	88	94.492				
|	Y	89					
|	Ag	107	99.527				
|	Cd	111	97.780				
|	Cd	114					
|>	In	115			75.7		
|	Sn	120	99.980				
|	Sb	121	106.312				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	91.869				
|	Ho	165					
|>	Lu	175			84.8		
|	Tl	205	90.455				
|	Pb	208	95.079				
|	Bi	209					
⌊	U	238	100.215				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 10	Zn	66	LRS is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74	
In 115 Int Std for QC	In	115	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Friday, February 26, 2010 06:54:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 11.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.079**	**ug/L**	0.160	73424	0.065
	Be	9	**50.652**	**ug/L**	0.759	21309	0.019
	B	11	**97.709**	**ug/L**	3.239	42637	0.036
	Na	23	**4350.083**	**ug/L**	4.270	16310096	14.413
	Mg	24	**4783.217**	**ug/L**	3.070	12684049	11.221
	Al	27	**4650.542**	**ug/L**	6.935	19171069	16.953
	P	31	**4684.110**	**ug/L**	0.922	1015616	0.892
	K	39	**4414.264**	**ug/L**	2.439	20227947	17.469
	Ca	43	**4750.501**	**ug/L**	1.265	48775	0.043
>	Sc	45		**ug/L**		1130102	1130102.365
	V	51	**48.165**	**ug/L**	1.708	250977	0.211
	Cr	52	**49.072**	**ug/L**	0.405	211070	0.181
	Cr	53		**ug/L**		119507	-0.004
	Mn	55	**50.521**	**ug/L**	0.627	307662	0.271
	Fe	57	**4900.808**	**ug/L**	0.546	576160	0.505
	Co	59	**49.620**	**ug/L**	0.661	223458	0.198
	Ni	60	**50.517**	**ug/L**	0.729	48694	0.043
	Cu	63		**ug/L**		114029	0.101
	Cu	65	**50.294**	**ug/L**	0.914	56706	0.050
	Zn	66	**51.677**	**ug/L**	1.594	38622	0.151
	Zn	67		**ug/L**		20880	0.016
	Zn	68		**ug/L**		29191	0.110
>	Ge	74		**ug/L**		254918	254917.916
	As	75	**47.489**	**ug/L**	1.410	40261	0.156
	Se	77		**ug/L**		7604	-0.001
	Se	82	**50.682**	**ug/L**	1.834	3713	0.015
	Kr	83		**ug/L**		75	0.000
	Sr	88	**49.829**	**ug/L**	1.548	476832	3.298
	Y	89		**ug/L**		82	0.000
	Ag	107	**50.193**	**ug/L**	0.378	186444	1.290
	Cd	111	**49.438**	**ug/L**	1.205	44717	0.309
	Cd	114		**ug/L**		104135	0.720
>	In	115		**ug/L**		144520	144520.351
	Sn	120	**53.161**	**ug/L**	0.798	202078	1.394
	Sb	121	**51.716**	**ug/L**	2.240	179471	1.229
	Sb	123		**ug/L**		141115	0.966
	Ba	135		**ug/L**		47653	0.216
	Ba	137	**47.893**	**ug/L**	1.046	84035	0.381
	Ho	165		**ug/L**		18	0.000
>	Lu	175		**ug/L**		220360	220359.878
	Tl	205	**48.370**	**ug/L**	1.378	371710	1.685
	Pb	208	**50.057**	**ug/L**	2.171	716831	3.243
	Bi	209		**ug/L**		195	0.001
	U	238	**53.289**	**ug/L**	1.020	788548	3.577

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	104.158				
|	Be	9	101.305				
|	B	11	97.709				
|	Na	23	87.002				
|	Mg	24	95.664				
|	Al	27	92.090				
|	P	31	93.682				
|	K	39	88.285				
|	Ca	43	95.010				
|>	Sc	45		88.9			
|	V	51	96.330				
|	Cr	52	98.144				
|	Cr	53					
|	Mn	55	101.041				
|	Fe	57	98.016				
|	Co	59	99.239				
|	Ni	60	101.035				
|	Cu	63					
⌊	Cu	65	100.588				
⌈	Zn	66	103.354				
|	Zn	67					
|	Zn	68					
|>	Ge	74		90.8			
|	As	75	94.979				
|	Se	77					
|	Se	82	101.363				
⌊	Kr	83					
⌈	Sr	88	99.657				
|	Y	89					
|	Ag	107	100.386				
|	Cd	111	98.877				
|	Cd	114					
|>	In	115		95.3			
|	Sn	120	106.323				
|	Sb	121	103.432				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	95.786				
|	Ho	165					
|>	Lu	175		101.4			
|	Tl	205	96.740				
|	Pb	208	100.114				
|	Bi	209					
⌊	U	238	106.578				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Na	23	CCV is out of limits (+/- 10%)
QC Std 11	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Friday, February 26, 2010 07:00:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 12.138

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.131**	**ug/L**	6.897	328	0.000
	Be	9	**0.030**	**ug/L**	16.700	28	0.000
	B	11	**-0.534**	**ug/L**	86.040	1503	-0.000
	Na	23	**2.380**	**ug/L**	79.857	32037	0.008
	Mg	24	**1.961**	**ug/L**	122.823	12006	0.005
	Al	27	**1.053**	**ug/L**	25.334	10671	0.004
	P	31	**1.281**	**ug/L**	48.572	8177	0.000
	K	39	**-2.702**	**ug/L**	28.811	522380	-0.011
	Ca	43	**-0.769**	**ug/L**	170.464	301	-0.000
>	Sc	45		**ug/L**		1246759	1246759.433
	V	51	**-0.267**	**ug/L**	140.783	12336	-0.001
	Cr	52	**-0.345**	**ug/L**	8.090	6138	-0.001
	Cr	53		**ug/L**		121754	-0.012
	Mn	55	**-0.028**	**ug/L**	20.681	1731	-0.000
	Fe	57	**-5.017**	**ug/L**	17.331	4849	-0.001
	Co	59	**0.032**	**ug/L**	2.767	319	0.000
	Ni	60	**0.029**	**ug/L**	31.613	112	0.000
	Cu	63		**ug/L**		225	0.000
	Cu	65	**0.035**	**ug/L**	24.466	140	0.000
	Zn	66	**0.261**	**ug/L**	27.404	446	0.001
	Zn	67		**ug/L**		17796	-0.001
	Zn	68		**ug/L**		1437	0.001
>	Ge	74		**ug/L**		276726	276726.352
	As	75	**0.001**	**ug/L**	43750.466	482	0.000
	Se	77		**ug/L**		6503	-0.007
	Se	82	**-0.023**	**ug/L**	394.384	8	-0.000
	Kr	83		**ug/L**		83	0.000
	Sr	88	**0.005**	**ug/L**	80.447	281	0.000
	Y	89		**ug/L**		41	-0.000
	Ag	107	**0.001**	**ug/L**	408.125	74	0.000
	Cd	111	**0.005**	**ug/L**	37.891	28	0.000
	Cd	114		**ug/L**		48	0.000
>	In	115		**ug/L**		155738	155737.904
	Sn	120	**0.191**	**ug/L**	16.826	1458	0.005
	Sb	121	**0.009**	**ug/L**	1121.363	2052	0.000
	Sb	123		**ug/L**		1605	-0.000
	Ba	135		**ug/L**		33	0.000
	Ba	137	**0.009**	**ug/L**	159.095	74	0.000
	Ho	165		**ug/L**		9	0.000
>	Lu	175		**ug/L**		229769	229769.232
	Tl	205	**0.153**	**ug/L**	16.960	1748	0.005
	Pb	208	**0.011**	**ug/L**	87.789	2506	0.001
	Bi	209		**ug/L**		55	0.000
	U	238	**0.066**	**ug/L**	25.346	1284	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032573
Sample Date/Time: Friday, February 26, 2010 07:06:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032573.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.066**	**ug/L**	5.544	224	0.000
	Be	9	**0.096**	**ug/L**	23.143	58	0.000
	B	11	**-1.995**	**ug/L**	9.712	819	-0.001
	Na	23	**12.257**	**ug/L**	20.845	72184	0.041
	Mg	24	**5.232**	**ug/L**	28.601	21350	0.012
	Al	27	**52.209**	**ug/L**	1.419	241017	0.190
	P	31	**16.898**	**ug/L**	20.096	11779	0.003
	K	39	**2.992**	**ug/L**	35.977	545555	0.012
	Ca	43	**14.642**	**ug/L**	9.180	471	0.000
>	Sc	45		**ug/L**		1235666	1235665.550
	V	51	**-1.111**	**ug/L**	22.408	7667	-0.005
	Cr	52	**0.288**	**ug/L**	4.015	8963	0.001
	Cr	53		**ug/L**		74522	-0.049
	Mn	55	**1.383**	**ug/L**	2.044	11061	0.007
	Fe	57	**54.665**	**ug/L**	2.373	12409	0.006
	Co	59	**0.155**	**ug/L**	4.194	920	0.001
	Ni	60	**0.401**	**ug/L**	8.722	502	0.000
	Cu	63		**ug/L**		1259	0.001
	Cu	65	**0.430**	**ug/L**	4.570	626	0.000
	Zn	66	**2.274**	**ug/L**	3.535	2058	0.007
	Zn	67		**ug/L**		10675	-0.027
	Zn	68		**ug/L**		2214	0.004
>	Ge	74		**ug/L**		274979	274978.925
	As	75	**-0.213**	**ug/L**	127.551	285	-0.001
	Se	77		**ug/L**		3615	-0.017
	Se	82	**0.235**	**ug/L**	87.723	28	0.000
	Kr	83		**ug/L**		80	0.000
	Sr	88	**0.277**	**ug/L**	1.921	3146	0.018
	Y	89		**ug/L**		382	0.002
	Ag	107	**0.027**	**ug/L**	2.536	184	0.001
	Cd	111	**0.075**	**ug/L**	6.466	98	0.000
	Cd	114		**ug/L**		195	0.001
>	In	115		**ug/L**		158816	158816.303
	Sn	120	**0.258**	**ug/L**	5.462	1770	0.007
	Sb	121	**-0.304**	**ug/L**	7.067	913	-0.007
	Sb	123		**ug/L**		748	-0.006
	Ba	135		**ug/L**		610	0.002
	Ba	137	**0.517**	**ug/L**	1.742	1050	0.004
	Ho	165		**ug/L**		23	0.000
>	Lu	175		**ug/L**		240748	240747.671
	Tl	205	**0.172**	**ug/L**	4.771	1998	0.006
	Pb	208	**0.252**	**ug/L**	14.178	6388	0.016
	Bi	209		**ug/L**		107	0.000
	U	238	**0.033**	**ug/L**	13.236	817	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032578
Sample Date/Time: Friday, February 26, 2010 07:12:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|40|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032578.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.646**	**ug/L**	1.211	4197	0.003
	Be	9	**18.826**	**ug/L**	1.177	8670	0.007
	B	11	**33.089**	**ug/L**	3.479	16937	0.012
	Na	23	**247.236**	**ug/L**	1.083	1034481	0.819
	Mg	24	**971.569**	**ug/L**	6.931	2823180	2.279
	Al	27	**2840.947**	**ug/L**	5.016	12803477	10.356
	P	31	**184.470**	**ug/L**	3.345	51236	0.035
	K	39	**1036.401**	**ug/L**	0.561	5600391	4.101
	Ca	43	**2339.317**	**ug/L**	1.096	26423	0.021
>	Sc	45		**ug/L**		1235947	1235946.951
	V	51	**25.150**	**ug/L**	2.443	149876	0.110
	Cr	52	**53.813**	**ug/L**	0.369	252404	0.198
	Cr	53		**ug/L**		125767	-0.008
	Mn	55	**142.748**	**ug/L**	0.726	947239	0.765
	Fe	57	**4174.897**	**ug/L**	1.108	537585	0.431
	Co	59	**22.482**	**ug/L**	0.212	110816	0.090
	Ni	60	**32.326**	**ug/L**	0.748	34109	0.028
	Cu	63		**ug/L**		101360	0.082
	Cu	65	**40.798**	**ug/L**	0.540	50327	0.041
	Zn	66	**144.007**	**ug/L**	0.385	115664	0.420
	Zn	67		**ug/L**		31873	0.050
	Zn	68		**ug/L**		84906	0.304
>	Ge	74		**ug/L**		274928	274928.458
	As	75	**25.127**	**ug/L**	3.247	23197	0.083
	Se	77		**ug/L**		8994	0.002
	Se	82	**71.352**	**ug/L**	1.651	5633	0.020
	Kr	83		**ug/L**		80	0.000
	Sr	88	**54.678**	**ug/L**	1.269	556058	3.619
	Y	89		**ug/L**		31129	0.202
	Ag	107	**5.279**	**ug/L**	1.327	20902	0.136
	Cd	111	**14.048**	**ug/L**	0.743	13520	0.088
	Cd	114		**ug/L**		31696	0.206
>	In	115		**ug/L**		153596	153595.924
	Sn	120	**6.444**	**ug/L**	1.000	26621	0.169
	Sb	121	**10.503**	**ug/L**	1.038	40328	0.250
	Sb	123		**ug/L**		31403	0.194
	Ba	135		**ug/L**		46813	0.205
	Ba	137	**45.459**	**ug/L**	1.326	82529	0.362
	Ho	165		**ug/L**		1590	0.007
>	Lu	175		**ug/L**		228017	228017.215
	Tl	205	**29.079**	**ug/L**	1.912	231427	1.013
	Pb	208	**20.726**	**ug/L**	1.312	308486	1.343
	Bi	209		**ug/L**		2527	0.011
	U	238	**0.451**	**ug/L**	3.680	7167	0.030

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
\>	Sc	45		97.3			
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
\>	Ge	74		97.9			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Ag	107					
|	Cd	111					
|	Cd	114					
\>	In	115		101.3			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
\>	Lu	175		104.9			
|	Tl	205					
|	Pb	208					
|	Bi	209					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	110.087				
|	Be	9	106.867				
|	B	11	102.587				
|	Na	23	97.022				
|	Mg	24	100.399				
|	Al	27	98.394				
|	P	31	96.675				
|	K	39	96.836				
|	Ca	43	97.424				
|>	Sc	45			90.6		
|	V	51	97.178				
|	Cr	52	101.766				
|	Cr	53					
|	Mn	55	105.047				
|	Fe	57	101.080				
|	Co	59	102.175				
|	Ni	60	105.812				
|	Cu	63					
⌊	Cu	65	105.160				
⌈	Zn	66	107.336				
|	Zn	67					
|	Zn	68					
|>	Ge	74			92.7		
|	As	75	97.389				
|	Se	77					
|	Se	82	106.945				
⌊	Kr	83					
⌈	Sr	88	104.734				
|	Y	89					
|	Ag	107	104.617				
|	Cd	111	103.497				
|	Cd	114					
|>	In	115			95.1		
|	Sn	120	109.036				
|	Sb	121	108.871				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	100.767				
|	Ho	165					
|>	Lu	175			100.2		
|	Tl	205	99.874				
|	Pb	208	102.015				
|	Bi	209					
⌊	U	238	108.615				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, February 26, 2010 07:24:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 9.142

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌜	Li	7	**0.053**	**ug/L**	26.922	208	0.000
|	Be	9	**0.010**	**ug/L**	45.699	19	0.000
|	B	11	**-0.187**	**ug/L**	309.358	1676	-0.000
|	Na	23	**0.695**	**ug/L**	122.352	25356	0.002
|	Mg	24	**-0.087**	**ug/L**	701.202	6001	-0.000
|	Al	27	**1.619**	**ug/L**	43.827	13340	0.006
|	P	31	**2.444**	**ug/L**	8.187	8532	0.000
|	K	39	**0.568**	**ug/L**	1671.347	543175	0.002
|	Ca	43	**-0.344**	**ug/L**	1213.753	309	-0.000
|>	Sc	45		**ug/L**		1258290	1258289.527
|	V	51	**-0.538**	**ug/L**	59.590	10971	-0.002
|	Cr	52	**-0.322**	**ug/L**	15.056	6306	-0.001
|	Cr	53		**ug/L**		124626	-0.011
|	Mn	55	**-0.035**	**ug/L**	21.018	1702	-0.000
|	Fe	57	**-4.500**	**ug/L**	33.225	4958	-0.000
|	Co	59	**0.012**	**ug/L**	43.331	218	0.000
|	Ni	60	**0.019**	**ug/L**	30.174	101	0.000
|	Cu	63		**ug/L**		191	0.000
⌞	Cu	65	**0.015**	**ug/L**	26.479	116	0.000
⌜	Zn	66	**0.046**	**ug/L**	6.612	274	0.000
|	Zn	67		**ug/L**		17976	-0.001
|	Zn	68		**ug/L**		1373	0.000
|>	Ge	74		**ug/L**		277804	277803.750
|	As	75	**0.105**	**ug/L**	112.412	579	0.000
|	Se	77		**ug/L**		6606	-0.007
|	Se	82	**1.479**	**ug/L**	15.160	128	0.000
⌞	Kr	83		**ug/L**		73	-0.000
⌜	Sr	88	**0.002**	**ug/L**	106.480	248	0.000
|	Y	89		**ug/L**		41	-0.000
|	Ag	107	**0.000**	**ug/L**	2449.316	70	0.000
|	Cd	111	**0.002**	**ug/L**	435.423	24	0.000
|	Cd	114		**ug/L**		42	0.000
|>	In	115		**ug/L**		152030	152030.084
|	Sn	120	**0.067**	**ug/L**	25.811	931	0.002
|	Sb	121	**-0.245**	**ug/L**	27.883	1088	-0.006
⌞	Sb	123		**ug/L**		827	-0.005
⌜	Ba	135		**ug/L**		30	0.000
|	Ba	137	**-0.008**	**ug/L**	63.127	43	-0.000
|	Ho	165		**ug/L**		8	0.000
|>	Lu	175		**ug/L**		226127	226127.228
|	Tl	205	**0.069**	**ug/L**	27.616	1062	0.002
|	Pb	208	**0.002**	**ug/L**	175.918	2341	0.000
|	Bi	209		**ug/L**		60	0.000
⌞	U	238	**0.005**	**ug/L**	78.390	345	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032574
Sample Date/Time: Friday, February 26, 2010 07:36:16
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032574.144

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	17.164	ug/L	0.632	27070	0.021
	Be	9	1.835	ug/L	4.530	875	0.001
	B	11	0.167	ug/L	3.355	1849	0.000
	Na	23	591.853	ug/L	4.329	2493313	1.961
	Mg	24	1777.857	ug/L	1.459	5262732	4.171
	Al	27	6506.609	ug/L	10.715	29895722	23.719
	P	31	322.145	ug/L	1.187	85307	0.061
	K	39	1412.584	ug/L	4.774	7585480	5.590
	Ca	43	3491.034	ug/L	0.685	40055	0.032
>	Sc	45		ug/L		1260256	1260256.276
	V	51	14.615	ug/L	0.427	94644	0.064
	Cr	52	7.940	ug/L	1.046	44625	0.029
	Cr	53		ug/L		75346	-0.050
	Mn	55	373.403	ug/L	0.820	2523458	2.001
	Fe	57	8296.103	ug/L	0.852	1083745	0.856
	Co	59	2.367	ug/L	1.930	12041	0.009
	Ni	60	6.635	ug/L	0.954	7203	0.006
	Cu	63		ug/L		35663	0.028
	Cu	65	14.265	ug/L	1.498	18005	0.014
	Zn	66	62.268	ug/L	0.939	49785	0.182
	Zn	67		ug/L		17443	-0.002
	Zn	68		ug/L		37506	0.133
>	Ge	74		ug/L		272954	272954.082
	As	75	2.452	ug/L	16.769	2676	0.008
	Se	77		ug/L		4002	-0.016
	Se	82	0.923	ug/L	10.194	82	0.000
	Kr	83		ug/L		162	0.000
	Sr	88	13.136	ug/L	1.466	138573	0.870
	Y	89		ug/L		793290	4.986
	Ag	107	0.546	ug/L	1.548	2304	0.014
	Cd	111	1.057	ug/L	8.231	1075	0.007
	Cd	114		ug/L		455	0.003
>	In	115		ug/L		159105	159105.462
	Sn	120	2.026	ug/L	2.979	9150	0.053
	Sb	121	-0.339	ug/L	1.533	786	-0.008
	Sb	123		ug/L		633	-0.006
	Ba	135		ug/L		66930	0.269
	Ba	137	59.095	ug/L	0.985	116916	0.470
	Ho	165		ug/L		41951	0.169
>	Lu	175		ug/L		248511	248511.255
	Tl	205	0.092	ug/L	6.025	1368	0.003
	Pb	208	12.132	ug/L	1.311	197860	0.786
	Bi	209		ug/L		6716	0.027
	U	238	2.425	ug/L	1.259	40743	0.163

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		114.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032576
Sample Date/Time: Friday, February 26, 2010 07:42:09
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032576.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.181**	**ug/L**	1.403	72181	0.058
	Be	9	**24.722**	**ug/L**	0.882	11534	0.009
	B	11	**48.368**	**ug/L**	1.074	24279	0.018
	Na	23	**1567.229**	**ug/L**	3.619	6525612	5.193
	Mg	24	**3115.028**	**ug/L**	6.739	9158450	7.307
	Al	27	**9494.275**	**ug/L**	6.843	43357538	34.610
	P	31	**1229.757**	**ug/L**	0.566	301347	0.234
	K	39	**2832.979**	**ug/L**	6.407	14583196	11.211
	Ca	43	**5133.569**	**ug/L**	1.106	58394	0.046
>	Sc	45		**ug/L**		1252533	1252532.823
	V	51	**38.794**	**ug/L**	2.020	226738	0.170
	Cr	52	**33.789**	**ug/L**	1.143	163490	0.124
	Cr	53		**ug/L**		84946	-0.042
	Mn	55	**353.205**	**ug/L**	0.332	2372456	1.893
	Fe	57	**9115.331**	**ug/L**	1.016	1182897	0.940
	Co	59	**25.232**	**ug/L**	0.626	126019	0.100
	Ni	60	**30.023**	**ug/L**	0.413	32109	0.026
	Cu	63		**ug/L**		111364	0.089
	Cu	65	**44.563**	**ug/L**	1.277	55696	0.044
	Zn	66	**98.266**	**ug/L**	0.506	77341	0.287
	Zn	67		**ug/L**		21716	0.015
	Zn	68		**ug/L**		57492	0.209
>	Ge	74		**ug/L**		269149	269148.787
	As	75	**37.404**	**ug/L**	1.665	33581	0.123
	Se	77		**ug/L**		4389	-0.014
	Se	82	**9.965**	**ug/L**	1.503	779	0.003
	Kr	83		**ug/L**		175	0.000
	Sr	88	**39.235**	**ug/L**	0.302	410446	2.597
	Y	89		**ug/L**		958426	6.068
	Ag	107	**23.234**	**ug/L**	0.473	94360	0.597
	Cd	111	**6.055**	**ug/L**	1.516	6006	0.038
	Cd	114		**ug/L**		10779	0.068
>	In	115		**ug/L**		157948	157948.140
	Sn	120	**24.654**	**ug/L**	2.310	102787	0.646
	Sb	121	**73.954**	**ug/L**	0.512	279636	1.757
	Sb	123		**ug/L**		217229	1.365
	Ba	135		**ug/L**		107442	0.422
	Ba	137	**92.764**	**ug/L**	2.441	188019	0.738
	Ho	165		**ug/L**		52238	0.205
>	Lu	175		**ug/L**		254732	254731.998
	Tl	205	**41.872**	**ug/L**	0.126	372096	1.458
	Pb	208	**96.792**	**ug/L**	1.353	1599759	6.271
	Bi	209		**ug/L**		16302	0.064
	U	238	**26.267**	**ug/L**	3.811	449155	1.763

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		117.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032577
Sample Date/Time: Friday, February 26, 2010 07:48:04
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032577.146

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**41.523**	**ug/L**	1.617	65603	0.052
	Be	9	**25.084**	**ug/L**	2.298	11825	0.009
	B	11	**48.897**	**ug/L**	1.230	24785	0.018
	Na	23	**1673.578**	**ug/L**	5.996	7044724	5.545
	Mg	24	**2294.152**	**ug/L**	8.599	6813455	5.382
	Al	27	**7083.702**	**ug/L**	3.214	32692982	25.822
	P	31	**1260.745**	**ug/L**	1.454	311978	0.240
	K	39	**2208.772**	**ug/L**	3.150	11611107	8.741
	Ca	43	**4972.169**	**ug/L**	0.995	57160	0.045
>	Sc	45		**ug/L**		1265776	1265775.927
	V	51	**31.689**	**ug/L**	1.209	189738	0.139
	Cr	52	**28.843**	**ug/L**	0.982	142181	0.106
	Cr	53		**ug/L**		83003	-0.044
	Mn	55	**273.879**	**ug/L**	1.141	1859323	1.468
	Fe	57	**6075.545**	**ug/L**	2.023	798534	0.627
	Co	59	**25.037**	**ug/L**	1.949	126352	0.100
	Ni	60	**27.722**	**ug/L**	1.494	29964	0.024
	Cu	63		**ug/L**		89401	0.071
	Cu	65	**35.241**	**ug/L**	1.470	44529	0.035
	Zn	66	**73.150**	**ug/L**	1.954	59233	0.213
	Zn	67		**ug/L**		18676	0.002
	Zn	68		**ug/L**		44118	0.155
>	Ge	74		**ug/L**		276682	276682.470
	As	75	**36.264**	**ug/L**	1.882	33479	0.119
	Se	77		**ug/L**		4423	-0.015
	Se	82	**9.573**	**ug/L**	6.141	769	0.003
	Kr	83		**ug/L**		143	0.000
	Sr	88	**37.313**	**ug/L**	1.408	396412	2.470
	Y	89		**ug/L**		712811	4.443
	Ag	107	**23.000**	**ug/L**	0.757	94868	0.591
	Cd	111	**5.493**	**ug/L**	2.192	5535	0.034
	Cd	114		**ug/L**		10657	0.066
>	In	115		**ug/L**		160414	160414.044
	Sn	120	**23.720**	**ug/L**	1.594	100465	0.622
	Sb	121	**78.889**	**ug/L**	2.138	302795	1.875
	Sb	123		**ug/L**		238032	1.473
	Ba	135		**ug/L**		102580	0.403
	Ba	137	**89.643**	**ug/L**	0.496	181388	0.713
	Ho	165		**ug/L**		37622	0.148
>	Lu	175		**ug/L**		254189	254189.373
	Tl	205	**41.811**	**ug/L**	0.572	370755	1.456
	Pb	208	**93.507**	**ug/L**	1.916	1542639	6.059
	Bi	209		**ug/L**		5454	0.021
	U	238	**25.669**	**ug/L**	0.637	438297	1.723

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
\>	Sc	45		99.6			
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
\>	Ge	74		98.6			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Ag	107					
|	Cd	111					
|	Cd	114					
\>	In	115		105.8			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
\>	Lu	175		117.0			
|	Tl	205					
|	Pb	208					
|	Bi	209					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032575
Sample Date/Time: Friday, February 26, 2010 07:53:59
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948748|10|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032575.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**3.317**	**ug/L**	1.626	5480	0.004
	Be	9	**0.254**	**ug/L**	5.284	137	0.000
	B	11	**-1.073**	**ug/L**	27.834	1302	-0.000
	Na	23	**121.589**	**ug/L**	7.123	544536	0.403
	Mg	24	**315.084**	**ug/L**	4.867	964221	0.739
	Al	27	**1227.839**	**ug/L**	4.966	5804862	4.476
	P	31	**81.389**	**ug/L**	1.232	28260	0.016
	K	39	**292.425**	**ug/L**	8.070	2056137	1.157
	Ca	43	**691.714**	**ug/L**	0.490	8414	0.006
>	Sc	45		**ug/L**		1295165	1295164.642
	V	51	**1.970**	**ug/L**	16.337	25531	0.009
	Cr	52	**1.337**	**ug/L**	5.722	14393	0.005
	Cr	53		**ug/L**		96485	-0.035
	Mn	55	**63.302**	**ug/L**	1.302	441254	0.339
	Fe	57	**1459.313**	**ug/L**	0.898	200609	0.150
	Co	59	**0.427**	**ug/L**	1.818	2366	0.002
	Ni	60	**1.194**	**ug/L**	4.411	1400	0.001
	Cu	63		**ug/L**		9521	0.007
	Cu	65	**3.574**	**ug/L**	1.541	4712	0.004
	Zn	66	**12.904**	**ug/L**	2.016	10983	0.038
	Zn	67		**ug/L**		13967	-0.017
	Zn	68		**ug/L**		8837	0.026
>	Ge	74		**ug/L**		285466	285466.138
	As	75	**0.436**	**ug/L**	47.146	905	0.001
	Se	77		**ug/L**		5601	-0.011
	Se	82	**0.152**	**ug/L**	87.145	23	0.000
	Kr	83		**ug/L**		88	0.000
	Sr	88	**2.429**	**ug/L**	2.089	26113	0.161
	Y	89		**ug/L**		163119	1.013
	Ag	107	**0.096**	**ug/L**	4.997	469	0.002
	Cd	111	**0.163**	**ug/L**	6.650	188	0.001
	Cd	114		**ug/L**		86	0.000
>	In	115		**ug/L**		160952	160951.677
	Sn	120	**0.715**	**ug/L**	2.478	3722	0.019
	Sb	121	**-0.387**	**ug/L**	6.607	611	-0.009
	Sb	123		**ug/L**		484	-0.007
	Ba	135		**ug/L**		11063	0.047
	Ba	137	**10.058**	**ug/L**	0.508	19049	0.080
	Ho	165		**ug/L**		7889	0.033
>	Lu	175		**ug/L**		237248	237247.504
	Tl	205	**0.027**	**ug/L**	24.604	763	0.001
	Pb	208	**2.222**	**ug/L**	0.640	36572	0.144
	Bi	209		**ug/L**		1276	0.005
	U	238	**0.489**	**ug/L**	1.008	8069	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, February 26, 2010 08:17:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtlmozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 8.151

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**61.087**	**ug/L**	0.858	96536	0.076
|	Be	9	**55.539**	**ug/L**	0.590	26194	0.021
|	B	11	**106.554**	**ug/L**	2.151	51953	0.040
|	Na	23	**4999.766**	**ug/L**	9.459	21016192	16.566
|	Mg	24	**5257.694**	**ug/L**	2.316	15631503	12.334
|	Al	27	**5070.937**	**ug/L**	4.996	23427057	18.485
|	P	31	**4751.419**	**ug/L**	0.930	1154807	0.905
|	K	39	**4633.522**	**ug/L**	1.020	23776709	18.337
|	Ca	43	**4943.174**	**ug/L**	1.021	56884	0.045
|>	Sc	45		**ug/L**		1266962	1266961.555
|	V	51	**49.692**	**ug/L**	2.571	289853	0.218
|	Cr	52	**51.351**	**ug/L**	1.452	247260	0.189
|	Cr	53		**ug/L**		125566	-0.011
|	Mn	55	**52.781**	**ug/L**	0.700	360272	0.283
|	Fe	57	**5079.839**	**ug/L**	1.063	669292	0.524
|	Co	59	**50.508**	**ug/L**	1.570	255018	0.201
|	Ni	60	**51.916**	**ug/L**	0.155	56102	0.044
|	Cu	63		**ug/L**		130672	0.103
⌊	Cu	65	**51.766**	**ug/L**	0.369	65432	0.052
⌈	Zn	66	**53.609**	**ug/L**	0.391	44180	0.156
|	Zn	67		**ug/L**		20088	0.006
|	Zn	68		**ug/L**		32957	0.113
|>	Ge	74		**ug/L**		281132	281132.215
|	As	75	**47.587**	**ug/L**	1.551	44497	0.157
|	Se	77		**ug/L**		9091	0.002
|	Se	82	**51.182**	**ug/L**	0.860	4135	0.015
⌊	Kr	83		**ug/L**		77	-0.000
⌈	Sr	88	**52.553**	**ug/L**	1.175	538751	3.479
|	Y	89		**ug/L**		316	0.002
|	Ag	107	**51.778**	**ug/L**	1.634	206010	1.330
|	Cd	111	**51.148**	**ug/L**	0.604	49565	0.320
|	Cd	114		**ug/L**		114608	0.740
|>	In	115		**ug/L**		154833	154833.077
|	Sn	120	**53.735**	**ug/L**	1.882	218783	1.409
|	Sb	121	**52.324**	**ug/L**	2.128	194483	1.243
⌊	Sb	123		**ug/L**		152407	0.974
⌈	Ba	135		**ug/L**		51596	0.228
|	Ba	137	**50.773**	**ug/L**	2.067	91599	0.404
|	Ho	165		**ug/L**		33	0.000
|>	Lu	175		**ug/L**		226554	226554.279
|	Tl	205	**48.307**	**ug/L**	1.957	381673	1.683
|	Pb	208	**50.818**	**ug/L**	0.915	748240	3.293
|	Bi	209		**ug/L**		177	0.001
⌊	U	238	**54.013**	**ug/L**	2.168	821609	3.626

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	122.174				
	Be	9	111.079				
	B	11	106.554				
	Na	23	99.995				
	Mg	24	105.154				
	Al	27	100.415				
	P	31	95.028				
	K	39	92.670				
	Ca	43	98.863				
>	Sc	45			99.7		
	V	51	99.385				
	Cr	52	102.702				
	Cr	53					
	Mn	55	105.562				
	Fe	57	101.597				
	Co	59	101.016				
	Ni	60	103.831				
	Cu	63					
	Cu	65	103.532				
	Zn	66	107.217				
	Zn	67					
	Zn	68					
>	Ge	74			100.2		
	As	75	95.174				
	Se	77					
	Se	82	102.363				
	Kr	83					
	Sr	88	105.106				
	Y	89					
	Ag	107	103.557				
	Cd	111	102.296				
	Cd	114					
>	In	115			102.1		
	Sn	120	107.470				
	Sb	121	104.649				
	Sb	123					
	Ba	135					
	Ba	137	101.545				
	Ho	165					
>	Lu	175			104.3		
	Tl	205	96.615				
	Pb	208	101.635				
	Bi	209					
	U	238	108.026				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)
QC Std 8	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, February 26, 2010 08:23:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 9.152

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.016**	**ug/L**	67.353	160	0.000
	Be	9	**-0.000**	**ug/L**	2603.058	15	-0.000
	B	11	**-0.567**	**ug/L**	82.365	1598	-0.000
	Na	23	**1.460**	**ug/L**	73.133	30366	0.005
	Mg	24	**0.105**	**ug/L**	304.349	7002	0.000
	Al	27	**1.847**	**ug/L**	84.483	15343	0.007
	P	31	**-0.732**	**ug/L**	91.865	8264	-0.000
	K	39	**-8.824**	**ug/L**	122.830	528335	-0.035
	Ca	43	**-5.971**	**ug/L**	14.319	261	-0.000
>	Sc	45		**ug/L**		1338137	1338137.236
	V	51	**-0.541**	**ug/L**	53.345	11639	-0.002
	Cr	52	**-0.057**	**ug/L**	116.227	8007	-0.000
	Cr	53		**ug/L**		123573	-0.017
	Mn	55	**-0.020**	**ug/L**	29.736	1919	-0.000
	Fe	57	**-5.329**	**ug/L**	9.661	5160	-0.001
	Co	59	**-0.000**	**ug/L**	2198.161	169	-0.000
	Ni	60	**-0.002**	**ug/L**	661.197	84	-0.000
	Cu	63		**ug/L**		155	-0.000
	Cu	65	**-0.012**	**ug/L**	121.286	88	-0.000
	Zn	66	**0.023**	**ug/L**	91.133	265	0.000
	Zn	67		**ug/L**		17120	-0.006
	Zn	68		**ug/L**		1163	-0.000
>	Ge	74		**ug/L**		288987	288987.245
	As	75	**-0.663**	**ug/L**	13.745	-128	-0.002
	Se	77		**ug/L**		7309	-0.005
	Se	82	**0.457**	**ug/L**	11.231	48	0.000
	Kr	83		**ug/L**		65	-0.000
	Sr	88	**0.004**	**ug/L**	80.282	272	0.000
	Y	89		**ug/L**		65	0.000
	Ag	107	**0.000**	**ug/L**	146150.407	72	0.000
	Cd	111	**-0.010**	**ug/L**	96.100	13	-0.000
	Cd	114		**ug/L**		31	-0.000
>	In	115		**ug/L**		156807	156806.734
	Sn	120	**0.013**	**ug/L**	130.985	737	0.000
	Sb	121	**-0.212**	**ug/L**	33.457	1246	-0.005
	Sb	123		**ug/L**		963	-0.004
	Ba	135		**ug/L**		36	0.000
	Ba	137	**-0.006**	**ug/L**	30.434	48	-0.000
	Ho	165		**ug/L**		9	0.000
>	Lu	175		**ug/L**		232973	232972.999
	Tl	205	**0.018**	**ug/L**	104.458	682	0.001
	Pb	208	**-0.016**	**ug/L**	25.035	2140	-0.001
	Bi	209		**ug/L**		41	-0.000
	U	238	**0.003**	**ug/L**	75.796	322	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960001
Sample Date/Time: Friday, February 26, 2010 08:53:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960001.157

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**86.965**	**ug/L**	2.250	124917	0.108
	Be	9	**5.086**	**ug/L**	1.114	2192	0.002
	B	11	**16.156**	**ug/L**	3.294	8531	0.006
	Na	23	**630.430**	**ug/L**	7.769	2419903	2.089
	Mg	24	**12483.065**	**ug/L**	5.032	33716065	29.284
	Al	27	**93811.776**	**ug/L**	6.896	393189931	341.973
	P	31	**503.288**	**ug/L**	0.636	117640	0.096
	K	39	**10026.448**	**ug/L**	3.764	46133913	39.679
	Ca	43	**11587.061**	**ug/L**	0.965	120823	0.105
>	Sc	45		**ug/L**		1151272	1151272.347
	V	51	**95.111**	**ug/L**	1.124	492425	0.417
	Cr	52	**41.910**	**ug/L**	0.349	184675	0.154
	Cr	53		**ug/L**		75549	-0.044
	Mn	55	**1643.324**	**ug/L**	0.367	10140070	8.805
	Fe	57	**52695.527**	**ug/L**	0.119	6261334	5.434
	Co	59	**29.057**	**ug/L**	0.792	133337	0.116
	Ni	60	**37.613**	**ug/L**	1.618	36946	0.032
	Cu	63		**ug/L**		68652	0.060
	Cu	65	**31.108**	**ug/L**	2.316	35742	0.031
	Zn	66	**132.145**	**ug/L**	1.467	92515	0.385
	Zn	67		**ug/L**		27252	0.048
	Zn	68		**ug/L**		80823	0.333
>	Ge	74		**ug/L**		239487	239487.164
	As	75	**7.652**	**ug/L**	7.761	6457	0.025
	Se	77		**ug/L**		3192	-0.017
	Se	82	**-2.950**	**ug/L**	7.582	-194	-0.001
	Kr	83		**ug/L**		363	0.001
	Sr	88	**145.280**	**ug/L**	1.299	1346080	9.617
	Y	89		**ug/L**		492291	3.518
	Ag	107	**0.526**	**ug/L**	2.015	1955	0.014
	Cd	111	**1.758**	**ug/L**	3.787	1561	0.011
	Cd	114		**ug/L**		564	0.004
>	In	115		**ug/L**		139928	139928.347
	Sn	120	**0.503**	**ug/L**	3.949	2460	0.013
	Sb	121	**-0.364**	**ug/L**	2.019	608	-0.009
	Sb	123		**ug/L**		481	-0.007
	Ba	135		**ug/L**		887845	3.948
	Ba	137	**838.874**	**ug/L**	0.971	1500943	6.675
	Ho	165		**ug/L**		26961	0.120
>	Lu	175		**ug/L**		224864	224864.124
	Tl	205	**0.956**	**ug/L**	2.414	7999	0.033
	Pb	208	**57.769**	**ug/L**	0.466	844031	3.743
	Bi	209		**ug/L**		10101	0.045
	U	238	**4.133**	**ug/L**	0.804	62643	0.277

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		90.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		85.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960002
Sample Date/Time: Friday, February 26, 2010 08:59:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960002.158

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**66.046**	**ug/L**	1.113	87624	0.082
	Be	9	**3.474**	**ug/L**	2.558	1387	0.001
	B	11	**11.758**	**ug/L**	1.694	6143	0.004
	Na	23	**636.344**	**ug/L**	4.614	2262597	2.108
	Mg	24	**7359.394**	**ug/L**	0.979	18370933	17.264
	Al	27	**63491.338**	**ug/L**	2.774	246333754	231.446
	P	31	**1035.395**	**ug/L**	0.883	216556	0.197
	K	39	**8154.584**	**ug/L**	2.841	34777873	32.271
	Ca	43	**8678.349**	**ug/L**	0.564	83662	0.078
>	Sc	45		**ug/L**		1063906	1063906.438
	V	51	**77.653**	**ug/L**	0.641	373721	0.340
	Cr	52	**34.925**	**ug/L**	0.293	143327	0.129
	Cr	53		**ug/L**		68954	-0.045
	Mn	55	**1231.151**	**ug/L**	0.939	7019247	6.597
	Fe	57	**45177.827**	**ug/L**	1.306	4960706	4.659
	Co	59	**25.164**	**ug/L**	1.179	106738	0.100
	Ni	60	**32.511**	**ug/L**	1.539	29522	0.028
	Cu	63		**ug/L**		104826	0.098
	Cu	65	**50.082**	**ug/L**	0.239	53161	0.050
	Zn	66	**157.175**	**ug/L**	0.606	103250	0.458
	Zn	67		**ug/L**		27015	0.055
	Zn	68		**ug/L**		84755	0.372
>	Ge	74		**ug/L**		224882	224882.022
	As	75	**7.126**	**ug/L**	4.194	5663	0.023
	Se	77		**ug/L**		2949	-0.017
	Se	82	**-1.715**	**ug/L**	22.646	-102	-0.000
	Kr	83		**ug/L**		268	0.001
	Sr	88	**95.018**	**ug/L**	0.560	845838	6.290
	Y	89		**ug/L**		454978	3.384
	Ag	107	**0.584**	**ug/L**	4.029	2081	0.015
	Cd	111	**2.532**	**ug/L**	5.825	2149	0.016
	Cd	114		**ug/L**		2203	0.016
>	In	115		**ug/L**		134450	134449.871
	Sn	120	**0.943**	**ug/L**	1.803	3913	0.025
	Sb	121	**-0.275**	**ug/L**	4.096	866	-0.007
	Sb	123		**ug/L**		715	-0.005
	Ba	135		**ug/L**		583337	2.633
	Ba	137	**569.540**	**ug/L**	0.705	1004072	4.532
	Ho	165		**ug/L**		25714	0.116
>	Lu	175		**ug/L**		221537	221536.890
	Tl	205	**0.612**	**ug/L**	1.813	5227	0.021
	Pb	208	**229.764**	**ug/L**	0.246	3300250	14.887
	Bi	209		**ug/L**		8119	0.036
	U	238	**32.310**	**ug/L**	1.108	480710	2.169

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
\>	Sc	45		83.7			
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
\>	Ge	74		80.1			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Ag	107					
|	Cd	111					
|	Cd	114					
\>	In	115		88.7			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
\>	Lu	175		102.0			
|	Tl	205					
|	Pb	208					
|	Bi	209					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960003
Sample Date/Time: Friday, February 26, 2010 09:04:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960003.159

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**87.667**	**ug/L**	1.336	108053	0.109
	Be	9	**5.040**	**ug/L**	4.397	1863	0.002
	B	11	**16.920**	**ug/L**	1.550	7605	0.006
	Na	23	**434.748**	**ug/L**	2.634	1442440	1.440
	Mg	24	**12974.230**	**ug/L**	2.480	30085104	30.436
	Al	27	**97117.966**	**ug/L**	1.168	350007222	354.025
	P	31	**560.723**	**ug/L**	1.764	111826	0.107
	K	39	**10924.634**	**ug/L**	6.512	43117465	43.234
	Ca	43	**9965.753**	**ug/L**	0.395	89243	0.090
>	Sc	45		**ug/L**		988671	988670.793
	V	51	**105.835**	**ug/L**	0.904	469305	0.464
	Cr	52	**47.897**	**ug/L**	0.434	180372	0.176
	Cr	53		**ug/L**		74054	-0.035
	Mn	55	**1406.943**	**ug/L**	0.874	7453753	7.539
	Fe	57	**56673.853**	**ug/L**	1.420	5781426	5.845
	Co	59	**25.745**	**ug/L**	1.114	101475	0.103
	Ni	60	**41.265**	**ug/L**	0.346	34809	0.035
	Cu	63		**ug/L**		66401	0.067
	Cu	65	**34.453**	**ug/L**	1.478	34000	0.034
	Zn	66	**141.782**	**ug/L**	0.299	85364	0.413
	Zn	67		**ug/L**		25977	0.060
	Zn	68		**ug/L**		74321	0.356
>	Ge	74		**ug/L**		206090	206089.694
	As	75	**8.593**	**ug/L**	2.570	6181	0.028
	Se	77		**ug/L**		3151	-0.015
	Se	82	**-3.107**	**ug/L**	10.680	-176	-0.001
	Kr	83		**ug/L**		353	0.001
	Sr	88	**138.299**	**ug/L**	1.216	1149081	9.154
	Y	89		**ug/L**		477019	3.801
	Ag	107	**0.562**	**ug/L**	2.555	1869	0.014
	Cd	111	**1.852**	**ug/L**	2.474	1472	0.012
	Cd	114		**ug/L**		508	0.004
>	In	115		**ug/L**		125494	125493.672
	Sn	120	**2.104**	**ug/L**	2.104	7470	0.055
	Sb	121	**-0.350**	**ug/L**	0.808	585	-0.008
	Sb	123		**ug/L**		471	-0.007
	Ba	135		**ug/L**		748831	3.619
	Ba	137	**780.969**	**ug/L**	0.498	1285940	6.215
	Ho	165		**ug/L**		28017	0.135
>	Lu	175		**ug/L**		206915	206914.932
	Tl	205	**0.950**	**ug/L**	1.867	7318	0.033
	Pb	208	**59.086**	**ug/L**	1.137	794187	3.828
	Bi	209		**ug/L**		10104	0.049
	U	238	**7.235**	**ug/L**	0.916	100736	0.486

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			77.8		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			73.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			82.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			95.2		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960004
Sample Date/Time: Friday, February 26, 2010 09:10:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960004.160

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**94.223**	**ug/L**	0.536	112068	0.117
|	Be	9	**5.868**	**ug/L**	1.435	2094	0.002
|	B	11	**17.233**	**ug/L**	0.320	7451	0.006
|	Na	23	**576.850**	**ug/L**	3.659	1840931	1.911
|	Mg	24	**11430.694**	**ug/L**	1.749	25589629	26.815
|	Al	27	**111287.553**	**ug/L**	4.606	387070924	405.678
|	P	31	**760.070**	**ug/L**	1.901	144138	0.145
|	K	39	**10225.834**	**ug/L**	5.502	39036388	40.468
|	Ca	43	**13232.249**	**ug/L**	0.901	114256	0.120
|>	Sc	45		**ug/L**		953988	953987.578
|	V	51	**100.777**	**ug/L**	0.981	431754	0.442
|	Cr	52	**51.008**	**ug/L**	0.815	184972	0.188
|	Cr	53		**ug/L**		75345	-0.031
|	Mn	55	**1299.174**	**ug/L**	0.300	6642512	6.961
|	Fe	57	**55696.235**	**ug/L**	0.700	5483468	5.744
|	Co	59	**22.995**	**ug/L**	0.328	87486	0.092
|	Ni	60	**43.716**	**ug/L**	2.027	35577	0.037
|	Cu	63		**ug/L**		61726	0.065
⌊	Cu	65	**33.868**	**ug/L**	0.650	32262	0.034
⌈	Zn	66	**133.087**	**ug/L**	0.083	77412	0.388
|	Zn	67		**ug/L**		24805	0.059
|	Zn	68		**ug/L**		69848	0.346
|>	Ge	74		**ug/L**		199065	199064.830
|	As	75	**8.432**	**ug/L**	5.807	5865	0.028
|	Se	77		**ug/L**		3190	-0.015
|	Se	82	**-3.783**	**ug/L**	3.406	-209	-0.001
⌊	Kr	83		**ug/L**		362	0.002
⌈	Sr	88	**147.102**	**ug/L**	0.237	1175641	9.737
|	Y	89		**ug/L**		491488	4.071
|	Ag	107	**0.594**	**ug/L**	1.340	1898	0.015
|	Cd	111	**1.949**	**ug/L**	7.283	1490	0.012
|	Cd	114		**ug/L**		377	0.003
|>	In	115		**ug/L**		120717	120717.481
|	Sn	120	**0.528**	**ug/L**	3.216	2201	0.014
|	Sb	121	**-0.368**	**ug/L**	2.020	513	-0.009
⌊	Sb	123		**ug/L**		428	-0.007
⌈	Ba	135		**ug/L**		804001	4.001
|	Ba	137	**861.824**	**ug/L**	0.409	1378182	6.858
|	Ho	165		**ug/L**		27751	0.138
|>	Lu	175		**ug/L**		200948	200948.122
|	Tl	205	**0.945**	**ug/L**	2.257	7074	0.033
|	Pb	208	**57.990**	**ug/L**	0.217	757079	3.757
|	Bi	209		**ug/L**		9764	0.048
⌊	U	238	**4.928**	**ug/L**	0.870	66714	0.331

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			75.1		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			70.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			79.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			92.5		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, February 26, 2010 09:16:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 8.161

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**53.551**	**ug/L**	1.821	65995	0.067
|	Be	9	**52.314**	**ug/L**	1.177	19237	0.019
|	B	11	**104.012**	**ug/L**	1.637	39579	0.039
|	Na	23	**4631.901**	**ug/L**	1.484	15177487	15.347
|	Mg	24	**4992.256**	**ug/L**	6.136	11570986	11.711
|	Al	27	**4847.671**	**ug/L**	4.222	17458293	17.671
|	P	31	**5051.718**	**ug/L**	0.320	956965	0.962
|	K	39	**4551.118**	**ug/L**	9.374	18220678	18.011
|	Ca	43	**4845.111**	**ug/L**	1.328	43482	0.044
| >	Sc	45		**ug/L**		987861	987860.672
|	V	51	**50.974**	**ug/L**	2.352	231538	0.223
|	Cr	52	**52.345**	**ug/L**	0.692	196410	0.193
|	Cr	53		**ug/L**		110938	0.003
|	Mn	55	**52.356**	**ug/L**	0.552	278649	0.281
|	Fe	57	**5073.989**	**ug/L**	0.745	521259	0.523
|	Co	59	**51.123**	**ug/L**	0.233	201251	0.204
|	Ni	60	**52.859**	**ug/L**	0.791	44538	0.045
|	Cu	63		**ug/L**		104533	0.106
⌊	Cu	65	**52.832**	**ug/L**	0.368	52068	0.053
⌈	Zn	66	**51.915**	**ug/L**	0.812	33649	0.151
|	Zn	67		**ug/L**		17887	0.015
|	Zn	68		**ug/L**		25396	0.110
| >	Ge	74		**ug/L**		221069	221069.043
|	As	75	**48.474**	**ug/L**	0.622	35632	0.159
|	Se	77		**ug/L**		8076	0.006
|	Se	82	**50.767**	**ug/L**	2.208	3225	0.015
⌊	Kr	83		**ug/L**		66	0.000
⌈	Sr	88	**52.122**	**ug/L**	0.592	436347	3.450
|	Y	89		**ug/L**		195	0.001
|	Ag	107	**51.899**	**ug/L**	0.748	168635	1.333
|	Cd	111	**50.338**	**ug/L**	1.109	39829	0.315
|	Cd	114		**ug/L**		93417	0.739
| >	In	115		**ug/L**		126424	126424.143
|	Sn	120	**54.617**	**ug/L**	0.385	181607	1.432
|	Sb	121	**54.051**	**ug/L**	1.908	164016	1.285
⌊	Sb	123		**ug/L**		129112	1.011
⌈	Ba	135		**ug/L**		44759	0.223
|	Ba	137	**49.974**	**ug/L**	1.749	79801	0.398
|	Ho	165		**ug/L**		23	0.000
| >	Lu	175		**ug/L**		200560	200560.448
|	Tl	205	**49.722**	**ug/L**	0.693	347778	1.732
|	Pb	208	**52.110**	**ug/L**	0.405	679201	3.376
|	Bi	209		**ug/L**		173	0.001
⌊	U	238	**54.877**	**ug/L**	1.353	739010	3.684

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.101				
	Be	9	104.628				
	B	11	104.012				
	Na	23	92.638				
	Mg	24	99.845				
	Al	27	95.993				
	P	31	101.034				
	K	39	91.022				
	Ca	43	96.902				
>	Sc	45		77.8			
	V	51	101.948				
	Cr	52	104.691				
	Cr	53					
	Mn	55	104.712				
	Fe	57	101.480				
	Co	59	102.246				
	Ni	60	105.718				
	Cu	63					
	Cu	65	105.664				
	Zn	66	103.830				
	Zn	67					
	Zn	68					
>	Ge	74		78.8			
	As	75	96.947				
	Se	77					
	Se	82	101.534				
	Kr	83					
	Sr	88	104.243				
	Y	89					
	Ag	107	103.798				
	Cd	111	100.676				
	Cd	114					
>	In	115		83.4			
	Sn	120	109.234				
	Sb	121	108.103				
	Sb	123					
	Ba	135					
	Ba	137	99.949				
	Ho	165					
>	Lu	175		92.3			
	Tl	205	99.444				
	Pb	208	104.220				
	Bi	209					
	U	238	109.754				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, February 26, 2010 09:22:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 9.162

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.047**	**ug/L**	37.689	179	0.000
	Be	9	**0.002**	**ug/L**	466.789	14	0.000
	B	11	**-0.427**	**ug/L**	125.826	1415	-0.000
	Na	23	**-0.091**	**ug/L**	646.826	20014	-0.000
	Mg	24	**0.754**	**ug/L**	157.456	7669	0.002
	Al	27	**3.461**	**ug/L**	30.947	19681	0.013
	P	31	**1.287**	**ug/L**	75.625	7466	0.000
	K	39	**1.002**	**ug/L**	149.134	493723	0.004
	Ca	43	**3.066**	**ug/L**	43.653	315	0.000
>	Sc	45		**ug/L**		1138539	1138539.212
	V	51	**0.037**	**ug/L**	889.785	12804	0.000
	Cr	52	**0.097**	**ug/L**	5.633	7458	0.000
	Cr	53		**ug/L**		120587	-0.004
	Mn	55	**0.063**	**ug/L**	10.524	2137	0.000
	Fe	57	**2.375**	**ug/L**	22.803	5294	0.000
	Co	59	**0.002**	**ug/L**	148.295	152	0.000
	Ni	60	**0.008**	**ug/L**	135.521	81	0.000
	Cu	63		**ug/L**		140	-0.000
	Cu	65	**-0.001**	**ug/L**	1390.347	87	-0.000
	Zn	66	**0.007**	**ug/L**	572.697	218	0.000
	Zn	67		**ug/L**		16708	0.001
	Zn	68		**ug/L**		1072	-0.000
>	Ge	74		**ug/L**		250717	250716.955
	As	75	**0.138**	**ug/L**	651.351	545	0.000
	Se	77		**ug/L**		7553	-0.000
	Se	82	**0.219**	**ug/L**	196.159	24	0.000
	Kr	83		**ug/L**		69	-0.000
	Sr	88	**0.007**	**ug/L**	73.998	275	0.000
	Y	89		**ug/L**		61	0.000
	Ag	107	**0.001**	**ug/L**	245.996	69	0.000
	Cd	111	**0.001**	**ug/L**	571.001	21	0.000
	Cd	114		**ug/L**		36	0.000
>	In	115		**ug/L**		141893	141892.908
	Sn	120	**-0.009**	**ug/L**	121.788	587	-0.000
	Sb	121	**-0.214**	**ug/L**	38.130	1117	-0.005
	Sb	123		**ug/L**		878	-0.004
	Ba	135		**ug/L**		52	0.000
	Ba	137	**0.025**	**ug/L**	27.997	97	0.000
	Ho	165		**ug/L**		7	0.000
>	Lu	175		**ug/L**		214147	214147.274
	Tl	205	**0.017**	**ug/L**	85.719	614	0.001
	Pb	208	**-0.013**	**ug/L**	16.090	2000	-0.001
	Bi	209		**ug/L**		36	-0.000
	U	238	**0.003**	**ug/L**	70.434	301	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45		89.6			
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74		89.3			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115		93.6			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175		98.6			
|	Tl	205					
|	Pb	208					
|	Bi	209					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960005
Sample Date/Time: Friday, February 26, 2010 09:28:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960005.163

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.289**	**ug/L**	0.158	120812	0.124
	Be	9	**6.443**	**ug/L**	1.105	2351	0.002
	B	11	**17.653**	**ug/L**	0.789	7776	0.007
	Na	23	**703.149**	**ug/L**	0.946	2291436	2.330
	Mg	24	**13001.954**	**ug/L**	4.703	29739299	30.501
	Al	27	**106030.541**	**ug/L**	2.177	377455341	386.514
	P	31	**580.087**	**ug/L**	0.132	114031	0.111
	K	39	**11278.082**	**ug/L**	5.815	44004656	44.632
	Ca	43	**13096.689**	**ug/L**	0.317	115715	0.118
>	Sc	45		**ug/L**		976035	976034.597
	V	51	**100.045**	**ug/L**	1.397	438551	0.438
	Cr	52	**44.909**	**ug/L**	0.909	167344	0.165
	Cr	53		**ug/L**		76327	-0.032
	Mn	55	**1461.442**	**ug/L**	0.704	7643412	7.831
	Fe	57	**56380.083**	**ug/L**	0.199	5679089	5.814
	Co	59	**26.721**	**ug/L**	0.678	104007	0.106
	Ni	60	**46.337**	**ug/L**	0.995	38573	0.039
	Cu	63		**ug/L**		64216	0.066
	Cu	65	**34.819**	**ug/L**	0.876	33924	0.035
	Zn	66	**138.548**	**ug/L**	1.215	81758	0.404
	Zn	67		**ug/L**		26346	0.065
	Zn	68		**ug/L**		73906	0.362
>	Ge	74		**ug/L**		201913	201913.165
	As	75	**9.007**	**ug/L**	2.740	6332	0.030
	Se	77		**ug/L**		3329	-0.014
	Se	82	**-3.997**	**ug/L**	14.761	-223	-0.001
	Kr	83		**ug/L**		399	0.002
	Sr	88	**151.977**	**ug/L**	0.403	1228715	10.060
	Y	89		**ug/L**		526394	4.310
	Ag	107	**0.658**	**ug/L**	1.831	2119	0.017
	Cd	111	**2.238**	**ug/L**	4.007	1728	0.014
	Cd	114		**ug/L**		512	0.004
>	In	115		**ug/L**		122116	122116.239
	Sn	120	**0.556**	**ug/L**	2.325	2314	0.015
	Sb	121	**-0.278**	**ug/L**	4.689	779	-0.007
	Sb	123		**ug/L**		632	-0.005
	Ba	135		**ug/L**		861746	4.256
	Ba	137	**912.906**	**ug/L**	0.740	1470969	7.265
	Ho	165		**ug/L**		30027	0.148
>	Lu	175		**ug/L**		202493	202493.267
	Tl	205	**1.086**	**ug/L**	0.897	8124	0.038
	Pb	208	**71.292**	**ug/L**	0.614	937369	4.619
	Bi	209		**ug/L**		10490	0.052
	U	238	**6.847**	**ug/L**	1.520	93281	0.460

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
\>	Sc	45		76.8			
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
\>	Ge	74		71.9			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Ag	107					
|	Cd	111					
|	Cd	114					
\>	In	115		80.5			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
\>	Lu	175		93.2			
|	Tl	205					
|	Pb	208					
|	Bi	209					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960006
Sample Date/Time: Friday, February 26, 2010 09:34:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960006.164

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.994**	**ug/L**	0.148	64563	0.069
	Be	9	**3.560**	**ug/L**	1.858	1257	0.001
	B	11	**15.941**	**ug/L**	2.303	6897	0.006
	Na	23	**341.914**	**ug/L**	3.654	1082910	1.133
	Mg	24	**8001.009**	**ug/L**	1.153	17668515	18.769
	Al	27	**59582.280**	**ug/L**	4.403	204374846	217.196
	P	31	**755.699**	**ug/L**	0.986	141429	0.144
	K	39	**9276.434**	**ug/L**	1.710	34955311	36.711
	Ca	43	**7784.626**	**ug/L**	0.778	66409	0.070
>	Sc	45		**ug/L**		941114	941114.332
	V	51	**74.160**	**ug/L**	1.021	316170	0.325
	Cr	52	**34.042**	**ug/L**	0.967	123719	0.125
	Cr	53		**ug/L**		69144	-0.036
	Mn	55	**1319.646**	**ug/L**	1.281	6655523	7.071
	Fe	57	**38019.565**	**ug/L**	1.412	3693862	3.921
	Co	59	**21.364**	**ug/L**	1.329	80186	0.085
	Ni	60	**29.763**	**ug/L**	0.619	23916	0.025
	Cu	63		**ug/L**		60021	0.064
	Cu	65	**32.847**	**ug/L**	1.164	30867	0.033
	Zn	66	**111.166**	**ug/L**	1.188	65015	0.324
	Zn	67		**ug/L**		21729	0.043
	Zn	68		**ug/L**		56644	0.279
>	Ge	74		**ug/L**		200081	200081.122
	As	75	**7.044**	**ug/L**	1.955	4984	0.023
	Se	77		**ug/L**		3060	-0.015
	Se	82	**-1.700**	**ug/L**	5.685	-90	-0.000
	Kr	83		**ug/L**		239	0.001
	Sr	88	**94.885**	**ug/L**	1.028	769541	6.281
	Y	89		**ug/L**		329971	2.693
	Ag	107	**0.468**	**ug/L**	3.763	1529	0.012
	Cd	111	**1.733**	**ug/L**	4.227	1345	0.011
	Cd	114		**ug/L**		774	0.006
>	In	115		**ug/L**		122501	122500.910
	Sn	120	**0.645**	**ug/L**	3.968	2606	0.017
	Sb	121	**-0.244**	**ug/L**	4.419	880	-0.006
	Sb	123		**ug/L**		701	-0.005
	Ba	135		**ug/L**		556217	2.734
	Ba	137	**593.357**	**ug/L**	0.617	960799	4.722
	Ho	165		**ug/L**		19164	0.094
>	Lu	175		**ug/L**		203470	203470.467
	Tl	205	**0.676**	**ug/L**	1.174	5259	0.024
	Pb	208	**52.374**	**ug/L**	0.496	692557	3.393
	Bi	209		**ug/L**		7458	0.036
	U	238	**64.601**	**ug/L**	0.660	882571	4.336

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		74.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		71.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		80.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.6			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960007
Sample Date/Time: Friday, February 26, 2010 09:40:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960007.165

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**94.415**	ug/L	0.789	105811	0.118
	Be	9	**5.597**	ug/L	3.257	1881	0.002
	B	11	**17.043**	ug/L	3.515	6955	0.006
	Na	23	**504.726**	ug/L	8.863	1517792	1.672
	Mg	24	**13765.955**	ug/L	4.304	29047687	32.293
	Al	27	**109021.598**	ug/L	1.741	357175202	397.418
	P	31	**539.674**	ug/L	1.137	98085	0.103
	K	39	**10562.615**	ug/L	5.275	37971759	41.801
	Ca	43	**11104.540**	ug/L	0.444	90388	0.100
>	Sc	45		ug/L		898921	898920.730
	V	51	**114.796**	ug/L	0.577	462041	0.503
	Cr	52	**53.523**	ug/L	0.374	182612	0.197
	Cr	53		ug/L		73371	-0.028
	Mn	55	**2007.927**	ug/L	0.888	9671914	10.759
	Fe	57	**62400.855**	ug/L	1.086	5788411	6.435
	Co	59	**35.203**	ug/L	1.038	126121	0.140
	Ni	60	**47.006**	ug/L	0.510	36044	0.040
	Cu	63		ug/L		62046	0.069
	Cu	65	**36.017**	ug/L	1.599	32316	0.036
	Zn	66	**151.800**	ug/L	0.781	82873	0.443
	Zn	67		ug/L		25819	0.073
	Zn	68		ug/L		73186	0.387
>	Ge	74		ug/L		186905	186904.823
	As	75	**9.923**	ug/L	3.149	6423	0.033
	Se	77		ug/L		2986	-0.015
	Se	82	**-3.701**	ug/L	13.176	-191	-0.001
	Kr	83		ug/L		358	0.002
	Sr	88	**155.134**	ug/L	0.885	1184452	10.269
	Y	89		ug/L		399737	3.466
	Ag	107	**0.605**	ug/L	2.466	1847	0.016
	Cd	111	**2.118**	ug/L	5.479	1544	0.013
	Cd	114		ug/L		571	0.005
>	In	115		ug/L		115342	115342.156
	Sn	120	**0.421**	ug/L	2.604	1778	0.011
	Sb	121	**-0.341**	ug/L	1.740	565	-0.008
	Sb	123		ug/L		472	-0.006
	Ba	135		ug/L		752212	3.875
	Ba	137	**833.657**	ug/L	0.466	1287743	6.634
	Ho	165		ug/L		24906	0.128
>	Lu	175		ug/L		194102	194101.734
	Tl	205	**1.176**	ug/L	2.465	8395	0.041
	Pb	208	**64.720**	ug/L	0.475	815905	4.193
	Bi	209		ug/L		10655	0.055
	U	238	**5.166**	ug/L	0.642	67540	0.347

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		70.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		66.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		76.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960008
Sample Date/Time: Friday, February 26, 2010 09:46:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960008.166

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.310**	ug/L	1.351	62054	0.069
	Be	9	**3.544**	ug/L	0.304	1196	0.001
	B	11	**12.520**	ug/L	1.588	5449	0.005
	Na	23	**303.357**	ug/L	1.118	920037	1.005
	Mg	24	**8092.862**	ug/L	3.082	17079564	18.985
	Al	27	**60150.831**	ug/L	3.669	197206866	219.269
	P	31	**615.569**	ug/L	0.756	111157	0.117
	K	39	**8266.559**	ug/L	1.847	29809605	32.714
	Ca	43	**7726.060**	ug/L	1.169	62991	0.070
>	Sc	45		ug/L		899402	899402.345
	V	51	**72.223**	ug/L	0.573	294543	0.316
	Cr	52	**30.999**	ug/L	0.838	108168	0.114
	Cr	53		ug/L		64841	-0.038
	Mn	55	**1161.755**	ug/L	0.305	5600138	6.225
	Fe	57	**38659.920**	ug/L	0.400	3589826	3.987
	Co	59	**19.677**	ug/L	0.415	70596	0.078
	Ni	60	**29.376**	ug/L	0.536	22560	0.025
	Cu	63		ug/L		61787	0.069
	Cu	65	**35.173**	ug/L	1.297	31583	0.035
	Zn	66	**115.633**	ug/L	0.019	64951	0.337
	Zn	67		ug/L		21628	0.047
	Zn	68		ug/L		56830	0.291
>	Ge	74		ug/L		192169	192168.794
	As	75	**7.607**	ug/L	5.859	5143	0.025
	Se	77		ug/L		2825	-0.016
	Se	82	**-1.395**	ug/L	28.909	-70	-0.000
	Kr	83		ug/L		228	0.001
	Sr	88	**98.861**	ug/L	0.511	771578	6.544
	Y	89		ug/L		336669	2.856
	Ag	107	**0.448**	ug/L	3.602	1410	0.012
	Cd	111	**1.681**	ug/L	5.364	1257	0.011
	Cd	114		ug/L		721	0.006
>	In	115		ug/L		117881	117880.859
	Sn	120	**0.528**	ug/L	2.453	2147	0.014
	Sb	121	**-0.271**	ug/L	4.062	771	-0.006
	Sb	123		ug/L		598	-0.005
	Ba	135		ug/L		561093	2.780
	Ba	137	**606.434**	ug/L	1.039	973901	4.826
	Ho	165		ug/L		19972	0.099
>	Lu	175		ug/L		201812	201812.228
	Tl	205	**0.698**	ug/L	1.615	5366	0.024
	Pb	208	**49.604**	ug/L	0.484	650661	3.214
	Bi	209		ug/L		7374	0.036
	U	238	**28.696**	ug/L	1.396	388953	1.926

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
\>	Sc	45			70.8		
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
\>	Ge	74			68.5		
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Ag	107					
|	Cd	111					
|	Cd	114					
\>	In	115			77.7		
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
\>	Lu	175			92.9		
|	Tl	205					
|	Pb	208					
|	Bi	209					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960009
Sample Date/Time: Friday, February 26, 2010 09:52:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960009.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**56.398**	**ug/L**	2.200	62781	0.070
|	Be	9	**3.753**	**ug/L**	3.906	1256	0.001
|	B	11	**13.792**	**ug/L**	4.489	5827	0.005
|	Na	23	**352.067**	**ug/L**	8.461	1056087	1.166
|	Mg	24	**8091.829**	**ug/L**	2.320	16947186	18.982
|	Al	27	**62059.921**	**ug/L**	7.038	201752415	226.228
|	P	31	**739.149**	**ug/L**	2.147	131284	0.141
|	K	39	**9234.915**	**ug/L**	6.193	33003492	36.547
|	Ca	43	**7902.432**	**ug/L**	0.591	63926	0.071
|>	Sc	45		**ug/L**		892501	892500.945
|	V	51	**71.648**	**ug/L**	1.071	290003	0.314
|	Cr	52	**34.773**	**ug/L**	1.391	119716	0.128
|	Cr	53		**ug/L**		66451	-0.035
|	Mn	55	**1208.503**	**ug/L**	2.185	5779378	6.476
|	Fe	57	**39283.687**	**ug/L**	1.815	3618962	4.051
|	Co	59	**20.988**	**ug/L**	1.746	74699	0.084
|	Ni	60	**30.784**	**ug/L**	1.051	23457	0.026
|	Cu	63		**ug/L**		51289	0.057
⌊	Cu	65	**29.683**	**ug/L**	1.320	26460	0.030
⌈	Zn	66	**99.336**	**ug/L**	1.303	55834	0.290
|	Zn	67		**ug/L**		19975	0.038
|	Zn	68		**ug/L**		49918	0.255
|>	Ge	74		**ug/L**		192204	192204.049
|	As	75	**7.380**	**ug/L**	7.431	4999	0.024
|	Se	77		**ug/L**		2762	-0.016
|	Se	82	**-2.119**	**ug/L**	22.644	-110	-0.001
⌊	Kr	83		**ug/L**		243	0.001
⌈	Sr	88	**93.815**	**ug/L**	0.507	728891	6.210
|	Y	89		**ug/L**		326566	2.782
|	Ag	107	**0.550**	**ug/L**	2.826	1713	0.014
|	Cd	111	**1.675**	**ug/L**	5.473	1246	0.010
|	Cd	114		**ug/L**		650	0.005
|>	In	115		**ug/L**		117352	117351.730
|	Sn	120	**0.498**	**ug/L**	0.417	2046	0.013
|	Sb	121	**-0.308**	**ug/L**	1.049	664	-0.007
⌊	Sb	123		**ug/L**		559	-0.006
⌈	Ba	135		**ug/L**		540377	2.729
|	Ba	137	**592.530**	**ug/L**	0.684	933623	4.715
|	Ho	165		**ug/L**		19261	0.097
|>	Lu	175		**ug/L**		198002	198002.248
|	Tl	205	**0.658**	**ug/L**	2.773	4989	0.023
|	Pb	208	**50.855**	**ug/L**	0.687	654401	3.295
|	Bi	209		**ug/L**		7599	0.038
⌊	U	238	**21.643**	**ug/L**	1.209	287867	1.453

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		70.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		68.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		77.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		91.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960010
Sample Date/Time: Friday, February 26, 2010 09:58:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960010.168

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**48.051**	**ug/L**	1.156	54941	0.060
	Be	9	**2.521**	**ug/L**	2.011	870	0.001
	B	11	**8.164**	**ug/L**	5.062	4068	0.003
	Na	23	**346.582**	**ug/L**	4.100	1068552	1.148
	Mg	24	**6478.921**	**ug/L**	2.782	13932191	15.199
	Al	27	**43955.760**	**ug/L**	3.459	146856177	160.232
	P	31	**963.020**	**ug/L**	0.475	173917	0.183
	K	39	**6154.749**	**ug/L**	7.513	22712080	24.357
	Ca	43	**7067.873**	**ug/L**	1.319	58734	0.064
>	Sc	45		**ug/L**		916414	916413.774
	V	51	**45.906**	**ug/L**	0.247	194457	0.201
	Cr	52	**21.671**	**ug/L**	0.950	78754	0.080
	Cr	53		**ug/L**		61434	-0.043
	Mn	55	**768.846**	**ug/L**	1.480	3776577	4.120
	Fe	57	**26170.236**	**ug/L**	1.799	2477324	2.699
	Co	59	**12.469**	**ug/L**	1.218	45624	0.050
	Ni	60	**22.042**	**ug/L**	1.547	17263	0.019
	Cu	63		**ug/L**		70000	0.076
	Cu	65	**38.518**	**ug/L**	0.382	35234	0.038
	Zn	66	**95.876**	**ug/L**	0.672	55964	0.280
	Zn	67		**ug/L**		18526	0.027
	Zn	68		**ug/L**		46245	0.227
>	Ge	74		**ug/L**		199606	199605.516
	As	75	**4.953**	**ug/L**	6.183	3598	0.016
	Se	77		**ug/L**		2785	-0.017
	Se	82	**-1.040**	**ug/L**	54.816	-52	-0.000
	Kr	83		**ug/L**		180	0.001
	Sr	88	**67.620**	**ug/L**	0.837	542094	4.476
	Y	89		**ug/L**		254884	2.105
	Ag	107	**0.668**	**ug/L**	0.693	2134	0.017
	Cd	111	**1.611**	**ug/L**	2.186	1238	0.010
	Cd	114		**ug/L**		1255	0.010
>	In	115		**ug/L**		121074	121074.434
	Sn	120	**0.752**	**ug/L**	1.545	2918	0.020
	Sb	121	**-0.341**	**ug/L**	1.533	591	-0.008
	Sb	123		**ug/L**		471	-0.007
	Ba	135		**ug/L**		337140	1.638
	Ba	137	**358.317**	**ug/L**	1.176	586820	2.851
	Ho	165		**ug/L**		15007	0.073
>	Lu	175		**ug/L**		205791	205791.379
	Tl	205	**0.416**	**ug/L**	0.836	3454	0.014
	Pb	208	**173.898**	**ug/L**	1.209	2320764	11.267
	Bi	209		**ug/L**		6017	0.029
	U	238	**32.600**	**ug/L**	1.338	450563	2.188

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			72.1		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			71.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			79.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			94.7		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960011
Sample Date/Time: Friday, February 26, 2010 10:04:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960011.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**86.241**	**ug/L**	1.685	96137	0.107
	Be	9	**5.376**	**ug/L**	2.931	1798	0.002
	B	11	**16.385**	**ug/L**	0.903	6700	0.006
	Na	23	**624.760**	**ug/L**	6.749	1865576	2.070
	Mg	24	**12121.108**	**ug/L**	4.054	25416726	28.435
	Al	27	**93123.101**	**ug/L**	2.770	303502766	339.463
	P	31	**598.644**	**ug/L**	1.001	107608	0.114
	K	39	**10518.181**	**ug/L**	6.880	37616883	41.625
	Ca	43	**12695.296**	**ug/L**	1.568	102751	0.115
>	Sc	45		**ug/L**		893931	893930.699
	V	51	**97.732**	**ug/L**	0.485	392635	0.428
	Cr	52	**44.328**	**ug/L**	0.689	151348	0.163
	Cr	53		**ug/L**		69292	-0.032
	Mn	55	**1337.700**	**ug/L**	0.343	6408620	7.168
	Fe	57	**52583.245**	**ug/L**	0.424	4851748	5.423
	Co	59	**25.022**	**ug/L**	0.976	89195	0.100
	Ni	60	**40.372**	**ug/L**	0.492	30796	0.034
	Cu	63		**ug/L**		55923	0.062
	Cu	65	**32.949**	**ug/L**	1.504	29406	0.033
	Zn	66	**129.351**	**ug/L**	0.674	70746	0.377
	Zn	67		**ug/L**		23125	0.058
	Zn	68		**ug/L**		63815	0.337
>	Ge	74		**ug/L**		187173	187173.131
	As	75	**7.722**	**ug/L**	3.806	5080	0.025
	Se	77		**ug/L**		3030	-0.014
	Se	82	**-3.610**	**ug/L**	6.682	-187	-0.001
	Kr	83		**ug/L**		332	0.001
	Sr	88	**147.890**	**ug/L**	1.509	1118632	9.789
	Y	89		**ug/L**		398584	3.488
	Ag	107	**0.547**	**ug/L**	1.966	1658	0.014
	Cd	111	**1.724**	**ug/L**	3.861	1249	0.011
	Cd	114		**ug/L**		404	0.003
>	In	115		**ug/L**		114245	114245.284
	Sn	120	**0.527**	**ug/L**	4.173	2080	0.014
	Sb	121	**-0.375**	**ug/L**	1.810	465	-0.009
	Sb	123		**ug/L**		401	-0.007
	Ba	135		**ug/L**		736343	3.776
	Ba	137	**813.035**	**ug/L**	1.063	1261825	6.470
	Ho	165		**ug/L**		24095	0.124
>	Lu	175		**ug/L**		195042	195041.593
	Tl	205	**0.906**	**ug/L**	2.466	6600	0.032
	Pb	208	**56.839**	**ug/L**	0.700	720256	3.683
	Bi	209		**ug/L**		8959	0.046
	U	238	**4.075**	**ug/L**	1.087	53592	0.274

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovi	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			70.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			66.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			75.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			89.8		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 10:10:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.882**	**ug/L**	0.733	57798	0.063
	Be	9	**50.547**	**ug/L**	0.909	17132	0.019
	B	11	**99.209**	**ug/L**	1.307	34855	0.037
	Na	23	**4650.235**	**ug/L**	3.026	14044878	15.408
	Mg	24	**4835.614**	**ug/L**	3.520	10333650	11.344
	Al	27	**4800.845**	**ug/L**	1.979	15936736	17.501
	P	31	**4894.841**	**ug/L**	0.660	854813	0.933
	K	39	**4606.660**	**ug/L**	0.364	16989701	18.231
	Ca	43	**4681.002**	**ug/L**	1.766	38727	0.042
>	Sc	45		**ug/L**		910477	910476.657
	V	51	**49.807**	**ug/L**	0.346	208755	0.218
	Cr	52	**50.289**	**ug/L**	0.906	174139	0.185
	Cr	53		**ug/L**		102785	0.003
	Mn	55	**50.417**	**ug/L**	0.873	247376	0.270
	Fe	57	**4893.577**	**ug/L**	0.496	463489	0.505
	Co	59	**49.931**	**ug/L**	0.754	181158	0.199
	Ni	60	**52.101**	**ug/L**	0.565	40461	0.044
	Cu	63		**ug/L**		94034	0.103
	Cu	65	**51.242**	**ug/L**	0.165	46546	0.051
	Zn	66	**49.362**	**ug/L**	1.064	29537	0.144
	Zn	67		**ug/L**		16643	0.016
	Zn	68		**ug/L**		22375	0.105
>	Ge	74		**ug/L**		204018	204018.260
	As	75	**47.996**	**ug/L**	0.530	32565	0.158
	Se	77		**ug/L**		7334	0.005
	Se	82	**50.916**	**ug/L**	1.532	2985	0.015
	Kr	83		**ug/L**		65	0.000
	Sr	88	**49.344**	**ug/L**	0.343	392338	3.266
	Y	89		**ug/L**		218	0.001
	Ag	107	**49.470**	**ug/L**	0.734	152667	1.271
	Cd	111	**47.979**	**ug/L**	0.672	36056	0.300
	Cd	114		**ug/L**		84618	0.705
>	In	115		**ug/L**		120066	120066.178
	Sn	120	**53.688**	**ug/L**	0.401	169551	1.408
	Sb	121	**52.055**	**ug/L**	2.237	150088	1.237
	Sb	123		**ug/L**		118640	0.978
	Ba	135		**ug/L**		41355	0.213
	Ba	137	**47.467**	**ug/L**	1.104	73188	0.378
	Ho	165		**ug/L**		28	0.000
>	Lu	175		**ug/L**		193645	193644.630
	Tl	205	**48.344**	**ug/L**	0.152	326509	1.684
	Pb	208	**50.052**	**ug/L**	1.389	629912	3.243
	Bi	209		**ug/L**		155	0.001
	U	238	**53.065**	**ug/L**	0.245	690013	3.562

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	101.765				
	Be	9	101.095				
	B	11	99.209				
	Na	23	93.005				
	Mg	24	96.712				
	Al	27	95.066				
	P	31	97.897				
	K	39	92.133				
	Ca	43	93.620				
>	Sc	45		71.7			
	V	51	99.614				
	Cr	52	100.578				
	Cr	53					
	Mn	55	100.834				
	Fe	57	97.872				
	Co	59	99.861				
	Ni	60	104.202				
	Cu	63					
	Cu	65	102.483				
	Zn	66	98.724				
	Zn	67					
	Zn	68					
>	Ge	74		72.7			
	As	75	95.991				
	Se	77					
	Se	82	101.832				
	Kr	83					
	Sr	88	98.687				
	Y	89					
	Ag	107	98.941				
	Cd	111	95.958				
	Cd	114					
>	In	115		79.2			
	Sn	120	107.375				
	Sb	121	104.111				
	Sb	123					
	Ba	135					
	Ba	137	94.935				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	96.689				
	Pb	208	100.105				
	Bi	209					
	U	238	106.130				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
In 115 Int Std for QC	In	115	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 10:16:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.038**	**ug/L**	19.957	155	0.000
	Be	9	**0.009**	**ug/L**	18.476	16	0.000
	B	11	**-0.558**	**ug/L**	95.981	1265	-0.000
	Na	23	**1.095**	**ug/L**	126.387	22685	0.004
	Mg	24	**-0.372**	**ug/L**	231.115	4334	-0.001
	Al	27	**2.606**	**ug/L**	42.154	15008	0.009
	P	31	**2.426**	**ug/L**	82.915	7171	0.000
	K	39	**-10.282**	**ug/L**	57.310	411522	-0.041
	Ca	43	**1.424**	**ug/L**	82.679	277	0.000
>	Sc	45		**ug/L**		1058106	1058105.899
	V	51	**0.359**	**ug/L**	59.484	13378	0.002
	Cr	52	**0.059**	**ug/L**	141.049	6785	0.000
	Cr	53		**ug/L**		111942	-0.004
	Mn	55	**0.146**	**ug/L**	7.451	2454	0.001
	Fe	57	**3.714**	**ug/L**	61.158	5065	0.000
	Co	59	**0.000**	**ug/L**	730.983	135	0.000
	Ni	60	**-0.008**	**ug/L**	112.397	61	-0.000
	Cu	63		**ug/L**		147	0.000
	Cu	65	**0.003**	**ug/L**	122.380	85	0.000
	Zn	66	**0.011**	**ug/L**	124.048	206	0.000
	Zn	67		**ug/L**		16092	0.003
	Zn	68		**ug/L**		1016	-0.000
>	Ge	74		**ug/L**		233288	233288.390
	As	75	**0.351**	**ug/L**	106.519	675	0.001
	Se	77		**ug/L**		6884	-0.001
	Se	82	**-0.039**	**ug/L**	128.058	6	-0.000
	Kr	83		**ug/L**		74	0.000
	Sr	88	**0.006**	**ug/L**	29.456	249	0.000
	Y	89		**ug/L**		73	0.000
	Ag	107	**0.002**	**ug/L**	103.820	68	0.000
	Cd	111	**0.005**	**ug/L**	150.113	23	0.000
	Cd	114		**ug/L**		37	0.000
>	In	115		**ug/L**		132790	132789.959
	Sn	120	**-0.023**	**ug/L**	75.592	501	-0.001
	Sb	121	**-0.180**	**ug/L**	50.227	1155	-0.004
	Sb	123		**ug/L**		902	-0.004
	Ba	135		**ug/L**		41	0.000
	Ba	137	**0.003**	**ug/L**	221.059	56	0.000
	Ho	165		**ug/L**		11	0.000
>	Lu	175		**ug/L**		205256	205255.854
	Tl	205	**0.005**	**ug/L**	269.392	505	0.000
	Pb	208	**-0.004**	**ug/L**	134.032	2046	-0.000
	Bi	209		**ug/L**		36	-0.000
	U	238	**0.004**	**ug/L**	78.598	302	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		83.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		83.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, February 26, 2010 21:33:32
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1676
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2874.9	2874.890	102.453	3.6
	Mg	24.0	18310.9	18310.933	447.610	2.4
	Co	58.9	34076.2	34076.202	570.365	1.7
	Rh	102.9	78681.9	78681.905	859.088	1.1
	In	114.9	92589.9	92589.892	600.865	0.6
	Pb	208.0	72499.7	72499.713	644.746	0.9
⌈>	Ba	137.9	88745.2	88745.243	431.744	0.5
⌊	Ba++	69.0	1220.3	0.014	0.000	3.4
⌈>	Ce	139.9	117167.7	117167.746	815.209	0.7
⌊	CeO	155.9	2319.6	0.020	0.000	2.5
	Bkgd	220.0	3.1	3.100	1.194	38.5

Current Optimization File Data

Current Value	Description
0.80	Nebulizer Gas Flow
4.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
25.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.8	2790.6
Co	59	11	6.5	32715.1
In	115	11	7.5	87414.0

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	577	2080	0.649
Be	9.0	8.9	2022	2080	0.663
Mg	24.0	24.0	5686	2124	0.607
Mg	25.0	25.0	5914	2080	0.664
Mg	26.0	26.0	6168	2120	0.665
Co	58.9	58.9	14184	2170	0.640
Rh	102.9	102.9	24871	2230	0.698
In	114.9	114.9	27787	2260	0.683
Ce	139.9	139.9	33849	2280	0.761
Pb	206.0	206.0	49948	2430	0.696
Pb	207.0	207.0	50159	2385	0.705
Pb	208.0	207.9	50439	2430	0.745
U	238.1	238.1	57734	2470	0.743

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, February 26, 2010 21:46:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniasset.mth
Dataset File: C:\elandata\Dataset\100226\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		8	
>	Sc	45		ug/L		802215	
	Ni	60		ug/L		60	
>	Ge	74		ug/L		226733	
	As	75		ug/L		286	
	Se	77		ug/L		2376	
	Se	82		ug/L		-7	
	Kr	83		ug/L		57	
>	Lu	175		ug/L		213403	
	Tl	205		ug/L		105	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, February 26, 2010 21:50:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**10.000**	**ug/L**	3.148	3106	0.004
|>	Sc	45		**ug/L**		799606	799606.225
⌊	Ni	60	**10.000**	**ug/L**	4.515	6800	0.008
⌈>	Ge	74		**ug/L**		226088	226088.275
|	As	75	**10.000**	**ug/L**	1.825	6372	0.027
|	Se	77		**ug/L**		2793	0.002
|	Se	82	**10.000**	**ug/L**	0.993	592	0.003
⌊	Kr	83		**ug/L**		37	-0.000
⌈>	Lu	175		**ug/L**		210671	210670.767
⌊	Tl	205	**10.000**	**ug/L**	1.623	64784	0.307

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45					
⌊	Ni	60					
⌈>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, February 26, 2010 21:54:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\Standard 2.003

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	**99.962**	**ug/L**	9.136	30774	0.037
> Sc	45		**ug/L**		829253	829253.257
Ni	60	**99.955**	**ug/L**	11.729	66460	0.081
> Ge	74		**ug/L**		219164	219163.879
As	75	**100.006**	**ug/L**	0.598	59656	0.271
Se	77		**ug/L**		6799	0.021
Se	82	**99.955**	**ug/L**	0.632	5554	0.025
Kr	83		**ug/L**		60	0.000
> Lu	175		**ug/L**		201825	201824.842
Tl	205	**100.008**	**ug/L**	1.225	624732	3.095

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
> Sc	45					
Ni	60					
> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175					
Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, February 26, 2010 21:58:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.873**	**ug/L**	3.954	16566	0.019
>	Sc	45		**ug/L**		872171	872171.376
	Ni	60	**51.283**	**ug/L**	2.544	36164	0.041
>	Ge	74		**ug/L**		221503	221502.597
	As	75	**50.142**	**ug/L**	1.694	30367	0.136
	Se	77		**ug/L**		4908	0.012
	Se	82	**52.606**	**ug/L**	0.845	2951	0.013
	Kr	83		**ug/L**		58	0.000
>	Lu	175		**ug/L**		204620	204619.792
	Tl	205	**51.244**	**ug/L**	2.298	324588	1.586

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	101.747				
>	Sc	45		108.7			
	Ni	60	102.566				
>	Ge	74		97.7			
	As	75	100.283				
	Se	77					
	Se	82	105.212				
	Kr	83					
>	Lu	175		95.9			
	Tl	205	102.487				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, February 26, 2010 22:02:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	24.794	12	0.000
>	Sc	45		**ug/L**		915828	915827.609
	Ni	60	**0.003**	**ug/L**	737.658	70	0.000
>	Ge	74		**ug/L**		226448	226448.305
	As	75	**0.198**	**ug/L**	199.435	406	0.001
	Se	77		**ug/L**		2709	0.001
	Se	82	**0.205**	**ug/L**	76.565	4	0.000
	Kr	83		**ug/L**		44	-0.000
>	Lu	175		**ug/L**		206332	206332.432
	Tl	205	**0.037**	**ug/L**	7.266	340	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		114.2			
	Ni	60					
>	Ge	74		99.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, February 26, 2010 22:06:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.543**	**ug/L**	10.647	193	0.000
>	Sc	45		**ug/L**		907308	907307.935
	Ni	60	**2.169**	**ug/L**	2.801	1657	0.002
>	Ge	74		**ug/L**		223844	223844.440
	As	75	**5.984**	**ug/L**	4.130	3911	0.016
	Se	77		**ug/L**		2934	0.003
	Se	82	**5.909**	**ug/L**	1.985	328	0.001
	Kr	83		**ug/L**		44	-0.000
>	Lu	175		**ug/L**		206597	206596.547
	Tl	205	**1.085**	**ug/L**	2.428	7037	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	108.645				
>	Sc	45		113.1			
	Ni	60	108.455				
>	Ge	74		98.7			
	As	75	119.670				
	Se	77					
	Se	82	118.171				
	Kr	83					
>	Lu	175		96.8			
	Tl	205	108.476				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, February 26, 2010 22:11:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.068**	**ug/L**	45.106	27	0.000
>	Sc	45		**ug/L**		772992	772992.329
	Ni	60	**4.107**	**ug/L**	3.067	2621	0.003
>	Ge	74		**ug/L**		192574	192573.540
	As	75	**0.839**	**ug/L**	86.833	682	0.002
	Se	77		**ug/L**		3701	0.009
	Se	82	**-2.534**	**ug/L**	5.135	-130	-0.001
	Kr	83		**ug/L**		220	0.001
>	Lu	175		**ug/L**		192047	192046.838
	Tl	205	**0.016**	**ug/L**	31.498	187	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.4			
	Ni	60	152.101				
>	Ge	74		84.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		90.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, February 26, 2010 22:15:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.814**	**ug/L**	6.175	5156	0.007
>	Sc	45		**ug/L**		734706	734706.092
	Ni	60	**22.418**	**ug/L**	7.067	13316	0.018
>	Ge	74		**ug/L**		191063	191063.101
	As	75	**22.098**	**ug/L**	2.323	11680	0.060
	Se	77		**ug/L**		4466	0.013
	Se	82	**19.101**	**ug/L**	3.188	920	0.005
	Kr	83		**ug/L**		191	0.001
>	Lu	175		**ug/L**		189129	189129.043
	Tl	205	**19.511**	**ug/L**	0.974	114297	0.604

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	94.071				
>	Sc	45		91.6			
	Ni	60	98.756				
>	Ge	74		84.3			
	As	75	110.492				
	Se	77					
	Se	82	95.507				
	Kr	83					
>	Lu	175		88.6			
	Tl	205	97.555				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 22:19:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.079**	**ug/L**	8.144	16402	0.018
>	Sc	45		**ug/L**		917163	917163.384
	Ni	60	**48.055**	**ug/L**	9.927	35460	0.039
>	Ge	74		**ug/L**		221469	221469.385
	As	75	**49.928**	**ug/L**	1.460	30235	0.135
	Se	77		**ug/L**		5288	0.013
	Se	82	**51.725**	**ug/L**	1.694	2901	0.013
	Kr	83		**ug/L**		48	-0.000
>	Lu	175		**ug/L**		204705	204705.090
	Tl	205	**51.233**	**ug/L**	0.448	324704	1.586

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	96.157				
>	Sc	45		114.3			
	Ni	60	96.110				
>	Ge	74		97.7			
	As	75	99.857				
	Se	77					
	Se	82	103.449				
	Kr	83					
>	Lu	175		95.9			
	Tl	205	102.466				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 22:23:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.006**	**ug/L**	80.364	11	0.000
>	Sc	45		**ug/L**		959030	959029.618
	Ni	60	**-0.010**	**ug/L**	36.186	65	-0.000
>	Ge	74		**ug/L**		226649	226648.543
	As	75	**0.290**	**ug/L**	77.887	463	0.001
	Se	77		**ug/L**		3135	0.003
	Se	82	**0.268**	**ug/L**	48.826	8	0.000
	Kr	83		**ug/L**		49	-0.000
>	Lu	175		**ug/L**		208182	208181.989
	Tl	205	**0.032**	**ug/L**	7.678	309	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		119.5			
	Ni	60					
>	Ge	74		100.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032573
Sample Date/Time: Friday, February 26, 2010 22:27:10
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\1202032573.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.080**	**ug/L**	16.777	37	0.000
>	Sc	45		**ug/L**		931191	931190.515
	Ni	60	**0.339**	**ug/L**	4.104	325	0.000
>	Ge	74		**ug/L**		228620	228619.892
	As	75	**0.214**	**ug/L**	123.895	420	0.001
	Se	77		**ug/L**		2222	-0.001
	Se	82	**0.684**	**ug/L**	63.091	32	0.000
	Kr	83		**ug/L**		40	-0.000
>	Lu	175		**ug/L**		218417	218417.367
	Tl	205	**0.106**	**ug/L**	4.325	827	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		116.1			
	Ni	60					
>	Ge	74		100.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032578
Sample Date/Time: Friday, February 26, 2010 22:31:13
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948748|40|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\1202032578.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**17.057**	**ug/L**	1.334	6314	0.006
>	Sc	45		**ug/L**		990006	990006.448
	Ni	60	**29.883**	**ug/L**	2.802	23950	0.024
>	Ge	74		**ug/L**		229105	229104.511
	As	75	**26.877**	**ug/L**	1.215	16970	0.073
	Se	77		**ug/L**		5956	0.016
	Se	82	**71.424**	**ug/L**	1.596	4146	0.018
	Kr	83		**ug/L**		49	-0.000
>	Lu	175		**ug/L**		209607	209607.333
	Tl	205	**30.337**	**ug/L**	1.070	196905	0.939

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		123.4			
	Ni	60					
>	Ge	74		101.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 22:35:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.965**	**ug/L**	5.536	16605	0.018
>	Sc	45		**ug/L**		948571	948570.530
	Ni	60	**47.164**	**ug/L**	7.470	36074	0.038
>	Ge	74		**ug/L**		222648	222647.581
	As	75	**49.818**	**ug/L**	1.021	30333	0.135
	Se	77		**ug/L**		5108	0.012
	Se	82	**50.921**	**ug/L**	1.975	2870	0.013
	Kr	83		**ug/L**		85	0.000
>	Lu	175		**ug/L**		204563	204562.791
	Tl	205	**50.807**	**ug/L**	0.281	321779	1.572

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	93.930				
>	Sc	45		118.2			
	Ni	60	94.327				
>	Ge	74		98.2			
	As	75	99.637				
	Se	77					
	Se	82	101.841				
	Kr	83					
>	Lu	175		95.9			
	Tl	205	101.615				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 22:39:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.006**	**ug/L**	66.082	12	0.000
>	Sc	45		**ug/L**		998840	998839.894
	Ni	60	**-0.011**	**ug/L**	141.629	66	-0.000
>	Ge	74		**ug/L**		223989	223989.327
	As	75	**0.506**	**ug/L**	41.000	589	0.001
	Se	77		**ug/L**		2808	0.002
	Se	82	**0.475**	**ug/L**	62.708	20	0.000
	Kr	83		**ug/L**		43	-0.000
>	Lu	175		**ug/L**		207074	207073.875
	Tl	205	**0.054**	**ug/L**	6.015	447	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		124.5			
	Ni	60					
>	Ge	74		98.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032574
Sample Date/Time: Friday, February 26, 2010 22:47:24
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\1202032574.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.521**	**ug/L**	6.787	609	0.001
>	Sc	45		**ug/L**		1055202	1055202.424
	Ni	60	**5.707**	**ug/L**	4.887	4937	0.005
>	Ge	74		**ug/L**		223768	223768.135
	As	75	**3.158**	**ug/L**	6.107	2195	0.009
	Se	77		**ug/L**		2325	-0.000
	Se	82	**0.971**	**ug/L**	39.849	47	0.000
	Kr	83		**ug/L**		96	0.000
>	Lu	175		**ug/L**		222957	222956.747
	Tl	205	**0.112**	**ug/L**	0.648	880	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		131.5			
	Ni	60					
>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032576
Sample Date/Time: Friday, February 26, 2010 22:51:26
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\1202032576.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.161**	**ug/L**	4.021	8354	0.008
>	Sc	45		**ug/L**		1009864	1009863.773
	Ni	60	**27.010**	**ug/L**	6.563	22042	0.022
>	Ge	74		**ug/L**		221805	221804.887
	As	75	**40.035**	**ug/L**	0.170	24338	0.108
	Se	77		**ug/L**		2750	0.002
	Se	82	**9.700**	**ug/L**	3.186	539	0.002
	Kr	83		**ug/L**		97	0.000
>	Lu	175		**ug/L**		225408	225408.167
	Tl	205	**44.594**	**ug/L**	1.672	311206	1.380

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		125.9			
	Ni	60					
>	Ge	74		97.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032577
Sample Date/Time: Friday, February 26, 2010 22:55:29
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\1202032577.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**21.814**	**ug/L**	1.708	8359	0.008
>	Sc	45		**ug/L**		1024856	1024856.128
	Ni	60	**24.431**	**ug/L**	0.663	20293	0.020
>	Ge	74		**ug/L**		223281	223281.279
	As	75	**39.729**	**ug/L**	1.115	24315	0.108
	Se	77		**ug/L**		2799	0.002
	Se	82	**9.517**	**ug/L**	8.653	532	0.002
	Kr	83		**ug/L**		73	0.000
>	Lu	175		**ug/L**		222597	222597.373
	Tl	205	**45.018**	**ug/L**	1.621	310257	1.393

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		127.8			
	Ni	60					
>	Ge	74		98.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032575
Sample Date/Time: Friday, February 26, 2010 22:59:32
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948748|10|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\1202032575.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.242**	**ug/L**	18.632	104	0.000
>	Sc	45		**ug/L**		1045837	1045837.058
	Ni	60	**1.022**	**ug/L**	7.847	939	0.001
>	Ge	74		**ug/L**		230466	230466.436
	As	75	**1.058**	**ug/L**	30.375	950	0.003
	Se	77		**ug/L**		3312	0.004
	Se	82	**0.654**	**ug/L**	6.122	31	0.000
	Kr	83		**ug/L**		45	-0.000
>	Lu	175		**ug/L**		211871	211870.673
	Tl	205	**0.079**	**ug/L**	2.375	619	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		130.4			
	Ni	60					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 23:15:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.505**	**ug/L**	2.285	17743	0.018
>	Sc	45		**ug/L**		1000068	1000068.090
	Ni	60	**45.366**	**ug/L**	1.050	36699	0.037
>	Ge	74		**ug/L**		225260	225260.317
	As	75	**50.267**	**ug/L**	1.412	30957	0.136
	Se	77		**ug/L**		5601	0.014
	Se	82	**52.595**	**ug/L**	2.203	3000	0.013
	Kr	83		**ug/L**		40	-0.000
>	Lu	175		**ug/L**		204064	204063.537
	Tl	205	**49.960**	**ug/L**	0.580	315649	1.546

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	95.010				
>	Sc	45		124.7			
	Ni	60	90.732				
>	Ge	74		99.4			
	As	75	100.535				
	Se	77					
	Se	82	105.190				
	Kr	83					
>	Lu	175		95.6			
	Tl	205	99.921				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 23:19:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.004**	**ug/L**	327.831	9	-0.000
>	Sc	45		**ug/L**		1073126	1073126.312
	Ni	60	**-0.025**	**ug/L**	14.211	59	-0.000
>	Ge	74		**ug/L**		228164	228164.347
	As	75	**0.755**	**ug/L**	106.230	756	0.002
	Se	77		**ug/L**		3322	0.004
	Se	82	**0.423**	**ug/L**	31.029	17	0.000
	Kr	83		**ug/L**		46	-0.000
>	Lu	175		**ug/L**		205016	205016.224
	Tl	205	**0.029**	**ug/L**	8.117	282	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		133.8			
	Ni	60					
>	Ge	74		100.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960001
Sample Date/Time: Friday, February 26, 2010 23:40:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960001.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.322**	**ug/L**	3.097	1653	0.002
>	Sc	45		**ug/L**		1018219	1018219.090
	Ni	60	**33.266**	**ug/L**	3.025	27412	0.027
>	Ge	74		**ug/L**		210679	210679.317
	As	75	**8.751**	**ug/L**	1.374	5260	0.024
	Se	77		**ug/L**		2030	-0.001
	Se	82	**-3.943**	**ug/L**	7.992	-218	-0.001
	Kr	83		**ug/L**		318	0.001
>	Lu	175		**ug/L**		204406	204406.153
	Tl	205	**1.092**	**ug/L**	1.621	7009	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		126.9			
	Ni	60					
>	Ge	74		92.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960002
Sample Date/Time: Friday, February 26, 2010 23:44:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960002.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.980**	**ug/L**	4.749	1120	0.001
>	Sc	45		**ug/L**		998670	998669.561
	Ni	60	**28.108**	**ug/L**	2.181	22736	0.023
>	Ge	74		**ug/L**		209855	209854.643
	As	75	**8.033**	**ug/L**	2.634	4832	0.022
	Se	77		**ug/L**		1967	-0.001
	Se	82	**-2.039**	**ug/L**	10.117	-116	-0.001
	Kr	83		**ug/L**		226	0.001
>	Lu	175		**ug/L**		208441	208441.434
	Tl	205	**0.698**	**ug/L**	1.883	4603	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		124.5			
	Ni	60					
>	Ge	74		92.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960003
Sample Date/Time: Friday, February 26, 2010 23:48:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748\|2\|rmj
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960003.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**4.282**	**ug/L**	2.961	1623	0.002
|>	Sc	45		**ug/L**		1009075	1009074.859
⌊	Ni	60	**34.085**	**ug/L**	0.564	27846	0.028
⌈>	Ge	74		**ug/L**		205763	205762.722
|	As	75	**9.817**	**ug/L**	4.224	5733	0.027
|	Se	77		**ug/L**		2014	-0.001
|	Se	82	**-4.622**	**ug/L**	11.727	-248	-0.001
⌊	Kr	83		**ug/L**		362	0.002
⌈>	Lu	175		**ug/L**		202150	202149.967
⌊	Tl	205	**1.042**	**ug/L**	1.331	6619	0.032

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		125.8			
⌊	Ni	60					
⌈>	Ge	74		90.8			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		94.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 23:52:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.032

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**43.081**	**ug/L**	2.855	16546	0.016
>	Sc	45		**ug/L**		1028158	1028158.211
	Ni	60	**42.275**	**ug/L**	2.739	35164	0.034
>	Ge	74		**ug/L**		219063	219063.080
	As	75	**50.415**	**ug/L**	1.435	30197	0.137
	Se	77		**ug/L**		5381	0.014
	Se	82	**50.432**	**ug/L**	1.899	2798	0.013
	Kr	83		**ug/L**		52	-0.000
>	Lu	175		**ug/L**		202619	202618.984
	Tl	205	**50.442**	**ug/L**	2.163	316373	1.561

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	86.161				
>	Sc	45		128.2			
	Ni	60	84.550				
>	Ge	74		96.6			
	As	75	100.829				
	Se	77					
	Se	82	100.865				
	Kr	83					
>	Lu	175		94.9			
	Tl	205	100.885				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 6	Ni	60	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 6

Report Date/Time: Friday, February 26, 2010 23:52:49

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 23:56:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.000**	**ug/L**	2089.553	10	0.000
>	Sc	45		**ug/L**		1079061	1079061.098
	Ni	60	**-0.013**	**ug/L**	32.594	70	-0.000
>	Ge	74		**ug/L**		228331	228331.070
	As	75	**0.458**	**ug/L**	13.870	572	0.001
	Se	77		**ug/L**		3481	0.005
	Se	82	**0.186**	**ug/L**	50.938	3	0.000
	Kr	83		**ug/L**		47	-0.000
>	Lu	175		**ug/L**		206510	206509.510
	Tl	205	**0.030**	**ug/L**	6.255	292	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		134.5			
	Ni	60					
>	Ge	74		100.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Int Std for QC	Sc 45	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960004
Sample Date/Time: Saturday, February 27, 2010 00:00:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960004.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.928**	**ug/L**	3.684	1869	0.002
>	Sc	45		**ug/L**		1010467	1010467.412
	Ni	60	**36.534**	**ug/L**	1.591	29880	0.029
>	Ge	74		**ug/L**		204985	204985.311
	As	75	**9.276**	**ug/L**	1.753	5410	0.025
	Se	77		**ug/L**		2242	0.000
	Se	82	**-4.436**	**ug/L**	16.407	-238	-0.001
	Kr	83		**ug/L**		357	0.001
>	Lu	175		**ug/L**		199806	199806.388
	Tl	205	**1.052**	**ug/L**	1.085	6600	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		126.0			
	Ni	60					
>	Ge	74		90.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960005
Sample Date/Time: Saturday, February 27, 2010 00:04:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960005.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.233**	**ug/L**	1.083	1922	0.002
>	Sc	45		**ug/L**		978525	978525.358
	Ni	60	**38.318**	**ug/L**	1.008	30347	0.031
>	Ge	74		**ug/L**		198119	198118.975
	As	75	**9.955**	**ug/L**	1.186	5593	0.027
	Se	77		**ug/L**		2086	0.000
	Se	82	**-4.753**	**ug/L**	9.316	-246	-0.001
	Kr	83		**ug/L**		375	0.002
>	Lu	175		**ug/L**		199114	199114.055
	Tl	205	**1.225**	**ug/L**	2.357	7644	0.038

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		122.0			
	Ni	60					
>	Ge	74		87.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960006
Sample Date/Time: Saturday, February 27, 2010 00:08:25
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960006.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**3.065**	**ug/L**	1.635	1135	0.001
|>	Sc	45		**ug/L**		983363	983363.433
⌊	Ni	60	**24.754**	**ug/L**	2.045	19724	0.020
⌈>	Ge	74		**ug/L**		202976	202975.864
|	As	75	**7.968**	**ug/L**	6.456	4638	0.022
|	Se	77		**ug/L**		1977	-0.001
|	Se	82	**-1.806**	**ug/L**	9.188	-100	-0.000
⌊	Kr	83		**ug/L**		207	0.001
⌈>	Lu	175		**ug/L**		203361	203360.949
⌊	Tl	205	**0.762**	**ug/L**	2.993	4895	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		122.6			
⌊	Ni	60					
⌈>	Ge	74		89.5			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		95.3			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960007
Sample Date/Time: Saturday, February 27, 2010 00:12:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rm|
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960007.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**4.634**	**ug/L**	0.521	1663	0.002
|>	Sc	45		**ug/L**		955889	955888.903
⌊	Ni	60	**38.671**	**ug/L**	1.664	29910	0.031
⌈>	Ge	74		**ug/L**		196699	196699.329
|	As	75	**10.504**	**ug/L**	1.149	5846	0.028
|	Se	77		**ug/L**		2046	-0.000
|	Se	82	**-4.856**	**ug/L**	11.276	-249	-0.001
⌊	Kr	83		**ug/L**		374	0.002
⌈>	Lu	175		**ug/L**		195478	195477.628
⌊	Tl	205	**1.304**	**ug/L**	0.660	7988	0.040

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		119.2			
⌊	Ni	60					
⌈>	Ge	74		86.8			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		91.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960008
Sample Date/Time: Saturday, February 27, 2010 00:16:33
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960008.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.951**	**ug/L**	0.998	1067	0.001
>	Sc	45		**ug/L**		960099	960099.433
	Ni	60	**24.120**	**ug/L**	2.242	18768	0.019
>	Ge	74		**ug/L**		200119	200118.654
	As	75	**7.858**	**ug/L**	1.437	4513	0.021
	Se	77		**ug/L**		1971	-0.001
	Se	82	**-1.920**	**ug/L**	8.498	-104	-0.000
	Kr	83		**ug/L**		202	0.001
>	Lu	175		**ug/L**		201868	201867.649
	Tl	205	**0.764**	**ug/L**	2.001	4874	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		119.7			
	Ni	60					
>	Ge	74		88.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960009
Sample Date/Time: Saturday, February 27, 2010 00:20:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960009.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.060**	**ug/L**	6.358	1110	0.001
>	Sc	45		**ug/L**		965012	965012.216
	Ni	60	**24.708**	**ug/L**	3.110	19310	0.020
>	Ge	74		**ug/L**		200568	200568.217
	As	75	**7.822**	**ug/L**	6.151	4503	0.021
	Se	77		**ug/L**		1935	-0.001
	Se	82	**-2.107**	**ug/L**	6.249	-114	-0.001
	Kr	83		**ug/L**		216	0.001
>	Lu	175		**ug/L**		199688	199687.972
	Tl	205	**0.734**	**ug/L**	3.911	4636	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		120.3			
	Ni	60					
>	Ge	74		88.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960010
Sample Date/Time: Saturday, February 27, 2010 00:24:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960010.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.981**	**ug/L**	5.809	727	0.001
>	Sc	45		**ug/L**		969716	969715.817
	Ni	60	**17.833**	**ug/L**	1.337	14036	0.014
>	Ge	74		**ug/L**		202024	202024.186
	As	75	**5.692**	**ug/L**	4.440	3370	0.015
	Se	77		**ug/L**		1893	-0.001
	Se	82	**-1.147**	**ug/L**	29.194	-65	-0.000
	Kr	83		**ug/L**		165	0.001
>	Lu	175		**ug/L**		200645	200644.693
	Tl	205	**0.497**	**ug/L**	1.160	3183	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		120.9			
	Ni	60					
>	Ge	74		89.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960011
Sample Date/Time: Saturday, February 27, 2010 00:28:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960011.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.365**	**ug/L**	3.432	1537	0.002
>	Sc	45		**ug/L**		937983	937983.407
	Ni	60	**33.940**	**ug/L**	2.082	25768	0.027
>	Ge	74		**ug/L**		195153	195153.214
	As	75	**8.397**	**ug/L**	3.446	4686	0.023
	Se	77		**ug/L**		2013	-0.000
	Se	82	**-4.638**	**ug/L**	11.612	-236	-0.001
	Kr	83		**ug/L**		339	0.001
>	Lu	175		**ug/L**		194783	194783.200
	Tl	205	**1.013**	**ug/L**	1.057	6202	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		116.9			
	Ni	60					
>	Ge	74		86.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		91.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 00:32:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**42.708**	**ug/L**	2.515	15562	0.016
|>	Sc	45		**ug/L**		975217	975217.297
⌊	Ni	60	**41.718**	**ug/L**	0.954	32924	0.034
⌈>	Ge	74		**ug/L**		208252	208252.424
|	As	75	**51.110**	**ug/L**	0.944	29100	0.138
|	Se	77		**ug/L**		5267	0.015
|	Se	82	**49.757**	**ug/L**	2.242	2623	0.013
⌊	Kr	83		**ug/L**		53	0.000
⌈>	Lu	175		**ug/L**		195653	195652.635
⌊	Tl	205	**51.143**	**ug/L**	1.074	309797	1.583

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	85.417				
|>	Sc	45		121.6			
⌊	Ni	60	83.436				
⌈>	Ge	74		91.8			
|	As	75	102.220				
|	Se	77					
|	Se	82	99.513				
⌊	Kr	83					
⌈>	Lu	175		91.7			
⌊	Tl	205	102.287				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 6	Ni	60	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 00:36:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.001**	**ug/L**	228.941	10	-0.000
>	Sc	45		**ug/L**		1035973	1035972.644
	Ni	60	**-0.018**	**ug/L**	30.107	63	-0.000
>	Ge	74		**ug/L**		218331	218330.919
	As	75	**0.649**	**ug/L**	56.780	660	0.002
	Se	77		**ug/L**		3262	0.004
	Se	82	**0.181**	**ug/L**	129.820	3	0.000
	Kr	83		**ug/L**		56	0.000
>	Lu	175		**ug/L**		200225	200224.717
	Tl	205	**0.031**	**ug/L**	18.792	292	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		129.1			
	Ni	60					
>	Ge	74		96.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Int Std for QC	Sc 45	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, February 27, 2010 00:51:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\Blank.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9		ug/L		8	
|>	Sc	45		ug/L		1054889	
⌊	Ni	60		ug/L		60	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45					
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, February 27, 2010 00:55:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\Standard 1.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**10.000**	**ug/L**	0.999	2966	0.003
|>	Sc	45		**ug/L**		1055591	1055590.905
⌊	Ni	60	**10.000**	**ug/L**	1.710	6479	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45					
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, February 27, 2010 00:58:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\Standard 2.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**100.028**	**ug/L**	0.520	29918	0.029
|>	Sc	45		**ug/L**		1036355	1036355.148
⌊	Ni	60	**100.031**	**ug/L**	1.661	65121	0.063

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45					
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, February 27, 2010 01:01:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 1.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**52.345**	**ug/L**	1.893	16111	0.015
|>	Sc	45		**ug/L**		1066214	1066214.349
⌊	Ni	60	**52.760**	**ug/L**	0.743	35368	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	104.689				
|>	Sc	45		101.1			
⌊	Ni	60	105.521				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, February 27, 2010 01:03:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 2.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.009**	**ug/L**	80.709	11	0.000
|>	Sc	45		**ug/L**		1096441	1096441.113
⌊	Ni	60	**0.005**	**ug/L**	231.076	66	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		103.9			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, February 27, 2010 01:06:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 3.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.579**	**ug/L**	8.539	192	0.000
|>	Sc	45		**ug/L**		1104112	1104112.107
⌊	Ni	60	**2.175**	**ug/L**	1.573	1570	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9	115.762				
|>	Sc	45		104.7			
⌊	Ni	60	108.760				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, February 27, 2010 01:09:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 4.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.108**	**ug/L**	8.828	32	0.000
|>	Sc	45		**ug/L**		834984	834984.390
⌊	Ni	60	**4.675**	**ug/L**	1.243	2498	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		79.2			
⌊	Ni	60	141.238				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, February 27, 2010 01:11:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 5.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌜	Be	9	**19.549**	**ug/L**	2.086	4659	0.006
|>	Sc	45		**ug/L**		825082	825081.867
⌞	Ni	60	**24.124**	**ug/L**	1.378	12539	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌜	Be	9	97.746				
|>	Sc	45		78.2			
⌞	Ni	60	106.271				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std.	for QC Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 01:14:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**50.357**	**ug/L**	0.698	14999	0.015
|>	Sc	45		**ug/L**		1031834	1031833.834
⌊	Ni	60	**51.833**	**ug/L**	2.355	33622	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	100.713				
|>	Sc	45		97.8			
⌊	Ni	60	103.666				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 01:16:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.002**	**ug/L**	521.779	8	0.000
|>	Sc	45		**ug/L**		1055014	1055014.161
⌊	Ni	60	**0.008**	**ug/L**	203.329	66	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		100.0			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032573
Sample Date/Time: Saturday, February 27, 2010 01:19:38
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\1202032573.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.092**	**ug/L**	4.848	36	0.000
|>	Sc	45		**ug/L**		1077181	1077181.450
⌊	Ni	60	**0.361**	**ug/L**	4.781	305	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		102.1			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032578
Sample Date/Time: Saturday, February 27, 2010 01:22:45
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948748|40|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\1202032578.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**18.667**	**ug/L**	2.288	5945	0.005
|>	Sc	45		**ug/L**		1102495	1102495.431
⌊	Ni	60	**33.855**	**ug/L**	2.085	23484	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		104.5			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032574
Sample Date/Time: Saturday, February 27, 2010 01:29:01
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\1202032574.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	**1.829**	**ug/L**	3.244	581	0.001
|>	Sc	45		**ug/L**		1085647	1085647.335
[	Ni	60	**6.929**	**ug/L**	0.729	4784	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
|>	Sc	45		102.9			
[	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032576
Sample Date/Time: Saturday, February 27, 2010 01:32:09
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948748|2|rm|
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\1202032576.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**24.556**	**ug/L**	2.566	7692	0.007
|>	Sc	45		**ug/L**		1084826	1084825.549
⌊	Ni	60	**31.146**	**ug/L**	2.726	21263	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		102.8			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032577
Sample Date/Time: Saturday, February 27, 2010 01:35:17
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\1202032577.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**24.693**	**ug/L**	2.394	7717	0.007
|>	Sc	45		**ug/L**		1082321	1082321.051
⌊	Ni	60	**29.053**	**ug/L**	2.318	19793	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		102.6			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032575
Sample Date/Time: Saturday, February 27, 2010 01:38:24
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948748|10|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\1202032575.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.213**	**ug/L**	16.823	79	0.000
|>	Sc	45		**ug/L**		1148378	1148377.955
⌊	Ni	60	**1.166**	**ug/L**	3.401	905	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		108.9			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 01:44:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**52.551**	**ug/L**	3.827	16777	0.015
|>	Sc	45		**ug/L**		1106854	1106853.778
⌊	Ni	60	**52.380**	**ug/L**	3.590	36422	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	105.101				
|>	Sc	45		104.9			
⌊	Ni	60	104.761				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 01:47:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.010**	**ug/L**	41.355	12	0.000
|>	Sc	45		**ug/L**		1143576	1143575.739
⌊	Ni	60	**0.002**	**ug/L**	751.503	66	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		108.4			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960001
Sample Date/Time: Saturday, February 27, 2010 02:08:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960001.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**5.231**	**ug/L**	**1**.824	1527	0.002
|>	Sc	45		**ug/L**		1007258	1007257.937
⌊	Ni	60	**41.238**	**ug/L**	2.003	26126	0.026

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		95.5			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960002
Sample Date/Time: Saturday, February 27, 2010 02:11:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960002.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**3.768**	**ug/L**	2.081	1068	0.001
|>	Sc	45		**ug/L**		975943	975942.908
⌊	Ni	60	**35.045**	**ug/L**	2.564	21513	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		92.5			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 02:15:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**52.653**	**ug/L**	0.819	14939	0.015
|>	Sc	45		**ug/L**		982872	982872.301
⌊	Ni	60	**54.376**	**ug/L**	0.665	33603	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	105.306				
|>	Sc	45		93.2			
⌊	Ni	60	108.753				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 02:17:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.005**	**ug/L**	142.515	9	0.000
|>	Sc	45		**ug/L**		1040440	1040440.169
⌊	Ni	60	**0.016**	**ug/L**	67.306	70	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		98.6			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960003
Sample Date/Time: Saturday, February 27, 2010 02:20:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960003.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**5.251**	**ug/L**	2.620	1470	0.002
|>	Sc	45		**ug/L**		965875	965874.842
⌊	Ni	60	**43.853**	**ug/L**	2.054	26635	0.028

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		91.6			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960004
Sample Date/Time: Saturday, February 27, 2010 02:23:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960004.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌜	Be	9	**5.904**	**ug/L**	2.075	1589	0.002
|>	Sc	45		**ug/L**		928928	928928.033
⌞	Ni	60	**47.441**	**ug/L**	0.619	27713	0.030

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌜	Be	9					
|>	Sc	45		88.1			
⌞	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960005
Sample Date/Time: Saturday, February 27, 2010 02:26:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960005.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌜	Be	9	**6.759**	**ug/L**	2.066	1770	0.002
|>	Sc	45		**ug/L**		904305	904304.689
⌞	Ni	60	**50.147**	**ug/L**	1.102	28515	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌜	Be	9					
|>	Sc	45		85.7			
⌞	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960006
Sample Date/Time: Saturday, February 27, 2010 02:29:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960006.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**3.639**	**ug/L**	3.485	961	0.001
|>	Sc	45		**ug/L**		908761	908761.414
⌊	Ni	60	**32.133**	**ug/L**	2.385	18379	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		86.1			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960007
Sample Date/Time: Saturday, February 27, 2010 02:32:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960007.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌜	Be	9	**5.632**	**ug/L**	1.744	1472	0.002
|>	Sc	45		**ug/L**		901869	901869.264
⌞	Ni	60	**49.615**	**ug/L**	0.552	28137	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌜	Be	9					
|>	Sc	45		85.5			
⌞	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960008
Sample Date/Time: Saturday, February 27, 2010 02:36:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960008.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**3.661**	**ug/L**	3.515	939	0.001
|>	Sc	45		**ug/L**		882396	882395.883
⌊	Ni	60	**31.375**	**ug/L**	2.057	17428	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		83.6			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960009
Sample Date/Time: Saturday, February 27, 2010 02:39:13
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960009.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**3.927**	**ug/L**	1.234	1016	0.001
|>	Sc	45		**ug/L**		890573	890573.282
⌊	Ni	60	**31.955**	**ug/L**	0.955	17912	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		84.4			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960010
Sample Date/Time: Saturday, February 27, 2010 02:42:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960010.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**2.514**	**ug/L**	2.713	665	0.001
|>	Sc	45		**ug/L**		907569	907568.758
⌊	Ni	60	**22.873**	**ug/L**	0.961	13080	0.014

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		86.0			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960011
Sample Date/Time: Saturday, February 27, 2010 02:45:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960011.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**5.349**	**ug/L**	2.036	1384	0.002
|>	Sc	45		**ug/L**		892866	892865.855
⌊	Ni	60	**43.013**	**ug/L**	0.952	24157	0.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		84.6			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 02:48:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**52.597**	**ug/L**	2.131	13619	0.015
|>	Sc	45		**ug/L**		896998	896997.578
⌊	Ni	60	**54.606**	**ug/L**	1.711	30794	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	105.195				
|>	Sc	45		85.0			
⌊	Ni	60	109.212				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 02:51:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.017**	**ug/L**	66.691	11	0.000
>	Sc	45		**ug/L**		937064	937064.355
	Ni	60	**0.020**	**ug/L**	56.377	65	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		88.8			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

```
================================================================================
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 02/18/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021810S1.SIF        Results Data Set Name: 021810S1

================================================================================
Element: Hg    Seq. No.: 1        AS Loc.: 1   Date: 02/18/2010
Sample ID: Calib Blank
--------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1                            0.0046     0.0046   09:45:19  No
 2                            0.0045     0.0045   09:45:54  No
Mean:                         0.0046
SD  :                         0.0001
%RSD:                         2.6075
Auto-zero performed.

================================================================================
Element: Hg    Seq. No.: 2        AS Loc.: 2   Date: 02/18/2010
Sample ID: S0.2
--------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1                            0.0019     0.0065   09:47:17  No
 2                            0.0017     0.0063   09:47:51  No
Mean:                         0.0018
SD  :                         0.0001
%RSD:                         7.2627
[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient:  1.00000                Slope: 0.00908
Intercept : 0.00000

================================================================================
Element: Hg    Seq. No.: 3        AS Loc.: 3   Date: 02/18/2010
Sample ID: S0.5
--------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1                            0.0052     0.0098   09:49:14  No
 2                            0.0054     0.0099   09:49:48  No
Mean:                         0.0053
SD  :                         0.0001
%RSD:                         2.3316
[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient:  0.99797                Slope: 0.01065
Intercept : -0.00012

================================================================================
Element: Hg    Seq. No.: 4        AS Loc.: 4   Date: 02/18/2010
Sample ID: S2.0
--------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1                            0.0209     0.0255   09:51:13  No
 2                            0.0210     0.0255   09:51:49  No
Mean:                         0.0210
SD  :                         0.0000
%RSD:                         0.1449
[Hg] Standard number 3 applied. [2.000]
```

Correlation Coefficient: 0.99989 Slope: 0.01053
Intercept : -0.00009

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 02/18/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0521	0.0567	09:53:13	No
2			0.0519	0.0564	09:53:49	No
Mean:			0.0520			
SD :			0.0002			
%RSD:			0.3044			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99997 Slope: 0.01042
Intercept : -0.00003

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 02/18/2010
Sample ID: S10

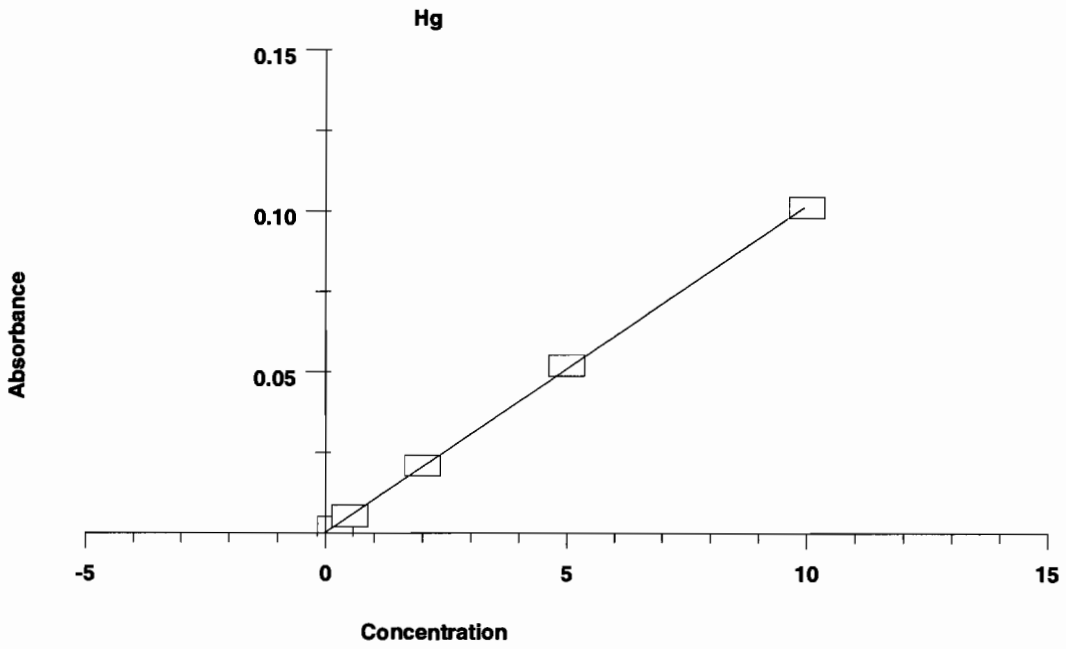
Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.1014	0.1060	09:55:15	No
2			0.1009	0.1054	09:55:50	No
Mean:			0.1011			
SD :			0.0004			
%RSD:			0.3679			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99989 Slope: 0.01014
Intercept : 0.00028

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0046	---	----	----	----
S0.2	0.0018	0.200	0.152	0.0001	7.3
S0.5	0.0053	0.500	0.494	0.0001	2.3
S2.0	0.0210	2.000	2.039	0.0000	0.1
S5.0	0.0520	5.000	5.098	0.0002	0.3
S10	0.1011	10.000	9.944	0.0004	0.4

Correlation Coefficient: 0.99989 Slope: 0.01014 Intercept: 0.0003



Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 02/18/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.154	5.154	0.0525	0.0571	09:57:18	No
2	5.108	5.108	0.0521	0.0566	09:57:53	No
Mean:	5.131	5.131	0.0523			
SD :	0.0323	0.0323	0.0003			
%RSD:	0.6	0.6	0.6260			

QC value within specified limits.

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 02/18/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.120	-0.120	-0.0009	0.0036	09:59:15	No
2	-0.138	-0.138	-0.0011	0.0034	09:59:50	No
Mean:	-0.129	-0.129	-0.0010			
SD :	0.0127	0.0127	0.0001			
%RSD:	9.9	9.9	12.5442			

QC value within specified limits.

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 02/18/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.225	0.225	0.0026	0.0071	10:01:12	No
2	0.211	0.211	0.0024	0.0070	10:01:47	No
Mean:	0.218	0.218	0.0025			
SD :	0.0095	0.0095	0.0001			
%RSD:	4.3	4.3	3.8605			

QC value within specified limits.

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.040	5.040	0.0514	0.0559	10:03:12	No
2	5.078	5.078	0.0518	0.0563	10:03:46	No
Mean:	5.059	5.059	0.0516			
SD :	0.0274	0.0274	0.0003			
%RSD:	0.5	0.5	0.5390			

QC value within specified limits.

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.040	-0.040	-0.0001	0.0044	10:05:14	No
2	-0.052	-0.052	-0.0003	0.0043	10:05:49	No
Mean:	-0.046	-0.046	-0.0002			
SD :	0.0083	0.0083	0.0001			
%RSD:	18.0	18.0	43.9084			

QC value within specified limits.

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 02/18/2010
Sample ID: 1202037115|i||950565|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.073	-0.073	-0.0005	0.0041	10:07:15	No
2	-0.088	-0.088	-0.0006	0.0039	10:07:50	No
Mean:	-0.080	-0.080	-0.0005			
SD :	0.0102	0.0102	0.0001			
%RSD:	12.7	12.7	19.1745			

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 02/18/2010
Sample ID: 1202037116|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.092	4.092	0.0418	0.0463	10:09:15	No
2	3.952	3.952	0.0404	0.0449	10:09:50	No
Mean:	4.022	4.022	0.0411			
SD :	0.0991	0.0991	0.0010			
%RSD:	2.5	2.5	2.4475			

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 02/18/2010
Sample ID: 245969001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.246	0.246	0.0028	0.0073	10:11:18	No
2	0.244	0.244	0.0027	0.0073	10:11:53	No
Mean:	0.245	0.245	0.0028			
SD :	0.0019	0.0019	0.0000			
%RSD:	0.8	0.8	0.7089			

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 02/18/2010
Sample ID: 1202037117|i|||DUP

%RSD: 1.2 1.2 1.1178

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 02/18/2010
Sample ID: 245969004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.121	0.121	0.0015	0.0061	10:25:06	No
2	0.086	0.086	0.0011	0.0057	10:25:41	No
Mean:	0.103	0.103	0.0013			
SD :	0.0247	0.0247	0.0003			
%RSD:	23.9	23.9	18.9148			

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.046	5.046	0.0515	0.0560	10:27:06	No
2	5.089	5.089	0.0519	0.0565	10:27:40	No
Mean:	5.068	5.068	0.0517			
SD :	0.0301	0.0301	0.0003			
%RSD:	0.6	0.6	0.5903			

QC value within specified limits.

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.064	-0.064	-0.0004	0.0042	10:29:09	No
2	-0.067	-0.067	-0.0004	0.0042	10:29:44	No
Mean:	-0.065	-0.065	-0.0004			
SD :	0.0021	0.0021	0.0000			
%RSD:	3.3	3.3	5.6045			

QC value within specified limits.

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 02/18/2010
Sample ID: 245969005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.140	0.140	0.0017	0.0063	10:31:09	No
2	0.120	0.120	0.0015	0.0061	10:31:44	No
Mean:	0.130	0.130	0.0016			
SD :	0.0141	0.0141	0.0001			
%RSD:	10.8	10.8	8.9311			

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 02/18/2010
Sample ID: 245969006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.096	0.096	0.0012	0.0058	10:33:07	No
2	0.085	0.085	0.0011	0.0057	10:33:42	No
Mean:	0.090	0.090	0.0012			
SD :	0.0078	0.0078	0.0001			
%RSD:	8.6	8.6	6.6265			

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 02/18/2010
Sample ID: 245969007|i|||

%RSD: 3.1 3.1 2.4888

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 02/18/2010
Sample ID: 245969013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.245	0.245	0.0028	0.0073	10:47:09	No
2	0.224	0.224	0.0025	0.0071	10:47:44	No
Mean:	0.234	0.234	0.0027			
SD :	0.0147	0.0147	0.0001			
%RSD:	6.3	6.3	5.6188			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 02/18/2010
Sample ID: 245969014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.144	0.144	0.0017	0.0063	10:49:12	No
2	0.132	0.132	0.0016	0.0062	10:49:47	No
Mean:	0.138	0.138	0.0017			
SD :	0.0087	0.0087	0.0001			
%RSD:	6.3	6.3	5.2634			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.163	5.163	0.0526	0.0572	10:51:15	No
2	5.285	5.285	0.0539	0.0584	10:51:50	No
Mean:	5.224	5.224	0.0533			
SD :	0.0865	0.0865	0.0009			
%RSD:	1.7	1.7	1.6467			

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0005	0.0041	10:53:18	No
2	-0.083	-0.083	-0.0006	0.0040	10:53:53	No
Mean:	-0.080	-0.080	-0.0005			
SD :	0.0044	0.0044	0.0000			
%RSD:	5.4	5.4	8.2472			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 02/18/2010
Sample ID: 245969015|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.223	0.223	0.0025	0.0071	10:55:17	No
2	0.204	0.204	0.0023	0.0069	10:55:51	No
Mean:	0.213	0.213	0.0024			
SD :	0.0132	0.0132	0.0001			
%RSD:	6.2	6.2	5.4733			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 02/18/2010
Sample ID: 1202039079|i||951467|MB

%RSD: 1.1 1.1 1.0627

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/18/2010
Sample ID: 1202039087|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.127	-0.127	-0.0010	0.0035	11:08:50	No
2	-0.131	-0.131	-0.0011	0.0035	11:09:24	No
Mean:	-0.129	-0.129	-0.0010			
SD :	0.0029	0.0029	0.0000			
%RSD:	2.2	2.2	2.8265			

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 02/18/2010
Sample ID: 246285002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.103	0.103	0.0013	0.0059	11:10:48	No
2	0.090	0.090	0.0012	0.0058	11:11:23	No
Mean:	0.097	0.097	0.0013			
SD :	0.0086	0.0086	0.0001			
%RSD:	8.9	8.9	6.9719			

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 02/18/2010
Sample ID: 246285003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.328	0.328	0.0036	0.0082	11:12:47	No
2	0.310	0.310	0.0034	0.0080	11:13:23	No
Mean:	0.319	0.319	0.0035			
SD :	0.0125	0.0125	0.0001			
%RSD:	3.9	3.9	3.6171			

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.195	5.195	0.0530	0.0575	11:14:47	No
2	5.107	5.107	0.0521	0.0566	11:15:22	No
Mean:	5.151	5.151	0.0525			
SD :	0.0627	0.0627	0.0006			
%RSD:	1.2	1.2	1.2114			

QC value within specified limits.

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.105	-0.105	-0.0008	0.0038	11:16:50	No
2	-0.107	-0.107	-0.0008	0.0037	11:17:25	No
Mean:	-0.106	-0.106	-0.0008			
SD :	0.0020	0.0020	0.0000			
%RSD:	1.9	1.9	2.5083			

QC value within specified limits.

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 02/18/2010
Sample ID: 246285004|i|||

%RSD: 2.1 2.1 1.9191

==========

Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 02/18/2010
Sample ID: 246285010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.122	0.122	0.0015	0.0061	11:30:55	No
2	0.119	0.119	0.0015	0.0060	11:31:30	No
Mean:	0.121	0.121	0.0015			
SD :	0.0026	0.0026	0.0000			
%RSD:	2.2	2.2	1.7555			

==========

Element: Hg Seq. No.: 55 AS Loc.: 49 Date: 02/18/2010
Sample ID: 246285011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0000	0.0046	11:32:50	No
2	-0.033	-0.033	-0.0001	0.0045	11:33:24	No
Mean:	-0.028	-0.028	0.0000			
SD :	0.0065	0.0065	0.0001			
%RSD:	22.9	22.9	658.9645			

==========

Element: Hg Seq. No.: 56 AS Loc.: 50 Date: 02/18/2010
Sample ID: 246291001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.580	0.580	0.0062	0.0107	11:34:44	No
2	0.579	0.579	0.0061	0.0107	11:35:19	No
Mean:	0.579	0.579	0.0062			
SD :	0.0007	0.0007	0.0000			
%RSD:	0.1	0.1	0.1126			

==========

Element: Hg Seq. No.: 57 AS Loc.: 51 Date: 02/18/2010
Sample ID: 246291002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.075	-0.075	-0.0005	0.0041	11:36:41	No
2	-0.092	-0.092	-0.0007	0.0039	11:37:16	No
Mean:	-0.084	-0.084	-0.0006			
SD :	0.0120	0.0120	0.0001			
%RSD:	14.3	14.3	21.3135			

==========

Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.997	4.997	0.0510	0.0555	11:38:40	No
2	5.018	5.018	0.0512	0.0557	11:39:15	No
Mean:	5.007	5.007	0.0511			
SD :	0.0152	0.0152	0.0002			
%RSD:	0.3	0.3	0.3010			

QC value within specified limits.

==========

Element: Hg Seq. No.: 59 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.154	-0.154	-0.0013	0.0033	11:40:43	No
2	-0.153	-0.153	-0.0013	0.0033	11:41:18	No
Mean:	-0.154	-0.154	-0.0013			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.7	0.7	0.8705			

QC value within specified limits.

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 02/18/2010
Sample ID: 246291003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.117	1.117	0.0116	0.0162	11:42:43	No
2	1.113	1.113	0.0116	0.0161	11:43:18	No
Mean:	1.115	1.115	0.0116			
SD :	0.0031	0.0031	0.0000			
%RSD:	0.3	0.3	0.2711			

Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 02/18/2010
Sample ID: 246291004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.954	0.954	0.0099	0.0145	11:44:40	No
2	0.930	0.930	0.0097	0.0143	11:45:15	No
Mean:	0.942	0.942	0.0098			
SD :	0.0168	0.0168	0.0002			
%RSD:	1.8	1.8	1.7363			

Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 02/18/2010
Sample ID: 246291005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0005	0.0050	11:46:37	No
2	0.013	0.013	0.0004	0.0050	11:47:12	No
Mean:	0.016	0.016	0.0004			
SD :	0.0038	0.0038	0.0000			
%RSD:	24.1	24.1	8.8365			

Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 02/18/2010
Sample ID: 246291006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.015	-0.015	0.0001	0.0047	11:48:34	No
2	-0.026	-0.026	0.0000	0.0046	11:49:09	No
Mean:	-0.020	-0.020	0.0001			
SD :	0.0078	0.0078	0.0001			
%RSD:	38.5	38.5	110.3645			

Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 02/18/2010
Sample ID: 246291007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.048	-0.048	-0.0002	0.0043	11:50:33	No
2	-0.052	-0.052	-0.0003	0.0043	11:51:08	No
Mean:	-0.050	-0.050	-0.0002			
SD :	0.0027	0.0027	0.0000			

%RSD:	5.5	5.5	11.9973			

Element: Hg Seq. No.: 65 AS Loc.: 57 Date: 02/18/2010
Sample ID: 246291008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.378	0.378	0.0041	0.0087	11:52:32	No
2	0.374	0.374	0.0041	0.0086	11:53:06	No
Mean:	0.376	0.376	0.0041			
SD :	0.0033	0.0033	0.0000			
%RSD:	0.9	0.9	0.8199			

Element: Hg Seq. No.: 66 AS Loc.: 58 Date: 02/18/2010
Sample ID: 246291009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.880	1.880	0.0193	0.0239	11:54:30	No
2	1.884	1.884	0.0194	0.0239	11:55:05	No
Mean:	1.882	1.882	0.0194			
SD :	0.0028	0.0028	0.0000			
%RSD:	0.1	0.1	0.1449			

Element: Hg Seq. No.: 67 AS Loc.: 59 Date: 02/18/2010
Sample ID: 1202039184|i||951512|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.178	-0.178	-0.0015	0.0030	11:56:29	No
2	-0.189	-0.189	-0.0016	0.0029	11:57:04	No
Mean:	-0.183	-0.183	-0.0016			
SD :	0.0082	0.0082	0.0001			
%RSD:	4.5	4.5	5.2496			

Element: Hg Seq. No.: 68 AS Loc.: 60 Date: 02/18/2010
Sample ID: 1202039185|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.043	4.043	0.0413	0.0458	11:58:29	No
2	4.136	4.136	0.0422	0.0468	11:59:04	No
Mean:	4.090	4.090	0.0418			
SD :	0.0663	0.0663	0.0007			
%RSD:	1.6	1.6	1.6101			

Element: Hg Seq. No.: 69 AS Loc.: 61 Date: 02/18/2010
Sample ID: 245960001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.131	0.131	0.0016	0.0062	12:00:31	No
2	0.129	0.129	0.0016	0.0061	12:01:06	No
Mean:	0.130	0.130	0.0016			
SD :	0.0018	0.0018	0.0000			
%RSD:	1.4	1.4	1.1554			

Element: Hg Seq. No.: 70 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Time	Peak

#	µg/L	µg/L	Signal	Height		Stored
1	5.033	5.033	0.0513	0.0559	12:02:32	No
2	4.998	4.998	0.0510	0.0555	12:03:07	No
Mean:	5.015	5.015	0.0511			
SD :	0.0249	0.0249	0.0003			
%RSD:	0.5	0.5	0.4945			

QC value within specified limits.

==========

Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.012	-0.012	0.0002	0.0047	12:04:35	No
2	-0.004	-0.004	0.0002	0.0048	12:05:09	No
Mean:	-0.008	-0.008	0.0002			
SD :	0.0053	0.0053	0.0001			
%RSD:	65.8	65.8	27.7211			

QC value within specified limits.

==========

Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 02/18/2010
Sample ID: 245960002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.081	0.081	0.0011	0.0057	12:06:35	No
2	0.068	0.068	0.0010	0.0055	12:07:10	No
Mean:	0.074	0.074	0.0010			
SD :	0.0085	0.0085	0.0001			
%RSD:	11.4	11.4	8.3596			

==========

Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 02/18/2010
Sample ID: 245960003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.196	0.196	0.0023	0.0068	12:08:32	No
2	0.194	0.194	0.0022	0.0068	12:09:06	No
Mean:	0.195	0.195	0.0023			
SD :	0.0009	0.0009	0.0000			
%RSD:	0.5	0.5	0.3972			

==========

Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 02/18/2010
Sample ID: 245960004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.164	0.164	0.0019	0.0065	12:10:26	No
2	0.162	0.162	0.0019	0.0065	12:11:01	No
Mean:	0.163	0.163	0.0019			
SD :	0.0010	0.0010	0.0000			
%RSD:	0.6	0.6	0.5000			

==========

Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 02/18/2010
Sample ID: 245960005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.189	0.189	0.0022	0.0068	12:12:22	No
2	0.173	0.173	0.0020	0.0066	12:12:57	No
Mean:	0.181	0.181	0.0021			
SD :	0.0112	0.0112	0.0001			

%RSD:	6.2	6.2	5.3722

Element: Hg Seq. No.: 76 AS Loc.: 66 Date: 02/18/2010
Sample ID: 245960006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.080	0.080	0.0011	0.0056	12:14:18	No
2	0.077	0.077	0.0011	0.0056	12:14:53	No
Mean:	0.078	0.078	0.0011			
SD :	0.0021	0.0021	0.0000			
%RSD:	2.7	2.7	2.0105			

Element: Hg Seq. No.: 77 AS Loc.: 67 Date: 02/18/2010
Sample ID: 245960007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.154	0.154	0.0018	0.0064	12:16:14	No
2	0.157	0.157	0.0019	0.0064	12:16:49	No
Mean:	0.155	0.155	0.0019			
SD :	0.0019	0.0019	0.0000			
%RSD:	1.2	1.2	1.0166			

Element: Hg Seq. No.: 78 AS Loc.: 68 Date: 02/18/2010
Sample ID: 245960008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.028	0.028	0.0006	0.0051	12:18:10	No
2	0.038	0.038	0.0007	0.0052	12:18:45	No
Mean:	0.033	0.033	0.0006			
SD :	0.0070	0.0070	0.0001			
%RSD:	21.3	21.3	11.6470			

Element: Hg Seq. No.: 79 AS Loc.: 69 Date: 02/18/2010
Sample ID: 245960009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.054	0.054	0.0008	0.0054	12:20:07	No
2	0.043	0.043	0.0007	0.0053	12:20:42	No
Mean:	0.048	0.048	0.0008			
SD :	0.0080	0.0080	0.0001			
%RSD:	16.6	16.6	10.5761			

Element: Hg Seq. No.: 80 AS Loc.: 70 Date: 02/18/2010
Sample ID: 245960010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.101	0.101	0.0013	0.0059	12:22:04	No
2	0.094	0.094	0.0012	0.0058	12:22:38	No
Mean:	0.098	0.098	0.0013			
SD :	0.0048	0.0048	0.0000			
%RSD:	4.9	4.9	3.8069			

Element: Hg Seq. No.: 81 AS Loc.: 71 Date: 02/18/2010
Sample ID: 245960011|i|||

Repl	SampleConc	StndConc	BlnkCorr	Peak	Time	Peak

#	µg/L	µg/L	Signal	Height		Stored
1	0.170	0.170	0.0020	0.0066	12:24:01	No
2	0.165	0.165	0.0020	0.0065	12:24:36	No
Mean:	0.168	0.168	0.0020			
SD :	0.0032	0.0032	0.0000			
%RSD:	1.9	1.9	1.6534			

Element: Hg Seq. No.: 82 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.047	5.047	0.0515	0.0560	12:26:01	No
2	5.085	5.085	0.0519	0.0564	12:26:36	No
Mean:	5.066	5.066	0.0517			
SD :	0.0274	0.0274	0.0003			
%RSD:	0.5	0.5	0.5371			

QC value within specified limits.

Element: Hg Seq. No.: 83 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0002	0.0047	12:28:04	No
2	-0.005	-0.005	0.0002	0.0048	12:28:39	No
Mean:	-0.008	-0.008	0.0002			
SD :	0.0034	0.0034	0.0000			
%RSD:	43.5	43.5	17.5315			

QC value within specified limits.

Element: Hg Seq. No.: 84 AS Loc.: 72 Date: 02/18/2010
Sample ID: 246470001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	9.300	9.300	0.0946	0.0992	12:30:05	No
2	9.140	9.140	0.0930	0.0975	12:30:40	No
Mean:	9.220	9.220	0.0938			
SD :	0.1128	0.1128	0.0011			
%RSD:	1.2	1.2	1.2200			

Element: Hg Seq. No.: 85 AS Loc.: 73 Date: 02/18/2010
Sample ID: 1202039186|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	9.013	9.013	0.0917	0.0962	12:32:04	No
2	9.029	9.029	0.0918	0.0964	12:32:39	No
Mean:	9.021	9.021	0.0918			
SD :	0.0110	0.0110	0.0001			
%RSD:	0.1	0.1	0.1221			

Element: Hg Seq. No.: 86 AS Loc.: 74 Date: 02/18/2010
Sample ID: 1202039187|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	12.91	12.91	0.1312	0.1358	12:34:03	No

Sample absorbance is greater than that of the highest standard.

2	12.95	12.95	0.1316	0.1362	12:34:37	No

Sample absorbance is greater than that of the highest standard.

Mean: 12.93 12.93 0.1314
SD : 0.0303 0.0303 0.0003
%RSD: 0.2 0.2 0.2334
Sample absorbance is greater than that of the highest standard.

==========
Element: Hg Seq. No.: 87 AS Loc.: 75 Date: 02/18/2010
Sample ID: 1202039193|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	12.01	12.01	0.1221	0.1267	12:36:03	No

Sample absorbance is greater than that of the highest standard.

2	12.11	12.11	0.1231	0.1276	12:36:37	No

Sample absorbance is greater than that of the highest standard.
Mean: 12.06 12.06 0.1226
SD : 0.0675 0.0675 0.0007
%RSD: 0.6 0.6 0.5581
Sample absorbance is greater than that of the highest standard.

==========
Element: Hg Seq. No.: 88 AS Loc.: 76 Date: 02/18/2010
Sample ID: 1202039192|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.743	1.743	0.0180	0.0225	12:38:03	No
2	1.765	1.765	0.0182	0.0227	12:38:38	No

Mean: 1.754 1.754 0.0181
SD : 0.0156 0.0156 0.0002
%RSD: 0.9 0.9 0.8743

==========
Element: Hg Seq. No.: 89 AS Loc.: 77 Date: 02/18/2010
Sample ID: 246470002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	66.85	66.85	0.6782	0.6828	12:40:04	No

Sample absorbance is greater than that of the highest standard.

2	66.08	66.08	0.6705	0.6751	12:40:39	No

Sample absorbance is greater than that of the highest standard.
Mean: 66.47 66.47 0.6744
SD : 0.5392 0.5392 0.0055
%RSD: 0.8 0.8 0.8109
Sample absorbance is greater than that of the highest standard.

==========
Element: Hg Seq. No.: 90 AS Loc.: 78 Date: 02/18/2010
Sample ID: 246470003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	7.193	7.193	0.0732	0.0778	12:42:01	No
2	7.190	7.190	0.0732	0.0778	12:42:36	No

Mean: 7.192 7.192 0.0732
SD : 0.0023 0.0023 0.0000
%RSD:

==========
Element: Hg Seq. No.: 91 AS Loc.: 79 Date: 02/18/2010
Sample ID: 246470004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	14.04	14.04	0.1426	0.1472	12:43:55	No

Sample absorbance is greater than that of the highest standard.

```
 2        14.03     14.03     0.1426     0.1471   12:44:30  No
Sample absorbance is greater than that of the highest standard.
Mean:     14.03     14.03     0.1426
SD  :    0.0063    0.0063     0.0001
%RSD:
Sample absorbance is greater than that of the highest standard.

================================================================================
Element: Hg    Seq. No.: 92       AS Loc.: 80   Date: 02/18/2010
Sample ID: 246470005|i|||
--------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        160.5     160.5    1.6280  1  1.6326   12:45:50  No
Sample absorbance is greater than that of the highest standard.
 2        148.3     148.3    1.5041  1  1.5087   12:46:24  No
Sample absorbance is greater than that of the highest standard.
Mean:     154.4     154.4    1.5661
SD  :     8.640     8.640    0.0876
%RSD:       5.6       5.6    5.5956
Sample absorbance is greater than that of the highest standard.

================================================================================
Element: Hg    Seq. No.: 93       AS Loc.: 81   Date: 02/18/2010
Sample ID: 246470006|i|||
--------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.699     0.699    0.0074  -  0.0119   12:47:45  No
 2        1.028     1.028    0.0107     0.0153   12:48:20  No
Mean:     0.864     0.864    0.0090
SD  :    0.2332    0.2332    0.0024
%RSD:      27.0      27.0   26.1783

================================================================================
Element: Hg    Seq. No.: 94       AS Loc.: 7   Date: 02/18/2010
Sample ID: CCV
--------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        4.963     4.963    0.0506     0.0552   12:49:44  No
 2        5.078     5.078    0.0518     0.0563   12:50:19  No
Mean:     5.020     5.020    0.0512
SD  :    0.0809    0.0809    0.0008
%RSD:       1.6       1.6    1.6030
QC value within specified limits.

================================================================================
Element: Hg    Seq. No.: 95       AS Loc.: 8   Date: 02/18/2010
Sample ID: CCB
--------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.001     0.001    0.0003     0.0049   12:51:47  No
 2        0.006     0.006    0.0003     0.0049   12:52:21  No
Mean:     0.004     0.004    0.0003
SD  :    0.0038    0.0038    0.0000
%RSD:      98.6      98.6   12.0691
QC value within specified limits.

================================================================================
Element: Hg    Seq. No.: 96       AS Loc.: 82   Date: 02/18/2010
Sample ID: 246470007|i|||
--------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.659     0.659    0.0070     0.0115   12:53:45  No
```

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948743

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032572	UI062540-I	.535	g
MS	1202032570	UI100120-01	.25	mL
MS	1202032570	UI100120-06	.25	mL
MSD	1202032571	UI100120-01	.25	mL
MSD	1202032571	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032567		SW846 3050B	10-FEB-2010 13:30	0.65 g	50 mL	76.92308	SOIL
LCS	1202032572		SW846 3050B	10-FEB-2010 13:30	0.535 g	50 mL	93.45794	SOIL
SAMPLE	245938001		SW846 3050B	10-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
DUP	1202032568	245938001	SW846 3050B	10-FEB-2010 13:30	0.506 g	50 mL	98.81423	SOIL
SDILT	1202032569	245938001	SW846 3050B	10-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
MS	1202032570	245938001	SW846 3050B	10-FEB-2010 13:30	0.52 g	50 mL	96.15385	SOIL
MSD	1202032571	245938001	SW846 3050B	10-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245938002		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245938003		SW846 3050B	10-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	245938004		SW846 3050B	10-FEB-2010 13:30	0.501 g	50 mL	99.8004	SOIL
SAMPLE	245938005		SW846 3050B	10-FEB-2010 13:30	0.519 g	50 mL	96.33911	SOIL
SAMPLE	245938006		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245938007		SW846 3050B	10-FEB-2010 13:30	0.501 g	50 mL	99.8004	SOIL
SAMPLE	245938008		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245960001		SW846 3050B	10-FEB-2010 13:30	0.517 g	50 mL	96.7118	SOIL
SAMPLE	245960002		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245960003		SW846 3050B	10-FEB-2010 13:30	0.509 g	50 mL	98.23183	SOIL
SAMPLE	245960004		SW846 3050B	10-FEB-2010 13:30	0.519 g	50 mL	96.33911	SOIL
SAMPLE	245960005		SW846 3050B	10-FEB-2010 13:30	0.503 g	50 mL	99.40358	SOIL
SAMPLE	245960006		SW846 3050B	10-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL
SAMPLE	245960007		SW846 3050B	10-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245960008		SW846 3050B	10-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
SAMPLE	245960009		SW846 3050B	10-FEB-2010 13:30	0.506 g	50 mL	98.81423	SOIL
SAMPLE	245960010		SW846 3050B	10-FEB-2010 13:30	0.524 g	50 mL	95.41985	SOIL
SAMPLE	245960011		SW846 3050B	10-FEB-2010 13:30	0.516 g	50 mL	96.89922	SOIL

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID

Comments: Light,brown,soil w/rocky material.

1264396 1.25 mL Nitric Acid CONC.

Prep LogBook

Analyst: FGA Verified by:_____
Batch: 948745
Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032578	UI062540-MS	.5	g
MS	1202032576	UI091015-A	.5	mL
MS	1202032576	UI091015-B	.5	mL
MSD	1202032577	UI091015-A	.5	mL
MSD	1202032577	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032573		SW846 3050B	10-FEB-2010 13:30	0.638 g	50 mL	78.36991	SOIL
LCS	1202032578		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245938001		SW846 3050B	10-FEB-2010 13:30	0.506 g	50 mL	98.81423	SOIL
DUP	1202032574	245938001	SW846 3050B	10-FEB-2010 13:30	0.515 g	50 mL	97.08738	SOIL
SDILT	1202032575	245938001	SW846 3050B	10-FEB-2010 13:30	0.506 g	50 mL	98.81423	SOIL
MS	1202032576	245938001	SW846 3050B	10-FEB-2010 13:30	0.533 g	50 mL	93.80863	SOIL
MSD	1202032577	245938001	SW846 3050B	10-FEB-2010 13:30	0.516 g	50 mL	96.89922	SOIL
SAMPLE	245938002		SW846 3050B	10-FEB-2010 13:30	0.511 g	50 mL	97.84736	SOIL
SAMPLE	245938003		SW846 3050B	10-FEB-2010 13:30	0.511 g	50 mL	97.84736	SOIL
SAMPLE	245938004		SW846 3050B	10-FEB-2010 13:30	0.51 g	50 mL	98.03922	SOIL
SAMPLE	245938005		SW846 3050B	10-FEB-2010 13:30	0.516 g	50 mL	96.89922	SOIL
SAMPLE	245938006		SW846 3050B	10-FEB-2010 13:30	0.513 g	50 mL	97.46589	SOIL
SAMPLE	245938007		SW846 3050B	10-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL
SAMPLE	245938008		SW846 3050B	10-FEB-2010 13:30	0.507 g	50 mL	98.61933	SOIL
SAMPLE	245960001		SW846 3050B	10-FEB-2010 13:30	0.505 g	50 mL	99.0099	SOIL
SAMPLE	245960002		SW846 3050B	10-FEB-2010 13:30	0.538 g	50 mL	92.9368	SOIL
SAMPLE	245960003		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245960004		SW846 3050B	10-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245960005		SW846 3050B	10-FEB-2010 13:30	0.513 g	50 mL	97.46589	SOIL
SAMPLE	245960006		SW846 3050B	10-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	245960007		SW846 3050B	10-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245960008		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245960009		SW846 3050B	10-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	245960010		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245960011		SW846 3050B	10-FEB-2010 13:30	0.507 g	50 mL	98.61933	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%

Comments: Light,brown soil w/rocky material.

Prep LogBook

1264396	5 mL	Nitric Acid CONC.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 951508

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202039185	UI031809A	.202	g
MS	1202039187	WHG100217-14	.3	mL
MSD	1202039193	WHG100217-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202039184		SW846 7471A Prep	17-FEB-2010 17:55	0.527 g	30 mL	56.926	SOIL
LCS	1202039185		SW846 7471A Prep	17-FEB-2010 17:55	0.202 g	30 mL	148.51485	SOIL
SAMPLE	245960001		SW846 7471A Prep	17-FEB-2010 17:55	0.542 g	30 mL	55.35055	SOIL
SAMPLE	245960002		SW846 7471A Prep	17-FEB-2010 17:55	0.6 g	30 mL	50	SOIL
SAMPLE	245960003		SW846 7471A Prep	17-FEB-2010 17:55	0.57 g	30 mL	52.63158	SOIL
SAMPLE	245960004		SW846 7471A Prep	17-FEB-2010 17:55	0.507 g	30 mL	59.1716	SOIL
SAMPLE	245960005		SW846 7471A Prep	17-FEB-2010 17:55	0.519 g	30 mL	57.80347	SOIL
SAMPLE	245960006		SW846 7471A Prep	17-FEB-2010 17:55	0.529 g	30 mL	56.71078	SOIL
SAMPLE	245960007		SW846 7471A Prep	17-FEB-2010 17:55	0.501 g	30 mL	59.88024	SOIL
SAMPLE	245960008		SW846 7471A Prep	17-FEB-2010 17:55	0.588 g	30 mL	51.02041	SOIL
SAMPLE	245960009		SW846 7471A Prep	17-FEB-2010 17:55	0.543 g	30 mL	55.24862	SOIL
SAMPLE	245960010		SW846 7471A Prep	17-FEB-2010 17:55	0.527 g	30 mL	56.926	SOIL
SAMPLE	245960011		SW846 7471A Prep	17-FEB-2010 17:55	0.514 g	30 mL	58.36576	SOIL
SAMPLE	246470001		SW846 7471A Prep	17-FEB-2010 17:55	0.504 g	30 mL	59.52381	SOIL
DUP	1202039186	246470001	SW846 7471A Prep	17-FEB-2010 17:55	0.555 g	30 mL	54.05405	SOIL
MS	1202039187	246470001	SW846 7471A Prep	17-FEB-2010 17:55	0.571 g	30 mL	52.5394	SOIL
MSD	1202039193	246470001	SW846 7471A Prep	17-FEB-2010 17:55	0.534 g	30 mL	56.17978	SOIL
SDILT	1202039192	246470001	SW846 7471A Prep	17-FEB-2010 17:55	0.504 g	30 mL	59.52381	SOIL
SAMPLE	246470002		SW846 7471A Prep	17-FEB-2010 17:55	0.527 g	30 mL	56.926	SOIL
SAMPLE	246470003		SW846 7471A Prep	17-FEB-2010 17:55	0.522 g	30 mL	57.47126	SOIL
SAMPLE	246470004		SW846 7471A Prep	17-FEB-2010 17:55	0.549 g	30 mL	54.64481	SOIL
SAMPLE	246470005		SW846 7471A Prep	17-FEB-2010 17:55	0.555 g	30 mL	54.05405	SOIL
SAMPLE	246470006		SW846 7471A Prep	17-FEB-2010 17:55	0.557 g	30 mL	53.85996	SOIL
SAMPLE	246470007		SW846 7471A Prep	17-FEB-2010 17:55	0.521 g	30 mL	57.58157	SOIL
SAMPLE	246470008		SW846 7471A Prep	17-FEB-2010 17:55	0.558 g	30 mL	53.76344	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution
1255532-C	2 mL	Hg reducing agent

Comments: Sample 246470001 is a dry brown rocky soil.
Digestion Start Date: 17-FEB-10 17:55
Digestion End Date: 17-FEB-10 18:25

Prep LogBook

WHG100217-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100217-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100217-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100217-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100217-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100217-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
948744	See Below		

Potentially affected work order(s)(SDG): 245938(10-1506),245960(10-1511)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202032570MS 2. Failed RPD for DUP: QC 1202032568DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1202032571MSD 4. Failed Recovery for MSD/PSD: QC 1202032571MSD	1. The matrix spike recovery failed outside of the control limits for magnesium, calcium and aluminum due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for barium, calcium, chromium, copper and lead due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for calcium due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 4. The matrix spike duplicate recovery failed outside of the control limits for magnesium, calcium and aluminum due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Jerry Wigfall 20-FEB-10

Data Validator/Group Leader:
Louise Smith 23-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
27-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
948748	See Below		

Potentially affected work order(s)(SDG): 245938(10-1506),245960(10-1511)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202032574DUP	The sample and sample duplicate % RPD failed outside the control limits for Be due to possible sample homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Rose Jenkins 27-FEB-10

Data Validator/Group Leader:

Paul Boyd 27-FEB-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2,1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L

Analyte	Concentration	Analyte	Concentration
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100217-49.2 **Opened:** 19-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 17-FEB-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 20-FEB-10 **Lot Number :** 1018879
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100217-01 **Opened:** 17-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 17-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 18-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100217-02 **Opened:** 17-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 18-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100217-07 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100217-08 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100217-09 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100217-10 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100217-11 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100217-12 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100217-14 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100219-42 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100219-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100219-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100219-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100219-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100219-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100219-43 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100219-44 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1270010
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100219-45 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100219-46 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1270010
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100219-47 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL &1%HNO3-1270010
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100225-04AB **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100225-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100225-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100225-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100225-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100225-04B **Opened:** 25-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100225-05B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 25-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100225-06B
Name: ICPMS CRDL
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 25-FEB-10
Received: 25-FEB-10
Expires: 26-FEB-10
Verified: 23-FEB-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100225-07B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 25-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-08B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-70B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100226-04AB **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 26-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 27-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100226-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100226-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100226-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100226-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100226-04B **Opened:** 26-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 26-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 27-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100226-05B **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 26-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 27-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100226-06B
Name: ICPMS CRDL
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 26-FEB-10
Received: 26-FEB-10
Expires: 27-FEB-10
Verified: 23-FEB-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100226-07B **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 26-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 27-FEB-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100226-08B **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 26-FEB-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 27-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1270010 **Opened:** 15-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 05-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 21-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Standard Logbook

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1511-1

Sample Analysis

Sample ID	Client ID
245965001	RE15-10-7326
1202032557	Method Blank (MB) **ICP**
1202032558	Laboratory Control Sample (LCS)
1202032561	246000001(RE15-10-8124L) Serial Dilution (SD)
1202032559	246000001(RE15-10-8124D) Sample Duplicate (DUP)
1202032560	246000001(RE15-10-8124S) Matrix Spike (MS)
1202032562	Method Blank (MB) **ICP-MS**
1202032563	Laboratory Control Sample (LCS)
1202032566	246000001(RE15-10-8124L) Serial Dilution (SD)
1202032564	246000001(RE15-10-8124D) Sample Duplicate (DUP)
1202032565	246000001(RE15-10-8124S) Matrix Spike (MS)
1202033203	Method Blank (MB) **CVAA**
1202033204	Laboratory Control Sample (LCS)
1202033207	246056001(RE15-10-8233L) Serial Dilution (SD)
1202033205	246056001(RE15-10-8233D) Sample Duplicate (DUP)
1202033206	246056001(RE15-10-8233S) Matrix Spike (MS)

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

Method/Analysis Information

Analytical Batch: 948737, 948740 and 949020

Prep Batch :	948730, 948739 and 949018
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

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

Calibration Information

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

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

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

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

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 246000001 (RE15-10-8124) and 246056001 (RE15-10-8233).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of thallium, as indicated by the "N" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

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

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: 797043. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Kristen Parson **Date:** 3/1/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245965001 **BASIS:** As Received **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7326 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/25/10 04:38	100224-2	948740
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/25/10 15:28	100225-3	948740
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/25/10 04:38	100224-2	948740
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 19:55	021110B-1	948737
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/11/10 19:55	021110B-1	948737
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/25/10 15:28	100225-3	948740
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 19:55	021110B-1	948737
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	02/25/10 15:28	100225-3	948740
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:01	020510W1-6	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-09-7	Potassium	164	ug/L		50	150	150	1	P	HSC	02/11/10 19:55	021110B-1	948737
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-23-5	Sodium	100	ug/L	J	100	300	300	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/28/10 14:30	100228-5	948740
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/25/10 16:20	100225-4	948740
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 19:55	021110B-1	948737

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948737	948730	SW846 3005A	50	mL	50	mL	02/10/10	FGA
948740	948739	SW846 3005A	50	mL	50	mL	02/10/10	FGA
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	4.96	ug/L	5	ug/L	99.1	90.0 - 110.0	AV	05-FEB-10 09:17	020510W1-6
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Arsenic	450	ug/L	500	ug/L	89.9	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Barium	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Calcium	4880	ug/L	5000	ug/L	97.5	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Chromium	473	ug/L	500	ug/L	94.5	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Cobalt	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Copper	491	ug/L	500	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Magnesium	5150	ug/L	5000	ug/L	103	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Nickel	485	ug/L	500	ug/L	97	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Potassium	2410	ug/L	2500	ug/L	96.3	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Selenium	2440	ug/L	2500	ug/L	97.5	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Silver	253	ug/L	250	ug/L	101.2	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Sodium	2390	ug/L	2500	ug/L	95.6	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Antimony	51.4	ug/L	50	ug/L	102.8	90.0 - 110.0	MS	25-FEB-10 01:03	100224-2
	Cadmium	50.7	ug/L	50	ug/L	101.4	90.0 - 110.0	MS	25-FEB-10 01:03	100224-2
	Beryllium	51.3	ug/L	50	ug/L	102.7	90.0 - 110.0	MS	25-FEB-10 14:19	100225-3
	Lead	53.3	ug/L	50	ug/L	106.6	90.0 - 110.0	MS	25-FEB-10 14:19	100225-3
	Manganese	54.5	ug/L	50	ug/L	109.1	90.0 - 110.0	MS	25-FEB-10 14:19	100225-3
	Uranium	52.1	ug/L	50	ug/L	104.2	90.0 - 110.0	MS	25-FEB-10 16:01	100225-4
	Thallium	53.2	ug/L	50	ug/L	106.4	90.0 - 110.0	MS	28-FEB-10 11:42	100228-5
CCV01										
	Mercury	4.99	ug/L	5	ug/L	99.9	80.0 - 120.0	AV	05-FEB-10 09:22	020510W1-6
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Arsenic	495	ug/L	500	ug/L	99	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Barium	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Calcium	4830	ug/L	5000	ug/L	96.7	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Copper	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Magnesium	5010	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Nickel	485	ug/L	500	ug/L	97.1	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Selenium	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Silver	485	ug/L	500	ug/L	97	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Vanadium	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Zinc	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Antimony	51.3	ug/L	50	ug/L	102.7	90.0 - 110.0	MS	25-FEB-10 01:33	100224-2
	Cadmium	50.8	ug/L	50	ug/L	101.5	90.0 - 110.0	MS	25-FEB-10 01:33	100224-2
	Beryllium	53.6	ug/L	50	ug/L	107.1	90.0 - 110.0	MS	25-FEB-10 14:32	100225-3
	Lead	54.1	ug/L	50	ug/L	108.2	90.0 - 110.0	MS	25-FEB-10 14:32	100225-3
	Manganese	54.4	ug/L	50	ug/L	108.9	90.0 - 110.0	MS	25-FEB-10 14:32	100225-3
	Uranium	51.8	ug/L	50	ug/L	103.5	90.0 - 110.0	MS	25-FEB-10 16:10	100225-4
	Thallium	54	ug/L	50	ug/L	108	90.0 - 110.0	MS	28-FEB-10 11:57	100228-5
CCV02										
	Mercury	4.93	ug/L	5	ug/L	98.5	80.0 - 120.0	AV	05-FEB-10 09:45	020510W1-6
	Aluminum	5300	ug/L	5000	ug/L	106	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Arsenic	521	ug/L	500	ug/L	104.2	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Barium	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Calcium	5160	ug/L	5000	ug/L	103.3	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Chromium	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Cobalt	517	ug/L	500	ug/L	103.5	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Copper	513	ug/L	500	ug/L	102.7	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Magnesium	5300	ug/L	5000	ug/L	106.1	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Potassium	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Selenium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Silver	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Vanadium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Zinc	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Antimony	54	ug/L	50	ug/L	108.1	90.0 – 110.0	MS	25–FEB–10 01:52	100224–2
	Cadmium	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	25–FEB–10 01:52	100224–2
	Beryllium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	25–FEB–10 14:56	100225–3
	Lead	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	25–FEB–10 14:56	100225–3
	Manganese	55.1	ug/L	50	ug/L	110.2	90.0 – 110.0	MS	25–FEB–10 14:56	100225–3
	Uranium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	25–FEB–10 16:24	100225–4
	Thallium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	28–FEB–10 12:20	100228–5
CCV03										
	Mercury	5.05	ug/L	5	ug/L	101	80.0 – 120.0	AV	05–FEB–10 10:08	020510W1–6
	Aluminum	4750	ug/L	5000	ug/L	94.9	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Arsenic	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Barium	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Calcium	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Chromium	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Cobalt	470	ug/L	500	ug/L	94	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Copper	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Iron	4750	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Magnesium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Nickel	467	ug/L	500	ug/L	93.5	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Potassium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Selenium	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Silver	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Sodium	9790	ug/L	10000	ug/L	98	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	471	ug/L	500	ug/L	94.1	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Zinc	466	ug/L	500	ug/L	93.2	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Antimony	51.2	ug/L	50	ug/L	102.4	90.0 - 110.0	MS	25-FEB-10 03:06	100224-2
	Cadmium	49.9	ug/L	50	ug/L	99.9	90.0 - 110.0	MS	25-FEB-10 03:06	100224-2
	Beryllium	54.2	ug/L	50	ug/L	108.4	90.0 - 110.0	MS	25-FEB-10 15:23	100225-3
	Lead	54.4	ug/L	50	ug/L	108.8	90.0 - 110.0	MS	25-FEB-10 15:23	100225-3
	Manganese	54.4	ug/L	50	ug/L	108.8	90.0 - 110.0	MS	25-FEB-10 15:23	100225-3
	Uranium	50.3	ug/L	50	ug/L	100.6	90.0 - 110.0	MS	25-FEB-10 16:36	100225-4
	Thallium	53.7	ug/L	50	ug/L	107.3	90.0 - 110.0	MS	28-FEB-10 12:42	100228-5
CCV04										
	Mercury	5.1	ug/L	5	ug/L	102	80.0 - 120.0	AV	05-FEB-10 10:32	020510W1-6
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Arsenic	462	ug/L	500	ug/L	92.4	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Barium	460	ug/L	500	ug/L	92.1	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Chromium	459	ug/L	500	ug/L	91.9	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Cobalt	462	ug/L	500	ug/L	92.3	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Copper	455	ug/L	500	ug/L	91.1	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Iron	4820	ug/L	5000	ug/L	96.5	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Nickel	461	ug/L	500	ug/L	92.1	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Selenium	461	ug/L	500	ug/L	92.2	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Silver	465	ug/L	500	ug/L	93	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Vanadium	462	ug/L	500	ug/L	92.4	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Zinc	458	ug/L	500	ug/L	91.6	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Antimony	52.1	ug/L	50	ug/L	104.2	90.0 - 110.0	MS	25-FEB-10 04:01	100224-2
	Cadmium	50.5	ug/L	50	ug/L	101	90.0 - 110.0	MS	25-FEB-10 04:01	100224-2
	Beryllium	51.7	ug/L	50	ug/L	103.5	90.0 - 110.0	MS	25-FEB-10 15:50	100225-3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	52.3	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	25–FEB–10 15:50	100225–3
	Manganese	53.6	ug/L	50	ug/L	107.1	90.0 – 110.0	MS	25–FEB–10 15:50	100225–3
	Thallium	52.3	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	28–FEB–10 13:06	100228–5
CCV05										
	Aluminum	4730	ug/L	5000	ug/L	94.5	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Arsenic	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Calcium	4750	ug/L	5000	ug/L	95	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Chromium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Copper	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Iron	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Magnesium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Nickel	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Potassium	4750	ug/L	5000	ug/L	94.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Selenium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Sodium	9460	ug/L	10000	ug/L	94.6	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Zinc	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Antimony	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25–FEB–10 04:57	100224–2
	Cadmium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	25–FEB–10 04:57	100224–2
	Thallium	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	28–FEB–10 13:29	100228–5
CCV06										
	Aluminum	4740	ug/L	5000	ug/L	94.8	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Arsenic	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Barium	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Calcium	4770	ug/L	5000	ug/L	95.3	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Chromium	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Cobalt	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	467	ug/L	500	ug/L	93.3	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Magnesium	4870	ug/L	5000	ug/L	97.4	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Nickel	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Potassium	4740	ug/L	5000	ug/L	94.7	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Selenium	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Silver	466	ug/L	500	ug/L	93.3	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Sodium	9440	ug/L	10000	ug/L	94.4	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Vanadium	473	ug/L	500	ug/L	94.5	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Zinc	469	ug/L	500	ug/L	93.9	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Antimony	50.7	ug/L	50	ug/L	101.4	90.0 - 110.0	MS	25-FEB-10 05:34	100224-2
	Cadmium	49.4	ug/L	50	ug/L	98.7	90.0 - 110.0	MS	25-FEB-10 05:34	100224-2
	Thallium	53.9	ug/L	50	ug/L	107.8	90.0 - 110.0	MS	28-FEB-10 13:51	100228-5
CCV07										
	Aluminum	4800	ug/L	5000	ug/L	96	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Arsenic	479	ug/L	500	ug/L	95.7	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Barium	484	ug/L	500	ug/L	96.9	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Calcium	4810	ug/L	5000	ug/L	96.2	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Chromium	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Copper	480	ug/L	500	ug/L	96	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Magnesium	4900	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Nickel	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Potassium	4790	ug/L	5000	ug/L	95.7	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Selenium	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Sodium	9540	ug/L	10000	ug/L	95.4	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	28-FEB-10 14:10	100228-5
CCV08										
	Aluminum	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Arsenic	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Chromium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Magnesium	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Nickel	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Potassium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Selenium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Silver	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Zinc	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Thallium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	28-FEB-10 14:39	100228-5
CCV09										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Arsenic	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Calcium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Nickel	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Selenium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Zinc	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Thallium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	28-FEB-10 14:58	100228-5
CCV10										
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Arsenic	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Barium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Calcium	4850	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Cobalt	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Nickel	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Selenium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Vanadium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
CCV11										
	Aluminum	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Arsenic	470	ug/L	500	ug/L	94	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Barium	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Calcium	4770	ug/L	5000	ug/L	95.3	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Chromium	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Copper	472	ug/L	500	ug/L	94.3	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Iron	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Magnesium	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Nickel	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Potassium	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Selenium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Silver	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Vanadium	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Zinc	470	ug/L	500	ug/L	93.9	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.191	ug/L	.2	ug/L	95.5	70.0 – 130.0	AV	05–FEB–10 09:20	020510W1–6
	Antimony	3.37	ug/L	3	ug/L	112.3	70.0 – 130.0	MS	25–FEB–10 01:15	100224–2
	Cadmium	1.11	ug/L	1	ug/L	111.1	70.0 – 130.0	MS	25–FEB–10 01:15	100224–2
	Lead	2.55	ug/L	2	ug/L	127.6	70.0 – 130.0	MS	25–FEB–10 14:24	100225–3
	Beryllium	.557	ug/L	.5	ug/L	111.4	70.0 – 130.0	MS	25–FEB–10 14:24	100225–3
	Manganese	6.28	ug/L	5	ug/L	125.5	70.0 – 130.0	MS	25–FEB–10 14:24	100225–3
	Uranium	.244	ug/L	.2	ug/L	122	70.0 – 130.0	MS	25–FEB–10 16:05	100225–4
	Thallium	1.27	ug/L	1	ug/L	126.6	70.0 – 130.0	MS	28–FEB–10 11:48	100228–5
PQL01										
	Aluminum	201	ug/L	200	ug/L	100.5	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Iron	119	ug/L	100	ug/L	118.9	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Magnesium	304	ug/L	300	ug/L	101.5	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Nickel	4.56	ug/L	5	ug/L	91.2	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Potassium	185	ug/L	150	ug/L	123.1	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Silver	5.04	ug/L	5	ug/L	100.7	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Sodium	294	ug/L	300	ug/L	98	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Arsenic	28.6	ug/L	30	ug/L	95.5	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Barium	4.75	ug/L	5	ug/L	95	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Chromium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Cobalt	4.65	ug/L	5	ug/L	93.1	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Copper	9.86	ug/L	10	ug/L	98.6	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Vanadium	5.04	ug/L	5	ug/L	100.9	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Zinc	9.38	ug/L	10	ug/L	93.8	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Calcium	200	ug/L	200	ug/L	100	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Selenium	28.7	ug/L	30	ug/L	95.7	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:18	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 14:30	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 14:30	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 14:30	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 14:30	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 14:30	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 14:30	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 01:09	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 01:09	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 14:22	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 14:22	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 14:22	100225–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	25–FEB–10 16:03	100225–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 11:45	100228–5
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:24	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 14:53	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 14:53	021110B–1
	Chromium	1.23	+/–5	J	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Iron	39.3	+/–100	J	30.0	100	LIQ	P	11–FEB–10 14:53	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 14:53	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Potassium	77.71	+/–150	J	50.0	150	LIQ	P	11–FEB–10 14:53	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 14:53	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 01:40	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 01:40	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 14:34	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 14:34	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 14:34	100225–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	25–FEB–10 16:12	100225–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 12:01	100228–5
CCB02										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:47	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 15:19	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 15:19	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 15:19	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 15:19	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Potassium	56.33	+/–150	J	50.0	150	LIQ	P	11–FEB–10 15:19	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 15:19	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 01:58	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 01:58	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 14:59	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 14:59	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 14:59	100225–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	25–FEB–10 16:25	100225–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 12:23	100228–5
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 10:10	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 16:01	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 16:01	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 16:01	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 16:01	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 16:01	021110B–1
	Selenium	–5.29	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Sodium	186.28	+/–300	J	100	300	LIQ	P	11–FEB–10 16:01	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 03:12	100224–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 03:12	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 15:26	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 15:26	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 15:26	100225–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	25–FEB–10 16:37	100225–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 12:45	100228–5
CCB04										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 10:34	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 16:41	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 16:41	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 16:41	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 16:41	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 16:41	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Sodium	121.62	+/–300	J	100	300	LIQ	P	11–FEB–10 16:41	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 04:07	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 04:07	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 15:52	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 15:52	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 15:52	100225–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 13:09	100228–5

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 17:02	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 17:02	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 17:02	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 17:02	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 17:02	021110B–1
	Selenium	–6.0	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 17:02	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 05:03	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 05:03	100224–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 13:32	100228–5
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 17:31	021110B–1
	Arsenic	–8.04	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 17:31	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 17:31	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 17:31	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 17:31	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 17:31	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 05:40	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 05:40	100224–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 13:54	100228–5
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 18:07	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 18:07	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 18:07	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 18:07	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 18:07	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 18:07	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Thallium	0.304	+/–1	J	0.3	1.0	LIQ	MS	28–FEB–10 14:13	100228–5
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 18:36	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 18:36	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 18:36	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 18:36	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 18:36	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 18:36	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 14:42	100228–5
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 19:16	021110B–1
	Arsenic	–6.17	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 19:16	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 19:16	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 19:16	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 19:16	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 19:16	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Thallium	0.778	+/–1	J	0.3	1.0	LIQ	MS	28–FEB–10 15:01	100228–5

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 19:45	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 19:45	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 19:45	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 19:45	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 19:45	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 19:45	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 19:45	021110B–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 20:10	021110B–1
	Arsenic	–6.48	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 20:10	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 20:10	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 20:10	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 20:10	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 20:10	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 20:10	021110B–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1511–1
Contract: LANL01004
Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202032557								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Arsenic	5	ug/L	+/–30	U	P	5	30
	Barium	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Chromium	1	ug/L	+/–5	U	P	1	5
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Copper	3	ug/L	+/–10	U	P	3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Nickel	1.5	ug/L	+/–5	U	P	1.5	5
	Potassium	50	ug/L	+/–150	U	P	50	150
	Selenium	5	ug/L	+/–30	U	P	5	30
	Silver	1	ug/L	+/–5	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1202032562								
	Antimony	1	ug/L	+/–3	U	MS	1	3
	Beryllium	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Manganese	1	ug/L	+/–5	U	MS	1	5
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202033203								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
–4–
Interference Check Sample

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	492000	ug/L	500000	ug/L	98.5	80.0 – 120.0	11–FEB–10 14:37	021110B–1
	Arsenic	–47.9	ug/L					11–FEB–10 14:37	021110B–1
	Barium	7.7	ug/L					11–FEB–10 14:37	021110B–1
	Calcium	469000	ug/L	500000	ug/L	93.9	80.0 – 120.0	11–FEB–10 14:37	021110B–1
	Chromium	–0.331	ug/L					11–FEB–10 14:37	021110B–1
	Cobalt	1.88	ug/L					11–FEB–10 14:37	021110B–1
	Copper	–2.75	ug/L					11–FEB–10 14:37	021110B–1
	Iron	180000	ug/L	200000	ug/L	90.2	80.0 – 120.0	11–FEB–10 14:37	021110B–1
	Magnesium	469000	ug/L	500000	ug/L	93.8	80.0 – 120.0	11–FEB–10 14:37	021110B–1
	Nickel	–5.64	ug/L					11–FEB–10 14:37	021110B–1
	Potassium	–12.0	ug/L					11–FEB–10 14:37	021110B–1
	Selenium	–29.8	ug/L					11–FEB–10 14:37	021110B–1
	Silver	–8.02	ug/L					11–FEB–10 14:37	021110B–1
	Sodium	25.0	ug/L					11–FEB–10 14:37	021110B–1
	Vanadium	0.707	ug/L					11–FEB–10 14:37	021110B–1
	Zinc	–9.27	ug/L					11–FEB–10 14:37	021110B–1
ICSAB01									
	Aluminum	493000	ug/L	500000	ug/L	98.5	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Arsenic	460	ug/L	500	ug/L	92	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Barium	479	ug/L	500	ug/L	95.8	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Calcium	467000	ug/L	500000	ug/L	93.5	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Chromium	467	ug/L	500	ug/L	93.3	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Cobalt	417	ug/L	500	ug/L	83.3	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Copper	516	ug/L	500	ug/L	103	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Iron	181000	ug/L	200000	ug/L	90.5	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Magnesium	472000	ug/L	500000	ug/L	94.3	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Nickel	412	ug/L	500	ug/L	82.4	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Potassium	4870	ug/L	5000	ug/L	97.4	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Selenium	2240	ug/L	2500	ug/L	89.5	80.0 – 120.0	11–FEB–10 14:40	021110B–1

METALS
-4-
Interference Check Sample

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	244	ug/L	250	ug/L	97.7	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Sodium	4900	ug/L	5000	ug/L	98.1	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Vanadium	496	ug/L	500	ug/L	99.1	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Zinc	442	ug/L	500	ug/L	88.4	80.0 - 120.0	11-FEB-10 14:40	021110B-1

METALS
–4–
Interference Check Sample

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.383	ug/L					25–FEB–10 01:21	100224–2
	Cadmium	0.506	ug/L					25–FEB–10 01:21	100224–2
ICSAB01									
	Antimony	21.2	ug/L	20	ug/L	106	80.0 – 120.0	25–FEB–10 01:27	100224–2
	Cadmium	19.9	ug/L	20.44	ug/L	97.4	80.0 – 120.0	25–FEB–10 01:27	100224–2

METALS
–4–
Interference Check Sample

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.089	ug/L					25–FEB–10 14:27	100225–3
	Lead	0.239	ug/L					25–FEB–10 14:27	100225–3
	Manganese	6.37	ug/L					25–FEB–10 14:27	100225–3
ICSAB01									
	Beryllium	19.8	ug/L	20	ug/L	98.9	80.0 – 120.0	25–FEB–10 14:29	100225–3
	Lead	22.0	ug/L	20.19	ug/L	109	80.0 – 120.0	25–FEB–10 14:29	100225–3
	Manganese	28.5	ug/L	25.8	ug/L	110	80.0 – 120.0	25–FEB–10 14:29	100225–3

METALS
-4-
Interference Check Sample

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	-0.001	ug/L					25-FEB-10 16:07	100225-4
ICSAB01									
	Uranium	23.4	ug/L	20	ug/L	117	80.0 - 120.0	25-FEB-10 16:08	100225-4

METALS
–4–
Interference Check Sample

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	0.013	ug/L					28–FEB–10 11:51	100228–5
ICSAB01									
	Thallium	22.7	ug/L	20	ug/L	114	80.0 – 120.0	28–FEB–10 11:54	100228–5

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1511–1 **Client ID** RE15–10–8124S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246000001 **Spike ID:** 1202032560

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	4880		68	U	5000	97.2		P
Arsenic	ug/L	75–125	488		5	U	500	97.5		P
Barium	ug/L	75–125	489		1	U	500	97.7		P
Calcium	ug/L	75–125	4830		59.5	J	5000	95.3		P
Chromium	ug/L	75–125	487		1.31	J	500	97.2		P
Cobalt	ug/L	75–125	479		1	U	500	95.8		P
Copper	ug/L	75–125	490		3	U	500	97.9		P
Iron	ug/L	75–125	4890		34.7	J	5000	97.1		P
Magnesium	ug/L	75–125	4910		85	U	5000	97.7		P
Nickel	ug/L	75–125	489		1.5	U	500	97.9		P
Potassium	ug/L	75–125	5000		181		5000	96.3		P
Selenium	ug/L	75–125	470		5	U	500	94.1		P
Silver	ug/L	75–125	483		1	U	500	96.5		P
Sodium	ug/L	75–125	5010		200	J	5000	96.3		P
Vanadium	ug/L	75–125	493		1	U	500	98.5		P
Zinc	ug/L	75–125	475		3.3	U	500	94.6		P

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1511-1 **Client ID** RE15-10-8124S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246000001 **Spike ID:** 1202032565

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	196		1	U	200	98		MS
Beryllium	ug/L	75-125	47.7		0.1	U	50	95.3		MS
Cadmium	ug/L	75-125	10.3		0.11	U	10	102		MS
Lead	ug/L	75-125	42.2		0.5	U	40	105		MS
Manganese	ug/L	75-125	48.9		1	U	50	96.6		MS
Thallium	ug/L	75-125	75		0.3	U	100	74.9	N	MS
Uranium	ug/L	75-125	49.5		0.05	U	50	98.9		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1511–1 **Client ID** RE15–10–8233S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246056001 **Spike ID:** 1202033206

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	1.5		0.066	U	2	75		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8124D

Sample ID: 246000001 **Duplicate ID:** 1202032559 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1	U			P
Calcium	ug/L	+/–200	59.5	J	52.6	J	12.4		P
Chromium	ug/L		1.31	J	1	U	200		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		34.7	J	30	U	200		P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L	+/–150	181		193		6.09		P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/–300	200	J	180	J	10.5		P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8124D

Sample ID: 246000001 **Duplicate ID:** 1202032564 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Manganese	ug/L		1	U	1	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L		0.05	U	0.05	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8233D

Sample ID: 246056001 **Duplicate ID:** 1202033205 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1511-1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032558								
	Aluminum	ug/L	5000	4910		98.1	80-120	P
	Arsenic	ug/L	500	487		97.4	80-120	P
	Barium	ug/L	500	486		97.2	80-120	P
	Calcium	ug/L	5000	4880		97.6	80-120	P
	Chromium	ug/L	500	484		96.7	80-120	P
	Cobalt	ug/L	500	475		95.1	80-120	P
	Copper	ug/L	500	486		97.1	80-120	P
	Iron	ug/L	5000	4930		98.6	80-120	P
	Magnesium	ug/L	5000	4960		99.3	80-120	P
	Nickel	ug/L	500	487		97.4	80-120	P
	Potassium	ug/L	5000	4890		97.9	80-120	P
	Selenium	ug/L	500	481		96.3	80-120	P
	Silver	ug/L	500	481		96.2	80-120	P
	Sodium	ug/L	5000	4940		98.8	80-120	P
	Vanadium	ug/L	500	489		97.8	80-120	P
	Zinc	ug/L	500	474		94.8	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1511-1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032563								
	Antimony	ug/L	50	52.3		105	80-120	MS
	Beryllium	ug/L	50	49.6		99.3	80-120	MS
	Cadmium	ug/L	50	48.6		97.1	80-120	MS
	Lead	ug/L	50	52.8		106	80-120	MS
	Manganese	ug/L	50	50.1		100	80-120	MS
	Thallium	ug/L	50	52.3		105	80-120	MS
	Uranium	ug/L	50	50.6		101	80-120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1511-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033204								
	Mercury	ug/L	2	2.01		100	80-120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1511-1 **Client ID** RE15-10-8124L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246000001 **Serial Dilution ID:** 1202032561

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Calcium	59.5	J	250	U	100			P
Chromium	1.31	J	5	U	100			P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	34.7	J	150	U	100			P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	181		267	J	47.5			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	200	J	500	U	100			P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1511-1 **Client ID** RE15-10-8124L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246000001 **Serial Dilution ID:** 1202032566

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	1	U	5	U				MS
Thallium	.3	U	8.35					MS
Uranium	.05	U	.25	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1511-1 **Client ID** RE15-10-8233L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246056001 **Serial Dilution ID:** 1202033207

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

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1511-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 948730							
1202032557	MB for batch 948730	MB	W	10-FEB-10	50mL	50mL	
1202032558	LCS for batch 948730	LCS	W	10-FEB-10	50mL	50mL	
1202032560	RE15-10-8124S	MS	W	10-FEB-10	50mL	50mL	
1202032559	RE15-10-8124D	DUP	W	10-FEB-10	50mL	50mL	
245965001	RE15-10-7326	SAMPLE	W	10-FEB-10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1511–1 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 948739							
1202032562	MB for batch 948739	MB	W	10–FEB–10	50mL	50mL	
1202032563	LCS for batch 948739	LCS	W	10–FEB–10	50mL	50mL	
1202032565	RE15–10–8124S	MS	W	10–FEB–10	50mL	50mL	
1202032564	RE15–10–8124D	DUP	W	10–FEB–10	50mL	50mL	
245965001	RE15–10–7326	SAMPLE	W	10–FEB–10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1511-1 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 949018							
1202033203	MB for batch 949018	MB	W	04-FEB-10	20mL	20mL	
1202033204	LCS for batch 949018	LCS	W	04-FEB-10	20mL	20mL	
1202033206	RE15-10-8233S	MS	W	04-FEB-10	20mL	20mL	
1202033205	RE15-10-8233D	DUP	W	04-FEB-10	20mL	20mL	
245965001	RE15-10-7326	SAMPLE	W	04-FEB-10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25–FEB–10 **End Date:** 25–FEB–10

Client Sdg: 10–1511–1
Method MS
Data File: 100224–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	00:45		X				X																		
S10	1	00:51		X				X																		
S100	1	00:57		X				X																		
ICV01	1	01:03		X				X																		
ICB01	1	01:09		X				X																		
CRDL01	1	01:15		X				X																		
ICSA01	1	01:21		X				X																		
ICSAB01	1	01:27		X				X																		
CCV01	1	01:33		X				X																		
CCB01	1	01:40		X				X																		
LR01	1	01:46		X				X																		
CCV02	1	01:52		X				X																		
CCB02	1	01:58		X				X																		
ZZZZZZ	1	02:04																								
ZZZZZZ	1	02:10																								
ZZZZZZ	1	02:16																								
ZZZZZZ	1	02:23																								
ZZZZZZ	1	02:29																								
ZZZZZZ	1	02:35																								
ZZZZZZ	1	02:41																								
ZZZZZZ	1	02:47																								
ZZZZZZ	1	02:54																								
ZZZZZZ	1	03:00																								
CCV03	1	03:06		X				X																		
CCB03	1	03:12		X				X																		
ZZZZZZ	1	03:18																								
ZZZZZZ	1	03:24																								
ZZZZZZ	1	03:31																								
ZZZZZZ	1	03:37																								
ZZZZZZ	1	03:43																								
ZZZZZZ	1	03:49																								
ZZZZZZ	5	03:55																								
CCV04	1	04:01		X				X																		
CCB04	1	04:07		X				X																		
1202032562	1	04:14		X				X																		
1202032563	1	04:20		X				X																		
ZZZZZZ	1	04:26																								
ZZZZZZ	1	04:32																								
245965001	1	04:38		X				X																		
ZZZZZZ	1	04:45																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	04:51																							
CCV05	1	04:57		X				X																	
CCB05	1	05:03		X				X																	
ZZZZZZ	1	05:09																							
1202032564	1	05:15		X				X																	
1202032565	1	05:22		X				X																	
1202032566	5	05:28		X				X																	
CCV06	1	05:34		X				X																	
CCB06	1	05:40		X				X																	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25-FEB-10
End Date: 25-FEB-10

Client Sdg: 10-1511-1
Method MS
Data File: 100225-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:12					X							X		X										
S10	1	14:14					X							X		X										
S100	1	14:17					X							X		X										
ICV01	1	14:19					X							X		X										
ICB01	1	14:22					X							X		X										
CRDL01	1	14:24					X							X		X										
ICSA01	1	14:27					X							X		X										
ICSAB01	1	14:29					X							X		X										
CCV01	1	14:32					X							X		X										
CCB01	1	14:34					X							X		X										
ZZZZZZ	1	14:37																								
ZZZZZZ	1	14:40																								
ZZZZZZ	1	14:42																								
ZZZZZZ	1	14:46																								
ZZZZZZ	1	14:49																								
ZZZZZZ	1	14:51																								
ZZZZZZ	5	14:54																								
CCV02	1	14:56					X							X		X										
CCB02	1	14:59					X							X		X										
ZZZZZZ	1	15:02																								
ZZZZZZ	1	15:04																								
ZZZZZZ	1	15:07																								
ZZZZZZ	1	15:10																								
1202032562	1	15:13					X							X		X										
1202032563	1	15:15					X							X		X										
ZZZZZZ	1	15:18																								
ZZZZZZ	1	15:21																								
CCV03	1	15:23					X							X		X										
CCB03	1	15:26					X							X		X										
245965001	1	15:28					X							X		X										
ZZZZZZ	1	15:31																								
ZZZZZZ	1	15:34																								
ZZZZZZ	1	15:37																								
1202032564	1	15:39					X							X		X										
1202032565	1	15:42					X							X		X										
1202032566	5	15:44					X							X		X										
ZZZZZZ	5	15:47																								
CCV04	1	15:50					X							X		X										
CCB04	1	15:52					X							X		X										

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25–FEB–10 **End Date:** 25–FEB–10

Client Sdg: 10–1511–1
Method MS
Data File: 100225–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	15:57																						X		
S10	1	15:58																						X		
S100	1	16:00																						X		
ICV01	1	16:01																						X		
ICB01	1	16:03																						X		
CRDL01	1	16:05																						X		
ICSA01	1	16:07																						X		
ICSAB01	1	16:08																						X		
CCV01	1	16:10																						X		
CCB01	1	16:12																						X		
1202032562	1	16:13																						X		
1202032563	1	16:15																						X		
ZZZZZZ	1	16:17																								
ZZZZZZ	1	16:18																								
245965001	1	16:20																						X		
ZZZZZZ	1	16:22																								
CCV02	1	16:24																						X		
CCB02	1	16:25																						X		
ZZZZZZ	1	16:27																								
ZZZZZZ	1	16:29																								
1202032564	1	16:30																						X		
1202032565	1	16:32																						X		
1202032566	5	16:34																						X		
CCV03	1	16:36																						X		
CCB03	1	16:37																						X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 28–FEB–10
End Date: 28–FEB–10
Client Sdg: 10–1511–1
Method MS
Data File: 100228–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	11:32																					X			
S10	1	11:35																					X			
S100	1	11:38																					X			
ICV01	1	11:42																					X			
ICB01	1	11:45																					X			
CRDL01	1	11:48																					X			
ICSA01	1	11:51																					X			
ICSAB01	1	11:54																					X			
CCV01	1	11:57																					X			
CCB01	1	12:01																					X			
ZZZZZZ	1	12:04																								
ZZZZZZ	1	12:07																								
ZZZZZZ	1	12:10																								
ZZZZZZ	1	12:13																								
ZZZZZZ	1	12:16																								
CCV02	1	12:20																					X			
CCB02	1	12:23																					X			
ZZZZZZ	1	12:26																								
ZZZZZZ	1	12:29																								
ZZZZZZ	1	12:32																								
ZZZZZZ	1	12:36																								
ZZZZZZ	5	12:39																								
CCV03	1	12:42																					X			
CCB03	1	12:45																					X			
ZZZZZZ	1	12:50																								
ZZZZZZ	1	12:53																								
ZZZZZZ	1	12:57																								
ZZZZZZ	1	13:00																								
ZZZZZZ	1	13:03																								
CCV04	1	13:06																					X			
CCB04	1	13:09																					X			
ZZZZZZ	1	13:13																								
ZZZZZZ	1	13:16																								
ZZZZZZ	1	13:19																								
ZZZZZZ	5	13:22																								
ZZZZZZ	1	13:25																								
CCV05	1	13:29																					X			
CCB05	1	13:32																					X			
ZZZZZZ	1	13:35																								
ZZZZZZ	1	13:38																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	13:41																								
ZZZZZZ	1	13:45																								
ZZZZZZ	1	13:48																								
CCV06	1	13:51																					X			
CCB06	1	13:54																					X			
ZZZZZZ	1	13:57																								
ZZZZZZ	1	14:01																								
ZZZZZZ	1	14:04																								
ZZZZZZ	5	14:07																								
CCV07	1	14:10																					X			
CCB07	1	14:13																					X			
1202032562	1	14:17																					X			
1202032563	1	14:20																					X			
ZZZZZZ	1	14:23																								
ZZZZZZ	1	14:26																								
245965001	1	14:30																					X			
ZZZZZZ	1	14:33																								
ZZZZZZ	1	14:36																								
CCV08	1	14:39																					X			
CCB08	1	14:42																					X			
ZZZZZZ	1	14:46																								
1202032564	1	14:49																					X			
1202032565	1	14:52																					X			
1202032566	5	14:55																					X			
CCV09	1	14:58																					X			
CCB09	1	15:01																					X			

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 05-FEB-10
End Date: 05-FEB-10
Client Sdg: 10-1511-1
Method AV
Data File: 020510W1-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:05															X									
S0.2	1	09:07															X									
S0.5	1	09:09															X									
S2.0	1	09:11															X									
S5.0	1	09:13															X									
S10.0	1	09:15															X									
ICV01	1	09:17															X									
ICB01	1	09:18															X									
CRDL01	1	09:20															X									
CCV01	1	09:22															X									
CCB01	1	09:24															X									
ZZZZZZ	1	09:26																								
ZZZZZZ	1	09:28																								
ZZZZZZ	1	09:30																								
ZZZZZZ	1	09:32																								
ZZZZZZ	1	09:34																								
ZZZZZZ	1	09:36																								
ZZZZZZ	1	09:38																								
ZZZZZZ	1	09:40																								
ZZZZZZ	5	09:42																								
1202033203	1	09:43															X									
CCV02	1	09:45															X									
CCB02	1	09:47															X									
1202033204	1	09:49															X									
ZZZZZZ	1	09:51																								
ZZZZZZ	1	09:53																								
ZZZZZZ	1	09:55																								
ZZZZZZ	1	09:57																								
ZZZZZZ	1	09:59																								
245965001	1	10:01															X									
ZZZZZZ	1	10:03																								
ZZZZZZ	1	10:05																								
ZZZZZZ	1	10:07																								
CCV03	1	10:08															X									
CCB03	1	10:10															X									
ZZZZZZ	1	10:12																								
ZZZZZZ	1	10:14																								
1202033205	1	10:16															X									
1202033206	1	10:18															X									
1202033207	5	10:20															X									

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:22																							
ZZZZZZ	1	10:24																							
ZZZZZZ	1	10:26																							
ZZZZZZ	1	10:28																							
ZZZZZZ	1	10:30																							
CCV04	1	10:32														X									
CCB04	1	10:34														X									

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 11-FEB-10
End Date: 11-FEB-10
Client Sdg: 10-1511-1
Method P
Data File: 021110B-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	14:14			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	14:17	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	14:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	14:24	X						X				X		X							X				
ICV01	1	14:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	14:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	14:33	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	14:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	14:40	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	14:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	14:46	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV01	1	14:49	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	14:53	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR03	1	15:08	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR04	1	15:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV02	1	15:15	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	15:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	15:23																								
ZZZZZZ	1	15:26																								
ZZZZZZ	1	15:30																								
ZZZZZZ	1	15:34																								
ZZZZZZ	1	15:38																								
ZZZZZZ	5	15:42																								
ZZZZZZ	1	15:45																								
ZZZZZZ	1	15:49																								
ZZZZZZ	1	15:53																								
CCV03	1	15:57	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB03	1	16:01	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	16:04																								
ZZZZZZ	1	16:08																								
ZZZZZZ	1	16:12																								
ZZZZZZ	1	16:16																								
ZZZZZZ	1	16:20																								
ZZZZZZ	1	16:24																								
ZZZZZZ	1	16:28																								
ZZZZZZ	1	16:31																								
ZZZZZZ	1	16:34																								
CCV04	1	16:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB04	1	16:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																								
CCV05	1	16:58	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB05	1	17:02	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:06																								
ZZZZZZ	1	17:09																								
ZZZZZZ	1	17:13																								
ZZZZZZ	1	17:16																								
ZZZZZZ	1	17:20																								
ZZZZZZ	5	17:24																								
CCV06	1	17:27	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB06	1	17:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:35																								
ZZZZZZ	1	17:38																								
ZZZZZZ	1	17:42																								
ZZZZZZ	1	17:45																								
ZZZZZZ	1	17:49																								
ZZZZZZ	1	17:53																								
ZZZZZZ	1	17:56																								
ZZZZZZ	1	18:00																								
CCV07	1	18:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB07	1	18:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	18:11																								
ZZZZZZ	1	18:14																								
ZZZZZZ	1	18:18																								
ZZZZZZ	1	18:21																								
ZZZZZZ	1	18:25																								
ZZZZZZ	5	18:29																								
CCV08	1	18:32	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB08	1	18:36	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	18:40																								
ZZZZZZ	1	18:43																								
ZZZZZZ	1	18:47																								
ZZZZZZ	1	18:50																								
ZZZZZZ	1	18:54																								
ZZZZZZ	1	18:58																								
ZZZZZZ	1	19:01																								
ZZZZZZ	1	19:05																								
ZZZZZZ	1	19:08																								
CCV09	1	19:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB09	1	19:16	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032557	1	19:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
1202032558	1	19:23	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	19:27																								
1202032559	1	19:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032560	1	19:34	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032561	5	19:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV10	1	19:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB10	1	19:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	19:48																								
ZZZZZZ	1	19:52																								
245965001	1	19:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	19:59																								
ZZZZZZ	1	20:03																								
CCV11	1	20:06	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB11	1	20:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1511-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1511-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1511-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

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

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
GEL Job No: 10–1511–1
Effective Dates: 01–FEB–10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	–1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	–21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	–2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
GEL Job No: 10-1511-1
Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Vanadium	Zinc
Parmname	**Wavelength**		
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1511–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1511–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10

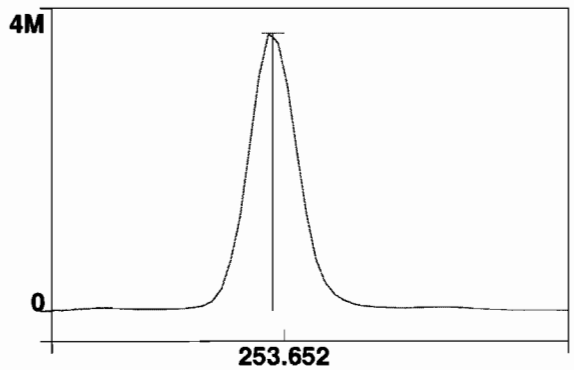
Raw Data

Method: Hg_ReAlign
Result: 022710B

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1



Intensity: 3672376.8 cps
Conc:

1

Analysis Begun

Start Time: 2/11/2010 14:10:46 Plasma On Time: 2/8/2010 03:37:33
Logged In Analyst: optima Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1 Autosampler Location: 8
Sample ID: S0 Date Collected: 2/11/2010 14:10:48
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	54739.4	54739.4	100	%	14:11:23
1	Al 396.153Radial†	-13.9	-13.8	[0.00]	µg/L	14:11:23
1	Ca 317.933Radial†	181.9	181.3	[0.00]	µg/L	14:11:43
1	Fe 238.204 Radial†	15.3	15.3	[0.00]	µg/L	14:11:43
1	K 766.490 Radial†	133.4	133.0	[0.00]	µg/L	14:11:23
1	Mg 279.077 IEC†	7.8	7.8	[0.00]	µg/L	14:11:43
1	Na 589.592 Radial†	544.1	542.5	[0.00]	µg/L	14:11:23
1	Sr 421.552†	47.1	46.9	[0.00]	µg/L	14:11:23
1	Sc 361.383	1911885.3	1911885.3	100.11	%	14:12:45
1	Y 371.029	1310700.1	1310700.1	100.06	%	14:12:45
1	Ag 328.068†	-547.3	-546.7	[0.00]	µg/L	14:12:50
1	As 188.979†	3.5	3.5	[0.00]	µg/L	14:13:11
1	B 249.677†	353.5	353.1	[0.00]	µg/L	14:13:11
1	Ba 233.527†	-32.2	-32.2	[0.00]	µg/L	14:13:11
1	Be 313.107†	-3446.9	-3443.2	[0.00]	µg/L	14:12:50
1	Cd 226.502†	-153.7	-153.5	[0.00]	µg/L	14:13:11
1	Co 228.616†	-1.3	-1.3	[0.00]	µg/L	14:13:11
1	Cr 267.716†	-55.4	-55.3	[0.00]	µg/L	14:12:50
1	Cu 324.752†	2504.0	2501.3	[0.00]	µg/L	14:12:50
1	Mn 257.610†	-239.6	-239.4	[0.00]	µg/L	14:13:11
1	Mo 202.031†	-2.8	-2.8	[0.00]	µg/L	14:13:11
1	Ni 231.604†	307.9	307.6	[0.00]	µg/L	14:13:11
1	P 214.914†	26.2	26.2	[0.00]	µg/L	14:13:11
1	Pb 220.353†	91.7	91.6	[0.00]	µg/L	14:13:11
1	S 181.975 Axial†	15.4	15.3	[0.00]	µg/L	14:13:11
1	Sb 206.836†	28.4	28.4	[0.00]	µg/L	14:13:11
1	Se 196.026†	16.7	16.7	[0.00]	µg/L	14:13:11
1	SiO2†	1235.3	1234.0	[0.00]	µg/L	14:12:50
1	Si 251.611†	309.0	308.7	[0.00]	µg/L	14:13:11
1	Sn 189.927†	-0.7	-0.7	[0.00]	µg/L	14:13:11
1	Ti 334.940†	89.4	89.3	[0.00]	µg/L	14:12:50
1	Tl 190.801†	-23.5	-23.5	[0.00]	µg/L	14:13:11
1	U 409.014†	-77.0	-76.9	[0.00]	µg/L	14:12:50
1	V 292.402†	-41.9	-41.9	[0.00]	µg/L	14:12:50
1	Zn 213.857†	474.5	474.0	[0.00]	µg/L	14:13:11
2	Sc RADIAL	54665.4	54665.4	100	%	14:11:49
2	Al 396.153Radial†	-1.2	-1.2	[0.00]	µg/L	14:11:49
2	Ca 317.933Radial†	175.4	175.1	[0.00]	µg/L	14:12:09
2	Fe 238.204 Radial†	14.9	14.8	[0.00]	µg/L	14:12:09
2	K 766.490 Radial†	144.1	143.8	[0.00]	µg/L	14:11:49
2	Mg 279.077 IEC†	11.1	11.1	[0.00]	µg/L	14:12:09
2	Na 589.592 Radial†	552.5	551.5	[0.00]	µg/L	14:11:49
2	Sr 421.552†	33.2	33.1	[0.00]	µg/L	14:11:49
2	Sc 361.383	1909838.0	1909838.0	100.000	%	14:13:17
2	Y 371.029	1310179.5	1310179.5	100.02	%	14:13:17
2	Ag 328.068†	-580.2	-580.2	[0.00]	µg/L	14:13:23
2	As 188.979†	-0.5	-0.5	[0.00]	µg/L	14:13:43

2	B 249.677†	311.8	311.8	[0.00]	µg/L	14:13:43
2	Ba 233.527†	-19.4	-19.4	[0.00]	µg/L	14:13:43
2	Be 313.107†	-3440.2	-3440.2	[0.00]	µg/L	14:13:23
2	Cd 226.502†	-136.8	-136.8	[0.00]	µg/L	14:13:43
2	Co 228.616†	-8.2	-8.2	[0.00]	µg/L	14:13:43
2	Cr 267.716†	-44.6	-44.6	[0.00]	µg/L	14:13:23
2	Cu 324.752†	2529.2	2529.2	[0.00]	µg/L	14:13:23
2	Mn 257.610†	-247.4	-247.4	[0.00]	µg/L	14:13:43
2	Mo 202.031†	-8.7	-8.7	[0.00]	µg/L	14:13:43
2	Ni 231.604†	295.5	295.5	[0.00]	µg/L	14:13:43
2	P 214.914†	27.9	27.9	[0.00]	µg/L	14:13:43
2	Pb 220.353†	98.3	98.3	[0.00]	µg/L	14:13:43
2	S 181.975 Axial†	16.8	16.8	[0.00]	µg/L	14:13:43
2	Sb 206.836†	27.6	27.6	[0.00]	µg/L	14:13:43
2	Se 196.026†	12.1	12.1	[0.00]	µg/L	14:13:43
2	SiO2†	1235.5	1235.5	[0.00]	µg/L	14:13:23
2	Si 251.611†	316.0	316.0	[0.00]	µg/L	14:13:43
2	Sn 189.927†	-2.2	-2.2	[0.00]	µg/L	14:13:43
2	Ti 334.940†	132.2	132.2	[0.00]	µg/L	14:13:23
2	Tl 190.801†	-27.5	-27.5	[0.00]	µg/L	14:13:43
2	U 409.014†	-52.6	-52.6	[0.00]	µg/L	14:13:23
2	V 292.402†	-46.9	-46.9	[0.00]	µg/L	14:13:23
2	Zn 213.857†	476.6	476.6	[0.00]	µg/L	14:13:43
3	Sc RADIAL	54318.4	54318.4	99.5	%	14:12:15
3	Al 396.153Radial†	-15.3	-15.3	[0.00]	µg/L	14:12:15
3	Ca 317.933Radial†	180.2	181.0	[0.00]	µg/L	14:12:35
3	Fe 238.204 Radial†	13.3	13.4	[0.00]	µg/L	14:12:35
3	K 766.490 Radial†	107.9	108.4	[0.00]	µg/L	14:12:15
3	Mg 279.077 IEC†	14.9	15.0	[0.00]	µg/L	14:12:35
3	Na 589.592 Radial†	529.1	531.6	[0.00]	µg/L	14:12:15
3	Sr 421.552†	38.4	38.6	[0.00]	µg/L	14:12:15
3	Sc 361.383	1907796.9	1907796.9	99.893	%	14:13:49
3	Y 371.029	1308876.2	1308876.2	99.920	%	14:13:49
3	Ag 328.068†	-566.0	-566.6	[0.00]	µg/L	14:13:55
3	As 188.979†	0.4	0.4	[0.00]	µg/L	14:14:15
3	B 249.677†	329.2	329.5	[0.00]	µg/L	14:14:15
3	Ba 233.527†	-26.4	-26.4	[0.00]	µg/L	14:14:15
3	Be 313.107†	-3434.3	-3437.9	[0.00]	µg/L	14:13:55
3	Cd 226.502†	-135.9	-136.0	[0.00]	µg/L	14:14:15
3	Co 228.616†	-17.0	-17.0	[0.00]	µg/L	14:14:15
3	Cr 267.716†	-57.1	-57.2	[0.00]	µg/L	14:13:55
3	Cu 324.752†	2425.2	2427.8	[0.00]	µg/L	14:13:55
3	Mn 257.610†	-245.3	-245.6	[0.00]	µg/L	14:14:15
3	Mo 202.031†	-11.1	-11.1	[0.00]	µg/L	14:14:15
3	Ni 231.604†	303.1	303.5	[0.00]	µg/L	14:14:15
3	P 214.914†	28.8	28.8	[0.00]	µg/L	14:14:15
3	Pb 220.353†	101.6	101.7	[0.00]	µg/L	14:14:15
3	S 181.975 Axial†	12.3	12.3	[0.00]	µg/L	14:14:15
3	Sb 206.836†	24.9	25.0	[0.00]	µg/L	14:14:15
3	Se 196.026†	18.7	18.7	[0.00]	µg/L	14:14:15
3	SiO2†	1279.2	1280.6	[0.00]	µg/L	14:13:55
3	Si 251.611†	313.6	313.9	[0.00]	µg/L	14:14:15
3	Sn 189.927†	0.3	0.3	[0.00]	µg/L	14:14:15
3	Ti 334.940†	126.8	126.9	[0.00]	µg/L	14:13:55
3	Tl 190.801†	-21.9	-21.9	[0.00]	µg/L	14:14:15
3	U 409.014†	-31.2	-31.3	[0.00]	µg/L	14:13:55
3	V 292.402†	-43.8	-43.9	[0.00]	µg/L	14:13:55
3	Zn 213.857†	475.5	476.0	[0.00]	µg/L	14:14:15

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1909840.1	2044.21	0.11%	100.00	%
Sc RADIAL	54574.4	224.80	0.41%	100	%
Y 371.029	1309918.6	939.52	0.07%	100.00	%
Ag 328.068†	-564.5	16.85	2.98%	[0.00]	µg/L
Al 396.153Radial†	-10.1	7.73	76.30%	[0.00]	µg/L
As 188.979†	1.1	2.09	182.38%	[0.00]	µg/L
B 249.677†	331.5	20.73	6.25%	[0.00]	µg/L
Ba 233.527†	-26.0	6.39	24.57%	[0.00]	µg/L

Be 313.107†	-3440.4	2.66	0.08%	[0.00] µg/L
Ca 317.933Radial†	179.2	3.51	1.96%	[0.00] µg/L
Cd 226.502†	-142.1	9.89	6.96%	[0.00] µg/L
Co 228.616†	-8.8	7.85	88.83%	[0.00] µg/L
Cr 267.716†	-52.4	6.82	13.02%	[0.00] µg/L
Cu 324.752†	2486.1	52.42	2.11%	[0.00] µg/L
Fe 238.204 Radial†	14.5	1.00	6.90%	[0.00] µg/L
K 766.490 Radial†	128.4	18.15	14.13%	[0.00] µg/L
Mg 279.077 IEC†	11.3	3.62	32.14%	[0.00] µg/L
Mn 257.610†	-244.1	4.19	1.72%	[0.00] µg/L
Mo 202.031†	-7.5	4.31	57.15%	[0.00] µg/L
Na 589.592 Radial†	541.9	9.97	1.84%	[0.00] µg/L
Ni 231.604†	302.2	6.13	2.03%	[0.00] µg/L
P 214.914†	27.6	1.32	4.77%	[0.00] µg/L
Pb 220.353†	97.2	5.13	5.27%	[0.00] µg/L
S 181.975 Axial†	14.8	2.33	15.71%	[0.00] µg/L
Sb 206.836†	27.0	1.78	6.62%	[0.00] µg/L
Se 196.026†	15.8	3.37	21.27%	[0.00] µg/L
SiO2†	1250.0	26.45	2.12%	[0.00] µg/L
Si 251.611†	312.9	3.77	1.21%	[0.00] µg/L
Sn 189.927†	-0.9	1.29	148.06%	[0.00] µg/L
Sr 421.552†	39.6	6.94	17.54%	[0.00] µg/L
Ti 334.940†	116.1	23.40	20.15%	[0.00] µg/L
Tl 190.801†	-24.3	2.88	11.85%	[0.00] µg/L
U 409.014†	-53.6	22.84	42.60%	[0.00] µg/L
V 292.402†	-44.2	2.52	5.69%	[0.00] µg/L
Zn 213.857†	475.5	1.38	0.29%	[0.00] µg/L

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

Autosampler Location: 2
Date Collected: 2/11/2010 14:14:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55015.9	55015.9	101	%	14:15:00
1	K 766.490 Radial†	1529.6	1388.9	[1000]	µg/L	14:15:00
1	Sr 421.552†	9551.7	9435.5	[100]	µg/L	14:15:00
1	Sc 361.383	1906987.6	1906987.6	99.851	%	14:15:21
1	Y 371.029	1308080.3	1308080.3	99.860	%	14:15:21
1	Ag 328.068†	12337.2	12920.2	[100]	µg/L	14:15:27
1	As 188.979†	60.2	59.1	[100]	µg/L	14:15:48
1	B 249.677†	2597.7	2270.1	[100]	µg/L	14:15:27
1	Ba 233.527†	3962.5	3994.4	[100]	µg/L	14:15:27
1	Be 313.107†	151975.4	155643.2	[100]	µg/L	14:15:21
1	Cd 226.502†	3678.8	3826.5	[100]	µg/L	14:15:27
1	Co 228.616†	2095.6	2107.6	[100]	µg/L	14:15:48
1	Cr 267.716†	4700.6	4760.0	[100]	µg/L	14:15:27
1	Cu 324.752†	17516.6	15056.7	[100]	µg/L	14:15:27
1	Mn 257.610†	30035.0	30324.0	[100]	µg/L	14:15:27
1	Mo 202.031†	993.1	1002.1	[100]	µg/L	14:15:48
1	Ni 231.604†	2238.0	1939.1	[100]	µg/L	14:15:27
1	P 214.914†	275.5	248.3	[500]	µg/L	14:15:48
1	Pb 220.353†	495.9	399.5	[100]	µg/L	14:15:48
1	S 181.975 Axial†	61.0	46.2	[200]	µg/L	14:15:48
1	Sb 206.836†	127.3	100.5	[100]	µg/L	14:15:48
1	Se 196.026†	83.6	67.8	[100]	µg/L	14:15:48
1	SiO2†	6362.3	5121.8	[1069.5]	µg/L	14:15:27
1	Si 251.611†	6526.8	6223.6	[500]	µg/L	14:15:27
1	Sn 189.927†	236.7	237.9	[100]	µg/L	14:15:48
1	Ti 334.940†	41818.8	41765.2	[100]	µg/L	14:15:27
1	Tl 190.801†	52.7	77.0	[100]	µg/L	14:15:48
1	U 409.014†	1125.7	1181.0	[100]	µg/L	14:15:27
1	V 292.402†	9619.3	9677.9	[100]	µg/L	14:15:27
1	Zn 213.857†	4700.1	4231.6	[100]	µg/L	14:15:27
2	Sc RADIAL	55171.2	55171.2	101	%	14:15:05
2	K 766.490 Radial†	1577.1	1431.6	[1000]	µg/L	14:15:05
2	Sr 421.552†	9725.8	9581.1	[100]	µg/L	14:15:05
2	Sc 361.383	1919566.1	1919566.1	100.51	%	14:15:54
2	Y 371.029	1316225.3	1316225.3	100.48	%	14:15:54
2	Ag 328.068†	12296.8	12799.1	[100]	µg/L	14:16:00
2	As 188.979†	55.3	53.9	[100]	µg/L	14:16:20
2	B 249.677†	2620.3	2275.6	[100]	µg/L	14:16:00
2	Ba 233.527†	3925.8	3931.9	[100]	µg/L	14:16:00
2	Be 313.107†	153476.8	156139.6	[100]	µg/L	14:15:54
2	Cd 226.502†	3613.9	3737.7	[100]	µg/L	14:16:00
2	Co 228.616†	2078.6	2076.9	[100]	µg/L	14:16:20
2	Cr 267.716†	4668.3	4697.0	[100]	µg/L	14:16:00
2	Cu 324.752†	17487.1	14912.4	[100]	µg/L	14:16:00
2	Mn 257.610†	29867.9	29960.6	[100]	µg/L	14:16:00
2	Mo 202.031†	997.0	999.5	[100]	µg/L	14:16:20
2	Ni 231.604†	2232.7	1919.2	[100]	µg/L	14:16:00
2	P 214.914†	277.4	248.4	[500]	µg/L	14:16:20
2	Pb 220.353†	494.0	394.3	[100]	µg/L	14:16:20
2	S 181.975 Axial†	66.3	51.1	[200]	µg/L	14:16:20
2	Sb 206.836†	134.2	106.6	[100]	µg/L	14:16:20
2	Se 196.026†	81.0	64.7	[100]	µg/L	14:16:20
2	SiO2†	6316.5	5034.4	[1069.5]	µg/L	14:16:00
2	Si 251.611†	6524.6	6178.6	[500]	µg/L	14:16:00
2	Sn 189.927†	229.9	229.6	[100]	µg/L	14:16:20
2	Ti 334.940†	41713.2	41385.8	[100]	µg/L	14:16:00
2	Tl 190.801†	46.9	70.9	[100]	µg/L	14:16:20
2	U 409.014†	1094.4	1142.5	[100]	µg/L	14:16:00
2	V 292.402†	9634.9	9630.3	[100]	µg/L	14:16:00

2	Zn 213.857†	4683.2	4183.9	[100] µg/L	14:16:00
3	Sc RADIAL	54696.3	54696.3	100 %	14:15:11
3	K 766.490 Radial†	1613.5	1481.5	[1000] µg/L	14:15:11
3	Sr 421.552†	9663.0	9601.9	[100] µg/L	14:15:11
3	Sc 361.383	1914175.0	1914175.0	100.23 %	14:16:26
3	Y 371.029	1314459.8	1314459.8	100.35 %	14:16:26
3	Ag 328.068†	12311.6	12848.2	[100] µg/L	14:16:32
3	As 188.979†	52.2	51.0	[100] µg/L	14:16:53
3	B 249.677†	2607.8	2270.5	[100] µg/L	14:16:32
3	Ba 233.527†	3927.0	3944.1	[100] µg/L	14:16:32
3	Be 313.107†	152121.7	155217.6	[100] µg/L	14:16:26
3	Cd 226.502†	3649.8	3783.7	[100] µg/L	14:16:32
3	Co 228.616†	2092.3	2096.4	[100] µg/L	14:16:53
3	Cr 267.716†	4695.0	4736.7	[100] µg/L	14:16:32
3	Cu 324.752†	17403.9	14878.4	[100] µg/L	14:16:32
3	Mn 257.610†	29812.0	29988.6	[100] µg/L	14:16:32
3	Mo 202.031†	994.2	999.5	[100] µg/L	14:16:53
3	Ni 231.604†	2238.0	1930.8	[100] µg/L	14:16:32
3	P 214.914†	276.9	248.7	[500] µg/L	14:16:53
3	Pb 220.353†	496.4	398.1	[100] µg/L	14:16:53
3	S 181.975 Axial†	63.6	48.7	[200] µg/L	14:16:53
3	Sb 206.836†	131.7	104.5	[100] µg/L	14:16:53
3	Se 196.026†	85.1	69.1	[100] µg/L	14:16:53
3	SiO2†	6274.4	5010.2	[1069.5] µg/L	14:16:32
3	Si 251.611†	6506.8	6179.2	[500] µg/L	14:16:32
3	Sn 189.927†	233.2	233.5	[100] µg/L	14:16:53
3	Ti 334.940†	41628.8	41418.4	[100] µg/L	14:16:32
3	Tl 190.801†	52.0	76.1	[100] µg/L	14:16:53
3	U 409.014†	1167.9	1218.9	[100] µg/L	14:16:32
3	V 292.402†	9645.5	9667.9	[100] µg/L	14:16:32
3	Zn 213.857†	4697.5	4211.3	[100] µg/L	14:16:32

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1913576.2	6310.61	0.33%	100.20	%
Sc RADIAL	54961.1	242.12	0.44%	101	%
Y 371.029	1312921.8	4284.80	0.33%	100.23	%
Ag 328.068†	12855.8	60.90	0.47%	[100]	µg/L
As 188.979†	54.7	4.13	7.55%	[100]	µg/L
B 249.677†	2272.1	3.07	0.13%	[100]	µg/L
Ba 233.527†	3956.8	33.13	0.84%	[100]	µg/L
Be 313.107†	155666.8	461.42	0.30%	[100]	µg/L
Cd 226.502†	3782.6	44.38	1.17%	[100]	µg/L
Co 228.616†	2093.6	15.54	0.74%	[100]	µg/L
Cr 267.716†	4731.2	31.87	0.67%	[100]	µg/L
Cu 324.752†	14949.2	94.66	0.63%	[100]	µg/L
K 766.490 Radial†	1434.0	46.37	3.23%	[1000]	µg/L
Mn 257.610†	30091.1	202.22	0.67%	[100]	µg/L
Mo 202.031†	1000.4	1.54	0.15%	[100]	µg/L
Ni 231.604†	1929.7	10.00	0.52%	[100]	µg/L
P 214.914†	248.5	0.19	0.08%	[500]	µg/L
Pb 220.353†	397.3	2.68	0.67%	[100]	µg/L
S 181.975 Axial†	48.7	2.45	5.03%	[200]	µg/L
Sb 206.836†	103.8	3.08	2.97%	[100]	µg/L
Se 196.026†	67.2	2.24	3.33%	[100]	µg/L
SiO2†	5055.5	58.67	1.16%	[1069.5]	µg/L
Si 251.611†	6193.8	25.84	0.42%	[500]	µg/L
Sn 189.927†	233.7	4.16	1.78%	[100]	µg/L
Sr 421.552†	9539.5	90.63	0.95%	[100]	µg/L
Ti 334.940†	41523.1	210.28	0.51%	[100]	µg/L
Tl 190.801†	74.7	3.29	4.41%	[100]	µg/L
U 409.014†	1180.8	38.20	3.23%	[100]	µg/L
V 292.402†	9658.7	25.07	0.26%	[100]	µg/L
Zn 213.857†	4209.0	23.92	0.57%	[100]	µg/L

Sequence No.: 3 | **Autosampler Location: 3**
Sample ID: S0.5 | **Date Collected: 2/11/2010 14:17:03**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56431.2	56431.2	103	%	14:17:36
1	Al 396.153Radial†	6754.1	6542.0	[5000]	µg/L	14:17:36
1	Ca 317.933Radial†	5471.1	5111.9	[5000]	µg/L	14:17:56
1	K 766.490 Radial†	7121.7	6759.0	[5000]	µg/L	14:17:36
1	Mg 279.077 IEC†	566.8	536.8	[5000]	µg/L	14:17:56
1	Sr 421.552†	48100.9	46478.6	[500]	µg/L	14:17:36
1	Sc 361.383	1949267.7	1949267.7	102.06	%	14:18:59
1	Y 371.029	1332062.2	1332062.2	101.69	%	14:18:59
1	Ag 328.068†	62715.3	62011.3	[500]	µg/L	14:19:05
1	As 188.979†	268.2	261.6	[500]	µg/L	14:19:26
1	B 249.677†	11715.5	11147.1	[500]	µg/L	14:19:05
1	Ba 233.527†	19296.1	18931.8	[500]	µg/L	14:19:05
1	Be 313.107†	765143.4	753107.4	[500]	µg/L	14:18:59
1	Cd 226.502†	18181.3	17955.7	[500]	µg/L	14:19:05
1	Co 228.616†	10302.5	10103.0	[500]	µg/L	14:19:05
1	Cr 267.716†	23080.8	22666.4	[500]	µg/L	14:19:05
1	Cu 324.752†	74689.8	70693.0	[500]	µg/L	14:19:05
1	Mn 257.610†	147455.4	144716.9	[500]	µg/L	14:18:59
1	Mo 202.031†	4948.3	4855.8	[500]	µg/L	14:19:26
1	Ni 231.604†	9587.6	9091.5	[500]	µg/L	14:19:05
1	P 214.914†	1227.3	1174.8	[2500]	µg/L	14:19:26
1	Pb 220.353†	2024.6	1886.4	[500]	µg/L	14:19:26
1	S 181.975 Axial†	257.2	237.2	[1000]	µg/L	14:19:26
1	Sb 206.836†	565.6	527.2	[500]	µg/L	14:19:26
1	Se 196.026†	349.8	326.9	[500]	µg/L	14:19:26
1	SiO2†	26268.6	24487.3	[5347.5]	µg/L	14:19:05
1	Si 251.611†	30925.0	29986.6	[2500]	µg/L	14:19:05
1	Sn 189.927†	1150.8	1128.4	[500]	µg/L	14:19:26
1	Ti 334.940†	210237.3	205868.8	[500]	µg/L	14:18:59
1	Tl 190.801†	342.7	360.1	[500]	µg/L	14:19:26
1	U 409.014†	5574.8	5515.7	[500]	µg/L	14:19:05
1	V 292.402†	47320.5	46407.6	[500]	µg/L	14:19:05
1	Zn 213.857†	20885.0	19987.0	[500]	µg/L	14:19:05
2	Sc RADIAL	56400.3	56400.3	103	%	14:18:02
2	Al 396.153Radial†	6776.8	6567.5	[5000]	µg/L	14:18:02
2	Ca 317.933Radial†	5446.0	5090.5	[5000]	µg/L	14:18:22
2	K 766.490 Radial†	7209.5	6847.7	[5000]	µg/L	14:18:02
2	Mg 279.077 IEC†	558.9	529.5	[5000]	µg/L	14:18:22
2	Sr 421.552†	48009.1	46415.3	[500]	µg/L	14:18:02
2	Sc 361.383	1969776.8	1969776.8	103.14	%	14:19:33
2	Y 371.029	1347212.9	1347212.9	102.85	%	14:19:33
2	Ag 328.068†	63263.2	61902.7	[500]	µg/L	14:19:38
2	As 188.979†	264.1	254.9	[500]	µg/L	14:19:59
2	B 249.677†	11833.7	11142.2	[500]	µg/L	14:19:38
2	Ba 233.527†	19517.7	18949.8	[500]	µg/L	14:19:38
2	Be 313.107†	769998.9	750009.7	[500]	µg/L	14:19:33
2	Cd 226.502†	18459.9	18040.3	[500]	µg/L	14:19:38
2	Co 228.616†	10435.6	10126.9	[500]	µg/L	14:19:38
2	Cr 267.716†	23319.3	22662.1	[500]	µg/L	14:19:38
2	Cu 324.752†	75284.2	70507.3	[500]	µg/L	14:19:38
2	Mn 257.610†	148076.6	143815.0	[500]	µg/L	14:19:33
2	Mo 202.031†	4926.4	4784.1	[500]	µg/L	14:19:59
2	Ni 231.604†	9732.8	9134.4	[500]	µg/L	14:19:38
2	P 214.914†	1225.6	1160.7	[2500]	µg/L	14:19:59
2	Pb 220.353†	2028.4	1869.5	[500]	µg/L	14:19:59
2	S 181.975 Axial†	257.8	235.1	[1000]	µg/L	14:19:59
2	Sb 206.836†	552.2	508.4	[500]	µg/L	14:19:59
2	Se 196.026†	361.1	334.3	[500]	µg/L	14:19:59
2	SiO2†	26477.9	24422.2	[5347.5]	µg/L	14:19:38

2	Si 251.611†	31253.2	29989.4	[2500] µg/L	14:19:38
2	Sn 189.927†	1150.3	1116.1	[500] µg/L	14:19:59
2	Ti 334.940†	211105.1	204565.4	[500] µg/L	14:19:33
2	Tl 190.801†	338.9	352.9	[500] µg/L	14:19:59
2	U 409.014†	5592.5	5475.9	[500] µg/L	14:19:38
2	V 292.402†	47778.9	46369.3	[500] µg/L	14:19:38
2	Zn 213.857†	21066.0	19949.5	[500] µg/L	14:19:38
3	Sc RADIAL	56116.0	56116.0	103 %	14:18:27
3	Al 396.153Radial†	6776.6	6600.6	[5000] µg/L	14:18:27
3	Ca 317.933Radial†	5474.8	5145.3	[5000] µg/L	14:18:48
3	K 766.490 Radial†	7167.4	6842.1	[5000] µg/L	14:18:27
3	Mg 279.077 IEC†	570.0	543.0	[5000] µg/L	14:18:48
3	Sr 421.552†	47985.8	46628.0	[500] µg/L	14:18:27
3	Sc 361.383	1956384.8	1956384.8	102.44 %	14:20:06
3	Y 371.029	1336938.7	1336938.7	102.06 %	14:20:06
3	Ag 328.068†	58992.1	58153.2	[500] µg/L	14:20:12
3	As 188.979†	227.0	220.5	[500] µg/L	14:20:32
3	B 249.677†	10983.9	10391.2	[500] µg/L	14:20:12
3	Ba 233.527†	17692.5	17297.6	[500] µg/L	14:20:12
3	Be 313.107†	719301.4	705628.8	[500] µg/L	14:20:06
3	Cd 226.502†	16595.4	16342.7	[500] µg/L	14:20:12
3	Co 228.616†	9342.2	9128.8	[500] µg/L	14:20:12
3	Cr 267.716†	20357.4	19925.5	[500] µg/L	14:20:12
3	Cu 324.752†	68152.8	64045.2	[500] µg/L	14:20:12
3	Mn 257.610†	138782.6	135724.9	[500] µg/L	14:20:06
3	Mo 202.031†	4112.2	4021.9	[500] µg/L	14:20:32
3	Ni 231.604†	8700.9	8191.7	[500] µg/L	14:20:12
3	P 214.914†	1052.8	1000.2	[2500] µg/L	14:20:32
3	Pb 220.353†	1780.7	1641.2	[500] µg/L	14:20:32
3	S 181.975 Axial†	220.4	200.3	[1000] µg/L	14:20:32
3	Sb 206.836†	483.7	445.3	[500] µg/L	14:20:32
3	Se 196.026†	314.2	290.9	[500] µg/L	14:20:32
3	SiO2†	24349.5	22520.2	[5347.5] µg/L	14:20:12
3	Si 251.611†	28634.1	27640.0	[2500] µg/L	14:20:12
3	Sn 189.927†	946.2	924.5	[500] µg/L	14:20:32
3	Ti 334.940†	196408.6	191619.7	[500] µg/L	14:20:06
3	Tl 190.801†	311.8	328.7	[500] µg/L	14:20:32
3	U 409.014†	4970.2	4905.6	[500] µg/L	14:20:12
3	V 292.402†	42533.9	41566.2	[500] µg/L	14:20:12
3	Zn 213.857†	18957.2	18030.7	[500] µg/L	14:20:12

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1958476.4	10413.33	0.53%	102.55	%
Sc RADIAL	56315.8	173.75	0.31%	103	%
Y 371.029	1338737.9	7733.97	0.58%	102.20	%
Ag 328.068†	60689.0	2196.81	3.62%	[500]	µg/L
Al 396.153Radial†	6570.0	29.39	0.45%	[5000]	µg/L
As 188.979†	245.7	22.07	8.99%	[500]	µg/L
B 249.677†	10893.5	435.04	3.99%	[500]	µg/L
Ba 233.527†	18393.1	948.76	5.16%	[500]	µg/L
Be 313.107†	736248.6	26562.75	3.61%	[500]	µg/L
Ca 317.933Radial†	5115.9	27.60	0.54%	[5000]	µg/L
Cd 226.502†	17446.2	956.62	5.48%	[500]	µg/L
Co 228.616†	9786.2	569.47	5.82%	[500]	µg/L
Cr 267.716†	21751.3	1581.21	7.27%	[500]	µg/L
Cu 324.752†	68415.2	3785.63	5.53%	[500]	µg/L
K 766.490 Radial†	6816.2	49.68	0.73%	[5000]	µg/L
Mg 279.077 IEC†	536.5	6.79	1.26%	[5000]	µg/L
Mn 257.610†	141419.0	4951.74	3.50%	[500]	µg/L
Mo 202.031†	4553.9	462.10	10.15%	[500]	µg/L
Ni 231.604†	8805.9	532.32	6.04%	[500]	µg/L
P 214.914†	1111.9	97.02	8.73%	[2500]	µg/L
Pb 220.353†	1799.0	136.97	7.61%	[500]	µg/L
S 181.975 Axial†	224.2	20.73	9.24%	[1000]	µg/L
Sb 206.836†	493.6	42.92	8.69%	[500]	µg/L
Se 196.026†	317.4	23.20	7.31%	[500]	µg/L
SiO2†	23809.9	1117.40	4.69%	[5347.5]	µg/L
Si 251.611†	29205.3	1355.64	4.64%	[2500]	µg/L

Sn 189.927†	1056.3	114.33	10.82%	[500] µg/L
Sr 421.552†	46507.3	109.22	0.23%	[500] µg/L
Ti 334.940†	200684.6	7877.46	3.93%	[500] µg/L
Tl 190.801†	347.2	16.45	4.74%	[500] µg/L
U 409.014†	5299.1	341.35	6.44%	[500] µg/L
V 292.402†	44781.0	2784.22	6.22%	[500] µg/L
Zn 213.857†	19322.4	1118.82	5.79%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/11/2010 14:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	54624.1	54624.1	100	%	14:21:14
1	Al 396.153Radial†	13945.5	13943.0	[10000]	µg/L	14:21:14
1	Ca 317.933Radial†	11091.0	10901.8	[10000]	µg/L	14:21:34
1	Fe 238.204 Radial†	1237.7	1222.1	[10000]	µg/L	14:21:34
1	K 766.490 Radial†	14553.2	14411.5	[10000]	µg/L	14:21:14
1	Mg 279.077 IEC†	1145.5	1133.2	[10000]	µg/L	14:21:34
1	Na 589.592 Radial†	32001.3	31430.3	[10000]	µg/L	14:21:14
1	Sr 421.552†	98763.5	98634.1	[1000]	µg/L	14:21:14
1	Sc 361.383	1918837.7	1918837.7	100.47	%	14:22:38
1	Y 371.029	1309873.4	1309873.4	99.997	%	14:22:38
1	Ag 328.068†	129789.4	129745.3	[1000]	µg/L	14:22:44
1	As 188.979†	545.1	541.4	[1000]	µg/L	14:23:05
1	B 249.677†	24100.3	23655.8	[1000]	µg/L	14:22:44
1	Ba 233.527†	40021.0	39859.3	[1000]	µg/L	14:22:44
1	Be 313.107†	1583359.7	1579375.6	[1000]	µg/L	14:22:38
1	Cd 226.502†	37676.7	37642.1	[1000]	µg/L	14:22:44
1	Co 228.616†	21224.5	21133.9	[1000]	µg/L	14:22:44
1	Cr 267.716†	47864.2	47692.2	[1000]	µg/L	14:22:44
1	Cu 324.752†	152208.7	149008.9	[1000]	µg/L	14:22:44
1	Mn 257.610†	300264.6	299100.8	[1000]	µg/L	14:22:44
1	Mo 202.031†	10059.0	10019.4	[1000]	µg/L	14:23:05
1	Ni 231.604†	19417.1	19023.9	[1000]	µg/L	14:22:44
1	P 214.914†	2522.7	2483.2	[5000]	µg/L	14:23:05
1	Pb 220.353†	4095.0	3978.6	[1000]	µg/L	14:23:05
1	S 181.975 Axial†	497.7	480.5	[2000]	µg/L	14:23:05
1	Sb 206.836†	1108.7	1076.5	[1000]	µg/L	14:23:05
1	Se 196.026†	705.0	685.9	[1000]	µg/L	14:23:05
1	SiO2†	52879.3	51381.3	[10695]	µg/L	14:22:44
1	Si 251.611†	63553.1	62942.2	[5000]	µg/L	14:22:44
1	Sn 189.927†	2343.4	2333.3	[1000]	µg/L	14:23:05
1	Ti 334.940†	431168.6	429030.7	[1000]	µg/L	14:22:38
1	Tl 190.801†	726.4	747.3	[1000]	µg/L	14:23:05
1	U 409.014†	11460.5	11460.4	[1000]	µg/L	14:22:44
1	V 292.402†	98389.1	97972.0	[1000]	µg/L	14:22:44
1	Zn 213.857†	42248.3	41574.6	[1000]	µg/L	14:22:44
2	Sc RADIAL	55757.6	55757.6	102	%	14:21:40
2	Al 396.153Radial†	13857.6	13573.7	[10000]	µg/L	14:21:40
2	Ca 317.933Radial†	11113.5	10698.5	[10000]	µg/L	14:22:00
2	Fe 238.204 Radial†	1242.3	1201.4	[10000]	µg/L	14:22:00
2	K 766.490 Radial†	14434.4	13999.7	[10000]	µg/L	14:21:40
2	Mg 279.077 IEC†	1155.1	1119.3	[10000]	µg/L	14:22:00
2	Na 589.592 Radial†	31736.9	30521.6	[10000]	µg/L	14:21:40
2	Sr 421.552†	98177.9	96055.0	[1000]	µg/L	14:21:40
2	Sc 361.383	1912891.8	1912891.8	100.16	%	14:23:11
2	Y 371.029	1304958.7	1304958.7	99.621	%	14:23:11
2	Ag 328.068†	130617.7	130973.8	[1000]	µg/L	14:23:17
2	As 188.979†	550.1	548.1	[1000]	µg/L	14:23:38
2	B 249.677†	24305.4	23935.1	[1000]	µg/L	14:23:17
2	Ba 233.527†	40326.4	40288.1	[1000]	µg/L	14:23:17
2	Be 313.107†	1586929.2	1587837.9	[1000]	µg/L	14:23:11
2	Cd 226.502†	37959.2	38040.8	[1000]	µg/L	14:23:17
2	Co 228.616†	21379.4	21354.1	[1000]	µg/L	14:23:17
2	Cr 267.716†	48340.5	48315.7	[1000]	µg/L	14:23:17
2	Cu 324.752†	153521.9	150790.9	[1000]	µg/L	14:23:17
2	Mn 257.610†	303225.9	302986.3	[1000]	µg/L	14:23:17
2	Mo 202.031†	10012.5	10004.1	[1000]	µg/L	14:23:38
2	Ni 231.604†	19568.5	19235.1	[1000]	µg/L	14:23:17
2	P 214.914†	2513.0	2481.4	[5000]	µg/L	14:23:38
2	Pb 220.353†	4075.3	3971.6	[1000]	µg/L	14:23:38

2	S 181.975 Axial†	494.3	478.7	[2000] µg/L	14:23:38
2	Sb 206.836†	1106.5	1077.8	[1000] µg/L	14:23:38
2	Se 196.026†	715.1	698.1	[1000] µg/L	14:23:38
2	SiO2†	53340.3	52005.2	[10695] µg/L	14:23:17
2	Si 251.611†	64000.9	63585.9	[5000] µg/L	14:23:17
2	Sn 189.927†	2345.0	2342.2	[1000] µg/L	14:23:38
2	Ti 334.940†	432325.2	431519.3	[1000] µg/L	14:23:11
2	Tl 190.801†	726.1	749.2	[1000] µg/L	14:23:38
2	U 409.014†	11741.1	11776.0	[1000] µg/L	14:23:17
2	V 292.402†	99181.6	99067.5	[1000] µg/L	14:23:17
2	Zn 213.857†	42614.4	42070.9	[1000] µg/L	14:23:17
3	Sc RADIAL	54875.2	54875.2	101 %	14:22:06
3	Al 396.153Radial†	13886.4	13820.4	[10000] µg/L	14:22:06
3	Ca 317.933Radial†	11079.2	10839.4	[10000] µg/L	14:22:26
3	Fe 238.204 Radial†	1232.3	1211.0	[10000] µg/L	14:22:26
3	K 766.490 Radial†	14321.1	14114.2	[10000] µg/L	14:22:06
3	Mg 279.077 IEC†	1147.7	1130.1	[10000] µg/L	14:22:26
3	Na 589.592 Radial†	31806.0	31089.8	[10000] µg/L	14:22:06
3	Sr 421.552†	97911.9	97335.8	[1000] µg/L	14:22:06
3	Sc 361.383	1943388.7	1943388.7	101.76 %	14:23:44
3	Y 371.029	1326037.1	1326037.1	101.23 %	14:23:44
3	Ag 328.068†	122308.3	120761.4	[1000] µg/L	14:23:50
3	As 188.979†	468.8	459.6	[1000] µg/L	14:24:11
3	B 249.677†	22603.8	21882.1	[1000] µg/L	14:23:50
3	Ba 233.527†	36855.9	36245.6	[1000] µg/L	14:23:50
3	Be 313.107†	1492194.6	1469875.4	[1000] µg/L	14:23:44
3	Cd 226.502†	34480.3	34027.2	[1000] µg/L	14:23:50
3	Co 228.616†	19338.4	19013.4	[1000] µg/L	14:23:50
3	Cr 267.716†	42475.6	41794.7	[1000] µg/L	14:23:50
3	Cu 324.752†	139121.1	134233.4	[1000] µg/L	14:23:50
3	Mn 257.610†	272803.2	268337.9	[1000] µg/L	14:23:50
3	Mo 202.031†	8402.4	8264.9	[1000] µg/L	14:24:11
3	Ni 231.604†	17696.7	17089.1	[1000] µg/L	14:23:50
3	P 214.914†	2160.3	2095.4	[5000] µg/L	14:24:11
3	Pb 220.353†	3557.4	3398.8	[1000] µg/L	14:24:11
3	S 181.975 Axial†	437.7	415.3	[2000] µg/L	14:24:11
3	Sb 206.836†	957.8	914.3	[1000] µg/L	14:24:11
3	Se 196.026†	625.8	599.2	[1000] µg/L	14:24:11
3	SiO2†	49204.0	47104.6	[10695] µg/L	14:23:50
3	Si 251.611†	59050.8	57718.6	[5000] µg/L	14:23:50
3	Sn 189.927†	1920.9	1888.6	[1000] µg/L	14:24:11
3	Ti 334.940†	404515.4	397416.1	[1000] µg/L	14:23:44
3	Tl 190.801†	655.3	668.3	[1000] µg/L	14:24:11
3	U 409.014†	10336.6	10211.8	[1000] µg/L	14:23:50
3	V 292.402†	89071.2	87577.8	[1000] µg/L	14:23:50
3	Zn 213.857†	38626.6	37484.3	[1000] µg/L	14:23:50

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1925039.4	16166.66	0.84%	100.80	%
Sc RADIAL	55085.6	595.31	1.08%	101	%
Y 371.029	1313623.1	11028.13	0.84%	100.28	%
Ag 328.068†	127160.2	5575.45	4.38%	[1000]	µg/L
Al 396.153Radial†	13779.0	188.09	1.37%	[10000]	µg/L
As 188.979†	516.3	49.27	9.54%	[1000]	µg/L
B 249.677†	23157.7	1113.46	4.81%	[1000]	µg/L
Ba 233.527†	38797.7	2220.52	5.72%	[1000]	µg/L
Be 313.107†	1545696.3	65799.01	4.26%	[1000]	µg/L
Ca 317.933Radial†	10813.2	104.13	0.96%	[10000]	µg/L
Cd 226.502†	36570.0	2211.18	6.05%	[1000]	µg/L
Co 228.616†	20500.4	1292.54	6.30%	[1000]	µg/L
Cr 267.716†	45934.2	3598.42	7.83%	[1000]	µg/L
Cu 324.752†	144677.7	9088.85	6.28%	[1000]	µg/L
Fe 238.204 Radial†	1211.5	10.32	0.85%	[10000]	µg/L
K 766.490 Radial†	14175.1	212.58	1.50%	[10000]	µg/L
Mg 279.077 IEC†	1127.5	7.31	0.65%	[10000]	µg/L
Mn 257.610†	290141.7	18982.26	6.54%	[1000]	µg/L
Mo 202.031†	9429.5	1008.55	10.70%	[1000]	µg/L
Na 589.592 Radial†	31013.9	459.06	1.48%	[10000]	µg/L

Ni 231.604†	18449.4	1182.78	6.41%	[1000]	µg/L
P 214.914†	2353.3	223.38	9.49%	[5000]	µg/L
Pb 220.353†	3783.0	332.79	8.80%	[1000]	µg/L
S 181.975 Axial†	458.2	37.14	8.10%	[2000]	µg/L
Sb 206.836†	1022.9	94.00	9.19%	[1000]	µg/L
Se 196.026†	661.1	53.94	8.16%	[1000]	µg/L
SiO2†	50163.7	2667.59	5.32%	[10695]	µg/L
Si 251.611†	61415.6	3217.81	5.24%	[5000]	µg/L
Sn 189.927†	2188.0	259.31	11.85%	[1000]	µg/L
Sr 421.552†	97341.6	1289.53	1.32%	[1000]	µg/L
Ti 334.940†	419322.0	19011.87	4.53%	[1000]	µg/L
Tl 190.801†	721.6	46.19	6.40%	[1000]	µg/L
U 409.014†	11149.4	827.15	7.42%	[1000]	µg/L
V 292.402†	94872.5	6341.05	6.68%	[1000]	µg/L
Zn 213.857†	40376.6	2517.08	6.23%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/11/2010 14:24:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55734.1	55734.1	102	%	14:24:53
1	Al 396.153Radial†	68477.1	67062.5	[50000]	µg/L	14:24:53
1	Ca 317.933Radial†	54301.8	52992.8	[50000]	µg/L	14:24:53
1	Fe 238.204 Radial†	2420.6	2355.7	[20000]	µg/L	14:25:13
1	Mg 279.077 IEC†	5505.9	5380.1	[50000]	µg/L	14:25:13
1	Na 589.592 Radial†	62235.4	60398.5	[20000]	µg/L	14:24:53
1	Sc 361.383	1922257.7	1922257.7	100.65	%	14:26:17
1	Y 371.029	1306511.6	1306511.6	99.740	%	14:26:17
2	Sc RADIAL	55997.4	55997.4	103	%	14:25:19
2	Al 396.153Radial†	68696.2	66960.7	[50000]	µg/L	14:25:19
2	Ca 317.933Radial†	54670.5	53102.1	[50000]	µg/L	14:25:19
2	Fe 238.204 Radial†	2419.7	2343.7	[20000]	µg/L	14:25:39
2	Mg 279.077 IEC†	5512.9	5361.5	[50000]	µg/L	14:25:39
2	Na 589.592 Radial†	62504.6	60374.4	[20000]	µg/L	14:25:19
2	Sc 361.383	1943938.9	1943938.9	101.79	%	14:26:25
2	Y 371.029	1321297.0	1321297.0	100.87	%	14:26:25
3	Sc RADIAL	56208.4	56208.4	103	%	14:25:45
3	Al 396.153Radial†	69051.1	67053.9	[50000]	µg/L	14:25:45
3	Ca 317.933Radial†	54933.8	53157.7	[50000]	µg/L	14:25:45
3	Fe 238.204 Radial†	2417.0	2332.2	[20000]	µg/L	14:26:05
3	Mg 279.077 IEC†	5516.6	5344.9	[50000]	µg/L	14:26:05
3	Na 589.592 Radial†	62899.5	60529.1	[20000]	µg/L	14:25:45
3	Sc 361.383	1959647.9	1959647.9	102.61	%	14:26:33
3	Y 371.029	1332766.9	1332766.9	101.74	%	14:26:33

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1941948.2	18774.43	0.97%	101.68	%
Sc RADIAL	55979.9	237.64	0.42%	103	%
Y 371.029	1320191.8	13162.49	1.00%	100.78	%
Al 396.153Radial†	67025.7	56.44	0.08%	[50000]	µg/L
Ca 317.933Radial†	53084.2	83.91	0.16%	[50000]	µg/L
Fe 238.204 Radial†	2343.9	11.76	0.50%	[20000]	µg/L
Mg 279.077 IEC†	5362.2	17.57	0.33%	[50000]	µg/L
Na 589.592 Radial†	60434.0	83.23	0.14%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	126.0	0.00000	0.999831	
Al 396.153Radial	3	Lin Thru 0	0.0	1.342	0.00000	0.999984	
As 188.979	3	Lin Thru 0	0.0	0.5116	0.00000	0.999791	
B 249.677	3	Lin Thru 0	0.0	22.88	0.00000	0.999715	
Ba 233.527	3	Lin Thru 0	0.0	38.40	0.00000	0.999779	
Be 313.107	3	Lin Thru 0	0.0	1531	0.00000	0.999818	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.062	0.00000	0.999987	
Cd 226.502	3	Lin Thru 0	0.0	36.25	0.00000	0.999822	
Co 228.616	3	Lin Thru 0	0.0	20.32	0.00000	0.999831	
Cr 267.716	3	Lin Thru 0	0.0	45.46	0.00000	0.999766	
Cu 324.752	3	Lin Thru 0	0.0	143.2	0.00000	0.999754	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1180	0.00000	0.999910	
K 766.490 Radial	3	Lin Thru 0	0.0	1.407	0.00000	0.999880	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1075	0.00000	0.999952	
Mn 257.610	3	Lin Thru 0	0.0	288.8	0.00000	0.999942	
Mo 202.031	3	Lin Thru 0	0.0	9.370	0.00000	0.999888	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.038	0.00000	0.999945	

Ni 231.604	3	Lin Thru 0	0.0	18.29	0.00000	0.999821
P 214.914	3	Lin Thru 0	0.0	0.4657	0.00000	0.999737
Pb 220.353	3	Lin Thru 0	0.0	3.748	0.00000	0.999792
S 181.975 Axial	3	Lin Thru 0	0.0	0.2282	0.00000	0.999946
Sb 206.836	3	Lin Thru 0	0.0	1.016	0.00000	0.999901
Se 196.026	3	Lin Thru 0	0.0	0.6559	0.00000	0.999870
SiO2	3	Lin Thru 0	0.0	4.643	0.00000	0.999791
Si 251.611	3	Lin Thru 0	0.0	12.16	0.00000	0.999805
Sn 189.927	3	Lin Thru 0	0.0	2.174	0.00000	0.999882
Sr 421.552	3	Lin Thru 0	0.0	96.47	0.00000	0.999840
Ti 334.940	3	Lin Thru 0	0.0	415.7	0.00000	0.999852
Tl 190.801	3	Lin Thru 0	0.0	0.7164	0.00000	0.999879
U 409.014	3	Lin Thru 0	0.0	11.05	0.00000	0.999783
V 292.402	3	Lin Thru 0	0.0	93.83	0.00000	0.999742
Zn 213.857	3	Lin Thru 0	0.0	40.05	0.00000	0.999841

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/11/2010 14:26:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56175.2	56175.2	103	%			14:27:15
1	Al 396.153Radial†	6827.4	6643.0	4939.9	µg/L	4939.9	ppb	14:27:35
1	Ca 317.933Radial†	5504.7	5168.7	4866.7	µg/L	4866.7	ppb	14:27:35
1	Fe 238.204 Radial†	619.4	587.3	4988.2	µg/L	4988.2	ppb	14:27:35
1	K 766.490 Radial†	3573.7	3343.4	2376.5	µg/L	2376.5	ppb	14:27:15
1	Mg 279.077 IEC†	579.7	551.9	5140.1	µg/L	5140.1	ppb	14:27:35
1	Na 589.592 Radial†	7985.2	7215.8	2375.5	µg/L	2375.5	ppb	14:27:15
1	Sr 421.552†	49736.5	48279.6	500.47	µg/L	500.47	ppb	14:27:15
1	Sc 361.383	1963746.6	1963746.6	102.82	%			14:28:38
1	Y 371.029	1343456.9	1343456.9	102.56	%			14:28:38
1	Ag 328.068†	32402.4	32077.4	258.20	µg/L	258.20	ppb	14:28:44
1	As 188.979†	252.0	244.0	475.79	µg/L	475.79	ppb	14:29:05
1	B 249.677†	12299.6	11630.5	506.47	µg/L	506.47	ppb	14:28:44
1	Ba 233.527†	19805.3	19287.7	503.14	µg/L	503.14	ppb	14:28:44
1	Be 313.107†	400944.5	393378.7	256.71	µg/L	256.71	ppb	14:28:38
1	Cd 226.502†	18448.5	18084.2	498.85	µg/L	498.85	ppb	14:28:44
1	Co 228.616†	10564.7	10283.6	505.57	µg/L	505.57	ppb	14:28:44
1	Cr 267.716†	22885.3	22309.5	491.04	µg/L	491.04	ppb	14:28:44
1	Cu 324.752†	76882.1	72285.6	505.62	µg/L	505.62	ppb	14:28:44
1	Mn 257.610†	151694.6	147774.6	512.18	µg/L	512.18	ppb	14:28:38
1	Mo 202.031†	5332.7	5193.9	554.49	µg/L	554.49	ppb	14:29:05
1	Ni 231.604†	9713.9	9145.0	499.47	µg/L	499.47	ppb	14:28:44
1	P 214.914†	1269.4	1206.9	2543.7	µg/L	2543.7	ppb	14:29:05
1	Pb 220.353†	2051.9	1898.4	506.85	µg/L	506.85	ppb	14:29:05
1	S 181.975 Axial†	610.0	578.4	2534.1	µg/L	2534.1	ppb	14:29:05
1	Sb 206.836†	565.9	523.4	518.27	µg/L	518.27	ppb	14:29:05
1	Se 196.026†	1740.7	1677.1	2564.5	µg/L	2564.5	ppb	14:29:05
1	SiO2†	50702.0	48060.2	10350	µg/L	10350	ppb	14:28:44
1	Si 251.611†	60656.9	58679.0	4823.7	µg/L	4823.7	ppb	14:28:44
1	Sn 189.927†	1247.6	1214.2	558.50	µg/L	558.50	ppb	14:29:05
1	Ti 334.940†	209346.8	203483.9	489.14	µg/L	489.14	ppb	14:28:38
1	Tl 190.801†	364.1	378.4	534.06	µg/L	534.06	ppb	14:29:05
1	U 409.014†	5596.2	5496.2	496.62	µg/L	496.62	ppb	14:28:44
1	V 292.402†	48924.8	47626.0	514.07	µg/L	514.07	ppb	14:28:44
1	Zn 213.857†	21567.2	20499.6	508.35	µg/L	508.35	ppb	14:28:44
2	Sc RADIAL	56033.1	56033.1	103	%			14:27:40
2	Al 396.153Radial†	6802.0	6635.1	4934.1	µg/L	4934.1	ppb	14:28:01
2	Ca 317.933Radial†	5475.3	5153.6	4852.4	µg/L	4852.4	ppb	14:28:01
2	Fe 238.204 Radial†	614.3	583.8	4958.8	µg/L	4958.8	ppb	14:28:01
2	K 766.490 Radial†	3641.5	3418.3	2429.7	µg/L	2429.7	ppb	14:27:40
2	Mg 279.077 IEC†	579.8	553.4	5154.4	µg/L	5154.4	ppb	14:28:01
2	Na 589.592 Radial†	8029.7	7278.8	2396.2	µg/L	2396.2	ppb	14:27:40
2	Sr 421.552†	50111.3	48767.2	505.53	µg/L	505.53	ppb	14:27:40
2	Sc 361.383	1959108.8	1959108.8	102.58	%			14:29:12
2	Y 371.029	1337906.1	1337906.1	102.14	%			14:29:12
2	Ag 328.068†	32371.7	32122.1	258.56	µg/L	258.56	ppb	14:29:17
2	As 188.979†	250.3	242.8	473.56	µg/L	473.56	ppb	14:29:38
2	B 249.677†	12349.9	11707.8	509.86	µg/L	509.86	ppb	14:29:17
2	Ba 233.527†	19859.1	19385.7	505.69	µg/L	505.69	ppb	14:29:17
2	Be 313.107†	397767.3	391204.5	255.29	µg/L	255.29	ppb	14:29:12
2	Cd 226.502†	18445.9	18124.1	499.96	µg/L	499.96	ppb	14:29:17
2	Co 228.616†	10616.9	10358.7	509.26	µg/L	509.26	ppb	14:29:17
2	Cr 267.716†	22880.0	22357.0	492.09	µg/L	492.09	ppb	14:29:17
2	Cu 324.752†	76966.8	72545.1	507.43	µg/L	507.43	ppb	14:29:17
2	Mn 257.610†	150503.7	146962.9	509.37	µg/L	509.37	ppb	14:29:12
2	Mo 202.031†	5249.3	5124.9	547.12	µg/L	547.12	ppb	14:29:38
2	Ni 231.604†	9710.9	9164.5	500.53	µg/L	500.53	ppb	14:29:17
2	P 214.914†	1234.6	1175.9	2476.8	µg/L	2476.8	ppb	14:29:38
2	Pb 220.353†	2014.2	1866.4	498.27	µg/L	498.27	ppb	14:29:38

2	S 181.975 Axial†	603.9	573.9	2514.5 µg/L	2514.5 ppb	14:29:38
2	Sb 206.836†	552.1	511.3	506.22 µg/L	506.22 ppb	14:29:38
2	Se 196.026†	1718.6	1659.6	2537.7 µg/L	2537.7 ppb	14:29:38
2	SiO2†	50804.5	48276.9	10397 µg/L	10397 ppb	14:29:17
2	Si 251.611†	60707.2	58867.6	4839.2 µg/L	4839.2 ppb	14:29:17
2	Sn 189.927†	1227.9	1197.9	551.01 µg/L	551.01 ppb	14:29:38
2	Ti 334.940†	208068.6	202719.9	487.30 µg/L	487.30 ppb	14:29:12
2	Tl 190.801†	356.4	371.7	524.72 µg/L	524.72 ppb	14:29:38
2	U 409.014†	5657.2	5568.6	503.18 µg/L	503.18 ppb	14:29:17
2	V 292.402†	48911.7	47725.9	515.09 µg/L	515.09 ppb	14:29:17
2	Zn 213.857†	21491.7	20475.7	507.74 µg/L	507.74 ppb	14:29:17
3	Sc RADIAL	55710.7	55710.7	102 %		14:28:06
3	Al 396.153Radial†	6837.6	6708.3	4990.5 µg/L	4990.5 ppb	14:28:27
3	Ca 317.933Radial†	5503.3	5211.9	4907.4 µg/L	4907.4 ppb	14:28:27
3	Fe 238.204 Radial†	619.1	592.0	5027.4 µg/L	5027.4 ppb	14:28:27
3	K 766.490 Radial†	3604.3	3402.4	2418.4 µg/L	2418.4 ppb	14:28:06
3	Mg 279.077 IEC†	577.0	553.9	5157.4 µg/L	5157.4 ppb	14:28:27
3	Na 589.592 Radial†	7999.1	7294.1	2401.2 µg/L	2401.2 ppb	14:28:06
3	Sr 421.552†	49756.2	48701.8	504.85 µg/L	504.85 ppb	14:28:06
3	Sc 361.383	1966591.1	1966591.1	102.97 %		14:29:45
3	Y 371.029	1344829.1	1344829.1	102.67 %		14:29:45
3	Ag 328.068†	30447.1	30133.0	242.44 µg/L	242.44 ppb	14:29:51
3	As 188.979†	212.1	204.8	399.46 µg/L	399.46 ppb	14:30:11
3	B 249.677†	11543.9	10879.3	473.52 µg/L	473.52 ppb	14:29:51
3	Ba 233.527†	18235.3	17735.1	462.62 µg/L	462.62 ppb	14:29:51
3	Be 313.107†	376544.4	369118.7	240.88 µg/L	240.88 ppb	14:29:45
3	Cd 226.502†	16808.4	16465.5	454.14 µg/L	454.14 ppb	14:29:51
3	Co 228.616†	9616.6	9347.9	459.50 µg/L	459.50 ppb	14:29:51
3	Cr 267.716†	20282.2	19749.2	434.69 µg/L	434.69 ppb	14:29:51
3	Cu 324.752†	70054.3	65546.6	458.56 µg/L	458.56 ppb	14:29:51
3	Mn 257.610†	142833.7	138956.0	481.65 µg/L	481.65 ppb	14:29:45
3	Mo 202.031†	4404.7	4285.1	457.51 µg/L	457.51 ppb	14:30:11
3	Ni 231.604†	8886.0	8327.4	454.82 µg/L	454.82 ppb	14:29:51
3	P 214.914†	1057.7	999.5	2101.9 µg/L	2101.9 ppb	14:30:11
3	Pb 220.353†	1779.9	1631.4	435.46 µg/L	435.46 ppb	14:30:11
3	S 181.975 Axial†	527.5	497.5	2179.7 µg/L	2179.7 ppb	14:30:11
3	Sb 206.836†	492.5	451.4	446.41 µg/L	446.41 ppb	14:30:11
3	Se 196.026†	1501.7	1442.5	2207.0 µg/L	2207.0 ppb	14:30:11
3	SiO2†	47105.5	44496.1	9582.5 µg/L	9582.5 ppb	14:29:51
3	Si 251.611†	56262.5	54326.1	4465.9 µg/L	4465.9 ppb	14:29:51
3	Sn 189.927†	1018.6	990.0	455.40 µg/L	455.40 ppb	14:30:11
3	Ti 334.940†	196112.8	190337.3	457.51 µg/L	457.51 ppb	14:29:45
3	Tl 190.801†	328.3	343.2	484.58 µg/L	484.58 ppb	14:30:11
3	U 409.014†	4922.5	4834.1	436.66 µg/L	436.66 ppb	14:29:51
3	V 292.402†	44109.1	42880.5	462.56 µg/L	462.56 ppb	14:29:51
3	Zn 213.857†	19646.9	18604.4	461.29 µg/L	461.29 ppb	14:29:51

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1963148.8	102.79	%	0.198				0.19%
Sc RADIAL	55973.0	103	%	0.4				0.43%
Y 371.029	1342064.0	102.45	%	0.280				0.27%
Ag 328.068†	31444.2	253.06	µg/L	9.205	253.06	ppb	9.205	3.64%
QC value within limits for Ag 328.068 Recovery = 101.23%								
Al 396.153Radial†	6662.1	4954.8	µg/L	31.04	4954.8	ppb	31.04	0.63%
QC value within limits for Al 396.153Radial Recovery = 99.10%								
As 188.979†	230.5	449.61	µg/L	43.438	449.61	ppb	43.438	9.66%
QC value less than the lower limit for As 188.979 Recovery = 89.92%								
B 249.677†	11405.9	496.62	µg/L	20.071	496.62	ppb	20.071	4.04%
QC value within limits for B 249.677 Recovery = 99.32%								
Ba 233.527†	18802.8	490.48	µg/L	24.164	490.48	ppb	24.164	4.93%
QC value within limits for Ba 233.527 Recovery = 98.10%								
Be 313.107†	384567.3	250.96	µg/L	8.759	250.96	ppb	8.759	3.49%
QC value within limits for Be 313.107 Recovery = 100.38%								
Ca 317.933Radial†	5178.1	4875.5	µg/L	28.51	4875.5	ppb	28.51	0.58%
QC value within limits for Ca 317.933Radial Recovery = 97.51%								
Cd 226.502†	17558.0	484.32	µg/L	26.137	484.32	ppb	26.137	5.40%
QC value within limits for Cd 226.502 Recovery = 96.86%								
Co 228.616†	9996.7	491.44	µg/L	27.727	491.44	ppb	27.727	5.64%

QC value within limits for Co 228.616 Recovery = 98.29%						
Cr 267.716†	21471.9	472.61 µg/L	32.838	472.61 ppb	32.838	6.95%
QC value within limits for Cr 267.716 Recovery = 94.52%						
Cu 324.752†	70125.8	490.54 µg/L	27.712	490.54 ppb	27.712	5.65%
QC value within limits for Cu 324.752 Recovery = 98.11%						
Fe 238.204 Radial†	587.7	4991.5 µg/L	34.44	4991.5 ppb	34.44	0.69%
QC value within limits for Fe 238.204 Radial Recovery = 99.83%						
K 766.490 Radial†	3388.1	2408.2 µg/L	28.04	2408.2 ppb	28.04	1.16%
QC value within limits for K 766.490 Radial Recovery = 96.33%						
Mg 279.077 IEC†	553.1	5150.6 µg/L	9.21	5150.6 ppb	9.21	0.18%
QC value within limits for Mg 279.077 IEC Recovery = 103.01%						
Mn 257.610†	144564.5	501.06 µg/L	16.874	501.06 ppb	16.874	3.37%
QC value within limits for Mn 257.610 Recovery = 100.21%						
Mo 202.031†	4868.0	519.70 µg/L	53.991	519.70 ppb	53.991	10.39%
QC value within limits for Mo 202.031 Recovery = 103.94%						
Na 589.592 Radial†	7262.9	2391.0 µg/L	13.66	2391.0 ppb	13.66	0.57%
QC value within limits for Na 589.592 Radial Recovery = 95.64%						
Ni 231.604†	8879.0	484.94 µg/L	26.089	484.94 ppb	26.089	5.38%
QC value within limits for Ni 231.604 Recovery = 96.99%						
P 214.914†	1127.4	2374.2 µg/L	238.13	2374.2 ppb	238.13	10.03%
QC value within limits for P 214.914 Recovery = 94.97%						
Pb 220.353†	1798.7	480.19 µg/L	38.976	480.19 ppb	38.976	8.12%
QC value within limits for Pb 220.353 Recovery = 96.04%						
S 181.975 Axial†	549.9	2409.5 µg/L	199.20	2409.5 ppb	199.20	8.27%
QC value within limits for S 181.975 Axial Recovery = 96.38%						
Sb 206.836†	495.4	490.30 µg/L	38.486	490.30 ppb	38.486	7.85%
QC value within limits for Sb 206.836 Recovery = 98.06%						
Se 196.026†	1593.1	2436.4 µg/L	199.13	2436.4 ppb	199.13	8.17%
QC value within limits for Se 196.026 Recovery = 97.46%						
SiO2†	46944.4	10110 µg/L	457.2	10110 ppb	457.2	4.52%
QC value within limits for SiO2 Recovery = 94.53%						
Si 251.611†	57290.9	4709.6 µg/L	211.21	4709.6 ppb	211.21	4.48%
QC value within limits for Si 251.611 Recovery = 94.19%						
Sn 189.927†	1134.1	521.64 µg/L	57.487	521.64 ppb	57.487	11.02%
QC value within limits for Sn 189.927 Recovery = 104.33%						
Sr 421.552†	48582.8	503.62 µg/L	2.743	503.62 ppb	2.743	0.54%
QC value within limits for Sr 421.552 Recovery = 100.72%						
Ti 334.940†	198847.0	477.98 µg/L	17.751	477.98 ppb	17.751	3.71%
QC value within limits for Ti 334.940 Recovery = 95.60%						
Tl 190.801†	364.4	514.45 µg/L	26.290	514.45 ppb	26.290	5.11%
QC value within limits for Tl 190.801 Recovery = 102.89%						
U 409.014†	5299.6	478.82 µg/L	36.655	478.82 ppb	36.655	7.66%
QC value within limits for U 409.014 Recovery = 95.76%						
V 292.402†	46077.4	497.24 µg/L	30.036	497.24 ppb	30.036	6.04%
QC value within limits for V 292.402 Recovery = 99.45%						
Zn 213.857†	19859.9	492.46 µg/L	26.995	492.46 ppb	26.995	5.48%
QC value within limits for Zn 213.857 Recovery = 98.49%						

QC Failed. Continue with analysis.

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/11/2010 14:30:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55908.8	55908.8	102	%			14:30:53
1	Al 396.153Radial†	-5.0	5.2	3.8899	µg/L	3.8899	ppb	14:30:53
1	Ca 317.933Radial†	192.7	9.0	8.4299	µg/L	8.4299	ppb	14:31:14
1	Fe 238.204 Radial†	14.3	-0.6	-4.9645	µg/L	-4.9645	ppb	14:31:14
1	K 766.490 Radial†	107.9	-23.1	-16.426	µg/L	-16.426	ppb	14:30:53
1	Mg 279.077 IEC†	15.7	4.0	37.295	µg/L	37.295	ppb	14:31:14
1	Na 589.592 Radial†	574.2	18.7	6.1420	µg/L	6.1420	ppb	14:30:53
1	Sr 421.552†	57.3	16.3	0.1694	µg/L	0.1694	ppb	14:30:53
1	Sc 361.383	1944300.1	1944300.1	101.80	%			14:32:16
1	Y 371.029	1332393.9	1332393.9	101.72	%			14:32:16
1	Ag 328.068†	-508.2	65.3	0.5177	µg/L	0.5177	ppb	14:32:21
1	As 188.979†	2.4	1.2	2.3247	µg/L	2.3247	ppb	14:32:42
1	B 249.677†	341.3	3.8	0.1701	µg/L	0.1701	ppb	14:32:42
1	Ba 233.527†	-14.2	12.0	0.3135	µg/L	0.3135	ppb	14:32:42
1	Be 313.107†	-3420.4	80.6	0.0526	µg/L	0.0526	ppb	14:32:21
1	Cd 226.502†	-141.7	2.9	0.0816	µg/L	0.0816	ppb	14:32:42
1	Co 228.616†	-8.8	0.2	0.0094	µg/L	0.0094	ppb	14:32:42
1	Cr 267.716†	-52.4	0.9	0.0196	µg/L	0.0196	ppb	14:32:21
1	Cu 324.752†	2516.4	-14.3	-0.1006	µg/L	-0.1006	ppb	14:32:21
1	Mn 257.610†	-222.7	25.3	0.0856	µg/L	0.0856	ppb	14:32:42
1	Mo 202.031†	-0.2	7.3	0.7799	µg/L	0.7799	ppb	14:32:42
1	Ni 231.604†	301.0	-6.6	-0.3591	µg/L	-0.3591	ppb	14:32:42
1	P 214.914†	32.4	4.2	8.9740	µg/L	8.9740	ppb	14:32:42
1	Pb 220.353†	88.6	-10.1	-2.7035	µg/L	-2.7035	ppb	14:32:42
1	S 181.975 Axial†	16.5	1.4	6.0966	µg/L	6.0966	ppb	14:32:42
1	Sb 206.836†	22.8	-4.6	-4.5144	µg/L	-4.5144	ppb	14:32:42
1	Se 196.026†	21.7	5.5	8.3158	µg/L	8.3158	ppb	14:32:42
1	SiO2†	1261.7	-10.7	-2.2937	µg/L	-2.2937	ppb	14:32:21
1	Si 251.611†	339.4	20.5	1.6875	µg/L	1.6875	ppb	14:32:42
1	Sn 189.927†	1.1	2.0	0.9031	µg/L	0.9031	ppb	14:32:42
1	Ti 334.940†	148.3	29.6	0.0683	µg/L	0.0683	ppb	14:32:21
1	Tl 190.801†	-21.8	2.8	3.9713	µg/L	3.9713	ppb	14:32:42
1	U 409.014†	-33.0	21.2	1.9223	µg/L	1.9223	ppb	14:32:21
1	V 292.402†	-53.1	-7.9	-0.0767	µg/L	-0.0767	ppb	14:32:21
1	Zn 213.857†	482.8	-1.3	-0.0325	µg/L	-0.0325	ppb	14:32:42
2	Sc RADIAL	55881.3	55881.3	102	%			14:31:19
2	Al 396.153Radial†	-15.6	-5.1	-3.7901	µg/L	-3.7901	ppb	14:31:19
2	Ca 317.933Radial†	181.6	-1.8	-1.6610	µg/L	-1.6610	ppb	14:31:40
2	Fe 238.204 Radial†	14.4	-0.5	-4.0234	µg/L	-4.0234	ppb	14:31:40
2	K 766.490 Radial†	165.7	33.4	23.714	µg/L	23.714	ppb	14:31:19
2	Mg 279.077 IEC†	9.4	-2.1	-19.910	µg/L	-19.910	ppb	14:31:40
2	Na 589.592 Radial†	521.5	-32.6	-10.727	µg/L	-10.727	ppb	14:31:19
2	Sr 421.552†	60.7	19.7	0.2040	µg/L	0.2040	ppb	14:31:19
2	Sc 361.383	1964760.3	1964760.3	102.88	%			14:32:48
2	Y 371.029	1347613.8	1347613.8	102.88	%			14:32:48
2	Ag 328.068†	-518.5	60.5	0.4799	µg/L	0.4799	ppb	14:32:53
2	As 188.979†	-1.3	-2.4	-4.7694	µg/L	-4.7694	ppb	14:33:14
2	B 249.677†	344.7	3.6	0.1600	µg/L	0.1600	ppb	14:33:14
2	Ba 233.527†	-16.3	10.1	0.2637	µg/L	0.2637	ppb	14:33:14
2	Be 313.107†	-3298.7	234.0	0.1527	µg/L	0.1527	ppb	14:32:53
2	Cd 226.502†	-133.3	12.6	0.3477	µg/L	0.3477	ppb	14:33:14
2	Co 228.616†	-4.9	4.1	0.2028	µg/L	0.2028	ppb	14:33:14
2	Cr 267.716†	-12.9	39.8	0.8752	µg/L	0.8752	ppb	14:32:53
2	Cu 324.752†	2529.4	-27.4	-0.1918	µg/L	-0.1918	ppb	14:32:53
2	Mn 257.610†	-202.1	47.7	0.1654	µg/L	0.1654	ppb	14:33:14
2	Mo 202.031†	1.2	8.7	0.9303	µg/L	0.9303	ppb	14:33:14
2	Ni 231.604†	305.7	-5.0	-0.2753	µg/L	-0.2753	ppb	14:33:14
2	P 214.914†	24.2	-4.1	-8.8167	µg/L	-8.8167	ppb	14:33:14
2	Pb 220.353†	97.8	-2.1	-0.5597	µg/L	-0.5597	ppb	14:33:14

2	S 181.975 Axial†	15.1	-0.1	-0.5770 µg/L	-0.5770 ppb	14:33:14
2	Sb 206.836†	27.2	-0.5	-0.4890 µg/L	-0.4890 ppb	14:33:14
2	Se 196.026†	14.7	-1.6	-2.3575 µg/L	-2.3575 ppb	14:33:14
2	SiO2†	1242.8	-41.9	-9.0338 µg/L	-9.0338 ppb	14:32:53
2	Si 251.611†	360.2	37.3	3.0664 µg/L	3.0664 ppb	14:33:14
2	Sn 189.927†	0.7	1.6	0.7280 µg/L	0.7280 ppb	14:33:14
2	Ti 334.940†	261.8	138.4	0.3344 µg/L	0.3344 ppb	14:32:53
2	Tl 190.801†	-26.1	-1.1	-1.5598 µg/L	-1.5598 ppb	14:33:14
2	U 409.014†	-15.1	39.0	3.5273 µg/L	3.5273 ppb	14:32:53
2	V 292.402†	-42.6	2.8	0.0426 µg/L	0.0426 ppb	14:32:53
2	Zn 213.857†	491.7	2.4	0.0627 µg/L	0.0627 ppb	14:33:14
3	Sc RADIAL	56329.8	56329.8	103 %		14:31:45
3	Al 396.153Radial†	2.8	12.8	9.5317 µg/L	9.5317 ppb	14:31:45
3	Ca 317.933Radial†	174.0	-10.6	-9.9765 µg/L	-9.9765 ppb	14:32:05
3	Fe 238.204 Radial†	15.1	0.1	1.1942 µg/L	1.1942 ppb	14:32:05
3	K 766.490 Radial†	116.0	-16.0	-11.375 µg/L	-11.375 ppb	14:31:45
3	Mg 279.077 IEC†	9.4	-2.1	-19.858 µg/L	-19.858 ppb	14:32:05
3	Na 589.592 Radial†	536.5	-22.1	-7.2800 µg/L	-7.2800 ppb	14:31:45
3	Sr 421.552†	17.2	-22.9	-0.2369 µg/L	-0.2369 ppb	14:31:45
3	Sc 361.383	1963041.8	1963041.8	102.79 %		14:33:20
3	Y 371.029	1346546.9	1346546.9	102.80 %		14:33:20
3	Ag 328.068†	-542.7	36.6	0.2929 µg/L	0.2929 ppb	14:33:26
3	As 188.979†	1.8	0.6	1.1689 µg/L	1.1689 ppb	14:33:46
3	B 249.677†	343.0	2.2	0.0978 µg/L	0.0978 ppb	14:33:46
3	Ba 233.527†	-18.5	8.0	0.2082 µg/L	0.2082 ppb	14:33:46
3	Be 313.107†	-3230.6	297.4	0.1942 µg/L	0.1942 ppb	14:33:26
3	Cd 226.502†	-130.1	15.5	0.4281 µg/L	0.4281 ppb	14:33:46
3	Co 228.616†	-21.8	-12.4	-0.6104 µg/L	-0.6104 ppb	14:33:46
3	Cr 267.716†	-41.2	12.3	0.2708 µg/L	0.2708 ppb	14:33:26
3	Cu 324.752†	2546.0	-9.1	-0.0637 µg/L	-0.0637 ppb	14:33:26
3	Mn 257.610†	-170.0	78.8	0.2737 µg/L	0.2737 ppb	14:33:46
3	Mo 202.031†	0.3	7.9	0.8413 µg/L	0.8413 ppb	14:33:46
3	Ni 231.604†	307.9	-2.6	-0.1428 µg/L	-0.1428 ppb	14:33:46
3	P 214.914†	31.7	3.2	7.0023 µg/L	7.0023 ppb	14:33:46
3	Pb 220.353†	97.7	-2.1	-0.5651 µg/L	-0.5651 ppb	14:33:46
3	S 181.975 Axial†	14.0	-1.2	-5.1565 µg/L	-5.1565 ppb	14:33:46
3	Sb 206.836†	18.5	-9.0	-8.8540 µg/L	-8.8540 ppb	14:33:46
3	Se 196.026†	7.7	-8.4	-12.762 µg/L	-12.762 ppb	14:33:46
3	SiO2†	1231.2	-52.2	-11.239 µg/L	-11.239 ppb	14:33:26
3	Si 251.611†	338.7	16.6	1.3655 µg/L	1.3655 ppb	14:33:46
3	Sn 189.927†	2.7	3.5	1.5931 µg/L	1.5931 ppb	14:33:46
3	Ti 334.940†	206.7	84.9	0.2057 µg/L	0.2057 ppb	14:33:26
3	Tl 190.801†	-23.5	1.4	1.9821 µg/L	1.9821 ppb	14:33:46
3	U 409.014†	-82.4	-26.6	-2.4037 µg/L	-2.4037 ppb	14:33:26
3	V 292.402†	-5.0	39.3	0.4238 µg/L	0.4238 ppb	14:33:26
3	Zn 213.857†	490.6	1.7	0.0448 µg/L	0.0448 ppb	14:33:46

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1957367.4	102.49	%	0.594				0.58%
Sc RADIAL	56040.0	103	%	0.5				0.45%
Y 371.029	1342184.9	102.46	%	0.649				0.63%
Ag 328.068†	54.1	0.4302	µg/L	0.12036	0.4302	ppb	0.12036	27.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.3	3.2105	µg/L	6.68686	3.2105	ppb	6.68686	208.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.2	-0.4253	µg/L	3.80624	-0.4253	ppb	3.80624	895.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	3.2	0.1426	µg/L	0.03915	0.1426	ppb	0.03915	27.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.0	0.2618	µg/L	0.05266	0.2618	ppb	0.05266	20.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	204.0	0.1331	µg/L	0.07275	0.1331	ppb	0.07275	54.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.1	-1.0692	µg/L	9.21745	-1.0692	ppb	9.21745	862.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.4	0.2858	µg/L	0.18136	0.2858	ppb	0.18136	63.46%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.7	-0.1327	µg/L	0.42483	-0.1327	ppb	0.42483	320.06%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              17.7      0.3886 µg/L       0.43975      0.3886 ppb       0.43975 113.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -16.9     -0.1187 µg/L       0.06593     -0.1187 ppb       0.06593  55.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.3     -2.5979 µg/L       3.31761     -2.5979 ppb       3.31761 127.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -1.9     -1.3625 µg/L      21.86298     -1.3625 ppb      21.86298 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.1     -0.8244 µg/L      33.01203     -0.8244 ppb      33.01203 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               50.6      0.1749 µg/L       0.09441      0.1749 ppb       0.09441  53.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.0      0.8505 µg/L       0.07561      0.8505 ppb       0.07561   8.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -12.0     -3.9548 µg/L       8.91231     -3.9548 ppb       8.91231 225.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -4.7     -0.2590 µg/L       0.10906     -0.2590 ppb       0.10906  42.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 1.1      2.3865 µg/L       9.75229      2.3865 ppb       9.75229 408.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -4.8     -1.2761 µg/L       1.23617     -1.2761 ppb       1.23617  96.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.0      0.1210 µg/L       5.65896      0.1210 ppb       5.65896 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -4.7     -4.6191 µg/L       4.18349     -4.6191 ppb       4.18349  90.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.5     -2.2678 µg/L      10.53912     -2.2678 ppb      10.53912 464.73%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -34.9     -7.5220 µg/L       4.66014     -7.5220 ppb       4.66014  61.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               24.8      2.0398 µg/L       0.90350      2.0398 ppb       0.90350  44.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.3      1.0747 µg/L       0.45737      1.0747 ppb       0.45737  42.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                4.4      0.0455 µg/L       0.24518      0.0455 ppb       0.24518 539.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               84.3      0.2028 µg/L       0.13307      0.2028 ppb       0.13307  65.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.0      1.4645 µg/L       2.80164      1.4645 ppb       2.80164 191.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                11.2      1.0153 µg/L       3.06778      1.0153 ppb       3.06778 302.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                11.4      0.1299 µg/L       0.26143      0.1299 ppb       0.26143 201.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                0.9      0.0250 µg/L       0.05061      0.0250 ppb       0.05061 202.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/11/2010 14:33:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Rep#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54747.4	54747.4	100	%			14:34:28
1	Al 396.153Radial†	273.1	282.4	210.27	µg/L	210.27	ppb	14:34:28
1	Ca 317.933Radial†	397.1	216.7	204.01	µg/L	204.01	ppb	14:34:49
1	Fe 238.204 Radial†	30.8	16.2	137.25	µg/L	137.25	ppb	14:34:49
1	K 766.490 Radial†	363.7	234.1	166.40	µg/L	166.40	ppb	14:34:28
1	Mg 279.077 IEC†	45.5	34.1	317.43	µg/L	317.43	ppb	14:34:49
1	Na 589.592 Radial†	1424.0	877.6	288.92	µg/L	288.92	ppb	14:34:28
1	Sr 421.552†	486.3	445.2	4.6152	µg/L	4.6152	ppb	14:34:28
1	Sc 361.383	1940350.4	1940350.4	101.60	%			14:35:51
1	Y 371.029	1331501.6	1331501.6	101.65	%			14:35:51
1	Ag 328.068†	65.6	629.1	5.0332	µg/L	5.0332	ppb	14:35:56
1	As 188.979†	15.0	13.6	26.557	µg/L	26.557	ppb	14:36:17
1	B 249.677†	1481.9	1127.1	49.194	µg/L	49.194	ppb	14:35:56
1	Ba 233.527†	167.0	190.4	4.9664	µg/L	4.9664	ppb	14:36:17
1	Be 313.107†	4123.9	7499.6	4.8957	µg/L	4.8957	ppb	14:35:56
1	Cd 226.502†	43.2	184.7	5.0837	µg/L	5.0837	ppb	14:36:17
1	Co 228.616†	90.6	98.0	4.8213	µg/L	4.8213	ppb	14:36:17
1	Cr 267.716†	181.4	230.9	5.0824	µg/L	5.0824	ppb	14:36:17
1	Cu 324.752†	4005.0	1456.0	10.189	µg/L	10.189	ppb	14:35:56
1	Mn 257.610†	2747.7	2948.6	10.216	µg/L	10.216	ppb	14:35:56
1	Mo 202.031†	89.7	95.8	10.232	µg/L	10.232	ppb	14:36:17
1	Ni 231.604†	390.7	82.4	4.5019	µg/L	4.5019	ppb	14:36:17
1	P 214.914†	110.5	81.1	173.12	µg/L	173.12	ppb	14:36:17
1	Pb 220.353†	141.4	42.0	11.169	µg/L	11.169	ppb	14:36:17
1	S 181.975 Axial†	37.1	21.7	95.029	µg/L	95.029	ppb	14:36:17
1	Sb 206.836†	32.7	5.2	5.2344	µg/L	5.2344	ppb	14:36:17
1	Se 196.026†	25.6	9.4	14.367	µg/L	14.367	ppb	14:36:17
1	SiO2†	2267.0	981.4	211.34	µg/L	211.34	ppb	14:35:56
1	Si 251.611†	1501.7	1165.2	95.786	µg/L	95.786	ppb	14:36:17
1	Sn 189.927†	16.7	17.3	7.9752	µg/L	7.9752	ppb	14:36:17
1	Ti 334.940†	2212.8	2061.9	4.9379	µg/L	4.9379	ppb	14:35:56
1	Tl 190.801†	-5.1	19.2	27.011	µg/L	27.011	ppb	14:36:17
1	U 409.014†	558.4	603.3	54.587	µg/L	54.587	ppb	14:35:56
1	V 292.402†	425.6	463.2	5.0996	µg/L	5.0996	ppb	14:35:56
1	Zn 213.857†	892.7	403.1	10.006	µg/L	10.006	ppb	14:36:17
2	Sc RADIAL	54832.7	54832.7	100	%			14:34:54
2	Al 396.153Radial†	256.5	265.4	197.60	µg/L	197.60	ppb	14:34:54
2	Ca 317.933Radial†	389.1	208.2	196.00	µg/L	196.00	ppb	14:35:15
2	Fe 238.204 Radial†	27.3	12.7	107.86	µg/L	107.86	ppb	14:35:15
2	K 766.490 Radial†	367.8	237.7	168.93	µg/L	168.93	ppb	14:34:54
2	Mg 279.077 IEC†	46.2	34.7	322.64	µg/L	322.64	ppb	14:35:15
2	Na 589.592 Radial†	1434.3	885.7	291.57	µg/L	291.57	ppb	14:34:54
2	Sr 421.552†	510.9	468.9	4.8611	µg/L	4.8611	ppb	14:34:54
2	Sc 361.383	1945380.3	1945380.3	101.86	%			14:36:23
2	Y 371.029	1334631.9	1334631.9	101.89	%			14:36:23
2	Ag 328.068†	83.1	646.1	5.1667	µg/L	5.1667	ppb	14:36:29
2	As 188.979†	13.7	12.3	23.962	µg/L	23.962	ppb	14:36:49
2	B 249.677†	1439.6	1081.8	47.230	µg/L	47.230	ppb	14:36:29
2	Ba 233.527†	163.8	186.8	4.8734	µg/L	4.8734	ppb	14:36:49
2	Be 313.107†	4161.3	7525.8	4.9129	µg/L	4.9129	ppb	14:36:29
2	Cd 226.502†	40.3	181.7	5.0056	µg/L	5.0056	ppb	14:36:49
2	Co 228.616†	95.9	103.0	5.0691	µg/L	5.0691	ppb	14:36:49
2	Cr 267.716†	184.6	233.6	5.1411	µg/L	5.1411	ppb	14:36:49
2	Cu 324.752†	3976.5	1417.8	9.9186	µg/L	9.9186	ppb	14:36:29
2	Mn 257.610†	2754.8	2948.6	10.212	µg/L	10.212	ppb	14:36:29
2	Mo 202.031†	93.7	99.6	10.631	µg/L	10.631	ppb	14:36:49
2	Ni 231.604†	392.3	82.9	4.5279	µg/L	4.5279	ppb	14:36:49
2	P 214.914†	107.2	77.6	165.67	µg/L	165.67	ppb	14:36:49
2	Pb 220.353†	143.7	43.9	11.669	µg/L	11.669	ppb	14:36:49

2	S 181.975 Axial†	37.9	22.4	98.282 µg/L	98.282 ppb	14:36:49
2	Sb 206.836†	37.0	9.4	9.3125 µg/L	9.3125 ppb	14:36:49
2	Se 196.026†	40.5	23.9	36.431 µg/L	36.431 ppb	14:36:49
2	SiO2†	2237.3	946.4	203.81 µg/L	203.81 ppb	14:36:29
2	Si 251.611†	1509.6	1169.2	96.111 µg/L	96.111 ppb	14:36:49
2	Sn 189.927†	28.9	29.3	13.482 µg/L	13.482 ppb	14:36:49
2	Ti 334.940†	2191.1	2034.9	4.8725 µg/L	4.8725 ppb	14:36:29
2	Tl 190.801†	-12.7	11.8	16.671 µg/L	16.671 ppb	14:36:49
2	U 409.014†	565.8	609.0	55.113 µg/L	55.113 ppb	14:36:29
2	V 292.402†	429.8	466.2	5.1319 µg/L	5.1319 ppb	14:36:29
2	Zn 213.857†	888.5	396.7	9.8472 µg/L	9.8472 ppb	14:36:49
3	Sc RADIAL	54719.3	54719.3	100 %		14:35:20
3	Al 396.153Radial†	252.3	261.8	194.95 µg/L	194.95 ppb	14:35:20
3	Ca 317.933Radial†	392.4	212.2	199.82 µg/L	199.82 ppb	14:35:41
3	Fe 238.204 Radial†	27.7	13.1	111.51 µg/L	111.51 ppb	14:35:41
3	K 766.490 Radial†	437.0	307.5	218.53 µg/L	218.53 ppb	14:35:20
3	Mg 279.077 IEC†	40.7	29.3	272.95 µg/L	272.95 ppb	14:35:41
3	Na 589.592 Radial†	1460.8	915.0	301.22 µg/L	301.22 ppb	14:35:20
3	Sr 421.552†	523.6	482.7	5.0036 µg/L	5.0036 ppb	14:35:20
3	Sc 361.383	1939953.9	1939953.9	101.58 %		14:36:55
3	Y 371.029	1330294.0	1330294.0	101.56 %		14:36:55
3	Ag 328.068†	50.3	614.0	4.9107 µg/L	4.9107 ppb	14:37:01
3	As 188.979†	19.6	18.1	35.385 µg/L	35.385 ppb	14:37:21
3	B 249.677†	1372.3	1019.5	44.505 µg/L	44.505 ppb	14:37:01
3	Ba 233.527†	145.4	169.2	4.4133 µg/L	4.4133 ppb	14:37:21
3	Be 313.107†	3478.0	6864.4	4.4811 µg/L	4.4811 ppb	14:37:01
3	Cd 226.502†	11.9	153.8	4.2359 µg/L	4.2359 ppb	14:37:21
3	Co 228.616†	75.0	82.7	4.0666 µg/L	4.0666 ppb	14:37:21
3	Cr 267.716†	166.3	216.1	4.7559 µg/L	4.7559 ppb	14:37:21
3	Cu 324.752†	3902.1	1355.5	9.4837 µg/L	9.4837 ppb	14:37:01
3	Mn 257.610†	2548.1	2752.7	9.5360 µg/L	9.5360 ppb	14:37:01
3	Mo 202.031†	79.0	85.3	9.1080 µg/L	9.1080 ppb	14:37:21
3	Ni 231.604†	393.4	85.1	4.6522 µg/L	4.6522 ppb	14:37:21
3	P 214.914†	100.3	71.1	151.77 µg/L	151.77 ppb	14:37:21
3	Pb 220.353†	126.2	27.0	7.1738 µg/L	7.1738 ppb	14:37:21
3	S 181.975 Axial†	34.7	19.3	84.720 µg/L	84.720 ppb	14:37:21
3	Sb 206.836†	29.4	2.0	2.0741 µg/L	2.0741 ppb	14:37:21
3	Se 196.026†	39.6	23.1	35.285 µg/L	35.285 ppb	14:37:21
3	SiO2†	2171.3	887.6	191.15 µg/L	191.15 ppb	14:37:01
3	Si 251.611†	1361.3	1027.3	84.447 µg/L	84.447 ppb	14:37:21
3	Sn 189.927†	21.9	22.4	10.338 µg/L	10.338 ppb	14:37:21
3	Ti 334.940†	2058.9	1910.8	4.5779 µg/L	4.5779 ppb	14:37:01
3	Tl 190.801†	-4.2	20.2	28.271 µg/L	28.271 ppb	14:37:21
3	U 409.014†	515.1	560.7	50.740 µg/L	50.740 ppb	14:37:01
3	V 292.402†	407.9	445.8	4.8980 µg/L	4.8980 ppb	14:37:01
3	Zn 213.857†	822.6	334.3	8.2901 µg/L	8.2901 ppb	14:37:21

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1941894.9	101.68	%	0.158				0.16%
Sc RADIAL	54766.5	100	%	0.1				0.11%
Y 371.029	1332142.5	101.70	%	0.171				0.17%
Ag 328.068†	629.8	5.0369	µg/L	0.12806	5.0369	ppb	0.12806	2.54%
QC value within limits for Ag 328.068 Recovery = 100.74%								
Al 396.153Radial†	269.9	200.94	µg/L	8.187	200.94	ppb	8.187	4.07%
QC value within limits for Al 396.153Radial Recovery = 100.47%								
As 188.979†	14.7	28.634	µg/L	5.9881	28.634	ppb	5.9881	20.91%
QC value within limits for As 188.979 Recovery = 95.45%								
B 249.677†	1076.2	46.976	µg/L	2.3545	46.976	ppb	2.3545	5.01%
QC value within limits for B 249.677 Recovery = 93.95%								
Ba 233.527†	182.1	4.7510	µg/L	0.29615	4.7510	ppb	0.29615	6.23%
QC value within limits for Ba 233.527 Recovery = 95.02%								
Be 313.107†	7296.6	4.7633	µg/L	0.24448	4.7633	ppb	0.24448	5.13%
QC value within limits for Be 313.107 Recovery = 95.27%								
Ca 317.933Radial†	212.4	199.94	µg/L	4.009	199.94	ppb	4.009	2.00%
QC value within limits for Ca 317.933Radial Recovery = 99.97%								
Cd 226.502†	173.4	4.7751	µg/L	0.46856	4.7751	ppb	0.46856	9.81%
QC value within limits for Cd 226.502 Recovery = 95.50%								
Co 228.616†	94.6	4.6523	µg/L	0.52218	4.6523	ppb	0.52218	11.22%

QC value within limits for Co 228.616 Recovery = 93.05%
Cr 267.716† 226.9 4.9931 µg/L 0.20751 4.9931 ppb 0.20751 4.16%
QC value within limits for Cr 267.716 Recovery = 99.86%
Cu 324.752† 1409.7 9.8638 µg/L 0.35593 9.8638 ppb 0.35593 3.61%
QC value within limits for Cu 324.752 Recovery = 98.64%
Fe 238.204 Radial† 14.0 118.87 µg/L 16.021 118.87 ppb 16.021 13.48%
QC value within limits for Fe 238.204 Radial Recovery = 118.87%
K 766.490 Radial† 259.7 184.62 µg/L 29.396 184.62 ppb 29.396 15.92%
QC value within limits for K 766.490 Radial Recovery = 123.08%
Mg 279.077 IEC† 32.7 304.34 µg/L 27.307 304.34 ppb 27.307 8.97%
QC value within limits for Mg 279.077 IEC Recovery = 101.45%
Mn 257.610† 2883.3 9.9880 µg/L 0.39151 9.9880 ppb 0.39151 3.92%
QC value within limits for Mn 257.610 Recovery = 99.88%
Mo 202.031† 93.6 9.9904 µg/L 0.78979 9.9904 ppb 0.78979 7.91%
QC value within limits for Mo 202.031 Recovery = 99.90%
Na 589.592 Radial† 892.8 293.90 µg/L 6.477 293.90 ppb 6.477 2.20%
QC value within limits for Na 589.592 Radial Recovery = 97.97%
Ni 231.604† 83.5 4.5606 µg/L 0.08032 4.5606 ppb 0.08032 1.76%
QC value within limits for Ni 231.604 Recovery = 91.21%
P 214.914† 76.6 163.52 µg/L 10.837 163.52 ppb 10.837 6.63%
QC value within limits for P 214.914 Recovery = 109.01%
Pb 220.353† 37.6 10.004 µg/L 2.4639 10.004 ppb 2.4639 24.63%
QC value within limits for Pb 220.353 Recovery = 100.04%
S 181.975 Axial† 21.2 92.677 µg/L 7.0801 92.677 ppb 7.0801 7.64%
QC value within limits for S 181.975 Axial Recovery = 92.68%
Sb 206.836† 5.5 5.5403 µg/L 3.62890 5.5403 ppb 3.62890 65.50%
QC value less than the lower limit for Sb 206.836 Recovery = 55.40%
Se 196.026† 18.8 28.694 µg/L 12.4212 28.694 ppb 12.4212 43.29%
QC value within limits for Se 196.026 Recovery = 95.65%
SiO2† 938.5 202.10 µg/L 10.205 202.10 ppb 10.205 5.05%
QC value within limits for SiO2 Recovery = 94.88%
Si 251.611† 1120.6 92.115 µg/L 6.6423 92.115 ppb 6.6423 7.21%
QC value within limits for Si 251.611 Recovery = 92.11%
Sn 189.927† 23.0 10.598 µg/L 2.7624 10.598 ppb 2.7624 26.06%
QC value within limits for Sn 189.927 Recovery = 105.98%
Sr 421.552† 465.6 4.8266 µg/L 0.19650 4.8266 ppb 0.19650 4.07%
QC value within limits for Sr 421.552 Recovery = 96.53%
Ti 334.940† 2002.5 4.7961 µg/L 0.19174 4.7961 ppb 0.19174 4.00%
QC value within limits for Ti 334.940 Recovery = 95.92%
Tl 190.801† 17.1 23.984 µg/L 6.3650 23.984 ppb 6.3650 26.54%
QC value within limits for Tl 190.801 Recovery = 119.92%
U 409.014† 591.0 53.480 µg/L 2.3877 53.480 ppb 2.3877 4.46%
QC value within limits for U 409.014 Recovery = 106.96%
V 292.402† 458.4 5.0431 µg/L 0.12672 5.0431 ppb 0.12672 2.51%
QC value within limits for V 292.402 Recovery = 100.86%
Zn 213.857† 378.0 9.3810 µg/L 0.94809 9.3810 ppb 0.94809 10.11%
QC value within limits for Zn 213.857 Recovery = 93.81%
QC Failed. Continue with analysis.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/11/2010 14:37:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54929.8	54929.8	101	%			14:38:12
1	Al 396.153Radial†	662864.4	658585.8	490860	µg/L	490860	ppb	14:38:07
1	Ca 317.933Radial†	501017.0	497596.3	468520	µg/L	468520	ppb	14:38:07
1	Fe 238.204 Radial†	21302.2	21149.9	179260	µg/L	179260	ppb	14:38:12
1	K 766.490 Radial†	133.6	4.3	3.0615	µg/L	3.0615	ppb	14:38:12
1	Mg 279.077 IEC†	50419.1	50081.6	465880	µg/L	465880	ppb	14:38:12
1	Na 589.592 Radial†	588.4	42.7	14.053	µg/L	14.053	ppb	14:38:12
1	Sr 421.552†	369.2	327.3	3.3927	µg/L	3.3927	ppb	14:38:12
1	Sc 361.383	1857257.4	1857257.4	97.247	%			14:38:45
1	Y 371.029	1267408.3	1267408.3	96.755	%			14:38:45
1	Ag 328.068†	-2882.1	-2399.2	-7.8752	µg/L	-7.8752	ppb	14:38:51
1	As 188.979†	-10.9	-12.4	-38.129	µg/L	-38.129	ppb	14:39:11
1	B 249.677†	826.3	518.2	-70.891	µg/L	-70.891	ppb	14:38:51
1	Ba 233.527†	265.1	298.7	7.7406	µg/L	7.7406	ppb	14:39:11
1	Be 313.107†	-4111.4	-787.4	-0.5240	µg/L	-0.5240	ppb	14:38:51
1	Cd 226.502†	352.3	504.4	-6.3482	µg/L	-6.3482	ppb	14:39:11
1	Co 228.616†	33.3	43.1	2.0584	µg/L	2.0584	ppb	14:39:11
1	Cr 267.716†	-59.0	-8.3	-0.1945	µg/L	-0.1945	ppb	14:39:11
1	Cu 324.752†	-1400.3	-3926.0	-2.5072	µg/L	-2.5072	ppb	14:38:51
1	Mn 257.610†	37.6	282.8	6.1777	µg/L	6.1777	ppb	14:38:51
1	Mo 202.031†	-107.0	-102.5	-4.1257	µg/L	-4.1257	ppb	14:39:11
1	Ni 231.604†	157.1	-140.7	-5.3633	µg/L	-5.3633	ppb	14:39:11
1	P 214.914†	101.4	76.6	162.80	µg/L	162.80	ppb	14:39:11
1	Pb 220.353†	54.2	-41.5	9.1341	µg/L	9.1341	ppb	14:39:11
1	S 181.975 Axial†	32.3	18.4	80.756	µg/L	80.756	ppb	14:39:11
1	Sb 206.836†	58.1	32.8	-8.6501	µg/L	-8.6501	ppb	14:39:11
1	Se 196.026†	34.1	19.3	-25.969	µg/L	-25.969	ppb	14:39:11
1	SiO2†	1033.7	-187.0	-40.276	µg/L	-40.276	ppb	14:39:11
1	Si 251.611†	428.1	127.4	10.470	µg/L	10.470	ppb	14:39:11
1	Sn 189.927†	-61.0	-61.9	5.0665	µg/L	5.0665	ppb	14:39:11
1	Ti 334.940†	10534.2	10716.3	-3.5463	µg/L	-3.5463	ppb	14:38:51
1	Tl 190.801†	-30.9	-7.5	8.6675	µg/L	8.6675	ppb	14:39:11
1	U 409.014†	-29.2	23.6	-51.357	µg/L	-51.357	ppb	14:38:51
1	V 292.402†	-1857.1	-1865.5	1.1351	µg/L	1.1351	ppb	14:38:51
1	Zn 213.857†	1452.2	1017.8	-9.4487	µg/L	-9.4487	ppb	14:39:11
2	Sc RADIAL	55009.9	55009.9	101	%			14:38:23
2	Al 396.153Radial†	661057.1	655833.6	488810	µg/L	488810	ppb	14:38:18
2	Ca 317.933Radial†	498837.3	494708.8	465800	µg/L	465800	ppb	14:38:18
2	Fe 238.204 Radial†	21470.3	21285.8	180410	µg/L	180410	ppb	14:38:23
2	K 766.490 Radial†	106.0	-23.2	-16.506	µg/L	-16.506	ppb	14:38:23
2	Mg 279.077 IEC†	50738.3	50325.3	468150	µg/L	468150	ppb	14:38:23
2	Na 589.592 Radial†	648.0	101.0	33.250	µg/L	33.250	ppb	14:38:23
2	Sr 421.552†	361.1	318.7	3.3032	µg/L	3.3032	ppb	14:38:23
2	Sc 361.383	1846098.6	1846098.6	96.662	%			14:39:17
2	Y 371.029	1260367.6	1260367.6	96.217	%			14:39:17
2	Ag 328.068†	-2932.2	-2468.9	-8.3594	µg/L	-8.3594	ppb	14:39:23
2	As 188.979†	-14.6	-16.3	-45.537	µg/L	-45.537	ppb	14:39:43
2	B 249.677†	858.5	556.6	-69.813	µg/L	-69.813	ppb	14:39:23
2	Ba 233.527†	262.3	297.4	7.7059	µg/L	7.7059	ppb	14:39:43
2	Be 313.107†	-4105.1	-806.4	-0.5367	µg/L	-0.5367	ppb	14:39:23
2	Cd 226.502†	337.6	491.4	-6.8376	µg/L	-6.8376	ppb	14:39:43
2	Co 228.616†	17.7	27.1	1.2707	µg/L	1.2707	ppb	14:39:43
2	Cr 267.716†	-53.0	-2.4	-0.0661	µg/L	-0.0661	ppb	14:39:43
2	Cu 324.752†	-1461.5	-3998.0	-2.8500	µg/L	-2.8500	ppb	14:39:23
2	Mn 257.610†	43.7	289.4	6.2629	µg/L	6.2629	ppb	14:39:23
2	Mo 202.031†	-104.0	-100.0	-3.8203	µg/L	-3.8203	ppb	14:39:43
2	Ni 231.604†	142.4	-154.9	-6.1246	µg/L	-6.1246	ppb	14:39:43
2	P 214.914†	112.7	89.0	187.84	µg/L	187.84	ppb	14:39:43
2	Pb 220.353†	58.0	-37.2	10.116	µg/L	10.116	ppb	14:39:43

2	S 181.975 Axial†	36.2	22.6	98.941 µg/L	98.941 ppb	14:39:43
2	Sb 206.836†	53.9	28.8	-12.353 µg/L	-12.353 ppb	14:39:43
2	Se 196.026†	26.7	11.8	-35.549 µg/L	-35.549 ppb	14:39:43
2	SiO2†	1052.3	-161.4	-34.761 µg/L	-34.761 ppb	14:39:43
2	Si 251.611†	458.0	160.9	13.230 µg/L	13.230 ppb	14:39:43
2	Sn 189.927†	-63.6	-65.0	3.8069 µg/L	3.8069 ppb	14:39:43
2	Ti 334.940†	10748.6	11003.6	-3.0781 µg/L	-3.0781 ppb	14:39:23
2	Tl 190.801†	-35.3	-12.3	2.2973 µg/L	2.2973 ppb	14:39:43
2	U 409.014†	-80.2	-29.4	-56.150 µg/L	-56.150 ppb	14:39:23
2	V 292.402†	-1894.8	-1916.0	0.7299 µg/L	0.7299 ppb	14:39:23
2	Zn 213.857†	1462.8	1037.8	-9.1272 µg/L	-9.1272 ppb	14:39:43
3	Sc RADIAL	54631.5	54631.5	100 %		14:38:35
3	Al 396.153Radial†	667869.4	667182.1	497270 µg/L	497270 ppb	14:38:29
3	Ca 317.933Radial†	503599.4	502894.4	473510 µg/L	473510 ppb	14:38:29
3	Fe 238.204 Radial†	21467.0	21430.1	181630 µg/L	181630 ppb	14:38:35
3	K 766.490 Radial†	96.7	-31.8	-22.617 µg/L	-22.617 ppb	14:38:35
3	Mg 279.077 IEC†	50895.3	50830.8	472850 µg/L	472850 ppb	14:38:35
3	Na 589.592 Radial†	627.0	84.4	27.800 µg/L	27.800 ppb	14:38:35
3	Sr 421.552†	372.9	333.0	3.4514 µg/L	3.4514 ppb	14:38:35
3	Sc 361.383	1825493.4	1825493.4	95.584 %		14:39:49
3	Y 371.029	1244094.0	1244094.0	94.975 %		14:39:49
3	Ag 328.068†	-2843.3	-2410.2	-7.8207 µg/L	-7.8207 ppb	14:39:55
3	As 188.979†	-21.3	-23.4	-59.893 µg/L	-59.893 ppb	14:40:16
3	B 249.677†	774.3	478.6	-73.863 µg/L	-73.863 ppb	14:39:55
3	Ba 233.527†	257.2	295.1	7.6465 µg/L	7.6465 ppb	14:40:16
3	Be 313.107†	-4046.5	-793.0	-0.5281 µg/L	-0.5281 ppb	14:39:55
3	Cd 226.502†	377.7	537.3	-5.7094 µg/L	-5.7094 ppb	14:40:16
3	Co 228.616†	37.6	48.2	2.3043 µg/L	2.3043 ppb	14:40:16
3	Cr 267.716†	-81.4	-32.7	-0.7334 µg/L	-0.7334 ppb	14:40:16
3	Cu 324.752†	-1475.8	-4030.1	-2.9042 µg/L	-2.9042 ppb	14:39:55
3	Mn 257.610†	50.9	297.4	6.2652 µg/L	6.2652 ppb	14:39:55
3	Mo 202.031†	-108.7	-106.2	-4.4310 µg/L	-4.4310 ppb	14:40:16
3	Ni 231.604†	152.6	-142.5	-5.4329 µg/L	-5.4329 ppb	14:40:16
3	P 214.914†	105.4	82.6	175.78 µg/L	175.78 ppb	14:40:16
3	Pb 220.353†	72.0	-21.8	14.642 µg/L	14.642 ppb	14:40:16
3	S 181.975 Axial†	29.0	15.5	67.783 µg/L	67.783 ppb	14:40:16
3	Sb 206.836†	45.6	20.7	-20.949 µg/L	-20.949 ppb	14:40:16
3	Se 196.026†	33.1	18.8	-27.759 µg/L	-27.759 ppb	14:40:16
3	SiO2†	1033.4	-168.9	-36.378 µg/L	-36.378 ppb	14:40:16
3	Si 251.611†	441.5	149.0	12.252 µg/L	12.252 ppb	14:40:16
3	Sn 189.927†	-53.7	-55.3	8.6518 µg/L	8.6518 ppb	14:40:16
3	Ti 334.940†	10848.2	11233.3	-2.7738 µg/L	-2.7738 ppb	14:39:55
3	Tl 190.801†	-26.7	-3.6	14.470 µg/L	14.470 ppb	14:40:16
3	U 409.014†	-83.2	-33.5	-57.162 µg/L	-57.162 ppb	14:39:55
3	V 292.402†	-1928.3	-1973.2	0.2572 µg/L	0.2572 ppb	14:39:55
3	Zn 213.857†	1454.4	1046.1	-9.2482 µg/L	-9.2482 ppb	14:40:16

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sc 361.383	1842949.8	96.498	%	0.8438				0.87%
Sc RADIAL	54857.1	101	%	0.4				0.36%
Y 371.029	1257290.0	95.982	%	0.9129				0.95%
Ag 328.068†	-2426.1	-8.0184	µg/L	0.29656	-8.0184	ppb	0.29656	3.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	660533.8	492320	µg/L	4412.2	492320	ppb	4412.2	0.90%
QC value within limits for Al 396.153Radial Recovery = 98.46%								
As 188.979†	-17.4	-47.853	µg/L	11.0657	-47.853	ppb	11.0657	23.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	517.8	-71.522	µg/L	2.0977	-71.522	ppb	2.0977	2.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	297.0	7.6977	µg/L	0.04758	7.6977	ppb	0.04758	0.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-795.6	-0.5296	µg/L	0.00649	-0.5296	ppb	0.00649	1.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	498399.8	469270	µg/L	3908.9	469270	ppb	3908.9	0.83%
QC value within limits for Ca 317.933Radial Recovery = 93.85%								
Cd 226.502†	511.0	-6.2984	µg/L	0.56575	-6.2984	ppb	0.56575	8.98%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	39.5	1.8778	µg/L	0.53996	1.8778	ppb	0.53996	28.75%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	-14.5	-0.3313 µg/L	0.35406	-0.3313 ppb	0.35406	106.86%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-3984.7	-2.7538 µg/L	0.21524	-2.7538 ppb	0.21524	7.82%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	21288.6	180430 µg/L	1187.5	180430 ppb	1187.5	0.66%
QC value within limits for Fe 238.204 Radial Recovery = 90.22%							
K 766.490 Radial†	-16.9	-12.020 µg/L	13.4139	-12.020 ppb	13.4139	111.59%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	50412.6	468960 µg/L	3555.4	468960 ppb	3555.4	0.76%
QC value within limits for Mg 279.077 IEC Recovery = 93.79%							
Mn 257.610†	289.9	6.2353 µg/L	0.04986	6.2353 ppb	0.04986	0.80%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-102.9	-4.1257 µg/L	0.30534	-4.1257 ppb	0.30534	7.40%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	76.0	25.034 µg/L	9.8929	25.034 ppb	9.8929	39.52%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-146.0	-5.6403 µg/L	0.42090	-5.6403 ppb	0.42090	7.46%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	82.7	175.47 µg/L	12.518	175.47 ppb	12.518	7.13%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-33.5	11.297 µg/L	2.9376	11.297 ppb	2.9376	26.00%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	18.8	82.493 µg/L	15.6511	82.493 ppb	15.6511	18.97%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	27.4	-13.984 µg/L	6.3094	-13.984 ppb	6.3094	45.12%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	16.6	-29.759 µg/L	5.0935	-29.759 ppb	5.0935	17.12%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-172.5	-37.139 µg/L	2.8350	-37.139 ppb	2.8350	7.63%
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	145.8	11.984 µg/L	1.3994	11.984 ppb	1.3994	11.68%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-60.7	5.8417 µg/L	2.51374	5.8417 ppb	2.51374	43.03%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	326.3	3.3825 µg/L	0.07464	3.3825 ppb	0.07464	2.21%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	10984.4	-3.1328 µg/L	0.38914	-3.1328 ppb	0.38914	12.42%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-7.8	8.4783 µg/L	6.08871	8.4783 ppb	6.08871	71.81%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-13.1	-54.890 µg/L	3.1009	-54.890 ppb	3.1009	5.65%
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-1918.2	0.7074 µg/L	0.43934	0.7074 ppb	0.43934	62.11%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	1033.9	-9.2747 µg/L	0.16235	-9.2747 ppb	0.16235	1.75%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/11/2010 14:40:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54743.7	54743.7	100	%			14:41:04
1	Al 396.153Radial†	662601.8	660562.7	492330	µg/L	492330	ppb	14:40:59
1	Ca 317.933Radial†	498259.5	496539.4	467520	µg/L	467520	ppb	14:40:59
1	Fe 238.204 Radial†	21341.6	21261.1	180210	µg/L	180210	ppb	14:41:04
1	K 766.490 Radial†	6958.5	6808.5	4839.5	µg/L	4839.5	ppb	14:41:04
1	Mg 279.077 IEC†	50755.9	50587.7	470600	µg/L	470600	ppb	14:41:04
1	Na 589.592 Radial†	15455.3	14865.6	4893.8	µg/L	4893.8	ppb	14:41:04
1	Sr 421.552†	46875.8	46691.2	484.01	µg/L	484.01	ppb	14:41:04
1	Sc 361.383	1846856.3	1846856.3	96.702	%			14:41:38
1	Y 371.029	1258300.6	1258300.6	96.059	%			14:41:38
1	Ag 328.068†	27332.2	28828.8	243.20	µg/L	243.20	ppb	14:41:44
1	As 188.979†	237.2	244.2	462.48	µg/L	462.48	ppb	14:42:04
1	B 249.677†	11716.6	11784.7	421.73	µg/L	421.73	ppb	14:41:44
1	Ba 233.527†	17712.8	18342.8	478.47	µg/L	478.47	ppb	14:41:44
1	Be 313.107†	339671.1	354695.4	231.45	µg/L	231.45	ppb	14:41:38
1	Cd 226.502†	15868.9	16552.3	436.70	µg/L	436.70	ppb	14:41:44
1	Co 228.616†	8171.6	8459.1	415.69	µg/L	415.69	ppb	14:42:04
1	Cr 267.716†	20395.5	21143.4	465.37	µg/L	465.37	ppb	14:41:44
1	Cu 324.752†	70107.6	70012.4	514.10	µg/L	514.10	ppb	14:41:44
1	Mn 257.610†	126842.6	131412.5	460.20	µg/L	460.20	ppb	14:41:44
1	Mo 202.031†	4309.3	4463.8	483.23	µg/L	483.23	ppb	14:42:04
1	Ni 231.604†	7535.7	7490.5	411.39	µg/L	411.39	ppb	14:42:04
1	P 214.914†	1206.8	1220.3	2570.8	µg/L	2570.8	ppb	14:42:04
1	Pb 220.353†	1703.5	1664.4	464.39	µg/L	464.39	ppb	14:42:04
1	S 181.975 Axial†	587.6	592.8	2597.2	µg/L	2597.2	ppb	14:42:04
1	Sb 206.836†	550.1	541.9	495.21	µg/L	495.21	ppb	14:42:04
1	Se 196.026†	1471.2	1505.6	2238.6	µg/L	2238.6	ppb	14:42:04
1	SiO2†	47866.2	48248.6	10391	µg/L	10391	ppb	14:41:44
1	Si 251.611†	57854.9	59515.0	4892.4	µg/L	4892.4	ppb	14:41:44
1	Sn 189.927†	962.7	996.5	492.28	µg/L	492.28	ppb	14:42:04
1	Ti 334.940†	201101.7	207843.8	470.24	µg/L	470.24	ppb	14:41:44
1	Tl 190.801†	278.9	312.7	461.24	µg/L	461.24	ppb	14:42:04
1	U 409.014†	5055.9	5282.0	424.65	µg/L	424.65	ppb	14:41:44
1	V 292.402†	42477.1	43969.9	495.05	µg/L	495.05	ppb	14:41:44
1	Zn 213.857†	19021.9	19195.0	441.47	µg/L	441.47	ppb	14:41:44
2	Sc RADIAL	55060.7	55060.7	101	%			14:41:16
2	Al 396.153Radial†	664887.8	659025.8	491180	µg/L	491180	ppb	14:41:10
2	Ca 317.933Radial†	499367.7	494778.3	465860	µg/L	465860	ppb	14:41:10
2	Fe 238.204 Radial†	21754.5	21547.8	182640	µg/L	182640	ppb	14:41:16
2	K 766.490 Radial†	7103.8	6912.7	4913.5	µg/L	4913.5	ppb	14:41:16
2	Mg 279.077 IEC†	51410.3	50945.0	473920	µg/L	473920	ppb	14:41:16
2	Na 589.592 Radial†	15635.7	14955.7	4923.5	µg/L	4923.5	ppb	14:41:16
2	Sr 421.552†	47418.4	46960.1	486.80	µg/L	486.80	ppb	14:41:16
2	Sc 361.383	1837075.1	1837075.1	96.190	%			14:42:10
2	Y 371.029	1253427.6	1253427.6	95.687	%			14:42:10
2	Ag 328.068†	27052.1	28688.2	242.21	µg/L	242.21	ppb	14:42:16
2	As 188.979†	226.7	234.5	443.77	µg/L	443.77	ppb	14:42:37
2	B 249.677†	11617.2	11745.8	418.76	µg/L	418.76	ppb	14:42:16
2	Ba 233.527†	17456.8	18174.2	474.07	µg/L	474.07	ppb	14:42:16
2	Be 313.107†	337736.8	354554.8	231.36	µg/L	231.36	ppb	14:42:10
2	Cd 226.502†	15582.5	16341.8	430.62	µg/L	430.62	ppb	14:42:16
2	Co 228.616†	8172.6	8505.1	417.96	µg/L	417.96	ppb	14:42:37
2	Cr 267.716†	20089.6	20937.7	460.84	µg/L	460.84	ppb	14:42:16
2	Cu 324.752†	69141.0	69393.5	510.12	µg/L	510.12	ppb	14:42:16
2	Mn 257.610†	124994.1	130189.1	456.15	µg/L	456.15	ppb	14:42:16
2	Mo 202.031†	4295.8	4473.5	484.36	µg/L	484.36	ppb	14:42:37
2	Ni 231.604†	7541.0	7537.5	413.99	µg/L	413.99	ppb	14:42:37
2	P 214.914†	1237.1	1258.5	2651.1	µg/L	2651.1	ppb	14:42:37
2	Pb 220.353†	1701.2	1671.4	466.10	µg/L	466.10	ppb	14:42:37

2	S 181.975 Axial†	598.3	607.2	2660.4 µg/L	2660.4 ppb	14:42:37
2	Sb 206.836†	550.2	545.1	498.59 µg/L	498.59 ppb	14:42:37
2	Se 196.026†	1466.3	1508.6	2247.3 µg/L	2247.3 ppb	14:42:37
2	SiO2†	47231.2	47852.0	10305 µg/L	10305 ppb	14:42:16
2	Si 251.611†	57079.6	59027.6	4852.4 µg/L	4852.4 ppb	14:42:16
2	Sn 189.927†	972.7	1012.1	499.64 µg/L	499.64 ppb	14:42:37
2	Ti 334.940†	198343.7	206083.8	465.72 µg/L	465.72 ppb	14:42:16
2	Tl 190.801†	259.5	294.1	435.56 µg/L	435.56 ppb	14:42:37
2	U 409.014†	4974.7	5225.3	419.28 µg/L	419.28 ppb	14:42:16
2	V 292.402†	41844.6	43546.2	490.82 µg/L	490.82 ppb	14:42:16
2	Zn 213.857†	18719.4	18985.3	435.92 µg/L	435.92 ppb	14:42:16
3	Sc RADIAL	54836.5	54836.5	100 %		14:41:27
3	Al 396.153Radial†	666707.4	663530.3	494540 µg/L	494540 ppb	14:41:21
3	Ca 317.933Radial†	500342.9	497771.9	468680 µg/L	468680 ppb	14:41:21
3	Fe 238.204 Radial†	21386.7	21269.9	180290 µg/L	180290 ppb	14:41:27
3	K 766.490 Radial†	6994.6	6832.8	4856.7 µg/L	4856.7 ppb	14:41:27
3	Mg 279.077 IEC†	50805.9	50551.7	470260 µg/L	470260 ppb	14:41:27
3	Na 589.592 Radial†	15470.0	14854.1	4890.0 µg/L	4890.0 ppb	14:41:27
3	Sr 421.552†	46844.7	46581.2	482.87 µg/L	482.87 ppb	14:41:27
3	Sc 361.383	1833431.9	1833431.9	95.999 %		14:42:43
3	Y 371.029	1252123.0	1252123.0	95.588 %		14:42:43
3	Ag 328.068†	27588.4	29302.7	247.00 µg/L	247.00 ppb	14:42:49
3	As 188.979†	241.1	250.0	473.71 µg/L	473.71 ppb	14:43:09
3	B 249.677†	11855.2	12017.8	431.89 µg/L	431.89 ppb	14:42:49
3	Ba 233.527†	17813.9	18582.3	484.71 µg/L	484.71 ppb	14:42:49
3	Be 313.107†	338767.0	356325.5	232.51 µg/L	232.51 ppb	14:42:43
3	Cd 226.502†	15965.4	16772.9	442.77 µg/L	442.77 ppb	14:42:49
3	Co 228.616†	8119.3	8466.6	416.04 µg/L	416.04 ppb	14:43:09
3	Cr 267.716†	20600.1	21511.0	473.46 µg/L	473.46 ppb	14:42:49
3	Cu 324.752†	70720.9	71182.1	522.28 µg/L	522.28 ppb	14:42:49
3	Mn 257.610†	127685.2	133250.6	466.59 µg/L	466.59 ppb	14:42:49
3	Mo 202.031†	4277.4	4463.2	483.17 µg/L	483.17 ppb	14:43:09
3	Ni 231.604†	7478.0	7487.4	411.22 µg/L	411.22 ppb	14:43:09
3	P 214.914†	1197.0	1219.3	2568.4 µg/L	2568.4 ppb	14:43:09
3	Pb 220.353†	1703.7	1677.5	467.96 µg/L	467.96 ppb	14:43:09
3	S 181.975 Axial†	585.7	595.2	2608.0 µg/L	2608.0 ppb	14:43:09
3	Sb 206.836†	542.2	537.9	491.06 µg/L	491.06 ppb	14:43:09
3	Se 196.026†	1453.1	1497.9	2227.0 µg/L	2227.0 ppb	14:43:09
3	SiO2†	48266.6	49028.1	10558 µg/L	10558 ppb	14:42:49
3	Si 251.611†	58341.2	60459.7	4970.1 µg/L	4970.1 ppb	14:42:49
3	Sn 189.927†	964.4	1005.4	496.36 µg/L	496.36 ppb	14:43:09
3	Ti 334.940†	202865.6	211203.9	478.37 µg/L	478.37 ppb	14:42:49
3	Tl 190.801†	278.4	314.2	463.55 µg/L	463.55 ppb	14:43:09
3	U 409.014†	5159.4	5428.1	437.79 µg/L	437.79 ppb	14:42:49
3	V 292.402†	42697.4	44521.1	500.97 µg/L	500.97 ppb	14:42:49
3	Zn 213.857†	19157.2	19480.1	448.59 µg/L	448.59 ppb	14:42:49

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1839121.1	96.297	%	0.3635				0.38%
Sc RADIAL	54880.3	101	%	0.3				0.30%
Y 371.029	1254617.1	95.778	%	0.2486				0.26%
Ag 328.068†	28939.9	244.14	µg/L	2.532	244.14	ppb	2.532	1.04%
QC value within limits for Ag 328.068 Recovery = 97.66%								
Al 396.153Radial†	661039.6	492680	µg/L	1706.7	492680	ppb	1706.7	0.35%
QC value within limits for Al 396.153Radial Recovery = 98.54%								
As 188.979†	242.9	459.99	µg/L	15.123	459.99	ppb	15.123	3.29%
QC value within limits for As 188.979 Recovery = 92.00%								
B 249.677†	11849.4	424.12	µg/L	6.887	424.12	ppb	6.887	1.62%
QC value within limits for B 249.677 Recovery = 84.82%								
Ba 233.527†	18366.5	479.08	µg/L	5.348	479.08	ppb	5.348	1.12%
QC value within limits for Ba 233.527 Recovery = 95.82%								
Be 313.107†	355191.9	231.77	µg/L	0.640	231.77	ppb	0.640	0.28%
QC value within limits for Be 313.107 Recovery = 92.71%								
Ca 317.933Radial†	496363.2	467360	µg/L	1416.6	467360	ppb	1416.6	0.30%
QC value within limits for Ca 317.933Radial Recovery = 93.47%								
Cd 226.502†	16555.7	436.70	µg/L	6.077	436.70	ppb	6.077	1.39%
QC value within limits for Cd 226.502 Recovery = 87.34%								
Co 228.616†	8476.9	416.56	µg/L	1.225	416.56	ppb	1.225	0.29%

QC value within limits for Co 228.616 Recovery = 83.31%						
Cr 267.716†	21197.4	466.55 µg/L	6.392	466.55 ppb	6.392	1.37%
QC value within limits for Cr 267.716 Recovery = 93.31%						
Cu 324.752†	70196.0	515.50 µg/L	6.202	515.50 ppb	6.202	1.20%
QC value within limits for Cu 324.752 Recovery = 103.10%						
Fe 238.204 Radial†	21359.6	181050 µg/L	1382.0	181050 ppb	1382.0	0.76%
QC value within limits for Fe 238.204 Radial Recovery = 90.52%						
K 766.490 Radial†	6851.3	4869.9 µg/L	38.72	4869.9 ppb	38.72	0.80%
QC value within limits for K 766.490 Radial Recovery = 97.40%						
Mg 279.077 IEC†	50694.8	471600 µg/L	2021.9	471600 ppb	2021.9	0.43%
QC value within limits for Mg 279.077 IEC Recovery = 94.32%						
Mn 257.610†	131617.4	460.98 µg/L	5.261	460.98 ppb	5.261	1.14%
QC value within limits for Mn 257.610 Recovery = 92.20%						
Mo 202.031†	4466.8	483.58 µg/L	0.671	483.58 ppb	0.671	0.14%
QC value within limits for Mo 202.031 Recovery = 96.72%						
Na 589.592 Radial†	14891.8	4902.4 µg/L	18.32	4902.4 ppb	18.32	0.37%
QC value within limits for Na 589.592 Radial Recovery = 98.05%						
Ni 231.604†	7505.2	412.20 µg/L	1.552	412.20 ppb	1.552	0.38%
QC value within limits for Ni 231.604 Recovery = 82.44%						
P 214.914†	1232.7	2596.7 µg/L	47.05	2596.7 ppb	47.05	1.81%
QC value within limits for P 214.914 Recovery = 103.87%						
Pb 220.353†	1671.1	466.15 µg/L	1.785	466.15 ppb	1.785	0.38%
QC value within limits for Pb 220.353 Recovery = 93.23%						
S 181.975 Axial†	598.4	2621.9 µg/L	33.79	2621.9 ppb	33.79	1.29%
QC value within limits for S 181.975 Axial Recovery = 104.87%						
Sb 206.836†	541.6	494.95 µg/L	3.768	494.95 ppb	3.768	0.76%
QC value within limits for Sb 206.836 Recovery = 98.99%						
Se 196.026†	1504.0	2237.7 µg/L	10.19	2237.7 ppb	10.19	0.46%
QC value within limits for Se 196.026 Recovery = 89.51%						
SiO2†	48376.2	10418 µg/L	128.9	10418 ppb	128.9	1.24%
QC value within limits for SiO2 Recovery = 97.41%						
Si 251.611†	59667.4	4905.0 µg/L	59.86	4905.0 ppb	59.86	1.22%
QC value within limits for Si 251.611 Recovery = 98.10%						
Sn 189.927†	1004.7	496.10 µg/L	3.686	496.10 ppb	3.686	0.74%
QC value within limits for Sn 189.927 Recovery = 99.22%						
Sr 421.552†	46744.2	484.56 µg/L	2.020	484.56 ppb	2.020	0.42%
QC value within limits for Sr 421.552 Recovery = 96.91%						
Ti 334.940†	208377.1	471.44 µg/L	6.410	471.44 ppb	6.410	1.36%
QC value within limits for Ti 334.940 Recovery = 94.29%						
Tl 190.801†	307.0	453.45 µg/L	15.538	453.45 ppb	15.538	3.43%
QC value within limits for Tl 190.801 Recovery = 90.69%						
U 409.014†	5311.8	427.24 µg/L	9.525	427.24 ppb	9.525	2.23%
QC value within limits for U 409.014 Recovery = 85.45%						
V 292.402†	44012.4	495.61 µg/L	5.099	495.61 ppb	5.099	1.03%
QC value within limits for V 292.402 Recovery = 99.12%						
Zn 213.857†	19220.1	441.99 µg/L	6.349	441.99 ppb	6.349	1.44%
QC value within limits for Zn 213.857 Recovery = 88.40%						

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/11/2010 14:43:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54698.7	54698.7	100	%			14:43:59
1	Al 396.153Radial†	649050.7	647585.6	482670	µg/L	482670	ppb	14:43:54
1	Ca 317.933Radial†	489494.3	488202.6	459670	µg/L	459670	ppb	14:43:54
1	Fe 238.204 Radial†	51606.4	51474.6	436280	µg/L	436280	ppb	14:43:59
1	K 766.490 Radial†	59.9	-68.6	-48.776	µg/L	-48.776	ppb	14:43:59
1	Mg 279.077 IEC†	49787.3	49662.9	461710	µg/L	461710	ppb	14:43:59
1	Na 589.592 Radial†	1412387.5	1408635.5	463730	µg/L	463730	ppb	14:43:54
1	Sr 421.552†	535.1	494.4	5.1247	µg/L	5.1247	ppb	14:43:59
1	Sc 361.383	1832827.1	1832827.1	95.968	%			14:44:34
1	Y 371.029	1243371.2	1243371.2	94.920	%			14:44:34
1	Ag 328.068†	-5331.8	-4991.3	-12.516	µg/L	-12.516	ppb	14:44:40
1	As 188.979†	-25.3	-27.5	-52.401	µg/L	-52.401	ppb	14:45:01
1	B 249.677†	1493.7	1225.0	-174.11	µg/L	-174.11	ppb	14:44:40
1	Ba 233.527†	574.9	625.1	16.169	µg/L	16.169	ppb	14:45:01
1	Be 313.107†	-11067.4	-8092.0	-5.2972	µg/L	-5.2972	ppb	14:44:40
1	Cd 226.502†	1038.3	1224.0	-15.542	µg/L	-15.542	ppb	14:44:40
1	Co 228.616†	189.5	206.3	10.066	µg/L	10.066	ppb	14:45:01
1	Cr 267.716†	137.7	195.9	4.2704	µg/L	4.2704	ppb	14:45:01
1	Cu 324.752†	-8795.2	-11650.9	-20.741	µg/L	-20.741	ppb	14:44:40
1	Mn 257.610†	-7006.5	-7056.8	15.101	µg/L	15.101	ppb	14:44:34
1	Mo 202.031†	-203.3	-204.2	-5.2185	µg/L	-5.2185	ppb	14:45:01
1	Ni 231.604†	92.3	-206.0	-5.6060	µg/L	-5.6060	ppb	14:45:01
1	P 214.914†	278.7	262.7	357.28	µg/L	357.28	ppb	14:45:01
1	Pb 220.353†	191.0	101.8	23.594	µg/L	23.594	ppb	14:45:01
1	S 181.975 Axial†	34.6	21.2	93.001	µg/L	93.001	ppb	14:45:01
1	Sb 206.836†	60.3	35.8	-5.1147	µg/L	-5.1147	ppb	14:45:01
1	Se 196.026†	-124.6	-145.7	431.09	µg/L	431.09	ppb	14:45:01
1	SiO2†	971.9	-237.3	-51.105	µg/L	-51.105	ppb	14:45:01
1	Si 251.611†	-251.2	-574.6	-47.235	µg/L	-47.235	ppb	14:45:01
1	Sn 189.927†	-32.5	-33.0	-9.5042	µg/L	-9.5042	ppb	14:45:01
1	Ti 334.940†	13370.7	13816.4	4.0770	µg/L	4.0770	ppb	14:44:40
1	Tl 190.801†	-49.5	-27.3	33.449	µg/L	33.449	ppb	14:45:01
1	U 409.014†	138681.8	144562.6	13000	µg/L	13000	ppb	14:44:40
1	V 292.402†	-5434.6	-5618.7	4.9101	µg/L	4.9101	ppb	14:44:40
1	Zn 213.857†	2732.6	2371.8	12.479	µg/L	12.479	ppb	14:45:01
2	Sc RADIAL	54113.0	54113.0	99.2	%			14:44:11
2	Al 396.153Radial†	645987.5	651505.9	485590	µg/L	485590	ppb	14:44:06
2	Ca 317.933Radial†	485663.6	489625.6	461010	µg/L	461010	ppb	14:44:06
2	Fe 238.204 Radial†	51235.5	51657.9	437830	µg/L	437830	ppb	14:44:11
2	K 766.490 Radial†	83.9	-43.8	-31.167	µg/L	-31.167	ppb	14:44:11
2	Mg 279.077 IEC†	49624.6	50036.5	465180	µg/L	465180	ppb	14:44:11
2	Na 589.592 Radial†	1405673.5	1417117.7	466520	µg/L	466520	ppb	14:44:06
2	Sr 421.552†	505.9	470.7	4.8794	µg/L	4.8794	ppb	14:44:11
2	Sc 361.383	1837825.9	1837825.9	96.229	%			14:45:07
2	Y 371.029	1247268.6	1247268.6	95.217	%			14:45:07
2	Ag 328.068†	-5248.4	-4889.5	-11.624	µg/L	-11.624	ppb	14:45:13
2	As 188.979†	-21.7	-23.6	-44.761	µg/L	-44.761	ppb	14:45:33
2	B 249.677†	1467.3	1193.4	-176.30	µg/L	-176.30	ppb	14:45:13
2	Ba 233.527†	558.0	605.8	15.663	µg/L	15.663	ppb	14:45:33
2	Be 313.107†	-10966.6	-7955.9	-5.2083	µg/L	-5.2083	ppb	14:45:13
2	Cd 226.502†	1019.9	1202.0	-16.327	µg/L	-16.327	ppb	14:45:13
2	Co 228.616†	178.5	194.3	9.4767	µg/L	9.4767	ppb	14:45:33
2	Cr 267.716†	83.6	139.3	3.0246	µg/L	3.0246	ppb	14:45:33
2	Cu 324.752†	-8717.3	-11545.0	-19.786	µg/L	-19.786	ppb	14:45:13
2	Mn 257.610†	-6988.4	-7018.1	15.303	µg/L	15.303	ppb	14:45:07
2	Mo 202.031†	-191.4	-191.4	-3.7840	µg/L	-3.7840	ppb	14:45:33
2	Ni 231.604†	81.9	-217.1	-6.1913	µg/L	-6.1913	ppb	14:45:33
2	P 214.914†	298.0	282.1	398.14	µg/L	398.14	ppb	14:45:33
2	Pb 220.353†	188.3	98.5	22.919	µg/L	22.919	ppb	14:45:33

2	S 181.975 Axial†	34.5	21.1	92.318 µg/L	92.318 ppb	14:45:33
2	Sb 206.836†	49.5	24.4	-16.430 µg/L	-16.430 ppb	14:45:33
2	Se 196.026†	-135.7	-156.8	414.89 µg/L	414.89 ppb	14:45:33
2	SiO2†	995.7	-215.3	-46.357 µg/L	-46.357 ppb	14:45:33
2	Si 251.611†	-242.1	-564.4	-46.400 µg/L	-46.400 ppb	14:45:33
2	Sn 189.927†	-48.8	-49.9	-17.017 µg/L	-17.017 ppb	14:45:33
2	Ti 334.940†	13350.9	13757.9	3.6830 µg/L	3.6830 ppb	14:45:13
2	Tl 190.801†	-50.6	-28.2	32.395 µg/L	32.395 ppb	14:45:33
2	U 409.014†	138028.8	143491.0	12902 µg/L	12902 ppb	14:45:13
2	V 292.402†	-5635.2	-5811.8	2.9425 µg/L	2.9425 ppb	14:45:13
2	Zn 213.857†	2709.5	2340.1	11.417 µg/L	11.417 ppb	14:45:33
3	Sc RADIAL	54398.5	54398.5	99.7 %		14:44:23
3	Al 396.153Radial†	647423.4	649527.5	484110 µg/L	484110 ppb	14:44:18
3	Ca 317.933Radial†	488211.3	489611.2	461000 µg/L	461000 ppb	14:44:18
3	Fe 238.204 Radial†	51015.9	51166.4	433670 µg/L	433670 ppb	14:44:23
3	K 766.490 Radial†	138.6	10.6	7.5591 µg/L	7.5591 ppb	14:44:23
3	Mg 279.077 IEC†	49363.7	49512.1	460310 µg/L	460310 ppb	14:44:23
3	Na 589.592 Radial†	1412371.3	1416397.4	466280 µg/L	466280 ppb	14:44:18
3	Sr 421.552†	507.2	469.3	4.8646 µg/L	4.8646 ppb	14:44:23
3	Sc 361.383	1837461.1	1837461.1	96.210 %		14:45:40
3	Y 371.029	1245635.1	1245635.1	95.093 %		14:45:40
3	Ag 328.068†	-5107.3	-4744.0	-10.729 µg/L	-10.729 ppb	14:45:45
3	As 188.979†	-16.7	-18.5	-34.960 µg/L	-34.960 ppb	14:46:06
3	B 249.677†	1484.3	1211.3	-173.35 µg/L	-173.35 ppb	14:45:45
3	Ba 233.527†	553.8	601.6	15.554 µg/L	15.554 ppb	14:46:06
3	Be 313.107†	-10842.7	-7829.4	-5.1258 µg/L	-5.1258 ppb	14:45:45
3	Cd 226.502†	1000.6	1182.1	-16.404 µg/L	-16.404 ppb	14:45:45
3	Co 228.616†	166.8	182.2	8.8812 µg/L	8.8812 ppb	14:46:06
3	Cr 267.716†	114.6	171.5	3.7340 µg/L	3.7340 ppb	14:46:06
3	Cu 324.752†	-8778.8	-11610.6	-20.823 µg/L	-20.823 ppb	14:45:45
3	Mn 257.610†	-6849.7	-6875.4	15.438 µg/L	15.438 ppb	14:45:40
3	Mo 202.031†	-180.2	-179.7	-2.7014 µg/L	-2.7014 ppb	14:46:06
3	Ni 231.604†	78.6	-220.5	-6.4261 µg/L	-6.4261 ppb	14:46:06
3	P 214.914†	292.5	276.4	389.07 µg/L	389.07 ppb	14:46:06
3	Pb 220.353†	166.9	76.3	17.067 µg/L	17.067 ppb	14:46:06
3	S 181.975 Axial†	27.8	14.1	61.607 µg/L	61.607 ppb	14:46:06
3	Sb 206.836†	44.0	18.8	-21.940 µg/L	-21.940 ppb	14:46:06
3	Se 196.026†	-130.2	-151.2	416.38 µg/L	416.38 ppb	14:46:06
3	SiO2†	1012.2	-197.9	-42.626 µg/L	-42.626 ppb	14:46:06
3	Si 251.611†	-265.6	-588.9	-48.410 µg/L	-48.410 ppb	14:46:06
3	Sn 189.927†	-42.0	-42.7	-13.864 µg/L	-13.864 ppb	14:46:06
3	Ti 334.940†	13514.7	13930.9	4.4846 µg/L	4.4846 ppb	14:45:45
3	Tl 190.801†	-39.7	-17.0	47.407 µg/L	47.407 ppb	14:46:06
3	U 409.014†	138148.6	143644.0	12917 µg/L	12917 ppb	14:45:45
3	V 292.402†	-5603.1	-5779.6	2.8210 µg/L	2.8210 ppb	14:45:45
3	Zn 213.857†	2726.7	2358.5	12.353 µg/L	12.353 ppb	14:46:06

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1836038.0	96.136	%	0.1459				0.15%
Sc RADIAL	54403.4	99.7	%	0.54				0.54%
Y 371.029	1245425.0	95.077	%	0.1494				0.16%
Ag 328.068†	-4875.0	-11.623	µg/L	0.8935	-11.623	ppb	0.8935	7.69%
Al 396.153Radial†	649539.7	484120	µg/L	1461.0	484120	ppb	1461.0	0.30%
QC value within limits for Al 396.153Radial Recovery = 96.82%								
As 188.979†	-23.2	-44.041	µg/L	8.7426	-44.041	ppb	8.7426	19.85%
B 249.677†	1209.9	-174.59	µg/L	1.536	-174.59	ppb	1.536	0.88%
Ba 233.527†	610.9	15.795	µg/L	0.3282	15.795	ppb	0.3282	2.08%
Be 313.107†	-7959.1	-5.2104	µg/L	0.08573	-5.2104	ppb	0.08573	1.65%
Ca 317.933Radial†	489146.5	460560	µg/L	769.6	460560	ppb	769.6	0.17%
QC value within limits for Ca 317.933Radial Recovery = 92.11%								
Cd 226.502†	1202.7	-16.091	µg/L	0.4769	-16.091	ppb	0.4769	2.96%
Co 228.616†	194.3	9.4746	µg/L	0.59237	9.4746	ppb	0.59237	6.25%
Cr 267.716†	168.9	3.6764	µg/L	0.62486	3.6764	ppb	0.62486	17.00%
Cu 324.752†	-11602.2	-20.450	µg/L	0.5769	-20.450	ppb	0.5769	2.82%
Fe 238.204 Radial†	51433.0	435930	µg/L	2105.0	435930	ppb	2105.0	0.48%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.19%								
K 766.490 Radial†	-33.9	-24.128	µg/L	28.8197	-24.128	ppb	28.8197	119.44%
Mg 279.077 IEC†	49737.1	462400	µg/L	2510.3	462400	ppb	2510.3	0.54%

QC value within limits for Mg 279.077 IEC Recovery = 92.48%							
Mn 257.610†	-6983.5	15.281 µg/L	0.1695	15.281 ppb	0.1695	1.11%
Mo 202.031†	-191.8	-3.9013 µg/L	1.26264	-3.9013 ppb	1.26264	32.36%
Na 589.592 Radial†	1414050.2	465510 µg/L	1548.3	465510 ppb	1548.3	0.33%
QC value within limits for Na 589.592 Radial Recovery = 93.10%						
Ni 231.604†	-214.5	-6.0745 µg/L	0.42234	-6.0745 ppb	0.42234	6.95%
P 214.914†	273.7	381.50 µg/L	21.461	381.50 ppb	21.461	5.63%
Pb 220.353†	92.2	21.194 µg/L	3.5893	21.194 ppb	3.5893	16.94%
S 181.975 Axial†	18.8	82.309 µg/L	17.9317	82.309 ppb	17.9317	21.79%
Sb 206.836†	26.4	-14.495 µg/L	8.5779	-14.495 ppb	8.5779	59.18%
Se 196.026†	-151.2	420.79 µg/L	8.956	420.79 ppb	8.956	2.13%
SiO2†	-216.8	-46.696 µg/L	4.2500	-46.696 ppb	4.2500	9.10%
Si 251.611†	-576.0	-47.348 µg/L	1.0098	-47.348 ppb	1.0098	2.13%
Sn 189.927†	-41.9	-13.462 µg/L	3.7726	-13.462 ppb	3.7726	28.02%
Sr 421.552†	478.1	4.9562 µg/L	0.14608	4.9562 ppb	0.14608	2.95%
Ti 334.940†	13835.1	4.0815 µg/L	0.40078	4.0815 ppb	0.40078	9.82%
Tl 190.801†	-24.2	37.750 µg/L	8.3798	37.750 ppb	8.3798	22.20%
U 409.014†	143899.2	12939 µg/L	52.5	12939 ppb	52.5	0.41%
QC value less than the lower limit for U 409.014 Recovery = 86.26%						
V 292.402†	-5736.7	3.5579 µg/L	1.17264	3.5579 ppb	1.17264	32.96%
Zn 213.857†	2356.8	12.083 µg/L	0.5800	12.083 ppb	0.5800	4.80%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/11/2010 14:46:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55399.0	55399.0	102	%			14:46:58
1	Al 396.153Radial†	399.7	403.8	92.521	µg/L	92.521	ppb	14:46:58
1	Ca 317.933Radial†	334.1	149.9	141.18	µg/L	141.18	ppb	14:47:18
1	Fe 238.204 Radial†	7.1	-7.5	138.28	µg/L	138.28	ppb	14:47:18
1	K 766.490 Radial†	420398.0	414012.0	294280	µg/L	294280	ppb	14:46:52
1	Mg 279.077 IEC†	6.8	-4.5	128.44	µg/L	128.44	ppb	14:47:18
1	Na 589.592 Radial†	1342.1	780.2	256.86	µg/L	256.86	ppb	14:46:58
1	Sr 421.552†	951196.0	936997.9	9713.1	µg/L	9713.1	ppb	14:46:52
1	Sc 361.383	1973675.2	1973675.2	103.34	%			14:48:49
1	Y 371.029	1341693.6	1341693.6	102.43	%			14:48:49
1	Ag 328.068†	-7295.5	-6495.0	14.834	µg/L	14.834	ppb	14:48:55
1	As 188.979†	5210.7	5041.0	9833.2	µg/L	9833.2	ppb	14:48:55
1	B 249.677†	116645.4	112541.3	4957.2	µg/L	4957.2	ppb	14:48:49
1	Ba 233.527†	564583.2	546348.7	14244	µg/L	14244	ppb	14:48:49
1	Be 313.107†	4590165.2	4445144.6	2899.1	µg/L	2899.1	ppb	14:48:39
1	Cd 226.502†	360765.0	349238.8	9644.6	µg/L	9644.6	ppb	14:48:49
1	Co 228.616†	199452.7	193010.6	9487.0	µg/L	9487.0	ppb	14:48:49
1	Cr 267.716†	1141741.3	1104866.0	24309	µg/L	24309	ppb	14:48:49
1	Cu 324.752†	2993464.1	2894159.5	20216	µg/L	20216	ppb	14:48:49
1	Mn 257.610†	2858381.7	2766176.3	9578.9	µg/L	9578.9	ppb	14:48:49
1	Mo 202.031†	98264.3	95093.6	10148	µg/L	10148	ppb	14:48:49
1	Ni 231.604†	183070.7	176847.4	9657.8	µg/L	9657.8	ppb	14:48:49
1	P 214.914†	7469.6	7200.4	13482	µg/L	13482	ppb	14:48:55
1	Pb 220.353†	97644.4	94389.0	25180	µg/L	25180	ppb	14:48:49
1	S 181.975 Axial†	12516.5	12096.9	53001	µg/L	53001	ppb	14:48:55
1	Sb 206.836†	11239.2	10848.7	10569	µg/L	10569	ppb	14:48:55
1	Se 196.026†	6584.9	6356.1	9690.0	µg/L	9690.0	ppb	14:48:55
1	SiO2†	476520.0	459857.7	99033	µg/L	99033	ppb	14:48:49
1	Si 251.611†	580361.7	561278.0	46140	µg/L	46140	ppb	14:48:49
1	Sn 189.927†	23760.5	22992.8	10575	µg/L	10575	ppb	14:48:55
1	Ti 334.940†	4290484.1	4151599.7	9986.4	µg/L	9986.4	ppb	14:48:39
1	Tl 190.801†	7036.0	6832.7	9632.0	µg/L	9632.0	ppb	14:48:55
1	U 409.014†	835.4	862.0	78.046	µg/L	78.046	ppb	14:48:49
1	V 292.402†	975452.7	943947.6	10194	µg/L	10194	ppb	14:48:49
1	Zn 213.857†	598917.9	579071.4	14385	µg/L	14385	ppb	14:48:49
2	Sc RADIAL	55030.3	55030.3	101	%			14:47:30
2	Al 396.153Radial†	384.6	391.5	90.444	µg/L	90.444	ppb	14:47:30
2	Ca 317.933Radial†	398.0	215.6	202.97	µg/L	202.97	ppb	14:47:50
2	Fe 238.204 Radial†	10.5	-4.0	160.36	µg/L	160.36	ppb	14:47:50
2	K 766.490 Radial†	423060.2	419427.1	298130	µg/L	298130	ppb	14:47:24
2	Mg 279.077 IEC†	11.3	-0.0	164.54	µg/L	164.54	ppb	14:47:50
2	Na 589.592 Radial†	1212.5	660.6	217.48	µg/L	217.48	ppb	14:47:30
2	Sr 421.552†	957912.4	949937.4	9847.2	µg/L	9847.2	ppb	14:47:24
2	Sc 361.383	1973904.3	1973904.3	103.35	%			14:49:14
2	Y 371.029	1342735.7	1342735.7	102.51	%			14:49:14
2	Ag 328.068†	-6836.3	-6049.9	16.075	µg/L	16.075	ppb	14:49:19
2	As 188.979†	5005.3	4841.7	9444.3	µg/L	9444.3	ppb	14:49:19
2	B 249.677†	114403.0	110358.5	4860.1	µg/L	4860.1	ppb	14:49:14
2	Ba 233.527†	548071.4	530309.5	13826	µg/L	13826	ppb	14:49:14
2	Be 313.107†	4469193.3	4327583.5	2822.5	µg/L	2822.5	ppb	14:49:04
2	Cd 226.502†	349367.5	338170.7	9338.9	µg/L	9338.9	ppb	14:49:14
2	Co 228.616†	192536.9	186296.8	9156.8	µg/L	9156.8	ppb	14:49:14
2	Cr 267.716†	1093055.4	1057632.1	23270	µg/L	23270	ppb	14:49:14
2	Cu 324.752†	2898656.7	2802093.0	19573	µg/L	19573	ppb	14:49:14
2	Mn 257.610†	2761508.2	2672125.9	9253.2	µg/L	9253.2	ppb	14:49:14
2	Mo 202.031†	94921.3	91848.1	9802.1	µg/L	9802.1	ppb	14:49:14
2	Ni 231.604†	176871.2	170828.6	9329.1	µg/L	9329.1	ppb	14:49:14
2	P 214.914†	7023.8	6768.2	12612	µg/L	12612	ppb	14:49:19
2	Pb 220.353†	95131.3	91946.6	24529	µg/L	24529	ppb	14:49:14

2	S 181.975 Axial†	12036.4	11630.9	50959 µg/L	50959 ppb	14:49:19
2	Sb 206.836†	10693.6	10319.6	10054 µg/L	10054 ppb	14:49:19
2	Se 196.026†	6359.9	6137.7	9357.1 µg/L	9357.1 ppb	14:49:19
2	SiO2†	465181.8	448834.1	96659 µg/L	96659 ppb	14:49:14
2	Si 251.611†	566752.0	548044.9	45052 µg/L	45052 ppb	14:49:14
2	Sn 189.927†	22166.4	21447.8	9864.4 µg/L	9864.4 ppb	14:49:19
2	Ti 334.940†	4180020.8	4044239.7	9728.1 µg/L	9728.1 ppb	14:49:04
2	Tl 190.801†	6890.0	6690.7	9431.4 µg/L	9431.4 ppb	14:49:19
2	U 409.014†	947.2	970.1	87.818 µg/L	87.818 ppb	14:49:14
2	V 292.402†	941864.4	911339.9	9841.7 µg/L	9841.7 ppb	14:49:14
2	Zn 213.857†	579745.6	560454.1	13922 µg/L	13922 ppb	14:49:14
3	Sc RADIAL	56038.9	56038.9	103 %		14:48:02
3	Al 396.153Radial†	479.5	477.1	179.56 µg/L	179.56 ppb	14:48:02
3	Ca 317.933Radial†	383.6	194.4	183.07 µg/L	183.07 ppb	14:48:22
3	Fe 238.204 Radial†	9.4	-5.4	124.22 µg/L	124.22 ppb	14:48:22
3	K 766.490 Radial†	428756.3	417423.2	296700 µg/L	296700 ppb	14:47:56
3	Mg 279.077 IEC†	6.3	-5.2	95.926 µg/L	95.926 ppb	14:48:22
3	Na 589.592 Radial†	1260.6	685.8	225.77 µg/L	225.77 ppb	14:48:02
3	Sr 421.552†	974533.2	949026.3	9837.8 µg/L	9837.8 ppb	14:47:56
3	Sc 361.383	1967182.2	1967182.2	103.00 %		14:49:39
3	Y 371.029	1337106.2	1337106.2	102.08 %		14:49:39
3	Ag 328.068†	-5873.5	-5137.8	14.957 µg/L	14.957 ppb	14:49:44
3	As 188.979†	4335.2	4207.7	8207.5 µg/L	8207.5 ppb	14:49:44
3	B 249.677†	103256.6	99915.3	4398.2 µg/L	4398.2 ppb	14:49:39
3	Ba 233.527†	483121.0	469064.3	12229 µg/L	12229 ppb	14:49:39
3	Be 313.107†	4064814.3	3949767.9	2576.0 µg/L	2576.0 ppb	14:49:28
3	Cd 226.502†	306350.7	297562.9	8217.4 µg/L	8217.4 ppb	14:49:39
3	Co 228.616†	167417.3	162546.1	7988.6 µg/L	7988.6 ppb	14:49:39
3	Cr 267.716†	928569.1	901554.3	19836 µg/L	19836 ppb	14:49:39
3	Cu 324.752†	2527919.1	2451745.7	17126 µg/L	17126 ppb	14:49:39
3	Mn 257.610†	2402081.4	2332306.4	8076.5 µg/L	8076.5 ppb	14:49:39
3	Mo 202.031†	82713.5	80310.0	8570.8 µg/L	8570.8 ppb	14:49:39
3	Ni 231.604†	153785.8	149000.9	8137.1 µg/L	8137.1 ppb	14:49:39
3	P 214.914†	6020.9	5817.7	10807 µg/L	10807 ppb	14:49:44
3	Pb 220.353†	84806.2	82236.9	21938 µg/L	21938 ppb	14:49:39
3	S 181.975 Axial†	10412.0	10093.6	44224 µg/L	44224 ppb	14:49:44
3	Sb 206.836†	9221.8	8926.1	8701.4 µg/L	8701.4 ppb	14:49:44
3	Se 196.026†	5513.0	5336.4	8135.5 µg/L	8135.5 ppb	14:49:44
3	SiO2†	415353.7	401996.4	86572 µg/L	86572 ppb	14:49:39
3	Si 251.611†	505959.6	490898.3	40354 µg/L	40354 ppb	14:49:39
3	Sn 189.927†	18682.4	18138.7	8342.5 µg/L	8342.5 ppb	14:49:44
3	Ti 334.940†	3801346.2	3690423.2	8877.0 µg/L	8877.0 ppb	14:49:28
3	Tl 190.801†	6155.2	6000.1	8459.0 µg/L	8459.0 ppb	14:49:44
3	U 409.014†	834.8	864.1	78.225 µg/L	78.225 ppb	14:49:39
3	V 292.402†	816284.9	792534.9	8558.2 µg/L	8558.2 ppb	14:49:39
3	Zn 213.857†	507712.5	492437.5	12233 µg/L	12233 ppb	14:49:39

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1971587.2	103.23	%	0.200				0.19%
Sc RADIAL	55489.4	102	%	0.9				0.92%
Y 371.029	1340511.8	102.34	%	0.229				0.22%
Ag 328.068†	-5894.2	15.288	µg/L	0.6836	15.288	ppb	0.6836	4.47%
Al 396.153Radial†	424.2	120.84	µg/L	50.861	120.84	ppb	50.861	42.09%
As 188.979†	4696.8	9161.7	µg/L	848.90	9161.7	ppb	848.90	9.27%
QC value within limits for As 188.979 Recovery = 91.62%								
B 249.677†	107605.0	4738.5	µg/L	298.66	4738.5	ppb	298.66	6.30%
QC value within limits for B 249.677 Recovery = 94.77%								
Ba 233.527†	515240.8	13433	µg/L	1063.5	13433	ppb	1063.5	7.92%
QC value less than the lower limit for Ba 233.527 Recovery = 89.55%								
Be 313.107†	4240832.0	2765.9	µg/L	168.81	2765.9	ppb	168.81	6.10%
QC value within limits for Be 313.107 Recovery = 92.20%								
Ca 317.933Radial†	186.6	175.74	µg/L	31.540	175.74	ppb	31.540	17.95%
Cd 226.502†	328324.1	9067.0	µg/L	751.45	9067.0	ppb	751.45	8.29%
QC value within limits for Cd 226.502 Recovery = 90.67%								
Co 228.616†	180617.8	8877.5	µg/L	787.27	8877.5	ppb	787.27	8.87%
QC value less than the lower limit for Co 228.616 Recovery = 88.77%								
Cr 267.716†	1021350.8	22472	µg/L	2340.9	22472	ppb	2340.9	10.42%
QC value less than the lower limit for Cr 267.716 Recovery = 89.89%								

Cu 324.752†	2715999.4	18972 µg/L	1630.6	18972 ppb	1630.6	8.59%
QC value within limits for Cu 324.752 Recovery = 94.86%						
Fe 238.204 Radial†	-5.6	140.95 µg/L	18.221	140.95 ppb	18.221	12.93%
K 766.490 Radial†	416954.1	296370 µg/L	1946.1	296370 ppb	1946.1	0.66%
QC value within limits for K 766.490 Radial Recovery = 98.79%						
Mg 279.077 IEC†	-3.2	129.64 µg/L	34.323	129.64 ppb	34.323	26.48%
Mn 257.610†	2590202.9	8969.5 µg/L	790.37	8969.5 ppb	790.37	8.81%
QC value less than the lower limit for Mn 257.610 Recovery = 89.70%						
Mo 202.031†	89083.9	9507.1 µg/L	829.20	9507.1 ppb	829.20	8.72%
QC value within limits for Mo 202.031 Recovery = 95.07%						
Na 589.592 Radial†	708.9	233.37 µg/L	20.762	233.37 ppb	20.762	8.90%
Ni 231.604†	165559.0	9041.3 µg/L	800.17	9041.3 ppb	800.17	8.85%
QC value within limits for Ni 231.604 Recovery = 90.41%						
P 214.914†	6595.5	12300 µg/L	1364.7	12300 ppb	1364.7	11.09%
QC value less than the lower limit for P 214.914 Recovery = 82.00%						
Pb 220.353†	89524.2	23882 µg/L	1714.8	23882 ppb	1714.8	7.18%
QC value within limits for Pb 220.353 Recovery = 95.53%						
S 181.975 Axial†	11273.8	49394 µg/L	4592.8	49394 ppb	4592.8	9.30%
QC value within limits for S 181.975 Axial Recovery = 98.79%						
Sb 206.836†	10031.5	9774.9 µg/L	964.64	9774.9 ppb	964.64	9.87%
QC value within limits for Sb 206.836 Recovery = 97.75%						
Se 196.026†	5943.4	9060.9 µg/L	818.48	9060.9 ppb	818.48	9.03%
QC value within limits for Se 196.026 Recovery = 90.61%						
SiO2†	436896.1	94088 µg/L	6616.3	94088 ppb	6616.3	7.03%
QC value less than the lower limit for SiO2 Recovery = 87.93%						
Si 251.611†	533407.1	43849 µg/L	3074.8	43849 ppb	3074.8	7.01%
QC value less than the lower limit for Si 251.611 Recovery = 87.70%						
Sn 189.927†	20859.8	9594.0 µg/L	1140.59	9594.0 ppb	1140.59	11.89%
QC value within limits for Sn 189.927 Recovery = 95.94%						
Sr 421.552†	945320.6	9799.4 µg/L	74.86	9799.4 ppb	74.86	0.76%
QC value within limits for Sr 421.552 Recovery = 97.99%						
Ti 334.940†	3962087.5	9530.5 µg/L	580.46	9530.5 ppb	580.46	6.09%
QC value within limits for Ti 334.940 Recovery = 95.30%						
Tl 190.801†	6507.8	9174.1 µg/L	627.37	9174.1 ppb	627.37	6.84%
QC value within limits for Tl 190.801 Recovery = 91.74%						
U 409.014†	898.7	81.363 µg/L	5.5909	81.363 ppb	5.5909	6.87%
V 292.402†	882607.5	9531.4 µg/L	861.08	9531.4 ppb	861.08	9.03%
QC value within limits for V 292.402 Recovery = 95.31%						
Zn 213.857†	543987.7	13513 µg/L	1132.6	13513 ppb	1132.6	8.38%
QC value within limits for Zn 213.857 Recovery = 90.09%						

QC Failed. Continue with analysis.

Sequence No.: 13 | **Autosampler Location: 7**
Sample ID: CCV | **Date Collected: 2/11/2010 14:49:53**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56804.1	56804.1	104	%			14:50:31
1	Al 396.153Radial†	6842.1	6583.7	4896.3	µg/L	4896.3	ppb	14:50:31
1	Ca 317.933Radial†	5575.3	5177.3	4874.7	µg/L	4874.7	ppb	14:50:52
1	Fe 238.204 Radial†	620.0	581.2	4936.5	µg/L	4936.5	ppb	14:50:52
1	K 766.490 Radial†	7520.1	7096.5	5044.1	µg/L	5044.1	ppb	14:50:31
1	Mg 279.077 IEC†	574.4	540.6	5034.2	µg/L	5034.2	ppb	14:50:52
1	Na 589.592 Radial†	31573.0	29791.8	9807.5	µg/L	9807.5	ppb	14:50:31
1	Sr 421.552†	48614.5	46666.6	483.75	µg/L	483.75	ppb	14:50:31
1	Sc 361.383	1985086.2	1985086.2	103.94	%			14:51:55
1	Y 371.029	1355705.3	1355705.3	103.50	%			14:51:55
1	Ag 328.068†	63419.1	61579.6	492.20	µg/L	492.20	ppb	14:52:00
1	As 188.979†	283.1	271.2	529.04	µg/L	529.04	ppb	14:52:21
1	B 249.677†	12082.8	11293.3	491.77	µg/L	491.77	ppb	14:52:00
1	Ba 233.527†	19621.7	18904.0	493.12	µg/L	493.12	ppb	14:52:00
1	Be 313.107†	773609.6	747725.8	488.12	µg/L	488.12	ppb	14:51:55
1	Cd 226.502†	18494.8	17935.8	494.76	µg/L	494.76	ppb	14:52:00
1	Co 228.616†	10503.4	10114.1	497.19	µg/L	497.19	ppb	14:52:00
1	Cr 267.716†	23548.0	22707.7	499.79	µg/L	499.79	ppb	14:52:00
1	Cu 324.752†	76174.0	70800.5	495.24	µg/L	495.24	ppb	14:52:00
1	Mn 257.610†	149145.1	143735.7	498.19	µg/L	498.19	ppb	14:51:55
1	Mo 202.031†	5080.3	4895.3	522.62	µg/L	522.62	ppb	14:52:21
1	Ni 231.604†	9759.2	9087.1	496.31	µg/L	496.31	ppb	14:52:00
1	P 214.914†	1255.3	1180.1	2486.8	µg/L	2486.8	ppb	14:52:21
1	Pb 220.353†	2124.3	1946.6	519.63	µg/L	519.63	ppb	14:52:21
1	S 181.975 Axial†	258.7	234.1	1025.7	µg/L	1025.7	ppb	14:52:21
1	Sb 206.836†	589.1	539.9	533.84	µg/L	533.84	ppb	14:52:21
1	Se 196.026†	360.1	330.7	511.73	µg/L	511.73	ppb	14:52:21
1	SiO2†	26768.3	24503.7	5277.0	µg/L	5277.0	ppb	14:52:00
1	Si 251.611†	31600.0	30089.3	2473.5	µg/L	2473.5	ppb	14:52:00
1	Sn 189.927†	1182.0	1138.1	523.47	µg/L	523.47	ppb	14:52:21
1	Ti 334.940†	213092.8	204899.2	492.55	µg/L	492.55	ppb	14:51:55
1	Tl 190.801†	347.4	358.5	506.37	µg/L	506.37	ppb	14:52:21
1	U 409.014†	5696.3	5534.0	500.04	µg/L	500.04	ppb	14:52:00
1	V 292.402†	48064.4	46286.7	499.57	µg/L	499.57	ppb	14:52:00
1	Zn 213.857†	21219.3	19939.4	494.39	µg/L	494.39	ppb	14:52:00
2	Sc RADIAL	56818.7	56818.7	104	%			14:50:57
2	Al 396.153Radial†	6864.1	6603.1	4910.8	µg/L	4910.8	ppb	14:50:57
2	Ca 317.933Radial†	5535.1	5137.3	4837.1	µg/L	4837.1	ppb	14:51:17
2	Fe 238.204 Radial†	615.6	576.8	4899.1	µg/L	4899.1	ppb	14:51:17
2	K 766.490 Radial†	7426.8	7005.0	4979.1	µg/L	4979.1	ppb	14:50:57
2	Mg 279.077 IEC†	575.7	541.7	5044.4	µg/L	5044.4	ppb	14:51:17
2	Na 589.592 Radial†	31604.5	29814.2	9814.9	µg/L	9814.9	ppb	14:50:57
2	Sr 421.552†	48545.6	46588.5	482.94	µg/L	482.94	ppb	14:50:57
2	Sc 361.383	1982851.3	1982851.3	103.82	%			14:52:28
2	Y 371.029	1354649.3	1354649.3	103.41	%			14:52:28
2	Ag 328.068†	64081.0	62286.0	497.83	µg/L	497.83	ppb	14:52:34
2	As 188.979†	276.6	265.3	517.47	µg/L	517.47	ppb	14:52:54
2	B 249.677†	12111.5	11334.1	493.59	µg/L	493.59	ppb	14:52:34
2	Ba 233.527†	19855.9	19150.8	499.56	µg/L	499.56	ppb	14:52:34
2	Be 313.107†	767601.6	742777.9	484.89	µg/L	484.89	ppb	14:52:28
2	Cd 226.502†	18724.1	18176.8	501.42	µg/L	501.42	ppb	14:52:34
2	Co 228.616†	10623.9	10241.5	503.47	µg/L	503.47	ppb	14:52:34
2	Cr 267.716†	23965.4	23135.3	509.20	µg/L	509.20	ppb	14:52:34
2	Cu 324.752†	76944.2	71624.9	501.00	µg/L	501.00	ppb	14:52:34
2	Mn 257.610†	147951.6	142747.9	494.77	µg/L	494.77	ppb	14:52:28
2	Mo 202.031†	5059.8	4881.0	521.09	µg/L	521.09	ppb	14:52:54
2	Ni 231.604†	9897.9	9231.3	504.18	µg/L	504.18	ppb	14:52:34
2	P 214.914†	1254.5	1180.6	2487.4	µg/L	2487.4	ppb	14:52:54
2	Pb 220.353†	2113.7	1938.7	517.51	µg/L	517.51	ppb	14:52:54

2	S 181.975 Axial†	253.9	229.7	1006.6 µg/L	1006.6 ppb	14:52:54
2	Sb 206.836†	570.0	522.0	516.18 µg/L	516.18 ppb	14:52:54
2	Se 196.026†	357.5	328.5	508.28 µg/L	508.28 ppb	14:52:54
2	SiO2†	27016.3	24771.5	5334.7 µg/L	5334.7 ppb	14:52:34
2	Si 251.611†	31927.7	30439.2	2502.3 µg/L	2502.3 ppb	14:52:34
2	Sn 189.927†	1183.2	1140.5	524.61 µg/L	524.61 ppb	14:52:54
2	Ti 334.940†	211586.4	203679.4	489.61 µg/L	489.61 ppb	14:52:28
2	Tl 190.801†	345.3	356.8	503.93 µg/L	503.93 ppb	14:52:54
2	U 409.014†	5694.5	5538.4	500.46 µg/L	500.46 ppb	14:52:34
2	V 292.402†	48494.6	46753.2	504.55 µg/L	504.55 ppb	14:52:34
2	Zn 213.857†	21488.9	20222.1	501.41 µg/L	501.41 ppb	14:52:34
3	Sc RADIAL	57349.9	57349.9	105 %		14:51:23
3	Al 396.153Radial†	6954.4	6628.0	4931.1 µg/L	4931.1 ppb	14:51:23
3	Ca 317.933Radial†	5532.3	5085.5	4788.3 µg/L	4788.3 ppb	14:51:43
3	Fe 238.204 Radial†	617.1	572.8	4864.4 µg/L	4864.4 ppb	14:51:43
3	K 766.490 Radial†	7512.2	7020.2	4989.9 µg/L	4989.9 ppb	14:51:23
3	Mg 279.077 IEC†	569.2	530.4	4937.8 µg/L	4937.8 ppb	14:51:43
3	Na 589.592 Radial†	31885.8	29800.8	9810.5 µg/L	9810.5 ppb	14:51:23
3	Sr 421.552†	49101.8	46686.0	483.95 µg/L	483.95 ppb	14:51:23
3	Sc 361.383	1990626.4	1990626.4	104.23 %		14:53:01
3	Y 371.029	1359542.7	1359542.7	103.79 %		14:53:01
3	Ag 328.068†	60113.1	58238.1	465.39 µg/L	465.39 ppb	14:53:07
3	As 188.979†	235.3	224.6	438.16 µg/L	438.16 ppb	14:53:28
3	B 249.677†	11347.7	10555.7	459.50 µg/L	459.50 ppb	14:53:07
3	Ba 233.527†	18299.9	17583.2	458.65 µg/L	458.65 ppb	14:53:07
3	Be 313.107†	726470.7	700428.5	457.24 µg/L	457.24 ppb	14:53:01
3	Cd 226.502†	17137.6	16584.2	457.44 µg/L	457.44 ppb	14:53:07
3	Co 228.616†	9675.2	9291.3	456.68 µg/L	456.68 ppb	14:53:07
3	Cr 267.716†	21632.8	20807.2	457.96 µg/L	457.96 ppb	14:53:07
3	Cu 324.752†	71181.3	65806.4	460.35 µg/L	460.35 ppb	14:53:07
3	Mn 257.610†	140886.2	135412.6	469.36 µg/L	469.36 ppb	14:53:01
3	Mo 202.031†	4241.7	4077.1	435.30 µg/L	435.30 ppb	14:53:28
3	Ni 231.604†	9011.2	8343.3	455.69 µg/L	455.69 ppb	14:53:07
3	P 214.914†	1075.3	1004.1	2111.2 µg/L	2111.2 ppb	14:53:28
3	Pb 220.353†	1866.0	1693.1	451.84 µg/L	451.84 ppb	14:53:28
3	S 181.975 Axial†	232.5	208.2	912.40 µg/L	912.40 ppb	14:53:28
3	Sb 206.836†	504.7	457.3	451.62 µg/L	451.62 ppb	14:53:28
3	Se 196.026†	310.0	281.6	436.86 µg/L	436.86 ppb	14:53:28
3	SiO2†	25184.9	22912.8	4934.4 µg/L	4934.4 ppb	14:53:07
3	Si 251.611†	29623.3	28108.2	2310.6 µg/L	2310.6 ppb	14:53:07
3	Sn 189.927†	974.4	935.7	430.40 µg/L	430.40 ppb	14:53:28
3	Ti 334.940†	200395.3	192146.5	461.88 µg/L	461.88 ppb	14:53:01
3	Tl 190.801†	314.8	326.3	461.00 µg/L	461.00 ppb	14:53:28
3	U 409.014†	5084.0	4931.3	445.50 µg/L	445.50 ppb	14:53:07
3	V 292.402†	43900.0	42162.6	454.79 µg/L	454.79 ppb	14:53:07
3	Zn 213.857†	19753.8	18476.6	458.11 µg/L	458.11 ppb	14:53:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1986188.0	104.00	%	0.210				0.20%
Sc RADIAL	56990.9	104	%	0.6				0.55%
Y 371.029	1356632.4	103.57	%	0.197				0.19%
Ag 328.068†	60701.2	485.14	µg/L	17.336	485.14	ppb	17.336	3.57%
QC value within limits for Ag 328.068 Recovery = 97.03%								
Al 396.153Radial†	6604.9	4912.7	µg/L	17.49	4912.7	ppb	17.49	0.36%
QC value within limits for Al 396.153Radial Recovery = 98.25%								
As 188.979†	253.7	494.89	µg/L	49.467	494.89	ppb	49.467	10.00%
QC value within limits for As 188.979 Recovery = 98.98%								
B 249.677†	11061.0	481.62	µg/L	19.175	481.62	ppb	19.175	3.98%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	18546.0	483.78	µg/L	21.996	483.78	ppb	21.996	4.55%
QC value within limits for Ba 233.527 Recovery = 96.76%								
Be 313.107†	730310.7	476.75	µg/L	16.971	476.75	ppb	16.971	3.56%
QC value within limits for Be 313.107 Recovery = 95.35%								
Ca 317.933Radial†	5133.4	4833.4	µg/L	43.35	4833.4	ppb	43.35	0.90%
QC value within limits for Ca 317.933Radial Recovery = 96.67%								
Cd 226.502†	17565.6	484.54	µg/L	23.706	484.54	ppb	23.706	4.89%
QC value within limits for Cd 226.502 Recovery = 96.91%								
Co 228.616†	9882.3	485.78	µg/L	25.392	485.78	ppb	25.392	5.23%

QC value within limits for Co 228.616 Recovery = 97.16%

Cr 267.716†	22216.8	488.98 µg/L	27.276	488.98 ppb	27.276	5.58%

QC value within limits for Cr 267.716 Recovery = 97.80%

Cu 324.752†	69410.6	485.53 µg/L	21.996	485.53 ppb	21.996	4.53%

QC value within limits for Cu 324.752 Recovery = 97.11%

Fe 238.204 Radial†	576.9	4900.0 µg/L	36.10	4900.0 ppb	36.10	0.74%

QC value within limits for Fe 238.204 Radial Recovery = 98.00%

K 766.490 Radial†	7040.6	5004.4 µg/L	34.84	5004.4 ppb	34.84	0.70%

QC value within limits for K 766.490 Radial Recovery = 100.09%

Mg 279.077 IEC†	537.5	5005.5 µg/L	58.81	5005.5 ppb	58.81	1.17%

QC value within limits for Mg 279.077 IEC Recovery = 100.11%

Mn 257.610†	140632.1	487.44 µg/L	15.748	487.44 ppb	15.748	3.23%

QC value within limits for Mn 257.610 Recovery = 97.49%

Mo 202.031†	4617.8	493.00 µg/L	49.981	493.00 ppb	49.981	10.14%

QC value within limits for Mo 202.031 Recovery = 98.60%

Na 589.592 Radial†	29802.3	9811.0 µg/L	3.72	9811.0 ppb	3.72	0.04%

QC value within limits for Na 589.592 Radial Recovery = 98.11%

Ni 231.604†	8887.2	485.39 µg/L	26.026	485.39 ppb	26.026	5.36%

QC value within limits for Ni 231.604 Recovery = 97.08%

P 214.914†	1121.6	2361.8 µg/L	217.03	2361.8 ppb	217.03	9.19%

QC value within limits for P 214.914 Recovery = 94.47%

Pb 220.353†	1859.5	496.33 µg/L	38.539	496.33 ppb	38.539	7.76%

QC value within limits for Pb 220.353 Recovery = 99.27%

S 181.975 Axial†	224.0	981.57 µg/L	60.664	981.57 ppb	60.664	6.18%

QC value within limits for S 181.975 Axial Recovery = 98.16%

Sb 206.836†	506.4	500.55 µg/L	43.281	500.55 ppb	43.281	8.65%

QC value within limits for Sb 206.836 Recovery = 100.11%

Se 196.026†	313.6	485.62 µg/L	42.263	485.62 ppb	42.263	8.70%

QC value within limits for Se 196.026 Recovery = 97.12%

SiO2†	24062.6	5182.0 µg/L	216.38	5182.0 ppb	216.38	4.18%

QC value within limits for SiO2 Recovery = 96.91%

Si 251.611†	29545.6	2428.8 µg/L	103.33	2428.8 ppb	103.33	4.25%

QC value within limits for Si 251.611 Recovery = 97.15%

Sn 189.927†	1071.4	492.83 µg/L	54.065	492.83 ppb	54.065	10.97%

QC value within limits for Sn 189.927 Recovery = 98.57%

Sr 421.552†	46647.0	483.55 µg/L	0.535	483.55 ppb	0.535	0.11%

QC value within limits for Sr 421.552 Recovery = 96.71%

Ti 334.940†	200241.7	481.35 µg/L	16.923	481.35 ppb	16.923	3.52%

QC value within limits for Ti 334.940 Recovery = 96.27%

Tl 190.801†	347.2	490.43 µg/L	25.519	490.43 ppb	25.519	5.20%

QC value within limits for Tl 190.801 Recovery = 98.09%

U 409.014†	5334.6	482.00 µg/L	31.611	482.00 ppb	31.611	6.56%

QC value within limits for U 409.014 Recovery = 96.40%

V 292.402†	45067.5	486.30 µg/L	27.408	486.30 ppb	27.408	5.64%

QC value within limits for V 292.402 Recovery = 97.26%

Zn 213.857†	19546.0	484.64 µg/L	23.239	484.64 ppb	23.239	4.80%

QC value within limits for Zn 213.857 Recovery = 96.93%

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 14:53:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56199.9	56199.9	103	%			14:54:10
1	Al 396.153Radial†	38.0	47.1	35.072	µg/L	35.072	ppb	14:54:10
1	Ca 317.933Radial†	231.4	45.6	42.930	µg/L	42.930	ppb	14:54:31
1	Fe 238.204 Radial†	23.4	8.2	69.822	µg/L	69.822	ppb	14:54:31
1	K 766.490 Radial†	243.5	108.1	76.828	µg/L	76.828	ppb	14:54:10
1	Mg 279.077 IEC†	18.5	6.7	62.643	µg/L	62.643	ppb	14:54:31
1	Na 589.592 Radial†	743.1	179.7	59.159	µg/L	59.159	ppb	14:54:10
1	Sr 421.552†	105.8	63.2	0.6552	µg/L	0.6552	ppb	14:54:10
1	Sc 361.383	1982476.6	1982476.6	103.80	%			14:55:33
1	Y 371.029	1357413.1	1357413.1	103.63	%			14:55:33
1	Ag 328.068†	-522.2	61.5	0.4946	µg/L	0.4946	ppb	14:55:38
1	As 188.979†	1.8	0.6	1.0901	µg/L	1.0901	ppb	14:55:59
1	B 249.677†	408.1	61.7	2.6625	µg/L	2.6625	ppb	14:55:59
1	Ba 233.527†	2.5	28.5	0.7415	µg/L	0.7415	ppb	14:55:59
1	Be 313.107†	-3213.4	344.8	0.2250	µg/L	0.2250	ppb	14:55:38
1	Cd 226.502†	-134.6	12.5	0.3368	µg/L	0.3368	ppb	14:55:59
1	Co 228.616†	-7.7	1.4	0.0712	µg/L	0.0712	ppb	14:55:59
1	Cr 267.716†	4.1	56.4	1.2401	µg/L	1.2401	ppb	14:55:59
1	Cu 324.752†	2752.9	165.9	1.1688	µg/L	1.1688	ppb	14:55:38
1	Mn 257.610†	-137.5	111.6	0.3934	µg/L	0.3934	ppb	14:55:59
1	Mo 202.031†	2.7	10.2	1.0859	µg/L	1.0859	ppb	14:55:59
1	Ni 231.604†	309.2	-4.3	-0.2339	µg/L	-0.2339	ppb	14:55:59
1	P 214.914†	25.1	-3.5	-7.5860	µg/L	-7.5860	ppb	14:55:59
1	Pb 220.353†	124.3	22.6	6.0147	µg/L	6.0147	ppb	14:55:59
1	S 181.975 Axial†	16.6	1.2	5.2644	µg/L	5.2644	ppb	14:55:59
1	Sb 206.836†	32.4	4.3	4.2069	µg/L	4.2069	ppb	14:55:59
1	Se 196.026†	17.5	1.0	1.6734	µg/L	1.6734	ppb	14:55:59
1	SiO2†	1299.2	1.6	0.3503	µg/L	0.3503	ppb	14:55:38
1	Si 251.611†	379.1	52.3	4.3027	µg/L	4.3027	ppb	14:55:59
1	Sn 189.927†	7.8	8.4	3.8780	µg/L	3.8780	ppb	14:55:59
1	Ti 334.940†	271.8	145.7	0.3462	µg/L	0.3462	ppb	14:55:38
1	Tl 190.801†	-19.8	5.2	7.2432	µg/L	7.2432	ppb	14:55:59
1	U 409.014†	-9.7	44.3	3.9980	µg/L	3.9980	ppb	14:55:38
1	V 292.402†	-10.8	33.8	0.3839	µg/L	0.3839	ppb	14:55:38
1	Zn 213.857†	539.3	44.0	1.0899	µg/L	1.0899	ppb	14:55:59
2	Sc RADIAL	56663.5	56663.5	104	%			14:54:36
2	Al 396.153Radial†	53.4	61.6	45.892	µg/L	45.892	ppb	14:54:36
2	Ca 317.933Radial†	224.0	36.6	34.458	µg/L	34.458	ppb	14:54:57
2	Fe 238.204 Radial†	18.3	3.1	26.399	µg/L	26.399	ppb	14:54:57
2	K 766.490 Radial†	257.1	119.2	84.727	µg/L	84.727	ppb	14:54:36
2	Mg 279.077 IEC†	17.6	5.7	53.162	µg/L	53.162	ppb	14:54:57
2	Na 589.592 Radial†	788.5	217.6	71.620	µg/L	71.620	ppb	14:54:36
2	Sr 421.552†	88.8	46.0	0.4764	µg/L	0.4764	ppb	14:54:36
2	Sc 361.383	1976808.7	1976808.7	103.51	%			14:56:05
2	Y 371.029	1355511.3	1355511.3	103.48	%			14:56:05
2	Ag 328.068†	-510.0	71.8	0.5752	µg/L	0.5752	ppb	14:56:10
2	As 188.979†	1.2	0.0	0.0279	µg/L	0.0279	ppb	14:56:31
2	B 249.677†	396.3	51.4	2.2364	µg/L	2.2364	ppb	14:56:31
2	Ba 233.527†	2.6	28.5	0.7438	µg/L	0.7438	ppb	14:56:31
2	Be 313.107†	-3268.6	282.6	0.1844	µg/L	0.1844	ppb	14:56:10
2	Cd 226.502†	-122.2	24.1	0.6618	µg/L	0.6618	ppb	14:56:31
2	Co 228.616†	-10.0	-0.8	-0.0395	µg/L	-0.0395	ppb	14:56:31
2	Cr 267.716†	5.1	57.3	1.2611	µg/L	1.2611	ppb	14:56:31
2	Cu 324.752†	2702.2	124.6	0.8738	µg/L	0.8738	ppb	14:56:10
2	Mn 257.610†	-107.9	139.8	0.4856	µg/L	0.4856	ppb	14:56:31
2	Mo 202.031†	-1.1	6.4	0.6888	µg/L	0.6888	ppb	14:56:31
2	Ni 231.604†	302.7	-9.7	-0.5298	µg/L	-0.5298	ppb	14:56:31
2	P 214.914†	20.2	-8.1	-17.441	µg/L	-17.441	ppb	14:56:31
2	Pb 220.353†	118.9	17.7	4.7183	µg/L	4.7183	ppb	14:56:31

2	S 181.975 Axial†	14.4	-0.9	-4.1582 µg/L	-4.1582 ppb	14:56:31
2	Sb 206.836†	28.3	0.4	0.3915 µg/L	0.3915 ppb	14:56:31
2	Se 196.026†	9.3	-6.9	-10.429 µg/L	-10.429 ppb	14:56:31
2	SiO2†	1222.9	-68.6	-14.765 µg/L	-14.765 ppb	14:56:10
2	Si 251.611†	359.0	34.0	2.7936 µg/L	2.7936 ppb	14:56:31
2	Sn 189.927†	7.1	7.7	3.5568 µg/L	3.5568 ppb	14:56:31
2	Ti 334.940†	232.6	108.6	0.2576 µg/L	0.2576 ppb	14:56:10
2	Tl 190.801†	-24.5	0.6	0.8244 µg/L	0.8244 ppb	14:56:31
2	U 409.014†	-107.5	-50.2	-4.5523 µg/L	-4.5523 ppb	14:56:10
2	V 292.402†	15.1	58.8	0.6333 µg/L	0.6333 ppb	14:56:10
2	Zn 213.857†	534.3	40.7	1.0126 µg/L	1.0126 ppb	14:56:31
3	Sc RADIAL	56320.6	56320.6	103 %		14:55:02
3	Al 396.153Radial†	8.5	18.4	13.663 µg/L	13.663 ppb	14:55:02
3	Ca 317.933Radial†	216.9	31.1	29.241 µg/L	29.241 ppb	14:55:23
3	Fe 238.204 Radial†	17.6	2.6	21.668 µg/L	21.668 ppb	14:55:23
3	K 766.490 Radial†	236.5	100.7	71.584 µg/L	71.584 ppb	14:55:02
3	Mg 279.077 IEC†	12.2	0.5	5.0859 µg/L	5.0859 ppb	14:55:23
3	Na 589.592 Radial†	760.7	195.3	64.287 µg/L	64.287 ppb	14:55:02
3	Sr 421.552†	71.7	29.9	0.3097 µg/L	0.3097 ppb	14:55:02
3	Sc 361.383	1993913.4	1993913.4	104.40 %		14:56:37
3	Y 371.029	1367504.2	1367504.2	104.40 %		14:56:37
3	Ag 328.068†	-498.3	87.2	0.6944 µg/L	0.6944 ppb	14:56:43
3	As 188.979†	0.4	-0.8	-1.5138 µg/L	-1.5138 ppb	14:57:03
3	B 249.677†	385.9	38.1	1.6564 µg/L	1.6564 ppb	14:57:03
3	Ba 233.527†	1.2	27.2	0.7082 µg/L	0.7082 ppb	14:57:03
3	Be 313.107†	-3126.9	445.4	0.2907 µg/L	0.2907 ppb	14:56:43
3	Cd 226.502†	-117.4	29.7	0.8162 µg/L	0.8162 ppb	14:57:03
3	Co 228.616†	-8.6	0.6	0.0304 µg/L	0.0304 ppb	14:57:03
3	Cr 267.716†	2.0	54.3	1.1938 µg/L	1.1938 ppb	14:57:03
3	Cu 324.752†	2701.6	101.6	0.7126 µg/L	0.7126 ppb	14:56:43
3	Mn 257.610†	-86.5	161.3	0.5611 µg/L	0.5611 ppb	14:57:03
3	Mo 202.031†	5.2	12.5	1.3355 µg/L	1.3355 ppb	14:57:03
3	Ni 231.604†	315.6	0.1	0.0043 µg/L	0.0043 ppb	14:57:03
3	P 214.914†	33.2	4.1	8.8077 µg/L	8.8077 ppb	14:57:03
3	Pb 220.353†	109.3	7.5	2.0114 µg/L	2.0114 ppb	14:57:03
3	S 181.975 Axial†	10.6	-4.7	-20.521 µg/L	-20.521 ppb	14:57:03
3	Sb 206.836†	25.8	-2.2	-2.1813 µg/L	-2.1813 ppb	14:57:03
3	Se 196.026†	17.8	1.2	1.8776 µg/L	1.8776 ppb	14:57:03
3	SiO2†	1292.2	-12.3	-2.6550 µg/L	-2.6550 ppb	14:56:43
3	Si 251.611†	371.3	42.8	3.5163 µg/L	3.5163 ppb	14:57:03
3	Sn 189.927†	-2.0	-1.0	-0.4777 µg/L	-0.4777 ppb	14:57:03
3	Ti 334.940†	313.8	184.5	0.4438 µg/L	0.4438 ppb	14:56:43
3	Tl 190.801†	-24.1	1.2	1.6892 µg/L	1.6892 ppb	14:57:03
3	U 409.014†	-22.6	31.9	2.8863 µg/L	2.8863 ppb	14:56:43
3	V 292.402†	-34.6	11.0	0.1363 µg/L	0.1363 ppb	14:56:43
3	Zn 213.857†	532.5	34.5	0.8590 µg/L	0.8590 ppb	14:57:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1984399.6	103.90	%	0.456				0.44%
Sc RADIAL	56394.7	103	%	0.4				0.43%
Y 371.029	1360142.9	103.83	%	0.492				0.47%
Ag 328.068†	73.5	0.5881	µg/L	0.10050	0.5881	ppb	0.10050	17.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	42.3	31.542	µg/L	16.4016	31.542	ppb	16.4016	52.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.1319	µg/L	1.30928	-0.1319	ppb	1.30928	992.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.4	2.1851	µg/L	0.50501	2.1851	ppb	0.50501	23.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	28.1	0.7312	µg/L	0.01993	0.7312	ppb	0.01993	2.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	357.6	0.2334	µg/L	0.05362	0.2334	ppb	0.05362	22.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.7	35.543	µg/L	6.9088	35.543	ppb	6.9088	19.44%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	22.1	0.6049	µg/L	0.24471	0.6049	ppb	0.24471	40.45%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0207	µg/L	0.05597	0.0207	ppb	0.05597	270.39%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	56.0	1.2317 µg/L	0.03444	1.2317 ppb	0.03444	2.80%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	130.7	0.9184 µg/L	0.23134	0.9184 ppb	0.23134	25.19%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	4.6	39.296 µg/L	26.5417	39.296 ppb	26.5417	67.54%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	109.3	77.713 µg/L	6.6157	77.713 ppb	6.6157	8.51%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	4.3	40.297 µg/L	30.8602	40.297 ppb	30.8602	76.58%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	137.6	0.4800 µg/L	0.08402	0.4800 ppb	0.08402	17.50%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	9.7	1.0367 µg/L	0.32615	1.0367 ppb	0.32615	31.46%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	197.5	65.022 µg/L	6.2628	65.022 ppb	6.2628	9.63%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-4.6	-0.2531 µg/L	0.26755	-0.2531 ppb	0.26755	105.70%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-2.5	-5.4063 µg/L	13.25932	-5.4063 ppb	13.25932	245.25%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	15.9	4.2482 µg/L	2.04263	4.2482 ppb	2.04263	48.08%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.5	-6.4715 µg/L	13.04721	-6.4715 ppb	13.04721	201.61%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	0.8	0.8057 µg/L	3.21418	0.8057 ppb	3.21418	398.93%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-1.5	-2.2926 µg/L	7.04698	-2.2926 ppb	7.04698	307.37%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-26.4	-5.6898 µg/L	8.00142	-5.6898 ppb	8.00142	140.63%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	43.0	3.5375 µg/L	0.75475	3.5375 ppb	0.75475	21.34%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	5.0	2.3190 µg/L	2.42737	2.3190 ppb	2.42737	104.67%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	46.3	0.4804 µg/L	0.17278	0.4804 ppb	0.17278	35.96%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	146.3	0.3492 µg/L	0.09310	0.3492 ppb	0.09310	26.66%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	2.3	3.2523 µg/L	3.48319	3.2523 ppb	3.48319	107.10%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	8.7	0.7773 µg/L	4.64898	0.7773 ppb	4.64898	598.06%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	34.6	0.3845 µg/L	0.24848	0.3845 ppb	0.24848	64.62%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	39.7	0.9871 µg/L	0.11756	0.9871 ppb	0.11756	11.91%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

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Analysis Begun

Start Time: 2/11/2010 15:08:34 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/11/2010 13:51:13**
IEC File: 011510.iec **MSF File:**
Method Description:

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

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Sequence No.: 1 **Autosampler Location: 113**
Sample ID: LR1 **Date Collected: 2/11/2010 15:08:34**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55775.1	55775.1	102	%			15:09:19
1	Al 396.153Radial†	-12.5	-2.1	-1.5477	µg/L	-1.5477	ppb	15:09:19
1	Ca 317.933Radial†	109.7	-71.8	-67.596	µg/L	-67.596	ppb	15:09:39
1	Fe 238.204 Radial†	12.5	-2.2	-18.859	µg/L	-18.859	ppb	15:09:39

1	K 766.490 Radial†	153.1	21.4	15.223 µg/L	15.223 ppb	15:09:19
1	Mg 279.077 IEC†	21.3	9.6	89.132 µg/L	89.132 ppb	15:09:39
1	Na 589.592 Radial†	561.6	7.7	2.5239 µg/L	2.5239 ppb	15:09:19
1	Sr 421.552†	60.6	19.8	0.2050 µg/L	0.2050 ppb	15:09:19
1	Sc 361.383	1979575.8	1979575.8	103.65 %		15:10:41
1	Y 371.029	1359463.7	1359463.7	103.78 %		15:10:41
1	Ag 328.068†	-475.7	105.6	0.7790 µg/L	0.7790 ppb	15:10:47
1	As 188.979†	3.5	2.2	4.2811 µg/L	4.2811 ppb	15:11:08
1	B 249.677†	236.6	-103.2	-4.4890 µg/L	-4.4890 ppb	15:10:47
1	Ba 233.527†	-43.0	-15.5	-0.4185 µg/L	-0.4185 ppb	15:11:08
1	Be 313.107†	-9167.3	-5403.9	-3.5311 µg/L	-3.5311 ppb	15:10:47
1	Cd 226.502†	-304.4	-151.6	-4.1785 µg/L	-4.1785 ppb	15:11:08
1	Co 228.616†	19.8	27.9	1.3617 µg/L	1.3617 ppb	15:11:08
1	Cr 267.716†	233.0	277.1	6.0903 µg/L	6.0903 ppb	15:10:47
1	Cu 324.752†	1310.7	-1221.6	-8.5355 µg/L	-8.5355 ppb	15:10:47
1	Mn 257.610†	14.0	257.6	0.8861 µg/L	0.8861 ppb	15:10:47
1	Mo 202.031†	-13.4	-5.4	-0.5763 µg/L	-0.5763 ppb	15:11:08
1	Ni 231.604†	324.2	10.6	0.5789 µg/L	0.5789 ppb	15:11:08
1	P 214.914†	39.4	10.4	23.307 µg/L	23.307 ppb	15:11:08
1	Pb 220.353†	132.9	31.0	-2.3589 µg/L	-2.3589 ppb	15:11:08
1	S 181.975 Axial†	17.0	1.6	6.9914 µg/L	6.9914 ppb	15:11:08
1	Sb 206.836†	24.0	-3.8	-3.8211 µg/L	-3.8211 ppb	15:11:08
1	Se 196.026†	11.2	-5.0	-7.7508 µg/L	-7.7508 ppb	15:11:08
1	SiO2†	1260.6	-33.8	-7.2860 µg/L	-7.2860 ppb	15:10:47
1	Si 251.611†	175.4	-143.6	-11.809 µg/L	-11.809 ppb	15:11:08
1	Sn 189.927†	6.2	6.9	3.1737 µg/L	3.1737 ppb	15:11:08
1	Ti 334.940†	2413.3	2212.1	5.3130 µg/L	5.3130 ppb	15:10:47
1	Tl 190.801†	-31.2	-5.9	4.3972 µg/L	4.3972 ppb	15:11:08
1	U 409.014†	117155.1	113081.6	10238 µg/L	10238 ppb	15:10:41
1	V 292.402†	-897.2	-821.4	1.8907 µg/L	1.8907 ppb	15:10:47
1	Zn 213.857†	499.8	6.6	0.1728 µg/L	0.1728 ppb	15:11:08
2	Sc RADIAL	55251.0	55251.0	101 %		15:09:44
2	Al 396.153Radial†	-27.7	-17.2	-12.820 µg/L	-12.820 ppb	15:09:44
2	Ca 317.933Radial†	107.7	-72.8	-68.561 µg/L	-68.561 ppb	15:10:05
2	Fe 238.204 Radial†	14.6	-0.1	-0.7560 µg/L	-0.7560 ppb	15:10:05
2	K 766.490 Radial†	163.9	33.5	23.798 µg/L	23.798 ppb	15:09:44
2	Mg 279.077 IEC†	21.5	10.0	92.921 µg/L	92.921 ppb	15:10:05
2	Na 589.592 Radial†	549.7	1.1	0.3683 µg/L	0.3683 ppb	15:09:44
2	Sr 421.552†	65.4	25.1	0.2600 µg/L	0.2600 ppb	15:09:44
2	Sc 361.383	1991488.7	1991488.7	104.28 %		15:11:14
2	Y 371.029	1367480.0	1367480.0	104.39 %		15:11:14
2	Ag 328.068†	-460.8	122.6	0.9153 µg/L	0.9153 ppb	15:11:20
2	As 188.979†	3.4	2.1	4.1976 µg/L	4.1976 ppb	15:11:40
2	B 249.677†	245.3	-96.3	-4.1987 µg/L	-4.1987 ppb	15:11:20
2	Ba 233.527†	-30.4	-3.2	-0.0984 µg/L	-0.0984 ppb	15:11:40
2	Be 313.107†	-9053.1	-5241.5	-3.4251 µg/L	-3.4251 ppb	15:11:20
2	Cd 226.502†	-307.5	-152.7	-4.2119 µg/L	-4.2119 ppb	15:11:40
2	Co 228.616†	2.2	10.9	0.5250 µg/L	0.5250 ppb	15:11:40
2	Cr 267.716†	184.1	229.0	5.0309 µg/L	5.0309 ppb	15:11:20
2	Cu 324.752†	1378.2	-1164.4	-8.1337 µg/L	-8.1337 ppb	15:11:20
2	Mn 257.610†	56.5	298.3	1.0291 µg/L	1.0291 ppb	15:11:20
2	Mo 202.031†	-9.4	-1.5	-0.1584 µg/L	-0.1584 ppb	15:11:40
2	Ni 231.604†	337.2	21.2	1.1562 µg/L	1.1562 ppb	15:11:40
2	P 214.914†	47.1	17.5	38.462 µg/L	38.462 ppb	15:11:40
2	Pb 220.353†	140.3	37.4	-0.6060 µg/L	-0.6060 ppb	15:11:40
2	S 181.975 Axial†	16.6	1.1	4.9128 µg/L	4.9128 ppb	15:11:40
2	Sb 206.836†	18.1	-9.6	-9.5490 µg/L	-9.5490 ppb	15:11:40
2	Se 196.026†	12.7	-3.7	-5.6705 µg/L	-5.6705 ppb	15:11:40
2	SiO2†	1277.1	-25.3	-5.4423 µg/L	-5.4423 ppb	15:11:20
2	Si 251.611†	186.7	-133.8	-10.999 µg/L	-10.999 ppb	15:11:40
2	Sn 189.927†	5.7	6.3	2.9120 µg/L	2.9120 ppb	15:11:40
2	Ti 334.940†	2507.4	2288.5	5.4964 µg/L	5.4964 ppb	15:11:20
2	Tl 190.801†	-28.7	-3.2	8.0207 µg/L	8.0207 ppb	15:11:40
2	U 409.014†	117240.7	112487.6	10184 µg/L	10184 ppb	15:11:14
2	V 292.402†	-895.5	-814.6	1.9102 µg/L	1.9102 ppb	15:11:20
2	Zn 213.857†	510.6	14.1	0.3551 µg/L	0.3551 ppb	15:11:40
3	Sc RADIAL	56112.5	56112.5	103 %		15:10:10
3	Al 396.153Radial†	-19.4	-8.8	-6.5548 µg/L	-6.5548 ppb	15:10:10
3	Ca 317.933Radial†	114.8	-67.5	-63.545 µg/L	-63.545 ppb	15:10:31
3	Fe 238.204 Radial†	16.7	1.7	14.838 µg/L	14.838 ppb	15:10:31
3	K 766.490 Radial†	156.5	23.8	16.907 µg/L	16.907 ppb	15:10:10

3	Mg 279.077 IEC†	18.3	6.5	60.273 µg/L	60.273 ppb	15:10:31
3	Na 589.592 Radial†	544.2	-12.6	-4.1463 µg/L	-4.1463 ppb	15:10:10
3	Sr 421.552†	60.1	18.9	0.1962 µg/L	0.1962 ppb	15:10:10
3	Sc 361.383	1998454.5	1998454.5	104.64 %		15:11:47
3	Y 371.029	1371253.2	1371253.2	104.68 %		15:11:47
3	Ag 328.068†	-504.4	82.5	0.6071 µg/L	0.6071 ppb	15:11:53
3	As 188.979†	2.1	0.9	1.6782 µg/L	1.6782 ppb	15:12:13
3	B 249.677†	284.2	-59.9	-2.6163 µg/L	-2.6163 ppb	15:11:53
3	Ba 233.527†	-15.1	11.6	0.2883 µg/L	0.2883 ppb	15:12:13
3	Be 313.107†	-8272.3	-4465.0	-2.9180 µg/L	-2.9180 ppb	15:11:53
3	Cd 226.502†	-264.9	-111.0	-3.0636 µg/L	-3.0636 ppb	15:12:13
3	Co 228.616†	14.5	22.7	1.1081 µg/L	1.1081 ppb	15:12:13
3	Cr 267.716†	231.8	273.9	6.0206 µg/L	6.0206 ppb	15:11:53
3	Cu 324.752†	1499.3	-1053.3	-7.3552 µg/L	-7.3552 ppb	15:11:53
3	Mn 257.610†	138.5	376.5	1.3032 µg/L	1.3032 ppb	15:11:53
3	Mo 202.031†	-2.6	5.1	0.5398 µg/L	0.5398 ppb	15:12:13
3	Ni 231.604†	337.9	20.7	1.1315 µg/L	1.1315 ppb	15:12:13
3	P 214.914†	49.3	19.5	42.611 µg/L	42.611 ppb	15:12:13
3	Pb 220.353†	138.7	35.4	-0.5823 µg/L	-0.5823 ppb	15:12:13
3	S 181.975 Axial†	15.8	0.3	1.1838 µg/L	1.1838 ppb	15:12:13
3	Sb 206.836†	21.8	-6.1	-6.0924 µg/L	-6.0924 ppb	15:12:13
3	Se 196.026†	12.8	-3.6	-5.5591 µg/L	-5.5591 ppb	15:12:13
3	SiO2†	1308.9	0.8	0.1805 µg/L	0.1805 ppb	15:11:53
3	Si 251.611†	268.0	-56.8	-4.6690 µg/L	-4.6690 ppb	15:12:13
3	Sn 189.927†	4.1	4.8	2.1976 µg/L	2.1976 ppb	15:12:13
3	Ti 334.940†	2521.6	2293.7	5.5115 µg/L	5.5115 ppb	15:11:53
3	Tl 190.801†	-25.5	-0.1	11.785 µg/L	11.785 ppb	15:12:13
3	U 409.014†	111497.5	106607.2	9651.9 µg/L	9651.9 ppb	15:11:47
3	V 292.402†	-762.7	-684.7	2.7514 µg/L	2.7514 ppb	15:11:53
3	Zn 213.857†	523.6	24.8	0.6223 µg/L	0.6223 ppb	15:12:13

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sc 361.383	1989839.7	104.19	%	0.500				0.48%
Sc RADIAL	55712.9	102	%	0.8				0.78%
Y 371.029	1366065.6	104.29	%	0.460				0.44%
Ag 328.068†	103.5	0.7671	µg/L	0.15443	0.7671	ppb	0.15443	20.13%
Al 396.153Radial†	-9.4	-6.9743	µg/L	5.64801	-6.9743	ppb	5.64801	80.98%
As 188.979†	1.7	3.3856	µg/L	1.47930	3.3856	ppb	1.47930	43.69%
B 249.677†	-86.4	-3.7680	µg/L	1.00792	-3.7680	ppb	1.00792	26.75%
Ba 233.527†	-2.4	-0.0762	µg/L	0.35392	-0.0762	ppb	0.35392	464.36%
Be 313.107†	-5036.8	-3.2914	µg/L	0.32768	-3.2914	ppb	0.32768	9.96%
Ca 317.933Radial†	-70.7	-66.567	µg/L	2.6618	-66.567	ppb	2.6618	4.00%
Cd 226.502†	-138.4	-3.8180	µg/L	0.65352	-3.8180	ppb	0.65352	17.12%
Co 228.616†	20.5	0.9983	µg/L	0.42901	0.9983	ppb	0.42901	42.97%
Cr 267.716†	260.0	5.7139	µg/L	0.59254	5.7139	ppb	0.59254	10.37%
Cu 324.752†	-1146.4	-8.0081	µg/L	0.60007	-8.0081	ppb	0.60007	7.49%
Fe 238.204 Radial†	-0.2	-1.5922	µg/L	16.86410	-1.5922	ppb	16.86410	>999.9%
K 766.490 Radial†	26.2	18.643	µg/L	4.5435	18.643	ppb	4.5435	24.37%
Mg 279.077 IEC†	8.7	80.775	µg/L	17.8566	80.775	ppb	17.8566	22.11%
Mn 257.610†	310.8	1.0728	µg/L	0.21196	1.0728	ppb	0.21196	19.76%
Mo 202.031†	-0.6	-0.0649	µg/L	0.56388	-0.0649	ppb	0.56388	868.32%
Na 589.592 Radial†	-1.3	-0.4181	µg/L	3.40391	-0.4181	ppb	3.40391	814.20%
Ni 231.604†	17.5	0.9555	µg/L	0.32641	0.9555	ppb	0.32641	34.16%
P 214.914†	15.8	34.793	µg/L	10.1611	34.793	ppb	10.1611	29.20%
Pb 220.353†	34.6	-1.1824	µg/L	1.01895	-1.1824	ppb	1.01895	86.18%
S 181.975 Axial†	1.0	4.3627	µg/L	2.94264	4.3627	ppb	2.94264	67.45%
Sb 206.836†	-6.5	-6.4875	µg/L	2.88435	-6.4875	ppb	2.88435	44.46%
Se 196.026†	-4.1	-6.3268	µg/L	1.23447	-6.3268	ppb	1.23447	19.51%
SiO2†	-19.4	-4.1826	µg/L	3.88938	-4.1826	ppb	3.88938	92.99%
Si 251.611†	-111.4	-9.1588	µg/L	3.90936	-9.1588	ppb	3.90936	42.68%
Sn 189.927†	6.0	2.7611	µg/L	0.50522	2.7611	ppb	0.50522	18.30%
Sr 421.552†	21.3	0.2204	µg/L	0.03458	0.2204	ppb	0.03458	15.69%
Ti 334.940†	2264.8	5.4403	µg/L	0.11049	5.4403	ppb	0.11049	2.03%
Tl 190.801†	-3.0	8.0675	µg/L	3.69388	8.0675	ppb	3.69388	45.79%
U 409.014†	110725.5	10025	µg/L	324.0	10025	ppb	324.0	3.23%
V 292.402†	-773.6	2.1841	µg/L	0.49139	2.1841	ppb	0.49139	22.50%
Zn 213.857†	15.2	0.3834	µg/L	0.22607	0.3834	ppb	0.22607	58.97%

Sequence No.: 2
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 114
Date Collected: 2/11/2010 15:12:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	53713.3	53713.3	98.4	%			15:12:55
1	Al 396.153Radial†	-16.2	-6.3	-4.7161	µg/L	-4.7161	ppb	15:12:55
1	Ca 317.933Radial†	188.0	11.9	11.198	µg/L	11.198	ppb	15:13:15
1	Fe 238.204 Radial†	4.2	-10.3	23.498	µg/L	23.498	ppb	15:13:15
1	K 766.490 Radial†	165.7	39.9	28.393	µg/L	28.393	ppb	15:12:55
1	Mg 279.077 IEC†	10.1	-1.1	-9.7514	µg/L	-9.7514	ppb	15:13:15
1	Na 589.592 Radial†	614.8	82.8	27.252	µg/L	27.252	ppb	15:12:55
1	Sr 421.552†	64.3	25.8	0.2675	µg/L	0.2675	ppb	15:12:55
1	Sc 361.383	1941418.8	1941418.8	101.65	%			15:14:18
1	Y 371.029	1323859.1	1323859.1	101.06	%			15:14:18
1	Ag 328.068†	-525.2	47.9	0.3781	µg/L	0.3781	ppb	15:14:24
1	As 188.979†	-3.1	-4.2	-8.1869	µg/L	-8.1869	ppb	15:14:45
1	B 249.677†	750.9	407.3	17.845	µg/L	17.845	ppb	15:14:24
1	Ba 233.527†	-16.3	10.0	0.2610	µg/L	0.2610	ppb	15:14:45
1	Be 313.107†	-3458.2	38.5	0.0250	µg/L	0.0250	ppb	15:14:24
1	Cd 226.502†	-114.7	29.2	0.8189	µg/L	0.8189	ppb	15:14:45
1	Co 228.616†	107569.3	105828.5	5208.2	µg/L	5208.2	ppb	15:14:24
1	Cr 267.716†	-25.9	26.9	0.5925	µg/L	0.5925	ppb	15:14:45
1	Cu 324.752†	1814.1	-701.5	-4.9124	µg/L	-4.9124	ppb	15:14:24
1	Mn 257.610†	-161.2	85.5	0.2849	µg/L	0.2849	ppb	15:14:45
1	Mo 202.031†	-1.5	6.0	0.6418	µg/L	0.6418	ppb	15:14:45
1	Ni 231.604†	346.8	39.0	-4.0742	µg/L	-4.0742	ppb	15:14:45
1	P 214.914†	5345.7	5231.1	11233	µg/L	11233	ppb	15:14:24
1	Pb 220.353†	111.4	12.4	3.3090	µg/L	3.3090	ppb	15:14:45
1	S 181.975 Axial†	16.5	1.4	5.9830	µg/L	5.9830	ppb	15:14:45
1	Sb 206.836†	21.7	-5.6	-5.5036	µg/L	-5.5036	ppb	15:14:45
1	Se 196.026†	12.6	-3.4	-5.4894	µg/L	-5.4894	ppb	15:14:45
1	SiO2†	400045.4	392288.3	84482	µg/L	84482	ppb	15:14:18
1	Si 251.611†	483396.1	475220.4	39066	µg/L	39066	ppb	15:14:18
1	Sn 189.927†	3.3	4.1	1.8920	µg/L	1.8920	ppb	15:14:45
1	Ti 334.940†	305.9	184.8	0.4456	µg/L	0.4456	ppb	15:14:24
1	Tl 190.801†	-3.7	20.7	11.360	µg/L	11.360	ppb	15:14:45
1	U 409.014†	25.3	78.5	7.1194	µg/L	7.1194	ppb	15:14:24
1	V 292.402†	5.9	50.0	0.5361	µg/L	0.5361	ppb	15:14:24
1	Zn 213.857†	522.6	38.6	0.9665	µg/L	0.9665	ppb	15:14:45
2	Sc RADIAL	54832.8	54832.8	100	%			15:13:21
2	Al 396.153Radial†	1.7	11.8	8.7929	µg/L	8.7929	ppb	15:13:21
2	Ca 317.933Radial†	190.7	10.6	10.005	µg/L	10.005	ppb	15:13:42
2	Fe 238.204 Radial†	3.0	-11.5	14.135	µg/L	14.135	ppb	15:13:42
2	K 766.490 Radial†	204.4	75.0	53.328	µg/L	53.328	ppb	15:13:21
2	Mg 279.077 IEC†	11.2	-0.1	-0.6600	µg/L	-0.6600	ppb	15:13:42
2	Na 589.592 Radial†	630.7	85.9	28.272	µg/L	28.272	ppb	15:13:21
2	Sr 421.552†	34.5	-5.2	-0.0538	µg/L	-0.0538	ppb	15:13:21
2	Sc 361.383	1946646.9	1946646.9	101.93	%			15:14:51
2	Y 371.029	1327034.0	1327034.0	101.31	%			15:14:51
2	Ag 328.068†	-584.6	-9.0	-0.0733	µg/L	-0.0733	ppb	15:14:57
2	As 188.979†	-0.2	-1.3	-2.6409	µg/L	-2.6409	ppb	15:15:17
2	B 249.677†	783.8	437.5	19.174	µg/L	19.174	ppb	15:14:57
2	Ba 233.527†	-20.0	6.4	0.1666	µg/L	0.1666	ppb	15:15:17
2	Be 313.107†	-3481.4	24.9	0.0161	µg/L	0.0161	ppb	15:14:57
2	Cd 226.502†	-101.1	42.9	1.1972	µg/L	1.1972	ppb	15:15:17
2	Co 228.616†	108800.7	106752.3	5253.6	µg/L	5253.6	ppb	15:14:57
2	Cr 267.716†	-17.5	35.2	0.7745	µg/L	0.7745	ppb	15:15:17
2	Cu 324.752†	1718.5	-800.1	-5.6024	µg/L	-5.6024	ppb	15:14:57
2	Mn 257.610†	-163.9	83.3	0.2757	µg/L	0.2757	ppb	15:15:17
2	Mo 202.031†	-3.8	3.8	0.4036	µg/L	0.4036	ppb	15:15:17
2	Ni 231.604†	346.9	38.2	-4.1724	µg/L	-4.1724	ppb	15:15:17
2	P 214.914†	5358.7	5229.8	11230	µg/L	11230	ppb	15:14:57
2	Pb 220.353†	113.9	14.6	3.8918	µg/L	3.8918	ppb	15:15:17

2	S 181.975 Axial†	13.2	-1.8	-7.9889 µg/L	-7.9889 ppb	15:15:17
2	Sb 206.836†	30.6	3.1	3.0533 µg/L	3.0533 ppb	15:15:17
2	Se 196.026†	12.9	-3.2	-5.1244 µg/L	-5.1244 ppb	15:15:17
2	SiO2†	401576.7	392733.7	84577 µg/L	84577 ppb	15:14:51
2	Si 251.611†	485309.6	475820.6	39115 µg/L	39115 ppb	15:14:51
2	Sn 189.927†	3.1	3.9	1.7899 µg/L	1.7899 ppb	15:15:17
2	Ti 334.940†	323.3	201.1	0.4839 µg/L	0.4839 ppb	15:14:57
2	Tl 190.801†	-4.0	20.4	10.781 µg/L	10.781 ppb	15:15:17
2	U 409.014†	85.0	137.0	12.417 µg/L	12.417 ppb	15:14:57
2	V 292.402†	14.9	58.8	0.6334 µg/L	0.6334 ppb	15:14:57
2	Zn 213.857†	510.4	25.2	0.6333 µg/L	0.6333 ppb	15:15:17
3	Sc RADIAL	54620.7	54620.7	100 %		15:13:47
3	Al 396.153Radial†	15.7	25.8	19.227 µg/L	19.227 ppb	15:13:47
3	Ca 317.933Radial†	200.8	21.5	20.218 µg/L	20.218 ppb	15:14:07
3	Fe 238.204 Radial†	4.8	-9.7	21.721 µg/L	21.721 ppb	15:14:07
3	K 766.490 Radial†	161.9	33.3	23.669 µg/L	23.669 ppb	15:13:47
3	Mg 279.077 IEC†	10.5	-0.8	-6.9228 µg/L	-6.9228 ppb	15:14:07
3	Na 589.592 Radial†	616.0	73.6	24.220 µg/L	24.220 ppb	15:13:47
3	Sr 421.552†	73.7	34.1	0.3532 µg/L	0.3532 ppb	15:13:47
3	Sc 361.383	1935972.8	1935972.8	101.37 %		15:15:24
3	Y 371.029	1321116.1	1321116.1	100.85 %		15:15:24
3	Ag 328.068†	-522.4	49.2	0.3871 µg/L	0.3871 ppb	15:15:29
3	As 188.979†	-0.6	-1.7	-3.3886 µg/L	-3.3886 ppb	15:15:50
3	B 249.677†	727.0	385.8	16.903 µg/L	16.903 ppb	15:15:29
3	Ba 233.527†	-11.4	14.8	0.3862 µg/L	0.3862 ppb	15:15:50
3	Be 313.107†	-3553.1	-64.7	-0.0425 µg/L	-0.0425 ppb	15:15:29
3	Cd 226.502†	-114.3	29.4	0.8217 µg/L	0.8217 ppb	15:15:50
3	Co 228.616†	100765.6	99414.3	4892.5 µg/L	4892.5 ppb	15:15:29
3	Cr 267.716†	-15.7	36.9	0.8110 µg/L	0.8110 ppb	15:15:50
3	Cu 324.752†	1744.4	-765.3	-5.3569 µg/L	-5.3569 ppb	15:15:29
3	Mn 257.610†	-168.6	77.8	0.2588 µg/L	0.2588 ppb	15:15:50
3	Mo 202.031†	0.8	8.3	0.8836 µg/L	0.8836 ppb	15:15:50
3	Ni 231.604†	347.2	40.4	-3.6217 µg/L	-3.6217 ppb	15:15:50
3	P 214.914†	4995.9	4900.9	10524 µg/L	10524 ppb	15:15:29
3	Pb 220.353†	111.9	13.2	3.5300 µg/L	3.5300 ppb	15:15:50
3	S 181.975 Axial†	14.6	-0.4	-1.9121 µg/L	-1.9121 ppb	15:15:50
3	Sb 206.836†	26.4	-0.9	-0.9265 µg/L	-0.9265 ppb	15:15:50
3	Se 196.026†	6.2	-9.7	-15.059 µg/L	-15.059 ppb	15:15:50
3	SiO2†	389837.5	383325.3	82551 µg/L	82551 ppb	15:15:24
3	Si 251.611†	470845.5	464176.9	38158 µg/L	38158 ppb	15:15:24
3	Sn 189.927†	2.7	3.6	1.6476 µg/L	1.6476 ppb	15:15:50
3	Ti 334.940†	325.3	204.8	0.4935 µg/L	0.4935 ppb	15:15:29
3	Tl 190.801†	-3.6	20.7	12.467 µg/L	12.467 ppb	15:15:50
3	U 409.014†	27.1	80.3	7.2810 µg/L	7.2810 ppb	15:15:29
3	V 292.402†	-16.9	27.5	0.3000 µg/L	0.3000 ppb	15:15:29
3	Zn 213.857†	508.1	25.7	0.6443 µg/L	0.6443 ppb	15:15:50

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1941346.1	101.65	%	0.279				0.27%
Sc RADIAL	54388.9	99.7	%	1.09				1.09%
Y 371.029	1324003.1	101.08	%	0.226				0.22%
Ag 328.068†	29.4	0.2306	µg/L	0.26325	0.2306	ppb	0.26325	114.16%
Al 396.153Radial†	10.4	7.7681	µg/L	12.00458	7.7681	ppb	12.00458	154.54%
As 188.979†	-2.4	-4.7388	µg/L	3.00947	-4.7388	ppb	3.00947	63.51%
B 249.677†	410.2	17.974	µg/L	1.1410	17.974	ppb	1.1410	6.35%
Ba 233.527†	10.4	0.2713	µg/L	0.11018	0.2713	ppb	0.11018	40.61%
Be 313.107†	-0.4	-0.0005	µg/L	0.03663	-0.0005	ppb	0.03663	>999.9%
Ca 317.933Radial†	14.7	13.807	µg/L	5.5841	13.807	ppb	5.5841	40.44%
Cd 226.502†	33.8	0.9459	µg/L	0.21761	0.9459	ppb	0.21761	23.01%
Co 228.616†	103998.4	5118.1	µg/L	196.69	5118.1	ppb	196.69	3.84%
Cr 267.716†	33.0	0.7260	µg/L	0.11700	0.7260	ppb	0.11700	16.12%
Cu 324.752†	-755.6	-5.2906	µg/L	0.34975	-5.2906	ppb	0.34975	6.61%
Fe 238.204 Radial†	-10.5	19.785	µg/L	4.9725	19.785	ppb	4.9725	25.13%
K 766.490 Radial†	49.4	35.130	µg/L	15.9357	35.130	ppb	15.9357	45.36%
Mg 279.077 IEC†	-0.6	-5.7780	µg/L	4.65251	-5.7780	ppb	4.65251	80.52%
Mn 257.610†	82.2	0.2731	µg/L	0.01325	0.2731	ppb	0.01325	4.85%
Mo 202.031†	6.1	0.6430	µg/L	0.24004	0.6430	ppb	0.24004	37.33%
Na 589.592 Radial†	80.7	26.581	µg/L	2.1079	26.581	ppb	2.1079	7.93%

Ni 231.604†	39.2	-3.9561 µg/L	0.29375	-3.9561 ppb	0.29375	7.43%
P 214.914†	5120.6	10995 µg/L	408.6	10995 ppb	408.6	3.72%
Pb 220.353†	13.4	3.5769 µg/L	0.29424	3.5769 ppb	0.29424	8.23%
S 181.975 Axial†	-0.3	-1.3060 µg/L	7.00565	-1.3060 ppb	7.00565	536.41%
Sb 206.836†	-1.1	-1.1256 µg/L	4.28189	-1.1256 ppb	4.28189	380.41%
Se 196.026†	-5.5	-8.5576 µg/L	5.63334	-8.5576 ppb	5.63334	65.83%
SiO2†	389449.1	83870 µg/L	1143.1	83870 ppb	1143.1	1.36%
Si 251.611†	471739.3	38779 µg/L	538.9	38779 ppb	538.9	1.39%
Sn 189.927†	3.8	1.7765 µg/L	0.12277	1.7765 ppb	0.12277	6.91%
Sr 421.552†	18.2	0.1890 µg/L	0.21456	0.1890 ppb	0.21456	113.55%
Ti 334.940†	196.9	0.4743 µg/L	0.02534	0.4743 ppb	0.02534	5.34%
Tl 190.801†	20.6	11.536 µg/L	0.8566	11.536 ppb	0.8566	7.43%
U 409.014†	98.6	8.9390 µg/L	3.01276	8.9390 ppb	3.01276	33.70%
V 292.402†	45.5	0.4899 µg/L	0.17143	0.4899 ppb	0.17143	35.00%
Zn 213.857†	29.8	0.7480 µg/L	0.18929	0.7480 ppb	0.18929	25.31%

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:15:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	54231.5	54231.5	99.4	%			15:16:36
1	Al 396.153Radial†	7106.2	7161.2	5326.1	µg/L	5326.1	ppb	15:16:36
1	Ca 317.933Radial†	5688.9	5545.7	5221.6	µg/L	5221.6	ppb	15:16:56
1	Fe 238.204 Radial†	634.7	624.2	5302.1	µg/L	5302.1	ppb	15:16:56
1	K 766.490 Radial†	7456.0	7374.7	5241.9	µg/L	5241.9	ppb	15:16:36
1	Mg 279.077 IEC†	577.6	570.0	5308.0	µg/L	5308.0	ppb	15:16:56
1	Na 589.592 Radial†	32401.3	32064.3	10556	µg/L	10556	ppb	15:16:36
1	Sr 421.552†	50354.2	50633.0	524.87	µg/L	524.87	ppb	15:16:36
1	Sc 361.383	1899310.9	1899310.9	99.449	%			15:17:59
1	Y 371.029	1297484.4	1297484.4	99.051	%			15:17:59
1	Ag 328.068†	65095.3	66020.7	527.69	µg/L	527.69	ppb	15:18:05
1	As 188.979†	283.8	284.2	554.43	µg/L	554.43	ppb	15:18:26
1	B 249.677†	12153.8	11889.7	517.70	µg/L	517.70	ppb	15:18:05
1	Ba 233.527†	20078.6	20215.9	527.34	µg/L	527.34	ppb	15:18:05
1	Be 313.107†	797857.7	805721.3	525.98	µg/L	525.98	ppb	15:17:59
1	Cd 226.502†	18953.5	19200.7	529.65	µg/L	529.65	ppb	15:18:05
1	Co 228.616†	10779.9	10848.5	533.28	µg/L	533.28	ppb	15:18:05
1	Cr 267.716†	24091.2	24277.1	534.33	µg/L	534.33	ppb	15:18:05
1	Cu 324.752†	77848.6	75794.1	530.18	µg/L	530.18	ppb	15:18:05
1	Mn 257.610†	153606.0	154701.7	536.20	µg/L	536.20	ppb	15:17:59
1	Mo 202.031†	5175.2	5211.4	556.37	µg/L	556.37	ppb	15:18:26
1	Ni 231.604†	10008.1	9761.4	533.14	µg/L	533.14	ppb	15:18:05
1	P 214.914†	1295.2	1274.7	2686.7	µg/L	2686.7	ppb	15:18:26
1	Pb 220.353†	2124.5	2039.1	544.31	µg/L	544.31	ppb	15:18:26
1	S 181.975 Axial†	260.7	247.3	1083.6	µg/L	1083.6	ppb	15:18:26
1	Sb 206.836†	587.4	563.7	557.41	µg/L	557.41	ppb	15:18:26
1	Se 196.026†	370.9	357.1	552.71	µg/L	552.71	ppb	15:18:26
1	SiO2†	27461.3	26363.5	5677.5	µg/L	5677.5	ppb	15:18:05
1	Si 251.611†	32393.9	32260.7	2652.0	µg/L	2652.0	ppb	15:18:05
1	Sn 189.927†	1213.6	1221.2	561.69	µg/L	561.69	ppb	15:18:26
1	Ti 334.940†	219433.8	220534.1	530.14	µg/L	530.14	ppb	15:17:59
1	Tl 190.801†	358.1	384.4	542.92	µg/L	542.92	ppb	15:18:26
1	U 409.014†	5858.6	5944.7	537.16	µg/L	537.16	ppb	15:18:05
1	V 292.402†	49239.4	49556.6	534.84	µg/L	534.84	ppb	15:18:05
1	Zn 213.857†	21646.0	21290.4	527.88	µg/L	527.88	ppb	15:18:05
2	Sc RADIAL	54850.6	54850.6	101	%			15:17:02
2	Al 396.153Radial†	7137.6	7111.8	5289.4	µg/L	5289.4	ppb	15:17:02
2	Ca 317.933Radial†	5661.7	5454.1	5135.3	µg/L	5135.3	ppb	15:17:22
2	Fe 238.204 Radial†	627.5	609.8	5179.7	µg/L	5179.7	ppb	15:17:22
2	K 766.490 Radial†	7509.6	7343.3	5219.6	µg/L	5219.6	ppb	15:17:02
2	Mg 279.077 IEC†	583.7	569.5	5303.7	µg/L	5303.7	ppb	15:17:22
2	Na 589.592 Radial†	32499.9	31794.4	10467	µg/L	10467	ppb	15:17:02
2	Sr 421.552†	50507.4	50213.6	520.52	µg/L	520.52	ppb	15:17:02
2	Sc 361.383	1912998.8	1912998.8	100.17	%			15:18:33
2	Y 371.029	1306161.3	1306161.3	99.713	%			15:18:33
2	Ag 328.068†	65237.5	65694.3	525.07	µg/L	525.07	ppb	15:18:38
2	As 188.979†	280.6	279.0	544.24	µg/L	544.24	ppb	15:18:59
2	B 249.677†	12200.8	11849.2	515.98	µg/L	515.98	ppb	15:18:38
2	Ba 233.527†	20133.5	20126.3	525.01	µg/L	525.01	ppb	15:18:38
2	Be 313.107†	793302.5	795433.1	519.26	µg/L	519.26	ppb	15:18:33
2	Cd 226.502†	18921.4	19032.3	525.02	µg/L	525.02	ppb	15:18:38
2	Co 228.616†	10784.1	10775.1	529.68	µg/L	529.68	ppb	15:18:38
2	Cr 267.716†	24047.5	24060.2	529.56	µg/L	529.56	ppb	15:18:38
2	Cu 324.752†	77783.7	75169.2	525.79	µg/L	525.79	ppb	15:18:38
2	Mn 257.610†	152510.0	152502.3	528.57	µg/L	528.57	ppb	15:18:33
2	Mo 202.031†	5149.2	5148.2	549.62	µg/L	549.62	ppb	15:18:59
2	Ni 231.604†	10009.6	9690.9	529.28	µg/L	529.28	ppb	15:18:38
2	P 214.914†	1298.8	1269.0	2674.9	µg/L	2674.9	ppb	15:18:59
2	Pb 220.353†	2130.1	2029.4	541.73	µg/L	541.73	ppb	15:18:59

2	S 181.975 Axial†	263.5	248.2	1087.5 µg/L	1087.5 ppb	15:18:59
2	Sb 206.836†	579.7	551.8	545.70 µg/L	545.70 ppb	15:18:59
2	Se 196.026†	360.4	343.9	532.32 µg/L	532.32 ppb	15:18:59
2	SiO2†	27531.6	26236.1	5650.1 µg/L	5650.1 ppb	15:18:38
2	Si 251.611†	32505.0	32138.5	2641.9 µg/L	2641.9 ppb	15:18:38
2	Sn 189.927†	1205.3	1204.2	553.89 µg/L	553.89 ppb	15:18:59
2	Ti 334.940†	218053.7	217577.6	523.03 µg/L	523.03 ppb	15:18:33
2	Tl 190.801†	351.0	374.7	529.24 µg/L	529.24 ppb	15:18:59
2	U 409.014†	5767.6	5811.7	525.14 µg/L	525.14 ppb	15:18:38
2	V 292.402†	49305.2	49268.0	531.68 µg/L	531.68 ppb	15:18:38
2	Zn 213.857†	21685.0	21173.7	524.99 µg/L	524.99 ppb	15:18:38
3	Sc RADIAL	55041.7	55041.7	101 %		15:17:27
3	Al 396.153Radial†	7150.5	7100.0	5282.4 µg/L	5282.4 ppb	15:17:27
3	Ca 317.933Radial†	5679.0	5451.7	5133.1 µg/L	5133.1 ppb	15:17:48
3	Fe 238.204 Radial†	630.1	610.3	5182.9 µg/L	5182.9 ppb	15:17:48
3	K 766.490 Radial†	7530.7	7338.3	5216.0 µg/L	5216.0 ppb	15:17:27
3	Mg 279.077 IEC†	585.8	569.6	5302.7 µg/L	5302.7 ppb	15:17:48
3	Na 589.592 Radial†	32646.4	31827.3	10478 µg/L	10478 ppb	15:17:27
3	Sr 421.552†	50673.8	50204.0	520.42 µg/L	520.42 ppb	15:17:27
3	Sc 361.383	1908268.1	1908268.1	99.918 %		15:19:06
3	Y 371.029	1302480.0	1302480.0	99.432 %		15:19:06
3	Ag 328.068†	61722.8	62338.2	498.13 µg/L	498.13 ppb	15:19:11
3	As 188.979†	239.2	238.3	464.88 µg/L	464.88 ppb	15:19:32
3	B 249.677†	11534.0	11212.0	488.05 µg/L	488.05 ppb	15:19:11
3	Ba 233.527†	18616.9	18658.3	486.70 µg/L	486.70 ppb	15:19:11
3	Be 313.107†	758183.0	762248.0	497.60 µg/L	497.60 ppb	15:19:06
3	Cd 226.502†	17482.4	17638.9	486.53 µg/L	486.53 ppb	15:19:11
3	Co 228.616†	9936.5	9953.5	489.22 µg/L	489.22 ppb	15:19:11
3	Cr 267.716†	21502.9	21573.0	474.82 µg/L	474.82 ppb	15:19:11
3	Cu 324.752†	71603.1	69176.0	483.93 µg/L	483.93 ppb	15:19:11
3	Mn 257.610†	146044.9	146409.3	507.47 µg/L	507.47 ppb	15:19:06
3	Mo 202.031†	4268.9	4280.0	456.96 µg/L	456.96 ppb	15:19:32
3	Ni 231.604†	9195.7	8901.1	486.15 µg/L	486.15 ppb	15:19:11
3	P 214.914†	1105.2	1078.5	2268.7 µg/L	2268.7 ppb	15:19:32
3	Pb 220.353†	1828.3	1732.6	462.41 µg/L	462.41 ppb	15:19:32
3	S 181.975 Axial†	232.1	217.5	952.80 µg/L	952.80 ppb	15:19:32
3	Sb 206.836†	493.7	467.1	461.46 µg/L	461.46 ppb	15:19:32
3	Se 196.026†	316.9	301.3	467.33 µg/L	467.33 ppb	15:19:32
3	SiO2†	25842.8	24614.0	5300.8 µg/L	5300.8 ppb	15:19:11
3	Si 251.611†	30435.2	30147.4	2478.3 µg/L	2478.3 ppb	15:19:11
3	Sn 189.927†	977.2	978.9	450.28 µg/L	450.28 ppb	15:19:32
3	Ti 334.940†	207237.8	207292.4	498.29 µg/L	498.29 ppb	15:19:06
3	Tl 190.801†	318.0	342.6	484.22 µg/L	484.22 ppb	15:19:32
3	U 409.014†	5210.6	5268.5	475.96 µg/L	475.96 ppb	15:19:11
3	V 292.402†	44791.7	44872.9	483.94 µg/L	483.94 ppb	15:19:11
3	Zn 213.857†	19890.6	19431.5	481.75 µg/L	481.75 ppb	15:19:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1906859.3	99.844	%	0.3640				0.36%
Sc RADIAL	54707.9	100	%	0.8				0.77%
Y 371.029	1302041.9	99.399	%	0.3325				0.33%
Ag 328.068†	64684.4	516.97	µg/L	16.362	516.97	ppb	16.362	3.16%
QC value within limits for Ag 328.068 Recovery = 103.39%								
Al 396.153Radial†	7124.3	5299.3	µg/L	23.43	5299.3	ppb	23.43	0.44%
QC value within limits for Al 396.153Radial Recovery = 105.99%								
As 188.979†	267.2	521.18	µg/L	49.028	521.18	ppb	49.028	9.41%
QC value within limits for As 188.979 Recovery = 104.24%								
B 249.677†	11650.3	507.24	µg/L	16.645	507.24	ppb	16.645	3.28%
QC value within limits for B 249.677 Recovery = 101.45%								
Ba 233.527†	19666.8	513.02	µg/L	22.823	513.02	ppb	22.823	4.45%
QC value within limits for Ba 233.527 Recovery = 102.60%								
Be 313.107†	787800.8	514.28	µg/L	14.831	514.28	ppb	14.831	2.88%
QC value within limits for Be 313.107 Recovery = 102.86%								
Ca 317.933Radial†	5483.8	5163.4	µg/L	50.50	5163.4	ppb	50.50	0.98%
QC value within limits for Ca 317.933Radial Recovery = 103.27%								
Cd 226.502†	18623.9	513.73	µg/L	23.671	513.73	ppb	23.671	4.61%
QC value within limits for Cd 226.502 Recovery = 102.75%								
Co 228.616†	10525.7	517.39	µg/L	24.470	517.39	ppb	24.470	4.73%

QC value within limits for Co 228.616 Recovery = 103.48%

Cr 267.716†	23303.5	512.91 µg/L	33.067	512.91 ppb	33.067	6.45%
QC value within limits for Cr 267.716 Recovery = 102.58%						
Cu 324.752†	73379.7	513.30 µg/L	25.529	513.30 ppb	25.529	4.97%
QC value within limits for Cu 324.752 Recovery = 102.66%						
Fe 238.204 Radial†	614.8	5221.6 µg/L	69.73	5221.6 ppb	69.73	1.34%
QC value within limits for Fe 238.204 Radial Recovery = 104.43%						
K 766.490 Radial†	7352.1	5225.8 µg/L	14.03	5225.8 ppb	14.03	0.27%
QC value within limits for K 766.490 Radial Recovery = 104.52%						
Mg 279.077 IEC†	569.7	5304.8 µg/L	2.78	5304.8 ppb	2.78	0.05%
QC value within limits for Mg 279.077 IEC Recovery = 106.10%						
Mn 257.610†	151204.4	524.08 µg/L	14.882	524.08 ppb	14.882	2.84%
QC value within limits for Mn 257.610 Recovery = 104.82%						
Mo 202.031†	4879.9	520.98 µg/L	55.549	520.98 ppb	55.549	10.66%
QC value within limits for Mo 202.031 Recovery = 104.20%						
Na 589.592 Radial†	31895.3	10500 µg/L	48.5	10500 ppb	48.5	0.46%
QC value within limits for Na 589.592 Radial Recovery = 105.00%						
Ni 231.604†	9451.1	516.19 µg/L	26.085	516.19 ppb	26.085	5.05%
QC value within limits for Ni 231.604 Recovery = 103.24%						
P 214.914†	1207.4	2543.4 µg/L	237.97	2543.4 ppb	237.97	9.36%
QC value within limits for P 214.914 Recovery = 101.74%						
Pb 220.353†	1933.7	516.15 µg/L	46.558	516.15 ppb	46.558	9.02%
QC value within limits for Pb 220.353 Recovery = 103.23%						
S 181.975 Axial†	237.7	1041.3 µg/L	76.67	1041.3 ppb	76.67	7.36%
QC value within limits for S 181.975 Axial Recovery = 104.13%						
Sb 206.836†	527.5	521.52 µg/L	52.346	521.52 ppb	52.346	10.04%
QC value within limits for Sb 206.836 Recovery = 104.30%						
Se 196.026†	334.1	517.45 µg/L	44.586	517.45 ppb	44.586	8.62%
QC value within limits for Se 196.026 Recovery = 103.49%						
SiO2†	25737.9	5542.8 µg/L	210.05	5542.8 ppb	210.05	3.79%
QC value within limits for SiO2 Recovery = 103.65%						
Si 251.611†	31515.5	2590.7 µg/L	97.53	2590.7 ppb	97.53	3.76%
QC value within limits for Si 251.611 Recovery = 103.63%						
Sn 189.927†	1134.8	521.95 µg/L	62.194	521.95 ppb	62.194	11.92%
QC value within limits for Sn 189.927 Recovery = 104.39%						
Sr 421.552†	50350.2	521.94 µg/L	2.539	521.94 ppb	2.539	0.49%
QC value within limits for Sr 421.552 Recovery = 104.39%						
Ti 334.940†	215134.7	517.15 µg/L	16.720	517.15 ppb	16.720	3.23%
QC value within limits for Ti 334.940 Recovery = 103.43%						
Tl 190.801†	367.2	518.79 µg/L	30.715	518.79 ppb	30.715	5.92%
QC value within limits for Tl 190.801 Recovery = 103.76%						
U 409.014†	5675.0	512.76 µg/L	32.426	512.76 ppb	32.426	6.32%
QC value within limits for U 409.014 Recovery = 102.55%						
V 292.402†	47899.1	516.82 µg/L	28.516	516.82 ppb	28.516	5.52%
QC value within limits for V 292.402 Recovery = 103.36%						
Zn 213.857†	20631.8	511.54 µg/L	25.841	511.54 ppb	25.841	5.05%
QC value within limits for Zn 213.857 Recovery = 102.31%						

All analyte(s) passed QC.

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 15:19:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	53966.4	53966.4	98.9	%			15:20:14
1	Al 396.153Radial†	-26.0	-16.1	-12.005	µg/L	-12.005	ppb	15:20:14
1	Ca 317.933Radial†	184.6	7.5	7.0536	µg/L	7.0536	ppb	15:20:34
1	Fe 238.204 Radial†	14.2	-0.1	-0.8468	µg/L	-0.8468	ppb	15:20:34
1	K 766.490 Radial†	181.9	55.5	39.479	µg/L	39.479	ppb	15:20:14
1	Mg 279.077 IEC†	12.1	1.0	9.1967	µg/L	9.1967	ppb	15:20:34
1	Na 589.592 Radial†	657.2	122.7	40.408	µg/L	40.408	ppb	15:20:14
1	Sr 421.552†	65.1	26.3	0.2722	µg/L	0.2722	ppb	15:20:14
1	Sc 361.383	1911106.6	1911106.6	100.07	%			15:21:36
1	Y 371.029	1309549.6	1309549.6	99.972	%			15:21:36
1	Ag 328.068†	-559.4	5.5	0.0442	µg/L	0.0442	ppb	15:21:42
1	As 188.979†	-3.0	-4.1	-8.0395	µg/L	-8.0395	ppb	15:22:02
1	B 249.677†	346.9	15.2	0.6669	µg/L	0.6669	ppb	15:22:02
1	Ba 233.527†	-26.7	-0.7	-0.0185	µg/L	-0.0185	ppb	15:22:02
1	Be 313.107†	-3454.2	-11.4	-0.0075	µg/L	-0.0075	ppb	15:21:42
1	Cd 226.502†	-139.0	3.2	0.0893	µg/L	0.0893	ppb	15:22:02
1	Co 228.616†	-9.2	-0.3	-0.0170	µg/L	-0.0170	ppb	15:22:02
1	Cr 267.716†	-37.5	14.9	0.3282	µg/L	0.3282	ppb	15:21:42
1	Cu 324.752†	2557.0	69.2	0.4835	µg/L	0.4835	ppb	15:21:42
1	Mn 257.610†	-212.1	32.2	0.1110	µg/L	0.1110	ppb	15:22:02
1	Mo 202.031†	-8.5	-0.9	-0.1000	µg/L	-0.1000	ppb	15:22:02
1	Ni 231.604†	310.7	8.3	0.4558	µg/L	0.4558	ppb	15:22:02
1	P 214.914†	28.4	0.8	1.6386	µg/L	1.6386	ppb	15:22:02
1	Pb 220.353†	104.0	6.7	1.8057	µg/L	1.8057	ppb	15:22:02
1	S 181.975 Axial†	16.5	1.7	7.4394	µg/L	7.4394	ppb	15:22:02
1	Sb 206.836†	29.0	2.0	1.9993	µg/L	1.9993	ppb	15:22:02
1	Se 196.026†	21.9	6.0	9.1749	µg/L	9.1749	ppb	15:22:02
1	SiO2†	1293.6	42.7	9.2028	µg/L	9.2028	ppb	15:21:42
1	Si 251.611†	353.1	40.0	3.2887	µg/L	3.2887	ppb	15:22:02
1	Sn 189.927†	4.9	5.8	2.6719	µg/L	2.6719	ppb	15:22:02
1	Ti 334.940†	159.7	43.4	0.1039	µg/L	0.1039	ppb	15:21:42
1	Tl 190.801†	-23.8	0.5	0.6768	µg/L	0.6768	ppb	15:22:02
1	U 409.014†	-184.4	-130.7	-11.830	µg/L	-11.830	ppb	15:21:42
1	V 292.402†	-35.9	8.3	0.0760	µg/L	0.0760	ppb	15:21:42
1	Zn 213.857†	494.3	18.4	0.4572	µg/L	0.4572	ppb	15:22:02
2	Sc RADIAL	54869.8	54869.8	101	%			15:20:40
2	Al 396.153Radial†	13.7	23.8	17.738	µg/L	17.738	ppb	15:20:40
2	Ca 317.933Radial†	187.7	7.5	7.0950	µg/L	7.0950	ppb	15:21:00
2	Fe 238.204 Radial†	15.7	1.1	9.3064	µg/L	9.3064	ppb	15:21:00
2	K 766.490 Radial†	257.4	127.6	90.719	µg/L	90.719	ppb	15:20:40
2	Mg 279.077 IEC†	16.3	4.9	45.809	µg/L	45.809	ppb	15:21:00
2	Na 589.592 Radial†	606.0	60.8	20.024	µg/L	20.024	ppb	15:20:40
2	Sr 421.552†	22.5	-17.2	-0.1781	µg/L	-0.1781	ppb	15:20:40
2	Sc 361.383	1897412.4	1897412.4	99.349	%			15:22:08
2	Y 371.029	1298760.9	1298760.9	99.148	%			15:22:08
2	Ag 328.068†	-542.2	18.8	0.1523	µg/L	0.1523	ppb	15:22:14
2	As 188.979†	-3.1	-4.3	-8.3435	µg/L	-8.3435	ppb	15:22:34
2	B 249.677†	336.8	7.5	0.3241	µg/L	0.3241	ppb	15:22:34
2	Ba 233.527†	-16.5	9.4	0.2467	µg/L	0.2467	ppb	15:22:34
2	Be 313.107†	-3415.0	3.0	0.0019	µg/L	0.0019	ppb	15:22:14
2	Cd 226.502†	-128.8	12.5	0.3432	µg/L	0.3432	ppb	15:22:34
2	Co 228.616†	-5.7	3.1	0.1511	µg/L	0.1511	ppb	15:22:34
2	Cr 267.716†	-15.6	36.7	0.8074	µg/L	0.8074	ppb	15:22:14
2	Cu 324.752†	2549.9	80.5	0.5637	µg/L	0.5637	ppb	15:22:14
2	Mn 257.610†	-177.5	65.4	0.2260	µg/L	0.2260	ppb	15:22:34
2	Mo 202.031†	-7.3	0.2	0.0178	µg/L	0.0178	ppb	15:22:34
2	Ni 231.604†	306.5	6.3	0.3468	µg/L	0.3468	ppb	15:22:34
2	P 214.914†	31.7	4.3	9.0650	µg/L	9.0650	ppb	15:22:34
2	Pb 220.353†	106.2	9.7	2.5827	µg/L	2.5827	ppb	15:22:34

2	S 181.975 Axial†	17.2	2.5	10.929 µg/L	10.929 ppb	15:22:34
2	Sb 206.836†	25.7	-1.1	-1.0721 µg/L	-1.0721 ppb	15:22:34
2	Se 196.026†	18.6	2.9	4.4089 µg/L	4.4089 ppb	15:22:34
2	SiO2†	1247.0	5.2	1.1103 µg/L	1.1103 ppb	15:22:14
2	Si 251.611†	359.1	48.5	3.9904 µg/L	3.9904 ppb	15:22:34
2	Sn 189.927†	-1.6	-0.8	-0.3440 µg/L	-0.3440 ppb	15:22:34
2	Ti 334.940†	171.3	56.3	0.1319 µg/L	0.1319 ppb	15:22:14
2	Tl 190.801†	-21.8	2.3	3.2311 µg/L	3.2311 ppb	15:22:34
2	U 409.014†	-98.3	-45.3	-4.1055 µg/L	-4.1055 ppb	15:22:14
2	V 292.402†	-5.8	38.4	0.4080 µg/L	0.4080 ppb	15:22:14
2	Zn 213.857†	499.6	27.3	0.6761 µg/L	0.6761 ppb	15:22:34
3	Sc RADIAL	54385.0	54385.0	99.7 %		15:21:06
3	Al 396.153Radial†	-13.7	-3.6	-2.7248 µg/L	-2.7248 ppb	15:21:06
3	Ca 317.933Radial†	185.2	6.7	6.3429 µg/L	6.3429 ppb	15:21:26
3	Fe 238.204 Radial†	16.3	1.8	15.415 µg/L	15.415 ppb	15:21:26
3	K 766.490 Radial†	182.4	54.6	38.797 µg/L	38.797 ppb	15:21:06
3	Mg 279.077 IEC†	9.2	-2.0	-18.753 µg/L	-18.753 ppb	15:21:26
3	Na 589.592 Radial†	592.4	52.6	17.324 µg/L	17.324 ppb	15:21:06
3	Sr 421.552†	-3.5	-43.1	-0.4464 µg/L	-0.4464 ppb	15:21:06
3	Sc 361.383	1884488.6	1884488.6	98.673 %		15:22:40
3	Y 371.029	1291927.9	1291927.9	98.627 %		15:22:40
3	Ag 328.068†	-522.7	34.8	0.2806 µg/L	0.2806 ppb	15:22:46
3	As 188.979†	2.4	1.3	2.4649 µg/L	2.4649 ppb	15:23:06
3	B 249.677†	335.7	8.8	0.3768 µg/L	0.3768 ppb	15:23:06
3	Ba 233.527†	-11.8	14.1	0.3676 µg/L	0.3676 ppb	15:23:06
3	Be 313.107†	-3127.8	270.6	0.1766 µg/L	0.1766 ppb	15:22:46
3	Cd 226.502†	-124.4	16.0	0.4414 µg/L	0.4414 ppb	15:23:06
3	Co 228.616†	7.6	16.5	0.8149 µg/L	0.8149 ppb	15:23:06
3	Cr 267.716†	-23.5	28.6	0.6295 µg/L	0.6295 ppb	15:22:46
3	Cu 324.752†	2622.5	171.7	1.2017 µg/L	1.2017 ppb	15:22:46
3	Mn 257.610†	-142.0	100.2	0.3497 µg/L	0.3497 ppb	15:23:06
3	Mo 202.031†	3.2	10.8	1.1512 µg/L	1.1512 ppb	15:23:06
3	Ni 231.604†	306.2	8.2	0.4462 µg/L	0.4462 ppb	15:23:06
3	P 214.914†	29.6	2.4	5.0144 µg/L	5.0144 ppb	15:23:06
3	Pb 220.353†	103.4	7.6	2.0339 µg/L	2.0339 ppb	15:23:06
3	S 181.975 Axial†	18.5	3.9	17.268 µg/L	17.268 ppb	15:23:06
3	Sb 206.836†	29.4	2.8	2.8126 µg/L	2.8126 ppb	15:23:06
3	Se 196.026†	10.8	-4.9	-7.3717 µg/L	-7.3717 ppb	15:23:06
3	SiO2†	1294.7	62.1	13.372 µg/L	13.372 ppb	15:22:46
3	Si 251.611†	373.7	65.9	5.4177 µg/L	5.4177 ppb	15:23:06
3	Sn 189.927†	0.7	1.6	0.7177 µg/L	0.7177 ppb	15:23:06
3	Ti 334.940†	234.9	122.0	0.2950 µg/L	0.2950 ppb	15:22:46
3	Tl 190.801†	-24.9	-0.9	-1.2684 µg/L	-1.2684 ppb	15:23:06
3	U 409.014†	-88.3	-35.9	-3.2543 µg/L	-3.2543 ppb	15:22:46
3	V 292.402†	2.7	46.9	0.5091 µg/L	0.5091 ppb	15:22:46
3	Zn 213.857†	512.3	43.6	1.0859 µg/L	1.0859 ppb	15:23:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1897669.2	99.363	%	0.6970				0.70%
Sc RADIAL	54407.1	99.7	%	0.83				0.83%
Y 371.029	1300079.5	99.249	%	0.6782				0.68%
Ag 328.068†	19.7	0.1590	µg/L	0.11838	0.1590	ppb	0.11838	74.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.4	1.0028	µg/L	15.21758	1.0028	ppb	15.21758	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-4.6394	µg/L	6.15437	-4.6394	ppb	6.15437	132.66%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	10.5	0.4560	µg/L	0.18460	0.4560	ppb	0.18460	40.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1986	µg/L	0.19747	0.1986	ppb	0.19747	99.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	87.4	0.0570	µg/L	0.10368	0.0570	ppb	0.10368	181.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.3	6.8305	µg/L	0.42277	6.8305	ppb	0.42277	6.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.6	0.2913	µg/L	0.18170	0.2913	ppb	0.18170	62.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.4	0.3163	µg/L	0.43987	0.3163	ppb	0.43987	139.05%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	26.7	0.5884 µg/L	0.24227	0.5884 ppb	0.24227	41.18%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	107.2	0.7496 µg/L	0.39354	0.7496 ppb	0.39354	52.50%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	0.9	7.9581 µg/L	8.21418	7.9581 ppb	8.21418	103.22%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	79.3	56.332 µg/L	29.7823	56.332 ppb	29.7823	52.87%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.3	12.084 µg/L	32.3776	12.084 ppb	32.3776	267.93%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	65.9	0.2289 µg/L	0.11938	0.2289 ppb	0.11938	52.15%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	3.3	0.3563 µg/L	0.69086	0.3563 ppb	0.69086	193.88%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	78.7	25.918 µg/L	12.6205	25.918 ppb	12.6205	48.69%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	7.6	0.4162 µg/L	0.06037	0.4162 ppb	0.06037	14.50%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	2.5	5.2393 µg/L	3.71831	5.2393 ppb	3.71831	70.97%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	8.0	2.1408 µg/L	0.39934	2.1408 ppb	0.39934	18.65%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	2.7	11.879 µg/L	4.9829	11.879 ppb	4.9829	41.95%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	1.3	1.2466 µg/L	2.04884	1.2466 ppb	2.04884	164.36%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	1.4	2.0707 µg/L	8.51747	2.0707 ppb	8.51747	411.33%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	36.7	7.8950 µg/L	6.23447	7.8950 ppb	6.23447	78.97%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	51.5	4.2323 µg/L	1.08494	4.2323 ppb	1.08494	25.63%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.2	1.0152 µg/L	1.52977	1.0152 ppb	1.52977	150.68%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-11.3	-0.1174 µg/L	0.36313	-0.1174 ppb	0.36313	309.29%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	73.9	0.1769 µg/L	0.10323	0.1769 ppb	0.10323	58.35%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	0.6	0.8799 µg/L	2.25661	0.8799 ppb	2.25661	256.47%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-70.6	-6.3965 µg/L	4.72449	-6.3965 ppb	4.72449	73.86%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	31.2	0.3310 µg/L	0.22659	0.3310 ppb	0.22659	68.45%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	29.8	0.7397 µg/L	0.31916	0.7397 ppb	0.31916	43.15%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:57:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57410.8	57410.8	105	%			15:58:05
1	Al 396.153Radial†	6675.8	6356.1	4727.0	µg/L	4727.0	ppb	15:58:25
1	Ca 317.933Radial†	5505.2	5054.0	4758.7	µg/L	4758.7	ppb	15:58:25
1	Fe 238.204 Radial†	598.7	554.6	4711.3	µg/L	4711.3	ppb	15:58:25
1	K 766.490 Radial†	7251.0	6764.3	4808.0	µg/L	4808.0	ppb	15:58:05
1	Mg 279.077 IEC†	563.5	524.3	4883.2	µg/L	4883.2	ppb	15:58:25
1	Na 589.592 Radial†	31835.2	29720.5	9784.1	µg/L	9784.1	ppb	15:58:05
1	Sr 421.552†	47847.7	45444.2	471.08	µg/L	471.08	ppb	15:58:05
1	Sc 361.383	1983693.6	1983693.6	103.87	%			15:59:29
1	Y 371.029	1353410.2	1353410.2	103.32	%			15:59:29
1	Ag 328.068†	62797.6	61024.1	487.72	µg/L	487.72	ppb	15:59:34
1	As 188.979†	269.1	257.9	503.15	µg/L	503.15	ppb	15:59:55
1	B 249.677†	11717.3	10949.6	476.85	µg/L	476.85	ppb	15:59:34
1	Ba 233.527†	19343.1	18649.0	486.47	µg/L	486.47	ppb	15:59:34
1	Be 313.107†	754921.5	730256.0	476.72	µg/L	476.72	ppb	15:59:29
1	Cd 226.502†	18224.6	17688.2	487.95	µg/L	487.95	ppb	15:59:34
1	Co 228.616†	10367.0	9989.9	491.09	µg/L	491.09	ppb	15:59:34
1	Cr 267.716†	23052.3	22246.4	489.64	µg/L	489.64	ppb	15:59:34
1	Cu 324.752†	74680.1	69413.7	485.52	µg/L	485.52	ppb	15:59:34
1	Mn 257.610†	145483.3	140311.0	486.31	µg/L	486.31	ppb	15:59:29
1	Mo 202.031†	4926.8	4750.9	507.20	µg/L	507.20	ppb	15:59:55
1	Ni 231.604†	9598.3	8938.8	488.20	µg/L	488.20	ppb	15:59:34
1	P 214.914†	1237.2	1163.5	2452.0	µg/L	2452.0	ppb	15:59:55
1	Pb 220.353†	2038.1	1865.0	497.83	µg/L	497.83	ppb	15:59:55
1	S 181.975 Axial†	250.1	226.0	990.17	µg/L	990.17	ppb	15:59:55
1	Sb 206.836†	555.0	507.4	501.78	µg/L	501.78	ppb	15:59:55
1	Se 196.026†	350.7	321.8	497.82	µg/L	497.82	ppb	15:59:55
1	SiO2†	26261.5	24033.7	5175.8	µg/L	5175.8	ppb	15:59:34
1	Si 251.611†	31015.9	29548.3	2429.0	µg/L	2429.0	ppb	15:59:34
1	Sn 189.927†	1145.1	1103.3	507.48	µg/L	507.48	ppb	15:59:55
1	Ti 334.940†	207638.9	199792.4	480.28	µg/L	480.28	ppb	15:59:29
1	Tl 190.801†	339.0	350.7	495.21	µg/L	495.21	ppb	15:59:55
1	U 409.014†	5639.1	5482.7	495.44	µg/L	495.44	ppb	15:59:34
1	V 292.402†	47231.1	45516.9	491.19	µg/L	491.19	ppb	15:59:34
1	Zn 213.857†	20861.0	19608.8	486.21	µg/L	486.21	ppb	15:59:34
2	Sc RADIAL	56826.1	56826.1	104	%			15:58:31
2	Al 396.153Radial†	6645.2	6392.0	4754.0	µg/L	4754.0	ppb	15:58:51
2	Ca 317.933Radial†	5486.3	5089.8	4792.3	µg/L	4792.3	ppb	15:58:51
2	Fe 238.204 Radial†	599.8	561.5	4769.4	µg/L	4769.4	ppb	15:58:51
2	K 766.490 Radial†	7153.6	6741.7	4791.9	µg/L	4791.9	ppb	15:58:31
2	Mg 279.077 IEC†	560.2	526.7	4905.2	µg/L	4905.2	ppb	15:58:51
2	Na 589.592 Radial†	31532.3	29741.0	9790.8	µg/L	9790.8	ppb	15:58:31
2	Sr 421.552†	47455.8	45535.8	472.03	µg/L	472.03	ppb	15:58:31
2	Sc 361.383	1995410.5	1995410.5	104.48	%			16:00:02
2	Y 371.029	1361782.3	1361782.3	103.96	%			16:00:02
2	Ag 328.068†	62246.7	60141.9	480.68	µg/L	480.68	ppb	16:00:08
2	As 188.979†	257.7	245.5	478.82	µg/L	478.82	ppb	16:00:28
2	B 249.677†	11628.5	10798.3	470.20	µg/L	470.20	ppb	16:00:08
2	Ba 233.527†	19125.6	18331.5	478.19	µg/L	478.19	ppb	16:00:08
2	Be 313.107†	755807.0	726835.7	474.48	µg/L	474.48	ppb	16:00:02
2	Cd 226.502†	17996.1	17366.5	479.06	µg/L	479.06	ppb	16:00:08
2	Co 228.616†	10237.6	9807.4	482.11	µg/L	482.11	ppb	16:00:08
2	Cr 267.716†	22930.0	21999.0	484.19	µg/L	484.19	ppb	16:00:08
2	Cu 324.752†	74042.3	68381.0	478.32	µg/L	478.32	ppb	16:00:08
2	Mn 257.610†	145292.8	139306.3	482.84	µg/L	482.84	ppb	16:00:02
2	Mo 202.031†	4851.2	4650.7	496.51	µg/L	496.51	ppb	16:00:28
2	Ni 231.604†	9492.2	8782.9	479.69	µg/L	479.69	ppb	16:00:08
2	P 214.914†	1221.3	1141.3	2405.0	µg/L	2405.0	ppb	16:00:28
2	Pb 220.353†	1997.7	1814.9	484.45	µg/L	484.45	ppb	16:00:28

2	S 181.975 Axial†	253.2	227.5	996.93 µg/L	996.93 ppb	16:00:28
2	Sb 206.836†	551.9	501.3	495.60 µg/L	495.60 ppb	16:00:28
2	Se 196.026†	351.2	320.3	495.61 µg/L	495.61 ppb	16:00:28
2	SiO2†	26072.1	23704.0	5104.8 µg/L	5104.8 ppb	16:00:08
2	Si 251.611†	30669.0	29040.9	2387.3 µg/L	2387.3 ppb	16:00:08
2	Sn 189.927†	1132.5	1084.8	498.96 µg/L	498.96 ppb	16:00:28
2	Ti 334.940†	207816.1	198788.1	477.86 µg/L	477.86 ppb	16:00:02
2	Tl 190.801†	338.3	348.1	491.58 µg/L	491.58 ppb	16:00:28
2	U 409.014†	5511.6	5328.9	481.50 µg/L	481.50 ppb	16:00:08
2	V 292.402†	46887.0	44920.6	484.74 µg/L	484.74 ppb	16:00:08
2	Zn 213.857†	20639.1	19278.4	478.01 µg/L	478.01 ppb	16:00:08
3	Sc RADIAL	56910.2	56910.2	104 %		15:58:57
3	Al 396.153Radial†	6656.6	6393.5	4756.8 µg/L	4756.8 ppb	15:59:17
3	Ca 317.933Radial†	5495.6	5090.9	4793.4 µg/L	4793.4 ppb	15:59:17
3	Fe 238.204 Radial†	602.2	563.0	4781.1 µg/L	4781.1 ppb	15:59:17
3	K 766.490 Radial†	7220.2	6795.5	4830.2 µg/L	4830.2 ppb	15:58:57
3	Mg 279.077 IEC†	560.3	526.1	4897.6 µg/L	4897.6 ppb	15:59:17
3	Na 589.592 Radial†	31637.3	29796.9	9809.2 µg/L	9809.2 ppb	15:58:57
3	Sr 421.552†	47653.8	45658.4	473.30 µg/L	473.30 ppb	15:58:57
3	Sc 361.383	1998435.1	1998435.1	104.64 %		16:00:35
3	Y 371.029	1364968.8	1364968.8	104.20 %		16:00:35
3	Ag 328.068†	58612.3	56578.4	452.09 µg/L	452.09 ppb	16:00:41
3	As 188.979†	224.3	213.2	415.95 µg/L	415.95 ppb	16:01:01
3	B 249.677†	10895.6	10081.1	438.76 µg/L	438.76 ppb	16:00:41
3	Ba 233.527†	17588.9	16835.1	439.14 µg/L	439.14 ppb	16:00:41
3	Be 313.107†	714187.6	685966.5	447.80 µg/L	447.80 ppb	16:00:35
3	Cd 226.502†	16474.5	15886.3	438.17 µg/L	438.17 ppb	16:00:41
3	Co 228.616†	9303.8	8900.2	437.44 µg/L	437.44 ppb	16:00:41
3	Cr 267.716†	20256.0	19410.4	427.22 µg/L	427.22 ppb	16:00:41
3	Cu 324.752†	67621.8	62137.9	434.71 µg/L	434.71 ppb	16:00:41
3	Mn 257.610†	137721.9	131860.5	457.05 µg/L	457.05 ppb	16:00:35
3	Mo 202.031†	4037.0	3865.6	412.72 µg/L	412.72 ppb	16:01:01
3	Ni 231.604†	8629.5	7944.8	433.92 µg/L	433.92 ppb	16:00:41
3	P 214.914†	1036.7	963.1	2025.7 µg/L	2025.7 ppb	16:01:01
3	Pb 220.353†	1739.6	1565.3	417.74 µg/L	417.74 ppb	16:01:01
3	S 181.975 Axial†	221.7	197.0	863.32 µg/L	863.32 ppb	16:01:01
3	Sb 206.836†	474.2	426.2	421.04 µg/L	421.04 ppb	16:01:01
3	Se 196.026†	306.7	277.3	430.08 µg/L	430.08 ppb	16:01:01
3	SiO2†	24196.5	21873.8	4710.6 µg/L	4710.6 ppb	16:00:41
3	Si 251.611†	28513.0	26936.1	2214.3 µg/L	2214.3 ppb	16:00:41
3	Sn 189.927†	924.9	884.8	406.97 µg/L	406.97 ppb	16:01:01
3	Ti 334.940†	195303.4	186529.0	448.37 µg/L	448.37 ppb	16:00:35
3	Tl 190.801†	301.0	311.9	440.85 µg/L	440.85 ppb	16:01:01
3	U 409.014†	4905.4	4741.6	428.33 µg/L	428.33 ppb	16:00:41
3	V 292.402†	42233.7	40405.6	435.79 µg/L	435.79 ppb	16:00:41
3	Zn 213.857†	18819.8	17509.9	434.12 µg/L	434.12 ppb	16:00:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1992513.1	104.33	%	0.408				0.39%
Sc RADIAL	57049.0	105	%	0.6				0.55%
Y 371.029	1360053.7	103.83	%	0.456				0.44%
Ag 328.068†	59248.1	473.50	µg/L	18.871	473.50	ppb	18.871	3.99%
QC value within limits for Ag 328.068 Recovery = 94.70%								
Al 396.153Radial†	6380.5	4745.9	µg/L	16.44	4745.9	ppb	16.44	0.35%
QC value within limits for Al 396.153Radial Recovery = 94.92%								
As 188.979†	238.9	465.97	µg/L	44.997	465.97	ppb	44.997	9.66%
QC value within limits for As 188.979 Recovery = 93.19%								
B 249.677†	10609.7	461.94	µg/L	20.345	461.94	ppb	20.345	4.40%
QC value within limits for B 249.677 Recovery = 92.39%								
Ba 233.527†	17938.5	467.93	µg/L	25.276	467.93	ppb	25.276	5.40%
QC value within limits for Ba 233.527 Recovery = 93.59%								
Be 313.107†	714352.7	466.33	µg/L	16.086	466.33	ppb	16.086	3.45%
QC value within limits for Be 313.107 Recovery = 93.27%								
Ca 317.933Radial†	5078.2	4781.5	µg/L	19.75	4781.5	ppb	19.75	0.41%
QC value within limits for Ca 317.933Radial Recovery = 95.63%								
Cd 226.502†	16980.3	468.39	µg/L	26.545	468.39	ppb	26.545	5.67%
QC value within limits for Cd 226.502 Recovery = 93.68%								
Co 228.616†	9565.8	470.21	µg/L	28.733	470.21	ppb	28.733	6.11%

QC value within limits for Co 228.616 Recovery = 94.04%

Cr 267.716†	21218.6	467.02 µg/L	34.571	467.02 ppb	34.571	7.40%
QC value within limits for Cr 267.716 Recovery = 93.40%						
Cu 324.752†	66644.2	466.19 µg/L	27.494	466.19 ppb	27.494	5.90%
QC value within limits for Cu 324.752 Recovery = 93.24%						
Fe 238.204 Radial†	559.7	4753.9 µg/L	37.39	4753.9 ppb	37.39	0.79%
QC value within limits for Fe 238.204 Radial Recovery = 95.08%						
K 766.490 Radial†	6767.2	4810.1 µg/L	19.19	4810.1 ppb	19.19	0.40%
QC value within limits for K 766.490 Radial Recovery = 96.20%						
Mg 279.077 IEC†	525.7	4895.3 µg/L	11.18	4895.3 ppb	11.18	0.23%
QC value within limits for Mg 279.077 IEC Recovery = 97.91%						
Mn 257.610†	137159.3	475.40 µg/L	15.982	475.40 ppb	15.982	3.36%
QC value within limits for Mn 257.610 Recovery = 95.08%						
Mo 202.031†	4422.4	472.14 µg/L	51.737	472.14 ppb	51.737	10.96%
QC value within limits for Mo 202.031 Recovery = 94.43%						
Na 589.592 Radial†	29752.8	9794.7 µg/L	13.02	9794.7 ppb	13.02	0.13%
QC value within limits for Na 589.592 Radial Recovery = 97.95%						
Ni 231.604†	8555.5	467.27 µg/L	29.194	467.27 ppb	29.194	6.25%
QC value within limits for Ni 231.604 Recovery = 93.45%						
P 214.914†	1089.3	2294.2 µg/L	233.77	2294.2 ppb	233.77	10.19%
QC value within limits for P 214.914 Recovery = 91.77%						
Pb 220.353†	1748.4	466.67 µg/L	42.900	466.67 ppb	42.900	9.19%
QC value within limits for Pb 220.353 Recovery = 93.33%						
S 181.975 Axial†	216.9	950.14 µg/L	75.264	950.14 ppb	75.264	7.92%
QC value within limits for S 181.975 Axial Recovery = 95.01%						
Sb 206.836†	478.3	472.81 µg/L	44.937	472.81 ppb	44.937	9.50%
QC value within limits for Sb 206.836 Recovery = 94.56%						
Se 196.026†	306.5	474.50 µg/L	38.486	474.50 ppb	38.486	8.11%
QC value within limits for Se 196.026 Recovery = 94.90%						
SiO2†	23203.8	4997.1 µg/L	250.58	4997.1 ppb	250.58	5.01%
QC value within limits for SiO2 Recovery = 93.45%						
Si 251.611†	28508.4	2343.5 µg/L	113.86	2343.5 ppb	113.86	4.86%
QC value within limits for Si 251.611 Recovery = 93.74%						
Sn 189.927†	1024.3	471.14 µg/L	55.734	471.14 ppb	55.734	11.83%
QC value within limits for Sn 189.927 Recovery = 94.23%						
Sr 421.552†	45546.1	472.14 µg/L	1.114	472.14 ppb	1.114	0.24%
QC value within limits for Sr 421.552 Recovery = 94.43%						
Ti 334.940†	195036.5	468.84 µg/L	17.764	468.84 ppb	17.764	3.79%
QC value within limits for Ti 334.940 Recovery = 93.77%						
Tl 190.801†	336.9	475.88 µg/L	30.390	475.88 ppb	30.390	6.39%
QC value within limits for Tl 190.801 Recovery = 95.18%						
U 409.014†	5184.4	468.43 µg/L	35.417	468.43 ppb	35.417	7.56%
QC value within limits for U 409.014 Recovery = 93.69%						
V 292.402†	43614.3	470.57 µg/L	30.297	470.57 ppb	30.297	6.44%
QC value within limits for V 292.402 Recovery = 94.11%						
Zn 213.857†	18799.0	466.11 µg/L	28.010	466.11 ppb	28.010	6.01%
QC value within limits for Zn 213.857 Recovery = 93.22%						

All analyte(s) passed QC.

Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:01:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	55658.0	55658.0	102	%			16:01:44
1	Al 396.153Radial†	-23.0	-12.4	-9.2620	µg/L	-9.2620	ppb	16:01:44
1	Ca 317.933Radial†	208.0	24.8	23.363	µg/L	23.363	ppb	16:02:05
1	Fe 238.204 Radial†	15.4	0.6	5.4204	µg/L	5.4204	ppb	16:02:05
1	K 766.490 Radial†	204.3	71.9	51.110	µg/L	51.110	ppb	16:01:44
1	Mg 279.077 IEC†	10.5	-1.0	-9.0434	µg/L	-9.0434	ppb	16:02:05
1	Na 589.592 Radial†	1039.6	477.5	157.20	µg/L	157.20	ppb	16:01:44
1	Sr 421.552†	56.9	16.2	0.1684	µg/L	0.1684	ppb	16:01:44
1	Sc 361.383	1982189.6	1982189.6	103.79	%			16:03:07
1	Y 371.029	1359337.0	1359337.0	103.77	%			16:03:07
1	Ag 328.068†	-578.1	7.5	0.0622	µg/L	0.0622	ppb	16:03:12
1	As 188.979†	-1.3	-2.4	-4.6084	µg/L	-4.6084	ppb	16:03:33
1	B 249.677†	325.8	-17.5	-0.7693	µg/L	-0.7693	ppb	16:03:33
1	Ba 233.527†	-23.3	3.6	0.0946	µg/L	0.0946	ppb	16:03:33
1	Be 313.107†	-3422.1	143.2	0.0935	µg/L	0.0935	ppb	16:03:12
1	Cd 226.502†	-146.3	1.2	0.0321	µg/L	0.0321	ppb	16:03:33
1	Co 228.616†	-12.7	-3.4	-0.1679	µg/L	-0.1679	ppb	16:03:33
1	Cr 267.716†	-41.9	12.0	0.2649	µg/L	0.2649	ppb	16:03:33
1	Cu 324.752†	2411.8	-162.3	-1.1332	µg/L	-1.1332	ppb	16:03:12
1	Mn 257.610†	-218.3	33.8	0.1180	µg/L	0.1180	ppb	16:03:33
1	Mo 202.031†	-10.7	-2.7	-0.2926	µg/L	-0.2926	ppb	16:03:33
1	Ni 231.604†	299.4	-13.7	-0.7472	µg/L	-0.7472	ppb	16:03:33
1	P 214.914†	42.9	13.7	29.528	µg/L	29.528	ppb	16:03:33
1	Pb 220.353†	92.5	-8.1	-2.1696	µg/L	-2.1696	ppb	16:03:33
1	S 181.975 Axial†	17.6	2.1	9.2574	µg/L	9.2574	ppb	16:03:33
1	Sb 206.836†	23.2	-4.6	-4.4961	µg/L	-4.4961	ppb	16:03:33
1	Se 196.026†	12.0	-4.3	-6.4748	µg/L	-6.4748	ppb	16:03:33
1	SiO2†	1238.2	-57.1	-12.288	µg/L	-12.288	ppb	16:03:12
1	Si 251.611†	320.8	-3.8	-0.3112	µg/L	-0.3112	ppb	16:03:33
1	Sn 189.927†	0.5	1.4	0.6395	µg/L	0.6395	ppb	16:03:33
1	Ti 334.940†	134.1	13.1	0.0325	µg/L	0.0325	ppb	16:03:12
1	Tl 190.801†	-24.9	0.3	0.4630	µg/L	0.4630	ppb	16:03:33
1	U 409.014†	-12.1	41.9	3.7948	µg/L	3.7948	ppb	16:03:12
1	V 292.402†	-10.2	34.4	0.3695	µg/L	0.3695	ppb	16:03:12
1	Zn 213.857†	479.7	-13.4	-0.3280	µg/L	-0.3280	ppb	16:03:33
2	Sc RADIAL	55313.8	55313.8	101	%			16:02:10
2	Al 396.153Radial†	-3.9	6.3	4.7164	µg/L	4.7164	ppb	16:02:10
2	Ca 317.933Radial†	201.6	19.8	18.599	µg/L	18.599	ppb	16:02:30
2	Fe 238.204 Radial†	15.1	0.4	3.5581	µg/L	3.5581	ppb	16:02:30
2	K 766.490 Radial†	165.7	35.0	24.913	µg/L	24.913	ppb	16:02:10
2	Mg 279.077 IEC†	9.2	-2.2	-20.801	µg/L	-20.801	ppb	16:02:30
2	Na 589.592 Radial†	1009.9	454.5	149.64	µg/L	149.64	ppb	16:02:10
2	Sr 421.552†	43.0	2.9	0.0298	µg/L	0.0298	ppb	16:02:10
2	Sc 361.383	2000056.5	2000056.5	104.72	%			16:03:39
2	Y 371.029	1371413.4	1371413.4	104.69	%			16:03:39
2	Ag 328.068†	-539.4	49.5	0.3929	µg/L	0.3929	ppb	16:03:44
2	As 188.979†	2.0	0.8	1.5259	µg/L	1.5259	ppb	16:04:05
2	B 249.677†	333.1	-13.4	-0.5861	µg/L	-0.5861	ppb	16:04:05
2	Ba 233.527†	-19.7	7.2	0.1863	µg/L	0.1863	ppb	16:04:05
2	Be 313.107†	-3284.4	304.2	0.1986	µg/L	0.1986	ppb	16:03:44
2	Cd 226.502†	-141.7	6.9	0.1883	µg/L	0.1883	ppb	16:04:05
2	Co 228.616†	-14.8	-5.3	-0.2603	µg/L	-0.2603	ppb	16:04:05
2	Cr 267.716†	-34.1	19.8	0.4350	µg/L	0.4350	ppb	16:04:05
2	Cu 324.752†	2452.1	-144.6	-1.0097	µg/L	-1.0097	ppb	16:03:44
2	Mn 257.610†	-201.5	51.7	0.1804	µg/L	0.1804	ppb	16:04:05
2	Mo 202.031†	-5.9	1.9	0.2060	µg/L	0.2060	ppb	16:04:05
2	Ni 231.604†	302.4	-13.4	-0.7317	µg/L	-0.7317	ppb	16:04:05
2	P 214.914†	22.4	-6.2	-13.288	µg/L	-13.288	ppb	16:04:05
2	Pb 220.353†	100.3	-1.4	-0.3652	µg/L	-0.3652	ppb	16:04:05

2	S 181.975 Axial†	18.4	2.7	12.047 µg/L	12.047 ppb	16:04:05
2	Sb 206.836†	25.7	-2.4	-2.3521 µg/L	-2.3521 ppb	16:04:05
2	Se 196.026†	11.2	-5.1	-7.8216 µg/L	-7.8216 ppb	16:04:05
2	SiO2†	1221.5	-83.6	-18.000 µg/L	-18.000 ppb	16:03:44
2	Si 251.611†	319.3	-8.0	-0.6538 µg/L	-0.6538 ppb	16:04:05
2	Sn 189.927†	1.8	2.6	1.1983 µg/L	1.1983 ppb	16:04:05
2	Ti 334.940†	170.3	46.5	0.1138 µg/L	0.1138 ppb	16:03:44
2	Tl 190.801†	-24.1	1.2	1.7367 µg/L	1.7367 ppb	16:04:05
2	U 409.014†	-68.4	-11.7	-1.0610 µg/L	-1.0610 ppb	16:03:44
2	V 292.402†	-47.0	-0.7	-0.0056 µg/L	-0.0056 ppb	16:03:44
2	Zn 213.857†	481.8	-15.5	-0.3808 µg/L	-0.3808 ppb	16:04:05
3	Sc RADIAL	56238.4	56238.4	103 %		16:02:36
3	Al 396.153Radial†	-4.5	5.7	4.2549 µg/L	4.2549 ppb	16:02:36
3	Ca 317.933Radial†	217.1	31.6	29.725 µg/L	29.725 ppb	16:02:56
3	Fe 238.204 Radial†	15.6	0.7	5.5166 µg/L	5.5166 ppb	16:02:56
3	K 766.490 Radial†	152.3	19.4	13.755 µg/L	13.755 ppb	16:02:36
3	Mg 279.077 IEC†	9.8	-1.7	-16.008 µg/L	-16.008 ppb	16:02:56
3	Na 589.592 Radial†	1347.3	765.5	252.01 µg/L	252.01 ppb	16:02:36
3	Sr 421.552†	41.3	0.5	0.0055 µg/L	0.0055 ppb	16:02:36
3	Sc 361.383	1997138.2	1997138.2	104.57 %		16:04:11
3	Y 371.029	1369234.6	1369234.6	104.53 %		16:04:11
3	Ag 328.068†	-498.6	87.7	0.6980 µg/L	0.6980 ppb	16:04:16
3	As 188.979†	2.9	1.6	3.1103 µg/L	3.1103 ppb	16:04:37
3	B 249.677†	327.9	-17.9	-0.7818 µg/L	-0.7818 ppb	16:04:37
3	Ba 233.527†	-15.6	11.1	0.2887 µg/L	0.2887 ppb	16:04:37
3	Be 313.107†	-3097.4	478.5	0.3124 µg/L	0.3124 ppb	16:04:16
3	Cd 226.502†	-131.7	16.2	0.4453 µg/L	0.4453 ppb	16:04:37
3	Co 228.616†	-2.6	6.4	0.3136 µg/L	0.3136 ppb	16:04:37
3	Cr 267.716†	-14.7	38.4	0.8440 µg/L	0.8440 ppb	16:04:37
3	Cu 324.752†	2433.5	-159.0	-1.1099 µg/L	-1.1099 ppb	16:04:16
3	Mn 257.610†	-172.9	78.8	0.2743 µg/L	0.2743 ppb	16:04:37
3	Mo 202.031†	-1.7	5.9	0.6314 µg/L	0.6314 ppb	16:04:37
3	Ni 231.604†	302.9	-12.6	-0.6873 µg/L	-0.6873 ppb	16:04:37
3	P 214.914†	28.9	0.0	0.1351 µg/L	0.1351 ppb	16:04:37
3	Pb 220.353†	98.8	-2.7	-0.7118 µg/L	-0.7118 ppb	16:04:37
3	S 181.975 Axial†	19.3	3.6	15.780 µg/L	15.780 ppb	16:04:37
3	Sb 206.836†	32.5	4.1	4.0170 µg/L	4.0170 ppb	16:04:37
3	Se 196.026†	15.5	-1.0	-1.5777 µg/L	-1.5777 ppb	16:04:37
3	SiO2†	1280.0	-25.9	-5.5874 µg/L	-5.5874 ppb	16:04:16
3	Si 251.611†	323.6	-3.4	-0.2805 µg/L	-0.2805 ppb	16:04:37
3	Sn 189.927†	1.4	2.2	1.0236 µg/L	1.0236 ppb	16:04:37
3	Ti 334.940†	204.8	79.7	0.1935 µg/L	0.1935 ppb	16:04:16
3	Tl 190.801†	-25.7	-0.3	-0.3909 µg/L	-0.3909 ppb	16:04:37
3	U 409.014†	-62.9	-6.5	-0.5917 µg/L	-0.5917 ppb	16:04:16
3	V 292.402†	-21.9	23.3	0.2547 µg/L	0.2547 ppb	16:04:16
3	Zn 213.857†	484.0	-12.7	-0.3127 µg/L	-0.3127 ppb	16:04:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1993128.1	104.36	%	0.502				0.48%
Sc RADIAL	55736.7	102	%	0.9				0.84%
Y 371.029	1366661.7	104.33	%	0.491				0.47%
Ag 328.068†	48.2	0.3844	µg/L	0.31802	0.3844	ppb	0.31802	82.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.1	-0.0969	µg/L	7.94054	-0.0969	ppb	7.94054	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.0	0.0093	µg/L	4.07671	0.0093	ppb	4.07671	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-16.3	-0.7124	µg/L	0.10959	-0.7124	ppb	0.10959	15.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.3	0.1899	µg/L	0.09711	0.1899	ppb	0.09711	51.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	308.6	0.2015	µg/L	0.10946	0.2015	ppb	0.10946	54.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	25.4	23.896	µg/L	5.5823	23.896	ppb	5.5823	23.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.1	0.2219	µg/L	0.20862	0.2219	ppb	0.20862	94.02%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.8	-0.0382	µg/L	0.30817	-0.0382	ppb	0.30817	806.94%

QC value within limits for Co 228.616 Recovery = Not calculated
Cr 267.716† 23.4 0.5146 µg/L 0.29767 0.5146 ppb 0.29767 57.84%
QC value within limits for Cr 267.716 Recovery = Not calculated
Cu 324.752† -155.3 -1.0843 µg/L 0.06563 -1.0843 ppb 0.06563 6.05%
QC value within limits for Cu 324.752 Recovery = Not calculated
Fe 238.204 Radial† 0.6 4.8317 µg/L 1.10403 4.8317 ppb 1.10403 22.85%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated
K 766.490 Radial† 42.1 29.926 µg/L 19.1758 29.926 ppb 19.1758 64.08%
QC value within limits for K 766.490 Radial Recovery = Not calculated
Mg 279.077 IEC† -1.6 -15.284 µg/L 5.9121 -15.284 ppb 5.9121 38.68%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated
Mn 257.610† 54.8 0.1909 µg/L 0.07866 0.1909 ppb 0.07866 41.20%
QC value within limits for Mn 257.610 Recovery = Not calculated
Mo 202.031† 1.7 0.1816 µg/L 0.46249 0.1816 ppb 0.46249 254.69%
QC value within limits for Mo 202.031 Recovery = Not calculated
Na 589.592 Radial† 565.9 186.28 µg/L 57.047 186.28 ppb 57.047 30.62%
QC value within limits for Na 589.592 Radial Recovery = Not calculated
Ni 231.604† -13.2 -0.7220 µg/L 0.03109 -0.7220 ppb 0.03109 4.31%
QC value within limits for Ni 231.604 Recovery = Not calculated
P 214.914† 2.5 5.4583 µg/L 21.89861 5.4583 ppb 21.89861 401.20%
QC value within limits for P 214.914 Recovery = Not calculated
Pb 220.353† -4.1 -1.0822 µg/L 0.95750 -1.0822 ppb 0.95750 88.48%
QC value within limits for Pb 220.353 Recovery = Not calculated
S 181.975 Axial† 2.8 12.362 µg/L 3.2727 12.362 ppb 3.2727 26.48%
QC value within limits for S 181.975 Axial Recovery = Not calculated
Sb 206.836† -1.0 -0.9437 µg/L 4.42784 -0.9437 ppb 4.42784 469.19%
QC value within limits for Sb 206.836 Recovery = Not calculated
Se 196.026† -3.5 -5.2914 µg/L 3.28586 -5.2914 ppb 3.28586 62.10%
QC value within limits for Se 196.026 Recovery = Not calculated
SiO2† -55.5 -11.958 µg/L 6.2126 -11.958 ppb 6.2126 51.95%
QC value within limits for SiO2 Recovery = Not calculated
Si 251.611† -5.1 -0.4151 µg/L 0.20723 -0.4151 ppb 0.20723 49.92%
QC value within limits for Si 251.611 Recovery = Not calculated
Sn 189.927† 2.1 0.9538 µg/L 0.28585 0.9538 ppb 0.28585 29.97%
QC value within limits for Sn 189.927 Recovery = Not calculated
Sr 421.552† 6.6 0.0679 µg/L 0.08784 0.0679 ppb 0.08784 129.36%
QC value within limits for Sr 421.552 Recovery = Not calculated
Ti 334.940† 46.4 0.1133 µg/L 0.08046 0.1133 ppb 0.08046 71.03%
QC value within limits for Ti 334.940 Recovery = Not calculated
Tl 190.801† 0.4 0.6030 µg/L 1.07067 0.6030 ppb 1.07067 177.57%
QC value within limits for Tl 190.801 Recovery = Not calculated
U 409.014† 7.9 0.7140 µg/L 2.67833 0.7140 ppb 2.67833 375.09%
QC value within limits for U 409.014 Recovery = Not calculated
V 292.402† 19.0 0.2062 µg/L 0.19224 0.2062 ppb 0.19224 93.23%
QC value within limits for V 292.402 Recovery = Not calculated
Zn 213.857† -13.9 -0.3405 µg/L 0.03570 -0.3405 ppb 0.03570 10.49%
QC value within limits for Zn 213.857 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 25 | **Autosampler Location: 7**
Sample ID: CCV | **Date Collected: 2/11/2010 16:37:49**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57270.5	57270.5	105	%			16:38:25
1	Al 396.153Radial†	6958.1	6640.6	4939.3	µg/L	4939.3	ppb	16:38:25
1	Ca 317.933Radial†	5712.0	5263.9	4956.3	µg/L	4956.3	ppb	16:38:46
1	Fe 238.204 Radial†	619.2	575.5	4888.0	µg/L	4888.0	ppb	16:38:46
1	K 766.490 Radial†	7274.3	6803.4	4835.8	µg/L	4835.8	ppb	16:38:25
1	Mg 279.077 IEC†	580.4	541.8	5044.9	µg/L	5044.9	ppb	16:38:46
1	Na 589.592 Radial†	31721.9	29686.7	9772.9	µg/L	9772.9	ppb	16:38:25
1	Sr 421.552†	48411.5	46092.9	477.81	µg/L	477.81	ppb	16:38:25
1	Sc 361.383	2050041.7	2050041.7	107.34	%			16:39:49
1	Y 371.029	1400914.7	1400914.7	106.95	%			16:39:49
1	Ag 328.068†	63102.9	59351.9	474.38	µg/L	474.38	ppb	16:39:55
1	As 188.979†	273.7	253.8	495.14	µg/L	495.14	ppb	16:40:15
1	B 249.677†	11802.0	10663.4	464.23	µg/L	464.23	ppb	16:39:55
1	Ba 233.527†	19451.3	18147.1	473.37	µg/L	473.37	ppb	16:39:55
1	Be 313.107†	769937.6	720722.3	470.49	µg/L	470.49	ppb	16:39:49
1	Cd 226.502†	18413.9	17296.7	477.11	µg/L	477.11	ppb	16:39:55
1	Co 228.616†	10377.6	9676.7	475.69	µg/L	475.69	ppb	16:39:55
1	Cr 267.716†	23222.4	21686.6	477.32	µg/L	477.32	ppb	16:39:55
1	Cu 324.752†	74708.1	67112.7	469.48	µg/L	469.48	ppb	16:39:55
1	Mn 257.610†	148224.3	138331.4	479.47	µg/L	479.47	ppb	16:39:49
1	Mo 202.031†	4976.6	4643.8	495.78	µg/L	495.78	ppb	16:40:15
1	Ni 231.604†	9664.7	8701.5	475.25	µg/L	475.25	ppb	16:39:55
1	P 214.914†	1251.0	1137.8	2398.4	µg/L	2398.4	ppb	16:40:15
1	Pb 220.353†	2064.6	1826.2	487.49	µg/L	487.49	ppb	16:40:15
1	S 181.975 Axial†	253.0	220.8	967.55	µg/L	967.55	ppb	16:40:15
1	Sb 206.836†	561.9	496.5	490.97	µg/L	490.97	ppb	16:40:15
1	Se 196.026†	348.6	308.9	478.47	µg/L	478.47	ppb	16:40:15
1	SiO2†	26407.2	23351.2	5028.8	µg/L	5028.8	ppb	16:39:55
1	Si 251.611†	31109.3	28668.8	2356.7	µg/L	2356.7	ppb	16:39:55
1	Sn 189.927†	1168.8	1089.7	501.23	µg/L	501.23	ppb	16:40:15
1	Ti 334.940†	210704.4	196178.3	471.57	µg/L	471.57	ppb	16:39:49
1	Tl 190.801†	345.6	346.3	489.05	µg/L	489.05	ppb	16:40:15
1	U 409.014†	5635.8	5304.0	479.22	µg/L	479.22	ppb	16:39:55
1	V 292.402†	47452.9	44251.8	477.60	µg/L	477.60	ppb	16:39:55
1	Zn 213.857†	20929.0	19022.1	471.63	µg/L	471.63	ppb	16:39:55
2	Sc RADIAL	57824.5	57824.5	106	%			16:38:51
2	Al 396.153Radial†	6951.6	6571.0	4887.5	µg/L	4887.5	ppb	16:38:51
2	Ca 317.933Radial†	5692.9	5193.8	4890.3	µg/L	4890.3	ppb	16:39:12
2	Fe 238.204 Radial†	614.8	565.7	4804.8	µg/L	4804.8	ppb	16:39:12
2	K 766.490 Radial†	7297.3	6758.7	4804.0	µg/L	4804.0	ppb	16:38:51
2	Mg 279.077 IEC†	578.6	534.8	4980.5	µg/L	4980.5	ppb	16:39:12
2	Na 589.592 Radial†	31791.5	29462.7	9699.2	µg/L	9699.2	ppb	16:38:51
2	Sr 421.552†	48548.0	45779.7	474.56	µg/L	474.56	ppb	16:38:51
2	Sc 361.383	2050967.6	2050967.6	107.39	%			16:40:22
2	Y 371.029	1401478.7	1401478.7	106.99	%			16:40:22
2	Ag 328.068†	63066.7	59291.5	473.89	µg/L	473.89	ppb	16:40:28
2	As 188.979†	260.8	241.7	471.43	µg/L	471.43	ppb	16:40:49
2	B 249.677†	11773.8	10632.2	462.91	µg/L	462.91	ppb	16:40:28
2	Ba 233.527†	19468.8	18155.2	473.58	µg/L	473.58	ppb	16:40:28
2	Be 313.107†	769423.9	719920.1	469.97	µg/L	469.97	ppb	16:40:22
2	Cd 226.502†	18369.5	17247.6	475.77	µg/L	475.77	ppb	16:40:28
2	Co 228.616†	10387.8	9681.8	475.93	µg/L	475.93	ppb	16:40:28
2	Cr 267.716†	23230.7	21684.6	477.27	µg/L	477.27	ppb	16:40:28
2	Cu 324.752†	74607.6	66987.7	468.59	µg/L	468.59	ppb	16:40:28
2	Mn 257.610†	147653.6	137737.6	477.41	µg/L	477.41	ppb	16:40:22
2	Mo 202.031†	4936.1	4604.0	491.53	µg/L	491.53	ppb	16:40:49
2	Ni 231.604†	9650.2	8684.0	474.29	µg/L	474.29	ppb	16:40:28
2	P 214.914†	1239.1	1126.2	2373.7	µg/L	2373.7	ppb	16:40:49
2	Pb 220.353†	2036.6	1799.3	480.30	µg/L	480.30	ppb	16:40:49

2	S 181.975 Axial†	251.7	219.6	962.01 µg/L	962.01 ppb	16:40:49
2	Sb 206.836†	560.6	495.1	489.53 µg/L	489.53 ppb	16:40:49
2	Se 196.026†	352.8	312.7	484.04 µg/L	484.04 ppb	16:40:49
2	SiO2†	26423.9	23355.6	5029.8 µg/L	5029.8 ppb	16:40:28
2	Si 251.611†	31116.7	28662.7	2356.2 µg/L	2356.2 ppb	16:40:28
2	Sn 189.927†	1158.0	1079.2	496.40 µg/L	496.40 ppb	16:40:49
2	Ti 334.940†	210552.3	195948.0	471.02 µg/L	471.02 ppb	16:40:22
2	Tl 190.801†	346.0	346.5	489.25 µg/L	489.25 ppb	16:40:49
2	U 409.014†	5584.5	5253.8	474.70 µg/L	474.70 ppb	16:40:28
2	V 292.402†	47503.1	44278.6	477.84 µg/L	477.84 ppb	16:40:28
2	Zn 213.857†	20951.2	19034.0	471.94 µg/L	471.94 ppb	16:40:28
3	Sc RADIAL	57919.3	57919.3	106 %		16:39:17
3	Al 396.153Radial†	6873.3	6486.5	4826.1 µg/L	4826.1 ppb	16:39:17
3	Ca 317.933Radial†	5675.3	5168.4	4866.3 µg/L	4866.3 ppb	16:39:38
3	Fe 238.204 Radial†	612.6	562.7	4778.5 µg/L	4778.5 ppb	16:39:38
3	K 766.490 Radial†	7223.5	6677.9	4746.6 µg/L	4746.6 ppb	16:39:17
3	Mg 279.077 IEC†	577.0	532.4	4956.6 µg/L	4956.6 ppb	16:39:38
3	Na 589.592 Radial†	31537.3	29174.1	9604.2 µg/L	9604.2 ppb	16:39:17
3	Sr 421.552†	47945.0	45136.6	467.89 µg/L	467.89 ppb	16:39:17
3	Sc 361.383	2047169.0	2047169.0	107.19 %		16:40:56
3	Y 371.029	1398213.9	1398213.9	106.74 %		16:40:56
3	Ag 328.068†	59282.1	55869.9	446.44 µg/L	446.44 ppb	16:41:01
3	As 188.979†	231.4	214.7	418.91 µg/L	418.91 ppb	16:41:22
3	B 249.677†	11101.6	10025.4	436.32 µg/L	436.32 ppb	16:41:01
3	Ba 233.527†	17825.1	16655.3	434.45 µg/L	434.45 ppb	16:41:01
3	Be 313.107†	720453.0	675563.8	441.01 µg/L	441.01 ppb	16:40:56
3	Cd 226.502†	16836.0	15848.7	437.13 µg/L	437.13 ppb	16:41:01
3	Co 228.616†	9439.7	8815.3	433.29 µg/L	433.29 ppb	16:41:01
3	Cr 267.716†	20551.5	19225.2	423.15 µg/L	423.15 ppb	16:41:01
3	Cu 324.752†	68186.1	61125.9	427.64 µg/L	427.64 ppb	16:41:01
3	Mn 257.610†	138984.9	129905.6	450.28 µg/L	450.28 ppb	16:40:56
3	Mo 202.031†	4143.4	3873.0	413.51 µg/L	413.51 ppb	16:41:22
3	Ni 231.604†	8808.1	7915.1	432.30 µg/L	432.30 ppb	16:41:01
3	P 214.914†	1067.2	968.0	2036.9 µg/L	2036.9 ppb	16:41:22
3	Pb 220.353†	1797.4	1579.7	421.60 µg/L	421.60 ppb	16:41:22
3	S 181.975 Axial†	226.2	196.2	859.46 µg/L	859.46 ppb	16:41:22
3	Sb 206.836†	485.7	426.1	420.98 µg/L	420.98 ppb	16:41:22
3	Se 196.026†	307.9	271.4	421.09 µg/L	421.09 ppb	16:41:22
3	SiO2†	24533.6	21637.8	4659.8 µg/L	4659.8 ppb	16:41:01
3	Si 251.611†	28891.7	26640.7	2190.0 µg/L	2190.0 ppb	16:41:01
3	Sn 189.927†	954.7	891.5	410.08 µg/L	410.08 ppb	16:41:22
3	Ti 334.940†	196335.7	183048.9	440.00 µg/L	440.00 ppb	16:40:56
3	Tl 190.801†	308.7	312.2	441.18 µg/L	441.18 ppb	16:41:22
3	U 409.014†	5011.7	4729.1	427.20 µg/L	427.20 ppb	16:41:01
3	V 292.402†	42781.7	39956.1	430.99 µg/L	430.99 ppb	16:41:01
3	Zn 213.857†	19123.4	17365.0	430.51 µg/L	430.51 ppb	16:41:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2049392.8	107.31	%	0.104				0.10%
Sc RADIAL	57671.4	106	%	0.6				0.61%
Y 371.029	1400202.5	106.89	%	0.133				0.12%
Ag 328.068†	58171.1	464.90	µg/L	15.993	464.90	ppb	15.993	3.44%
QC value within limits for Ag 328.068 Recovery = 92.98%								
Al 396.153Radial†	6566.1	4884.3	µg/L	56.67	4884.3	ppb	56.67	1.16%
QC value within limits for Al 396.153Radial Recovery = 97.69%								
As 188.979†	236.7	461.83	µg/L	39.012	461.83	ppb	39.012	8.45%
QC value within limits for As 188.979 Recovery = 92.37%								
B 249.677†	10440.3	454.49	µg/L	15.747	454.49	ppb	15.747	3.46%
QC value within limits for B 249.677 Recovery = 90.90%								
Ba 233.527†	17652.5	460.47	µg/L	22.535	460.47	ppb	22.535	4.89%
QC value within limits for Ba 233.527 Recovery = 92.09%								
Be 313.107†	705402.1	460.49	µg/L	16.871	460.49	ppb	16.871	3.66%
QC value within limits for Be 313.107 Recovery = 92.10%								
Ca 317.933Radial†	5208.7	4904.3	µg/L	46.59	4904.3	ppb	46.59	0.95%
QC value within limits for Ca 317.933Radial Recovery = 98.09%								
Cd 226.502†	16797.7	463.34	µg/L	22.703	463.34	ppb	22.703	4.90%
QC value within limits for Cd 226.502 Recovery = 92.67%								
Co 228.616†	9391.3	461.63	µg/L	24.552	461.63	ppb	24.552	5.32%

QC value within limits for Co 228.616 Recovery = 92.33%

Cr 267.716†	20865.4	459.24 µg/L	31.262	459.24 ppb	31.262	6.81%

QC value within limits for Cr 267.716 Recovery = 91.85%

Cu 324.752†	65075.5	455.24 µg/L	23.902	455.24 ppb	23.902	5.25%

QC value within limits for Cu 324.752 Recovery = 91.05%

Fe 238.204 Radial†	568.0	4823.8 µg/L	57.17	4823.8 ppb	57.17	1.19%

QC value within limits for Fe 238.204 Radial Recovery = 96.48%

K 766.490 Radial†	6746.7	4795.5 µg/L	45.22	4795.5 ppb	45.22	0.94%

QC value within limits for K 766.490 Radial Recovery = 95.91%

Mg 279.077 IEC†	536.3	4994.0 µg/L	45.66	4994.0 ppb	45.66	0.91%

QC value within limits for Mg 279.077 IEC Recovery = 99.88%

Mn 257.610†	135324.9	469.05 µg/L	16.289	469.05 ppb	16.289	3.47%

QC value within limits for Mn 257.610 Recovery = 93.81%

Mo 202.031†	4373.6	466.94 µg/L	46.322	466.94 ppb	46.322	9.92%

QC value within limits for Mo 202.031 Recovery = 93.39%

Na 589.592 Radial†	29441.2	9692.1 µg/L	84.60	9692.1 ppb	84.60	0.87%

QC value within limits for Na 589.592 Radial Recovery = 96.92%

Ni 231.604†	8433.5	460.62 µg/L	24.525	460.62 ppb	24.525	5.32%

QC value within limits for Ni 231.604 Recovery = 92.12%

P 214.914†	1077.3	2269.6 µg/L	201.96	2269.6 ppb	201.96	8.90%

QC value within limits for P 214.914 Recovery = 90.79%

Pb 220.353†	1735.0	463.13 µg/L	36.146	463.13 ppb	36.146	7.80%

QC value within limits for Pb 220.353 Recovery = 92.63%

S 181.975 Axial†	212.2	929.67 µg/L	60.871	929.67 ppb	60.871	6.55%

QC value within limits for S 181.975 Axial Recovery = 92.97%

Sb 206.836†	472.6	467.16 µg/L	39.999	467.16 ppb	39.999	8.56%

QC value within limits for Sb 206.836 Recovery = 93.43%

Se 196.026†	297.7	461.20 µg/L	34.847	461.20 ppb	34.847	7.56%

QC value within limits for Se 196.026 Recovery = 92.24%

SiO2†	22781.6	4906.1 µg/L	213.31	4906.1 ppb	213.31	4.35%

QC value within limits for SiO2 Recovery = 91.75%

Si 251.611†	27990.8	2301.0 µg/L	96.11	2301.0 ppb	96.11	4.18%

QC value within limits for Si 251.611 Recovery = 92.04%

Sn 189.927†	1020.1	469.24 µg/L	51.288	469.24 ppb	51.288	10.93%

QC value within limits for Sn 189.927 Recovery = 93.85%

Sr 421.552†	45669.7	473.42 µg/L	5.054	473.42 ppb	5.054	1.07%

QC value within limits for Sr 421.552 Recovery = 94.68%

Ti 334.940†	191725.1	460.86 µg/L	18.074	460.86 ppb	18.074	3.92%

QC value within limits for Ti 334.940 Recovery = 92.17%

Tl 190.801†	335.0	473.16 µg/L	27.695	473.16 ppb	27.695	5.85%

QC value within limits for Tl 190.801 Recovery = 94.63%

U 409.014†	5095.6	460.37 µg/L	28.818	460.37 ppb	28.818	6.26%

QC value within limits for U 409.014 Recovery = 92.07%

V 292.402†	42828.8	462.14 µg/L	26.978	462.14 ppb	26.978	5.84%

QC value within limits for V 292.402 Recovery = 92.43%

Zn 213.857†	18473.7	458.03 µg/L	23.826	458.03 ppb	23.826	5.20%

QC value within limits for Zn 213.857 Recovery = 91.61%

All analyte(s) passed QC.

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:41:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	58584.5	58584.5	107	%			16:42:04
1	Al 396.153Radial†	51.2	57.8	43.068	µg/L	43.068	ppb	16:42:04
1	Ca 317.933Radial†	241.7	46.0	43.344	µg/L	43.344	ppb	16:42:24
1	Fe 238.204 Radial†	14.5	-1.0	-8.1938	µg/L	-8.1938	ppb	16:42:24
1	K 766.490 Radial†	158.2	19.0	13.495	µg/L	13.495	ppb	16:42:04
1	Mg 279.077 IEC†	19.4	6.8	63.641	µg/L	63.641	ppb	16:42:24
1	Na 589.592 Radial†	1003.5	392.9	129.35	µg/L	129.35	ppb	16:42:04
1	Sr 421.552†	45.5	2.9	0.0298	µg/L	0.0298	ppb	16:42:04
1	Sc 361.383	2059865.1	2059865.1	107.86	%			16:43:26
1	Y 371.029	1412010.5	1412010.5	107.79	%			16:43:26
1	Ag 328.068†	-580.2	26.6	0.2127	µg/L	0.2127	ppb	16:43:32
1	As 188.979†	-2.2	-3.1	-6.1457	µg/L	-6.1457	ppb	16:43:52
1	B 249.677†	314.7	-39.7	-1.7298	µg/L	-1.7298	ppb	16:43:52
1	Ba 233.527†	-34.6	-6.1	-0.1574	µg/L	-0.1574	ppb	16:43:52
1	Be 313.107†	-3476.5	217.1	0.1418	µg/L	0.1418	ppb	16:43:32
1	Cd 226.502†	-142.5	10.0	0.2771	µg/L	0.2771	ppb	16:43:52
1	Co 228.616†	-11.6	-1.9	-0.0950	µg/L	-0.0950	ppb	16:43:52
1	Cr 267.716†	-40.1	15.2	0.3343	µg/L	0.3343	ppb	16:43:32
1	Cu 324.752†	2513.6	-155.6	-1.0878	µg/L	-1.0878	ppb	16:43:32
1	Mn 257.610†	-238.3	23.1	0.0765	µg/L	0.0765	ppb	16:43:52
1	Mo 202.031†	-4.7	3.2	0.3434	µg/L	0.3434	ppb	16:43:52
1	Ni 231.604†	310.9	-14.0	-0.7640	µg/L	-0.7640	ppb	16:43:52
1	P 214.914†	32.2	2.3	4.9663	µg/L	4.9663	ppb	16:43:52
1	Pb 220.353†	102.0	-2.6	-0.7002	µg/L	-0.7002	ppb	16:43:52
1	S 181.975 Axial†	19.3	3.1	13.368	µg/L	13.368	ppb	16:43:52
1	Sb 206.836†	23.2	-5.4	-5.3618	µg/L	-5.3618	ppb	16:43:52
1	Se 196.026†	20.8	3.4	5.1089	µg/L	5.1089	ppb	16:43:52
1	SiO2†	1256.8	-84.7	-18.250	µg/L	-18.250	ppb	16:43:32
1	Si 251.611†	299.6	-35.1	-2.8840	µg/L	-2.8840	ppb	16:43:52
1	Sn 189.927†	-1.9	-0.9	-0.4213	µg/L	-0.4213	ppb	16:43:52
1	Ti 334.940†	103.7	-20.0	-0.0524	µg/L	-0.0524	ppb	16:43:32
1	Tl 190.801†	-18.7	7.0	9.7650	µg/L	9.7650	ppb	16:43:52
1	U 409.014†	8.9	61.9	5.6031	µg/L	5.6031	ppb	16:43:32
1	V 292.402†	-13.8	31.5	0.3435	µg/L	0.3435	ppb	16:43:32
1	Zn 213.857†	488.8	-22.3	-0.5552	µg/L	-0.5552	ppb	16:43:52
2	Sc RADIAL	57826.0	57826.0	106	%			16:42:30
2	Al 396.153Radial†	36.0	44.1	32.860	µg/L	32.860	ppb	16:42:30
2	Ca 317.933Radial†	243.6	50.8	47.787	µg/L	47.787	ppb	16:42:50
2	Fe 238.204 Radial†	18.8	3.3	27.831	µg/L	27.831	ppb	16:42:50
2	K 766.490 Radial†	189.0	49.9	35.479	µg/L	35.479	ppb	16:42:30
2	Mg 279.077 IEC†	19.0	6.7	61.954	µg/L	61.954	ppb	16:42:50
2	Na 589.592 Radial†	991.6	394.0	129.71	µg/L	129.71	ppb	16:42:30
2	Sr 421.552†	62.3	19.3	0.1997	µg/L	0.1997	ppb	16:42:30
2	Sc 361.383	2019733.9	2019733.9	105.75	%			16:43:58
2	Y 371.029	1384706.2	1384706.2	105.71	%			16:43:58
2	Ag 328.068†	-558.4	36.5	0.2916	µg/L	0.2916	ppb	16:44:04
2	As 188.979†	-1.6	-2.7	-5.2610	µg/L	-5.2610	ppb	16:44:24
2	B 249.677†	316.8	-31.9	-1.4069	µg/L	-1.4069	ppb	16:44:24
2	Ba 233.527†	-28.3	-0.8	-0.0199	µg/L	-0.0199	ppb	16:44:24
2	Be 313.107†	-3437.1	190.3	0.1243	µg/L	0.1243	ppb	16:44:04
2	Cd 226.502†	-144.6	5.4	0.1447	µg/L	0.1447	ppb	16:44:24
2	Co 228.616†	-10.6	-1.2	-0.0595	µg/L	-0.0595	ppb	16:44:24
2	Cr 267.716†	-44.1	10.7	0.2350	µg/L	0.2350	ppb	16:44:04
2	Cu 324.752†	2441.7	-177.3	-1.2343	µg/L	-1.2343	ppb	16:44:04
2	Mn 257.610†	-221.2	34.9	0.1222	µg/L	0.1222	ppb	16:44:24
2	Mo 202.031†	-2.8	4.9	0.5203	µg/L	0.5203	ppb	16:44:24
2	Ni 231.604†	305.8	-13.1	-0.7134	µg/L	-0.7134	ppb	16:44:24
2	P 214.914†	32.5	3.1	6.8494	µg/L	6.8494	ppb	16:44:24
2	Pb 220.353†	110.5	7.3	1.9444	µg/L	1.9444	ppb	16:44:24

2	S 181.975 Axial†	18.0	2.2	9.5789 µg/L	9.5789 ppb	16:44:24
2	Sb 206.836†	26.9	-1.5	-1.5033 µg/L	-1.5033 ppb	16:44:24
2	Se 196.026†	9.1	-7.3	-11.082 µg/L	-11.082 ppb	16:44:24
2	SiO2†	1234.9	-82.3	-17.728 µg/L	-17.728 ppb	16:44:04
2	Si 251.611†	315.8	-14.3	-1.1723 µg/L	-1.1723 ppb	16:44:24
2	Sn 189.927†	-0.9	0.0	0.0122 µg/L	0.0122 ppb	16:44:24
2	Ti 334.940†	107.0	-14.9	-0.0400 µg/L	-0.0400 ppb	16:44:04
2	Tl 190.801†	-22.2	3.3	4.6398 µg/L	4.6398 ppb	16:44:24
2	U 409.014†	11.6	64.6	5.8396 µg/L	5.8396 ppb	16:44:04
2	V 292.402†	-47.1	-0.3	0.0106 µg/L	0.0106 ppb	16:44:04
2	Zn 213.857†	485.9	-16.1	-0.4022 µg/L	-0.4022 ppb	16:44:24
3	Sc RADIAL	58203.8	58203.8	107 %		16:42:56
3	Al 396.153Radial†	16.5	25.6	19.057 µg/L	19.057 ppb	16:42:56
3	Ca 317.933Radial†	234.3	40.6	38.198 µg/L	38.198 ppb	16:43:16
3	Fe 238.204 Radial†	16.0	0.5	4.0830 µg/L	4.0830 ppb	16:43:16
3	K 766.490 Radial†	180.9	41.2	29.300 µg/L	29.300 ppb	16:42:56
3	Mg 279.077 IEC†	18.0	5.6	52.283 µg/L	52.283 ppb	16:43:16
3	Na 589.592 Radial†	920.7	321.4	105.80 µg/L	105.80 ppb	16:42:56
3	Sr 421.552†	52.3	9.5	0.0985 µg/L	0.0985 ppb	16:42:56
3	Sc 361.383	1997484.6	1997484.6	104.59 %		16:44:31
3	Y 371.029	1369124.4	1369124.4	104.52 %		16:44:31
3	Ag 328.068†	-544.9	43.6	0.3481 µg/L	0.3481 ppb	16:44:36
3	As 188.979†	3.1	1.8	3.4746 µg/L	3.4746 ppb	16:44:57
3	B 249.677†	317.2	-28.2	-1.2336 µg/L	-1.2336 ppb	16:44:57
3	Ba 233.527†	-26.0	1.1	0.0301 µg/L	0.0301 ppb	16:44:57
3	Be 313.107†	-3380.0	208.8	0.1363 µg/L	0.1363 ppb	16:44:36
3	Cd 226.502†	-138.7	9.5	0.2617 µg/L	0.2617 ppb	16:44:57
3	Co 228.616†	-17.3	-7.7	-0.3772 µg/L	-0.3772 ppb	16:44:57
3	Cr 267.716†	-57.1	-2.2	-0.0487 µg/L	-0.0487 ppb	16:44:36
3	Cu 324.752†	2481.2	-113.8	-0.7943 µg/L	-0.7943 ppb	16:44:36
3	Mn 257.610†	-222.0	31.9	0.1088 µg/L	0.1088 ppb	16:44:57
3	Mo 202.031†	-5.2	2.6	0.2766 µg/L	0.2766 ppb	16:44:57
3	Ni 231.604†	300.3	-15.1	-0.8254 µg/L	-0.8254 ppb	16:44:57
3	P 214.914†	30.5	1.5	3.4004 µg/L	3.4004 ppb	16:44:57
3	Pb 220.353†	108.4	6.5	1.7342 µg/L	1.7342 ppb	16:44:57
3	S 181.975 Axial†	15.4	-0.1	-0.3301 µg/L	-0.3301 ppb	16:44:57
3	Sb 206.836†	27.4	-0.8	-0.7588 µg/L	-0.7588 ppb	16:44:57
3	Se 196.026†	19.0	2.4	3.5402 µg/L	3.5402 ppb	16:44:57
3	SiO2†	1246.0	-58.7	-12.639 µg/L	-12.639 ppb	16:44:36
3	Si 251.611†	309.0	-17.4	-1.4306 µg/L	-1.4306 ppb	16:44:57
3	Sn 189.927†	-0.1	0.8	0.3816 µg/L	0.3816 ppb	16:44:57
3	Ti 334.940†	122.3	0.8	-0.0015 µg/L	-0.0015 ppb	16:44:36
3	Tl 190.801†	-19.4	5.7	7.9510 µg/L	7.9510 ppb	16:44:57
3	U 409.014†	-119.0	-60.2	-5.4508 µg/L	-5.4508 ppb	16:44:36
3	V 292.402†	-13.3	31.5	0.3324 µg/L	0.3324 ppb	16:44:36
3	Zn 213.857†	491.8	-5.3	-0.1315 µg/L	-0.1315 ppb	16:44:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2025694.5	106.07	%	1.655				1.56%
Sc RADIAL	58204.8	107	%	0.7				0.65%
Y 371.029	1388613.7	106.01	%	1.657				1.56%
Ag 328.068†	35.6	0.2841	µg/L	0.06799	0.2841	ppb	0.06799	23.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	42.5	31.661	µg/L	12.0501	31.661	ppb	12.0501	38.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-2.6440	µg/L	5.31733	-2.6440	ppb	5.31733	201.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-33.2	-1.4568	µg/L	0.25185	-1.4568	ppb	0.25185	17.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.9	-0.0491	µg/L	0.09709	-0.0491	ppb	0.09709	197.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	205.4	0.1341	µg/L	0.00896	0.1341	ppb	0.00896	6.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	45.8	43.110	µg/L	4.7990	43.110	ppb	4.7990	11.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.3	0.2278	µg/L	0.07242	0.2278	ppb	0.07242	31.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.6	-0.1772	µg/L	0.17409	-0.1772	ppb	0.17409	98.23%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	7.9	0.1735 µg/L	0.19876	0.1735 ppb	0.19876	114.54%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-148.9	-1.0388 µg/L	0.22407	-1.0388 ppb	0.22407	21.57%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	0.9	7.9067 µg/L	18.31420	7.9067 ppb	18.31420	231.63%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	36.7	26.091 µg/L	11.3376	26.091 ppb	11.3376	43.45%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	6.4	59.293 µg/L	6.1293	59.293 ppb	6.1293	10.34%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	30.0	0.1025 µg/L	0.02350	0.1025 ppb	0.02350	22.92%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	3.6	0.3801 µg/L	0.12595	0.3801 ppb	0.12595	33.13%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	369.4	121.62 µg/L	13.704	121.62 ppb	13.704	11.27%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-14.0	-0.7676 µg/L	0.05609	-0.7676 ppb	0.05609	7.31%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	2.3	5.0720 µg/L	1.72695	5.0720 ppb	1.72695	34.05%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	3.7	0.9928 µg/L	1.46997	0.9928 ppb	1.46997	148.06%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	1.7	7.5391 µg/L	7.07334	7.5391 ppb	7.07334	93.82%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-2.6	-2.5413 µg/L	2.47086	-2.5413 ppb	2.47086	97.23%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-0.5	-0.8111 µg/L	8.92964	-0.8111 ppb	8.92964	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-75.3	-16.206 µg/L	3.0998	-16.206 ppb	3.0998	19.13%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	-22.2	-1.8290 µg/L	0.92279	-1.8290 ppb	0.92279	50.45%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-0.0	-0.0092 µg/L	0.40185	-0.0092 ppb	0.40185	>999.9%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	10.5	0.1093 µg/L	0.08548	0.1093 ppb	0.08548	78.18%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-11.4	-0.0313 µg/L	0.02652	-0.0313 ppb	0.02652	84.74%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	5.3	7.4520 µg/L	2.59879	7.4520 ppb	2.59879	34.87%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	22.1	1.9973 µg/L	6.45136	1.9973 ppb	6.45136	323.00%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	20.9	0.2288 µg/L	0.18906	0.2288 ppb	0.18906	82.63%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-14.6	-0.3630 µg/L	0.21454	-0.3630 ppb	0.21454	59.11%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Analysis Begun

Start Time: 2/11/2010 16:58:42 Plasma On Time: 2/8/2010 03:37:33
Logged In Analyst: optima Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1 Autosampler Location: 1
Sample ID: CCV Date Collected: 2/11/2010 16:58:44
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58304.7	58304.7	107	%			16:59:20
1	Al 396.153Radial†	6786.5	6362.5	4732.0	µg/L	4732.0	ppb	16:59:20
1	Ca 317.933Radial†	5536.9	5003.5	4711.1	µg/L	4711.1	ppb	16:59:40
1	Fe 238.204 Radial†	610.2	556.6	4728.2	µg/L	4728.2	ppb	16:59:40
1	K 766.490 Radial†	7283.7	6689.2	4754.7	µg/L	4754.7	ppb	16:59:20
1	Mg 279.077 IEC†	569.3	521.6	4857.3	µg/L	4857.3	ppb	16:59:40
1	Na 589.592 Radial†	31197.2	28659.4	9434.8	µg/L	9434.8	ppb	16:59:20
1	Sr 421.552†	48428.4	45290.4	469.49	µg/L	469.49	ppb	16:59:20
1	Sc 361.383	2048192.0	2048192.0	107.24	%			17:00:43
1	Y 371.029	1396873.4	1396873.4	106.64	%			17:00:43
1	Ag 328.068†	62792.0	59115.0	472.54	µg/L	472.54	ppb	17:00:49
1	As 188.979†	276.2	256.4	500.17	µg/L	500.17	ppb	17:01:09
1	B 249.677†	11976.6	10836.1	471.87	µg/L	471.87	ppb	17:00:49
1	Ba 233.527†	19779.6	18469.6	481.79	µg/L	481.79	ppb	17:00:49
1	Be 313.107†	782023.1	732639.2	478.28	µg/L	478.28	ppb	17:00:43
1	Cd 226.502†	18757.9	17632.9	486.42	µg/L	486.42	ppb	17:00:49
1	Co 228.616†	10618.7	9910.3	487.18	µg/L	487.18	ppb	17:00:49
1	Cr 267.716†	23605.9	22063.7	485.62	µg/L	485.62	ppb	17:00:49
1	Cu 324.752†	75656.1	68059.5	476.07	µg/L	476.07	ppb	17:00:49
1	Mn 257.610†	150274.2	140367.5	486.51	µg/L	486.51	ppb	17:00:43
1	Mo 202.031†	4970.8	4642.6	495.64	µg/L	495.64	ppb	17:01:09
1	Ni 231.604†	9869.6	8900.8	486.13	µg/L	486.13	ppb	17:00:49
1	P 214.914†	1275.8	1162.0	2449.8	µg/L	2449.8	ppb	17:01:09
1	Pb 220.353†	2092.9	1854.3	494.97	µg/L	494.97	ppb	17:01:09
1	S 181.975 Axial†	258.0	225.7	989.09	µg/L	989.09	ppb	17:01:09
1	Sb 206.836†	558.6	493.9	488.34	µg/L	488.34	ppb	17:01:09
1	Se 196.026†	360.2	320.1	495.20	µg/L	495.20	ppb	17:01:09
1	SiO2†	26598.5	23551.8	5072.0	µg/L	5072.0	ppb	17:00:49
1	Si 251.611†	31394.2	28960.7	2380.7	µg/L	2380.7	ppb	17:00:49
1	Sn 189.927†	1171.7	1093.4	502.93	µg/L	502.93	ppb	17:01:09
1	Ti 334.940†	209687.5	195407.3	469.73	µg/L	469.73	ppb	17:00:43
1	Tl 190.801†	351.0	351.5	496.34	µg/L	496.34	ppb	17:01:09
1	U 409.014†	5705.8	5374.0	485.60	µg/L	485.60	ppb	17:00:49
1	V 292.402†	48262.6	45046.7	486.08	µg/L	486.08	ppb	17:00:49
1	Zn 213.857†	21405.2	19483.8	483.11	µg/L	483.11	ppb	17:00:49
2	Sc RADIAL	57809.4	57809.4	106	%			16:59:45
2	Al 396.153Radial†	6713.1	6347.6	4720.4	µg/L	4720.4	ppb	16:59:45
2	Ca 317.933Radial†	5573.2	5082.2	4785.2	µg/L	4785.2	ppb	17:00:06
2	Fe 238.204 Radial†	613.9	565.0	4800.0	µg/L	4800.0	ppb	17:00:06
2	K 766.490 Radial†	7246.0	6712.1	4770.9	µg/L	4770.9	ppb	16:59:45
2	Mg 279.077 IEC†	566.2	523.3	4873.4	µg/L	4873.4	ppb	17:00:06
2	Na 589.592 Radial†	31072.8	28792.1	9478.5	µg/L	9478.5	ppb	16:59:45
2	Sr 421.552†	48008.7	45282.6	469.41	µg/L	469.41	ppb	16:59:45
2	Sc 361.383	1951160.7	1951160.7	102.16	%			17:01:16
2	Y 371.029	1331856.8	1331856.8	101.67	%			17:01:16
2	Ag 328.068†	64120.5	63327.2	506.22	µg/L	506.22	ppb	17:01:22
2	As 188.979†	277.7	270.7	528.08	µg/L	528.08	ppb	17:01:43

2	B 249.677†	12297.9	11706.0	509.91 µg/L	509.91 ppb	17:01:22
2	Ba 233.527†	20306.8	19902.8	519.17 µg/L	519.17 ppb	17:01:22
2	Be 313.107†	802212.2	788663.9	514.85 µg/L	514.85 ppb	17:01:16
2	Cd 226.502†	19256.8	18991.1	523.92 µg/L	523.92 ppb	17:01:22
2	Co 228.616†	10882.2	10660.6	524.05 µg/L	524.05 ppb	17:01:22
2	Cr 267.716†	24198.0	23738.0	522.47 µg/L	522.47 ppb	17:01:22
2	Cu 324.752†	77364.3	73239.8	512.26 µg/L	512.26 ppb	17:01:22
2	Mn 257.610†	154462.4	151435.4	524.84 µg/L	524.84 ppb	17:01:16
2	Mo 202.031†	4974.0	4876.2	520.57 µg/L	520.57 ppb	17:01:43
2	Ni 231.604†	10143.4	9626.4	525.76 µg/L	525.76 ppb	17:01:22
2	P 214.914†	1278.9	1224.2	2579.9 µg/L	2579.9 ppb	17:01:43
2	Pb 220.353†	2103.7	1962.0	523.68 µg/L	523.68 ppb	17:01:43
2	S 181.975 Axial†	261.1	240.7	1054.7 µg/L	1054.7 ppb	17:01:43
2	Sb 206.836†	565.0	526.1	520.02 µg/L	520.02 ppb	17:01:43
2	Se 196.026†	363.5	340.0	525.72 µg/L	525.72 ppb	17:01:43
2	SiO2†	27321.6	25493.0	5490.1 µg/L	5490.1 ppb	17:01:22
2	Si 251.611†	32162.6	31168.6	2562.2 µg/L	2562.2 ppb	17:01:22
2	Sn 189.927†	1172.7	1148.8	528.40 µg/L	528.40 ppb	17:01:43
2	Ti 334.940†	216025.0	211334.0	508.04 µg/L	508.04 ppb	17:01:16
2	Tl 190.801†	350.8	367.7	519.30 µg/L	519.30 ppb	17:01:43
2	U 409.014†	5846.6	5776.4	522.02 µg/L	522.02 ppb	17:01:22
2	V 292.402†	49557.7	48552.4	523.76 µg/L	523.76 ppb	17:01:22
2	Zn 213.857†	21845.1	20906.9	518.41 µg/L	518.41 ppb	17:01:22
3	Sc RADIAL	58043.7	58043.7	106 %		17:00:11
3	Al 396.153Radial†	6748.6	6355.4	4728.2 µg/L	4728.2 ppb	17:00:11
3	Ca 317.933Radial†	5566.3	5054.5	4759.1 µg/L	4759.1 ppb	17:00:32
3	Fe 238.204 Radial†	616.6	565.2	4800.6 µg/L	4800.6 ppb	17:00:32
3	K 766.490 Radial†	7187.1	6629.1	4711.9 µg/L	4711.9 ppb	17:00:11
3	Mg 279.077 IEC†	562.5	517.6	4819.1 µg/L	4819.1 ppb	17:00:32
3	Na 589.592 Radial†	31179.2	28773.8	9472.4 µg/L	9472.4 ppb	17:00:11
3	Sr 421.552†	48277.8	45352.7	470.13 µg/L	470.13 ppb	17:00:11
3	Sc 361.383	2003631.8	2003631.8	104.91 %		17:01:50
3	Y 371.029	1367447.8	1367447.8	104.39 %		17:01:50
3	Ag 328.068†	59826.0	57590.0	460.26 µg/L	460.26 ppb	17:01:56
3	As 188.979†	236.7	224.5	438.03 µg/L	438.03 ppb	17:02:16
3	B 249.677†	11388.2	10523.6	458.12 µg/L	458.12 ppb	17:01:56
3	Ba 233.527†	18491.5	17651.9	460.45 µg/L	460.45 ppb	17:01:56
3	Be 313.107†	746381.1	714882.8	466.69 µg/L	466.69 ppb	17:01:50
3	Cd 226.502†	17452.2	16777.4	462.78 µg/L	462.78 ppb	17:01:56
3	Co 228.616†	9792.8	9343.2	459.24 µg/L	459.24 ppb	17:01:56
3	Cr 267.716†	21341.5	20394.9	448.89 µg/L	448.89 ppb	17:01:56
3	Cu 324.752†	70171.6	64400.7	450.52 µg/L	450.52 ppb	17:01:56
3	Mn 257.610†	143677.7	137196.1	475.54 µg/L	475.54 ppb	17:01:50
3	Mo 202.031†	4142.0	3955.7	422.34 µg/L	422.34 ppb	17:02:16
3	Ni 231.604†	9135.9	8406.0	459.11 µg/L	459.11 ppb	17:01:56
3	P 214.914†	1088.5	1009.9	2124.6 µg/L	2124.6 ppb	17:02:16
3	Pb 220.353†	1832.8	1649.8	440.26 µg/L	440.26 ppb	17:02:16
3	S 181.975 Axial†	227.5	202.0	885.22 µg/L	885.22 ppb	17:02:16
3	Sb 206.836†	480.8	431.3	425.93 µg/L	425.93 ppb	17:02:16
3	Se 196.026†	317.8	287.1	445.21 µg/L	445.21 ppb	17:02:16
3	SiO2†	25159.1	22731.4	4895.3 µg/L	4895.3 ppb	17:01:56
3	Si 251.611†	29597.8	27899.4	2293.5 µg/L	2293.5 ppb	17:01:56
3	Sn 189.927†	953.9	910.2	418.64 µg/L	418.64 ppb	17:02:16
3	Ti 334.940†	199390.2	189940.4	456.58 µg/L	456.58 ppb	17:01:50
3	Tl 190.801†	316.4	325.9	460.38 µg/L	460.38 ppb	17:02:16
3	U 409.014†	5187.8	4998.6	451.60 µg/L	451.60 ppb	17:01:56
3	V 292.402†	44415.7	42380.8	456.99 µg/L	456.99 ppb	17:01:56
3	Zn 213.857†	19887.4	18480.9	458.23 µg/L	458.23 ppb	17:01:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2000994.9	104.77	%	2.543				2.43%
Sc RADIAL	58052.6	106	%	0.5				0.43%
Y 371.029	1365392.6	104.23	%	2.485				2.38%
Ag 328.068†	60010.7	479.67	µg/L	23.794	479.67	ppb	23.794	4.96%
QC value within limits for Ag 328.068 Recovery = 95.93%								
Al 396.153Radial†	6355.1	4726.8	µg/L	5.90	4726.8	ppb	5.90	0.12%
QC value within limits for Al 396.153Radial Recovery = 94.54%								
As 188.979†	250.5	488.76	µg/L	46.092	488.76	ppb	46.092	9.43%

QC value within limits for As 188.979 Recovery = 97.75%

B 249.677†	11021.9	479.97 µg/L	26.827	479.97 ppb	26.827	5.59%
QC value within limits for B 249.677 Recovery = 95.99%						
Ba 233.527†	18674.8	487.13 µg/L	29.727	487.13 ppb	29.727	6.10%
QC value within limits for Ba 233.527 Recovery = 97.43%						
Be 313.107†	745395.3	486.60 µg/L	25.138	486.60 ppb	25.138	5.17%
QC value within limits for Be 313.107 Recovery = 97.32%						
Ca 317.933Radial†	5046.7	4751.8 µg/L	37.61	4751.8 ppb	37.61	0.79%
QC value within limits for Ca 317.933Radial Recovery = 95.04%						
Cd 226.502†	17800.5	491.04 µg/L	30.831	491.04 ppb	30.831	6.28%
QC value within limits for Cd 226.502 Recovery = 98.21%						
Co 228.616†	9971.4	490.16 µg/L	32.508	490.16 ppb	32.508	6.63%
QC value within limits for Co 228.616 Recovery = 98.03%						
Cr 267.716†	22065.5	485.66 µg/L	36.788	485.66 ppb	36.788	7.57%
QC value within limits for Cr 267.716 Recovery = 97.13%						
Cu 324.752†	68566.7	479.62 µg/L	31.024	479.62 ppb	31.024	6.47%
QC value within limits for Cu 324.752 Recovery = 95.92%						
Fe 238.204 Radial†	562.3	4776.3 µg/L	41.61	4776.3 ppb	41.61	0.87%
QC value within limits for Fe 238.204 Radial Recovery = 95.53%						
K 766.490 Radial†	6676.8	4745.8 µg/L	30.47	4745.8 ppb	30.47	0.64%
QC value within limits for K 766.490 Radial Recovery = 94.92%						
Mg 279.077 IEC†	520.8	4849.9 µg/L	27.89	4849.9 ppb	27.89	0.57%
QC value within limits for Mg 279.077 IEC Recovery = 97.00%						
Mn 257.610†	142999.7	495.63 µg/L	25.888	495.63 ppb	25.888	5.22%
QC value within limits for Mn 257.610 Recovery = 99.13%						
Mo 202.031†	4491.5	479.52 µg/L	51.064	479.52 ppb	51.064	10.65%
QC value within limits for Mo 202.031 Recovery = 95.90%						
Na 589.592 Radial†	28741.7	9461.9 µg/L	23.68	9461.9 ppb	23.68	0.25%
QC value within limits for Na 589.592 Radial Recovery = 94.62%						
Ni 231.604†	8977.7	490.33 µg/L	33.521	490.33 ppb	33.521	6.84%
QC value within limits for Ni 231.604 Recovery = 98.07%						
P 214.914†	1132.0	2384.7 µg/L	234.53	2384.7 ppb	234.53	9.83%
QC value within limits for P 214.914 Recovery = 95.39%						
Pb 220.353†	1822.0	486.30 µg/L	42.376	486.30 ppb	42.376	8.71%
QC value within limits for Pb 220.353 Recovery = 97.26%						
S 181.975 Axial†	222.8	976.34 µg/L	85.462	976.34 ppb	85.462	8.75%
QC value within limits for S 181.975 Axial Recovery = 97.63%						
Sb 206.836†	483.8	478.10 µg/L	47.873	478.10 ppb	47.873	10.01%
QC value within limits for Sb 206.836 Recovery = 95.62%						
Se 196.026†	315.7	488.71 µg/L	40.646	488.71 ppb	40.646	8.32%
QC value within limits for Se 196.026 Recovery = 97.74%						
SiO2†	23925.4	5152.5 µg/L	305.42	5152.5 ppb	305.42	5.93%
QC value within limits for SiO2 Recovery = 96.35%						
Si 251.611†	29342.9	2412.1 µg/L	137.10	2412.1 ppb	137.10	5.68%
QC value within limits for Si 251.611 Recovery = 96.49%						
Sn 189.927†	1050.8	483.32 µg/L	57.445	483.32 ppb	57.445	11.89%
QC value within limits for Sn 189.927 Recovery = 96.66%						
Sr 421.552†	45308.6	469.68 µg/L	0.398	469.68 ppb	0.398	0.08%
QC value within limits for Sr 421.552 Recovery = 93.94%						
Ti 334.940†	198893.9	478.12 µg/L	26.734	478.12 ppb	26.734	5.59%
QC value within limits for Ti 334.940 Recovery = 95.62%						
Tl 190.801†	348.4	492.01 µg/L	29.696	492.01 ppb	29.696	6.04%
QC value within limits for Tl 190.801 Recovery = 98.40%						
U 409.014†	5383.0	486.40 µg/L	35.218	486.40 ppb	35.218	7.24%
QC value within limits for U 409.014 Recovery = 97.28%						
V 292.402†	45326.6	488.94 µg/L	33.478	488.94 ppb	33.478	6.85%
QC value within limits for V 292.402 Recovery = 97.79%						
Zn 213.857†	19623.9	486.59 µg/L	30.241	486.59 ppb	30.241	6.21%
QC value within limits for Zn 213.857 Recovery = 97.32%						

All analyte(s) passed QC.

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:02:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	56368.9	56368.9	103	%			17:03:01
1	Al 396.153Radial†	-30.7	-19.6	-14.585	µg/L	-14.585	ppb	17:03:01
1	Ca 317.933Radial†	198.1	12.6	11.864	µg/L	11.864	ppb	17:03:21
1	Fe 238.204 Radial†	17.2	2.2	18.515	µg/L	18.515	ppb	17:03:21
1	K 766.490 Radial†	209.8	74.8	53.133	µg/L	53.133	ppb	17:03:01
1	Mg 279.077 IEC†	16.1	4.3	39.936	µg/L	39.936	ppb	17:03:21
1	Na 589.592 Radial†	774.1	207.6	68.329	µg/L	68.329	ppb	17:03:01
1	Sr 421.552†	33.0	-7.6	-0.0789	µg/L	-0.0789	ppb	17:03:01
1	Sc 361.383	2029236.5	2029236.5	106.25	%			17:04:24
1	Y 371.029	1388942.8	1388942.8	106.03	%			17:04:24
1	Ag 328.068†	-592.1	7.2	0.0607	µg/L	0.0607	ppb	17:04:29
1	As 188.979†	-0.6	-1.7	-3.3695	µg/L	-3.3695	ppb	17:04:50
1	B 249.677†	324.7	-25.9	-1.1417	µg/L	-1.1417	ppb	17:04:50
1	Ba 233.527†	-22.4	4.9	0.1278	µg/L	0.1278	ppb	17:04:50
1	Be 313.107†	-3566.1	84.2	0.0549	µg/L	0.0549	ppb	17:04:29
1	Cd 226.502†	-151.8	-0.8	-0.0243	µg/L	-0.0243	ppb	17:04:50
1	Co 228.616†	-13.1	-3.5	-0.1727	µg/L	-0.1727	ppb	17:04:50
1	Cr 267.716†	-46.3	8.8	0.1931	µg/L	0.1931	ppb	17:04:50
1	Cu 324.752†	2496.7	-136.3	-0.9495	µg/L	-0.9495	ppb	17:04:29
1	Mn 257.610†	-248.9	9.9	0.0351	µg/L	0.0351	ppb	17:04:50
1	Mo 202.031†	-5.8	2.1	0.2273	µg/L	0.2273	ppb	17:04:50
1	Ni 231.604†	303.7	-16.3	-0.8932	µg/L	-0.8932	ppb	17:04:50
1	P 214.914†	32.7	3.2	6.8843	µg/L	6.8843	ppb	17:04:50
1	Pb 220.353†	96.4	-6.5	-1.7203	µg/L	-1.7203	ppb	17:04:50
1	S 181.975 Axial†	20.6	4.6	20.049	µg/L	20.049	ppb	17:04:50
1	Sb 206.836†	26.8	-1.7	-1.7124	µg/L	-1.7124	ppb	17:04:50
1	Se 196.026†	16.1	-0.6	-0.9715	µg/L	-0.9715	ppb	17:04:50
1	SiO2†	1235.6	-87.2	-18.769	µg/L	-18.769	ppb	17:04:29
1	Si 251.611†	286.6	-43.1	-3.5447	µg/L	-3.5447	ppb	17:04:50
1	Sn 189.927†	-4.0	-2.9	-1.3291	µg/L	-1.3291	ppb	17:04:50
1	Ti 334.940†	152.5	27.4	0.0631	µg/L	0.0631	ppb	17:04:29
1	Tl 190.801†	-22.1	3.5	4.9105	µg/L	4.9105	ppb	17:04:50
1	U 409.014†	-71.0	-13.2	-1.1992	µg/L	-1.1992	ppb	17:04:29
1	V 292.402†	-14.4	30.7	0.3301	µg/L	0.3301	ppb	17:04:29
1	Zn 213.857†	481.1	-22.7	-0.5654	µg/L	-0.5654	ppb	17:04:50
2	Sc RADIAL	56481.9	56481.9	103	%			17:03:27
2	Al 396.153Radial†	9.3	19.1	14.233	µg/L	14.233	ppb	17:03:27
2	Ca 317.933Radial†	192.6	6.9	6.5217	µg/L	6.5217	ppb	17:03:47
2	Fe 238.204 Radial†	14.6	-0.3	-2.9604	µg/L	-2.9604	ppb	17:03:47
2	K 766.490 Radial†	162.5	28.6	20.329	µg/L	20.329	ppb	17:03:27
2	Mg 279.077 IEC†	13.0	1.3	11.979	µg/L	11.979	ppb	17:03:47
2	Na 589.592 Radial†	797.1	228.3	75.169	µg/L	75.169	ppb	17:03:27
2	Sr 421.552†	46.5	5.4	0.0561	µg/L	0.0561	ppb	17:03:27
2	Sc 361.383	2012770.6	2012770.6	105.39	%			17:04:56
2	Y 371.029	1377597.1	1377597.1	105.17	%			17:04:56
2	Ag 328.068†	-578.5	15.6	0.1231	µg/L	0.1231	ppb	17:05:01
2	As 188.979†	2.2	1.0	1.9088	µg/L	1.9088	ppb	17:05:22
2	B 249.677†	310.5	-36.9	-1.6105	µg/L	-1.6105	ppb	17:05:22
2	Ba 233.527†	-26.6	0.8	0.0202	µg/L	0.0202	ppb	17:05:22
2	Be 313.107†	-3607.4	17.5	0.0114	µg/L	0.0114	ppb	17:05:01
2	Cd 226.502†	-140.3	9.0	0.2482	µg/L	0.2482	ppb	17:05:22
2	Co 228.616†	-20.8	-10.9	-0.5380	µg/L	-0.5380	ppb	17:05:22
2	Cr 267.716†	-50.1	4.9	0.1067	µg/L	0.1067	ppb	17:05:22
2	Cu 324.752†	2459.5	-152.4	-1.0650	µg/L	-1.0650	ppb	17:05:01
2	Mn 257.610†	-250.9	6.1	0.0201	µg/L	0.0201	ppb	17:05:22
2	Mo 202.031†	-3.2	4.5	0.4823	µg/L	0.4823	ppb	17:05:22
2	Ni 231.604†	300.2	-17.4	-0.9488	µg/L	-0.9488	ppb	17:05:22
2	P 214.914†	25.9	-3.0	-6.3600	µg/L	-6.3600	ppb	17:05:22
2	Pb 220.353†	99.5	-2.8	-0.7298	µg/L	-0.7298	ppb	17:05:22

2	S 181.975 Axial†	20.2	4.3	19.053 µg/L	19.053 ppb	17:05:22
2	Sb 206.836†	24.6	-3.6	-3.5810 µg/L	-3.5810 ppb	17:05:22
2	Se 196.026†	10.7	-5.7	-8.7427 µg/L	-8.7427 ppb	17:05:22
2	SiO2†	1253.5	-60.7	-13.065 µg/L	-13.065 ppb	17:05:01
2	Si 251.611†	291.0	-36.8	-3.0237 µg/L	-3.0237 ppb	17:05:22
2	Sn 189.927†	-0.9	-0.0	-0.0009 µg/L	-0.0009 ppb	17:05:22
2	Ti 334.940†	142.1	18.7	0.0441 µg/L	0.0441 ppb	17:05:01
2	Tl 190.801†	-21.2	4.2	5.8568 µg/L	5.8568 ppb	17:05:22
2	U 409.014†	-66.1	-9.1	-0.8270 µg/L	-0.8270 ppb	17:05:01
2	V 292.402†	-52.0	-5.1	-0.0519 µg/L	-0.0519 ppb	17:05:01
2	Zn 213.857†	477.8	-22.2	-0.5493 µg/L	-0.5493 ppb	17:05:22
3	Sc RADIAL	56062.3	56062.3	103 %		17:03:53
3	Al 396.153Radial†	-13.3	-2.8	-2.1100 µg/L	-2.1100 ppb	17:03:53
3	Ca 317.933Radial†	193.5	9.2	8.6834 µg/L	8.6834 ppb	17:04:13
3	Fe 238.204 Radial†	13.9	-1.0	-8.5236 µg/L	-8.5236 ppb	17:04:13
3	K 766.490 Radial†	145.6	13.3	9.4734 µg/L	9.4734 ppb	17:03:53
3	Mg 279.077 IEC†	12.4	0.8	7.7063 µg/L	7.7063 ppb	17:04:13
3	Na 589.592 Radial†	762.5	200.4	65.960 µg/L	65.960 ppb	17:03:53
3	Sr 421.552†	41.6	1.0	0.0099 µg/L	0.0099 ppb	17:03:53
3	Sc 361.383	1996457.8	1996457.8	104.54 %		17:05:28
3	Y 371.029	1367454.7	1367454.7	104.39 %		17:05:28
3	Ag 328.068†	-552.2	36.3	0.2878 µg/L	0.2878 ppb	17:05:33
3	As 188.979†	-1.4	-2.4	-4.7806 µg/L	-4.7806 ppb	17:05:54
3	B 249.677†	316.6	-28.6	-1.2466 µg/L	-1.2466 ppb	17:05:54
3	Ba 233.527†	-26.5	0.6	0.0163 µg/L	0.0163 ppb	17:05:54
3	Be 313.107†	-3498.2	94.1	0.0615 µg/L	0.0615 ppb	17:05:33
3	Cd 226.502†	-139.5	8.7	0.2407 µg/L	0.2407 ppb	17:05:54
3	Co 228.616†	-2.0	6.9	0.3417 µg/L	0.3417 ppb	17:05:54
3	Cr 267.716†	-37.2	16.7	0.3684 µg/L	0.3684 ppb	17:05:54
3	Cu 324.752†	2465.1	-128.0	-0.8950 µg/L	-0.8950 ppb	17:05:33
3	Mn 257.610†	-235.5	18.8	0.0637 µg/L	0.0637 ppb	17:05:54
3	Mo 202.031†	0.7	8.2	0.8795 µg/L	0.8795 ppb	17:05:54
3	Ni 231.604†	298.8	-16.4	-0.8963 µg/L	-0.8963 ppb	17:05:54
3	P 214.914†	31.0	2.0	4.4888 µg/L	4.4888 ppb	17:05:54
3	Pb 220.353†	112.9	10.8	2.8917 µg/L	2.8917 ppb	17:05:54
3	S 181.975 Axial†	16.6	1.1	4.7192 µg/L	4.7192 ppb	17:05:54
3	Sb 206.836†	24.2	-3.9	-3.7807 µg/L	-3.7807 ppb	17:05:54
3	Se 196.026†	10.9	-5.4	-8.2970 µg/L	-8.2970 ppb	17:05:54
3	SiO2†	1240.9	-63.0	-13.561 µg/L	-13.561 ppb	17:05:33
3	Si 251.611†	299.0	-26.9	-2.2074 µg/L	-2.2074 ppb	17:05:54
3	Sn 189.927†	0.3	1.1	0.5288 µg/L	0.5288 ppb	17:05:54
3	Ti 334.940†	59.1	-59.6	-0.1438 µg/L	-0.1438 ppb	17:05:33
3	Tl 190.801†	-24.5	0.9	1.2389 µg/L	1.2389 ppb	17:05:54
3	U 409.014†	-14.3	40.0	3.6190 µg/L	3.6190 ppb	17:05:33
3	V 292.402†	-38.2	7.6	0.0916 µg/L	0.0916 ppb	17:05:33
3	Zn 213.857†	475.0	-21.1	-0.5227 µg/L	-0.5227 ppb	17:05:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2012821.6	105.39	%	0.858				0.81%
Sc RADIAL	56304.4	103	%	0.4				0.39%
Y 371.029	1377998.2	105.20	%	0.821				0.78%
Ag 328.068†	19.7	0.1572	µg/L	0.11730	0.1572	ppb	0.11730	74.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.1	-0.8207	µg/L	14.45235	-0.8207	ppb	14.45235	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-2.0804	µg/L	3.52609	-2.0804	ppb	3.52609	169.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.5	-1.3329	µg/L	0.24603	-1.3329	ppb	0.24603	18.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0547	µg/L	0.06331	0.0547	ppb	0.06331	115.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	65.3	0.0426	µg/L	0.02720	0.0426	ppb	0.02720	63.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.6	9.0232	µg/L	2.68752	9.0232	ppb	2.68752	29.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.7	0.1549	µg/L	0.15521	0.1549	ppb	0.15521	100.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.5	-0.1230	µg/L	0.44196	-0.1230	ppb	0.44196	359.31%

QC value within limits for Co 228.616 Recovery = Not calculated
Cr 267.716† 10.1 0.2228 µg/L 0.13336 0.2228 ppb 0.13336 59.87%
QC value within limits for Cr 267.716 Recovery = Not calculated
Cu 324.752† -138.9 -0.9698 µg/L 0.08678 -0.9698 ppb 0.08678 8.95%
QC value within limits for Cu 324.752 Recovery = Not calculated
Fe 238.204 Radial† 0.3 2.3437 µg/L 14.27846 2.3437 ppb 14.27846 609.22%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated
K 766.490 Radial† 38.9 27.645 µg/L 22.7308 27.645 ppb 22.7308 82.22%
QC value within limits for K 766.490 Radial Recovery = Not calculated
Mg 279.077 IEC† 2.1 19.874 µg/L 17.5054 19.874 ppb 17.5054 88.08%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated
Mn 257.610† 11.6 0.0396 µg/L 0.02217 0.0396 ppb 0.02217 55.91%
QC value within limits for Mn 257.610 Recovery = Not calculated
Mo 202.031† 5.0 0.5297 µg/L 0.32865 0.5297 ppb 0.32865 62.05%
QC value within limits for Mo 202.031 Recovery = Not calculated
Na 589.592 Radial† 212.1 69.819 µg/L 4.7822 69.819 ppb 4.7822 6.85%
QC value within limits for Na 589.592 Radial Recovery = Not calculated
Ni 231.604† -16.7 -0.9128 µg/L 0.03120 -0.9128 ppb 0.03120 3.42%
QC value within limits for Ni 231.604 Recovery = Not calculated
P 214.914† 0.7 1.6710 µg/L 7.05748 1.6710 ppb 7.05748 422.34%
QC value within limits for P 214.914 Recovery = Not calculated
Pb 220.353† 0.5 0.1472 µg/L 2.42781 0.1472 ppb 2.42781 >999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated
S 181.975 Axial† 3.3 14.607 µg/L 8.5775 14.607 ppb 8.5775 58.72%
QC value within limits for S 181.975 Axial Recovery = Not calculated
Sb 206.836† -3.1 -3.0247 µg/L 1.14085 -3.0247 ppb 1.14085 37.72%
QC value within limits for Sb 206.836 Recovery = Not calculated
Se 196.026† -3.9 -6.0037 µg/L 4.36372 -6.0037 ppb 4.36372 72.68%
QC value within limits for Se 196.026 Recovery = Not calculated
SiO2† -70.3 -15.131 µg/L 3.1599 -15.131 ppb 3.1599 20.88%
QC value within limits for SiO2 Recovery = Not calculated
Si 251.611† -35.6 -2.9252 µg/L 0.67407 -2.9252 ppb 0.67407 23.04%
QC value within limits for Si 251.611 Recovery = Not calculated
Sn 189.927† -0.6 -0.2671 µg/L 0.95712 -0.2671 ppb 0.95712 358.38%
QC value within limits for Sn 189.927 Recovery = Not calculated
Sr 421.552† -0.4 -0.0043 µg/L 0.06861 -0.0043 ppb 0.06861 >999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated
Ti 334.940† -4.5 -0.0122 µg/L 0.11438 -0.0122 ppb 0.11438 935.94%
QC value within limits for Ti 334.940 Recovery = Not calculated
Tl 190.801† 2.9 4.0021 µg/L 2.43930 4.0021 ppb 2.43930 60.95%
QC value within limits for Tl 190.801 Recovery = Not calculated
U 409.014† 5.9 0.5309 µg/L 2.68081 0.5309 ppb 2.68081 504.91%
QC value within limits for U 409.014 Recovery = Not calculated
V 292.402† 11.1 0.1233 µg/L 0.19295 0.1233 ppb 0.19295 156.48%
QC value within limits for V 292.402 Recovery = Not calculated
Zn 213.857† -22.0 -0.5458 µg/L 0.02154 -0.5458 ppb 0.02154 3.95%
QC value within limits for Zn 213.857 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 17:27:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	59035.7	59035.7	108	%			17:28:20
1	Al 396.153Radial†	6783.5	6281.0	4671.2	µg/L	4671.2	ppb	17:28:41
1	Ca 317.933Radial†	5601.2	4998.8	4706.7	µg/L	4706.7	ppb	17:28:41
1	Fe 238.204 Radial†	616.0	555.0	4714.2	µg/L	4714.2	ppb	17:28:41
1	K 766.490 Radial†	7145.2	6476.8	4603.7	µg/L	4603.7	ppb	17:28:20
1	Mg 279.077 IEC†	569.6	515.2	4798.3	µg/L	4798.3	ppb	17:28:41
1	Na 589.592 Radial†	30872.0	27997.1	9216.7	µg/L	9216.7	ppb	17:28:20
1	Sr 421.552†	47604.8	43967.8	455.78	µg/L	455.78	ppb	17:28:20
1	Sc 361.383	2041194.6	2041194.6	106.88	%			17:29:44
1	Y 371.029	1394791.7	1394791.7	106.48	%			17:29:44
1	Ag 328.068†	63072.7	59578.4	476.23	µg/L	476.23	ppb	17:29:50
1	As 188.979†	267.6	249.3	486.27	µg/L	486.27	ppb	17:30:10
1	B 249.677†	11989.2	10886.2	474.07	µg/L	474.07	ppb	17:29:50
1	Ba 233.527†	19747.0	18502.3	482.64	µg/L	482.64	ppb	17:29:50
1	Be 313.107†	767703.3	721740.7	471.16	µg/L	471.16	ppb	17:29:44
1	Cd 226.502†	18704.8	17643.2	486.70	µg/L	486.70	ppb	17:29:50
1	Co 228.616†	10605.3	9931.7	488.25	µg/L	488.25	ppb	17:29:50
1	Cr 267.716†	23632.0	22163.6	487.82	µg/L	487.82	ppb	17:29:50
1	Cu 324.752†	76228.6	68837.1	481.50	µg/L	481.50	ppb	17:29:50
1	Mn 257.610†	148178.1	138886.7	481.38	µg/L	481.38	ppb	17:29:44
1	Mo 202.031†	4955.0	4643.6	495.75	µg/L	495.75	ppb	17:30:10
1	Ni 231.604†	9868.1	8930.9	487.78	µg/L	487.78	ppb	17:29:50
1	P 214.914†	1270.5	1161.1	2447.3	µg/L	2447.3	ppb	17:30:10
1	Pb 220.353†	2082.6	1851.4	494.18	µg/L	494.18	ppb	17:30:10
1	S 181.975 Axial†	249.9	219.0	959.68	µg/L	959.68	ppb	17:30:10
1	Sb 206.836†	563.4	500.2	494.49	µg/L	494.49	ppb	17:30:10
1	Se 196.026†	362.5	323.3	500.24	µg/L	500.24	ppb	17:30:10
1	SiO2†	26645.9	23681.2	5099.9	µg/L	5099.9	ppb	17:29:50
1	Si 251.611†	31439.9	29103.8	2392.5	µg/L	2392.5	ppb	17:29:50
1	Sn 189.927†	1158.8	1085.1	499.11	µg/L	499.11	ppb	17:30:10
1	Ti 334.940†	206788.8	193365.5	464.82	µg/L	464.82	ppb	17:29:44
1	Tl 190.801†	353.5	355.1	501.20	µg/L	501.20	ppb	17:30:10
1	U 409.014†	5796.1	5476.7	494.90	µg/L	494.90	ppb	17:29:50
1	V 292.402†	48354.5	45287.0	488.65	µg/L	488.65	ppb	17:29:50
1	Zn 213.857†	21383.2	19531.6	484.30	µg/L	484.30	ppb	17:29:50
2	Sc RADIAL	57479.6	57479.6	105	%			17:28:46
2	Al 396.153Radial†	6775.5	6443.2	4792.2	µg/L	4792.2	ppb	17:29:07
2	Ca 317.933Radial†	5568.2	5107.6	4809.2	µg/L	4809.2	ppb	17:29:07
2	Fe 238.204 Radial†	613.4	567.9	4823.2	µg/L	4823.2	ppb	17:29:07
2	K 766.490 Radial†	7368.3	6867.5	4881.4	µg/L	4881.4	ppb	17:28:46
2	Mg 279.077 IEC†	569.1	529.1	4927.1	µg/L	4927.1	ppb	17:29:07
2	Na 589.592 Radial†	31686.3	29543.0	9725.6	µg/L	9725.6	ppb	17:28:46
2	Sr 421.552†	49060.1	46540.9	482.45	µg/L	482.45	ppb	17:28:46
2	Sc 361.383	2046028.0	2046028.0	107.13	%			17:30:18
2	Y 371.029	1397859.6	1397859.6	106.71	%			17:30:18
2	Ag 328.068†	62181.8	58607.4	468.48	µg/L	468.48	ppb	17:30:23
2	As 188.979†	270.5	251.3	490.33	µg/L	490.33	ppb	17:30:44
2	B 249.677†	11883.0	10760.6	468.51	µg/L	468.51	ppb	17:30:23
2	Ba 233.527†	19447.6	18179.1	474.21	µg/L	474.21	ppb	17:30:23
2	Be 313.107†	766991.4	719379.3	469.62	µg/L	469.62	ppb	17:30:18
2	Cd 226.502†	18417.3	17333.6	478.14	µg/L	478.14	ppb	17:30:23
2	Co 228.616†	10411.2	9727.0	478.18	µg/L	478.18	ppb	17:30:23
2	Cr 267.716†	23232.1	21738.1	478.45	µg/L	478.45	ppb	17:30:23
2	Cu 324.752†	75095.1	67610.5	472.94	µg/L	472.94	ppb	17:30:23
2	Mn 257.610†	147694.9	138108.1	478.69	µg/L	478.69	ppb	17:30:18
2	Mo 202.031†	4924.2	4604.0	491.52	µg/L	491.52	ppb	17:30:44
2	Ni 231.604†	9689.5	8742.4	477.48	µg/L	477.48	ppb	17:30:23
2	P 214.914†	1255.9	1144.7	2412.6	µg/L	2412.6	ppb	17:30:44
2	Pb 220.353†	2059.1	1824.8	487.10	µg/L	487.10	ppb	17:30:44

2	S 181.975 Axial†	252.0	220.4	965.86 µg/L	965.86 ppb	17:30:44
2	Sb 206.836†	552.5	488.7	483.25 µg/L	483.25 ppb	17:30:44
2	Se 196.026†	360.1	320.3	495.71 µg/L	495.71 ppb	17:30:44
2	SiO2†	26270.0	23271.4	5011.6 µg/L	5011.6 ppb	17:30:23
2	Si 251.611†	31001.1	28624.7	2353.1 µg/L	2353.1 ppb	17:30:23
2	Sn 189.927†	1147.6	1072.1	493.14 µg/L	493.14 ppb	17:30:44
2	Ti 334.940†	206329.6	192479.8	462.68 µg/L	462.68 ppb	17:30:18
2	Tl 190.801†	343.3	344.8	486.80 µg/L	486.80 ppb	17:30:44
2	U 409.014†	5690.4	5365.3	484.79 µg/L	484.79 ppb	17:30:23
2	V 292.402†	47623.9	44498.2	480.19 µg/L	480.19 ppb	17:30:23
2	Zn 213.857†	21043.3	19167.1	475.24 µg/L	475.24 ppb	17:30:23
3	Sc RADIAL	58545.2	58545.2	107 %		17:29:12
3	Al 396.153Radial†	6838.5	6384.8	4750.3 µg/L	4750.3 ppb	17:29:33
3	Ca 317.933Radial†	5643.2	5081.3	4784.4 µg/L	4784.4 ppb	17:29:33
3	Fe 238.204 Radial†	621.5	564.8	4796.6 µg/L	4796.6 ppb	17:29:33
3	K 766.490 Radial†	7265.1	6643.9	4722.5 µg/L	4722.5 ppb	17:29:12
3	Mg 279.077 IEC†	574.9	524.6	4884.3 µg/L	4884.3 ppb	17:29:33
3	Na 589.592 Radial†	31113.3	28461.2	9369.5 µg/L	9369.5 ppb	17:29:12
3	Sr 421.552†	48089.7	44788.5	464.29 µg/L	464.29 ppb	17:29:12
3	Sc 361.383	2017377.3	2017377.3	105.63 %		17:30:51
3	Y 371.029	1378304.1	1378304.1	105.22 %		17:30:51
3	Ag 328.068†	59471.1	56865.5	454.46 µg/L	454.46 ppb	17:30:57
3	As 188.979†	229.9	216.5	422.47 µg/L	422.47 ppb	17:31:17
3	B 249.677†	11339.4	10403.4	452.85 µg/L	452.85 ppb	17:30:57
3	Ba 233.527†	18247.7	17301.0	451.29 µg/L	451.29 ppb	17:30:57
3	Be 313.107†	738207.7	702297.7	458.47 µg/L	458.47 ppb	17:30:51
3	Cd 226.502†	17185.8	16411.8	452.68 µg/L	452.68 ppb	17:30:57
3	Co 228.616†	9649.4	9143.9	449.43 µg/L	449.43 ppb	17:30:57
3	Cr 267.716†	20989.9	19923.4	438.52 µg/L	438.52 ppb	17:30:57
3	Cu 324.752†	69862.4	63652.3	445.29 µg/L	445.29 ppb	17:30:57
3	Mn 257.610†	142669.2	135308.3	469.00 µg/L	469.00 ppb	17:30:51
3	Mo 202.031†	4082.7	3872.6	413.47 µg/L	413.47 ppb	17:31:17
3	Ni 231.604†	8980.8	8199.9	447.86 µg/L	447.86 ppb	17:30:57
3	P 214.914†	1067.7	983.2	2067.7 µg/L	2067.7 ppb	17:31:17
3	Pb 220.353†	1798.7	1605.6	428.46 µg/L	428.46 ppb	17:31:17
3	S 181.975 Axial†	223.6	196.9	862.47 µg/L	862.47 ppb	17:31:17
3	Sb 206.836†	480.2	427.6	422.29 µg/L	422.29 ppb	17:31:17
3	Se 196.026†	311.3	278.8	432.49 µg/L	432.49 ppb	17:31:17
3	SiO2†	24862.0	22286.7	4799.6 µg/L	4799.6 ppb	17:30:57
3	Si 251.611†	29262.2	27389.5	2251.6 µg/L	2251.6 ppb	17:30:57
3	Sn 189.927†	942.0	892.7	410.61 µg/L	410.61 ppb	17:31:17
3	Ti 334.940†	197920.3	187254.0	450.12 µg/L	450.12 ppb	17:30:51
3	Tl 190.801†	315.4	322.9	456.18 µg/L	456.18 ppb	17:31:17
3	U 409.014†	5127.6	4907.9	443.39 µg/L	443.39 ppb	17:30:57
3	V 292.402†	43917.4	41620.5	448.79 µg/L	448.79 ppb	17:30:57
3	Zn 213.857†	19595.2	18075.2	448.15 µg/L	448.15 ppb	17:30:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2034866.6	106.55	%	0.803				0.75%
Sc RADIAL	58353.5	107	%	1.5				1.36%
Y 371.029	1390318.5	106.14	%	0.803				0.76%
Ag 328.068†	58350.4	466.39	µg/L	11.039	466.39	ppb	11.039	2.37%
QC value within limits for Ag 328.068 Recovery = 93.28%								
Al 396.153Radial†	6369.7	4737.9	µg/L	61.46	4737.9	ppb	61.46	1.30%
QC value within limits for Al 396.153Radial Recovery = 94.76%								
As 188.979†	239.1	466.36	µg/L	38.059	466.36	ppb	38.059	8.16%
QC value within limits for As 188.979 Recovery = 93.27%								
B 249.677†	10683.4	465.15	µg/L	11.003	465.15	ppb	11.003	2.37%
QC value within limits for B 249.677 Recovery = 93.03%								
Ba 233.527†	17994.1	469.38	µg/L	16.223	469.38	ppb	16.223	3.46%
QC value within limits for Ba 233.527 Recovery = 93.88%								
Be 313.107†	714472.6	466.42	µg/L	6.926	466.42	ppb	6.926	1.48%
QC value within limits for Be 313.107 Recovery = 93.28%								
Ca 317.933Radial†	5062.6	4766.7	µg/L	53.48	4766.7	ppb	53.48	1.12%
QC value within limits for Ca 317.933Radial Recovery = 95.33%								
Cd 226.502†	17129.5	472.51	µg/L	17.696	472.51	ppb	17.696	3.75%
QC value within limits for Cd 226.502 Recovery = 94.50%								
Co 228.616†	9600.9	471.95	µg/L	20.142	471.95	ppb	20.142	4.27%

QC value within limits for Co 228.616 Recovery = 94.39%

Cr 267.716†	21275.0	468.26 µg/L	26.182	468.26 ppb	26.182	5.59%

QC value within limits for Cr 267.716 Recovery = 93.65%

Cu 324.752†	66699.9	466.58 µg/L	18.924	466.58 ppb	18.924	4.06%

QC value within limits for Cu 324.752 Recovery = 93.32%

Fe 238.204 Radial†	562.6	4778.0 µg/L	56.85	4778.0 ppb	56.85	1.19%

QC value within limits for Fe 238.204 Radial Recovery = 95.56%

K 766.490 Radial†	6662.7	4735.8 µg/L	139.33	4735.8 ppb	139.33	2.94%

QC value within limits for K 766.490 Radial Recovery = 94.72%

Mg 279.077 IEC†	523.0	4869.9 µg/L	65.60	4869.9 ppb	65.60	1.35%

QC value within limits for Mg 279.077 IEC Recovery = 97.40%

Mn 257.610†	137434.4	476.36 µg/L	6.514	476.36 ppb	6.514	1.37%

QC value within limits for Mn 257.610 Recovery = 95.27%

Mo 202.031†	4373.4	466.91 µg/L	46.335	466.91 ppb	46.335	9.92%

QC value within limits for Mo 202.031 Recovery = 93.38%

Na 589.592 Radial†	28667.1	9437.3 µg/L	261.13	9437.3 ppb	261.13	2.77%

QC value within limits for Na 589.592 Radial Recovery = 94.37%

Ni 231.604†	8624.4	471.04 µg/L	20.725	471.04 ppb	20.725	4.40%

QC value within limits for Ni 231.604 Recovery = 94.21%

P 214.914†	1096.3	2309.2 µg/L	209.89	2309.2 ppb	209.89	9.09%

QC value within limits for P 214.914 Recovery = 92.37%

Pb 220.353†	1760.6	469.91 µg/L	36.070	469.91 ppb	36.070	7.68%

QC value within limits for Pb 220.353 Recovery = 93.98%

S 181.975 Axial†	212.1	929.34 µg/L	57.991	929.34 ppb	57.991	6.24%

QC value within limits for S 181.975 Axial Recovery = 92.93%

Sb 206.836†	472.2	466.68 µg/L	38.846	466.68 ppb	38.846	8.32%

QC value within limits for Sb 206.836 Recovery = 93.34%

Se 196.026†	307.5	476.15 µg/L	37.872	476.15 ppb	37.872	7.95%

QC value within limits for Se 196.026 Recovery = 95.23%

SiO2†	23079.8	4970.4 µg/L	154.36	4970.4 ppb	154.36	3.11%

QC value within limits for SiO2 Recovery = 92.95%

Si 251.611†	28372.7	2332.4 µg/L	72.71	2332.4 ppb	72.71	3.12%

QC value within limits for Si 251.611 Recovery = 93.30%

Sn 189.927†	1016.6	467.62 µg/L	49.463	467.62 ppb	49.463	10.58%

QC value within limits for Sn 189.927 Recovery = 93.52%

Sr 421.552†	45099.0	467.50 µg/L	13.625	467.50 ppb	13.625	2.91%

QC value within limits for Sr 421.552 Recovery = 93.50%

Ti 334.940†	191033.1	459.21 µg/L	7.946	459.21 ppb	7.946	1.73%

QC value within limits for Ti 334.940 Recovery = 91.84%

Tl 190.801†	340.9	481.40 µg/L	22.992	481.40 ppb	22.992	4.78%

QC value within limits for Tl 190.801 Recovery = 96.28%

U 409.014†	5250.0	474.36 µg/L	27.295	474.36 ppb	27.295	5.75%

QC value within limits for U 409.014 Recovery = 94.87%

V 292.402†	43801.9	472.54 µg/L	21.006	472.54 ppb	21.006	4.45%

QC value within limits for V 292.402 Recovery = 94.51%

Zn 213.857†	18924.6	469.23 µg/L	18.806	469.23 ppb	18.806	4.01%

QC value within limits for Zn 213.857 Recovery = 93.85%

All analyte(s) passed QC.

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:31:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	57249.4	57249.4	105	%			17:32:01
1	Al 396.153Radial†	-19.1	-8.1	-6.0314	µg/L	-6.0314	ppb	17:32:01
1	Ca 317.933Radial†	186.6	-1.3	-1.1941	µg/L	-1.1941	ppb	17:32:21
1	Fe 238.204 Radial†	16.2	0.9	8.0275	µg/L	8.0275	ppb	17:32:21
1	K 766.490 Radial†	205.8	67.8	48.166	µg/L	48.166	ppb	17:32:01
1	Mg 279.077 IEC†	11.8	-0.0	-0.3578	µg/L	-0.3578	ppb	17:32:21
1	Na 589.592 Radial†	713.1	137.9	45.390	µg/L	45.390	ppb	17:32:01
1	Sr 421.552†	47.1	5.3	0.0553	µg/L	0.0553	ppb	17:32:01
1	Sc 361.383	2021263.0	2021263.0	105.83	%			17:33:23
1	Y 371.029	1385458.4	1385458.4	105.77	%			17:33:23
1	Ag 328.068†	-548.3	46.5	0.3696	µg/L	0.3696	ppb	17:33:29
1	As 188.979†	-3.1	-4.1	-8.0437	µg/L	-8.0437	ppb	17:33:50
1	B 249.677†	328.8	-20.8	-0.9109	µg/L	-0.9109	ppb	17:33:50
1	Ba 233.527†	-23.9	3.4	0.0895	µg/L	0.0895	ppb	17:33:50
1	Be 313.107†	-3534.2	101.1	0.0660	µg/L	0.0660	ppb	17:33:29
1	Cd 226.502†	-135.6	14.0	0.3833	µg/L	0.3833	ppb	17:33:50
1	Co 228.616†	-7.8	1.5	0.0715	µg/L	0.0715	ppb	17:33:50
1	Cr 267.716†	-39.7	14.9	0.3275	µg/L	0.3275	ppb	17:33:29
1	Cu 324.752†	2441.6	-179.0	-1.2495	µg/L	-1.2495	ppb	17:33:29
1	Mn 257.610†	-227.7	28.9	0.1013	µg/L	0.1013	ppb	17:33:50
1	Mo 202.031†	-11.3	-3.1	-0.3352	µg/L	-0.3352	ppb	17:33:50
1	Ni 231.604†	297.1	-21.4	-1.1721	µg/L	-1.1721	ppb	17:33:50
1	P 214.914†	29.1	-0.1	-0.1206	µg/L	-0.1206	ppb	17:33:50
1	Pb 220.353†	93.1	-9.2	-2.4716	µg/L	-2.4716	ppb	17:33:50
1	S 181.975 Axial†	17.0	1.2	5.2600	µg/L	5.2600	ppb	17:33:50
1	Sb 206.836†	21.2	-7.0	-6.8579	µg/L	-6.8579	ppb	17:33:50
1	Se 196.026†	17.1	0.4	0.5587	µg/L	0.5587	ppb	17:33:50
1	SiO2†	1257.7	-61.7	-13.286	µg/L	-13.286	ppb	17:33:29
1	Si 251.611†	315.2	-15.0	-1.2350	µg/L	-1.2350	ppb	17:33:50
1	Sn 189.927†	-0.7	0.2	0.0875	µg/L	0.0875	ppb	17:33:50
1	Ti 334.940†	99.4	-22.2	-0.0533	µg/L	-0.0533	ppb	17:33:29
1	Tl 190.801†	-25.0	0.6	0.8769	µg/L	0.8769	ppb	17:33:50
1	U 409.014†	-2.8	50.9	4.6107	µg/L	4.6107	ppb	17:33:29
1	V 292.402†	-42.3	4.3	0.0496	µg/L	0.0496	ppb	17:33:29
1	Zn 213.857†	478.9	-23.0	-0.5682	µg/L	-0.5682	ppb	17:33:50
2	Sc RADIAL	57058.0	57058.0	105	%			17:32:27
2	Al 396.153Radial†	-2.2	8.1	5.9887	µg/L	5.9887	ppb	17:32:27
2	Ca 317.933Radial†	185.4	-1.8	-1.6973	µg/L	-1.6973	ppb	17:32:47
2	Fe 238.204 Radial†	16.9	1.6	13.808	µg/L	13.808	ppb	17:32:47
2	K 766.490 Radial†	159.2	23.8	16.947	µg/L	16.947	ppb	17:32:27
2	Mg 279.077 IEC†	16.4	4.4	41.355	µg/L	41.355	ppb	17:32:47
2	Na 589.592 Radial†	724.2	150.8	49.634	µg/L	49.634	ppb	17:32:27
2	Sr 421.552†	-4.4	-43.8	-0.4540	µg/L	-0.4540	ppb	17:32:27
2	Sc 361.383	2001081.9	2001081.9	104.78	%			17:33:56
2	Y 371.029	1372125.9	1372125.9	104.75	%			17:33:56
2	Ag 328.068†	-553.2	36.5	0.2946	µg/L	0.2946	ppb	17:34:01
2	As 188.979†	-0.6	-1.7	-3.3761	µg/L	-3.3761	ppb	17:34:22
2	B 249.677†	320.5	-25.5	-1.1231	µg/L	-1.1231	ppb	17:34:22
2	Ba 233.527†	-11.0	15.5	0.4048	µg/L	0.4048	ppb	17:34:22
2	Be 313.107†	-3526.3	74.9	0.0489	µg/L	0.0489	ppb	17:34:01
2	Cd 226.502†	-133.8	14.4	0.3950	µg/L	0.3950	ppb	17:34:22
2	Co 228.616†	-11.0	-1.6	-0.0801	µg/L	-0.0801	ppb	17:34:22
2	Cr 267.716†	-44.3	10.1	0.2231	µg/L	0.2231	ppb	17:34:01
2	Cu 324.752†	2455.1	-143.0	-0.9967	µg/L	-0.9967	ppb	17:34:01
2	Mn 257.610†	-230.3	24.3	0.0842	µg/L	0.0842	ppb	17:34:22
2	Mo 202.031†	-2.3	5.3	0.5710	µg/L	0.5710	ppb	17:34:22
2	Ni 231.604†	304.4	-11.7	-0.6402	µg/L	-0.6402	ppb	17:34:22
2	P 214.914†	29.3	0.4	0.8548	µg/L	0.8548	ppb	17:34:22
2	Pb 220.353†	101.4	-0.5	-0.1165	µg/L	-0.1165	ppb	17:34:22

2	S 181.975 Axial†	19.4	3.7	16.024 µg/L	16.024 ppb	17:34:22
2	Sb 206.836†	27.6	-0.6	-0.5726 µg/L	-0.5726 ppb	17:34:22
2	Se 196.026†	16.9	0.3	0.5139 µg/L	0.5139 ppb	17:34:22
2	SiO2†	1231.1	-75.1	-16.163 µg/L	-16.163 ppb	17:34:01
2	Si 251.611†	308.3	-18.6	-1.5330 µg/L	-1.5330 ppb	17:34:22
2	Sn 189.927†	-2.5	-1.5	-0.6783 µg/L	-0.6783 ppb	17:34:22
2	Ti 334.940†	155.7	32.5	0.0749 µg/L	0.0749 ppb	17:34:01
2	Tl 190.801†	-24.6	0.8	1.0677 µg/L	1.0677 ppb	17:34:22
2	U 409.014†	-70.7	-13.8	-1.2553 µg/L	-1.2553 ppb	17:34:01
2	V 292.402†	13.1	56.7	0.6099 µg/L	0.6099 ppb	17:34:01
2	Zn 213.857†	482.3	-15.3	-0.3800 µg/L	-0.3800 ppb	17:34:22
3	Sc RADIAL	57391.7	57391.7	105 %		17:32:53
3	Al 396.153Radial†	-24.1	-12.7	-9.5161 µg/L	-9.5161 ppb	17:32:53
3	Ca 317.933Radial†	189.2	0.7	0.6854 µg/L	0.6854 ppb	17:33:13
3	Fe 238.204 Radial†	14.2	-1.0	-8.3318 µg/L	-8.3318 ppb	17:33:13
3	K 766.490 Radial†	170.0	33.2	23.601 µg/L	23.601 ppb	17:32:53
3	Mg 279.077 IEC†	13.6	1.6	15.113 µg/L	15.113 ppb	17:33:13
3	Na 589.592 Radial†	706.7	130.1	42.833 µg/L	42.833 ppb	17:32:53
3	Sr 421.552†	21.4	-19.2	-0.1993 µg/L	-0.1993 ppb	17:32:53
3	Sc 361.383	2035877.5	2035877.5	106.60 %		17:34:28
3	Y 371.029	1396783.1	1396783.1	106.63 %		17:34:28
3	Ag 328.068†	-558.0	41.1	0.3273 µg/L	0.3273 ppb	17:34:33
3	As 188.979†	-5.7	-6.5	-12.714 µg/L	-12.714 ppb	17:34:54
3	B 249.677†	310.2	-40.5	-1.7628 µg/L	-1.7628 ppb	17:34:54
3	Ba 233.527†	-23.8	3.7	0.0975 µg/L	0.0975 ppb	17:34:54
3	Be 313.107†	-3295.5	348.9	0.2278 µg/L	0.2278 ppb	17:34:33
3	Cd 226.502†	-134.4	16.1	0.4439 µg/L	0.4439 ppb	17:34:54
3	Co 228.616†	-16.8	-6.9	-0.3385 µg/L	-0.3385 ppb	17:34:54
3	Cr 267.716†	-31.9	22.4	0.4933 µg/L	0.4933 ppb	17:34:33
3	Cu 324.752†	2431.1	-205.5	-1.4364 µg/L	-1.4364 ppb	17:34:33
3	Mn 257.610†	-224.1	33.9	0.1156 µg/L	0.1156 ppb	17:34:54
3	Mo 202.031†	2.2	9.6	1.0266 µg/L	1.0266 ppb	17:34:54
3	Ni 231.604†	311.7	-9.8	-0.5337 µg/L	-0.5337 ppb	17:34:54
3	P 214.914†	26.4	-2.8	-5.9346 µg/L	-5.9346 ppb	17:34:54
3	Pb 220.353†	98.3	-5.0	-1.3370 µg/L	-1.3370 ppb	17:34:54
3	S 181.975 Axial†	14.7	-1.0	-4.4979 µg/L	-4.4979 ppb	17:34:54
3	Sb 206.836†	25.7	-2.9	-2.8125 µg/L	-2.8125 ppb	17:34:54
3	Se 196.026†	12.1	-4.5	-6.8217 µg/L	-6.8217 ppb	17:34:54
3	SiO2†	1207.8	-117.0	-25.202 µg/L	-25.202 ppb	17:34:33
3	Si 251.611†	320.7	-12.0	-0.9854 µg/L	-0.9854 ppb	17:34:54
3	Sn 189.927†	3.6	4.2	1.9540 µg/L	1.9540 ppb	17:34:54
3	Ti 334.940†	152.2	26.6	0.0629 µg/L	0.0629 ppb	17:34:33
3	Tl 190.801†	-31.1	-4.8	-6.7573 µg/L	-6.7573 ppb	17:34:54
3	U 409.014†	18.4	70.9	6.4223 µg/L	6.4223 ppb	17:34:33
3	V 292.402†	-21.9	23.7	0.2672 µg/L	0.2672 ppb	17:34:33
3	Zn 213.857†	481.8	-23.6	-0.5847 µg/L	-0.5847 ppb	17:34:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2019407.5	105.74	%	0.915				0.87%
Sc RADIAL	57233.0	105	%	0.3				0.29%
Y 371.029	1384789.1	105.72	%	0.942				0.89%
Ag 328.068†	41.4	0.3305	µg/L	0.03757	0.3305	ppb	0.03757	11.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.3	-3.1863	µg/L	8.13450	-3.1863	ppb	8.13450	255.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.1	-8.0447	µg/L	4.66908	-8.0447	ppb	4.66908	58.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-28.9	-1.2656	µg/L	0.44348	-1.2656	ppb	0.44348	35.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1973	µg/L	0.17977	0.1973	ppb	0.17977	91.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	175.0	0.1143	µg/L	0.09874	0.1143	ppb	0.09874	86.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.8	-0.7353	µg/L	1.25585	-0.7353	ppb	1.25585	170.79%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.8	0.4074	µg/L	0.03216	0.4074	ppb	0.03216	7.89%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.4	-0.1157	µg/L	0.20732	-0.1157	ppb	0.20732	179.23%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	15.8	0.3480 µg/L	0.13629	0.3480 ppb	0.13629	39.17%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-175.8	-1.2276 µg/L	0.22068	-1.2276 ppb	0.22068	17.98%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.5	4.5012 µg/L	11.48343	4.5012 ppb	11.48343	255.12%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	41.6	29.571 µg/L	16.4438	29.571 ppb	16.4438	55.61%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	2.0	18.703 µg/L	21.0870	18.703 ppb	21.0870	112.74%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	29.0	0.1004 µg/L	0.01570	0.1004 ppb	0.01570	15.64%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	3.9	0.4208 µg/L	0.69318	0.4208 ppb	0.69318	164.72%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	139.6	45.952 µg/L	3.4354	45.952 ppb	3.4354	7.48%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-14.3	-0.7820 µg/L	0.34199	-0.7820 ppb	0.34199	43.73%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-0.9	-1.7335 µg/L	3.67082	-1.7335 ppb	3.67082	211.76%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-4.9	-1.3084 µg/L	1.17784	-1.3084 ppb	1.17784	90.02%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	1.3	5.5955 µg/L	10.26528	5.5955 ppb	10.26528	183.46%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-3.5	-3.4143 µg/L	3.18555	-3.4143 ppb	3.18555	93.30%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-1.3	-1.9164 µg/L	4.24816	-1.9164 ppb	4.24816	221.68%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-84.6	-18.217 µg/L	6.2180	-18.217 ppb	6.2180	34.13%
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-15.2	-1.2511 µg/L	0.27411	-1.2511 ppb	0.27411	21.91%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	1.0	0.4544 µg/L	1.35398	0.4544 ppb	1.35398	297.95%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-19.2	-0.1993 µg/L	0.25463	-0.1993 ppb	0.25463	127.74%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	12.3	0.0282 µg/L	0.07081	0.0282 ppb	0.07081	251.28%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-1.2	-1.6042 µg/L	4.46370	-1.6042 ppb	4.46370	278.25%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	36.0	3.2592 µg/L	4.01326	3.2592 ppb	4.01326	123.13%
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	28.2	0.3089 µg/L	0.28245	0.3089 ppb	0.28245	91.44%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-20.6	-0.5110 µg/L	0.11370	-0.5110 ppb	0.11370	22.25%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:03:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57726.1	57726.1	106	%			18:04:22
1	Al 396.153Radial†	6766.7	6407.4	4765.2	µg/L	4765.2	ppb	18:04:22
1	Ca 317.933Radial†	5597.5	5112.8	4814.0	µg/L	4814.0	ppb	18:04:43
1	Fe 238.204 Radial†	618.0	569.7	4839.6	µg/L	4839.6	ppb	18:04:43
1	K 766.490 Radial†	7228.2	6705.1	4766.0	µg/L	4766.0	ppb	18:04:22
1	Mg 279.077 IEC†	567.3	525.0	4889.6	µg/L	4889.6	ppb	18:04:43
1	Na 589.592 Radial†	31079.1	28840.4	9494.4	µg/L	9494.4	ppb	18:04:22
1	Sr 421.552†	47930.5	45274.1	469.32	µg/L	469.32	ppb	18:04:22
1	Sc 361.383	1995865.2	1995865.2	104.50	%			18:05:46
1	Y 371.029	1362757.5	1362757.5	104.03	%			18:05:46
1	Ag 328.068†	63483.9	61312.1	490.10	µg/L	490.10	ppb	18:05:52
1	As 188.979†	273.1	260.2	507.53	µg/L	507.53	ppb	18:06:12
1	B 249.677†	12082.3	11230.0	489.06	µg/L	489.06	ppb	18:05:52
1	Ba 233.527†	19988.9	19153.3	499.62	µg/L	499.62	ppb	18:05:52
1	Be 313.107†	781981.3	751717.1	490.73	µg/L	490.73	ppb	18:05:46
1	Cd 226.502†	18909.7	18236.8	503.08	µg/L	503.08	ppb	18:05:52
1	Co 228.616†	10693.9	10241.8	503.48	µg/L	503.48	ppb	18:05:52
1	Cr 267.716†	23838.7	22863.6	503.22	µg/L	503.22	ppb	18:05:52
1	Cu 324.752†	76544.4	70759.2	494.94	µg/L	494.94	ppb	18:05:52
1	Mn 257.610†	150825.0	144568.3	501.07	µg/L	501.07	ppb	18:05:46
1	Mo 202.031†	4977.2	4770.3	509.27	µg/L	509.27	ppb	18:06:12
1	Ni 231.604†	9935.5	9205.0	502.75	µg/L	502.75	ppb	18:05:52
1	P 214.914†	1265.8	1183.6	2494.1	µg/L	2494.1	ppb	18:06:12
1	Pb 220.353†	2092.9	1905.5	508.60	µg/L	508.60	ppb	18:06:12
1	S 181.975 Axial†	254.0	228.2	999.80	µg/L	999.80	ppb	18:06:12
1	Sb 206.836†	555.5	504.6	498.91	µg/L	498.91	ppb	18:06:12
1	Se 196.026†	366.1	334.5	517.42	µg/L	517.42	ppb	18:06:12
1	SiO2†	26867.3	24459.3	5267.4	µg/L	5267.4	ppb	18:05:52
1	Si 251.611†	31625.0	29949.0	2462.0	µg/L	2462.0	ppb	18:05:52
1	Sn 189.927†	1151.3	1102.5	507.11	µg/L	507.11	ppb	18:06:12
1	Ti 334.940†	210462.3	201274.9	483.84	µg/L	483.84	ppb	18:05:46
1	Tl 190.801†	351.8	360.9	509.62	µg/L	509.62	ppb	18:06:12
1	U 409.014†	5780.2	5584.7	504.65	µg/L	504.65	ppb	18:05:52
1	V 292.402†	48773.6	46715.6	504.04	µg/L	504.04	ppb	18:05:52
1	Zn 213.857†	21610.6	20203.6	500.98	µg/L	500.98	ppb	18:05:52
2	Sc RADIAL	58137.3	58137.3	107	%			18:04:48
2	Al 396.153Radial†	6794.0	6387.8	4750.7	µg/L	4750.7	ppb	18:04:48
2	Ca 317.933Radial†	5592.3	5070.5	4774.2	µg/L	4774.2	ppb	18:05:09
2	Fe 238.204 Radial†	618.1	565.7	4805.7	µg/L	4805.7	ppb	18:05:09
2	K 766.490 Radial†	7287.3	6712.3	4771.1	µg/L	4771.1	ppb	18:04:48
2	Mg 279.077 IEC†	568.2	522.1	4862.2	µg/L	4862.2	ppb	18:05:09
2	Na 589.592 Radial†	31238.6	28782.3	9475.2	µg/L	9475.2	ppb	18:04:48
2	Sr 421.552†	48291.3	45292.3	469.51	µg/L	469.51	ppb	18:04:48
2	Sc 361.383	2007163.9	2007163.9	105.10	%			18:06:19
2	Y 371.029	1370434.0	1370434.0	104.62	%			18:06:19
2	Ag 328.068†	63627.6	61107.0	488.46	µg/L	488.46	ppb	18:06:25
2	As 188.979†	273.7	259.2	505.75	µg/L	505.75	ppb	18:06:46
2	B 249.677†	12114.9	11196.0	487.59	µg/L	487.59	ppb	18:06:25
2	Ba 233.527†	19979.9	19037.1	496.59	µg/L	496.59	ppb	18:06:25
2	Be 313.107†	784264.0	749676.9	489.40	µg/L	489.40	ppb	18:06:19
2	Cd 226.502†	18871.7	18098.7	499.27	µg/L	499.27	ppb	18:06:25
2	Co 228.616†	10694.5	10184.8	500.67	µg/L	500.67	ppb	18:06:25
2	Cr 267.716†	23892.4	22786.3	501.52	µg/L	501.52	ppb	18:06:25
2	Cu 324.752†	76884.7	70670.6	494.32	µg/L	494.32	ppb	18:06:25
2	Mn 257.610†	151108.1	144025.3	499.18	µg/L	499.18	ppb	18:06:19
2	Mo 202.031†	4921.9	4690.8	500.79	µg/L	500.79	ppb	18:06:46
2	Ni 231.604†	9959.3	9174.2	501.07	µg/L	501.07	ppb	18:06:25
2	P 214.914†	1267.5	1178.4	2483.0	µg/L	2483.0	ppb	18:06:46
2	Pb 220.353†	2074.4	1876.6	500.89	µg/L	500.89	ppb	18:06:46

2	S 181.975 Axial†	247.1	220.3	965.20 µg/L	965.20 ppb	18:06:46
2	Sb 206.836†	553.1	499.3	493.56 µg/L	493.56 ppb	18:06:46
2	Se 196.026†	362.2	328.8	508.76 µg/L	508.76 ppb	18:06:46
2	SiO2†	26954.0	24397.1	5254.0 µg/L	5254.0 ppb	18:06:25
2	Si 251.611†	31693.0	29843.4	2453.3 µg/L	2453.3 ppb	18:06:25
2	Sn 189.927†	1148.2	1093.4	502.92 µg/L	502.92 ppb	18:06:46
2	Ti 334.940†	211069.7	200719.2	482.51 µg/L	482.51 ppb	18:06:19
2	Tl 190.801†	350.2	357.5	504.86 µg/L	504.86 ppb	18:06:46
2	U 409.014†	5713.5	5490.1	496.10 µg/L	496.10 ppb	18:06:25
2	V 292.402†	48839.6	46515.7	501.83 µg/L	501.83 ppb	18:06:25
2	Zn 213.857†	21586.8	20064.5	497.52 µg/L	497.52 ppb	18:06:25
3	Sc RADIAL	57420.7	57420.7	105 %		18:05:14
3	Al 396.153Radial†	6887.1	6555.8	4877.6 µg/L	4877.6 ppb	18:05:14
3	Ca 317.933Radial†	5594.0	5137.6	4837.4 µg/L	4837.4 ppb	18:05:34
3	Fe 238.204 Radial†	619.5	574.3	4877.2 µg/L	4877.2 ppb	18:05:34
3	K 766.490 Radial†	7272.3	6783.4	4821.6 µg/L	4821.6 ppb	18:05:14
3	Mg 279.077 IEC†	569.6	530.1	4935.2 µg/L	4935.2 ppb	18:05:34
3	Na 589.592 Radial†	31447.7	29346.9	9661.1 µg/L	9661.1 ppb	18:05:14
3	Sr 421.552†	48895.8	46432.5	481.33 µg/L	481.33 ppb	18:05:14
3	Sc 361.383	2010251.9	2010251.9	105.26 %		18:06:53
3	Y 371.029	1371909.0	1371909.0	104.73 %		18:06:53
3	Ag 328.068†	59865.9	57440.1	459.05 µg/L	459.05 ppb	18:06:58
3	As 188.979†	229.2	216.7	422.67 µg/L	422.67 ppb	18:07:19
3	B 249.677†	11370.0	10470.6	455.76 µg/L	455.76 ppb	18:06:58
3	Ba 233.527†	18395.6	17502.7	456.55 µg/L	456.55 ppb	18:06:58
3	Be 313.107†	741644.3	708039.7	462.22 µg/L	462.22 ppb	18:06:53
3	Cd 226.502†	17275.3	16554.5	456.62 µg/L	456.62 ppb	18:06:58
3	Co 228.616†	9741.1	9263.3	455.31 µg/L	455.31 ppb	18:06:58
3	Cr 267.716†	21256.7	20247.3	445.64 µg/L	445.64 ppb	18:06:58
3	Cu 324.752†	70381.9	64380.2	450.39 µg/L	450.39 ppb	18:06:58
3	Mn 257.610†	143060.5	136158.7	471.95 µg/L	471.95 ppb	18:06:53
3	Mo 202.031†	4127.0	3928.4	419.43 µg/L	419.43 ppb	18:07:19
3	Ni 231.604†	9089.8	8333.5	455.16 µg/L	455.16 ppb	18:06:58
3	P 214.914†	1084.0	1002.2	2108.1 µg/L	2108.1 ppb	18:07:19
3	Pb 220.353†	1818.2	1630.2	435.03 µg/L	435.03 ppb	18:07:19
3	S 181.975 Axial†	224.4	198.4	869.26 µg/L	869.26 ppb	18:07:19
3	Sb 206.836†	480.4	429.5	424.14 µg/L	424.14 ppb	18:07:19
3	Se 196.026†	313.7	282.2	437.85 µg/L	437.85 ppb	18:07:19
3	SiO2†	25019.5	22519.8	4849.8 µg/L	4849.8 ppb	18:06:58
3	Si 251.611†	29405.8	27624.1	2270.8 µg/L	2270.8 ppb	18:06:58
3	Sn 189.927†	955.0	908.2	417.73 µg/L	417.73 ppb	18:07:19
3	Ti 334.940†	198942.9	188889.6	454.05 µg/L	454.05 ppb	18:06:53
3	Tl 190.801†	316.9	325.4	459.73 µg/L	459.73 ppb	18:07:19
3	U 409.014†	5179.0	4973.9	449.35 µg/L	449.35 ppb	18:06:58
3	V 292.402†	44254.0	42087.7	453.84 µg/L	453.84 ppb	18:06:58
3	Zn 213.857†	19673.0	18214.8	451.59 µg/L	451.59 ppb	18:06:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2004427.0	104.95	%	0.397				0.38%
Sc RADIAL	57761.4	106	%	0.7				0.62%
Y 371.029	1368366.8	104.46	%	0.375				0.36%
Ag 328.068†	59953.1	479.20	µg/L	17.470	479.20	ppb	17.470	3.65%
QC value within limits for Ag 328.068 Recovery = 95.84%								
Al 396.153Radial†	6450.3	4797.9	µg/L	69.48	4797.9	ppb	69.48	1.45%
QC value within limits for Al 396.153Radial Recovery = 95.96%								
As 188.979†	245.3	478.65	µg/L	48.486	478.65	ppb	48.486	10.13%
QC value within limits for As 188.979 Recovery = 95.73%								
B 249.677†	10965.6	477.47	µg/L	18.814	477.47	ppb	18.814	3.94%
QC value within limits for B 249.677 Recovery = 95.49%								
Ba 233.527†	18564.4	484.26	µg/L	24.039	484.26	ppb	24.039	4.96%
QC value within limits for Ba 233.527 Recovery = 96.85%								
Be 313.107†	736477.9	480.78	µg/L	16.091	480.78	ppb	16.091	3.35%
QC value within limits for Be 313.107 Recovery = 96.16%								
Ca 317.933Radial†	5106.9	4808.5	µg/L	31.95	4808.5	ppb	31.95	0.66%
QC value within limits for Ca 317.933Radial Recovery = 96.17%								
Cd 226.502†	17630.0	486.32	µg/L	25.796	486.32	ppb	25.796	5.30%
QC value within limits for Cd 226.502 Recovery = 97.26%								
Co 228.616†	9896.7	486.49	µg/L	27.038	486.49	ppb	27.038	5.56%

QC value within limits for Co 228.616 Recovery = 97.30%

Cr 267.716†	21965.7	483.46 µg/L	32.763	483.46 ppb	32.763	6.78%
QC value within limits for Cr 267.716 Recovery = 96.69%						
Cu 324.752†	68603.3	479.88 µg/L	25.545	479.88 ppb	25.545	5.32%
QC value within limits for Cu 324.752 Recovery = 95.98%						
Fe 238.204 Radial†	569.9	4840.8 µg/L	35.77	4840.8 ppb	35.77	0.74%
QC value within limits for Fe 238.204 Radial Recovery = 96.82%						
K 766.490 Radial†	6733.6	4786.2 µg/L	30.77	4786.2 ppb	30.77	0.64%
QC value within limits for K 766.490 Radial Recovery = 95.72%						
Mg 279.077 IEC†	525.8	4895.7 µg/L	36.85	4895.7 ppb	36.85	0.75%
QC value within limits for Mg 279.077 IEC Recovery = 97.91%						
Mn 257.610†	141584.1	490.73 µg/L	16.295	490.73 ppb	16.295	3.32%
QC value within limits for Mn 257.610 Recovery = 98.15%						
Mo 202.031†	4463.2	476.50 µg/L	49.601	476.50 ppb	49.601	10.41%
QC value within limits for Mo 202.031 Recovery = 95.30%						
Na 589.592 Radial†	28989.9	9543.6 µg/L	102.24	9543.6 ppb	102.24	1.07%
QC value within limits for Na 589.592 Radial Recovery = 95.44%						
Ni 231.604†	8904.3	486.32 µg/L	27.004	486.32 ppb	27.004	5.55%
QC value within limits for Ni 231.604 Recovery = 97.26%						
P 214.914†	1121.4	2361.7 µg/L	219.74	2361.7 ppb	219.74	9.30%
QC value within limits for P 214.914 Recovery = 94.47%						
Pb 220.353†	1804.1	481.51 µg/L	40.435	481.51 ppb	40.435	8.40%
QC value within limits for Pb 220.353 Recovery = 96.30%						
S 181.975 Axial†	215.6	944.76 µg/L	67.630	944.76 ppb	67.630	7.16%
QC value within limits for S 181.975 Axial Recovery = 94.48%						
Sb 206.836†	477.8	472.20 µg/L	41.713	472.20 ppb	41.713	8.83%
QC value within limits for Sb 206.836 Recovery = 94.44%						
Se 196.026†	315.2	488.01 µg/L	43.651	488.01 ppb	43.651	8.94%
QC value within limits for Se 196.026 Recovery = 97.60%						
SiO2†	23792.0	5123.7 µg/L	237.37	5123.7 ppb	237.37	4.63%
QC value within limits for SiO2 Recovery = 95.82%						
Si 251.611†	29138.9	2395.4 µg/L	107.92	2395.4 ppb	107.92	4.51%
QC value within limits for Si 251.611 Recovery = 95.81%						
Sn 189.927†	1034.7	475.92 µg/L	50.437	475.92 ppb	50.437	10.60%
QC value within limits for Sn 189.927 Recovery = 95.18%						
Sr 421.552†	45666.3	473.38 µg/L	6.879	473.38 ppb	6.879	1.45%
QC value within limits for Sr 421.552 Recovery = 94.68%						
Ti 334.940†	196961.2	473.47 µg/L	16.830	473.47 ppb	16.830	3.55%
QC value within limits for Ti 334.940 Recovery = 94.69%						
Tl 190.801†	348.0	491.40 µg/L	27.532	491.40 ppb	27.532	5.60%
QC value within limits for Tl 190.801 Recovery = 98.28%						
U 409.014†	5349.6	483.37 µg/L	29.770	483.37 ppb	29.770	6.16%
QC value within limits for U 409.014 Recovery = 96.67%						
V 292.402†	45106.3	486.57 µg/L	28.365	486.57 ppb	28.365	5.83%
QC value within limits for V 292.402 Recovery = 97.31%						
Zn 213.857†	19494.3	483.36 µg/L	27.567	483.36 ppb	27.567	5.70%
QC value within limits for Zn 213.857 Recovery = 96.67%						

All analyte(s) passed QC.

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:07:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	56532.0	56532.0	104	%			18:08:03
1	Al 396.153Radial†	-15.4	-4.8	-3.5570	µg/L	-3.5570	ppb	18:08:03
1	Ca 317.933Radial†	184.3	-1.2	-1.1516	µg/L	-1.1516	ppb	18:08:24
1	Fe 238.204 Radial†	15.7	0.7	5.7821	µg/L	5.7821	ppb	18:08:24
1	K 766.490 Radial†	164.9	30.8	21.873	µg/L	21.873	ppb	18:08:03
1	Mg 279.077 IEC†	16.1	4.2	39.497	µg/L	39.497	ppb	18:08:24
1	Na 589.592 Radial†	629.4	65.8	21.647	µg/L	21.647	ppb	18:08:03
1	Sr 421.552†	25.1	-15.3	-0.1589	µg/L	-0.1589	ppb	18:08:03
1	Sc 361.383	1970116.9	1970116.9	103.16	%			18:09:26
1	Y 371.029	1351478.3	1351478.3	103.17	%			18:09:26
1	Ag 328.068†	-586.1	-3.7	-0.0267	µg/L	-0.0267	ppb	18:09:32
1	As 188.979†	0.4	-0.7	-1.4081	µg/L	-1.4081	ppb	18:09:52
1	B 249.677†	319.9	-21.4	-0.9375	µg/L	-0.9375	ppb	18:09:52
1	Ba 233.527†	-23.6	3.1	0.0818	µg/L	0.0818	ppb	18:09:52
1	Be 313.107†	-3504.0	43.7	0.0286	µg/L	0.0286	ppb	18:09:32
1	Cd 226.502†	-151.5	-4.7	-0.1322	µg/L	-0.1322	ppb	18:09:52
1	Co 228.616†	-11.0	-1.8	-0.0886	µg/L	-0.0886	ppb	18:09:52
1	Cr 267.716†	-63.6	-9.3	-0.2036	µg/L	-0.2036	ppb	18:09:32
1	Cu 324.752†	2393.3	-166.0	-1.1590	µg/L	-1.1590	ppb	18:09:32
1	Mn 257.610†	-254.5	-2.6	-0.0100	µg/L	-0.0100	ppb	18:09:52
1	Mo 202.031†	-8.7	-0.9	-0.0948	µg/L	-0.0948	ppb	18:09:52
1	Ni 231.604†	290.0	-21.0	-1.1506	µg/L	-1.1506	ppb	18:09:52
1	P 214.914†	32.8	4.2	9.1562	µg/L	9.1562	ppb	18:09:52
1	Pb 220.353†	95.7	-4.4	-1.1812	µg/L	-1.1812	ppb	18:09:52
1	S 181.975 Axial†	14.0	-1.2	-5.3162	µg/L	-5.3162	ppb	18:09:52
1	Sb 206.836†	31.3	3.4	3.3775	µg/L	3.3775	ppb	18:09:52
1	Se 196.026†	11.2	-4.9	-7.5535	µg/L	-7.5535	ppb	18:09:52
1	SiO2†	1234.7	-53.1	-11.434	µg/L	-11.434	ppb	18:09:32
1	Si 251.611†	295.0	-26.9	-2.2136	µg/L	-2.2136	ppb	18:09:52
1	Sn 189.927†	1.4	2.3	1.0452	µg/L	1.0452	ppb	18:09:52
1	Ti 334.940†	70.3	-48.0	-0.1186	µg/L	-0.1186	ppb	18:09:32
1	Tl 190.801†	-29.3	-4.1	-5.6836	µg/L	-5.6836	ppb	18:09:52
1	U 409.014†	-64.3	-8.7	-0.7862	µg/L	-0.7862	ppb	18:09:32
1	V 292.402†	-16.1	28.6	0.3039	µg/L	0.3039	ppb	18:09:32
1	Zn 213.857†	475.3	-14.8	-0.3645	µg/L	-0.3645	ppb	18:09:52
2	Sc RADIAL	55658.7	55658.7	102	%			18:08:29
2	Al 396.153Radial†	8.4	18.4	13.722	µg/L	13.722	ppb	18:08:29
2	Ca 317.933Radial†	182.4	-0.3	-0.2942	µg/L	-0.2942	ppb	18:08:50
2	Fe 238.204 Radial†	17.1	2.3	19.276	µg/L	19.276	ppb	18:08:50
2	K 766.490 Radial†	186.5	54.5	38.722	µg/L	38.722	ppb	18:08:29
2	Mg 279.077 IEC†	15.0	3.4	31.500	µg/L	31.500	ppb	18:08:50
2	Na 589.592 Radial†	680.0	124.9	41.106	µg/L	41.106	ppb	18:08:29
2	Sr 421.552†	30.6	-9.6	-0.0993	µg/L	-0.0993	ppb	18:08:29
2	Sc 361.383	2007038.7	2007038.7	105.09	%			18:09:58
2	Y 371.029	1377314.4	1377314.4	105.15	%			18:09:58
2	Ag 328.068†	-493.3	95.1	0.7576	µg/L	0.7576	ppb	18:10:04
2	As 188.979†	-1.7	-2.7	-5.3378	µg/L	-5.3378	ppb	18:10:25
2	B 249.677†	329.1	-18.3	-0.8077	µg/L	-0.8077	ppb	18:10:25
2	Ba 233.527†	-25.2	2.0	0.0533	µg/L	0.0533	ppb	18:10:25
2	Be 313.107†	-3351.2	251.6	0.1643	µg/L	0.1643	ppb	18:10:04
2	Cd 226.502†	-144.2	4.9	0.1335	µg/L	0.1335	ppb	18:10:25
2	Co 228.616†	-14.3	-4.7	-0.2334	µg/L	-0.2334	ppb	18:10:25
2	Cr 267.716†	-47.8	6.9	0.1524	µg/L	0.1524	ppb	18:10:04
2	Cu 324.752†	2466.3	-139.3	-0.9702	µg/L	-0.9702	ppb	18:10:04
2	Mn 257.610†	-245.5	10.5	0.0378	µg/L	0.0378	ppb	18:10:25
2	Mo 202.031†	-7.5	0.4	0.0445	µg/L	0.0445	ppb	18:10:25
2	Ni 231.604†	299.7	-17.0	-0.9313	µg/L	-0.9313	ppb	18:10:25
2	P 214.914†	31.3	2.2	4.7306	µg/L	4.7306	ppb	18:10:25
2	Pb 220.353†	108.5	6.1	1.6290	µg/L	1.6290	ppb	18:10:25

2	S 181.975 Axial†	16.7	1.1	4.8755 µg/L	4.8755 ppb	18:10:25
2	Sb 206.836†	20.8	-7.2	-7.0445 µg/L	-7.0445 ppb	18:10:25
2	Se 196.026†	16.5	-0.1	-0.1477 µg/L	-0.1477 ppb	18:10:25
2	SiO2†	1217.3	-91.6	-19.736 µg/L	-19.736 ppb	18:10:04
2	Si 251.611†	298.1	-29.3	-2.4046 µg/L	-2.4046 ppb	18:10:25
2	Sn 189.927†	0.2	1.0	0.4758 µg/L	0.4758 ppb	18:10:25
2	Ti 334.940†	145.5	22.4	0.0513 µg/L	0.0513 ppb	18:10:04
2	Tl 190.801†	-26.0	-0.5	-0.6548 µg/L	-0.6548 ppb	18:10:25
2	U 409.014†	-106.1	-47.3	-4.2862 µg/L	-4.2862 ppb	18:10:04
2	V 292.402†	-24.2	21.2	0.2243 µg/L	0.2243 ppb	18:10:04
2	Zn 213.857†	472.5	-25.9	-0.6440 µg/L	-0.6440 ppb	18:10:25
3	Sc RADIAL	55952.9	55952.9	103 %		18:08:56
3	Al 396.153Radial†	-23.9	-13.2	-9.8258 µg/L	-9.8258 ppb	18:08:56
3	Ca 317.933Radial†	192.5	8.6	8.1332 µg/L	8.1332 ppb	18:09:16
3	Fe 238.204 Radial†	17.2	2.3	19.451 µg/L	19.451 ppb	18:09:16
3	K 766.490 Radial†	199.1	65.8	46.778 µg/L	46.778 ppb	18:08:56
3	Mg 279.077 IEC†	13.0	1.4	13.321 µg/L	13.321 ppb	18:09:16
3	Na 589.592 Radial†	622.9	65.7	21.628 µg/L	21.628 ppb	18:08:56
3	Sr 421.552†	22.5	-17.6	-0.1825 µg/L	-0.1825 ppb	18:08:56
3	Sc 361.383	1969215.9	1969215.9	103.11 %		18:10:31
3	Y 371.029	1350905.5	1350905.5	103.13 %		18:10:31
3	Ag 328.068†	-575.5	6.4	0.0513 µg/L	0.0513 ppb	18:10:36
3	As 188.979†	-0.8	-1.9	-3.6705 µg/L	-3.6705 ppb	18:10:57
3	B 249.677†	315.0	-25.9	-1.1434 µg/L	-1.1434 ppb	18:10:57
3	Ba 233.527†	-24.5	2.2	0.0583 µg/L	0.0583 ppb	18:10:57
3	Be 313.107†	-3286.5	253.0	0.1652 µg/L	0.1652 ppb	18:10:36
3	Cd 226.502†	-133.6	12.5	0.3430 µg/L	0.3430 ppb	18:10:57
3	Co 228.616†	-14.1	-4.9	-0.2403 µg/L	-0.2403 ppb	18:10:57
3	Cr 267.716†	-66.1	-11.7	-0.2584 µg/L	-0.2584 ppb	18:10:36
3	Cu 324.752†	2477.5	-83.3	-0.5792 µg/L	-0.5792 ppb	18:10:36
3	Mn 257.610†	-225.9	25.1	0.0888 µg/L	0.0888 ppb	18:10:57
3	Mo 202.031†	-9.8	-2.0	-0.2112 µg/L	-0.2112 ppb	18:10:57
3	Ni 231.604†	298.6	-12.6	-0.6902 µg/L	-0.6902 ppb	18:10:57
3	P 214.914†	27.1	-1.4	-2.9216 µg/L	-2.9216 ppb	18:10:57
3	Pb 220.353†	95.5	-4.6	-1.2298 µg/L	-1.2298 ppb	18:10:57
3	S 181.975 Axial†	18.9	3.5	15.355 µg/L	15.355 ppb	18:10:57
3	Sb 206.836†	19.3	-8.3	-8.1417 µg/L	-8.1417 ppb	18:10:57
3	Se 196.026†	11.7	-4.5	-6.8172 µg/L	-6.8172 ppb	18:10:57
3	SiO2†	1221.9	-65.0	-13.993 µg/L	-13.993 ppb	18:10:36
3	Si 251.611†	305.8	-16.3	-1.3398 µg/L	-1.3398 ppb	18:10:57
3	Sn 189.927†	-1.0	-0.1	-0.0571 µg/L	-0.0571 ppb	18:10:57
3	Ti 334.940†	185.2	63.5	0.1517 µg/L	0.1517 ppb	18:10:36
3	Tl 190.801†	-28.1	-3.0	-4.1975 µg/L	-4.1975 ppb	18:10:57
3	U 409.014†	-9.8	44.1	3.9892 µg/L	3.9892 ppb	18:10:36
3	V 292.402†	-52.5	-6.8	-0.0677 µg/L	-0.0677 ppb	18:10:36
3	Zn 213.857†	470.6	-19.2	-0.4765 µg/L	-0.4765 ppb	18:10:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1982123.8	103.78	%	1.130				1.09%
Sc RADIAL	56047.9	103	%	0.8				0.79%
Y 371.029	1359899.4	103.82	%	1.152				1.11%
Ag 328.068†	32.6	0.2608	µg/L	0.43206	0.2608	ppb	0.43206	165.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.1	0.1130	µg/L	12.19532	0.1130	ppb	12.19532	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-3.4721	µg/L	1.97235	-3.4721	ppb	1.97235	56.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-21.9	-0.9628	µg/L	0.16927	-0.9628	ppb	0.16927	17.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.5	0.0645	µg/L	0.01519	0.0645	ppb	0.01519	23.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	182.7	0.1193	µg/L	0.07861	0.1193	ppb	0.07861	65.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.4	2.2291	µg/L	5.13097	2.2291	ppb	5.13097	230.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.3	0.1147	µg/L	0.23817	0.1147	ppb	0.23817	207.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.8	-0.1875	µg/L	0.08565	-0.1875	ppb	0.08565	45.69%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	-4.7	-0.1032 µg/L	0.22302	-0.1032 ppb	0.22302	216.06%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-129.5	-0.9028 µg/L	0.29572	-0.9028 ppb	0.29572	32.76%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	1.8	14.837 µg/L	7.8419	14.837 ppb	7.8419	52.86%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	50.4	35.791 µg/L	12.7089	35.791 ppb	12.7089	35.51%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	3.0	28.106 µg/L	13.4141	28.106 ppb	13.4141	47.73%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	11.0	0.0389 µg/L	0.04940	0.0389 ppb	0.04940	127.06%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-0.8	-0.0872 µg/L	0.12800	-0.0872 ppb	0.12800	146.84%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	85.4	28.127 µg/L	11.2402	28.127 ppb	11.2402	39.96%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-16.9	-0.9240 µg/L	0.23026	-0.9240 ppb	0.23026	24.92%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	1.7	3.6551 µg/L	6.11031	3.6551 ppb	6.11031	167.17%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-1.0	-0.2607 µg/L	1.63670	-0.2607 ppb	1.63670	627.82%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	1.1	4.9715 µg/L	10.33607	4.9715 ppb	10.33607	207.91%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-4.0	-3.9362 µg/L	6.35757	-3.9362 ppb	6.35757	161.51%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-3.2	-4.8394 µg/L	4.07986	-4.8394 ppb	4.07986	84.30%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-69.9	-15.054 µg/L	4.2514	-15.054 ppb	4.2514	28.24%
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-24.2	-1.9860 µg/L	0.56769	-1.9860 ppb	0.56769	28.58%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	1.1	0.4880 µg/L	0.55125	0.4880 ppb	0.55125	112.97%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-14.2	-0.1469 µg/L	0.04288	-0.1469 ppb	0.04288	29.20%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	12.6	0.0281 µg/L	0.13664	0.0281 ppb	0.13664	485.55%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-2.5	-3.5120 µg/L	2.58356	-3.5120 ppb	2.58356	73.56%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-4.0	-0.3611 µg/L	4.15405	-0.3611 ppb	4.15405	>999.9%
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	14.4	0.1535 µg/L	0.19568	0.1535 ppb	0.19568	127.50%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-20.0	-0.4950 µg/L	0.14064	-0.4950 ppb	0.14064	28.41%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:32:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55441.9	55441.9	102	%			18:33:25
1	Al 396.153Radial†	6917.9	6819.8	5072.2	µg/L	5072.2	ppb	18:33:25
1	Ca 317.933Radial†	5691.9	5423.7	5106.8	µg/L	5106.8	ppb	18:33:45
1	Fe 238.204 Radial†	625.4	601.1	5105.5	µg/L	5105.5	ppb	18:33:45
1	K 766.490 Radial†	7360.4	7116.9	5058.6	µg/L	5058.6	ppb	18:33:25
1	Mg 279.077 IEC†	579.1	558.7	5203.2	µg/L	5203.2	ppb	18:33:45
1	Na 589.592 Radial†	31674.9	30637.4	10086	µg/L	10086	ppb	18:33:25
1	Sr 421.552†	48916.5	48111.6	498.73	µg/L	498.73	ppb	18:33:25
1	Sc 361.383	1949198.7	1949198.7	102.06	%			18:34:49
1	Y 371.029	1332613.7	1332613.7	101.73	%			18:34:49
1	Ag 328.068†	63737.9	63015.4	503.72	µg/L	503.72	ppb	18:34:54
1	As 188.979†	273.4	266.7	520.31	µg/L	520.31	ppb	18:35:15
1	B 249.677†	12085.6	11510.1	501.18	µg/L	501.18	ppb	18:34:54
1	Ba 233.527†	19929.9	19553.5	510.07	µg/L	510.07	ppb	18:34:54
1	Be 313.107†	791453.2	778912.4	508.48	µg/L	508.48	ppb	18:34:49
1	Cd 226.502†	18764.5	18527.7	511.09	µg/L	511.09	ppb	18:34:54
1	Co 228.616†	10683.8	10476.9	515.03	µg/L	515.03	ppb	18:34:54
1	Cr 267.716†	23886.3	23456.4	516.27	µg/L	516.27	ppb	18:34:54
1	Cu 324.752†	77115.4	73072.1	511.13	µg/L	511.13	ppb	18:34:54
1	Mn 257.610†	152507.4	149672.0	518.76	µg/L	518.76	ppb	18:34:49
1	Mo 202.031†	5014.5	4920.8	525.34	µg/L	525.34	ppb	18:35:15
1	Ni 231.604†	9902.4	9400.2	513.41	µg/L	513.41	ppb	18:34:54
1	P 214.914†	1289.3	1235.7	2604.5	µg/L	2604.5	ppb	18:35:15
1	Pb 220.353†	2098.8	1959.2	522.95	µg/L	522.95	ppb	18:35:15
1	S 181.975 Axial†	252.9	233.0	1020.8	µg/L	1020.8	ppb	18:35:15
1	Sb 206.836†	562.5	524.2	518.28	µg/L	518.28	ppb	18:35:15
1	Se 196.026†	361.5	338.4	523.78	µg/L	523.78	ppb	18:35:15
1	SiO2†	26807.5	25016.2	5387.4	µg/L	5387.4	ppb	18:34:54
1	Si 251.611†	31683.4	30730.8	2526.2	µg/L	2526.2	ppb	18:34:54
1	Sn 189.927†	1171.2	1148.4	528.25	µg/L	528.25	ppb	18:35:15
1	Ti 334.940†	213415.9	208990.5	502.38	µg/L	502.38	ppb	18:34:49
1	Tl 190.801†	344.1	361.4	510.53	µg/L	510.53	ppb	18:35:15
1	U 409.014†	5808.1	5744.4	519.06	µg/L	519.06	ppb	18:34:54
1	V 292.402†	48900.4	47957.2	517.47	µg/L	517.47	ppb	18:34:54
1	Zn 213.857†	21532.1	20621.7	511.32	µg/L	511.32	ppb	18:34:54
2	Sc RADIAL	56230.3	56230.3	103	%			18:33:51
2	Al 396.153Radial†	6941.0	6746.8	5018.0	µg/L	5018.0	ppb	18:33:51
2	Ca 317.933Radial†	5664.7	5318.7	5007.9	µg/L	5007.9	ppb	18:34:11
2	Fe 238.204 Radial†	623.7	590.8	5018.6	µg/L	5018.6	ppb	18:34:11
2	K 766.490 Radial†	7345.4	7000.7	4976.0	µg/L	4976.0	ppb	18:33:51
2	Mg 279.077 IEC†	581.5	553.1	5150.5	µg/L	5150.5	ppb	18:34:11
2	Na 589.592 Radial†	31761.7	30284.4	9969.7	µg/L	9969.7	ppb	18:33:51
2	Sr 421.552†	49439.7	47944.2	497.00	µg/L	497.00	ppb	18:33:51
2	Sc 361.383	1968654.4	1968654.4	103.08	%			18:35:22
2	Y 371.029	1345275.7	1345275.7	102.70	%			18:35:22
2	Ag 328.068†	64265.9	62910.5	502.88	µg/L	502.88	ppb	18:35:28
2	As 188.979†	279.7	270.2	527.15	µg/L	527.15	ppb	18:35:48
2	B 249.677†	12199.0	11503.1	500.92	µg/L	500.92	ppb	18:35:28
2	Ba 233.527†	20118.0	19543.0	509.79	µg/L	509.79	ppb	18:35:28
2	Be 313.107†	797156.7	776781.8	507.09	µg/L	507.09	ppb	18:35:22
2	Cd 226.502†	19012.6	18586.7	512.73	µg/L	512.73	ppb	18:35:28
2	Co 228.616†	10795.4	10481.7	515.26	µg/L	515.26	ppb	18:35:28
2	Cr 267.716†	24075.5	23408.6	515.22	µg/L	515.22	ppb	18:35:28
2	Cu 324.752†	77661.1	72854.9	509.61	µg/L	509.61	ppb	18:35:28
2	Mn 257.610†	153284.1	148948.8	516.25	µg/L	516.25	ppb	18:35:22
2	Mo 202.031†	4982.7	4841.3	516.86	µg/L	516.86	ppb	18:35:48
2	Ni 231.604†	10038.8	9436.7	515.40	µg/L	515.40	ppb	18:35:28
2	P 214.914†	1275.2	1209.5	2548.3	µg/L	2548.3	ppb	18:35:48
2	Pb 220.353†	2089.9	1930.2	515.20	µg/L	515.20	ppb	18:35:48

2	S 181.975 Axial†	253.9	231.5	1014.3 µg/L	1014.3 ppb	18:35:48
2	Sb 206.836†	566.6	522.7	516.68 µg/L	516.68 ppb	18:35:48
2	Se 196.026†	362.7	336.1	520.05 µg/L	520.05 ppb	18:35:48
2	SiO2†	27183.9	25121.8	5410.1 µg/L	5410.1 ppb	18:35:28
2	Si 251.611†	31985.4	30716.9	2525.1 µg/L	2525.1 ppb	18:35:28
2	Sn 189.927†	1162.1	1128.3	518.97 µg/L	518.97 ppb	18:35:48
2	Ti 334.940†	214911.2	208374.5	500.90 µg/L	500.90 ppb	18:35:22
2	Tl 190.801†	347.2	361.1	510.11 µg/L	510.11 ppb	18:35:48
2	U 409.014†	5833.8	5713.1	516.25 µg/L	516.25 ppb	18:35:28
2	V 292.402†	49382.2	47951.1	517.33 µg/L	517.33 ppb	18:35:28
2	Zn 213.857†	21765.8	20640.0	511.77 µg/L	511.77 ppb	18:35:28
3	Sc RADIAL	56202.6	56202.6	103 %		18:34:17
3	Al 396.153Radial†	7002.2	6809.5	5066.3 µg/L	5066.3 ppb	18:34:17
3	Ca 317.933Radial†	5645.9	5303.2	4993.3 µg/L	4993.3 ppb	18:34:37
3	Fe 238.204 Radial†	622.2	589.7	5007.8 µg/L	5007.8 ppb	18:34:37
3	K 766.490 Radial†	7390.9	7048.4	5010.0 µg/L	5010.0 ppb	18:34:17
3	Mg 279.077 IEC†	576.6	548.6	5107.8 µg/L	5107.8 ppb	18:34:37
3	Na 589.592 Radial†	31993.1	30524.4	10049 µg/L	10049 ppb	18:34:17
3	Sr 421.552†	49671.5	48193.0	499.58 µg/L	499.58 ppb	18:34:17
3	Sc 361.383	1949854.5	1949854.5	102.10 %		18:35:55
3	Y 371.029	1332440.6	1332440.6	101.72 %		18:35:55
3	Ag 328.068†	60532.1	59854.4	478.35 µg/L	478.35 ppb	18:36:01
3	As 188.979†	230.7	224.8	438.55 µg/L	438.55 ppb	18:36:21
3	B 249.677†	11478.3	10911.2	474.98 µg/L	474.98 ppb	18:36:01
3	Ba 233.527†	18573.8	18218.6	475.23 µg/L	475.23 ppb	18:36:01
3	Be 313.107†	747182.5	735289.5	480.01 µg/L	480.01 ppb	18:35:55
3	Cd 226.502†	17437.8	17222.1	475.04 µg/L	475.04 ppb	18:36:01
3	Co 228.616†	9818.6	9625.9	473.13 µg/L	473.13 ppb	18:36:01
3	Cr 267.716†	21497.4	21108.6	464.60 µg/L	464.60 ppb	18:36:01
3	Cu 324.752†	71198.9	67251.7	470.46 µg/L	470.46 ppb	18:36:01
3	Mn 257.610†	144456.6	141736.2	491.27 µg/L	491.27 ppb	18:35:55
3	Mo 202.031†	4165.5	4087.6	436.42 µg/L	436.42 ppb	18:36:21
3	Ni 231.604†	9187.6	8696.9	475.00 µg/L	475.00 ppb	18:36:01
3	P 214.914†	1084.2	1034.3	2175.1 µg/L	2175.1 ppb	18:36:21
3	Pb 220.353†	1818.3	1683.8	449.34 µg/L	449.34 ppb	18:36:21
3	S 181.975 Axial†	223.4	204.0	893.71 µg/L	893.71 ppb	18:36:21
3	Sb 206.836†	482.5	445.7	440.11 µg/L	440.11 ppb	18:36:21
3	Se 196.026†	316.7	294.4	456.49 µg/L	456.49 ppb	18:36:21
3	SiO2†	25304.0	23534.7	5068.3 µg/L	5068.3 ppb	18:36:01
3	Si 251.611†	29685.2	28763.1	2364.5 µg/L	2364.5 ppb	18:36:01
3	Sn 189.927†	961.6	942.7	433.62 µg/L	433.62 ppb	18:36:21
3	Ti 334.940†	200490.3	196259.8	471.76 µg/L	471.76 ppb	18:35:55
3	Tl 190.801†	316.1	333.9	471.83 µg/L	471.83 ppb	18:36:21
3	U 409.014†	5179.3	5126.6	463.15 µg/L	463.15 ppb	18:36:01
3	V 292.402†	44764.1	43889.7	473.25 µg/L	473.25 ppb	18:36:01
3	Zn 213.857†	19900.8	19016.9	471.49 µg/L	471.49 ppb	18:36:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1955902.5	102.41	%	0.578				0.56%
Sc RADIAL	55958.3	103	%	0.8				0.80%
Y 371.029	1336776.6	102.05	%	0.562				0.55%
Ag 328.068†	61926.8	494.98	µg/L	14.414	494.98	ppb	14.414	2.91%
QC value within limits for Ag 328.068 Recovery = 99.00%								
Al 396.153Radial†	6792.0	5052.2	µg/L	29.77	5052.2	ppb	29.77	0.59%
QC value within limits for Al 396.153Radial Recovery = 101.04%								
As 188.979†	253.9	495.34	µg/L	49.299	495.34	ppb	49.299	9.95%
QC value within limits for As 188.979 Recovery = 99.07%								
B 249.677†	11308.1	492.36	µg/L	15.053	492.36	ppb	15.053	3.06%
QC value within limits for B 249.677 Recovery = 98.47%								
Ba 233.527†	19105.0	498.36	µg/L	20.034	498.36	ppb	20.034	4.02%
QC value within limits for Ba 233.527 Recovery = 99.67%								
Be 313.107†	763661.2	498.53	µg/L	16.055	498.53	ppb	16.055	3.22%
QC value within limits for Be 313.107 Recovery = 99.71%								
Ca 317.933Radial†	5348.5	5036.0	µg/L	61.72	5036.0	ppb	61.72	1.23%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	18112.2	499.62	µg/L	21.301	499.62	ppb	21.301	4.26%
QC value within limits for Cd 226.502 Recovery = 99.92%								
Co 228.616†	10194.8	501.14	µg/L	24.256	501.14	ppb	24.256	4.84%

QC value within limits for Co 228.616 Recovery = 100.23%

Cr 267.716†	22657.9	498.70 µg/L	29.533	498.70 ppb	29.533	5.92%
QC value within limits for Cr 267.716 Recovery = 99.74%						
Cu 324.752†	71059.6	497.07 µg/L	23.052	497.07 ppb	23.052	4.64%
QC value within limits for Cu 324.752 Recovery = 99.41%						
Fe 238.204 Radial†	593.9	5044.0 µg/L	53.59	5044.0 ppb	53.59	1.06%
QC value within limits for Fe 238.204 Radial Recovery = 100.88%						
K 766.490 Radial†	7055.3	5014.9 µg/L	41.51	5014.9 ppb	41.51	0.83%
QC value within limits for K 766.490 Radial Recovery = 100.30%						
Mg 279.077 IEC†	553.5	5153.8 µg/L	47.82	5153.8 ppb	47.82	0.93%
QC value within limits for Mg 279.077 IEC Recovery = 103.08%						
Mn 257.610†	146785.7	508.76 µg/L	15.198	508.76 ppb	15.198	2.99%
QC value within limits for Mn 257.610 Recovery = 101.75%						
Mo 202.031†	4616.6	492.88 µg/L	49.074	492.88 ppb	49.074	9.96%
QC value within limits for Mo 202.031 Recovery = 98.58%						
Na 589.592 Radial†	30482.1	10035 µg/L	59.3	10035 ppb	59.3	0.59%
QC value within limits for Na 589.592 Radial Recovery = 100.35%						
Ni 231.604†	9177.9	501.27 µg/L	22.771	501.27 ppb	22.771	4.54%
QC value within limits for Ni 231.604 Recovery = 100.25%						
P 214.914†	1159.8	2442.6 µg/L	233.37	2442.6 ppb	233.37	9.55%
QC value within limits for P 214.914 Recovery = 97.71%						
Pb 220.353†	1857.7	495.83 µg/L	40.446	495.83 ppb	40.446	8.16%
QC value within limits for Pb 220.353 Recovery = 99.17%						
S 181.975 Axial†	222.8	976.27 µg/L	71.572	976.27 ppb	71.572	7.33%
QC value within limits for S 181.975 Axial Recovery = 97.63%						
Sb 206.836†	497.5	491.69 µg/L	44.681	491.69 ppb	44.681	9.09%
QC value within limits for Sb 206.836 Recovery = 98.34%						
Se 196.026†	322.9	500.11 µg/L	37.818	500.11 ppb	37.818	7.56%
QC value within limits for Se 196.026 Recovery = 100.02%						
SiO2†	24557.5	5288.6 µg/L	191.11	5288.6 ppb	191.11	3.61%
QC value within limits for SiO2 Recovery = 98.90%						
Si 251.611†	30070.3	2471.9 µg/L	93.06	2471.9 ppb	93.06	3.76%
QC value within limits for Si 251.611 Recovery = 98.88%						
Sn 189.927†	1073.1	493.61 µg/L	52.162	493.61 ppb	52.162	10.57%
QC value within limits for Sn 189.927 Recovery = 98.72%						
Sr 421.552†	48082.9	498.44 µg/L	1.315	498.44 ppb	1.315	0.26%
QC value within limits for Sr 421.552 Recovery = 99.69%						
Ti 334.940†	204541.6	491.68 µg/L	17.266	491.68 ppb	17.266	3.51%
QC value within limits for Ti 334.940 Recovery = 98.34%						
Tl 190.801†	352.2	497.49 µg/L	22.222	497.49 ppb	22.222	4.47%
QC value within limits for Tl 190.801 Recovery = 99.50%						
U 409.014†	5528.1	499.49 µg/L	31.500	499.49 ppb	31.500	6.31%
QC value within limits for U 409.014 Recovery = 99.90%						
V 292.402†	46599.3	502.68 µg/L	25.490	502.68 ppb	25.490	5.07%
QC value within limits for V 292.402 Recovery = 100.54%						
Zn 213.857†	20092.9	498.19 µg/L	23.129	498.19 ppb	23.129	4.64%
QC value within limits for Zn 213.857 Recovery = 99.64%						

All analyte(s) passed QC.

Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:36:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56577.3	56577.3	104	%			18:37:06
1	Al 396.153Radial†	-31.7	-20.5	-15.254	µg/L	-15.254	ppb	18:37:06
1	Ca 317.933Radial†	178.1	-7.3	-6.9019	µg/L	-6.9019	ppb	18:37:27
1	Fe 238.204 Radial†	15.3	0.2	1.9399	µg/L	1.9399	ppb	18:37:27
1	K 766.490 Radial†	151.5	17.7	12.611	µg/L	12.611	ppb	18:37:06
1	Mg 279.077 IEC†	8.3	-3.3	-30.287	µg/L	-30.287	ppb	18:37:27
1	Na 589.592 Radial†	633.9	69.6	22.897	µg/L	22.897	ppb	18:37:06
1	Sr 421.552†	44.5	3.3	0.0346	µg/L	0.0346	ppb	18:37:06
1	Sc 361.383	1997175.6	1997175.6	104.57	%			18:38:28
1	Y 371.029	1371834.1	1371834.1	104.73	%			18:38:28
1	Ag 328.068†	-518.3	68.9	0.5460	µg/L	0.5460	ppb	18:38:34
1	As 188.979†	-0.7	-1.8	-3.4701	µg/L	-3.4701	ppb	18:38:54
1	B 249.677†	333.0	-13.0	-0.5696	µg/L	-0.5696	ppb	18:38:54
1	Ba 233.527†	-20.3	6.6	0.1716	µg/L	0.1716	ppb	18:38:54
1	Be 313.107†	-3492.3	100.9	0.0658	µg/L	0.0658	ppb	18:38:34
1	Cd 226.502†	-135.3	12.8	0.3518	µg/L	0.3518	ppb	18:38:54
1	Co 228.616†	-16.0	-6.4	-0.3169	µg/L	-0.3169	ppb	18:38:54
1	Cr 267.716†	-59.9	-4.9	-0.1071	µg/L	-0.1071	ppb	18:38:34
1	Cu 324.752†	2440.0	-152.8	-1.0669	µg/L	-1.0669	ppb	18:38:34
1	Mn 257.610†	-253.9	1.3	0.0061	µg/L	0.0061	ppb	18:38:54
1	Mo 202.031†	-12.2	-4.2	-0.4445	µg/L	-0.4445	ppb	18:38:54
1	Ni 231.604†	302.8	-12.6	-0.6910	µg/L	-0.6910	ppb	18:38:54
1	P 214.914†	25.9	-2.9	-6.0063	µg/L	-6.0063	ppb	18:38:54
1	Pb 220.353†	96.6	-4.8	-1.2749	µg/L	-1.2749	ppb	18:38:54
1	S 181.975 Axial†	16.8	1.3	5.5555	µg/L	5.5555	ppb	18:38:54
1	Sb 206.836†	26.1	-2.0	-1.9561	µg/L	-1.9561	ppb	18:38:54
1	Se 196.026†	17.3	0.7	1.1140	µg/L	1.1140	ppb	18:38:54
1	SiO2†	1249.6	-55.1	-11.856	µg/L	-11.856	ppb	18:38:34
1	Si 251.611†	302.7	-23.4	-1.9253	µg/L	-1.9253	ppb	18:38:54
1	Sn 189.927†	1.0	1.9	0.8554	µg/L	0.8554	ppb	18:38:54
1	Ti 334.940†	152.6	29.8	0.0741	µg/L	0.0741	ppb	18:38:34
1	Tl 190.801†	-22.3	3.0	4.1717	µg/L	4.1717	ppb	18:38:54
1	U 409.014†	-116.8	-58.1	-5.2596	µg/L	-5.2596	ppb	18:38:34
1	V 292.402†	-54.7	-8.1	-0.0953	µg/L	-0.0953	ppb	18:38:34
1	Zn 213.857†	472.6	-23.6	-0.5840	µg/L	-0.5840	ppb	18:38:54
2	Sc RADIAL	55383.9	55383.9	101	%			18:37:32
2	Al 396.153Radial†	-17.3	-7.0	-5.1964	µg/L	-5.1964	ppb	18:37:32
2	Ca 317.933Radial†	188.8	6.9	6.4546	µg/L	6.4546	ppb	18:37:52
2	Fe 238.204 Radial†	14.1	-0.6	-4.8767	µg/L	-4.8767	ppb	18:37:52
2	K 766.490 Radial†	126.5	-3.8	-2.6779	µg/L	-2.6779	ppb	18:37:32
2	Mg 279.077 IEC†	12.6	1.1	10.292	µg/L	10.292	ppb	18:37:52
2	Na 589.592 Radial†	623.8	72.8	23.955	µg/L	23.955	ppb	18:37:32
2	Sr 421.552†	31.5	-8.5	-0.0883	µg/L	-0.0883	ppb	18:37:32
2	Sc 361.383	2013350.1	2013350.1	105.42	%			18:39:00
2	Y 371.029	1381993.5	1381993.5	105.50	%			18:39:00
2	Ag 328.068†	-537.9	54.3	0.4351	µg/L	0.4351	ppb	18:39:06
2	As 188.979†	2.2	1.0	1.8812	µg/L	1.8812	ppb	18:39:26
2	B 249.677†	318.3	-29.5	-1.2874	µg/L	-1.2874	ppb	18:39:26
2	Ba 233.527†	-25.9	1.4	0.0380	µg/L	0.0380	ppb	18:39:26
2	Be 313.107†	-3437.1	180.0	0.1176	µg/L	0.1176	ppb	18:39:06
2	Cd 226.502†	-146.1	3.5	0.0976	µg/L	0.0976	ppb	18:39:26
2	Co 228.616†	-6.0	3.1	0.1553	µg/L	0.1553	ppb	18:39:26
2	Cr 267.716†	-56.6	-1.3	-0.0276	µg/L	-0.0276	ppb	18:39:06
2	Cu 324.752†	2488.4	-125.7	-0.8785	µg/L	-0.8785	ppb	18:39:06
2	Mn 257.610†	-244.3	12.4	0.0419	µg/L	0.0419	ppb	18:39:26
2	Mo 202.031†	-1.5	6.1	0.6511	µg/L	0.6511	ppb	18:39:26
2	Ni 231.604†	301.7	-16.0	-0.8752	µg/L	-0.8752	ppb	18:39:26
2	P 214.914†	26.3	-2.6	-5.5596	µg/L	-5.5596	ppb	18:39:26
2	Pb 220.353†	100.7	-1.7	-0.4405	µg/L	-0.4405	ppb	18:39:26

2	S 181.975 Axial†	19.5	3.7	16.100 µg/L	16.100 ppb	18:39:26
2	Sb 206.836†	25.7	-2.6	-2.5687 µg/L	-2.5687 ppb	18:39:26
2	Se 196.026†	18.4	1.6	2.4087 µg/L	2.4087 ppb	18:39:26
2	SiO2†	1290.6	-25.8	-5.5589 µg/L	-5.5589 ppb	18:39:06
2	Si 251.611†	298.6	-29.7	-2.4388 µg/L	-2.4388 ppb	18:39:26
2	Sn 189.927†	1.6	2.4	1.0965 µg/L	1.0965 ppb	18:39:26
2	Ti 334.940†	143.9	20.4	0.0483 µg/L	0.0483 ppb	18:39:06
2	Tl 190.801†	-19.4	5.9	8.2322 µg/L	8.2322 ppb	18:39:26
2	U 409.014†	-143.2	-82.3	-7.4471 µg/L	-7.4471 ppb	18:39:06
2	V 292.402†	19.9	63.0	0.6686 µg/L	0.6686 ppb	18:39:06
2	Zn 213.857†	478.6	-21.5	-0.5326 µg/L	-0.5326 ppb	18:39:26
3	Sc RADIAL	56905.3	56905.3	104 %		18:37:58
3	Al 396.153Radial†	-1.7	8.5	6.3212 µg/L	6.3212 ppb	18:37:58
3	Ca 317.933Radial†	181.4	-5.2	-4.9145 µg/L	-4.9145 ppb	18:38:18
3	Fe 238.204 Radial†	13.2	-1.8	-15.607 µg/L	-15.607 ppb	18:38:18
3	K 766.490 Radial†	186.8	50.7	36.048 µg/L	36.048 ppb	18:37:58
3	Mg 279.077 IEC†	11.5	-0.3	-2.5813 µg/L	-2.5813 ppb	18:38:18
3	Na 589.592 Radial†	645.3	77.0	25.346 µg/L	25.346 ppb	18:37:58
3	Sr 421.552†	17.2	-23.1	-0.2393 µg/L	-0.2393 ppb	18:37:58
3	Sc 361.383	1996384.7	1996384.7	104.53 %		18:39:32
3	Y 371.029	1369220.3	1369220.3	104.53 %		18:39:32
3	Ag 328.068†	-541.0	47.0	0.3741 µg/L	0.3741 ppb	18:39:38
3	As 188.979†	-1.0	-2.1	-4.0939 µg/L	-4.0939 ppb	18:39:59
3	B 249.677†	333.0	-12.9	-0.5555 µg/L	-0.5555 ppb	18:39:59
3	Ba 233.527†	-17.3	9.5	0.2478 µg/L	0.2478 ppb	18:39:59
3	Be 313.107†	-3308.4	275.5	0.1799 µg/L	0.1799 ppb	18:39:38
3	Cd 226.502†	-144.0	4.4	0.1228 µg/L	0.1228 ppb	18:39:59
3	Co 228.616†	-11.0	-1.7	-0.0836 µg/L	-0.0836 ppb	18:39:59
3	Cr 267.716†	-55.8	-1.0	-0.0220 µg/L	-0.0220 ppb	18:39:38
3	Cu 324.752†	2440.9	-151.0	-1.0572 µg/L	-1.0572 ppb	18:39:38
3	Mn 257.610†	-222.1	31.7	0.1077 µg/L	0.1077 ppb	18:39:59
3	Mo 202.031†	-3.2	4.5	0.4771 µg/L	0.4771 ppb	18:39:59
3	Ni 231.604†	303.2	-12.1	-0.6637 µg/L	-0.6637 ppb	18:39:59
3	P 214.914†	30.5	1.6	3.5034 µg/L	3.5034 ppb	18:39:59
3	Pb 220.353†	89.5	-11.6	-3.0790 µg/L	-3.0790 ppb	18:39:59
3	S 181.975 Axial†	17.8	2.2	9.6185 µg/L	9.6185 ppb	18:39:59
3	Sb 206.836†	27.7	-0.5	-0.4700 µg/L	-0.4700 ppb	18:39:59
3	Se 196.026†	15.0	-1.5	-2.2806 µg/L	-2.2806 ppb	18:39:59
3	SiO2†	1247.6	-56.5	-12.175 µg/L	-12.175 ppb	18:39:38
3	Si 251.611†	300.0	-25.8	-2.1244 µg/L	-2.1244 ppb	18:39:59
3	Sn 189.927†	3.2	3.9	1.8070 µg/L	1.8070 ppb	18:39:59
3	Ti 334.940†	156.9	34.0	0.0818 µg/L	0.0818 ppb	18:39:38
3	Tl 190.801†	-23.6	1.7	2.3286 µg/L	2.3286 ppb	18:39:59
3	U 409.014†	-48.9	6.8	0.6203 µg/L	0.6203 ppb	18:39:38
3	V 292.402†	-14.3	30.6	0.3283 µg/L	0.3283 ppb	18:39:38
3	Zn 213.857†	478.7	-17.6	-0.4352 µg/L	-0.4352 ppb	18:39:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2002303.4	104.84	%	0.501				0.48%
Sc RADIAL	56288.9	103	%	1.5				1.42%
Y 371.029	1374349.3	104.92	%	0.515				0.49%
Ag 328.068†	56.7	0.4517	µg/L	0.08717	0.4517	ppb	0.08717	19.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.3	-4.7097	µg/L	10.79578	-4.7097	ppb	10.79578	229.22%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-1.8943	µg/L	3.28450	-1.8943	ppb	3.28450	173.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-18.5	-0.8042	µg/L	0.41854	-0.8042	ppb	0.41854	52.05%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.8	0.1525	µg/L	0.10621	0.1525	ppb	0.10621	69.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	185.5	0.1211	µg/L	0.05710	0.1211	ppb	0.05710	47.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-1.7872	µg/L	7.20651	-1.7872	ppb	7.20651	403.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.9	0.1907	µg/L	0.14008	0.1907	ppb	0.14008	73.44%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.7	-0.0817	µg/L	0.23614	-0.0817	ppb	0.23614	288.95%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	-2.4	-0.0522 µg/L	0.04756	-0.0522 ppb	0.04756	91.05%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-143.2	-1.0009 µg/L	0.10608	-1.0009 ppb	0.10608	10.60%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.7	-6.1811 µg/L	8.84567	-6.1811 ppb	8.84567	143.11%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	21.6	15.327 µg/L	19.5055	15.327 ppb	19.5055	127.26%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.8	-7.5253 µg/L	20.73608	-7.5253 ppb	20.73608	275.55%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	15.1	0.0519 µg/L	0.05154	0.0519 ppb	0.05154	99.29%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	2.1	0.2279 µg/L	0.58875	0.2279 ppb	0.58875	258.32%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	73.1	24.066 µg/L	1.2283	24.066 ppb	1.2283	5.10%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-13.6	-0.7433 µg/L	0.11501	-0.7433 ppb	0.11501	15.47%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-1.3	-2.6875 µg/L	5.36613	-2.6875 ppb	5.36613	199.67%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-6.0	-1.5981 µg/L	1.34866	-1.5981 ppb	1.34866	84.39%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	2.4	10.425 µg/L	5.3180	10.425 ppb	5.3180	51.01%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-1.7	-1.6649 µg/L	1.07918	-1.6649 ppb	1.07918	64.82%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	0.3	0.4141 µg/L	2.42173	0.4141 ppb	2.42173	584.88%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-45.8	-9.8634 µg/L	3.73124	-9.8634 ppb	3.73124	37.83%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	-26.3	-2.1628 µg/L	0.25893	-2.1628 ppb	0.25893	11.97%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.7	1.2530 µg/L	0.49474	1.2530 ppb	0.49474	39.49%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-9.4	-0.0977 µg/L	0.13720	-0.0977 ppb	0.13720	140.50%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	28.1	0.0681 µg/L	0.01753	0.0681 ppb	0.01753	25.76%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	3.5	4.9108 µg/L	3.02042	4.9108 ppb	3.02042	61.51%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-44.5	-4.0288 µg/L	4.17218	-4.0288 ppb	4.17218	103.56%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	28.5	0.3005 µg/L	0.38270	0.3005 ppb	0.38270	127.35%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-20.9	-0.5173 µg/L	0.07558	-0.5173 ppb	0.07558	14.61%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:12:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	55671.1	55671.1	102	%			19:13:03
1	Al 396.153Radial†	7032.4	6904.0	5134.7	µg/L	5134.7	ppb	19:13:03
1	Ca 317.933Radial†	5628.4	5338.4	5026.4	µg/L	5026.4	ppb	19:13:23
1	Fe 238.204 Radial†	628.5	601.6	5110.3	µg/L	5110.3	ppb	19:13:23
1	K 766.490 Radial†	7390.7	7116.7	5058.5	µg/L	5058.5	ppb	19:13:03
1	Mg 279.077 IEC†	581.4	558.7	5202.9	µg/L	5202.9	ppb	19:13:23
1	Na 589.592 Radial†	32145.4	30970.2	10196	µg/L	10196	ppb	19:13:03
1	Sr 421.552†	49522.9	48507.7	502.84	µg/L	502.84	ppb	19:13:03
1	Sc 361.383	1951144.3	1951144.3	102.16	%			19:14:27
1	Y 371.029	1335064.4	1335064.4	101.92	%			19:14:27
1	Ag 328.068†	64845.5	64037.3	511.83	µg/L	511.83	ppb	19:14:32
1	As 188.979†	275.5	268.5	523.78	µg/L	523.78	ppb	19:14:53
1	B 249.677†	12049.2	11462.7	499.11	µg/L	499.11	ppb	19:14:32
1	Ba 233.527†	20008.0	19610.4	511.55	µg/L	511.55	ppb	19:14:32
1	Be 313.107†	795598.6	782196.8	510.62	µg/L	510.62	ppb	19:14:27
1	Cd 226.502†	18839.6	18582.9	512.61	µg/L	512.61	ppb	19:14:32
1	Co 228.616†	10676.1	10458.9	514.13	µg/L	514.13	ppb	19:14:32
1	Cr 267.716†	23927.2	23473.1	516.64	µg/L	516.64	ppb	19:14:32
1	Cu 324.752†	77230.7	73109.7	511.40	µg/L	511.40	ppb	19:14:32
1	Mn 257.610†	153022.2	150027.0	519.99	µg/L	519.99	ppb	19:14:27
1	Mo 202.031†	5147.6	5046.1	538.72	µg/L	538.72	ppb	19:14:53
1	Ni 231.604†	9909.1	9397.1	513.24	µg/L	513.24	ppb	19:14:32
1	P 214.914†	1284.0	1229.2	2590.7	µg/L	2590.7	ppb	19:14:53
1	Pb 220.353†	2100.1	1958.5	522.80	µg/L	522.80	ppb	19:14:53
1	S 181.975 Axial†	260.7	240.4	1053.2	µg/L	1053.2	ppb	19:14:53
1	Sb 206.836†	579.1	539.9	533.92	µg/L	533.92	ppb	19:14:53
1	Se 196.026†	368.4	344.8	533.59	µg/L	533.59	ppb	19:14:53
1	SiO2†	27092.9	25269.3	5441.9	µg/L	5441.9	ppb	19:14:32
1	Si 251.611†	31889.8	30901.8	2540.3	µg/L	2540.3	ppb	19:14:32
1	Sn 189.927†	1200.9	1176.4	541.09	µg/L	541.09	ppb	19:14:53
1	Ti 334.940†	218380.7	213641.7	513.57	µg/L	513.57	ppb	19:14:27
1	Tl 190.801†	350.6	367.5	519.14	µg/L	519.14	ppb	19:14:53
1	U 409.014†	5814.6	5745.1	519.13	µg/L	519.13	ppb	19:14:32
1	V 292.402†	48982.0	47989.3	517.92	µg/L	517.92	ppb	19:14:32
1	Zn 213.857†	21483.0	20552.7	509.59	µg/L	509.59	ppb	19:14:32
2	Sc RADIAL	56100.7	56100.7	103	%			19:13:29
2	Al 396.153Radial†	6945.6	6766.8	5032.6	µg/L	5032.6	ppb	19:13:29
2	Ca 317.933Radial†	5631.2	5298.9	4989.2	µg/L	4989.2	ppb	19:13:49
2	Fe 238.204 Radial†	627.7	596.1	5063.7	µg/L	5063.7	ppb	19:13:49
2	K 766.490 Radial†	7341.2	7013.0	4984.8	µg/L	4984.8	ppb	19:13:29
2	Mg 279.077 IEC†	586.0	558.8	5203.5	µg/L	5203.5	ppb	19:13:49
2	Na 589.592 Radial†	31976.7	30564.8	10062	µg/L	10062	ppb	19:13:29
2	Sr 421.552†	49170.9	47793.6	495.44	µg/L	495.44	ppb	19:13:29
2	Sc 361.383	1954250.3	1954250.3	102.33	%			19:15:00
2	Y 371.029	1335611.5	1335611.5	101.96	%			19:15:00
2	Ag 328.068†	65212.5	64295.1	513.88	µg/L	513.88	ppb	19:15:06
2	As 188.979†	274.4	267.0	520.94	µg/L	520.94	ppb	19:15:26
2	B 249.677†	12164.5	11556.6	503.24	µg/L	503.24	ppb	19:15:06
2	Ba 233.527†	20057.8	19628.0	512.01	µg/L	512.01	ppb	19:15:06
2	Be 313.107†	786582.3	772147.7	504.06	µg/L	504.06	ppb	19:15:00
2	Cd 226.502†	18912.0	18624.4	513.76	µg/L	513.76	ppb	19:15:06
2	Co 228.616†	10732.8	10497.7	516.05	µg/L	516.05	ppb	19:15:06
2	Cr 267.716†	24011.5	23518.2	517.63	µg/L	517.63	ppb	19:15:06
2	Cu 324.752†	77632.9	73382.6	513.30	µg/L	513.30	ppb	19:15:06
2	Mn 257.610†	151747.3	148542.9	514.85	µg/L	514.85	ppb	19:15:00
2	Mo 202.031†	5096.3	4988.0	532.52	µg/L	532.52	ppb	19:15:26
2	Ni 231.604†	9986.9	9457.7	516.55	µg/L	516.55	ppb	19:15:06
2	P 214.914†	1269.9	1213.4	2556.6	µg/L	2556.6	ppb	19:15:26
2	Pb 220.353†	2103.2	1958.2	522.70	µg/L	522.70	ppb	19:15:26

2	S 181.975 Axial†	261.6	240.8	1055.1 µg/L	1055.1 ppb	19:15:26
2	Sb 206.836†	583.1	542.9	536.77 µg/L	536.77 ppb	19:15:26
2	Se 196.026†	358.4	334.4	517.63 µg/L	517.63 ppb	19:15:26
2	SiO2†	27219.9	25351.3	5459.5 µg/L	5459.5 ppb	19:15:06
2	Si 251.611†	32020.8	30980.3	2546.7 µg/L	2546.7 ppb	19:15:06
2	Sn 189.927†	1194.0	1167.7	537.13 µg/L	537.13 ppb	19:15:26
2	Ti 334.940†	216182.4	211153.6	507.58 µg/L	507.58 ppb	19:15:00
2	Tl 190.801†	351.8	368.1	519.85 µg/L	519.85 ppb	19:15:26
2	U 409.014†	5813.7	5735.2	518.24 µg/L	518.24 ppb	19:15:06
2	V 292.402†	49127.5	48055.3	518.57 µg/L	518.57 ppb	19:15:06
2	Zn 213.857†	21549.0	20583.8	510.35 µg/L	510.35 ppb	19:15:06
3	Sc RADIAL	56646.4	56646.4	104 %		19:13:55
3	Al 396.153Radial†	6990.5	6744.9	5018.4 µg/L	5018.4 ppb	19:13:55
3	Ca 317.933Radial†	5597.5	5213.6	4908.9 µg/L	4908.9 ppb	19:14:15
3	Fe 238.204 Radial†	629.8	592.2	5029.2 µg/L	5029.2 ppb	19:14:15
3	K 766.490 Radial†	7441.3	7040.7	5004.5 µg/L	5004.5 ppb	19:13:55
3	Mg 279.077 IEC†	585.3	552.6	5144.3 µg/L	5144.3 ppb	19:14:15
3	Na 589.592 Radial†	32200.7	30481.0	10034 µg/L	10034 ppb	19:13:55
3	Sr 421.552†	49653.3	47797.6	495.48 µg/L	495.48 ppb	19:13:55
3	Sc 361.383	1989206.7	1989206.7	104.16 %		19:15:33
3	Y 371.029	1360871.5	1360871.5	103.89 %		19:15:33
3	Ag 328.068†	60452.0	58604.6	468.29 µg/L	468.29 ppb	19:15:39
3	As 188.979†	231.4	221.0	431.16 µg/L	431.16 ppb	19:15:59
3	B 249.677†	11200.8	10422.4	453.57 µg/L	453.57 ppb	19:15:39
3	Ba 233.527†	18155.6	17457.3	455.37 µg/L	455.37 ppb	19:15:39
3	Be 313.107†	746723.2	720370.4	470.26 µg/L	470.26 ppb	19:15:33
3	Cd 226.502†	17034.9	16497.4	455.02 µg/L	455.02 ppb	19:15:39
3	Co 228.616†	9575.0	9201.8	452.26 µg/L	452.26 ppb	19:15:39
3	Cr 267.716†	20898.9	20117.4	442.78 µg/L	442.78 ppb	19:15:39
3	Cu 324.752†	69759.8	64490.4	451.18 µg/L	451.18 ppb	19:15:39
3	Mn 257.610†	144303.8	138790.3	481.07 µg/L	481.07 ppb	19:15:33
3	Mo 202.031†	4187.5	4027.9	430.06 µg/L	430.06 ppb	19:15:59
3	Ni 231.604†	8969.1	8309.0	453.82 µg/L	453.82 ppb	19:15:39
3	P 214.914†	1074.2	1003.7	2111.2 µg/L	2111.2 ppb	19:15:59
3	Pb 220.353†	1799.2	1630.2	435.08 µg/L	435.08 ppb	19:15:59
3	S 181.975 Axial†	224.9	201.1	880.92 µg/L	880.92 ppb	19:15:59
3	Sb 206.836†	494.9	448.2	442.71 µg/L	442.71 ppb	19:15:59
3	Se 196.026†	304.8	276.8	429.75 µg/L	429.75 ppb	19:15:59
3	SiO2†	24880.7	22637.9	4875.2 µg/L	4875.2 ppb	19:15:39
3	Si 251.611†	29305.2	27823.1	2287.2 µg/L	2287.2 ppb	19:15:39
3	Sn 189.927†	959.0	921.6	423.93 µg/L	423.93 ppb	19:15:59
3	Ti 334.940†	203896.7	195645.3	470.28 µg/L	470.28 ppb	19:15:33
3	Tl 190.801†	305.5	317.6	449.03 µg/L	449.03 ppb	19:15:59
3	U 409.014†	5068.3	4919.7	444.42 µg/L	444.42 ppb	19:15:39
3	V 292.402†	43582.6	41887.9	451.80 µg/L	451.80 ppb	19:15:39
3	Zn 213.857†	19376.0	18127.3	449.39 µg/L	449.39 ppb	19:15:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1964867.1	102.88	%	1.107				1.08%
Sc RADIAL	56139.4	103	%	0.9				0.87%
Y 371.029	1343849.1	102.59	%	1.126				1.10%
Ag 328.068†	62312.3	498.00	µg/L	25.750	498.00	ppb	25.750	5.17%
QC value within limits for Ag 328.068 Recovery = 99.60%								
Al 396.153Radial†	6805.2	5061.9	µg/L	63.45	5061.9	ppb	63.45	1.25%
QC value within limits for Al 396.153Radial Recovery = 101.24%								
As 188.979†	252.2	491.96	µg/L	52.673	491.96	ppb	52.673	10.71%
QC value within limits for As 188.979 Recovery = 98.39%								
B 249.677†	11147.2	485.30	µg/L	27.561	485.30	ppb	27.561	5.68%
QC value within limits for B 249.677 Recovery = 97.06%								
Ba 233.527†	18898.6	492.97	µg/L	32.570	492.97	ppb	32.570	6.61%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	758238.3	494.98	µg/L	21.658	494.98	ppb	21.658	4.38%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	5283.6	4974.8	µg/L	60.06	4974.8	ppb	60.06	1.21%
QC value within limits for Ca 317.933Radial Recovery = 99.50%								
Cd 226.502†	17901.6	493.80	µg/L	33.585	493.80	ppb	33.585	6.80%
QC value within limits for Cd 226.502 Recovery = 98.76%								
Co 228.616†	10052.8	494.14	µg/L	36.289	494.14	ppb	36.289	7.34%

QC value within limits for Co 228.616 Recovery = 98.83%

Cr 267.716†	22369.6	492.35 µg/L	42.929	492.35 ppb	42.929	8.72%
QC value within limits for Cr 267.716 Recovery = 98.47%						
Cu 324.752†	70327.6	491.96 µg/L	35.329	491.96 ppb	35.329	7.18%
QC value within limits for Cu 324.752 Recovery = 98.39%						
Fe 238.204 Radial†	596.7	5067.7 µg/L	40.70	5067.7 ppb	40.70	0.80%
QC value within limits for Fe 238.204 Radial Recovery = 101.35%						
K 766.490 Radial†	7056.8	5015.9 µg/L	38.15	5015.9 ppb	38.15	0.76%
QC value within limits for K 766.490 Radial Recovery = 100.32%						
Mg 279.077 IEC†	556.7	5183.6 µg/L	33.98	5183.6 ppb	33.98	0.66%
QC value within limits for Mg 279.077 IEC Recovery = 103.67%						
Mn 257.610†	145786.8	505.31 µg/L	21.142	505.31 ppb	21.142	4.18%
QC value within limits for Mn 257.610 Recovery = 101.06%						
Mo 202.031†	4687.4	500.43 µg/L	61.026	500.43 ppb	61.026	12.19%
QC value within limits for Mo 202.031 Recovery = 100.09%						
Na 589.592 Radial†	30672.0	10097 µg/L	86.1	10097 ppb	86.1	0.85%
QC value within limits for Na 589.592 Radial Recovery = 100.97%						
Ni 231.604†	9054.6	494.54 µg/L	35.300	494.54 ppb	35.300	7.14%
QC value within limits for Ni 231.604 Recovery = 98.91%						
P 214.914†	1148.8	2419.5 µg/L	267.56	2419.5 ppb	267.56	11.06%
QC value within limits for P 214.914 Recovery = 96.78%						
Pb 220.353†	1849.0	493.53 µg/L	50.614	493.53 ppb	50.614	10.26%
QC value within limits for Pb 220.353 Recovery = 98.71%						
S 181.975 Axial†	227.4	996.40 µg/L	100.008	996.40 ppb	100.008	10.04%
QC value within limits for S 181.975 Axial Recovery = 99.64%						
Sb 206.836†	510.3	504.47 µg/L	53.501	504.47 ppb	53.501	10.61%
QC value within limits for Sb 206.836 Recovery = 100.89%						
Se 196.026†	318.7	493.66 µg/L	55.921	493.66 ppb	55.921	11.33%
QC value within limits for Se 196.026 Recovery = 98.73%						
SiO2†	24419.5	5258.9 µg/L	332.39	5258.9 ppb	332.39	6.32%
QC value within limits for SiO2 Recovery = 98.34%						
Si 251.611†	29901.8	2458.1 µg/L	148.02	2458.1 ppb	148.02	6.02%
QC value within limits for Si 251.611 Recovery = 98.32%						
Sn 189.927†	1088.6	500.71 µg/L	66.525	500.71 ppb	66.525	13.29%
QC value within limits for Sn 189.927 Recovery = 100.14%						
Sr 421.552†	48033.0	497.92 µg/L	4.262	497.92 ppb	4.262	0.86%
QC value within limits for Sr 421.552 Recovery = 99.58%						
Ti 334.940†	206813.5	497.14 µg/L	23.455	497.14 ppb	23.455	4.72%
QC value within limits for Ti 334.940 Recovery = 99.43%						
Tl 190.801†	351.1	496.01 µg/L	40.687	496.01 ppb	40.687	8.20%
QC value within limits for Tl 190.801 Recovery = 99.20%						
U 409.014†	5466.7	493.93 µg/L	42.881	493.93 ppb	42.881	8.68%
QC value within limits for U 409.014 Recovery = 98.79%						
V 292.402†	45977.5	496.10 µg/L	38.364	496.10 ppb	38.364	7.73%
QC value within limits for V 292.402 Recovery = 99.22%						
Zn 213.857†	19754.6	489.78 µg/L	34.976	489.78 ppb	34.976	7.14%
QC value within limits for Zn 213.857 Recovery = 97.96%						

All analyte(s) passed QC.

Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:16:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55600.7	55600.7	102	%			19:16:41
1	Al 396.153Radial†	-4.5	5.7	4.2256	µg/L	4.2256	ppb	19:16:41
1	Ca 317.933Radial†	176.7	-5.7	-5.4036	µg/L	-5.4036	ppb	19:17:01
1	Fe 238.204 Radial†	16.9	2.1	17.440	µg/L	17.440	ppb	19:17:01
1	K 766.490 Radial†	120.8	-9.9	-7.0161	µg/L	-7.0161	ppb	19:16:41
1	Mg 279.077 IEC†	10.9	-0.6	-5.3345	µg/L	-5.3345	ppb	19:17:01
1	Na 589.592 Radial†	652.7	98.7	32.500	µg/L	32.500	ppb	19:16:41
1	Sr 421.552†	22.7	-17.3	-0.1790	µg/L	-0.1790	ppb	19:16:41
1	Sc 361.383	1934829.6	1934829.6	101.31	%			19:18:03
1	Y 371.029	1327190.7	1327190.7	101.32	%			19:18:03
1	Ag 328.068†	-516.6	54.6	0.4388	µg/L	0.4388	ppb	19:18:09
1	As 188.979†	1.2	0.0	0.0845	µg/L	0.0845	ppb	19:18:29
1	B 249.677†	321.4	-14.2	-0.6284	µg/L	-0.6284	ppb	19:18:29
1	Ba 233.527†	-23.7	2.6	0.0683	µg/L	0.0683	ppb	19:18:29
1	Be 313.107†	-3408.1	76.3	0.0498	µg/L	0.0498	ppb	19:18:09
1	Cd 226.502†	-144.3	-0.3	-0.0100	µg/L	-0.0100	ppb	19:18:29
1	Co 228.616†	-6.0	2.9	0.1456	µg/L	0.1456	ppb	19:18:29
1	Cr 267.716†	-15.9	36.7	0.8069	µg/L	0.8069	ppb	19:18:09
1	Cu 324.752†	2442.5	-75.1	-0.5222	µg/L	-0.5222	ppb	19:18:09
1	Mn 257.610†	-225.9	21.1	0.0756	µg/L	0.0756	ppb	19:18:29
1	Mo 202.031†	-2.6	4.9	0.5275	µg/L	0.5275	ppb	19:18:29
1	Ni 231.604†	310.8	4.6	0.2529	µg/L	0.2529	ppb	19:18:29
1	P 214.914†	22.3	-5.6	-12.052	µg/L	-12.052	ppb	19:18:29
1	Pb 220.353†	97.2	-1.3	-0.3391	µg/L	-0.3391	ppb	19:18:29
1	S 181.975 Axial†	15.8	0.7	3.2436	µg/L	3.2436	ppb	19:18:29
1	Sb 206.836†	30.1	2.8	2.7305	µg/L	2.7305	ppb	19:18:29
1	Se 196.026†	14.9	-1.1	-1.6720	µg/L	-1.6720	ppb	19:18:29
1	SiO2†	1241.8	-24.3	-5.2260	µg/L	-5.2260	ppb	19:18:09
1	Si 251.611†	314.2	-2.7	-0.2249	µg/L	-0.2249	ppb	19:18:29
1	Sn 189.927†	3.0	3.9	1.7687	µg/L	1.7687	ppb	19:18:29
1	Ti 334.940†	129.2	11.4	0.0278	µg/L	0.0278	ppb	19:18:09
1	Tl 190.801†	-22.4	2.2	3.0821	µg/L	3.0821	ppb	19:18:29
1	U 409.014†	-44.2	10.0	0.9045	µg/L	0.9045	ppb	19:18:09
1	V 292.402†	22.3	66.2	0.7146	µg/L	0.7146	ppb	19:18:09
1	Zn 213.857†	480.2	-1.5	-0.0391	µg/L	-0.0391	ppb	19:18:29
2	Sc RADIAL	55841.1	55841.1	102	%			19:17:07
2	Al 396.153Radial†	-0.2	10.0	7.4245	µg/L	7.4245	ppb	19:17:07
2	Ca 317.933Radial†	185.5	2.1	1.9861	µg/L	1.9861	ppb	19:17:27
2	Fe 238.204 Radial†	13.8	-1.1	-8.9579	µg/L	-8.9579	ppb	19:17:27
2	K 766.490 Radial†	118.8	-12.3	-8.7251	µg/L	-8.7251	ppb	19:17:07
2	Mg 279.077 IEC†	12.4	0.9	8.1129	µg/L	8.1129	ppb	19:17:27
2	Na 589.592 Radial†	684.6	127.2	41.869	µg/L	41.869	ppb	19:17:07
2	Sr 421.552†	48.5	7.8	0.0810	µg/L	0.0810	ppb	19:17:07
2	Sc 361.383	1955516.9	1955516.9	102.39	%			19:18:35
2	Y 371.029	1342161.2	1342161.2	102.46	%			19:18:35
2	Ag 328.068†	-513.3	63.2	0.5022	µg/L	0.5022	ppb	19:18:41
2	As 188.979†	-5.0	-6.0	-11.703	µg/L	-11.703	ppb	19:19:01
2	B 249.677†	317.0	-21.8	-0.9495	µg/L	-0.9495	ppb	19:19:01
2	Ba 233.527†	-19.8	6.7	0.1743	µg/L	0.1743	ppb	19:19:01
2	Be 313.107†	-3409.1	110.9	0.0724	µg/L	0.0724	ppb	19:18:41
2	Cd 226.502†	-125.7	19.4	0.5362	µg/L	0.5362	ppb	19:19:01
2	Co 228.616†	-4.9	4.1	0.1998	µg/L	0.1998	ppb	19:19:01
2	Cr 267.716†	-35.7	17.5	0.3848	µg/L	0.3848	ppb	19:18:41
2	Cu 324.752†	2432.5	-110.5	-0.7728	µg/L	-0.7728	ppb	19:18:41
2	Mn 257.610†	-217.1	32.1	0.1097	µg/L	0.1097	ppb	19:19:01
2	Mo 202.031†	-0.2	7.4	0.7857	µg/L	0.7857	ppb	19:19:01
2	Ni 231.604†	307.3	-2.1	-0.1144	µg/L	-0.1144	ppb	19:19:01
2	P 214.914†	26.8	-1.4	-2.9443	µg/L	-2.9443	ppb	19:19:01
2	Pb 220.353†	98.0	-1.5	-0.3841	µg/L	-0.3841	ppb	19:19:01

2	S 181.975 Axial†	16.0	0.8	3.5945 µg/L	3.5945 ppb	19:19:01
2	Sb 206.836†	19.9	-7.6	-7.4359 µg/L	-7.4359 ppb	19:19:01
2	Se 196.026†	24.3	7.9	11.982 µg/L	11.982 ppb	19:19:01
2	SiO2†	1252.6	-26.7	-5.7496 µg/L	-5.7496 ppb	19:18:41
2	Si 251.611†	335.5	14.8	1.2146 µg/L	1.2146 ppb	19:19:01
2	Sn 189.927†	0.8	1.7	0.7658 µg/L	0.7658 ppb	19:19:01
2	Ti 334.940†	159.2	39.3	0.0940 µg/L	0.0940 ppb	19:18:41
2	Tl 190.801†	-19.6	5.1	7.1712 µg/L	7.1712 ppb	19:19:01
2	U 409.014†	-39.3	15.2	1.3764 µg/L	1.3764 ppb	19:18:41
2	V 292.402†	-32.1	12.8	0.1441 µg/L	0.1441 ppb	19:18:41
2	Zn 213.857†	480.1	-6.6	-0.1635 µg/L	-0.1635 ppb	19:19:01
3	Sc RADIAL	54991.0	54991.0	101 %		19:17:32
3	Al 396.153Radial†	-25.8	-15.4	-11.501 µg/L	-11.501 ppb	19:17:32
3	Ca 317.933Radial†	179.1	-1.4	-1.2826 µg/L	-1.2826 ppb	19:17:53
3	Fe 238.204 Radial†	16.1	1.5	12.918 µg/L	12.918 ppb	19:17:53
3	K 766.490 Radial†	157.4	27.8	19.781 µg/L	19.781 ppb	19:17:32
3	Mg 279.077 IEC†	9.1	-2.2	-20.551 µg/L	-20.551 ppb	19:17:53
3	Na 589.592 Radial†	624.4	77.8	25.618 µg/L	25.618 ppb	19:17:32
3	Sr 421.552†	39.8	-0.1	-0.0009 µg/L	-0.0009 ppb	19:17:32
3	Sc 361.383	1967438.1	1967438.1	103.02 %		19:19:07
3	Y 371.029	1348776.4	1348776.4	102.97 %		19:19:07
3	Ag 328.068†	-543.2	37.2	0.2976 µg/L	0.2976 ppb	19:19:13
3	As 188.979†	-2.4	-3.5	-6.8853 µg/L	-6.8853 ppb	19:19:33
3	B 249.677†	305.4	-35.0	-1.5334 µg/L	-1.5334 ppb	19:19:33
3	Ba 233.527†	-26.9	-0.1	-0.0009 µg/L	-0.0009 ppb	19:19:33
3	Be 313.107†	-3287.9	248.8	0.1624 µg/L	0.1624 ppb	19:19:13
3	Cd 226.502†	-133.1	12.9	0.3539 µg/L	0.3539 ppb	19:19:33
3	Co 228.616†	-14.2	-5.0	-0.2450 µg/L	-0.2450 ppb	19:19:33
3	Cr 267.716†	-20.7	32.3	0.7108 µg/L	0.7108 ppb	19:19:13
3	Cu 324.752†	2481.8	-76.9	-0.5355 µg/L	-0.5355 ppb	19:19:13
3	Mn 257.610†	-209.8	40.5	0.1427 µg/L	0.1427 ppb	19:19:33
3	Mo 202.031†	-10.0	-2.2	-0.2320 µg/L	-0.2320 ppb	19:19:33
3	Ni 231.604†	301.2	-9.8	-0.5340 µg/L	-0.5340 ppb	19:19:33
3	P 214.914†	26.0	-2.4	-5.0576 µg/L	-5.0576 ppb	19:19:33
3	Pb 220.353†	96.7	-3.3	-0.8887 µg/L	-0.8887 ppb	19:19:33
3	S 181.975 Axial†	14.9	-0.4	-1.5487 µg/L	-1.5487 ppb	19:19:33
3	Sb 206.836†	32.3	4.4	4.3137 µg/L	4.3137 ppb	19:19:33
3	Se 196.026†	14.2	-2.1	-3.1442 µg/L	-3.1442 ppb	19:19:33
3	SiO2†	1256.2	-30.6	-6.5854 µg/L	-6.5854 ppb	19:19:13
3	Si 251.611†	309.4	-12.5	-1.0288 µg/L	-1.0288 ppb	19:19:33
3	Sn 189.927†	-1.0	-0.1	-0.0403 µg/L	-0.0403 ppb	19:19:33
3	Ti 334.940†	153.9	33.3	0.0816 µg/L	0.0816 ppb	19:19:13
3	Tl 190.801†	-21.2	3.7	5.1463 µg/L	5.1463 ppb	19:19:33
3	U 409.014†	-6.3	47.5	4.3005 µg/L	4.3005 ppb	19:19:13
3	V 292.402†	-20.0	24.8	0.2699 µg/L	0.2699 ppb	19:19:13
3	Zn 213.857†	479.8	-9.8	-0.2409 µg/L	-0.2409 ppb	19:19:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1952594.9	102.24	%	0.864				0.84%
Sc RADIAL	55477.6	102	%	0.8				0.79%
Y 371.029	1339376.1	102.25	%	0.844				0.83%
Ag 328.068†	51.7	0.4129	µg/L	0.10471	0.4129	ppb	0.10471	25.36%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.1	0.0498	µg/L	10.13010	0.0498	ppb	10.13010	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.2	-6.1678	µg/L	5.92624	-6.1678	ppb	5.92624	96.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.7	-1.0371	µg/L	0.45878	-1.0371	ppb	0.45878	44.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.1	0.0805	µg/L	0.08826	0.0805	ppb	0.08826	109.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	145.3	0.0949	µg/L	0.05957	0.0949	ppb	0.05957	62.77%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.7	-1.5667	µg/L	3.70306	-1.5667	ppb	3.70306	236.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.7	0.2934	µg/L	0.27809	0.2934	ppb	0.27809	94.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.7	0.0335	µg/L	0.24267	0.0335	ppb	0.24267	724.80%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	28.8	0.6341 µg/L	0.22120	0.6341 ppb	0.22120	34.88%

QC value within limits for Cr 267.716 Recovery = Not calculated

Cu 324.752†	-87.5	-0.6102 µg/L	0.14102	-0.6102 ppb	0.14102	23.11%

QC value within limits for Cu 324.752 Recovery = Not calculated

Fe 238.204 Radial†	0.8	7.1335 µg/L	14.11778	7.1335 ppb	14.11778	197.91%

QC value within limits for Fe 238.204 Radial Recovery = Not calculated

K 766.490 Radial†	1.9	1.3465 µg/L	15.98731	1.3465 ppb	15.98731	>999.9%

QC value within limits for K 766.490 Radial Recovery = Not calculated

Mg 279.077 IEC†	-0.6	-5.9243 µg/L	14.34120	-5.9243 ppb	14.34120	242.07%

QC value within limits for Mg 279.077 IEC Recovery = Not calculated

Mn 257.610†	31.2	0.1094 µg/L	0.03354	0.1094 ppb	0.03354	30.67%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031†	3.4	0.3604 µg/L	0.52901	0.3604 ppb	0.52901	146.78%

QC value within limits for Mo 202.031 Recovery = Not calculated

Na 589.592 Radial†	101.2	33.329 µg/L	8.1571	33.329 ppb	8.1571	24.47%

QC value within limits for Na 589.592 Radial Recovery = Not calculated

Ni 231.604†	-2.4	-0.1318 µg/L	0.39372	-0.1318 ppb	0.39372	298.69%

QC value within limits for Ni 231.604 Recovery = Not calculated

P 214.914†	-3.1	-6.6846 µg/L	4.76680	-6.6846 ppb	4.76680	71.31%

QC value within limits for P 214.914 Recovery = Not calculated

Pb 220.353†	-2.0	-0.5373 µg/L	0.30511	-0.5373 ppb	0.30511	56.78%

QC value within limits for Pb 220.353 Recovery = Not calculated

S 181.975 Axial†	0.4	1.7632 µg/L	2.87351	1.7632 ppb	2.87351	162.97%

QC value within limits for S 181.975 Axial Recovery = Not calculated

Sb 206.836†	-0.1	-0.1306 µg/L	6.37594	-0.1306 ppb	6.37594	>999.9%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026†	1.6	2.3884 µg/L	8.34041	2.3884 ppb	8.34041	349.20%

QC value within limits for Se 196.026 Recovery = Not calculated

SiO2†	-27.2	-5.8537 µg/L	0.68563	-5.8537 ppb	0.68563	11.71%

QC value within limits for SiO2 Recovery = Not calculated

Si 251.611†	-0.2	-0.0130 µg/L	1.13664	-0.0130 ppb	1.13664	>999.9%

QC value within limits for Si 251.611 Recovery = Not calculated

Sn 189.927†	1.8	0.8314 µg/L	0.90630	0.8314 ppb	0.90630	109.01%

QC value within limits for Sn 189.927 Recovery = Not calculated

Sr 421.552†	-3.2	-0.0330 µg/L	0.13293	-0.0330 ppb	0.13293	403.15%

QC value within limits for Sr 421.552 Recovery = Not calculated

Ti 334.940†	28.0	0.0678 µg/L	0.03518	0.0678 ppb	0.03518	51.88%

QC value within limits for Ti 334.940 Recovery = Not calculated

Tl 190.801†	3.7	5.1332 µg/L	2.04457	5.1332 ppb	2.04457	39.83%

QC value within limits for Tl 190.801 Recovery = Not calculated

U 409.014†	24.2	2.1938 µg/L	1.83966	2.1938 ppb	1.83966	83.86%

QC value within limits for U 409.014 Recovery = Not calculated

V 292.402†	34.6	0.3762 µg/L	0.29972	0.3762 ppb	0.29972	79.67%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 213.857†	-6.0	-0.1478 µg/L	0.10182	-0.1478 ppb	0.10182	68.87%

QC value within limits for Zn 213.857 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 40
Sample ID: 1202032557|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 330
Date Collected: 2/11/2010 19:19:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032557|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56162.6	56162.6	103	%			19:20:21
1	Al 396.153Radial†	-0.9	9.2	6.8694	µg/L	6.8694	ppb	19:20:21
1	Ca 317.933Radial†	193.4	8.8	8.2949	µg/L	8.2949	ppb	19:20:41
1	Fe 238.204 Radial†	17.5	2.5	21.049	µg/L	21.049	ppb	19:20:41
1	K 766.490 Radial†	140.5	8.2	5.7964	µg/L	5.7964	ppb	19:20:21
1	Mg 279.077 IEC†	14.7	3.0	27.583	µg/L	27.583	ppb	19:20:41
1	Na 589.592 Radial†	619.9	60.5	19.922	µg/L	19.922	ppb	19:20:21
1	Sr 421.552†	24.9	-15.4	-0.1597	µg/L	-0.1597	ppb	19:20:21
1	Sc 361.383	1969009.3	1969009.3	103.10	%			19:21:43
1	Y 371.029	1347307.8	1347307.8	102.85	%			19:21:43
1	Ag 328.068†	-572.7	9.0	0.0759	µg/L	0.0759	ppb	19:21:49
1	As 188.979†	4.3	3.1	5.9676	µg/L	5.9676	ppb	19:22:09
1	B 249.677†	319.3	-21.8	-0.9629	µg/L	-0.9629	ppb	19:22:09
1	Ba 233.527†	-16.2	10.3	0.2702	µg/L	0.2702	ppb	19:22:09
1	Be 313.107†	-3531.0	15.6	0.0101	µg/L	0.0101	ppb	19:21:49
1	Cd 226.502†	-147.1	-0.5	-0.0161	µg/L	-0.0161	ppb	19:22:09
1	Co 228.616†	-17.1	-7.8	-0.3825	µg/L	-0.3825	ppb	19:22:09
1	Cr 267.716†	-24.9	28.2	0.6201	µg/L	0.6201	ppb	19:22:09
1	Cu 324.752†	2344.0	-212.5	-1.4815	µg/L	-1.4815	ppb	19:21:49
1	Mn 257.610†	-173.7	75.6	0.2635	µg/L	0.2635	ppb	19:22:09
1	Mo 202.031†	-7.4	0.3	0.0356	µg/L	0.0356	ppb	19:22:09
1	Ni 231.604†	312.9	1.3	0.0735	µg/L	0.0735	ppb	19:22:09
1	P 214.914†	30.5	2.0	4.4454	µg/L	4.4454	ppb	19:22:09
1	Pb 220.353†	103.9	3.6	0.9614	µg/L	0.9614	ppb	19:22:09
1	S 181.975 Axial†	17.6	2.3	9.8847	µg/L	9.8847	ppb	19:22:09
1	Sb 206.836†	28.0	0.2	0.2152	µg/L	0.2152	ppb	19:22:09
1	Se 196.026†	17.5	1.2	1.8091	µg/L	1.8091	ppb	19:22:09
1	SiO2†	1345.3	54.8	11.812	µg/L	11.812	ppb	19:21:49
1	Si 251.611†	418.6	93.2	7.6584	µg/L	7.6584	ppb	19:22:09
1	Sn 189.927†	-0.5	0.4	0.1929	µg/L	0.1929	ppb	19:22:09
1	Ti 334.940†	191.4	69.5	0.1652	µg/L	0.1652	ppb	19:21:49
1	Tl 190.801†	-19.7	5.2	7.2052	µg/L	7.2052	ppb	19:22:09
1	U 409.014†	-22.0	32.3	2.9184	µg/L	2.9184	ppb	19:21:49
1	V 292.402†	-1.5	42.8	0.4631	µg/L	0.4631	ppb	19:21:49
1	Zn 213.857†	523.7	32.4	0.8081	µg/L	0.8081	ppb	19:22:09
2	Sc RADIAL	57033.0	57033.0	105	%			19:20:47
2	Al 396.153Radial†	-29.2	-17.8	-13.303	µg/L	-13.303	ppb	19:20:47
2	Ca 317.933Radial†	198.1	10.4	9.7767	µg/L	9.7767	ppb	19:21:07
2	Fe 238.204 Radial†	15.7	0.5	4.2922	µg/L	4.2922	ppb	19:21:07
2	K 766.490 Radial†	163.1	27.6	19.636	µg/L	19.636	ppb	19:20:47
2	Mg 279.077 IEC†	8.2	-3.5	-32.175	µg/L	-32.175	ppb	19:21:07
2	Na 589.592 Radial†	627.1	58.2	19.145	µg/L	19.145	ppb	19:20:47
2	Sr 421.552†	15.7	-24.5	-0.2542	µg/L	-0.2542	ppb	19:20:47
2	Sc 361.383	1951926.6	1951926.6	102.20	%			19:22:15
2	Y 371.029	1336400.0	1336400.0	102.02	%			19:22:15
2	Ag 328.068†	-524.4	51.4	0.4117	µg/L	0.4117	ppb	19:22:21
2	As 188.979†	-1.8	-2.9	-5.6797	µg/L	-5.6797	ppb	19:22:41
2	B 249.677†	313.0	-25.2	-1.1037	µg/L	-1.1037	ppb	19:22:41
2	Ba 233.527†	-15.7	10.7	0.2791	µg/L	0.2791	ppb	19:22:41
2	Be 313.107†	-3486.1	29.5	0.0193	µg/L	0.0193	ppb	19:22:21
2	Cd 226.502†	-132.0	13.0	0.3577	µg/L	0.3577	ppb	19:22:41
2	Co 228.616†	-14.0	-4.8	-0.2372	µg/L	-0.2372	ppb	19:22:41
2	Cr 267.716†	-26.4	26.5	0.5835	µg/L	0.5835	ppb	19:22:41
2	Cu 324.752†	2384.5	-153.0	-1.0685	µg/L	-1.0685	ppb	19:22:21
2	Mn 257.610†	-179.0	69.0	0.2407	µg/L	0.2407	ppb	19:22:41
2	Mo 202.031†	-5.7	1.9	0.2054	µg/L	0.2054	ppb	19:22:41
2	Ni 231.604†	320.7	11.6	0.6340	µg/L	0.6340	ppb	19:22:41
2	P 214.914†	24.8	-3.3	-7.0323	µg/L	-7.0323	ppb	19:22:41
2	Pb 220.353†	91.9	-7.2	-1.9278	µg/L	-1.9278	ppb	19:22:41

2	S 181.975 Axial†	19.7	4.5	19.528 µg/L	19.528 ppb	19:22:41
2	Sb 206.836†	24.0	-3.5	-3.4566 µg/L	-3.4566 ppb	19:22:41
2	Se 196.026†	13.6	-2.5	-3.7596 µg/L	-3.7596 ppb	19:22:41
2	SiO2†	1333.2	54.4	11.718 µg/L	11.718 ppb	19:22:21
2	Si 251.611†	413.0	91.2	7.4996 µg/L	7.4996 ppb	19:22:41
2	Sn 189.927†	0.9	1.7	0.7999 µg/L	0.7999 ppb	19:22:41
2	Ti 334.940†	113.7	-4.8	-0.0089 µg/L	-0.0089 ppb	19:22:21
2	Tl 190.801†	-24.7	0.1	0.1231 µg/L	0.1231 ppb	19:22:41
2	U 409.014†	-59.8	-4.9	-0.4425 µg/L	-0.4425 ppb	19:22:21
2	V 292.402†	4.4	48.6	0.5204 µg/L	0.5204 ppb	19:22:21
2	Zn 213.857†	510.3	23.7	0.5934 µg/L	0.5934 ppb	19:22:41
3	Sc RADIAL	55968.5	55968.5	103 %		19:21:13
3	Al 396.153Radial†	-7.1	3.2	2.3751 µg/L	2.3751 ppb	19:21:13
3	Ca 317.933Radial†	199.5	15.4	14.455 µg/L	14.455 ppb	19:21:33
3	Fe 238.204 Radial†	15.7	0.8	6.8156 µg/L	6.8156 ppb	19:21:33
3	K 766.490 Radial†	147.8	15.7	11.190 µg/L	11.190 ppb	19:21:13
3	Mg 279.077 IEC†	15.9	4.2	39.435 µg/L	39.435 ppb	19:21:33
3	Na 589.592 Radial†	631.7	74.1	24.401 µg/L	24.401 ppb	19:21:13
3	Sr 421.552†	49.4	8.6	0.0895 µg/L	0.0895 ppb	19:21:13
3	Sc 361.383	1933204.1	1933204.1	101.22 %		19:22:47
3	Y 371.029	1323935.5	1323935.5	101.07 %		19:22:47
3	Ag 328.068†	-593.9	-22.2	-0.1725 µg/L	-0.1725 ppb	19:22:53
3	As 188.979†	2.3	1.1	2.1309 µg/L	2.1309 ppb	19:23:13
3	B 249.677†	321.0	-14.3	-0.6295 µg/L	-0.6295 ppb	19:23:13
3	Ba 233.527†	-21.8	4.5	0.1184 µg/L	0.1184 ppb	19:23:13
3	Be 313.107†	-3438.4	43.6	0.0285 µg/L	0.0285 ppb	19:22:53
3	Cd 226.502†	-140.8	3.0	0.0822 µg/L	0.0822 ppb	19:23:13
3	Co 228.616†	-13.8	-4.8	-0.2340 µg/L	-0.2340 ppb	19:23:13
3	Cr 267.716†	-34.4	18.4	0.4049 µg/L	0.4049 ppb	19:23:13
3	Cu 324.752†	2432.8	-82.7	-0.5764 µg/L	-0.5764 ppb	19:22:53
3	Mn 257.610†	-182.3	64.0	0.2209 µg/L	0.2209 ppb	19:23:13
3	Mo 202.031†	-4.6	3.0	0.3226 µg/L	0.3226 ppb	19:23:13
3	Ni 231.604†	307.3	1.4	0.0745 µg/L	0.0745 ppb	19:23:13
3	P 214.914†	29.5	1.5	3.2678 µg/L	3.2678 ppb	19:23:13
3	Pb 220.353†	88.5	-9.8	-2.6006 µg/L	-2.6006 ppb	19:23:13
3	S 181.975 Axial†	15.9	0.9	3.7746 µg/L	3.7746 ppb	19:23:13
3	Sb 206.836†	23.1	-4.2	-4.0869 µg/L	-4.0869 ppb	19:23:13
3	Se 196.026†	8.2	-7.7	-11.834 µg/L	-11.834 ppb	19:23:13
3	SiO2†	1331.0	64.9	13.967 µg/L	13.967 ppb	19:22:53
3	Si 251.611†	405.4	87.6	7.2021 µg/L	7.2021 ppb	19:23:13
3	Sn 189.927†	-4.0	-3.1	-1.4085 µg/L	-1.4085 ppb	19:23:13
3	Ti 334.940†	115.8	-1.7	-0.0070 µg/L	-0.0070 ppb	19:22:53
3	Tl 190.801†	-23.4	1.2	1.6907 µg/L	1.6907 ppb	19:23:13
3	U 409.014†	-46.8	7.4	0.6668 µg/L	0.6668 ppb	19:22:53
3	V 292.402†	-2.1	42.2	0.4542 µg/L	0.4542 ppb	19:22:53
3	Zn 213.857†	517.2	35.4	0.8820 µg/L	0.8820 ppb	19:23:13

Mean Data: 1202032557|948737|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1951380.0	102.18	%	0.938				0.92%
Sc RADIAL	56388.0	103	%	1.0				1.01%
Y 371.029	1335881.1	101.98	%	0.893				0.88%
Ag 328.068†	12.8	0.1050	µg/L	0.29320	0.1050	ppb	0.29320	279.21%
Al 396.153Radial†	-1.8	-1.3527	µg/L	10.59010	-1.3527	ppb	10.59010	782.87%
As 188.979†	0.4	0.8062	µg/L	5.93558	0.8062	ppb	5.93558	736.20%
B 249.677†	-20.5	-0.8987	µg/L	0.24350	-0.8987	ppb	0.24350	27.09%
Ba 233.527†	8.5	0.2226	µg/L	0.09033	0.2226	ppb	0.09033	40.59%
Be 313.107†	29.6	0.0193	µg/L	0.00919	0.0193	ppb	0.00919	47.63%
Ca 317.933Radial†	11.5	10.842	µg/L	3.2155	10.842	ppb	3.2155	29.66%
Cd 226.502†	5.2	0.1413	µg/L	0.19380	0.1413	ppb	0.19380	137.20%
Co 228.616†	-5.8	-0.2846	µg/L	0.08480	-0.2846	ppb	0.08480	29.80%
Cr 267.716†	24.4	0.5362	µg/L	0.11516	0.5362	ppb	0.11516	21.48%
Cu 324.752†	-149.4	-1.0421	µg/L	0.45311	-1.0421	ppb	0.45311	43.48%
Fe 238.204 Radial†	1.3	10.719	µg/L	9.0344	10.719	ppb	9.0344	84.29%
K 766.490 Radial†	17.2	12.207	µg/L	6.9755	12.207	ppb	6.9755	57.14%
Mg 279.077 IEC†	1.2	11.614	µg/L	38.3828	11.614	ppb	38.3828	330.48%
Mn 257.610†	69.5	0.2417	µg/L	0.02130	0.2417	ppb	0.02130	8.81%
Mo 202.031†	1.8	0.1879	µg/L	0.14430	0.1879	ppb	0.14430	76.81%
Na 589.592 Radial†	64.3	21.156	µg/L	2.8374	21.156	ppb	2.8374	13.41%

Ni 231.604†	4.8	0.2607 µg/L	0.32337	0.2607 ppb	0.32337	124.06%
P 214.914†	0.1	0.2270 µg/L	6.31420	0.2270 ppb	6.31420	>999.9%
Pb 220.353†	-4.5	-1.1890 µg/L	1.89244	-1.1890 ppb	1.89244	159.16%
S 181.975 Axial†	2.5	11.063 µg/L	7.9427	11.063 ppb	7.9427	71.80%
Sb 206.836†	-2.5	-2.4428 µg/L	2.32335	-2.4428 ppb	2.32335	95.11%
Se 196.026†	-3.0	-4.5949 µg/L	6.85979	-4.5949 ppb	6.85979	149.29%
SiO2†	58.0	12.499 µg/L	1.2722	12.499 ppb	1.2722	10.18%
Si 251.611†	90.7	7.4534 µg/L	0.23165	7.4534 ppb	0.23165	3.11%
Sn 189.927†	-0.3	-0.1385 µg/L	1.14090	-0.1385 ppb	1.14090	823.53%
Sr 421.552†	-10.4	-0.1081 µg/L	0.17752	-0.1081 ppb	0.17752	164.18%
Ti 334.940†	21.0	0.0497 µg/L	0.09997	0.0497 ppb	0.09997	200.99%
Tl 190.801†	2.2	3.0063 µg/L	3.71983	3.0063 ppb	3.71983	123.73%
U 409.014†	11.6	1.0476 µg/L	1.71251	1.0476 ppb	1.71251	163.48%
V 292.402†	44.5	0.4792 µg/L	0.03595	0.4792 ppb	0.03595	7.50%
Zn 213.857†	30.5	0.7612 µg/L	0.14993	0.7612 ppb	0.14993	19.70%

Sequence No.: 41
Sample ID: 1202032558|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 331
Date Collected: 2/11/2010 19:23:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032558|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55855.2	55855.2	102	%			19:23:56
1	Al 396.153Radial†	6859.1	6711.9	4992.3	µg/L	4992.3	ppb	19:24:17
1	Ca 317.933Radial†	5588.0	5280.7	4972.1	µg/L	4972.1	ppb	19:24:17
1	Fe 238.204 Radial†	622.5	593.7	5042.2	µg/L	5042.2	ppb	19:24:17
1	K 766.490 Radial†	7222.5	6928.5	4924.7	µg/L	4924.7	ppb	19:23:56
1	Mg 279.077 IEC†	568.8	544.5	5070.0	µg/L	5070.0	ppb	19:24:17
1	Na 589.592 Radial†	16067.2	15156.9	4989.7	µg/L	4989.7	ppb	19:23:56
1	Sr 421.552†	48385.5	47236.4	489.66	µg/L	489.66	ppb	19:23:56
1	Sc 361.383	1989589.0	1989589.0	104.18	%			19:25:20
1	Y 371.029	1358828.2	1358828.2	103.73	%			19:25:20
1	Ag 328.068†	62403.6	60466.8	483.35	µg/L	483.35	ppb	19:25:26
1	As 188.979†	266.7	254.9	497.19	µg/L	497.19	ppb	19:25:46
1	B 249.677†	11770.1	10966.8	477.43	µg/L	477.43	ppb	19:25:26
1	Ba 233.527†	19609.2	18849.2	491.69	µg/L	491.69	ppb	19:25:26
1	Be 313.107†	765769.4	738515.5	482.11	µg/L	482.11	ppb	19:25:20
1	Cd 226.502†	18133.6	17548.9	484.07	µg/L	484.07	ppb	19:25:26
1	Co 228.616†	10204.7	9804.5	481.95	µg/L	481.95	ppb	19:25:26
1	Cr 267.716†	23258.1	22378.3	492.54	µg/L	492.54	ppb	19:25:26
1	Cu 324.752†	75730.0	70208.4	491.12	µg/L	491.12	ppb	19:25:26
1	Mn 257.610†	147968.6	142281.7	493.17	µg/L	493.17	ppb	19:25:20
1	Mo 202.031†	4884.5	4696.3	501.38	µg/L	501.38	ppb	19:25:46
1	Ni 231.604†	9732.2	9040.0	493.75	µg/L	493.75	ppb	19:25:26
1	P 214.914†	274.6	235.9	460.07	µg/L	460.07	ppb	19:25:46
1	Pb 220.353†	2040.6	1861.6	496.90	µg/L	496.90	ppb	19:25:46
1	S 181.975 Axial†	1213.5	1150.0	5038.6	µg/L	5038.6	ppb	19:25:46
1	Sb 206.836†	565.3	515.7	509.80	µg/L	509.80	ppb	19:25:46
1	Se 196.026†	348.9	319.1	494.37	µg/L	494.37	ppb	19:25:46
1	SiO2†	50535.9	47260.3	10178	µg/L	10178	ppb	19:25:26
1	Si 251.611†	60336.9	57605.6	4735.5	µg/L	4735.5	ppb	19:25:26
1	Sn 189.927†	1211.5	1163.8	535.30	µg/L	535.30	ppb	19:25:46
1	Ti 334.940†	209639.9	201120.8	483.46	µg/L	483.46	ppb	19:25:20
1	Tl 190.801†	344.0	354.5	500.64	µg/L	500.64	ppb	19:25:46
1	U 409.014†	5812.7	5633.3	509.02	µg/L	509.02	ppb	19:25:26
1	V 292.402†	47804.6	45932.7	495.64	µg/L	495.64	ppb	19:25:26
1	Zn 213.857†	20684.3	19379.7	480.43	µg/L	480.43	ppb	19:25:26
2	Sc RADIAL	56621.3	56621.3	104	%			19:24:22
2	Al 396.153Radial†	6761.1	6526.9	4854.4	µg/L	4854.4	ppb	19:24:42
2	Ca 317.933Radial†	5510.9	5132.5	4832.6	µg/L	4832.6	ppb	19:24:42
2	Fe 238.204 Radial†	611.2	574.6	4880.2	µg/L	4880.2	ppb	19:24:42
2	K 766.490 Radial†	7318.8	6925.8	4922.8	µg/L	4922.8	ppb	19:24:22
2	Mg 279.077 IEC†	555.6	524.2	4881.7	µg/L	4881.7	ppb	19:24:42
2	Na 589.592 Radial†	16134.1	15009.0	4941.0	µg/L	4941.0	ppb	19:24:22
2	Sr 421.552†	48688.4	46888.7	486.06	µg/L	486.06	ppb	19:24:22
2	Sc 361.383	1981021.9	1981021.9	103.73	%			19:25:53
2	Y 371.029	1354467.5	1354467.5	103.40	%			19:25:53
2	Ag 328.068†	62083.9	60417.6	482.95	µg/L	482.95	ppb	19:25:59
2	As 188.979†	268.8	258.0	503.27	µg/L	503.27	ppb	19:26:19
2	B 249.677†	11697.0	10945.2	476.57	µg/L	476.57	ppb	19:25:59
2	Ba 233.527†	19543.5	18867.3	492.16	µg/L	492.16	ppb	19:25:59
2	Be 313.107†	766542.7	742439.8	484.67	µg/L	484.67	ppb	19:25:53
2	Cd 226.502†	18043.5	17537.3	483.77	µg/L	483.77	ppb	19:25:59
2	Co 228.616†	10157.9	9801.8	481.81	µg/L	481.81	ppb	19:25:59
2	Cr 267.716†	23124.1	22345.6	491.82	µg/L	491.82	ppb	19:25:59
2	Cu 324.752†	75467.1	70269.3	491.53	µg/L	491.53	ppb	19:25:59
2	Mn 257.610†	148155.6	143076.2	495.91	µg/L	495.91	ppb	19:25:53
2	Mo 202.031†	4832.3	4666.2	498.17	µg/L	498.17	ppb	19:26:19
2	Ni 231.604†	9667.7	9018.1	492.55	µg/L	492.55	ppb	19:25:59
2	P 214.914†	272.2	234.8	457.67	µg/L	457.67	ppb	19:26:19
2	Pb 220.353†	2044.7	1874.1	500.20	µg/L	500.20	ppb	19:26:19

2	S 181.975 Axial†	1199.8	1141.9	5003.1 µg/L	5003.1 ppb	19:26:19
2	Sb 206.836†	565.3	518.0	512.02 µg/L	512.02 ppb	19:26:19
2	Se 196.026†	343.0	314.9	487.68 µg/L	487.68 ppb	19:26:19
2	SiO2†	50279.9	47223.2	10170 µg/L	10170 ppb	19:25:59
2	Si 251.611†	60047.4	57576.9	4733.1 µg/L	4733.1 ppb	19:25:59
2	Sn 189.927†	1201.8	1159.5	533.31 µg/L	533.31 ppb	19:26:19
2	Ti 334.940†	209553.6	201907.8	485.37 µg/L	485.37 ppb	19:25:53
2	Tl 190.801†	347.4	359.2	507.29 µg/L	507.29 ppb	19:26:19
2	U 409.014†	5749.9	5596.9	505.75 µg/L	505.75 ppb	19:25:59
2	V 292.402†	47601.0	45934.8	495.61 µg/L	495.61 ppb	19:25:59
2	Zn 213.857†	20543.3	19329.6	479.20 µg/L	479.20 ppb	19:25:59
3	Sc RADIAL	56667.3	56667.3	104 %		19:24:48
3	Al 396.153Radial†	6785.5	6545.0	4869.0 µg/L	4869.0 ppb	19:25:08
3	Ca 317.933Radial†	5519.1	5136.1	4836.0 µg/L	4836.0 ppb	19:25:08
3	Fe 238.204 Radial†	610.2	573.1	4867.6 µg/L	4867.6 ppb	19:25:08
3	K 766.490 Radial†	7189.7	6795.7	4830.4 µg/L	4830.4 ppb	19:24:48
3	Mg 279.077 IEC†	562.6	530.6	4940.1 µg/L	4940.1 ppb	19:25:08
3	Na 589.592 Radial†	15967.1	14835.5	4883.9 µg/L	4883.9 ppb	19:24:48
3	Sr 421.552†	48078.7	46263.5	479.58 µg/L	479.58 ppb	19:24:48
3	Sc 361.383	1962516.7	1962516.7	102.76 %		19:26:26
3	Y 371.029	1343125.0	1343125.0	102.53 %		19:26:26
3	Ag 328.068†	60804.7	59737.2	477.42 µg/L	477.42 ppb	19:26:32
3	As 188.979†	243.9	236.2	460.84 µg/L	460.84 ppb	19:26:53
3	B 249.677†	11399.3	10761.9	468.53 µg/L	468.53 ppb	19:26:32
3	Ba 233.527†	18655.7	18181.0	474.25 µg/L	474.25 ppb	19:26:32
3	Be 313.107†	740791.3	724347.9	472.86 µg/L	472.86 ppb	19:26:26
3	Cd 226.502†	17306.9	16984.5	468.50 µg/L	468.50 ppb	19:26:32
3	Co 228.616†	9664.7	9414.2	462.72 µg/L	462.72 ppb	19:26:32
3	Cr 267.716†	21731.9	21201.0	466.63 µg/L	466.63 ppb	19:26:32
3	Cu 324.752†	72256.6	67831.0	474.49 µg/L	474.49 ppb	19:26:32
3	Mn 257.610†	143350.8	139747.2	484.37 µg/L	484.37 ppb	19:26:26
3	Mo 202.031†	4322.8	4214.3	449.94 µg/L	449.94 ppb	19:26:53
3	Ni 231.604†	9237.2	8687.0	474.47 µg/L	474.47 ppb	19:26:32
3	P 214.914†	257.0	222.5	432.24 µg/L	432.24 ppb	19:26:53
3	Pb 220.353†	1875.5	1728.0	461.14 µg/L	461.14 ppb	19:26:53
3	S 181.975 Axial†	1113.0	1068.4	4680.8 µg/L	4680.8 ppb	19:26:53
3	Sb 206.836†	514.5	473.7	467.94 µg/L	467.94 ppb	19:26:53
3	Se 196.026†	322.8	298.3	462.30 µg/L	462.30 ppb	19:26:53
3	SiO2†	48695.4	46138.3	9936.1 µg/L	9936.1 ppb	19:26:32
3	Si 251.611†	58040.6	56169.8	4617.4 µg/L	4617.4 ppb	19:26:32
3	Sn 189.927†	1062.2	1034.6	475.87 µg/L	475.87 ppb	19:26:53
3	Ti 334.940†	202050.2	196510.8	472.38 µg/L	472.38 ppb	19:26:26
3	Tl 190.801†	308.7	324.7	458.96 µg/L	458.96 ppb	19:26:53
3	U 409.014†	5501.6	5407.5	488.61 µg/L	488.61 ppb	19:26:32
3	V 292.402†	45248.4	44078.0	475.38 µg/L	475.38 ppb	19:26:32
3	Zn 213.857†	19651.1	18648.0	462.29 µg/L	462.29 ppb	19:26:32

Mean Data: 1202032558|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1977709.2	103.55	%	0.725				0.70%
Sc RADIAL	56381.3	103	%	0.8				0.81%
Y 371.029	1352140.2	103.22	%	0.619				0.60%
Ag 328.068†	60207.2	481.24	µg/L	3.315	481.24	ppb	3.315	0.69%
Al 396.153Radial†	6594.6	4905.2	µg/L	75.76	4905.2	ppb	75.76	1.54%
As 188.979†	249.7	487.10	µg/L	22.947	487.10	ppb	22.947	4.71%
B 249.677†	10891.3	474.18	µg/L	4.912	474.18	ppb	4.912	1.04%
Ba 233.527†	18632.5	486.03	µg/L	10.205	486.03	ppb	10.205	2.10%
Be 313.107†	735101.0	479.88	µg/L	6.212	479.88	ppb	6.212	1.29%
Ca 317.933Radial†	5183.1	4880.2	µg/L	79.59	4880.2	ppb	79.59	1.63%
Cd 226.502†	17356.9	478.78	µg/L	8.903	478.78	ppb	8.903	1.86%
Co 228.616†	9673.5	475.49	µg/L	11.063	475.49	ppb	11.063	2.33%
Cr 267.716†	21975.0	483.67	µg/L	14.755	483.67	ppb	14.755	3.05%
Cu 324.752†	69436.2	485.71	µg/L	9.720	485.71	ppb	9.720	2.00%
Fe 238.204 Radial†	580.5	4930.0	µg/L	97.39	4930.0	ppb	97.39	1.98%
K 766.490 Radial†	6883.3	4892.6	µg/L	53.94	4892.6	ppb	53.94	1.10%
Mg 279.077 IEC†	533.1	4963.9	µg/L	96.41	4963.9	ppb	96.41	1.94%
Mn 257.610†	141701.7	491.15	µg/L	6.025	491.15	ppb	6.025	1.23%
Mo 202.031†	4525.6	483.16	µg/L	28.817	483.16	ppb	28.817	5.96%
Na 589.592 Radial†	15000.5	4938.2	µg/L	52.96	4938.2	ppb	52.96	1.07%

Ni 231.604†	8915.0	486.93 µg/L	10.800	486.93 ppb	10.800	2.22%
P 214.914†	231.1	450.00 µg/L	15.419	450.00 ppb	15.419	3.43%
Pb 220.353†	1821.2	486.08 µg/L	21.661	486.08 ppb	21.661	4.46%
S 181.975 Axial†	1120.1	4907.5 µg/L	197.13	4907.5 ppb	197.13	4.02%
Sb 206.836†	502.5	496.59 µg/L	24.834	496.59 ppb	24.834	5.00%
Se 196.026†	310.8	481.45 µg/L	16.915	481.45 ppb	16.915	3.51%
SiO2†	46873.9	10095 µg/L	137.3	10095 ppb	137.3	1.36%
Si 251.611†	57117.4	4695.3 µg/L	67.47	4695.3 ppb	67.47	1.44%
Sn 189.927†	1119.3	514.83 µg/L	33.750	514.83 ppb	33.750	6.56%
Sr 421.552†	46796.2	485.10 µg/L	5.111	485.10 ppb	5.111	1.05%
Ti 334.940†	199846.5	480.40 µg/L	7.013	480.40 ppb	7.013	1.46%
Tl 190.801†	346.1	488.96 µg/L	26.193	488.96 ppb	26.193	5.36%
U 409.014†	5545.9	501.13 µg/L	10.961	501.13 ppb	10.961	2.19%
V 292.402†	45315.2	488.88 µg/L	11.691	488.88 ppb	11.691	2.39%
Zn 213.857†	19119.1	473.97 µg/L	10.138	473.97 ppb	10.138	2.14%

Sequence No.: 43 | **Autosampler Location: 333**
Sample ID: 1202032559|948737|1 | **Date Collected: 2/11/2010 19:30:37**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: 1202032559|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55369.8	55369.8	101	%			19:31:10
1	Al 396.153Radial†	27.3	37.1	27.641	µg/L	27.641	ppb	19:31:10
1	Ca 317.933Radial†	243.4	60.7	57.167	µg/L	57.167	ppb	19:31:30
1	Fe 238.204 Radial†	16.5	1.8	15.034	µg/L	15.034	ppb	19:31:30
1	K 766.490 Radial†	376.1	242.3	172.24	µg/L	172.24	ppb	19:31:10
1	Mg 279.077 IEC†	13.4	1.9	17.989	µg/L	17.989	ppb	19:31:30
1	Na 589.592 Radial†	1118.3	560.4	184.47	µg/L	184.47	ppb	19:31:10
1	Sr 421.552†	80.8	40.1	0.4152	µg/L	0.4152	ppb	19:31:10
1	Sc 361.383	1957288.3	1957288.3	102.48	%			19:32:32
1	Y 371.029	1341003.8	1341003.8	102.37	%			19:32:32
1	Ag 328.068†	-492.7	83.8	0.6666	µg/L	0.6666	ppb	19:32:37
1	As 188.979†	-0.9	-2.0	-4.0031	µg/L	-4.0031	ppb	19:32:58
1	B 249.677†	719.9	371.0	16.207	µg/L	16.207	ppb	19:32:37
1	Ba 233.527†	-10.5	15.7	0.4102	µg/L	0.4102	ppb	19:32:58
1	Be 313.107†	-3539.8	-13.5	-0.0090	µg/L	-0.0090	ppb	19:32:37
1	Cd 226.502†	-150.2	-4.4	-0.1235	µg/L	-0.1235	ppb	19:32:58
1	Co 228.616†	-12.4	-3.3	-0.1634	µg/L	-0.1634	ppb	19:32:58
1	Cr 267.716†	-22.0	30.9	0.6806	µg/L	0.6806	ppb	19:32:58
1	Cu 324.752†	2532.9	-14.6	-0.0998	µg/L	-0.0998	ppb	19:32:37
1	Mn 257.610†	-105.5	141.2	0.4903	µg/L	0.4903	ppb	19:32:58
1	Mo 202.031†	-9.0	-1.2	-0.1312	µg/L	-0.1312	ppb	19:32:58
1	Ni 231.604†	309.3	-0.4	-0.0191	µg/L	-0.0191	ppb	19:32:58
1	P 214.914†	35.6	7.1	15.341	µg/L	15.341	ppb	19:32:58
1	Pb 220.353†	89.9	-9.5	-2.5338	µg/L	-2.5338	ppb	19:32:58
1	S 181.975 Axial†	30.4	14.9	65.128	µg/L	65.128	ppb	19:32:58
1	Sb 206.836†	22.5	-5.0	-4.9601	µg/L	-4.9601	ppb	19:32:58
1	Se 196.026†	14.9	-1.3	-1.9004	µg/L	-1.9004	ppb	19:32:58
1	SiO2†	14720.0	13113.1	2824.0	µg/L	2824.0	ppb	19:32:37
1	Si 251.611†	16745.8	16026.9	1317.5	µg/L	1317.5	ppb	19:32:37
1	Sn 189.927†	4.4	5.2	2.3867	µg/L	2.3867	ppb	19:32:58
1	Ti 334.940†	342.8	218.3	0.5247	µg/L	0.5247	ppb	19:32:37
1	Tl 190.801†	-18.4	6.4	8.8912	µg/L	8.8912	ppb	19:32:58
1	U 409.014†	-31.7	22.7	2.0510	µg/L	2.0510	ppb	19:32:37
1	V 292.402†	-35.4	9.7	0.1073	µg/L	0.1073	ppb	19:32:37
1	Zn 213.857†	550.1	61.2	1.5266	µg/L	1.5266	ppb	19:32:58
2	Sc RADIAL	56232.0	56232.0	103	%			19:31:36
2	Al 396.153Radial†	20.5	30.0	22.366	µg/L	22.366	ppb	19:31:36
2	Ca 317.933Radial†	234.1	48.1	45.285	µg/L	45.285	ppb	19:31:56
2	Fe 238.204 Radial†	18.9	3.9	32.938	µg/L	32.938	ppb	19:31:56
2	K 766.490 Radial†	401.7	261.4	185.83	µg/L	185.83	ppb	19:31:36
2	Mg 279.077 IEC†	11.2	-0.4	-3.5186	µg/L	-3.5186	ppb	19:31:56
2	Na 589.592 Radial†	1117.4	542.6	178.63	µg/L	178.63	ppb	19:31:36
2	Sr 421.552†	60.4	19.0	0.1974	µg/L	0.1974	ppb	19:31:36
2	Sc 361.383	1985418.5	1985418.5	103.96	%			19:33:04
2	Y 371.029	1359374.4	1359374.4	103.78	%			19:33:04
2	Ag 328.068†	-475.1	107.5	0.8590	µg/L	0.8590	ppb	19:33:09
2	As 188.979†	-4.1	-5.1	-9.9165	µg/L	-9.9165	ppb	19:33:30
2	B 249.677†	718.8	360.0	15.716	µg/L	15.716	ppb	19:33:09
2	Ba 233.527†	-18.1	8.6	0.2255	µg/L	0.2255	ppb	19:33:30
2	Be 313.107†	-3406.7	163.4	0.1065	µg/L	0.1065	ppb	19:33:09
2	Cd 226.502†	-148.4	-0.7	-0.0227	µg/L	-0.0227	ppb	19:33:30
2	Co 228.616†	-10.8	-1.5	-0.0755	µg/L	-0.0755	ppb	19:33:30
2	Cr 267.716†	-16.3	36.7	0.8072	µg/L	0.8072	ppb	19:33:30
2	Cu 324.752†	2453.0	-126.5	-0.8788	µg/L	-0.8788	ppb	19:33:09
2	Mn 257.610†	-109.7	138.6	0.4845	µg/L	0.4845	ppb	19:33:30
2	Mo 202.031†	-6.5	1.3	0.1397	µg/L	0.1397	ppb	19:33:30
2	Ni 231.604†	303.1	-10.6	-0.5795	µg/L	-0.5795	ppb	19:33:30
2	P 214.914†	27.9	-0.8	-1.7271	µg/L	-1.7271	ppb	19:33:30
2	Pb 220.353†	100.2	-0.8	-0.2107	µg/L	-0.2107	ppb	19:33:30

2	S 181.975 Axial†	24.6	8.8	38.629 µg/L	38.629 ppb	19:33:30
2	Sb 206.836†	25.5	-2.4	-2.3573 µg/L	-2.3573 ppb	19:33:30
2	Se 196.026†	13.5	-2.9	-4.3357 µg/L	-4.3357 ppb	19:33:30
2	SiO2†	14565.5	12761.0	2748.2 µg/L	2748.2 ppb	19:33:09
2	Si 251.611†	16534.1	15591.9	1281.7 µg/L	1281.7 ppb	19:33:09
2	Sn 189.927†	-3.4	-2.4	-1.0908 µg/L	-1.0908 ppb	19:33:30
2	Ti 334.940†	415.8	283.9	0.6838 µg/L	0.6838 ppb	19:33:09
2	Tl 190.801†	-24.3	0.9	1.3234 µg/L	1.3234 ppb	19:33:30
2	U 409.014†	-74.6	-18.1	-1.6482 µg/L	-1.6482 ppb	19:33:09
2	V 292.402†	9.6	53.5	0.5749 µg/L	0.5749 ppb	19:33:09
2	Zn 213.857†	541.1	45.0	1.1253 µg/L	1.1253 ppb	19:33:30
3	Sc RADIAL	56023.2	56023.2	103 %		19:32:01
3	Al 396.153Radial†	23.5	33.0	24.583 µg/L	24.583 ppb	19:32:01
3	Ca 317.933Radial†	244.2	58.7	55.281 µg/L	55.281 ppb	19:32:22
3	Fe 238.204 Radial†	14.9	-0.0	-0.0783 µg/L	-0.0783 ppb	19:32:22
3	K 766.490 Radial†	448.8	308.8	219.46 µg/L	219.46 ppb	19:32:01
3	Mg 279.077 IEC†	9.0	-2.5	-23.358 µg/L	-23.358 ppb	19:32:22
3	Na 589.592 Radial†	1105.2	534.7	176.03 µg/L	176.03 ppb	19:32:01
3	Sr 421.552†	62.1	20.9	0.2170 µg/L	0.2170 ppb	19:32:01
3	Sc 361.383	1953368.2	1953368.2	102.28 %		19:33:36
3	Y 371.029	1335404.5	1335404.5	101.95 %		19:33:36
3	Ag 328.068†	-556.7	20.3	0.1596 µg/L	0.1596 ppb	19:33:41
3	As 188.979†	0.2	-0.9	-1.8467 µg/L	-1.8467 ppb	19:34:02
3	B 249.677†	701.7	354.6	15.499 µg/L	15.499 ppb	19:33:41
3	Ba 233.527†	-16.3	10.1	0.2614 µg/L	0.2614 ppb	19:34:02
3	Be 313.107†	-3559.8	-40.0	-0.0263 µg/L	-0.0263 ppb	19:33:41
3	Cd 226.502†	-146.9	-1.5	-0.0404 µg/L	-0.0404 ppb	19:34:02
3	Co 228.616†	-11.4	-2.3	-0.1134 µg/L	-0.1134 ppb	19:34:02
3	Cr 267.716†	-18.4	34.4	0.7558 µg/L	0.7558 ppb	19:34:02
3	Cu 324.752†	2463.5	-77.5	-0.5416 µg/L	-0.5416 ppb	19:33:41
3	Mn 257.610†	-124.1	122.8	0.4261 µg/L	0.4261 ppb	19:34:02
3	Mo 202.031†	-6.9	0.8	0.0892 µg/L	0.0892 ppb	19:34:02
3	Ni 231.604†	309.7	0.6	0.0333 µg/L	0.0333 ppb	19:34:02
3	P 214.914†	32.7	4.3	9.3269 µg/L	9.3269 ppb	19:34:02
3	Pb 220.353†	89.9	-9.3	-2.4747 µg/L	-2.4747 ppb	19:34:02
3	S 181.975 Axial†	20.7	5.5	23.923 µg/L	23.923 ppb	19:34:02
3	Sb 206.836†	18.4	-9.0	-8.8834 µg/L	-8.8834 ppb	19:34:02
3	Se 196.026†	8.1	-8.0	-12.127 µg/L	-12.127 ppb	19:34:02
3	SiO2†	14525.8	12952.1	2789.3 µg/L	2789.3 ppb	19:33:41
3	Si 251.611†	16428.3	15749.4	1294.7 µg/L	1294.7 ppb	19:33:41
3	Sn 189.927†	-0.7	0.2	0.1014 µg/L	0.1014 ppb	19:34:02
3	Ti 334.940†	337.4	213.7	0.5169 µg/L	0.5169 ppb	19:33:41
3	Tl 190.801†	-27.2	-2.3	-3.2110 µg/L	-3.2110 ppb	19:34:02
3	U 409.014†	-73.9	-18.6	-1.6874 µg/L	-1.6874 ppb	19:33:41
3	V 292.402†	-61.9	-16.4	-0.1736 µg/L	-0.1736 ppb	19:33:41
3	Zn 213.857†	546.4	58.6	1.4662 µg/L	1.4662 ppb	19:34:02

Mean Data: 1202032559|948737|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1965358.3	102.91	%	0.915				0.89%
Sc RADIAL	55875.0	102	%	0.8				0.81%
Y 371.029	1345260.9	102.70	%	0.957				0.93%
Ag 328.068†	70.5	0.5618	µg/L	0.36128	0.5618	ppb	0.36128	64.31%
Al 396.153Radial†	33.4	24.863	µg/L	2.6486	24.863	ppb	2.6486	10.65%
As 188.979†	-2.7	-5.2554	µg/L	4.17812	-5.2554	ppb	4.17812	79.50%
B 249.677†	361.9	15.807	µg/L	0.3629	15.807	ppb	0.3629	2.30%
Ba 233.527†	11.5	0.2990	µg/L	0.09794	0.2990	ppb	0.09794	32.75%
Be 313.107†	36.6	0.0237	µg/L	0.07220	0.0237	ppb	0.07220	304.72%
Ca 317.933Radial†	55.8	52.578	µg/L	6.3860	52.578	ppb	6.3860	12.15%
Cd 226.502†	-2.2	-0.0622	µg/L	0.05384	-0.0622	ppb	0.05384	86.58%
Co 228.616†	-2.4	-0.1174	µg/L	0.04408	-0.1174	ppb	0.04408	37.55%
Cr 267.716†	34.0	0.7479	µg/L	0.06369	0.7479	ppb	0.06369	8.52%
Cu 324.752†	-72.9	-0.5067	µg/L	0.39067	-0.5067	ppb	0.39067	77.10%
Fe 238.204 Radial†	1.9	15.964	µg/L	16.5276	15.964	ppb	16.5276	103.53%
K 766.490 Radial†	270.8	192.51	µg/L	24.311	192.51	ppb	24.311	12.63%
Mg 279.077 IEC†	-0.3	-2.9625	µg/L	20.67888	-2.9625	ppb	20.67888	698.02%
Mn 257.610†	134.2	0.4670	µg/L	0.03550	0.4670	ppb	0.03550	7.60%
Mo 202.031†	0.3	0.0326	µg/L	0.14408	0.0326	ppb	0.14408	442.34%
Na 589.592 Radial†	545.9	179.71	µg/L	4.323	179.71	ppb	4.323	2.41%

Ni 231.604†	-3.5	-0.1884 µg/L	0.33968	-0.1884 ppb	0.33968	180.30%
P 214.914†	3.5	7.6469 µg/L	8.65706	7.6469 ppb	8.65706	113.21%
Pb 220.353†	-6.5	-1.7397 µg/L	1.32454	-1.7397 ppb	1.32454	76.13%
S 181.975 Axial†	9.7	42.560 µg/L	20.8819	42.560 ppb	20.8819	49.07%
Sb 206.836†	-5.5	-5.4003 µg/L	3.28526	-5.4003 ppb	3.28526	60.84%
Se 196.026†	-4.0	-6.1210 µg/L	5.34190	-6.1210 ppb	5.34190	87.27%
SiO2†	12942.1	2787.1 µg/L	37.96	2787.1 ppb	37.96	1.36%
Si 251.611†	15789.4	1298.0 µg/L	18.11	1298.0 ppb	18.11	1.40%
Sn 189.927†	1.0	0.4657 µg/L	1.76718	0.4657 ppb	1.76718	379.43%
Sr 421.552†	26.7	0.2766 µg/L	0.12050	0.2766 ppb	0.12050	43.57%
Ti 334.940†	238.7	0.5751 µg/L	0.09422	0.5751 ppb	0.09422	16.38%
Tl 190.801†	1.7	2.3345 µg/L	6.11411	2.3345 ppb	6.11411	261.90%
U 409.014†	-4.7	-0.4282 µg/L	2.14716	-0.4282 ppb	2.14716	501.43%
V 292.402†	15.6	0.1695 µg/L	0.37811	0.1695 ppb	0.37811	223.01%
Zn 213.857†	54.9	1.3727 µg/L	0.21636	1.3727 ppb	0.21636	15.76%

Sequence No.: 44
Sample ID: 1202032560|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 334
Date Collected: 2/11/2010 19:34:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032560|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56464.8	56464.8	103	%			19:34:44
1	Al 396.153Radial†	6806.1	6588.3	4900.2	µg/L	4900.2	ppb	19:35:04
1	Ca 317.933Radial†	5506.4	5142.9	4842.4	µg/L	4842.4	ppb	19:35:04
1	Fe 238.204 Radial†	611.9	576.9	4899.7	µg/L	4899.7	ppb	19:35:04
1	K 766.490 Radial†	7333.3	6959.3	4946.6	µg/L	4946.6	ppb	19:34:44
1	Mg 279.077 IEC†	557.7	527.7	4914.4	µg/L	4914.4	ppb	19:35:04
1	Na 589.592 Radial†	16217.5	15132.6	4981.7	µg/L	4981.7	ppb	19:34:44
1	Sr 421.552†	47317.0	45693.3	473.66	µg/L	473.66	ppb	19:34:44
1	Sc 361.383	1969504.1	1969504.1	103.12	%			19:36:08
1	Y 371.029	1344490.8	1344490.8	102.64	%			19:36:08
1	Ag 328.068†	61777.8	60470.9	483.38	µg/L	483.38	ppb	19:36:14
1	As 188.979†	267.3	258.0	503.42	µg/L	503.42	ppb	19:36:34
1	B 249.677†	12031.5	11335.6	493.62	µg/L	493.62	ppb	19:36:14
1	Ba 233.527†	19428.6	18866.0	492.13	µg/L	492.13	ppb	19:36:14
1	Be 313.107†	757639.6	738128.1	481.85	µg/L	481.85	ppb	19:36:08
1	Cd 226.502†	17872.8	17473.5	482.01	µg/L	482.01	ppb	19:36:14
1	Co 228.616†	10159.6	9860.7	484.72	µg/L	484.72	ppb	19:36:14
1	Cr 267.716†	23006.4	22361.8	492.18	µg/L	492.18	ppb	19:36:14
1	Cu 324.752†	75411.0	70640.4	494.12	µg/L	494.12	ppb	19:36:14
1	Mn 257.610†	147190.3	142975.5	495.56	µg/L	495.56	ppb	19:36:08
1	Mo 202.031†	4839.3	4700.2	501.80	µg/L	501.80	ppb	19:36:34
1	Ni 231.604†	9637.5	9043.3	493.93	µg/L	493.93	ppb	19:36:14
1	P 214.914†	274.0	238.0	464.37	µg/L	464.37	ppb	19:36:34
1	Pb 220.353†	2045.5	1886.3	503.48	µg/L	503.48	ppb	19:36:34
1	S 181.975 Axial†	1203.8	1152.6	5049.8	µg/L	5049.8	ppb	19:36:34
1	Sb 206.836†	563.5	519.5	513.56	µg/L	513.56	ppb	19:36:34
1	Se 196.026†	338.7	312.6	484.26	µg/L	484.26	ppb	19:36:34
1	SiO2†	63253.8	60087.6	12940	µg/L	12940	ppb	19:36:14
1	Si 251.611†	75809.8	73200.4	6017.4	µg/L	6017.4	ppb	19:36:14
1	Sn 189.927†	1195.5	1160.1	533.61	µg/L	533.61	ppb	19:36:34
1	Ti 334.940†	208361.9	201933.7	485.43	µg/L	485.43	ppb	19:36:08
1	Tl 190.801†	343.5	357.4	504.78	µg/L	504.78	ppb	19:36:34
1	U 409.014†	5786.5	5664.8	511.90	µg/L	511.90	ppb	19:36:14
1	V 292.402†	47433.2	46040.5	496.78	µg/L	496.78	ppb	19:36:14
1	Zn 213.857†	20405.0	19311.3	478.73	µg/L	478.73	ppb	19:36:14
2	Sc RADIAL	56738.3	56738.3	104	%			19:35:10
2	Al 396.153Radial†	6857.8	6606.4	4913.7	µg/L	4913.7	ppb	19:35:30
2	Ca 317.933Radial†	5550.5	5159.7	4858.2	µg/L	4858.2	ppb	19:35:30
2	Fe 238.204 Radial†	618.4	580.3	4928.8	µg/L	4928.8	ppb	19:35:30
2	K 766.490 Radial†	7512.7	7097.8	5045.0	µg/L	5045.0	ppb	19:35:10
2	Mg 279.077 IEC†	561.6	528.9	4925.0	µg/L	4925.0	ppb	19:35:30
2	Na 589.592 Radial†	16499.1	15328.0	5046.0	µg/L	5046.0	ppb	19:35:10
2	Sr 421.552†	48452.7	46565.3	482.70	µg/L	482.70	ppb	19:35:10
2	Sc 361.383	1963144.1	1963144.1	102.79	%			19:36:41
2	Y 371.029	1340072.9	1340072.9	102.30	%			19:36:41
2	Ag 328.068†	61611.8	60503.4	483.66	µg/L	483.66	ppb	19:36:47
2	As 188.979†	260.2	252.0	491.59	µg/L	491.59	ppb	19:37:07
2	B 249.677†	12050.1	11391.4	496.05	µg/L	496.05	ppb	19:36:47
2	Ba 233.527†	19468.1	18965.5	494.72	µg/L	494.72	ppb	19:36:47
2	Be 313.107†	756552.9	739451.1	482.72	µg/L	482.72	ppb	19:36:41
2	Cd 226.502†	17837.5	17495.3	482.61	µg/L	482.61	ppb	19:36:47
2	Co 228.616†	10063.1	9798.7	481.66	µg/L	481.66	ppb	19:36:47
2	Cr 267.716†	23000.6	22428.5	493.65	µg/L	493.65	ppb	19:36:47
2	Cu 324.752†	75255.1	70725.6	494.72	µg/L	494.72	ppb	19:36:47
2	Mn 257.610†	146664.2	142926.0	495.39	µg/L	495.39	ppb	19:36:41
2	Mo 202.031†	4791.0	4668.4	498.41	µg/L	498.41	ppb	19:37:07
2	Ni 231.604†	9624.9	9061.3	494.92	µg/L	494.92	ppb	19:36:47
2	P 214.914†	259.0	224.3	434.79	µg/L	434.79	ppb	19:37:07
2	Pb 220.353†	2029.3	1877.0	500.98	µg/L	500.98	ppb	19:37:07

2	S 181.975 Axial†	1194.9	1147.6	5028.2 µg/L	5028.2 ppb	19:37:07
2	Sb 206.836†	555.9	513.8	507.88 µg/L	507.88 ppb	19:37:07
2	Se 196.026†	334.4	309.5	479.52 µg/L	479.52 ppb	19:37:07
2	SiO2†	63264.3	60296.5	12985 µg/L	12985 ppb	19:36:47
2	Si 251.611†	75806.3	73435.1	6036.7 µg/L	6036.7 ppb	19:36:47
2	Sn 189.927†	1179.8	1148.7	528.34 µg/L	528.34 ppb	19:37:07
2	Ti 334.940†	208026.1	202261.6	486.21 µg/L	486.21 ppb	19:36:41
2	Tl 190.801†	339.5	354.5	500.78 µg/L	500.78 ppb	19:37:07
2	U 409.014†	5762.6	5659.8	511.44 µg/L	511.44 ppb	19:36:47
2	V 292.402†	47518.7	46272.7	499.23 µg/L	499.23 ppb	19:36:47
2	Zn 213.857†	20383.6	19354.6	479.81 µg/L	479.81 ppb	19:36:47
3	Sc RADIAL	56983.3	56983.3	104 %		19:35:36
3	Al 396.153Radial†	6778.1	6501.7	4836.4 µg/L	4836.4 ppb	19:35:56
3	Ca 317.933Radial†	5483.7	5072.7	4776.3 µg/L	4776.3 ppb	19:35:56
3	Fe 238.204 Radial†	610.2	569.9	4840.0 µg/L	4840.0 ppb	19:35:56
3	K 766.490 Radial†	7476.8	7032.3	4998.5 µg/L	4998.5 ppb	19:35:36
3	Mg 279.077 IEC†	558.6	523.7	4875.9 µg/L	4875.9 ppb	19:35:56
3	Na 589.592 Radial†	16463.0	15225.1	5012.2 µg/L	5012.2 ppb	19:35:36
3	Sr 421.552†	48028.2	45958.3	476.41 µg/L	476.41 ppb	19:35:36
3	Sc 361.383	1953228.5	1953228.5	102.27 %		19:37:14
3	Y 371.029	1334981.2	1334981.2	101.91 %		19:37:14
3	Ag 328.068†	60906.6	60118.1	480.49 µg/L	480.49 ppb	19:37:20
3	As 188.979†	246.6	240.0	468.20 µg/L	468.20 ppb	19:37:41
3	B 249.677†	11806.2	11212.5	488.25 µg/L	488.25 ppb	19:37:20
3	Ba 233.527†	18817.3	18425.3	480.63 µg/L	480.63 ppb	19:37:20
3	Be 313.107†	740878.0	727860.9	475.15 µg/L	475.15 ppb	19:37:14
3	Cd 226.502†	17362.9	17119.4	472.23 µg/L	472.23 ppb	19:37:20
3	Co 228.616†	9771.9	9563.6	470.08 µg/L	470.08 ppb	19:37:20
3	Cr 267.716†	22087.4	21649.1	476.50 µg/L	476.50 ppb	19:37:20
3	Cu 324.752†	72706.1	68604.9	479.89 µg/L	479.89 ppb	19:37:20
3	Mn 257.610†	143804.2	140853.9	488.21 µg/L	488.21 ppb	19:37:14
3	Mo 202.031†	4405.4	4315.1	460.70 µg/L	460.70 ppb	19:37:41
3	Ni 231.604†	9285.9	8777.4	479.41 µg/L	479.41 ppb	19:37:20
3	P 214.914†	254.1	220.8	428.19 µg/L	428.19 ppb	19:37:41
3	Pb 220.353†	1906.4	1766.9	471.52 µg/L	471.52 ppb	19:37:41
3	S 181.975 Axial†	1137.3	1097.2	4807.1 µg/L	4807.1 ppb	19:37:41
3	Sb 206.836†	512.2	473.8	468.13 µg/L	468.13 ppb	19:37:41
3	Se 196.026†	311.2	288.4	447.26 µg/L	447.26 ppb	19:37:41
3	SiO2†	61664.2	59044.4	12716 µg/L	12716 ppb	19:37:20
3	Si 251.611†	73998.6	72042.0	5922.2 µg/L	5922.2 ppb	19:37:20
3	Sn 189.927†	1081.7	1058.6	486.89 µg/L	486.89 ppb	19:37:41
3	Ti 334.940†	203268.0	198636.6	477.50 µg/L	477.50 ppb	19:37:14
3	Tl 190.801†	317.8	335.0	473.39 µg/L	473.39 ppb	19:37:41
3	U 409.014†	5643.9	5572.1	503.52 µg/L	503.52 ppb	19:37:20
3	V 292.402†	45704.3	44733.2	482.48 µg/L	482.48 ppb	19:37:20
3	Zn 213.857†	19736.3	18822.4	466.62 µg/L	466.62 ppb	19:37:20

Mean Data: 1202032560|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1961958.9	102.73	%	0.429				0.42%
Sc RADIAL	56728.8	104	%	0.5				0.46%
Y 371.029	1339848.3	102.28	%	0.363				0.36%
Ag 328.068†	60364.1	482.51	µg/L	1.756	482.51	ppb	1.756	0.36%
Al 396.153Radial†	6565.5	4883.4	µg/L	41.27	4883.4	ppb	41.27	0.85%
As 188.979†	250.0	487.74	µg/L	17.922	487.74	ppb	17.922	3.67%
B 249.677†	11313.1	492.64	µg/L	3.992	492.64	ppb	3.992	0.81%
Ba 233.527†	18752.3	489.16	µg/L	7.501	489.16	ppb	7.501	1.53%
Be 313.107†	735146.7	479.91	µg/L	4.141	479.91	ppb	4.141	0.86%
Ca 317.933Radial†	5125.1	4825.6	µg/L	43.45	4825.6	ppb	43.45	0.90%
Cd 226.502†	17362.7	478.95	µg/L	5.826	478.95	ppb	5.826	1.22%
Co 228.616†	9741.0	478.82	µg/L	7.722	478.82	ppb	7.722	1.61%
Cr 267.716†	22146.5	487.44	µg/L	9.508	487.44	ppb	9.508	1.95%
Cu 324.752†	69990.3	489.58	µg/L	8.392	489.58	ppb	8.392	1.71%
Fe 238.204 Radial†	575.7	4889.5	µg/L	45.26	4889.5	ppb	45.26	0.93%
K 766.490 Radial†	7029.8	4996.7	µg/L	49.22	4996.7	ppb	49.22	0.98%
Mg 279.077 IEC†	526.8	4905.1	µg/L	25.83	4905.1	ppb	25.83	0.53%
Mn 257.610†	142251.8	493.05	µg/L	4.198	493.05	ppb	4.198	0.85%
Mo 202.031†	4561.2	486.97	µg/L	22.812	486.97	ppb	22.812	4.68%
Na 589.592 Radial†	15228.6	5013.3	µg/L	32.17	5013.3	ppb	32.17	0.64%

Ni 231.604†	8960.7	489.42 µg/L	8.683	489.42 ppb	8.683	1.77%
P 214.914†	227.7	442.45 µg/L	19.267	442.45 ppb	19.267	4.35%
Pb 220.353†	1843.4	491.99 µg/L	17.777	491.99 ppb	17.777	3.61%
S 181.975 Axial†	1132.5	4961.7 µg/L	134.32	4961.7 ppb	134.32	2.71%
Sb 206.836†	502.4	496.52 µg/L	24.756	496.52 ppb	24.756	4.99%
Se 196.026†	303.5	470.34 µg/L	20.133	470.34 ppb	20.133	4.28%
SiO2†	59809.5	12880 µg/L	144.5	12880 ppb	144.5	1.12%
Si 251.611†	72892.5	5992.1 µg/L	61.31	5992.1 ppb	61.31	1.02%
Sn 189.927†	1122.5	516.28 µg/L	25.587	516.28 ppb	25.587	4.96%
Sr 421.552†	46072.3	477.59 µg/L	4.634	477.59 ppb	4.634	0.97%
Ti 334.940†	200944.0	483.04 µg/L	4.822	483.04 ppb	4.822	1.00%
Tl 190.801†	349.0	492.98 µg/L	17.083	492.98 ppb	17.083	3.47%
U 409.014†	5632.2	508.95 µg/L	4.711	508.95 ppb	4.711	0.93%
V 292.402†	45682.1	492.83 µg/L	9.049	492.83 ppb	9.049	1.84%
Zn 213.857†	19162.7	475.05 µg/L	7.325	475.05 ppb	7.325	1.54%

Sequence No.: 45
Sample ID: 1202032561|948737|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 335
Date Collected: 2/11/2010 19:37:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032561|948737|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55556.9	55556.9	102	%			19:38:23
1	Al 396.153Radial†	-14.4	-4.0	-3.0016	µg/L	-3.0016	ppb	19:38:23
1	Ca 317.933Radial†	193.6	11.0	10.352	µg/L	10.352	ppb	19:38:43
1	Fe 238.204 Radial†	16.0	1.2	10.568	µg/L	10.568	ppb	19:38:43
1	K 766.490 Radial†	200.3	68.3	48.549	µg/L	48.549	ppb	19:38:23
1	Mg 279.077 IEC†	17.4	5.8	54.431	µg/L	54.431	ppb	19:38:43
1	Na 589.592 Radial†	748.0	192.9	63.499	µg/L	63.499	ppb	19:38:23
1	Sr 421.552†	52.3	11.8	0.1221	µg/L	0.1221	ppb	19:38:23
1	Sc 361.383	1967786.0	1967786.0	103.03	%			19:39:45
1	Y 371.029	1347427.9	1347427.9	102.86	%			19:39:45
1	Ag 328.068†	-513.7	65.9	0.5269	µg/L	0.5269	ppb	19:39:51
1	As 188.979†	0.2	-0.9	-1.7879	µg/L	-1.7879	ppb	19:40:11
1	B 249.677†	392.7	49.7	2.1660	µg/L	2.1660	ppb	19:40:11
1	Ba 233.527†	-17.5	9.0	0.2357	µg/L	0.2357	ppb	19:40:11
1	Be 313.107†	-3261.5	274.9	0.1795	µg/L	0.1795	ppb	19:39:51
1	Cd 226.502†	-143.1	3.3	0.0883	µg/L	0.0883	ppb	19:40:11
1	Co 228.616†	-14.2	-4.9	-0.2416	µg/L	-0.2416	ppb	19:40:11
1	Cr 267.716†	-7.4	45.2	0.9940	µg/L	0.9940	ppb	19:40:11
1	Cu 324.752†	2443.8	-114.2	-0.7963	µg/L	-0.7963	ppb	19:39:51
1	Mn 257.610†	-169.1	79.9	0.2761	µg/L	0.2761	ppb	19:40:11
1	Mo 202.031†	-6.4	1.4	0.1476	µg/L	0.1476	ppb	19:40:11
1	Ni 231.604†	306.2	-5.0	-0.2754	µg/L	-0.2754	ppb	19:40:11
1	P 214.914†	36.4	7.7	16.712	µg/L	16.712	ppb	19:40:11
1	Pb 220.353†	91.5	-8.3	-2.2188	µg/L	-2.2188	ppb	19:40:11
1	S 181.975 Axial†	15.5	0.3	1.1200	µg/L	1.1200	ppb	19:40:11
1	Sb 206.836†	23.6	-4.0	-3.9935	µg/L	-3.9935	ppb	19:40:11
1	Se 196.026†	10.4	-5.8	-8.8371	µg/L	-8.8371	ppb	19:40:11
1	SiO2†	4053.3	2683.9	578.00	µg/L	578.00	ppb	19:39:51
1	Si 251.611†	3735.4	3312.5	272.31	µg/L	272.31	ppb	19:39:51
1	Sn 189.927†	1.4	2.2	1.0392	µg/L	1.0392	ppb	19:40:11
1	Ti 334.940†	209.0	86.7	0.2045	µg/L	0.2045	ppb	19:39:51
1	Tl 190.801†	-28.8	-3.6	-5.0793	µg/L	-5.0793	ppb	19:40:11
1	U 409.014†	-114.0	-57.1	-5.1684	µg/L	-5.1684	ppb	19:39:51
1	V 292.402†	0.4	44.6	0.4745	µg/L	0.4745	ppb	19:39:51
1	Zn 213.857†	490.8	0.8	0.0180	µg/L	0.0180	ppb	19:40:11
2	Sc RADIAL	55453.1	55453.1	102	%			19:38:49
2	Al 396.153Radial†	-1.2	8.9	6.6613	µg/L	6.6613	ppb	19:38:49
2	Ca 317.933Radial†	195.9	13.6	12.817	µg/L	12.817	ppb	19:39:09
2	Fe 238.204 Radial†	14.7	0.0	0.0944	µg/L	0.0944	ppb	19:39:09
2	K 766.490 Radial†	238.4	106.2	75.456	µg/L	75.456	ppb	19:38:49
2	Mg 279.077 IEC†	15.6	4.1	37.981	µg/L	37.981	ppb	19:39:09
2	Na 589.592 Radial†	708.0	154.9	51.000	µg/L	51.000	ppb	19:38:49
2	Sr 421.552†	57.2	16.8	0.1737	µg/L	0.1737	ppb	19:38:49
2	Sc 361.383	1975775.5	1975775.5	103.45	%			19:40:18
2	Y 371.029	1355586.5	1355586.5	103.49	%			19:40:18
2	Ag 328.068†	-512.8	68.9	0.5480	µg/L	0.5480	ppb	19:40:23
2	As 188.979†	-0.8	-1.9	-3.7879	µg/L	-3.7879	ppb	19:40:44
2	B 249.677†	398.7	53.9	2.3572	µg/L	2.3572	ppb	19:40:44
2	Ba 233.527†	-16.5	10.0	0.2613	µg/L	0.2613	ppb	19:40:44
2	Be 313.107†	-3291.3	258.9	0.1690	µg/L	0.1690	ppb	19:40:23
2	Cd 226.502†	-132.6	13.9	0.3835	µg/L	0.3835	ppb	19:40:44
2	Co 228.616†	-7.1	2.0	0.0984	µg/L	0.0984	ppb	19:40:44
2	Cr 267.716†	-22.7	30.4	0.6696	µg/L	0.6696	ppb	19:40:44
2	Cu 324.752†	2469.7	-98.8	-0.6905	µg/L	-0.6905	ppb	19:40:23
2	Mn 257.610†	-143.9	105.0	0.3620	µg/L	0.3620	ppb	19:40:44
2	Mo 202.031†	-4.2	3.5	0.3717	µg/L	0.3717	ppb	19:40:44
2	Ni 231.604†	302.9	-9.4	-0.5143	µg/L	-0.5143	ppb	19:40:44
2	P 214.914†	29.9	1.3	2.7919	µg/L	2.7919	ppb	19:40:44
2	Pb 220.353†	97.3	-3.1	-0.8261	µg/L	-0.8261	ppb	19:40:44

2	S 181.975 Axial†	20.0	4.5	19.710 µg/L	19.710 ppb	19:40:44
2	Sb 206.836†	23.7	-4.1	-4.0300 µg/L	-4.0300 ppb	19:40:44
2	Se 196.026†	9.3	-6.9	-10.492 µg/L	-10.492 ppb	19:40:44
2	SiO2†	4038.7	2653.9	571.53 µg/L	571.53 ppb	19:40:23
2	Si 251.611†	3707.4	3270.8	268.87 µg/L	268.87 ppb	19:40:23
2	Sn 189.927†	2.0	2.8	1.2773 µg/L	1.2773 ppb	19:40:44
2	Ti 334.940†	221.6	98.1	0.2331 µg/L	0.2331 ppb	19:40:23
2	Tl 190.801†	-21.6	3.4	4.7965 µg/L	4.7965 ppb	19:40:44
2	U 409.014†	-59.9	-4.3	-0.3880 µg/L	-0.3880 ppb	19:40:23
2	V 292.402†	-21.0	23.9	0.2589 µg/L	0.2589 ppb	19:40:23
2	Zn 213.857†	511.8	19.2	0.4807 µg/L	0.4807 ppb	19:40:44
3	Sc RADIAL	54997.2	54997.2	101 %		19:39:15
3	Al 396.153Radial†	-9.6	0.6	0.4496 µg/L	0.4496 ppb	19:39:15
3	Ca 317.933Radial†	197.1	16.5	15.498 µg/L	15.498 ppb	19:39:35
3	Fe 238.204 Radial†	17.3	2.6	22.415 µg/L	22.415 ppb	19:39:35
3	K 766.490 Radial†	180.6	50.8	36.115 µg/L	36.115 ppb	19:39:15
3	Mg 279.077 IEC†	14.5	3.2	29.331 µg/L	29.331 ppb	19:39:35
3	Na 589.592 Radial†	763.4	215.7	70.994 µg/L	70.994 ppb	19:39:15
3	Sr 421.552†	65.9	25.9	0.2681 µg/L	0.2681 ppb	19:39:15
3	Sc 361.383	1964922.8	1964922.8	102.88 %		19:40:50
3	Y 371.029	1347749.0	1347749.0	102.89 %		19:40:50
3	Ag 328.068†	-485.9	92.3	0.7322 µg/L	0.7322 ppb	19:40:55
3	As 188.979†	0.6	-0.6	-1.1015 µg/L	-1.1015 ppb	19:41:16
3	B 249.677†	385.4	43.2	1.8762 µg/L	1.8762 ppb	19:41:16
3	Ba 233.527†	-20.3	6.2	0.1623 µg/L	0.1623 ppb	19:41:16
3	Be 313.107†	-3155.8	373.1	0.2435 µg/L	0.2435 ppb	19:40:55
3	Cd 226.502†	-137.1	8.9	0.2432 µg/L	0.2432 ppb	19:41:16
3	Co 228.616†	-0.5	8.4	0.4121 µg/L	0.4121 ppb	19:41:16
3	Cr 267.716†	-8.2	44.4	0.9768 µg/L	0.9768 ppb	19:41:16
3	Cu 324.752†	2483.7	-72.0	-0.4999 µg/L	-0.4999 ppb	19:40:55
3	Mn 257.610†	-138.7	109.3	0.3805 µg/L	0.3805 ppb	19:41:16
3	Mo 202.031†	-5.4	2.3	0.2508 µg/L	0.2508 ppb	19:41:16
3	Ni 231.604†	316.9	5.9	0.3198 µg/L	0.3198 ppb	19:41:16
3	P 214.914†	26.0	-2.4	-5.0548 µg/L	-5.0548 ppb	19:41:16
3	Pb 220.353†	90.0	-9.7	-2.5999 µg/L	-2.5999 ppb	19:41:16
3	S 181.975 Axial†	20.6	5.2	22.743 µg/L	22.743 ppb	19:41:16
3	Sb 206.836†	23.9	-3.7	-3.6360 µg/L	-3.6360 ppb	19:41:16
3	Se 196.026†	14.1	-2.1	-3.2432 µg/L	-3.2432 ppb	19:41:16
3	SiO2†	3923.3	2563.3	552.03 µg/L	552.03 ppb	19:40:55
3	Si 251.611†	3574.4	3161.3	259.88 µg/L	259.88 ppb	19:40:55
3	Sn 189.927†	1.0	1.8	0.8318 µg/L	0.8318 ppb	19:41:16
3	Ti 334.940†	247.5	124.4	0.2972 µg/L	0.2972 ppb	19:40:55
3	Tl 190.801†	-20.5	4.4	6.0916 µg/L	6.0916 ppb	19:41:16
3	U 409.014†	-23.0	31.3	2.8278 µg/L	2.8278 ppb	19:40:55
3	V 292.402†	-67.0	-20.9	-0.2134 µg/L	-0.2134 ppb	19:40:55
3	Zn 213.857†	498.6	9.1	0.2239 µg/L	0.2239 ppb	19:41:16

Mean Data: 1202032561|948737|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1969494.8	103.12	%	0.295				0.29%
Sc RADIAL	55335.7	101	%	0.5				0.54%
Y 371.029	1350254.5	103.08	%	0.353				0.34%
Ag 328.068†	75.7	0.6024	µg/L	0.11293	0.6024	ppb	0.11293	18.75%
Al 396.153Radial†	1.8	1.3697	µg/L	4.89673	1.3697	ppb	4.89673	357.50%
As 188.979†	-1.1	-2.2258	µg/L	1.39574	-2.2258	ppb	1.39574	62.71%
B 249.677†	48.9	2.1331	µg/L	0.24218	2.1331	ppb	0.24218	11.35%
Ba 233.527†	8.4	0.2198	µg/L	0.05138	0.2198	ppb	0.05138	23.38%
Be 313.107†	302.3	0.1973	µg/L	0.04034	0.1973	ppb	0.04034	20.44%
Ca 317.933Radial†	13.7	12.889	µg/L	2.5739	12.889	ppb	2.5739	19.97%
Cd 226.502†	8.7	0.2383	µg/L	0.14769	0.2383	ppb	0.14769	61.96%
Co 228.616†	1.8	0.0896	µg/L	0.32695	0.0896	ppb	0.32695	364.74%
Cr 267.716†	40.0	0.8801	µg/L	0.18253	0.8801	ppb	0.18253	20.74%
Cu 324.752†	-95.0	-0.6622	µg/L	0.15020	-0.6622	ppb	0.15020	22.68%
Fe 238.204 Radial†	1.3	11.026	µg/L	11.1673	11.026	ppb	11.1673	101.28%
K 766.490 Radial†	75.1	53.373	µg/L	20.1092	53.373	ppb	20.1092	37.68%
Mg 279.077 IEC†	4.4	40.581	µg/L	12.7501	40.581	ppb	12.7501	31.42%
Mn 257.610†	98.1	0.3395	µg/L	0.05572	0.3395	ppb	0.05572	16.41%
Mo 202.031†	2.4	0.2567	µg/L	0.11216	0.2567	ppb	0.11216	43.69%
Na 589.592 Radial†	187.8	61.831	µg/L	10.1008	61.831	ppb	10.1008	16.34%

Ni 231.604†	-2.9	-0.1566 µg/L	0.42953	-0.1566 ppb	0.42953	274.22%
P 214.914†	2.2	4.8165 µg/L	11.02392	4.8165 ppb	11.02392	228.88%
Pb 220.353†	-7.1	-1.8816 µg/L	0.93377	-1.8816 ppb	0.93377	49.63%
S 181.975 Axial†	3.3	14.524 µg/L	11.7071	14.524 ppb	11.7071	80.60%
Sb 206.836†	-3.9	-3.8865 µg/L	0.21773	-3.8865 ppb	0.21773	5.60%
Se 196.026†	-4.9	-7.5242 µg/L	3.79864	-7.5242 ppb	3.79864	50.49%
SiO2†	2633.7	567.19 µg/L	13.522	567.19 ppb	13.522	2.38%
Si 251.611†	3248.2	267.02 µg/L	6.418	267.02 ppb	6.418	2.40%
Sn 189.927†	2.3	1.0494 µg/L	0.22288	1.0494 ppb	0.22288	21.24%
Sr 421.552†	18.1	0.1880 µg/L	0.07405	0.1880 ppb	0.07405	39.39%
Ti 334.940†	103.1	0.2449 µg/L	0.04745	0.2449 ppb	0.04745	19.37%
Tl 190.801†	1.4	1.9362 µg/L	6.11008	1.9362 ppb	6.11008	315.56%
U 409.014†	-10.0	-0.9095 µg/L	4.02356	-0.9095 ppb	4.02356	442.37%
V 292.402†	15.9	0.1733 µg/L	0.35183	0.1733 ppb	0.35183	203.00%
Zn 213.857†	9.7	0.2409 µg/L	0.23181	0.2409 ppb	0.23181	96.23%

Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:41:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56419.4	56419.4	103	%			19:42:04
1	Al 396.153Radial†	6864.6	6650.3	4946.1	µg/L	4946.1	ppb	19:42:25
1	Ca 317.933Radial†	5559.4	5198.4	4894.6	µg/L	4894.6	ppb	19:42:25
1	Fe 238.204 Radial†	616.6	581.9	4942.5	µg/L	4942.5	ppb	19:42:25
1	K 766.490 Radial†	7352.0	6983.2	4963.6	µg/L	4963.6	ppb	19:42:04
1	Mg 279.077 IEC†	570.1	540.2	5030.2	µg/L	5030.2	ppb	19:42:25
1	Na 589.592 Radial†	31600.6	30025.3	9884.4	µg/L	9884.4	ppb	19:42:04
1	Sr 421.552†	48468.4	46843.8	485.59	µg/L	485.59	ppb	19:42:04
1	Sc 361.383	2003108.1	2003108.1	104.88	%			19:43:28
1	Y 371.029	1370730.2	1370730.2	104.64	%			19:43:28
1	Ag 328.068†	64726.1	62276.9	497.74	µg/L	497.74	ppb	19:43:34
1	As 188.979†	267.5	253.9	495.37	µg/L	495.37	ppb	19:43:54
1	B 249.677†	12041.2	11149.1	485.46	µg/L	485.46	ppb	19:43:34
1	Ba 233.527†	19842.7	18944.8	494.19	µg/L	494.19	ppb	19:43:34
1	Be 313.107†	766666.1	734409.3	479.43	µg/L	479.43	ppb	19:43:28
1	Cd 226.502†	18686.6	17958.6	495.39	µg/L	495.39	ppb	19:43:34
1	Co 228.616†	10595.4	10110.9	497.04	µg/L	497.04	ppb	19:43:34
1	Cr 267.716†	23720.3	22668.2	498.92	µg/L	498.92	ppb	19:43:34
1	Cu 324.752†	76984.9	70914.3	496.04	µg/L	496.04	ppb	19:43:34
1	Mn 257.610†	147751.2	141115.8	489.12	µg/L	489.12	ppb	19:43:28
1	Mo 202.031†	5026.0	4799.5	512.40	µg/L	512.40	ppb	19:43:54
1	Ni 231.604†	9826.5	9066.7	495.20	µg/L	495.20	ppb	19:43:34
1	P 214.914†	1254.6	1168.6	2461.8	µg/L	2461.8	ppb	19:43:54
1	Pb 220.353†	2050.1	1857.4	495.79	µg/L	495.79	ppb	19:43:54
1	S 181.975 Axial†	255.6	228.9	1003.0	µg/L	1003.0	ppb	19:43:54
1	Sb 206.836†	570.4	516.9	511.09	µg/L	511.09	ppb	19:43:54
1	Se 196.026†	360.0	327.4	506.74	µg/L	506.74	ppb	19:43:54
1	SiO2†	26928.3	24424.4	5259.9	µg/L	5259.9	ppb	19:43:34
1	Si 251.611†	31785.6	29992.7	2465.6	µg/L	2465.6	ppb	19:43:34
1	Sn 189.927†	1167.3	1113.9	512.34	µg/L	512.34	ppb	19:43:54
1	Ti 334.940†	210971.9	201032.6	483.25	µg/L	483.25	ppb	19:43:28
1	Tl 190.801†	351.0	358.9	506.83	µg/L	506.83	ppb	19:43:54
1	U 409.014†	5847.6	5628.9	508.64	µg/L	508.64	ppb	19:43:34
1	V 292.402†	48650.0	46429.0	501.02	µg/L	501.02	ppb	19:43:34
1	Zn 213.857†	21378.5	19907.5	493.60	µg/L	493.60	ppb	19:43:34
2	Sc RADIAL	57083.7	57083.7	105	%			19:42:30
2	Al 396.153Radial†	6804.1	6515.2	4845.3	µg/L	4845.3	ppb	19:42:51
2	Ca 317.933Radial†	5545.5	5122.6	4823.3	µg/L	4823.3	ppb	19:42:51
2	Fe 238.204 Radial†	613.4	571.9	4857.7	µg/L	4857.7	ppb	19:42:51
2	K 766.490 Radial†	7292.4	6843.5	4864.3	µg/L	4864.3	ppb	19:42:30
2	Mg 279.077 IEC†	572.7	536.3	4994.3	µg/L	4994.3	ppb	19:42:51
2	Na 589.592 Radial†	31703.2	29767.7	9799.6	µg/L	9799.6	ppb	19:42:30
2	Sr 421.552†	48760.9	46577.9	482.83	µg/L	482.83	ppb	19:42:30
2	Sc 361.383	1956478.6	1956478.6	102.44	%			19:44:02
2	Y 371.029	1338013.6	1338013.6	102.14	%			19:44:02
2	Ag 328.068†	63625.9	62673.7	500.90	µg/L	500.90	ppb	19:44:07
2	As 188.979†	268.7	261.1	509.35	µg/L	509.35	ppb	19:44:28
2	B 249.677†	11834.0	11220.4	488.63	µg/L	488.63	ppb	19:44:07
2	Ba 233.527†	19447.5	19009.9	495.89	µg/L	495.89	ppb	19:44:07
2	Be 313.107†	783080.7	767854.0	501.26	µg/L	501.26	ppb	19:44:02
2	Cd 226.502†	18262.0	17968.8	495.68	µg/L	495.68	ppb	19:44:07
2	Co 228.616†	10399.7	10160.6	499.45	µg/L	499.45	ppb	19:44:07
2	Cr 267.716†	23262.6	22760.4	500.95	µg/L	500.95	ppb	19:44:07
2	Cu 324.752†	75552.4	71265.3	498.48	µg/L	498.48	ppb	19:44:07
2	Mn 257.610†	151080.8	147723.5	511.99	µg/L	511.99	ppb	19:44:02
2	Mo 202.031†	4987.4	4876.0	520.56	µg/L	520.56	ppb	19:44:28
2	Ni 231.604†	9658.6	9126.2	498.44	µg/L	498.44	ppb	19:44:07
2	P 214.914†	1238.9	1181.7	2490.0	µg/L	2490.0	ppb	19:44:28
2	Pb 220.353†	2049.2	1903.2	508.02	µg/L	508.02	ppb	19:44:28

2	S 181.975 Axial†	249.6	228.9	1002.7 µg/L	1002.7 ppb	19:44:28
2	Sb 206.836†	564.1	523.7	517.93 µg/L	517.93 ppb	19:44:28
2	Se 196.026†	358.2	333.9	516.45 µg/L	516.45 ppb	19:44:28
2	SiO2†	26483.3	24601.9	5298.2 µg/L	5298.2 ppb	19:44:07
2	Si 251.611†	31145.7	30090.4	2473.6 µg/L	2473.6 ppb	19:44:07
2	Sn 189.927†	1159.9	1133.1	521.19 µg/L	521.19 ppb	19:44:28
2	Ti 334.940†	215458.6	210206.4	505.32 µg/L	505.32 ppb	19:44:02
2	Tl 190.801†	341.6	357.7	505.37 µg/L	505.37 ppb	19:44:28
2	U 409.014†	5729.0	5646.0	510.20 µg/L	510.20 ppb	19:44:07
2	V 292.402†	47728.9	46635.3	503.28 µg/L	503.28 ppb	19:44:07
2	Zn 213.857†	20977.4	20001.8	495.95 µg/L	495.95 ppb	19:44:07
3	Sc RADIAL	57202.6	57202.6	105 %		19:42:56
3	Al 396.153Radial†	6841.2	6537.0	4863.4 µg/L	4863.4 ppb	19:43:17
3	Ca 317.933Radial†	5579.2	5143.7	4843.1 µg/L	4843.1 ppb	19:43:17
3	Fe 238.204 Radial†	619.6	576.6	4896.7 µg/L	4896.7 ppb	19:43:17
3	K 766.490 Radial†	7296.8	6833.1	4856.9 µg/L	4856.9 ppb	19:42:56
3	Mg 279.077 IEC†	570.0	532.5	4957.7 µg/L	4957.7 ppb	19:43:17
3	Na 589.592 Radial†	31651.4	29655.3	9762.6 µg/L	9762.6 ppb	19:42:56
3	Sr 421.552†	48633.6	46359.5	480.57 µg/L	480.57 ppb	19:42:56
3	Sc 361.383	1968483.8	1968483.8	103.07 %		19:44:35
3	Y 371.029	1347474.9	1347474.9	102.87 %		19:44:35
3	Ag 328.068†	60287.4	59055.9	471.87 µg/L	471.87 ppb	19:44:40
3	As 188.979†	225.2	217.3	423.99 µg/L	423.99 ppb	19:45:01
3	B 249.677†	11150.7	10487.1	456.47 µg/L	456.47 ppb	19:44:40
3	Ba 233.527†	17981.9	17472.2	455.76 µg/L	455.76 ppb	19:44:40
3	Be 313.107†	731612.9	713257.7	465.62 µg/L	465.62 ppb	19:44:35
3	Cd 226.502†	16841.2	16481.6	454.60 µg/L	454.60 ppb	19:44:40
3	Co 228.616†	9509.8	9235.4	453.92 µg/L	453.92 ppb	19:44:40
3	Cr 267.716†	20728.9	20163.7	443.80 µg/L	443.80 ppb	19:44:40
3	Cu 324.752†	69473.8	64918.0	454.15 µg/L	454.15 ppb	19:44:40
3	Mn 257.610†	141487.4	137516.4	476.65 µg/L	476.65 ppb	19:44:35
3	Mo 202.031†	4166.6	4050.0	432.41 µg/L	432.41 ppb	19:45:01
3	Ni 231.604†	8868.9	8302.5	453.46 µg/L	453.46 ppb	19:44:40
3	P 214.914†	1068.6	1009.2	2122.7 µg/L	2122.7 ppb	19:45:01
3	Pb 220.353†	1791.6	1641.0	437.94 µg/L	437.94 ppb	19:45:01
3	S 181.975 Axial†	225.5	204.0	893.82 µg/L	893.82 ppb	19:45:01
3	Sb 206.836†	488.9	447.4	442.01 µg/L	442.01 ppb	19:45:01
3	Se 196.026†	320.0	294.7	456.84 µg/L	456.84 ppb	19:45:01
3	SiO2†	24830.7	22841.0	4918.9 µg/L	4918.9 ppb	19:44:40
3	Si 251.611†	29062.2	27883.6	2292.2 µg/L	2292.2 ppb	19:44:40
3	Sn 189.927†	952.2	924.7	425.35 µg/L	425.35 ppb	19:45:01
3	Ti 334.940†	200541.4	194450.9	467.42 µg/L	467.42 ppb	19:44:35
3	Tl 190.801†	313.2	328.1	463.67 µg/L	463.67 ppb	19:45:01
3	U 409.014†	5147.7	5048.0	456.05 µg/L	456.05 ppb	19:44:40
3	V 292.402†	43287.8	42042.5	453.47 µg/L	453.47 ppb	19:44:40
3	Zn 213.857†	19269.8	18220.2	451.73 µg/L	451.73 ppb	19:44:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1976023.5	103.47	%	1.268				1.23%
Sc RADIAL	56901.9	104	%	0.8				0.74%
Y 371.029	1352072.9	103.22	%	1.285				1.25%
Ag 328.068†	61335.5	490.17	µg/L	15.926	490.17	ppb	15.926	3.25%
QC value within limits for Ag 328.068 Recovery = 98.03%								
Al 396.153Radial†	6567.5	4884.9	µg/L	53.78	4884.9	ppb	53.78	1.10%
QC value within limits for Al 396.153Radial Recovery = 97.70%								
As 188.979†	244.1	476.24	µg/L	45.784	476.24	ppb	45.784	9.61%
QC value within limits for As 188.979 Recovery = 95.25%								
B 249.677†	10952.2	476.85	µg/L	17.725	476.85	ppb	17.725	3.72%
QC value within limits for B 249.677 Recovery = 95.37%								
Ba 233.527†	18475.6	481.94	µg/L	22.693	481.94	ppb	22.693	4.71%
QC value within limits for Ba 233.527 Recovery = 96.39%								
Be 313.107†	738507.0	482.10	µg/L	17.970	482.10	ppb	17.970	3.73%
QC value within limits for Be 313.107 Recovery = 96.42%								
Ca 317.933Radial†	5154.9	4853.7	µg/L	36.83	4853.7	ppb	36.83	0.76%
QC value within limits for Ca 317.933Radial Recovery = 97.07%								
Cd 226.502†	17469.7	481.89	µg/L	23.632	481.89	ppb	23.632	4.90%
QC value within limits for Cd 226.502 Recovery = 96.38%								
Co 228.616†	9835.6	483.47	µg/L	25.623	483.47	ppb	25.623	5.30%

QC value within limits for Co 228.616 Recovery = 96.69%

Cr 267.716†	21864.1	481.23 µg/L	32.425	481.23 ppb	32.425	6.74%

QC value within limits for Cr 267.716 Recovery = 96.25%

Cu 324.752†	69032.5	482.89 µg/L	24.920	482.89 ppb	24.920	5.16%

QC value within limits for Cu 324.752 Recovery = 96.58%

Fe 238.204 Radial†	576.8	4899.0 µg/L	42.44	4899.0 ppb	42.44	0.87%

QC value within limits for Fe 238.204 Radial Recovery = 97.98%

K 766.490 Radial†	6886.6	4894.9 µg/L	59.56	4894.9 ppb	59.56	1.22%

QC value within limits for K 766.490 Radial Recovery = 97.90%

Mg 279.077 IEC†	536.3	4994.1 µg/L	36.28	4994.1 ppb	36.28	0.73%

QC value within limits for Mg 279.077 IEC Recovery = 99.88%

Mn 257.610†	142118.5	492.59 µg/L	17.923	492.59 ppb	17.923	3.64%

QC value within limits for Mn 257.610 Recovery = 98.52%

Mo 202.031†	4575.2	488.46 µg/L	48.709	488.46 ppb	48.709	9.97%

QC value within limits for Mo 202.031 Recovery = 97.69%

Na 589.592 Radial†	29816.1	9815.6 µg/L	62.45	9815.6 ppb	62.45	0.64%

QC value within limits for Na 589.592 Radial Recovery = 98.16%

Ni 231.604†	8831.8	482.37 µg/L	25.085	482.37 ppb	25.085	5.20%

QC value within limits for Ni 231.604 Recovery = 96.47%

P 214.914†	1119.8	2358.2 µg/L	204.40	2358.2 ppb	204.40	8.67%

QC value within limits for P 214.914 Recovery = 94.33%

Pb 220.353†	1800.5	480.58 µg/L	37.434	480.58 ppb	37.434	7.79%

QC value within limits for Pb 220.353 Recovery = 96.12%

S 181.975 Axial†	220.6	966.52 µg/L	62.959	966.52 ppb	62.959	6.51%

QC value within limits for S 181.975 Axial Recovery = 96.65%

Sb 206.836†	496.0	490.35 µg/L	41.996	490.35 ppb	41.996	8.56%

QC value within limits for Sb 206.836 Recovery = 98.07%

Se 196.026†	318.6	493.35 µg/L	31.983	493.35 ppb	31.983	6.48%

QC value within limits for Se 196.026 Recovery = 98.67%

SiO2†	23955.8	5159.0 µg/L	208.79	5159.0 ppb	208.79	4.05%

QC value within limits for SiO2 Recovery = 96.48%

Si 251.611†	29322.2	2410.4 µg/L	102.50	2410.4 ppb	102.50	4.25%

QC value within limits for Si 251.611 Recovery = 96.42%

Sn 189.927†	1057.2	486.29 µg/L	52.962	486.29 ppb	52.962	10.89%

QC value within limits for Sn 189.927 Recovery = 97.26%

Sr 421.552†	46593.7	483.00 µg/L	2.514	483.00 ppb	2.514	0.52%

QC value within limits for Sr 421.552 Recovery = 96.60%

Ti 334.940†	201896.6	485.33 µg/L	19.033	485.33 ppb	19.033	3.92%

QC value within limits for Ti 334.940 Recovery = 97.07%

Tl 190.801†	348.3	491.96 µg/L	24.505	491.96 ppb	24.505	4.98%

QC value within limits for Tl 190.801 Recovery = 98.39%

U 409.014†	5441.0	491.63 µg/L	30.821	491.63 ppb	30.821	6.27%

QC value within limits for U 409.014 Recovery = 98.33%

V 292.402†	45035.6	485.92 µg/L	28.129	485.92 ppb	28.129	5.79%

QC value within limits for V 292.402 Recovery = 97.18%

Zn 213.857†	19376.5	480.43 µg/L	24.881	480.43 ppb	24.881	5.18%

QC value within limits for Zn 213.857 Recovery = 96.09%

All analyte(s) passed QC.

Sequence No.: 47
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:45:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	56376.8	56376.8	103	%			19:45:43
1	Al 396.153Radial†	-19.0	-8.3	-6.1741	µg/L	-6.1741	ppb	19:45:43
1	Ca 317.933Radial†	190.5	5.3	4.9933	µg/L	4.9933	ppb	19:46:03
1	Fe 238.204 Radial†	14.9	-0.1	-0.5495	µg/L	-0.5495	ppb	19:46:03
1	K 766.490 Radial†	145.1	12.1	8.5950	µg/L	8.5950	ppb	19:45:43
1	Mg 279.077 IEC†	10.6	-1.0	-9.5449	µg/L	-9.5449	ppb	19:46:03
1	Na 589.592 Radial†	582.4	21.9	7.2091	µg/L	7.2091	ppb	19:45:43
1	Sr 421.552†	18.5	-21.6	-0.2243	µg/L	-0.2243	ppb	19:45:43
1	Sc 361.383	1992362.0	1992362.0	104.32	%			19:47:05
1	Y 371.029	1368353.4	1368353.4	104.46	%			19:47:05
1	Ag 328.068†	-598.5	-9.1	-0.0730	µg/L	-0.0730	ppb	19:47:10
1	As 188.979†	-0.0	-1.2	-2.2711	µg/L	-2.2711	ppb	19:47:31
1	B 249.677†	346.6	0.7	0.0326	µg/L	0.0326	ppb	19:47:31
1	Ba 233.527†	-24.2	2.9	0.0744	µg/L	0.0744	ppb	19:47:31
1	Be 313.107†	-3339.3	239.4	0.1563	µg/L	0.1563	ppb	19:47:10
1	Cd 226.502†	-124.4	22.9	0.6311	µg/L	0.6311	ppb	19:47:31
1	Co 228.616†	-16.5	-7.0	-0.3445	µg/L	-0.3445	ppb	19:47:31
1	Cr 267.716†	-47.2	7.2	0.1575	µg/L	0.1575	ppb	19:47:31
1	Cu 324.752†	2430.9	-155.9	-1.0892	µg/L	-1.0892	ppb	19:47:10
1	Mn 257.610†	-240.7	13.4	0.0467	µg/L	0.0467	ppb	19:47:31
1	Mo 202.031†	-8.3	-0.4	-0.0415	µg/L	-0.0415	ppb	19:47:31
1	Ni 231.604†	297.2	-17.3	-0.9473	µg/L	-0.9473	ppb	19:47:31
1	P 214.914†	35.0	6.0	12.897	µg/L	12.897	ppb	19:47:31
1	Pb 220.353†	95.0	-6.2	-1.6460	µg/L	-1.6460	ppb	19:47:31
1	S 181.975 Axial†	14.6	-0.8	-3.7140	µg/L	-3.7140	ppb	19:47:31
1	Sb 206.836†	19.5	-8.3	-8.1804	µg/L	-8.1804	ppb	19:47:31
1	Se 196.026†	15.6	-0.9	-1.2950	µg/L	-1.2950	ppb	19:47:31
1	SiO2†	1248.6	-53.2	-11.446	µg/L	-11.446	ppb	19:47:10
1	Si 251.611†	306.0	-19.6	-1.6096	µg/L	-1.6096	ppb	19:47:31
1	Sn 189.927†	-6.1	-5.0	-2.2944	µg/L	-2.2944	ppb	19:47:31
1	Ti 334.940†	214.1	89.1	0.2152	µg/L	0.2152	ppb	19:47:10
1	Tl 190.801†	-21.4	3.7	5.2299	µg/L	5.2299	ppb	19:47:31
1	U 409.014†	10.3	63.5	5.7486	µg/L	5.7486	ppb	19:47:10
1	V 292.402†	-52.5	-6.1	-0.0596	µg/L	-0.0596	ppb	19:47:10
1	Zn 213.857†	478.7	-16.6	-0.4092	µg/L	-0.4092	ppb	19:47:31
2	Sc RADIAL	56044.6	56044.6	103	%			19:46:09
2	Al 396.153Radial†	-6.3	4.0	2.9768	µg/L	2.9768	ppb	19:46:09
2	Ca 317.933Radial†	183.8	-0.2	-0.1847	µg/L	-0.1847	ppb	19:46:29
2	Fe 238.204 Radial†	14.3	-0.6	-4.7213	µg/L	-4.7213	ppb	19:46:29
2	K 766.490 Radial†	167.1	34.3	24.398	µg/L	24.398	ppb	19:46:09
2	Mg 279.077 IEC†	11.1	-0.4	-4.0659	µg/L	-4.0659	ppb	19:46:29
2	Na 589.592 Radial†	618.2	60.1	19.792	µg/L	19.792	ppb	19:46:09
2	Sr 421.552†	69.0	27.6	0.2866	µg/L	0.2866	ppb	19:46:09
2	Sc 361.383	1989518.4	1989518.4	104.17	%			19:47:37
2	Y 371.029	1365606.7	1365606.7	104.25	%			19:47:37
2	Ag 328.068†	-547.2	39.3	0.3111	µg/L	0.3111	ppb	19:47:43
2	As 188.979†	-3.9	-4.9	-9.5988	µg/L	-9.5988	ppb	19:48:03
2	B 249.677†	322.6	-21.8	-0.9478	µg/L	-0.9478	ppb	19:48:03
2	Ba 233.527†	-14.9	11.7	0.3048	µg/L	0.3048	ppb	19:48:03
2	Be 313.107†	-3365.6	209.6	0.1369	µg/L	0.1369	ppb	19:47:43
2	Cd 226.502†	-135.4	12.1	0.3352	µg/L	0.3352	ppb	19:48:03
2	Co 228.616†	-12.8	-3.4	-0.1669	µg/L	-0.1669	ppb	19:48:03
2	Cr 267.716†	-34.1	19.6	0.4310	µg/L	0.4310	ppb	19:48:03
2	Cu 324.752†	2392.5	-189.4	-1.3239	µg/L	-1.3239	ppb	19:47:43
2	Mn 257.610†	-233.6	19.8	0.0682	µg/L	0.0682	ppb	19:48:03
2	Mo 202.031†	1.3	8.8	0.9388	µg/L	0.9388	ppb	19:48:03
2	Ni 231.604†	308.4	-6.2	-0.3371	µg/L	-0.3371	ppb	19:48:03
2	P 214.914†	38.1	8.9	19.315	µg/L	19.315	ppb	19:48:03
2	Pb 220.353†	86.4	-14.2	-3.7968	µg/L	-3.7968	ppb	19:48:03

2	S 181.975 Axial†	18.4	2.9	12.528 µg/L	12.528 ppb	19:48:03
2	Sb 206.836†	29.9	1.8	1.7421 µg/L	1.7421 ppb	19:48:03
2	Se 196.026†	17.4	0.9	1.3573 µg/L	1.3573 ppb	19:48:03
2	SiO2†	1243.9	-56.0	-12.052 µg/L	-12.052 ppb	19:47:43
2	Si 251.611†	297.9	-26.9	-2.2125 µg/L	-2.2125 ppb	19:48:03
2	Sn 189.927†	-3.7	-2.7	-1.2451 µg/L	-1.2451 ppb	19:48:03
2	Ti 334.940†	113.7	-7.0	-0.0165 µg/L	-0.0165 ppb	19:47:43
2	Tl 190.801†	-21.7	3.4	4.7734 µg/L	4.7734 ppb	19:48:03
2	U 409.014†	-37.3	17.8	1.6161 µg/L	1.6161 ppb	19:47:43
2	V 292.402†	-50.7	-4.5	-0.0381 µg/L	-0.0381 ppb	19:47:43
2	Zn 213.857†	476.3	-18.3	-0.4528 µg/L	-0.4528 ppb	19:48:03
3	Sc RADIAL	56131.1	56131.1	103 %		19:46:34
3	Al 396.153Radial†	10.7	20.5	15.284 µg/L	15.284 ppb	19:46:34
3	Ca 317.933Radial†	181.6	-2.5	-2.4004 µg/L	-2.4004 ppb	19:46:55
3	Fe 238.204 Radial†	13.6	-1.3	-10.669 µg/L	-10.669 ppb	19:46:55
3	K 766.490 Radial†	173.8	40.6	28.846 µg/L	28.846 ppb	19:46:34
3	Mg 279.077 IEC†	10.5	-1.0	-9.5132 µg/L	-9.5132 ppb	19:46:55
3	Na 589.592 Radial†	587.6	29.4	9.6947 µg/L	9.6947 ppb	19:46:34
3	Sr 421.552†	41.1	0.4	0.0044 µg/L	0.0044 ppb	19:46:34
3	Sc 361.383	1993278.2	1993278.2	104.37 %		19:48:09
3	Y 371.029	1367625.5	1367625.5	104.41 %		19:48:09
3	Ag 328.068†	-556.8	31.0	0.2472 µg/L	0.2472 ppb	19:48:15
3	As 188.979†	0.5	-0.7	-1.3924 µg/L	-1.3924 ppb	19:48:35
3	B 249.677†	311.8	-32.7	-1.4217 µg/L	-1.4217 ppb	19:48:35
3	Ba 233.527†	-24.9	2.1	0.0565 µg/L	0.0565 ppb	19:48:35
3	Be 313.107†	-3343.9	236.6	0.1544 µg/L	0.1544 ppb	19:48:15
3	Cd 226.502†	-139.6	8.3	0.2308 µg/L	0.2308 ppb	19:48:35
3	Co 228.616†	-13.5	-4.1	-0.2026 µg/L	-0.2026 ppb	19:48:35
3	Cr 267.716†	-29.8	23.8	0.5241 µg/L	0.5241 ppb	19:48:35
3	Cu 324.752†	2398.4	-188.1	-1.3155 µg/L	-1.3155 ppb	19:48:15
3	Mn 257.610†	-235.9	18.1	0.0616 µg/L	0.0616 ppb	19:48:35
3	Mo 202.031†	-7.4	0.5	0.0513 µg/L	0.0513 ppb	19:48:35
3	Ni 231.604†	308.0	-7.0	-0.3852 µg/L	-0.3852 ppb	19:48:35
3	P 214.914†	25.9	-2.8	-5.9057 µg/L	-5.9057 ppb	19:48:35
3	Pb 220.353†	95.4	-5.8	-1.5343 µg/L	-1.5343 ppb	19:48:35
3	S 181.975 Axial†	16.1	0.6	2.8080 µg/L	2.8080 ppb	19:48:35
3	Sb 206.836†	23.7	-4.2	-4.1849 µg/L	-4.1849 ppb	19:48:35
3	Se 196.026†	19.8	3.2	4.8107 µg/L	4.8107 ppb	19:48:35
3	SiO2†	1250.9	-51.4	-11.079 µg/L	-11.079 ppb	19:48:15
3	Si 251.611†	298.1	-27.3	-2.2426 µg/L	-2.2426 ppb	19:48:35
3	Sn 189.927†	2.3	3.1	1.4084 µg/L	1.4084 ppb	19:48:35
3	Ti 334.940†	175.4	51.9	0.1256 µg/L	0.1256 ppb	19:48:15
3	Tl 190.801†	-26.8	-1.4	-1.9510 µg/L	-1.9510 ppb	19:48:35
3	U 409.014†	-48.8	6.9	0.6237 µg/L	0.6237 ppb	19:48:15
3	V 292.402†	-16.2	28.7	0.3071 µg/L	0.3071 ppb	19:48:15
3	Zn 213.857†	476.7	-18.8	-0.4644 µg/L	-0.4644 ppb	19:48:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1991719.6	104.29	%	0.103				0.10%
Sc RADIAL	56184.2	103	%	0.3				0.31%
Y 371.029	1367195.2	104.37	%	0.109				0.10%
Ag 328.068†	20.4	0.1617	µg/L	0.20583	0.1617	ppb	0.20583	127.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	4.0289	µg/L	10.76761	4.0289	ppb	10.76761	267.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-4.4208	µg/L	4.50578	-4.4208	ppb	4.50578	101.92%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.9	-0.7790	µg/L	0.74170	-0.7790	ppb	0.74170	95.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.6	0.1452	µg/L	0.13851	0.1452	ppb	0.13851	95.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	228.6	0.1492	µg/L	0.01069	0.1492	ppb	0.01069	7.17%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	0.8027	µg/L	3.79444	0.8027	ppb	3.79444	472.69%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.5	0.3990	µg/L	0.20768	0.3990	ppb	0.20768	52.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-4.8	-0.2380	µg/L	0.09392	-0.2380	ppb	0.09392	39.46%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	16.9	0.3709 µg/L	0.19057	0.3709 ppb	0.19057	51.38%

QC value within limits for Cr 267.716 Recovery = Not calculated

Cu 324.752†	-177.8	-1.2429 µg/L	0.13310	-1.2429 ppb	0.13310	10.71%

QC value within limits for Cu 324.752 Recovery = Not calculated

Fe 238.204 Radial†	-0.6	-5.3132 µg/L	5.08561	-5.3132 ppb	5.08561	95.72%

QC value within limits for Fe 238.204 Radial Recovery = Not calculated

K 766.490 Radial†	29.0	20.613 µg/L	10.6427	20.613 ppb	10.6427	51.63%

QC value within limits for K 766.490 Radial Recovery = Not calculated

Mg 279.077 IEC†	-0.8	-7.7080 µg/L	3.15418	-7.7080 ppb	3.15418	40.92%

QC value within limits for Mg 279.077 IEC Recovery = Not calculated

Mn 257.610†	17.1	0.0589 µg/L	0.01100	0.0589 ppb	0.01100	18.69%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031†	3.0	0.3162 µg/L	0.54117	0.3162 ppb	0.54117	171.13%

QC value within limits for Mo 202.031 Recovery = Not calculated

Na 589.592 Radial†	37.2	12.232 µg/L	6.6641	12.232 ppb	6.6641	54.48%

QC value within limits for Na 589.592 Radial Recovery = Not calculated

Ni 231.604†	-10.2	-0.5566 µg/L	0.33928	-0.5566 ppb	0.33928	60.96%

QC value within limits for Ni 231.604 Recovery = Not calculated

P 214.914†	4.0	8.7689 µg/L	13.10740	8.7689 ppb	13.10740	149.48%

QC value within limits for P 214.914 Recovery = Not calculated

Pb 220.353†	-8.7	-2.3257 µg/L	1.27525	-2.3257 ppb	1.27525	54.83%

QC value within limits for Pb 220.353 Recovery = Not calculated

S 181.975 Axial†	0.9	3.8739 µg/L	8.17318	3.8739 ppb	8.17318	210.98%

QC value within limits for S 181.975 Axial Recovery = Not calculated

Sb 206.836†	-3.6	-3.5411 µg/L	4.99248	-3.5411 ppb	4.99248	140.99%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026†	1.1	1.6243 µg/L	3.06159	1.6243 ppb	3.06159	188.48%

QC value within limits for Se 196.026 Recovery = Not calculated

SiO2†	-53.5	-11.526 µg/L	0.4912	-11.526 ppb	0.4912	4.26%

QC value within limits for SiO2 Recovery = Not calculated

Si 251.611†	-24.6	-2.0216 µg/L	0.35706	-2.0216 ppb	0.35706	17.66%

QC value within limits for Si 251.611 Recovery = Not calculated

Sn 189.927†	-1.5	-0.7104 µg/L	1.90848	-0.7104 ppb	1.90848	268.66%

QC value within limits for Sn 189.927 Recovery = Not calculated

Sr 421.552†	2.1	0.0222 µg/L	0.25591	0.0222 ppb	0.25591	>999.9%

QC value within limits for Sr 421.552 Recovery = Not calculated

Ti 334.940†	44.7	0.1081 µg/L	0.11683	0.1081 ppb	0.11683	108.05%

QC value within limits for Ti 334.940 Recovery = Not calculated

Tl 190.801†	1.9	2.6841 µg/L	4.02062	2.6841 ppb	4.02062	149.79%

QC value within limits for Tl 190.801 Recovery = Not calculated

U 409.014†	29.4	2.6628 µg/L	2.71803	2.6628 ppb	2.71803	102.07%

QC value within limits for U 409.014 Recovery = Not calculated

V 292.402†	6.0	0.0698 µg/L	0.20578	0.0698 ppb	0.20578	294.74%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 213.857†	-17.9	-0.4421 µg/L	0.02911	-0.4421 ppb	0.02911	6.58%

QC value within limits for Zn 213.857 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 50
Sample ID: 245965001|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 338
Date Collected: 2/11/2010 19:55:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245965001|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	55818.6	55818.6	102	%			19:56:32
1	Al 396.153Radial†	-3.4	6.8	5.0697	µg/L	5.0697	ppb	19:56:32
1	Ca 317.933Radial†	214.5	30.5	28.739	µg/L	28.739	ppb	19:56:52
1	Fe 238.204 Radial†	14.6	-0.2	-2.0255	µg/L	-2.0255	ppb	19:56:52
1	K 766.490 Radial†	371.1	234.4	166.64	µg/L	166.64	ppb	19:56:32
1	Mg 279.077 IEC†	12.7	1.2	10.726	µg/L	10.726	ppb	19:56:52
1	Na 589.592 Radial†	887.6	325.9	107.28	µg/L	107.28	ppb	19:56:32
1	Sr 421.552†	30.8	-9.5	-0.0981	µg/L	-0.0981	ppb	19:56:32
1	Sc 361.383	1971948.8	1971948.8	103.25	%			19:57:54
1	Y 371.029	1350291.8	1350291.8	103.08	%			19:57:54
1	Ag 328.068†	-484.1	95.7	0.7598	µg/L	0.7598	ppb	19:58:00
1	As 188.979†	4.1	2.8	5.5565	µg/L	5.5565	ppb	19:58:20
1	B 249.677†	710.6	356.8	15.594	µg/L	15.594	ppb	19:58:00
1	Ba 233.527†	-12.9	13.5	0.3520	µg/L	0.3520	ppb	19:58:20
1	Be 313.107†	-3562.3	-9.7	-0.0065	µg/L	-0.0065	ppb	19:58:00
1	Cd 226.502†	-145.9	0.8	0.0221	µg/L	0.0221	ppb	19:58:20
1	Co 228.616†	-12.7	-3.5	-0.1705	µg/L	-0.1705	ppb	19:58:20
1	Cr 267.716†	-35.0	18.5	0.4067	µg/L	0.4067	ppb	19:58:20
1	Cu 324.752†	2514.8	-50.5	-0.3528	µg/L	-0.3528	ppb	19:58:00
1	Mn 257.610†	-139.4	109.1	0.3770	µg/L	0.3770	ppb	19:58:20
1	Mo 202.031†	-6.0	1.8	0.1899	µg/L	0.1899	ppb	19:58:20
1	Ni 231.604†	295.7	-15.8	-0.8620	µg/L	-0.8620	ppb	19:58:20
1	P 214.914†	23.8	-4.6	-9.7304	µg/L	-9.7304	ppb	19:58:20
1	Pb 220.353†	93.0	-7.1	-1.8988	µg/L	-1.8988	ppb	19:58:20
1	S 181.975 Axial†	25.4	9.8	43.035	µg/L	43.035	ppb	19:58:20
1	Sb 206.836†	23.0	-4.7	-4.5815	µg/L	-4.5815	ppb	19:58:20
1	Se 196.026†	15.7	-0.7	-1.0348	µg/L	-1.0348	ppb	19:58:20
1	SiO2†	14682.9	12970.5	2793.3	µg/L	2793.3	ppb	19:58:00
1	Si 251.611†	16635.9	15799.0	1298.8	µg/L	1298.8	ppb	19:58:00
1	Sn 189.927†	-0.2	0.7	0.3022	µg/L	0.3022	ppb	19:58:20
1	Ti 334.940†	278.9	154.0	0.3701	µg/L	0.3701	ppb	19:58:00
1	Tl 190.801†	-24.0	1.0	1.4421	µg/L	1.4421	ppb	19:58:20
1	U 409.014†	-83.4	-27.2	-2.4610	µg/L	-2.4610	ppb	19:58:00
1	V 292.402†	-38.2	7.2	0.0760	µg/L	0.0760	ppb	19:58:00
1	Zn 213.857†	537.2	44.7	1.1202	µg/L	1.1202	ppb	19:58:20
2	Sc RADIAL	56239.5	56239.5	103	%			19:56:58
2	Al 396.153Radial†	-9.5	0.9	0.6781	µg/L	0.6781	ppb	19:56:58
2	Ca 317.933Radial†	220.2	34.5	32.480	µg/L	32.480	ppb	19:57:18
2	Fe 238.204 Radial†	20.5	5.4	45.767	µg/L	45.767	ppb	19:57:18
2	K 766.490 Radial†	377.7	238.1	169.24	µg/L	169.24	ppb	19:56:58
2	Mg 279.077 IEC†	15.4	3.7	34.346	µg/L	34.346	ppb	19:57:18
2	Na 589.592 Radial†	881.6	313.6	103.25	µg/L	103.25	ppb	19:56:58
2	Sr 421.552†	20.4	-19.8	-0.2050	µg/L	-0.2050	ppb	19:56:58
2	Sc 361.383	1987485.5	1987485.5	104.07	%			19:58:26
2	Y 371.029	1360766.6	1360766.6	103.88	%			19:58:26
2	Ag 328.068†	-550.3	35.7	0.2854	µg/L	0.2854	ppb	19:58:32
2	As 188.979†	-1.9	-3.0	-5.8079	µg/L	-5.8079	ppb	19:58:52
2	B 249.677†	700.3	341.5	14.900	µg/L	14.900	ppb	19:58:32
2	Ba 233.527†	-20.8	6.0	0.1572	µg/L	0.1572	ppb	19:58:52
2	Be 313.107†	-3376.1	196.2	0.1280	µg/L	0.1280	ppb	19:58:32
2	Cd 226.502†	-135.7	11.7	0.3183	µg/L	0.3183	ppb	19:58:52
2	Co 228.616†	-6.5	2.6	0.1279	µg/L	0.1279	ppb	19:58:52
2	Cr 267.716†	-27.3	26.2	0.5754	µg/L	0.5754	ppb	19:58:52
2	Cu 324.752†	2495.3	-88.3	-0.6102	µg/L	-0.6102	ppb	19:58:32
2	Mn 257.610†	-155.0	95.2	0.3343	µg/L	0.3343	ppb	19:58:52
2	Mo 202.031†	-5.8	2.0	0.2113	µg/L	0.2113	ppb	19:58:52
2	Ni 231.604†	305.2	-8.9	-0.4876	µg/L	-0.4876	ppb	19:58:52
2	P 214.914†	32.8	3.9	8.3615	µg/L	8.3615	ppb	19:58:52
2	Pb 220.353†	97.2	-3.8	-1.0168	µg/L	-1.0168	ppb	19:58:52

2	S 181.975 Axial†	26.6	10.8	47.257 µg/L	47.257 ppb	19:58:52
2	Sb 206.836†	21.6	-6.2	-6.0712 µg/L	-6.0712 ppb	19:58:52
2	Se 196.026†	10.3	-5.9	-8.9664 µg/L	-8.9664 ppb	19:58:52
2	SiO2†	14407.3	12594.4	2712.3 µg/L	2712.3 ppb	19:58:32
2	Si 251.611†	16336.4	15385.3	1264.7 µg/L	1264.7 ppb	19:58:32
2	Sn 189.927†	0.7	1.5	0.6987 µg/L	0.6987 ppb	19:58:52
2	Ti 334.940†	230.2	105.1	0.2505 µg/L	0.2505 ppb	19:58:32
2	Tl 190.801†	-27.4	-2.0	-2.8378 µg/L	-2.8378 ppb	19:58:52
2	U 409.014†	-15.9	38.3	3.4597 µg/L	3.4597 ppb	19:58:32
2	V 292.402†	-63.0	-16.3	-0.1621 µg/L	-0.1621 ppb	19:58:32
2	Zn 213.857†	539.0	42.4	1.0584 µg/L	1.0584 ppb	19:58:52
3	Sc RADIAL	56774.7	56774.7	104 %		19:57:24
3	Al 396.153Radial†	-2.1	8.1	6.0330 µg/L	6.0330 ppb	19:57:24
3	Ca 317.933Radial†	216.2	28.7	26.996 µg/L	26.996 ppb	19:57:44
3	Fe 238.204 Radial†	17.0	1.9	15.817 µg/L	15.817 ppb	19:57:44
3	K 766.490 Radial†	361.9	219.5	156.01 µg/L	156.01 ppb	19:57:24
3	Mg 279.077 IEC†	14.7	2.9	26.721 µg/L	26.721 ppb	19:57:44
3	Na 589.592 Radial†	850.9	276.1	90.884 µg/L	90.884 ppb	19:57:24
3	Sr 421.552†	50.4	8.9	0.0925 µg/L	0.0925 ppb	19:57:24
3	Sc 361.383	1981613.8	1981613.8	103.76 %		19:58:58
3	Y 371.029	1357539.9	1357539.9	103.64 %		19:58:58
3	Ag 328.068†	-478.4	103.5	0.8213 µg/L	0.8213 ppb	19:59:04
3	As 188.979†	-2.5	-3.5	-6.8823 µg/L	-6.8823 ppb	19:59:24
3	B 249.677†	666.4	310.8	13.575 µg/L	13.575 ppb	19:59:04
3	Ba 233.527†	-12.6	13.9	0.3612 µg/L	0.3612 ppb	19:59:24
3	Be 313.107†	-3441.4	123.7	0.0807 µg/L	0.0807 ppb	19:59:04
3	Cd 226.502†	-149.8	-2.2	-0.0638 µg/L	-0.0638 ppb	19:59:24
3	Co 228.616†	-19.4	-9.9	-0.4852 µg/L	-0.4852 ppb	19:59:24
3	Cr 267.716†	-24.6	28.6	0.6299 µg/L	0.6299 ppb	19:59:24
3	Cu 324.752†	2470.1	-105.5	-0.7344 µg/L	-0.7344 ppb	19:59:04
3	Mn 257.610†	-165.0	85.1	0.2956 µg/L	0.2956 ppb	19:59:24
3	Mo 202.031†	-4.4	3.3	0.3577 µg/L	0.3577 ppb	19:59:24
3	Ni 231.604†	306.9	-6.4	-0.3504 µg/L	-0.3504 ppb	19:59:24
3	P 214.914†	30.5	1.7	3.7771 µg/L	3.7771 ppb	19:59:24
3	Pb 220.353†	96.7	-4.0	-1.0578 µg/L	-1.0578 ppb	19:59:24
3	S 181.975 Axial†	19.5	4.0	17.559 µg/L	17.559 ppb	19:59:24
3	Sb 206.836†	20.4	-7.3	-7.2101 µg/L	-7.2101 ppb	19:59:24
3	Se 196.026†	20.0	3.5	5.3109 µg/L	5.3109 ppb	19:59:24
3	SiO2†	14093.7	12333.2	2656.0 µg/L	2656.0 ppb	19:59:04
3	Si 251.611†	16003.4	15110.9	1242.2 µg/L	1242.2 ppb	19:59:04
3	Sn 189.927†	-0.4	0.5	0.2467 µg/L	0.2467 ppb	19:59:24
3	Ti 334.940†	161.3	39.3	0.0929 µg/L	0.0929 ppb	19:59:04
3	Tl 190.801†	-23.1	2.1	2.8824 µg/L	2.8824 ppb	19:59:24
3	U 409.014†	-71.2	-15.0	-1.3618 µg/L	-1.3618 ppb	19:59:04
3	V 292.402†	-59.1	-12.8	-0.1316 µg/L	-0.1316 ppb	19:59:04
3	Zn 213.857†	520.5	26.1	0.6520 µg/L	0.6520 ppb	19:59:24

Mean Data: 245965001|948737|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1980349.4	103.69	%	0.411				0.40%
Sc RADIAL	56277.6	103	%	0.9				0.85%
Y 371.029	1356199.5	103.53	%	0.410				0.40%
Ag 328.068†	78.3	0.6221	µg/L	0.29329	0.6221	ppb	0.29329	47.14%
Al 396.153Radial†	5.3	3.9269	µg/L	2.85448	3.9269	ppb	2.85448	72.69%
As 188.979†	-1.2	-2.3779	µg/L	6.89237	-2.3779	ppb	6.89237	289.85%
B 249.677†	336.3	14.690	µg/L	1.0257	14.690	ppb	1.0257	6.98%
Ba 233.527†	11.1	0.2901	µg/L	0.11523	0.2901	ppb	0.11523	39.72%
Be 313.107†	103.4	0.0674	µg/L	0.06824	0.0674	ppb	0.06824	101.19%
Ca 317.933Radial†	31.2	29.405	µg/L	2.8024	29.405	ppb	2.8024	9.53%
Cd 226.502†	3.4	0.0922	µg/L	0.20045	0.0922	ppb	0.20045	217.46%
Co 228.616†	-3.6	-0.1759	µg/L	0.30657	-0.1759	ppb	0.30657	174.27%
Cr 267.716†	24.4	0.5373	µg/L	0.11639	0.5373	ppb	0.11639	21.66%
Cu 324.752†	-81.4	-0.5658	µg/L	0.19463	-0.5658	ppb	0.19463	34.40%
Fe 238.204 Radial†	2.3	19.853	µg/L	24.1502	19.853	ppb	24.1502	121.65%
K 766.490 Radial†	230.7	163.96	µg/L	7.006	163.96	ppb	7.006	4.27%
Mg 279.077 IEC†	2.6	23.931	µg/L	12.0543	23.931	ppb	12.0543	50.37%
Mn 257.610†	96.4	0.3356	µg/L	0.04069	0.3356	ppb	0.04069	12.12%
Mo 202.031†	2.4	0.2529	µg/L	0.09132	0.2529	ppb	0.09132	36.10%
Na 589.592 Radial†	305.2	100.47	µg/L	8.546	100.47	ppb	8.546	8.51%

Ni 231.604†	-10.4	-0.5667 µg/L	0.26478	-0.5667 ppb	0.26478	46.72%
P 214.914†	0.4	0.8027 µg/L	9.40557	0.8027 ppb	9.40557	>999.9%
Pb 220.353†	-5.0	-1.3244 µg/L	0.49781	-1.3244 ppb	0.49781	37.59%
S 181.975 Axial†	8.2	35.951 µg/L	16.0665	35.951 ppb	16.0665	44.69%
Sb 206.836†	-6.0	-5.9542 µg/L	1.31818	-5.9542 ppb	1.31818	22.14%
Se 196.026†	-1.0	-1.5634 µg/L	7.15332	-1.5634 ppb	7.15332	457.55%
SiO2†	12632.7	2720.5 µg/L	68.99	2720.5 ppb	68.99	2.54%
Si 251.611†	15431.7	1268.6 µg/L	28.48	1268.6 ppb	28.48	2.24%
Sn 189.927†	0.9	0.4159 µg/L	0.24652	0.4159 ppb	0.24652	59.28%
Sr 421.552†	-6.8	-0.0702 µg/L	0.15074	-0.0702 ppb	0.15074	214.71%
Ti 334.940†	99.5	0.2378 µg/L	0.13902	0.2378 ppb	0.13902	58.45%
Tl 190.801†	0.4	0.4956 µg/L	2.97526	0.4956 ppb	2.97526	600.39%
U 409.014†	-1.3	-0.1210 µg/L	3.14934	-0.1210 ppb	3.14934	>999.9%
V 292.402†	-7.3	-0.0725 µg/L	0.12957	-0.0725 ppb	0.12957	178.61%
Zn 213.857†	37.7	0.9435 µg/L	0.25437	0.9435 ppb	0.25437	26.96%

Sequence No.: 53
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 20:06:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56942.5	56942.5	104	%			20:07:20
1	Al 396.153Radial†	6750.2	6479.6	4819.0	µg/L	4819.0	ppb	20:07:41
1	Ca 317.933Radial†	5453.5	5047.5	4752.6	µg/L	4752.6	ppb	20:07:41
1	Fe 238.204 Radial†	600.4	561.0	4764.9	µg/L	4764.9	ppb	20:07:41
1	K 766.490 Radial†	7140.8	6715.4	4773.3	µg/L	4773.3	ppb	20:07:20
1	Mg 279.077 IEC†	558.8	524.3	4882.8	µg/L	4882.8	ppb	20:07:41
1	Na 589.592 Radial†	31379.2	29532.3	9722.1	µg/L	9722.1	ppb	20:07:20
1	Sr 421.552†	47923.4	45890.8	475.71	µg/L	475.71	ppb	20:07:20
1	Sc 361.383	1997110.3	1997110.3	104.57	%			20:08:44
1	Y 371.029	1366245.8	1366245.8	104.30	%			20:08:44
1	Ag 328.068†	63028.6	60838.9	486.24	µg/L	486.24	ppb	20:08:50
1	As 188.979†	264.1	251.4	490.37	µg/L	490.37	ppb	20:09:10
1	B 249.677†	11700.4	10857.6	472.80	µg/L	472.80	ppb	20:08:50
1	Ba 233.527†	19297.5	18480.3	482.07	µg/L	482.07	ppb	20:08:50
1	Be 313.107†	767522.7	737423.7	481.39	µg/L	481.39	ppb	20:08:44
1	Cd 226.502†	18128.7	17478.6	482.15	µg/L	482.15	ppb	20:08:50
1	Co 228.616†	10328.3	9885.8	485.96	µg/L	485.96	ppb	20:08:50
1	Cr 267.716†	23066.4	22110.8	486.65	µg/L	486.65	ppb	20:08:50
1	Cu 324.752†	74922.7	69162.6	483.78	µg/L	483.78	ppb	20:08:50
1	Mn 257.610†	148210.1	141977.7	492.09	µg/L	492.09	ppb	20:08:44
1	Mo 202.031†	4970.4	4760.7	508.25	µg/L	508.25	ppb	20:09:10
1	Ni 231.604†	9599.0	8877.3	484.85	µg/L	484.85	ppb	20:08:50
1	P 214.914†	1239.8	1158.0	2440.4	µg/L	2440.4	ppb	20:09:10
1	Pb 220.353†	2032.4	1846.4	492.88	µg/L	492.88	ppb	20:09:10
1	S 181.975 Axial†	252.7	226.8	993.68	µg/L	993.68	ppb	20:09:10
1	Sb 206.836†	559.2	507.8	502.18	µg/L	502.18	ppb	20:09:10
1	Se 196.026†	353.9	322.6	499.11	µg/L	499.11	ppb	20:09:10
1	SiO2†	26266.3	23868.5	5140.2	µg/L	5140.2	ppb	20:08:50
1	Si 251.611†	30881.9	29219.5	2402.0	µg/L	2402.0	ppb	20:08:50
1	Sn 189.927†	1160.9	1111.0	511.04	µg/L	511.04	ppb	20:09:10
1	Ti 334.940†	211075.5	201735.7	484.95	µg/L	484.95	ppb	20:08:44
1	Tl 190.801†	335.9	345.5	488.04	µg/L	488.04	ppb	20:09:10
1	U 409.014†	5659.0	5465.3	493.86	µg/L	493.86	ppb	20:08:50
1	V 292.402†	47264.8	45243.6	488.29	µg/L	488.29	ppb	20:08:50
1	Zn 213.857†	20837.6	19451.4	482.30	µg/L	482.30	ppb	20:08:50
2	Sc RADIAL	56409.7	56409.7	103	%			20:07:46
2	Al 396.153Radial†	6758.8	6549.0	4870.9	µg/L	4870.9	ppb	20:08:07
2	Ca 317.933Radial†	5494.9	5136.9	4836.7	µg/L	4836.7	ppb	20:08:07
2	Fe 238.204 Radial†	605.0	570.8	4848.5	µg/L	4848.5	ppb	20:08:07
2	K 766.490 Radial†	7175.4	6813.5	4843.0	µg/L	4843.0	ppb	20:07:46
2	Mg 279.077 IEC†	565.5	535.8	4989.7	µg/L	4989.7	ppb	20:08:07
2	Na 589.592 Radial†	31167.2	29611.2	9748.1	µg/L	9748.1	ppb	20:07:46
2	Sr 421.552†	47693.8	46102.5	477.91	µg/L	477.91	ppb	20:07:46
2	Sc 361.383	1996473.0	1996473.0	104.54	%			20:09:17
2	Y 371.029	1365976.8	1365976.8	104.28	%			20:09:17
2	Ag 328.068†	63356.2	61171.5	488.90	µg/L	488.90	ppb	20:09:23
2	As 188.979†	265.4	252.7	492.96	µg/L	492.96	ppb	20:09:43
2	B 249.677†	11790.3	10947.2	476.67	µg/L	476.67	ppb	20:09:23
2	Ba 233.527†	19374.2	18559.5	484.14	µg/L	484.14	ppb	20:09:23
2	Be 313.107†	761432.1	731831.7	477.74	µg/L	477.74	ppb	20:09:17
2	Cd 226.502†	18272.2	17621.4	486.09	µg/L	486.09	ppb	20:09:23
2	Co 228.616†	10339.5	9899.7	486.64	µg/L	486.64	ppb	20:09:23
2	Cr 267.716†	23187.0	22233.3	489.35	µg/L	489.35	ppb	20:09:23
2	Cu 324.752†	75285.0	69532.0	486.37	µg/L	486.37	ppb	20:09:23
2	Mn 257.610†	147018.2	140882.8	488.30	µg/L	488.30	ppb	20:09:17
2	Mo 202.031†	4907.1	4701.7	501.95	µg/L	501.95	ppb	20:09:43
2	Ni 231.604†	9622.8	8903.0	486.25	µg/L	486.25	ppb	20:09:23
2	P 214.914†	1220.2	1139.7	2400.7	µg/L	2400.7	ppb	20:09:43
2	Pb 220.353†	2020.4	1835.5	489.96	µg/L	489.96	ppb	20:09:43

2	S 181.975 Axial†	249.1	223.5	979.20 µg/L	979.20 ppb	20:09:43
2	Sb 206.836†	560.4	509.1	503.33 µg/L	503.33 ppb	20:09:43
2	Se 196.026†	351.0	319.9	495.14 µg/L	495.14 ppb	20:09:43
2	SiO2†	26327.8	23935.4	5154.6 µg/L	5154.6 ppb	20:09:23
2	Si 251.611†	31017.5	29358.7	2413.4 µg/L	2413.4 ppb	20:09:23
2	Sn 189.927†	1146.8	1097.9	505.00 µg/L	505.00 ppb	20:09:43
2	Ti 334.940†	209321.5	200122.3	481.06 µg/L	481.06 ppb	20:09:17
2	Tl 190.801†	343.4	352.8	498.21 µg/L	498.21 ppb	20:09:43
2	U 409.014†	5590.8	5401.8	488.10 µg/L	488.10 ppb	20:09:23
2	V 292.402†	47490.4	45473.8	490.70 µg/L	490.70 ppb	20:09:23
2	Zn 213.857†	20893.3	19511.1	483.77 µg/L	483.77 ppb	20:09:23
3	Sc RADIAL	57472.2	57472.2	105 %		20:08:12
3	Al 396.153Radial†	6740.6	6410.8	4769.5 µg/L	4769.5 ppb	20:08:33
3	Ca 317.933Radial†	5456.3	5002.0	4709.7 µg/L	4709.7 ppb	20:08:33
3	Fe 238.204 Radial†	608.4	563.2	4782.9 µg/L	4782.9 ppb	20:08:33
3	K 766.490 Radial†	7228.0	6735.1	4787.3 µg/L	4787.3 ppb	20:08:12
3	Mg 279.077 IEC†	560.3	520.7	4848.2 µg/L	4848.2 ppb	20:08:33
3	Na 589.592 Radial†	31427.6	29301.1	9646.0 µg/L	9646.0 ppb	20:08:12
3	Sr 421.552†	48320.2	45844.2	475.23 µg/L	475.23 ppb	20:08:12
3	Sc 361.383	1990939.7	1990939.7	104.25 %		20:09:51
3	Y 371.029	1362789.8	1362789.8	104.04 %		20:09:51
3	Ag 328.068†	59813.6	57941.7	462.97 µg/L	462.97 ppb	20:09:56
3	As 188.979†	228.8	218.3	425.89 µg/L	425.89 ppb	20:10:17
3	B 249.677†	11049.5	10268.0	446.94 µg/L	446.94 ppb	20:09:56
3	Ba 233.527†	17851.9	17150.7	447.37 µg/L	447.37 ppb	20:09:56
3	Be 313.107†	719449.8	693583.9	452.78 µg/L	452.78 ppb	20:09:51
3	Cd 226.502†	16778.6	16237.3	447.87 µg/L	447.87 ppb	20:09:56
3	Co 228.616†	9445.5	9069.5	445.78 µg/L	445.78 ppb	20:09:56
3	Cr 267.716†	20616.8	19829.4	436.45 µg/L	436.45 ppb	20:09:56
3	Cu 324.752†	68837.1	63547.0	444.55 µg/L	444.55 ppb	20:09:56
3	Mn 257.610†	138989.4	133571.8	462.98 µg/L	462.98 ppb	20:09:51
3	Mo 202.031†	4137.7	3976.7	424.58 µg/L	424.58 ppb	20:10:17
3	Ni 231.604†	8822.5	8161.0	445.73 µg/L	445.73 ppb	20:09:56
3	P 214.914†	1060.6	989.8	2082.0 µg/L	2082.0 ppb	20:10:17
3	Pb 220.353†	1778.7	1609.0	429.41 µg/L	429.41 ppb	20:10:17
3	S 181.975 Axial†	221.0	197.1	863.74 µg/L	863.74 ppb	20:10:17
3	Sb 206.836†	483.5	436.9	431.61 µg/L	431.61 ppb	20:10:17
3	Se 196.026†	316.1	287.4	445.59 µg/L	445.59 ppb	20:10:17
3	SiO2†	24611.0	22358.5	4815.0 µg/L	4815.0 ppb	20:09:56
3	Si 251.611†	28930.7	27439.4	2255.7 µg/L	2255.7 ppb	20:09:56
3	Sn 189.927†	943.6	906.1	416.76 µg/L	416.76 ppb	20:10:17
3	Ti 334.940†	196865.3	188730.0	453.67 µg/L	453.67 ppb	20:09:51
3	Tl 190.801†	309.3	321.0	453.52 µg/L	453.52 ppb	20:10:17
3	U 409.014†	5049.6	4897.5	442.45 µg/L	442.45 ppb	20:09:56
3	V 292.402†	42971.8	41265.5	445.08 µg/L	445.08 ppb	20:09:56
3	Zn 213.857†	19124.6	17870.0	443.04 µg/L	443.04 ppb	20:09:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1994841.0	104.45	%	0.178				0.17%
Sc RADIAL	56941.5	104	%	1.0				0.93%
Y 371.029	1365004.1	104.21	%	0.147				0.14%
Ag 328.068†	59984.0	479.37	µg/L	14.264	479.37	ppb	14.264	2.98%
QC value within limits for Ag 328.068 Recovery = 95.87%								
Al 396.153Radial†	6479.8	4819.8	µg/L	50.70	4819.8	ppb	50.70	1.05%
QC value within limits for Al 396.153Radial Recovery = 96.40%								
As 188.979†	240.8	469.74	µg/L	37.997	469.74	ppb	37.997	8.09%
QC value within limits for As 188.979 Recovery = 93.95%								
B 249.677†	10690.9	465.47	µg/L	16.165	465.47	ppb	16.165	3.47%
QC value within limits for B 249.677 Recovery = 93.09%								
Ba 233.527†	18063.5	471.19	µg/L	20.654	471.19	ppb	20.654	4.38%
QC value within limits for Ba 233.527 Recovery = 94.24%								
Be 313.107†	720946.5	470.64	µg/L	15.576	470.64	ppb	15.576	3.31%
QC value within limits for Be 313.107 Recovery = 94.13%								
Ca 317.933Radial†	5062.2	4766.3	µg/L	64.62	4766.3	ppb	64.62	1.36%
QC value within limits for Ca 317.933Radial Recovery = 95.33%								
Cd 226.502†	17112.5	472.04	µg/L	21.023	472.04	ppb	21.023	4.45%
QC value within limits for Cd 226.502 Recovery = 94.41%								
Co 228.616†	9618.4	472.79	µg/L	23.399	472.79	ppb	23.399	4.95%

QC value within limits for Co 228.616 Recovery = 94.56%
Cr 267.716† 21391.1 470.82 µg/L 29.796 470.82 ppb 29.796 6.33%
QC value within limits for Cr 267.716 Recovery = 94.16%
Cu 324.752† 67413.9 471.57 µg/L 23.430 471.57 ppb 23.430 4.97%
QC value within limits for Cu 324.752 Recovery = 94.31%
Fe 238.204 Radial† 565.0 4798.8 µg/L 43.99 4798.8 ppb 43.99 0.92%
QC value within limits for Fe 238.204 Radial Recovery = 95.98%
K 766.490 Radial† 6754.7 4801.2 µg/L 36.89 4801.2 ppb 36.89 0.77%
QC value within limits for K 766.490 Radial Recovery = 96.02%
Mg 279.077 IEC† 527.0 4906.9 µg/L 73.74 4906.9 ppb 73.74 1.50%
QC value within limits for Mg 279.077 IEC Recovery = 98.14%
Mn 257.610† 138810.8 481.12 µg/L 15.825 481.12 ppb 15.825 3.29%
QC value within limits for Mn 257.610 Recovery = 96.22%
Mo 202.031† 4479.7 478.26 µg/L 46.598 478.26 ppb 46.598 9.74%
QC value within limits for Mo 202.031 Recovery = 95.65%
Na 589.592 Radial† 29481.5 9705.4 µg/L 53.07 9705.4 ppb 53.07 0.55%
QC value within limits for Na 589.592 Radial Recovery = 97.05%
Ni 231.604† 8647.1 472.28 µg/L 23.002 472.28 ppb 23.002 4.87%
QC value within limits for Ni 231.604 Recovery = 94.46%
P 214.914† 1095.8 2307.7 µg/L 196.48 2307.7 ppb 196.48 8.51%
QC value within limits for P 214.914 Recovery = 92.31%
Pb 220.353† 1763.7 470.75 µg/L 35.831 470.75 ppb 35.831 7.61%
QC value within limits for Pb 220.353 Recovery = 94.15%
S 181.975 Axial† 215.8 945.54 µg/L 71.212 945.54 ppb 71.212 7.53%
QC value within limits for S 181.975 Axial Recovery = 94.55%
Sb 206.836† 484.6 479.04 µg/L 41.080 479.04 ppb 41.080 8.58%
QC value within limits for Sb 206.836 Recovery = 95.81%
Se 196.026† 310.0 479.95 µg/L 29.823 479.95 ppb 29.823 6.21%
QC value within limits for Se 196.026 Recovery = 95.99%
SiO2† 23387.4 5036.6 µg/L 192.04 5036.6 ppb 192.04 3.81%
QC value within limits for SiO2 Recovery = 94.19%
Si 251.611† 28672.5 2357.0 µg/L 87.98 2357.0 ppb 87.98 3.73%
QC value within limits for Si 251.611 Recovery = 94.28%
Sn 189.927† 1038.3 477.60 µg/L 52.775 477.60 ppb 52.775 11.05%
QC value within limits for Sn 189.927 Recovery = 95.52%
Sr 421.552† 45945.8 476.28 µg/L 1.427 476.28 ppb 1.427 0.30%
QC value within limits for Sr 421.552 Recovery = 95.26%
Ti 334.940† 196862.7 473.23 µg/L 17.050 473.23 ppb 17.050 3.60%
QC value within limits for Ti 334.940 Recovery = 94.65%
Tl 190.801† 339.7 479.92 µg/L 23.425 479.92 ppb 23.425 4.88%
QC value within limits for Tl 190.801 Recovery = 95.98%
U 409.014† 5254.9 474.80 µg/L 28.164 474.80 ppb 28.164 5.93%
QC value within limits for U 409.014 Recovery = 94.96%
V 292.402† 43994.3 474.69 µg/L 25.672 474.69 ppb 25.672 5.41%
QC value within limits for V 292.402 Recovery = 94.94%
Zn 213.857† 18944.2 469.70 µg/L 23.098 469.70 ppb 23.098 4.92%
QC value within limits for Zn 213.857 Recovery = 93.94%
All analyte(s) passed QC.

Sequence No.: 54
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 20:10:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56659.4	56659.4	104	%			20:10:59
1	Al 396.153Radial†	-34.5	-23.1	-17.229	µg/L	-17.229	ppb	20:10:59
1	Ca 317.933Radial†	185.2	-0.8	-0.7364	µg/L	-0.7364	ppb	20:11:19
1	Fe 238.204 Radial†	15.5	0.4	3.7111	µg/L	3.7111	ppb	20:11:19
1	K 766.490 Radial†	206.6	70.6	50.163	µg/L	50.163	ppb	20:10:59
1	Mg 279.077 IEC†	8.1	-3.5	-32.649	µg/L	-32.649	ppb	20:11:19
1	Na 589.592 Radial†	618.2	53.6	17.641	µg/L	17.641	ppb	20:10:59
1	Sr 421.552†	7.1	-32.7	-0.3390	µg/L	-0.3390	ppb	20:10:59
1	Sc 361.383	1969865.1	1969865.1	103.14	%			20:12:22
1	Y 371.029	1352232.0	1352232.0	103.23	%			20:12:22
1	Ag 328.068†	-590.3	-7.8	-0.0586	µg/L	-0.0586	ppb	20:12:27
1	As 188.979†	-2.7	-3.7	-7.3059	µg/L	-7.3059	ppb	20:12:48
1	B 249.677†	327.3	-14.1	-0.6180	µg/L	-0.6180	ppb	20:12:48
1	Ba 233.527†	-20.7	5.9	0.1552	µg/L	0.1552	ppb	20:12:48
1	Be 313.107†	-3325.3	216.5	0.1414	µg/L	0.1414	ppb	20:12:27
1	Cd 226.502†	-131.0	15.1	0.4157	µg/L	0.4157	ppb	20:12:48
1	Co 228.616†	-10.2	-1.0	-0.0509	µg/L	-0.0509	ppb	20:12:48
1	Cr 267.716†	-35.9	17.6	0.3870	µg/L	0.3870	ppb	20:12:48
1	Cu 324.752†	2456.0	-104.9	-0.7325	µg/L	-0.7325	ppb	20:12:27
1	Mn 257.610†	-254.6	-2.7	-0.0075	µg/L	-0.0075	ppb	20:12:48
1	Mo 202.031†	-3.1	4.5	0.4855	µg/L	0.4855	ppb	20:12:48
1	Ni 231.604†	302.7	-8.8	-0.4785	µg/L	-0.4785	ppb	20:12:48
1	P 214.914†	28.8	0.3	0.6377	µg/L	0.6377	ppb	20:12:48
1	Pb 220.353†	100.4	0.1	0.0373	µg/L	0.0373	ppb	20:12:48
1	S 181.975 Axial†	15.9	0.6	2.7080	µg/L	2.7080	ppb	20:12:48
1	Sb 206.836†	20.6	-7.0	-6.8374	µg/L	-6.8374	ppb	20:12:48
1	Se 196.026†	19.3	2.8	4.3630	µg/L	4.3630	ppb	20:12:48
1	SiO2†	1240.9	-46.9	-10.106	µg/L	-10.106	ppb	20:12:27
1	Si 251.611†	312.6	-9.8	-0.8084	µg/L	-0.8084	ppb	20:12:48
1	Sn 189.927†	-1.6	-0.7	-0.3378	µg/L	-0.3378	ppb	20:12:48
1	Ti 334.940†	146.3	25.8	0.0645	µg/L	0.0645	ppb	20:12:27
1	Tl 190.801†	-19.3	5.6	7.7671	µg/L	7.7671	ppb	20:12:48
1	U 409.014†	-42.1	12.8	1.1542	µg/L	1.1542	ppb	20:12:27
1	V 292.402†	-0.1	44.1	0.4765	µg/L	0.4765	ppb	20:12:27
1	Zn 213.857†	476.2	-13.8	-0.3400	µg/L	-0.3400	ppb	20:12:48
2	Sc RADIAL	56311.6	56311.6	103	%			20:11:25
2	Al 396.153Radial†	-11.1	-0.7	-0.4964	µg/L	-0.4964	ppb	20:11:25
2	Ca 317.933Radial†	182.9	-1.9	-1.7833	µg/L	-1.7833	ppb	20:11:45
2	Fe 238.204 Radial†	16.1	1.1	8.9693	µg/L	8.9693	ppb	20:11:45
2	K 766.490 Radial†	135.0	2.4	1.7375	µg/L	1.7375	ppb	20:11:25
2	Mg 279.077 IEC†	9.0	-2.6	-24.083	µg/L	-24.083	ppb	20:11:45
2	Na 589.592 Radial†	609.7	49.0	16.131	µg/L	16.131	ppb	20:11:25
2	Sr 421.552†	43.9	3.0	0.0309	µg/L	0.0309	ppb	20:11:25
2	Sc 361.383	1993246.1	1993246.1	104.37	%			20:12:54
2	Y 371.029	1369824.9	1369824.9	104.57	%			20:12:54
2	Ag 328.068†	-496.4	88.9	0.7074	µg/L	0.7074	ppb	20:12:59
2	As 188.979†	-2.4	-3.4	-6.6828	µg/L	-6.6828	ppb	20:13:20
2	B 249.677†	317.7	-27.1	-1.1866	µg/L	-1.1866	ppb	20:13:20
2	Ba 233.527†	-24.2	2.8	0.0739	µg/L	0.0739	ppb	20:13:20
2	Be 313.107†	-3271.8	305.5	0.1995	µg/L	0.1995	ppb	20:12:59
2	Cd 226.502†	-139.8	8.1	0.2223	µg/L	0.2223	ppb	20:13:20
2	Co 228.616†	-3.3	5.7	0.2808	µg/L	0.2808	ppb	20:13:20
2	Cr 267.716†	-45.4	8.9	0.1956	µg/L	0.1956	ppb	20:13:20
2	Cu 324.752†	2435.6	-152.4	-1.0631	µg/L	-1.0631	ppb	20:12:59
2	Mn 257.610†	-234.4	19.5	0.0698	µg/L	0.0698	ppb	20:13:20
2	Mo 202.031†	-9.1	-1.2	-0.1266	µg/L	-0.1266	ppb	20:13:20
2	Ni 231.604†	294.8	-19.7	-1.0788	µg/L	-1.0788	ppb	20:13:20
2	P 214.914†	30.0	1.1	2.4718	µg/L	2.4718	ppb	20:13:20
2	Pb 220.353†	93.1	-8.0	-2.1208	µg/L	-2.1208	ppb	20:13:20

2	S 181.975 Axial†	16.5	1.0	4.2685 µg/L	4.2685 ppb	20:13:20
2	Sb 206.836†	17.7	-10.0	-9.8534 µg/L	-9.8534 ppb	20:13:20
2	Se 196.026†	12.6	-3.8	-5.7175 µg/L	-5.7175 ppb	20:13:20
2	SiO2†	1249.7	-52.6	-11.333 µg/L	-11.333 ppb	20:12:59
2	Si 251.611†	320.2	-6.0	-0.4973 µg/L	-0.4973 ppb	20:13:20
2	Sn 189.927†	2.8	3.5	1.6248 µg/L	1.6248 ppb	20:13:20
2	Ti 334.940†	188.9	64.9	0.1579 µg/L	0.1579 ppb	20:12:59
2	Tl 190.801†	-28.5	-3.0	-4.1956 µg/L	-4.1956 ppb	20:13:20
2	U 409.014†	-69.7	-13.1	-1.1905 µg/L	-1.1905 ppb	20:12:59
2	V 292.402†	-23.7	21.5	0.2285 µg/L	0.2285 ppb	20:12:59
2	Zn 213.857†	474.3	-21.1	-0.5199 µg/L	-0.5199 ppb	20:13:20
3	Sc RADIAL	56279.9	56279.9	103 %		20:11:51
3	Al 396.153Radial†	-12.9	-2.4	-1.8112 µg/L	-1.8112 ppb	20:11:51
3	Ca 317.933Radial†	188.4	3.5	3.3406 µg/L	3.3406 ppb	20:12:11
3	Fe 238.204 Radial†	17.4	2.4	20.436 µg/L	20.436 ppb	20:12:11
3	K 766.490 Radial†	198.2	63.7	45.307 µg/L	45.307 ppb	20:11:51
3	Mg 279.077 IEC†	8.4	-3.1	-29.101 µg/L	-29.101 ppb	20:12:11
3	Na 589.592 Radial†	580.8	21.4	7.0316 µg/L	7.0316 ppb	20:11:51
3	Sr 421.552†	36.6	-4.1	-0.0421 µg/L	-0.0421 ppb	20:11:51
3	Sc 361.383	2002874.1	2002874.1	104.87 %		20:13:26
3	Y 371.029	1375774.7	1375774.7	105.03 %		20:13:26
3	Ag 328.068†	-572.9	18.2	0.1450 µg/L	0.1450 ppb	20:13:32
3	As 188.979†	-1.7	-2.8	-5.4427 µg/L	-5.4427 ppb	20:13:52
3	B 249.677†	315.7	-30.5	-1.3417 µg/L	-1.3417 ppb	20:13:52
3	Ba 233.527†	-28.2	-0.8	-0.0221 µg/L	-0.0221 ppb	20:13:52
3	Be 313.107†	-3166.3	421.2	0.2751 µg/L	0.2751 ppb	20:13:32
3	Cd 226.502†	-127.4	20.6	0.5649 µg/L	0.5649 ppb	20:13:52
3	Co 228.616†	-19.4	-9.7	-0.4770 µg/L	-0.4770 ppb	20:13:52
3	Cr 267.716†	-37.3	16.8	0.3689 µg/L	0.3689 ppb	20:13:52
3	Cu 324.752†	2426.7	-172.1	-1.1996 µg/L	-1.1996 ppb	20:13:32
3	Mn 257.610†	-224.6	30.0	0.1076 µg/L	0.1076 ppb	20:13:52
3	Mo 202.031†	-4.1	3.6	0.3852 µg/L	0.3852 ppb	20:13:52
3	Ni 231.604†	290.3	-25.4	-1.3870 µg/L	-1.3870 ppb	20:13:52
3	P 214.914†	33.5	4.4	9.4816 µg/L	9.4816 ppb	20:13:52
3	Pb 220.353†	90.7	-10.7	-2.8672 µg/L	-2.8672 ppb	20:13:52
3	S 181.975 Axial†	18.5	2.8	12.161 µg/L	12.161 ppb	20:13:52
3	Sb 206.836†	24.3	-3.8	-3.7594 µg/L	-3.7594 ppb	20:13:52
3	Se 196.026†	15.9	-0.7	-0.9888 µg/L	-0.9888 ppb	20:13:52
3	SiO2†	1207.7	-98.4	-21.190 µg/L	-21.190 ppb	20:13:32
3	Si 251.611†	302.6	-24.3	-2.0003 µg/L	-2.0003 ppb	20:13:52
3	Sn 189.927†	0.7	1.5	0.6894 µg/L	0.6894 ppb	20:13:52
3	Ti 334.940†	101.8	-19.1	-0.0435 µg/L	-0.0435 ppb	20:13:32
3	Tl 190.801†	-25.1	0.4	0.5052 µg/L	0.5052 ppb	20:13:52
3	U 409.014†	-6.5	47.4	4.2901 µg/L	4.2901 ppb	20:13:32
3	V 292.402†	-56.7	-9.8	-0.0938 µg/L	-0.0938 ppb	20:13:32
3	Zn 213.857†	464.1	-33.0	-0.8147 µg/L	-0.8147 ppb	20:13:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1988661.8	104.13	%	0.889				0.85%
Sc RADIAL	56417.0	103	%	0.4				0.37%
Y 371.029	1365943.9	104.28	%	0.935				0.90%
Ag 328.068†	33.1	0.2646	µg/L	0.39674	0.2646	ppb	0.39674	149.94%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.7	-6.5121	µg/L	9.30422	-6.5121	ppb	9.30422	142.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.3	-6.4771	µg/L	0.94849	-6.4771	ppb	0.94849	14.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.9	-1.0488	µg/L	0.38103	-1.0488	ppb	0.38103	36.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.6	0.0690	µg/L	0.08875	0.0690	ppb	0.08875	128.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	314.4	0.2053	µg/L	0.06705	0.2053	ppb	0.06705	32.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.3	0.2736	µg/L	2.70720	0.2736	ppb	2.70720	989.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.6	0.4010	µg/L	0.17178	0.4010	ppb	0.17178	42.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.7	-0.0824	µg/L	0.37989	-0.0824	ppb	0.37989	461.28%

QC value within limits for Co 228.616 Recovery = Not calculated
Cr 267.716† 14.4 0.3172 µg/L 0.10569 0.3172 ppb 0.10569 33.32%
QC value within limits for Cr 267.716 Recovery = Not calculated
Cu 324.752† -143.1 -0.9984 µg/L 0.24020 -0.9984 ppb 0.24020 24.06%
QC value within limits for Cu 324.752 Recovery = Not calculated
Fe 238.204 Radial† 1.3 11.039 µg/L 8.5525 11.039 ppb 8.5525 77.48%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated
K 766.490 Radial† 45.6 32.402 µg/L 26.6673 32.402 ppb 26.6673 82.30%
QC value within limits for K 766.490 Radial Recovery = Not calculated
Mg 279.077 IEC† -3.1 -28.611 µg/L 4.3042 -28.611 ppb 4.3042 15.04%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated
Mn 257.610† 15.6 0.0566 µg/L 0.05870 0.0566 ppb 0.05870 103.64%
QC value within limits for Mn 257.610 Recovery = Not calculated
Mo 202.031† 2.3 0.2480 µg/L 0.32829 0.2480 ppb 0.32829 132.36%
QC value within limits for Mo 202.031 Recovery = Not calculated
Na 589.592 Radial† 41.3 13.602 µg/L 5.7396 13.602 ppb 5.7396 42.20%
QC value within limits for Na 589.592 Radial Recovery = Not calculated
Ni 231.604† -18.0 -0.9814 µg/L 0.46200 -0.9814 ppb 0.46200 47.08%
QC value within limits for Ni 231.604 Recovery = Not calculated
P 214.914† 1.9 4.1970 µg/L 4.66758 4.1970 ppb 4.66758 111.21%
QC value within limits for P 214.914 Recovery = Not calculated
Pb 220.353† -6.2 -1.6502 µg/L 1.50832 -1.6502 ppb 1.50832 91.40%
QC value within limits for Pb 220.353 Recovery = Not calculated
S 181.975 Axial† 1.5 6.3791 µg/L 5.06750 6.3791 ppb 5.06750 79.44%
QC value within limits for S 181.975 Axial Recovery = Not calculated
Sb 206.836† -6.9 -6.8167 µg/L 3.04704 -6.8167 ppb 3.04704 44.70%
QC value within limits for Sb 206.836 Recovery = Not calculated
Se 196.026† -0.5 -0.7811 µg/L 5.04348 -0.7811 ppb 5.04348 645.70%
QC value within limits for Se 196.026 Recovery = Not calculated
SiO2† -66.0 -14.210 µg/L 6.0766 -14.210 ppb 6.0766 42.76%
QC value within limits for SiO2 Recovery = Not calculated
Si 251.611† -13.4 -1.1020 µg/L 0.79337 -1.1020 ppb 0.79337 71.99%
QC value within limits for Si 251.611 Recovery = Not calculated
Sn 189.927† 1.4 0.6588 µg/L 0.98163 0.6588 ppb 0.98163 149.00%
QC value within limits for Sn 189.927 Recovery = Not calculated
Sr 421.552† -11.3 -0.1167 µg/L 0.19593 -0.1167 ppb 0.19593 167.87%
QC value within limits for Sr 421.552 Recovery = Not calculated
Ti 334.940† 23.9 0.0596 µg/L 0.10080 0.0596 ppb 0.10080 168.98%
QC value within limits for Ti 334.940 Recovery = Not calculated
Tl 190.801† 1.0 1.3589 µg/L 6.02688 1.3589 ppb 6.02688 443.51%
QC value within limits for Tl 190.801 Recovery = Not calculated
U 409.014† 15.7 1.4179 µg/L 2.74983 1.4179 ppb 2.74983 193.94%
QC value within limits for U 409.014 Recovery = Not calculated
V 292.402† 18.6 0.2037 µg/L 0.28596 0.2037 ppb 0.28596 140.37%
QC value within limits for V 292.402 Recovery = Not calculated
Zn 213.857† -22.6 -0.5582 µg/L 0.23967 -0.5582 ppb 0.23967 42.93%
QC value within limits for Zn 213.857 Recovery = Not calculated
All analyte(s) passed QC.

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, February 24, 2010 13:58:21
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.583
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	8010.6	8010.646	132.493	1.7
	Mg	24.0	80464.0	80463.987	802.940	1.0
	Co	58.9	170262.1	170262.103	1828.524	1.1
	Rh	102.9	306904.0	306903.996	3738.938	1.2
	In	114.9	394981.4	394981.376	4192.916	1.1
	Pb	208.0	384651.8	384651.804	1928.620	0.5
⌈>	Ba	137.9	372209.0	372209.012	2646.026	0.7
⌊	Ba++	69.0	6742.3	0.018	0.000	0.8
⌈>	Ce	139.9	454620.9	454620.904	3860.277	0.8
⌊	CeO	155.9	12716.3	0.028	0.000	1.2
	Bkgd	220.0	18.7	18.700	3.546	19.0

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.8	8280.1
Co	59	13	6.3	167068.6
In	115	13	7.0	394570.1

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	586	2072	0.636
Be	9.0	9.0	2050	2088	0.616
Mg	24.0	24.0	5687	2100	0.608
Mg	25.0	25.0	5927	2100	0.597
Mg	26.0	26.0	6169	2100	0.611
Co	58.9	58.9	14169	2125	0.599
Rh	102.9	102.9	24868	2180	0.588
In	114.9	114.9	27782	2200	0.587
Ce	139.9	139.9	33866	2220	0.600
Pb	206.0	206.0	49948	2305	0.610
Pb	207.0	207.0	50159	2240	0.654
Pb	208.0	208.0	50451	2265	0.722
U	238.1	238.0	57720	2275	0.768

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 00:45:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Blank.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7		ug/L		116	
|	Be	9		ug/L		27	
|	B	11		ug/L		596	
|	Na	23		ug/L		18679	
|	Mg	24		ug/L		4334	
|	Al	27		ug/L		7669	
|	P	31		ug/L		5857	
|	K	39		ug/L		561175	
|	Ca	43		ug/L		363	
|>	Sc	45		ug/L		466836	
|	Ti	47		ug/L		402	
|	V	51		ug/L		9348	
|	Cr	52		ug/L		4541	
|	Cr	53		ug/L		129660	
|	Mn	55		ug/L		1656	
|	Fe	57		ug/L		6902	
|	Co	59		ug/L		147	
|	Ni	60		ug/L		140	
|	Cu	63		ug/L		473	
⌊	Cu	65		ug/L		257	
⌈	Zn	66		ug/L		698	
|	Zn	67		ug/L		15316	
|	Zn	68		ug/L		1656	
|>	Ge	74		ug/L		572003	
|	As	75		ug/L		-744	
|	Se	77		ug/L		8264	
|	Se	82		ug/L		0	
⌊	Kr	83		ug/L		173	
⌈	Sr	88		ug/L		291	
|	Y	89		ug/L		76	
|	Mo	98		ug/L		141	
|	Ag	107		ug/L		88	
|	Cd	111		ug/L		33	
|	Cd	114		ug/L		69	
|>	In	115		ug/L		379864	
|	Sn	120		ug/L		422	
|	Sb	121		ug/L		582	
⌊	Sb	123		ug/L		457	
⌈	Ba	135		ug/L		54	
|	Ba	137		ug/L		91	
|	Ho	165		ug/L		21	
|>	Lu	175		ug/L		708476	
|	Tl	205		ug/L		2105	
|	Pb	208		ug/L		998	
|	Bi	209		ug/L		589	
|	Th	232		ug/L		830	
⌊	U	238		ug/L		643	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	0.9999
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
>	Sc	45					
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
>	In	115					
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
>	Lu	175					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 00:51:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Standard 1.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	1.105	26890	0.057
	Be	9	**10.000**	**ug/L**	4.739	5729	0.012
	B	11	**20.000**	**ug/L**	0.321	12031	0.024
	Na	23	**1000.000**	**ug/L**	2.963	4393258	9.347
	Mg	24	**1000.000**	**ug/L**	10.705	3479543	7.430
	Al	27	**1000.000**	**ug/L**	4.107	5204106	11.105
	P	31	**1000.000**	**ug/L**	1.944	293596	0.615
	K	39	**1000.000**	**ug/L**	4.538	6809758	13.354
	Ca	43	**1000.000**	**ug/L**	3.254	17644	0.037
>	Sc	45		**ug/L**		468066	468065.824
	Ti	47	**10.000**	**ug/L**	0.987	9225	0.019
	V	51	**10.000**	**ug/L**	7.478	106749	0.208
	Cr	52	**10.000**	**ug/L**	3.903	84753	0.171
	Cr	53		**ug/L**		176266	0.099
	Mn	55	**10.000**	**ug/L**	2.802	130192	0.275
	Fe	57	**1000.000**	**ug/L**	3.218	274624	0.572
	Co	59	**10.000**	**ug/L**	0.895	105959	0.226
	Ni	60	**10.000**	**ug/L**	0.801	23096	0.049
	Cu	63		**ug/L**		56074	0.119
	Cu	65	**10.000**	**ug/L**	1.060	27358	0.058
	Zn	66	**10.000**	**ug/L**	2.012	16798	0.028
	Zn	67		**ug/L**		24399	0.016
	Zn	68		**ug/L**		13648	0.021
>	Ge	74		**ug/L**		567866	567865.985
	As	75	**10.000**	**ug/L**	1.836	16324	0.030
	Se	77		**ug/L**		12599	0.008
	Se	82	**10.000**	**ug/L**	1.240	1805	0.003
	Kr	83		**ug/L**		149	-0.000
	Sr	88	**10.000**	**ug/L**	1.351	227001	0.612
	Y	89		**ug/L**		106	0.000
	Mo	98	**10.000**	**ug/L**	1.107	53630	0.144
	Ag	107	**10.000**	**ug/L**	2.532	96282	0.259
	Cd	111	**10.000**	**ug/L**	1.876	22621	0.061
	Cd	114		**ug/L**		53302	0.144
>	In	115		**ug/L**		370762	370762.000
	Sn	120	**10.000**	**ug/L**	1.295	97007	0.261
	Sb	121	**10.000**	**ug/L**	1.532	76721	0.205
	Sb	123		**ug/L**		59935	0.160
	Ba	135		**ug/L**		24863	0.035
	Ba	137	**10.000**	**ug/L**	1.030	44448	0.063
	Ho	165		**ug/L**		31	0.000
>	Lu	175		**ug/L**		703071	703070.874
	Tl	205	**10.000**	**ug/L**	1.004	339248	0.480
	Pb	208	**10.000**	**ug/L**	1.089	600186	0.852
	Bi	209		**ug/L**		399	-0.000
	Th	232	**10.000**	**ug/L**	1.736	730929	1.038
	U	238	**10.000**	**ug/L**	0.633	764002	1.086

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
\>	Sc	45					
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
\>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
\>	In	115					
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
\>	Lu	175					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 00:57:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Standard 2.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**100.000**	**ug/L**	2.449	264489	0.572
|	Be	9	**100.013**	**ug/L**	2.463	57085	0.123
|	B	11	**200.038**	**ug/L**	4.593	115722	0.249
|	Na	23	**10012.267**	**ug/L**	1.503	49330670	106.666
|	Mg	24	**9994.280**	**ug/L**	2.912	32487077	70.242
|	Al	27	**9977.507**	**ug/L**	5.822	41846838	90.451
|	P	31	**9996.741**	**ug/L**	2.033	2758099	5.952
|	K	39	**10004.212**	**ug/L**	7.305	65060133	139.467
|	Ca	43	**9997.043**	**ug/L**	1.635	166192	0.359
|>	Sc	45		**ug/L**		462373	462373.423
|	Ti	47	**99.998**	**ug/L**	0.744	87343	0.188
|	V	51	**99.954**	**ug/L**	3.260	929215	1.990
|	Cr	52	**99.922**	**ug/L**	0.634	739071	1.589
|	Cr	53		**ug/L**		234272	0.229
|	Mn	55	**99.921**	**ug/L**	1.467	1177738	2.544
|	Fe	57	**9998.285**	**ug/L**	1.799	2606334	5.623
|	Co	59	**99.889**	**ug/L**	1.148	940185	2.033
|	Ni	60	**99.956**	**ug/L**	1.897	217299	0.470
|	Cu	63		**ug/L**		516746	1.117
⌊	Cu	65	**99.972**	**ug/L**	2.114	260459	0.563
⌈	Zn	66	**100.028**	**ug/L**	2.779	162696	0.292
|	Zn	67		**ug/L**		45738	0.056
|	Zn	68		**ug/L**		118988	0.211
|>	Ge	74		**ug/L**		555091	555090.637
|	As	75	**100.021**	**ug/L**	0.615	169753	0.307
|	Se	77		**ug/L**		22553	0.026
|	Se	82	**100.000**	**ug/L**	2.418	17642	0.032
⌊	Kr	83		**ug/L**		176	0.000
⌈	Sr	88	**99.847**	**ug/L**	2.397	1924500	5.295
|	Y	89		**ug/L**		300	0.001
|	Mo	98	**99.989**	**ug/L**	2.112	518934	1.427
|	Ag	107	**99.918**	**ug/L**	1.456	871308	2.397
|	Cd	111	**99.998**	**ug/L**	1.800	221055	0.608
|	Cd	114		**ug/L**		511858	1.408
|>	In	115		**ug/L**		363514	363514.297
|	Sn	120	**99.927**	**ug/L**	2.597	881818	2.426
|	Sb	121	**99.981**	**ug/L**	1.760	733263	2.016
⌊	Sb	123		**ug/L**		577455	1.588
⌈	Ba	135		**ug/L**		238428	0.344
|	Ba	137	**99.967**	**ug/L**	2.692	423069	0.610
|	Ho	165		**ug/L**		44	0.000
|>	Lu	175		**ug/L**		693126	693125.998
|	Tl	205	**99.819**	**ug/L**	1.206	2810893	4.052
|	Pb	208	**99.830**	**ug/L**	3.632	5037257	7.270
|	Bi	209		**ug/L**		848	0.000
|	Th	232	**99.839**	**ug/L**	1.412	6188011	8.928
⌊	U	238	**99.841**	**ug/L**	2.806	6479656	9.351

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
\>	Sc	45					
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
\>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
\>	In	115					
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
\>	Lu	175					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 01:03:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 1.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.254**	**ug/L**	1.528	138357	0.293
	Be	9	**51.212**	**ug/L**	3.907	29827	0.063
	B	11	**103.919**	**ug/L**	2.684	61625	0.129
	Na	23	**4509.685**	**ug/L**	8.125	22670943	48.044
	Mg	24	**5347.344**	**ug/L**	7.877	17720997	37.582
	Al	27	**5620.619**	**ug/L**	10.095	24041127	50.954
	P	31	**4774.087**	**ug/L**	1.484	1346497	2.843
	K	39	**5130.417**	**ug/L**	9.736	34293745	71.522
	Ca	43	**4924.759**	**ug/L**	1.318	83672	0.177
>	Sc	45		**ug/L**		471629	471628.507
	Ti	47	**50.265**	**ug/L**	0.852	44987	0.095
	V	51	**51.480**	**ug/L**	3.069	492659	1.025
	Cr	52	**52.523**	**ug/L**	2.178	398384	0.835
	Cr	53		**ug/L**		196456	0.139
	Mn	55	**53.204**	**ug/L**	1.701	640426	1.355
	Fe	57	**4590.215**	**ug/L**	0.475	1224465	2.582
	Co	59	**51.968**	**ug/L**	2.609	498978	1.058
	Ni	60	**51.394**	**ug/L**	1.632	114032	0.241
	Cu	63		**ug/L**		269542	0.571
	Cu	65	**51.228**	**ug/L**	2.806	136262	0.288
	Zn	66	**53.041**	**ug/L**	2.954	87537	0.155
	Zn	67		**ug/L**		33730	0.033
	Zn	68		**ug/L**		63866	0.111
>	Ge	74		**ug/L**		561190	561190.119
	As	75	**48.840**	**ug/L**	3.695	83406	0.150
	Se	77		**ug/L**		16616	0.015
	Se	82	**51.104**	**ug/L**	2.320	9114	0.016
	Kr	83		**ug/L**		151	-0.000
	Sr	88	**54.911**	**ug/L**	2.149	1076141	2.912
	Y	89		**ug/L**		145	0.000
	Mo	98	**49.596**	**ug/L**	0.309	261705	0.708
	Ag	107	**51.305**	**ug/L**	0.925	454836	1.231
	Cd	111	**50.703**	**ug/L**	1.377	113953	0.308
	Cd	114		**ug/L**		265227	0.718
>	In	115		**ug/L**		369463	369462.806
	Sn	120	**51.875**	**ug/L**	1.341	465621	1.259
	Sb	121	**51.410**	**ug/L**	1.168	383561	1.037
	Sb	123		**ug/L**		300315	0.812
	Ba	135		**ug/L**		122938	0.178
	Ba	137	**51.554**	**ug/L**	2.548	217508	0.315
	Ho	165		**ug/L**		64	0.000
>	Lu	175		**ug/L**		690737	690736.635
	Tl	205	**50.995**	**ug/L**	2.545	1431651	2.070
	Pb	208	**54.050**	**ug/L**	1.463	2719376	3.936
	Bi	209		**ug/L**		944	0.001
	Th	232	**52.084**	**ug/L**	1.833	3217656	4.658
	U	238	**53.616**	**ug/L**	0.733	3469103	5.022

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	102.508				
|	Be	9	102.424				
|	B	11	103.919				
|	Na	23	90.194				
|	Mg	24	106.947				
|	Al	27	111.299				
|	P	31	95.482				
|	K	39	102.608				
|	Ca	43	98.495				
\>	Sc	45		101.0			
|	Ti	47	100.531				
|	V	51	102.959				
|	Cr	52	105.046				
|	Cr	53					
|	Mn	55	106.409				
|	Fe	57	91.804				
|	Co	59	103.937				
|	Ni	60	102.788				
|	Cu	63					
⌊	Cu	65	102.456				
⌈	Zn	66	106.082				
|	Zn	67					
|	Zn	68					
\>	Ge	74		98.1			
|	As	75	97.681				
|	Se	77					
|	Se	82	102.207				
⌊	Kr	83					
⌈	Sr	88	109.822				
|	Y	89					
|	Mo	98	99.192				
|	Ag	107	102.610				
|	Cd	111	101.405				
|	Cd	114					
\>	In	115		97.3			
|	Sn	120	103.750				
|	Sb	121	102.819				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	103.108				
|	Ho	165					
\>	Lu	175		97.5			
|	Tl	205	101.990				
|	Pb	208	108.100				
|	Bi	209					
|	Th	232	104.169				
⌊	U	238	107.231				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Al	27	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 01:09:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 2.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.021**	**ug/L**	19.019	172	0.000
	Be	9	**0.008**	**ug/L**	121.338	32	0.000
	B	11	**4.097**	**ug/L**	16.405	2984	0.005
	Na	23	**0.870**	**ug/L**	129.311	23019	0.009
	Mg	24	**-0.105**	**ug/L**	1050.249	4001	-0.001
	Al	27	**-0.861**	**ug/L**	96.914	4001	-0.008
	P	31	**0.980**	**ug/L**	180.971	6126	0.001
	K	39	**1.158**	**ug/L**	397.345	569148	0.016
	Ca	43	**-0.503**	**ug/L**	329.039	354	-0.000
>	Sc	45		**ug/L**		467005	467005.242
	Ti	47	**-0.009**	**ug/L**	325.615	395	-0.000
	V	51	**-0.308**	**ug/L**	153.633	6437	-0.006
	Cr	52	**-0.165**	**ug/L**	44.444	3309	-0.003
	Cr	53		**ug/L**		125809	-0.008
	Mn	55	**-0.010**	**ug/L**	32.542	1539	-0.000
	Fe	57	**0.291**	**ug/L**	190.434	6980	0.000
	Co	59	**0.004**	**ug/L**	70.690	182	0.000
	Ni	60	**0.004**	**ug/L**	50.335	150	0.000
	Cu	63		**ug/L**		487	0.000
	Cu	65	**-0.004**	**ug/L**	95.984	246	-0.000
	Zn	66	**0.001**	**ug/L**	1593.283	698	0.000
	Zn	67		**ug/L**		14449	-0.001
	Zn	68		**ug/L**		1604	-0.000
>	Ge	74		**ug/L**		569988	569987.791
	As	75	**-0.179**	**ug/L**	145.005	-1056	-0.001
	Se	77		**ug/L**		8396	0.000
	Se	82	**0.091**	**ug/L**	153.517	17	0.000
	Kr	83		**ug/L**		156	-0.000
	Sr	88	**0.006**	**ug/L**	12.878	419	0.000
	Y	89		**ug/L**		79	0.000
	Mo	98	**0.027**	**ug/L**	3.432	289	0.000
	Ag	107	**0.006**	**ug/L**	31.976	141	0.000
	Cd	111	**0.002**	**ug/L**	466.095	37	0.000
	Cd	114		**ug/L**		108	0.000
>	In	115		**ug/L**		378529	378529.037
	Sn	120	**0.012**	**ug/L**	32.804	534	0.000
	Sb	121	**0.437**	**ug/L**	10.437	3917	0.009
	Sb	123		**ug/L**		3199	0.007
	Ba	135		**ug/L**		72	0.000
	Ba	137	**0.004**	**ug/L**	36.133	109	0.000
	Ho	165		**ug/L**		30	0.000
>	Lu	175		**ug/L**		707983	707982.913
	Tl	205	**0.158**	**ug/L**	22.647	6640	0.006
	Pb	208	**0.007**	**ug/L**	21.254	1362	0.001
	Bi	209		**ug/L**		584	-0.000
	Th	232	**0.024**	**ug/L**	5.204	2323	0.002
	U	238	**0.008**	**ug/L**	26.689	1170	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovr	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
\>	Sc	45		100.0			
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
\>	Ge	74		99.6			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
\>	In	115		99.6			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
\>	Lu	175		99.9			
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 01:15:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 3.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.006**	**ug/L**	2.281	29478	0.063
	Be	9	**0.537**	**ug/L**	5.699	336	0.001
	B	11	**17.326**	**ug/L**	3.791	10659	0.022
	Na	23	**239.283**	**ug/L**	8.349	1207054	2.549
	Mg	24	**15.408**	**ug/L**	14.004	54772	0.108
	Al	27	**41.259**	**ug/L**	6.550	182157	0.374
	P	31	**65.019**	**ug/L**	7.889	23901	0.039
	K	39	**308.141**	**ug/L**	13.361	2562845	4.296
	Ca	43	**218.114**	**ug/L**	5.808	4012	0.008
>	Sc	45		**ug/L**		466658	466658.134
	Ti	47	**8.651**	**ug/L**	2.543	7993	0.016
	V	51	**10.208**	**ug/L**	9.674	104042	0.203
	Cr	52	**11.238**	**ug/L**	4.848	87857	0.179
	Cr	53		**ug/L**		157299	0.060
	Mn	55	**5.897**	**ug/L**	2.990	71691	0.150
	Fe	57	**105.485**	**ug/L**	2.669	34574	0.059
	Co	59	**1.130**	**ug/L**	3.872	10879	0.023
	Ni	60	**2.182**	**ug/L**	2.802	4924	0.010
	Cu	63		**ug/L**		6465	0.013
	Cu	65	**1.120**	**ug/L**	3.630	3199	0.006
	Zn	66	**11.321**	**ug/L**	1.546	18871	0.033
	Zn	67		**ug/L**		20464	0.010
	Zn	68		**ug/L**		14797	0.024
>	Ge	74		**ug/L**		550773	550772.701
	As	75	**5.563**	**ug/L**	3.738	8690	0.017
	Se	77		**ug/L**		10811	0.005
	Se	82	**5.873**	**ug/L**	3.974	1028	0.002
	Kr	83		**ug/L**		145	-0.000
	Sr	88	**12.294**	**ug/L**	0.262	241551	0.652
	Y	89		**ug/L**		69	-0.000
	Mo	98	**0.527**	**ug/L**	4.885	2922	0.008
	Ag	107	**1.067**	**ug/L**	2.030	9561	0.026
	Cd	111	**1.111**	**ug/L**	1.215	2532	0.007
	Cd	114		**ug/L**		5724	0.015
>	In	115		**ug/L**		370061	370060.601
	Sn	120	**5.583**	**ug/L**	1.724	50556	0.136
	Sb	121	**3.368**	**ug/L**	1.093	25697	0.068
	Sb	123		**ug/L**		20218	0.053
	Ba	135		**ug/L**		5288	0.007
	Ba	137	**2.158**	**ug/L**	2.765	9314	0.013
	Ho	165		**ug/L**		27	0.000
>	Lu	175		**ug/L**		700109	700108.585
	Tl	205	**1.260**	**ug/L**	1.742	37884	0.051
	Pb	208	**2.501**	**ug/L**	1.391	128493	0.182
	Bi	209		**ug/L**		429	-0.000
	Th	232	**1.296**	**ug/L**	2.070	81953	0.116
	U	238	**0.284**	**ug/L**	0.865	19262	0.027

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	110.055				
|	Be	9	107.409				
|	B	11	115.509				
|	Na	23	95.713				
|	Mg	24	102.717				
|	Al	27	137.530				
|	P	31	130.038				
|	K	39	102.714				
|	Ca	43	109.057				
|>	Sc	45		100.0			
|	Ti	47	86.512				
|	V	51	102.076				
|	Cr	52	112.379				
|	Cr	53					
|	Mn	55	117.941				
|	Fe	57	105.485				
|	Co	59	113.043				
|	Ni	60	109.121				
|	Cu	63					
⌊	Cu	65	112.029				
⌈	Zn	66	113.212				
|	Zn	67					
|	Zn	68					
|>	Ge	74		96.3			
|	As	75	111.254				
|	Se	77					
|	Se	82	117.453				
⌊	Kr	83					
⌈	Sr	88	122.942				
|	Y	89					
|	Mo	98	105.486				
|	Ag	107	106.734				
|	Cd	111	111.062				
|	Cd	114					
|>	In	115		97.4			
|	Sn	120	111.664				
|	Sb	121	112.266				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	107.890				
|	Ho	165					
|>	Lu	175		98.8			
|	Tl	205	125.991				
|	Pb	208	125.060				
|	Bi	209					
|	Th	232	129.605				
⌊	U	238	142.033				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	P	31	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 01:21:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 4.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.081**	ug/L	10.445	293	0.000
	Be	9	**0.069**	ug/L	19.825	59	0.000
	B	11	**1.597**	ug/L	19.431	1342	0.002
	Na	23	**76847.089**	ug/L	3.522	336523083	818.695
	Mg	24	**85091.727**	ug/L	8.994	245740237	598.043
	Al	27	**103851.194**	ug/L	11.407	387083249	941.464
	P	31	**82063.023**	ug/L	0.909	20088465	48.862
	K	39	**91466.419**	ug/L	0.853	524596315	1275.113
	Ca	43	**86955.724**	ug/L	1.654	1282259	3.119
>	Sc	45		ug/L		411013	411012.564
	Ti	47	**1517.851**	ug/L	0.321	1173570	2.854
	V	51	**-0.573**	ug/L	51.787	3536	-0.011
	Cr	52	**1.914**	ug/L	0.983	16506	0.030
	Cr	53		ug/L		118979	0.012
	Mn	55	**6.009**	ug/L	1.140	64334	0.153
	Fe	57	**94815.587**	ug/L	1.958	21921908	53.325
	Co	59	**0.371**	ug/L	5.093	3231	0.008
	Ni	60	**3.499**	ug/L	2.633	6881	0.016
	Cu	63		ug/L		11210	0.026
	Cu	65	**3.194**	ug/L	0.963	7617	0.018
	Zn	66	**4.370**	ug/L	5.913	6859	0.013
	Zn	67		ug/L		18056	0.010
	Zn	68		ug/L		2656	0.003
>	Ge	74		ug/L		490891	490890.577
	As	75	**0.176**	ug/L	570.093	-374	0.001
	Se	77		ug/L		11647	0.009
	Se	82	**-1.193**	ug/L	6.261	-186	-0.000
	Kr	83		ug/L		452	0.001
	Sr	88	**3.263**	ug/L	1.596	57326	0.173
	Y	89		ug/L		801	0.002
	Mo	98	**1814.342**	ug/L	1.582	8542173	25.899
	Ag	107	**0.140**	ug/L	4.308	1188	0.003
	Cd	111	**0.506**	ug/L	47.944	1046	0.003
	Cd	114		ug/L		14916	0.045
>	In	115		ug/L		329854	329854.132
	Sn	120	**0.262**	ug/L	2.872	2462	0.006
	Sb	121	**0.383**	ug/L	21.682	3049	0.008
	Sb	123		ug/L		2369	0.006
	Ba	135		ug/L		1601	0.002
	Ba	137	**0.714**	ug/L	1.305	2815	0.004
	Ho	165		ug/L		13545	0.022
>	Lu	175		ug/L		626869	626869.274
	Tl	205	**0.005**	ug/L	69.273	1989	0.000
	Pb	208	**0.229**	ug/L	0.450	11334	0.017
	Bi	209		ug/L		8402	0.013
	Th	232	**0.049**	ug/L	38.303	3510	0.004
	U	238	**-0.006**	ug/L	5.247	219	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23	76.847				
|	Mg	24	85.092				
|	Al	27	103.851				
|	P	31	82.063				
|	K	39	91.466				
|	Ca	43	86.956				
|>	Sc	45		88.0			
|	Ti	47	75.893				
|	V	51					
|	Cr	52	58.005				
|	Cr	53					
|	Mn	55	103.602				
|	Fe	57	94.816				
|	Co	59	157.727				
|	Ni	60	105.723				
|	Cu	63					
⌊	Cu	65	95.623				
⌈	Zn	66	116.221				
|	Zn	67					
|	Zn	68					
|>	Ge	74		85.8			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88	110.235				
|	Y	89					
|	Mo	98	90.717				
|	Ag	107					
|	Cd	111	114.002				
|	Cd	114					
|>	In	115		86.8			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	89.518				
|	Ho	165					
|>	Lu	175		88.5			
|	Tl	205					
|	Pb	208	121.132				
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Na	23	ICSA is out of limits
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 01:27:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 5.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.541**	**ug/L**	1.142	41347	0.106
	Be	9	**17.910**	**ug/L**	2.065	8621	0.022
	B	11	**17.544**	**ug/L**	2.456	8996	0.022
	Na	23	**79986.935**	**ug/L**	2.610	331638859	852.145
	Mg	24	**87477.193**	**ug/L**	2.329	239206523	614.808
	Al	27	**104014.873**	**ug/L**	4.416	366730469	942.948
	P	31	**86226.228**	**ug/L**	1.257	19977908	51.341
	K	39	**89267.225**	**ug/L**	4.445	484619607	1244.455
	Ca	43	**89016.291**	**ug/L**	1.517	1242724	3.193
>	Sc	45		**ug/L**		389069	389069.436
	Ti	47	**1547.426**	**ug/L**	0.509	1132579	2.910
	V	51	**21.352**	**ug/L**	2.752	173144	0.425
	Cr	52	**23.295**	**ug/L**	2.523	147846	0.370
	Cr	53		**ug/L**		113519	0.014
	Mn	55	**28.422**	**ug/L**	0.512	282925	0.724
	Fe	57	**99769.769**	**ug/L**	2.675	21831986	56.111
	Co	59	**21.406**	**ug/L**	2.926	169597	0.436
	Ni	60	**22.852**	**ug/L**	1.826	41883	0.107
	Cu	63		**ug/L**		96563	0.247
	Cu	65	**22.637**	**ug/L**	2.014	49801	0.127
	Zn	66	**22.923**	**ug/L**	2.431	33260	0.067
	Zn	67		**ug/L**		18838	0.012
	Zn	68		**ug/L**		21732	0.042
>	Ge	74		**ug/L**		488347	488346.958
	As	75	**20.501**	**ug/L**	3.271	30109	0.063
	Se	77		**ug/L**		11207	0.009
	Se	82	**19.340**	**ug/L**	2.416	3002	0.006
	Kr	83		**ug/L**		429	0.001
	Sr	88	**25.956**	**ug/L**	2.112	455843	1.376
	Y	89		**ug/L**		717	0.002
	Mo	98	**1795.815**	**ug/L**	0.228	8485446	25.635
	Ag	107	**19.454**	**ug/L**	2.322	154561	0.467
	Cd	111	**19.913**	**ug/L**	1.616	40113	0.121
	Cd	114		**ug/L**		104916	0.317
>	In	115		**ug/L**		331007	331007.181
	Sn	120	**21.124**	**ug/L**	1.565	170090	0.513
	Sb	121	**21.156**	**ug/L**	0.969	141717	0.427
	Sb	123		**ug/L**		110137	0.332
	Ba	135		**ug/L**		44251	0.071
	Ba	137	**20.377**	**ug/L**	1.178	77727	0.124
	Ho	165		**ug/L**		13358	0.021
>	Lu	175		**ug/L**		624039	624039.312
	Tl	205	**20.864**	**ug/L**	1.138	530352	0.847
	Pb	208	**21.830**	**ug/L**	0.626	992892	1.590
	Bi	209		**ug/L**		9139	0.014
	Th	232	**22.315**	**ug/L**	1.168	1245990	1.996
	U	238	**22.980**	**ug/L**	0.724	1343671	2.152

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	92.705				
|	Be	9	89.548				
|	B	11	87.719				
|	Na	23	79.987				
|	Mg	24	87.477				
|	Al	27	104.015				
|	P	31	86.226				
|	K	39	89.267				
|	Ca	43	89.016				
|>	Sc	45		83.3			
|	Ti	47	77.371				
|	V	51	106.760				
|	Cr	52	99.977				
|	Cr	53					
|	Mn	55	110.163				
|	Fe	57	99.770				
|	Co	59	105.787				
|	Ni	60	98.036				
|	Cu	63					
⌊	Cu	65	96.989				
⌈	Zn	66	96.476				
|	Zn	67					
|	Zn	68					
|>	Ge	74		85.4			
|	As	75	102.506				
|	Se	77					
|	Se	82	96.699				
⌊	Kr	83					
⌈	Sr	88	113.049				
|	Y	89					
|	Mo	98	89.791				
|	Ag	107	97.271				
|	Cd	111	97.402				
|	Cd	114					
|>	In	115		87.1			
|	Sn	120	105.621				
|	Sb	121	105.778				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	97.974				
|	Ho	165					
|>	Lu	175		88.1			
|	Tl	205	104.321				
|	Pb	208	108.130				
|	Bi	209					
|	Th	232	111.574				
⌊	U	238	114.899				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Na	23	ICSAB is out of limits
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 01:33:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**50.856**	**ug/L**	2.578	121226	0.291
|	Be	9	**51.752**	**ug/L**	3.240	26620	0.064
|	B	11	**98.342**	**ug/L**	3.613	51527	0.122
|	Na	23	**4552.550**	**ug/L**	15.725	20195760	48.501
|	Mg	24	**5042.300**	**ug/L**	2.663	14768916	35.438
|	Al	27	**5207.421**	**ug/L**	7.037	19690007	47.208
|	P	31	**4703.749**	**ug/L**	3.584	1171450	2.801
|	K	39	**4332.637**	**ug/L**	4.484	25671318	60.400
|	Ca	43	**4771.309**	**ug/L**	3.390	71592	0.171
| >	Sc	45		**ug/L**		416580	416580.161
|	Ti	47	**49.205**	**ug/L**	3.521	38889	0.093
|	V	51	**52.394**	**ug/L**	4.403	442610	1.043
|	Cr	52	**52.723**	**ug/L**	2.378	353165	0.838
|	Cr	53		**ug/L**		173110	0.138
|	Mn	55	**53.516**	**ug/L**	2.938	568853	1.362
|	Fe	57	**4645.346**	**ug/L**	3.429	1094022	2.613
|	Co	59	**52.672**	**ug/L**	3.053	446599	1.072
|	Ni	60	**52.519**	**ug/L**	1.808	102895	0.247
|	Cu	63		**ug/L**		246344	0.590
⌊	Cu	65	**50.727**	**ug/L**	1.756	119188	0.286
⌈	Zn	66	**51.222**	**ug/L**	2.930	77548	0.150
|	Zn	67		**ug/L**		29593	0.031
|	Zn	68		**ug/L**		56556	0.107
| >	Ge	74		**ug/L**		514672	514672.218
|	As	75	**48.752**	**ug/L**	2.768	76358	0.150
|	Se	77		**ug/L**		14469	0.014
|	Se	82	**50.062**	**ug/L**	2.082	8188	0.016
⌊	Kr	83		**ug/L**		141	-0.000
⌈	Sr	88	**53.781**	**ug/L**	1.710	984550	2.852
|	Y	89		**ug/L**		168	0.000
|	Mo	98	**49.077**	**ug/L**	0.791	241922	0.701
|	Ag	107	**51.743**	**ug/L**	1.540	428488	1.241
|	Cd	111	**50.768**	**ug/L**	0.996	106604	0.309
|	Cd	114		**ug/L**		248527	0.720
| >	In	115		**ug/L**		345156	345156.356
|	Sn	120	**51.493**	**ug/L**	1.373	431744	1.250
|	Sb	121	**51.330**	**ug/L**	1.027	357761	1.035
⌊	Sb	123		**ug/L**		282382	0.817
⌈	Ba	135		**ug/L**		115385	0.169
|	Ba	137	**49.242**	**ug/L**	1.246	205400	0.301
|	Ho	165		**ug/L**		67	0.000
| >	Lu	175		**ug/L**		682807	682807.409
|	Tl	205	**49.827**	**ug/L**	1.117	1383033	2.023
|	Pb	208	**53.468**	**ug/L**	1.497	2659287	3.894
|	Bi	209		**ug/L**		957	0.001
|	Th	232	**51.536**	**ug/L**	1.197	3147381	4.609
⌊	U	238	**51.542**	**ug/L**	1.737	3296507	4.828

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7	101.711				
|	Be	9	103.504				
|	B	11	98.342				
|	Na	23	91.051				
|	Mg	24	100.846				
|	Al	27	103.117				
|	P	31	94.075				
|	K	39	86.653				
|	Ca	43	95.426				
|>	Sc	45			89.2		
|	Ti	47	98.410				
|	V	51	104.788				
|	Cr	52	105.446				
|	Cr	53					
|	Mn	55	107.032				
|	Fe	57	92.907				
|	Co	59	105.344				
|	Ni	60	105.038				
|	Cu	63					
⌊	Cu	65	101.454				
⌈	Zn	66	102.443				
|	Zn	67					
|	Zn	68					
|>	Ge	74			90.0		
|	As	75	97.504				
|	Se	77					
|	Se	82	100.123				
⌊	Kr	83					
⌈	Sr	88	107.563				
|	Y	89					
|	Mo	98	98.154				
|	Ag	107	103.486				
|	Cd	111	101.536				
|	Cd	114					
|>	In	115			90.9		
|	Sn	120	102.986				
|	Sb	121	102.661				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	98.484				
|	Ho	165					
|>	Lu	175			96.4		
|	Tl	205	99.655				
|	Pb	208	106.936				
|	Bi	209					
|	Th	232	103.073				
⌊	U	238	103.085				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 01:40:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.019**	**ug/L**	19.141	149	0.000
	Be	9	**0.002**	**ug/L**	728.636	25	0.000
	B	11	**2.533**	**ug/L**	22.205	1848	0.003
	Na	23	**2.396**	**ug/L**	51.756	27360	0.026
	Mg	24	**0.956**	**ug/L**	114.511	6668	0.007
	Al	27	**2.695**	**ug/L**	31.242	17010	0.024
	P	31	**1.126**	**ug/L**	68.843	5507	0.001
	K	39	**5.504**	**ug/L**	74.073	532758	0.077
	Ca	43	**1.125**	**ug/L**	68.383	341	0.000
>	Sc	45		**ug/L**		416774	416774.349
	Ti	47	**0.051**	**ug/L**	49.426	400	0.000
	V	51	**-0.473**	**ug/L**	18.561	4423	-0.009
	Cr	52	**-0.473**	**ug/L**	9.957	914	-0.008
	Cr	53		**ug/L**		108799	-0.017
	Mn	55	**-0.012**	**ug/L**	34.432	1356	-0.000
	Fe	57	**-0.949**	**ug/L**	26.247	5940	-0.001
	Co	59	**0.004**	**ug/L**	38.201	167	0.000
	Ni	60	**0.010**	**ug/L**	18.742	146	0.000
	Cu	63		**ug/L**		387	-0.000
	Cu	65	**0.001**	**ug/L**	229.755	233	0.000
	Zn	66	**-0.024**	**ug/L**	53.198	599	-0.000
	Zn	67		**ug/L**		12866	-0.002
	Zn	68		**ug/L**		1437	-0.000
>	Ge	74		**ug/L**		521240	521240.111
	As	75	**0.221**	**ug/L**	53.128	-323	0.001
	Se	77		**ug/L**		6939	-0.001
	Se	82	**0.016**	**ug/L**	370.605	3	0.000
	Kr	83		**ug/L**		144	-0.000
	Sr	88	**0.005**	**ug/L**	47.801	374	0.000
	Y	89		**ug/L**		70	-0.000
	Mo	98	**0.063**	**ug/L**	5.593	450	0.001
	Ag	107	**0.006**	**ug/L**	14.955	132	0.000
	Cd	111	**0.005**	**ug/L**	128.110	43	0.000
	Cd	114		**ug/L**		91	0.000
>	In	115		**ug/L**		355440	355440.489
	Sn	120	**0.011**	**ug/L**	35.866	490	0.000
	Sb	121	**0.155**	**ug/L**	8.034	1659	0.003
	Sb	123		**ug/L**		1327	0.003
	Ba	135		**ug/L**		62	0.000
	Ba	137	**0.004**	**ug/L**	49.014	105	0.000
	Ho	165		**ug/L**		27	0.000
>	Lu	175		**ug/L**		691627	691626.720
	Tl	205	**0.224**	**ug/L**	18.598	8345	0.009
	Pb	208	**0.006**	**ug/L**	37.321	1281	0.000
	Bi	209		**ug/L**		617	0.000
	Th	232	**0.021**	**ug/L**	5.469	2137	0.002
	U	238	**0.007**	**ug/L**	32.882	1054	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
>	Sc	45		89.3			
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
>	Ge	74		91.1			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
>	In	115		93.6			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
>	Lu	175		97.6			
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, February 25, 2010 01:46:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 10.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**908.148**	ug/L	2.424	1874486	5.194
	Be	9	**951.375**	ug/L	1.719	423800	1.174
	B	11	**1.566**	ug/L	15.177	1165	0.002
	Na	23	**48963.331**	ug/L	5.462	188368267	521.633
	Mg	24	**52502.636**	ug/L	11.268	133033673	369.000
	Al	27	**54937.246**	ug/L	2.656	179751189	498.034
	P	31	**21975.073**	ug/L	2.357	4726633	13.085
	K	39	**47751.459**	ug/L	3.116	240644107	665.693
	Ca	43	**47390.870**	ug/L	1.958	613793	1.700
>	Sc	45		ug/L		361004	361003.669
	Ti	47	**43.749**	ug/L	1.635	30006	0.082
	V	51	**904.479**	ug/L	2.586	6505041	18.006
	Cr	52	**894.043**	ug/L	3.388	5132659	14.214
	Cr	53		ug/L		774563	1.869
	Mn	55	**965.413**	ug/L	1.448	8874170	24.579
	Fe	57	**49460.687**	ug/L	0.018	10047325	27.817
	Co	59	**879.775**	ug/L	2.549	6462298	17.907
	Ni	60	**855.509**	ug/L	3.761	1450545	4.019
	Cu	63		ug/L		3370054	9.337
	Cu	65	**809.449**	ug/L	1.865	1645282	4.558
	Zn	66	**2256.169**	ug/L	0.467	2956197	6.585
	Zn	67		ug/L		473424	1.028
	Zn	68		ug/L		1846360	4.111
>	Ge	74		ug/L		448846	448845.629
	As	75	**816.633**	ug/L	0.627	1125003	2.508
	Se	77		ug/L		55858	0.110
	Se	82	**459.331**	ug/L	2.018	65518	0.146
	Kr	83		ug/L		270	0.000
	Sr	88	**991.112**	ug/L	0.957	16759897	52.560
	Y	89		ug/L		613	0.002
	Mo	98	**915.334**	ug/L	1.384	4166215	13.066
	Ag	107	**211.925**	ug/L	0.351	1621230	5.084
	Cd	111	**830.235**	ug/L	0.459	1609938	5.049
	Cd	114		ug/L		3840458	12.044
>	In	115		ug/L		318855	318855.037
	Sn	120	**888.428**	ug/L	0.778	6876169	21.565
	Sb	121	**222.617**	ug/L	1.988	1431814	4.489
	Sb	123		ug/L		1131261	3.547
	Ba	135		ug/L		1734671	2.749
	Ba	137	**844.735**	ug/L	0.281	3255477	5.159
	Ho	165		ug/L		194	0.000
>	Lu	175		ug/L		631074	631073.614
	Tl	205	**466.428**	ug/L	3.113	11948443	18.934
	Pb	208	**4781.042**	ug/L	1.641	219700515	348.163
	Bi	209		ug/L		6701	0.010
	Th	232	**2537.017**	ug/L	2.540	143156342	226.877
	U	238	**5256.734**	ug/L	0.889	310701302	492.353

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	90.815				
	Be	9	95.138				
	B	11					
	Na	23	97.927				
	Mg	24	105.005				
	Al	27	109.874				
	P	31	87.900				
	K	39	95.503				
	Ca	43	94.782				
>	Sc	45		77.3			
	Ti	47					
	V	51	90.448				
	Cr	52	89.404				
	Cr	53					
	Mn	55	96.541				
	Fe	57	98.921				
	Co	59	87.977				
	Ni	60	85.551				
	Cu	63					
	Cu	65	80.945				
	Zn	66	90.247				
	Zn	67					
	Zn	68					
>	Ge	74		78.5			
	As	75	81.663				
	Se	77					
	Se	82	91.866				
	Kr	83					
	Sr	88	99.111				
	Y	89					
	Mo	98	91.533				
	Ag	107	84.770				
	Cd	111	83.024				
	Cd	114					
>	In	115		83.9			
	Sn	120	88.843				
	Sb	121	89.047				
	Sb	123					
	Ba	135					
	Ba	137	84.474				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	93.286				
	Pb	208	95.621				
	Bi	209					
	Th	232	101.481				
	U	238	105.135				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	P	31	LRS is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 10	Cr	52	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74	

QC Std 10	As	75LRS is out of limits (+/- 10%)
QC Std 10	Ag	107LRS is out of limits (+/- 10%)
QC Std 10	Cd	111LRS is out of limits (+/- 10%)
QC Std 10	Sn	120LRS is out of limits (+/- 10%)
QC Std 10	Sb	121LRS is out of limits (+/- 10%)
QC Std 10	Ba	137LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, February 25, 2010 01:52:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 11.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**54.196**	ug/L	0.675	124156	0.310
|	Be	9	**54.193**	ug/L	1.593	26794	0.067
|	B	11	**102.665**	ug/L	4.172	51685	0.128
|	Na	23	**4788.488**	ug/L	4.856	20434884	51.014
|	Mg	24	**5400.192**	ug/L	4.677	15194288	37.954
|	Al	27	**5449.235**	ug/L	5.070	19779169	49.400
|	P	31	**4764.081**	ug/L	0.169	1140414	2.837
|	K	39	**5151.257**	ug/L	13.117	29223170	71.813
|	Ca	43	**4933.715**	ug/L	1.733	71145	0.177
|>	Sc	45		ug/L		400258	400258.051
|	Ti	47	**50.075**	ug/L	2.048	38038	0.094
|	V	51	**52.375**	ug/L	2.015	425346	1.043
|	Cr	52	**52.430**	ug/L	1.642	337549	0.834
|	Cr	53		ug/L		165024	0.135
|	Mn	55	**54.510**	ug/L	0.980	556900	1.388
|	Fe	57	**4766.520**	ug/L	1.578	1078880	2.681
|	Co	59	**53.611**	ug/L	1.011	436890	1.091
|	Ni	60	**53.600**	ug/L	1.754	100915	0.252
|	Cu	63		ug/L		236140	0.589
⌊	Cu	65	**52.077**	ug/L	1.536	117580	0.293
⌈	Zn	66	**52.112**	ug/L	1.547	76044	0.152
|	Zn	67		ug/L		29932	0.034
|	Zn	68		ug/L		55232	0.108
|>	Ge	74		ug/L		496057	496057.360
|	As	75	**48.906**	ug/L	0.967	73856	0.150
|	Se	77		ug/L		12992	0.012
|	Se	82	**49.965**	ug/L	2.870	7876	0.016
⌊	Kr	83		ug/L		137	-0.000
⌈	Sr	88	**54.271**	ug/L	2.485	961158	2.878
|	Y	89		ug/L		119	0.000
|	Mo	98	**49.006**	ug/L	3.544	233635	0.700
|	Ag	107	**52.610**	ug/L	2.993	421432	1.262
|	Cd	111	**51.427**	ug/L	2.143	104455	0.313
|	Cd	114		ug/L		244311	0.732
|>	In	115		ug/L		334023	334023.113
|	Sn	120	**52.691**	ug/L	3.573	427313	1.279
|	Sb	121	**54.043**	ug/L	3.070	364319	1.090
⌊	Sb	123		ug/L		286486	0.857
⌈	Ba	135		ug/L		115314	0.174
|	Ba	137	**49.566**	ug/L	2.291	200991	0.303
|	Ho	165		ug/L		59	0.000
|>	Lu	175		ug/L		663851	663850.793
|	Tl	205	**52.389**	ug/L	2.109	1413544	2.127
|	Pb	208	**55.266**	ug/L	1.770	2672392	4.025
|	Bi	209		ug/L		902	0.001
|	Th	232	**53.892**	ug/L	1.577	3199837	4.819
⌊	U	238	**55.370**	ug/L	0.825	3443184	5.186

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	108.391				
|	Be	9	108.386				
|	B	11	102.665				
|	Na	23	95.770				
|	Mg	24	108.004				
|	Al	27	107.906				
|	P	31	95.282				
|	K	39	103.025				
|	Ca	43	98.674				
|>	Sc	45			85.7		
|	Ti	47	100.150				
|	V	51	104.750				
|	Cr	52	104.861				
|	Cr	53					
|	Mn	55	109.021				
|	Fe	57	95.330				
|	Co	59	107.223				
|	Ni	60	107.200				
|	Cu	63					
⌊	Cu	65	104.154				
⌈	Zn	66	104.223				
|	Zn	67					
|	Zn	68					
|>	Ge	74			86.7		
|	As	75	97.812				
|	Se	77					
|	Se	82	99.930				
⌊	Kr	83					
⌈	Sr	88	108.542				
|	Y	89					
|	Mo	98	98.011				
|	Ag	107	105.220				
|	Cd	111	102.854				
|	Cd	114					
|>	In	115			87.9		
|	Sn	120	105.383				
|	Sb	121	108.087				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	99.132				
|	Ho	165					
|>	Lu	175			93.7		
|	Tl	205	104.778				
|	Pb	208	110.532				
|	Bi	209					
|	Th	232	107.784				
⌊	U	238	110.740				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, February 25, 2010 01:58:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 12.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.081**	**ug/L**	10.197	299	0.000
	Be	9	**0.018**	**ug/L**	51.844	33	0.000
	B	11	**2.579**	**ug/L**	15.125	1884	0.003
	Na	23	**1.316**	**ug/L**	84.987	22685	0.014
	Mg	24	**0.489**	**ug/L**	108.302	5334	0.003
	Al	27	**1.173**	**ug/L**	112.531	11338	0.011
	P	31	**1.722**	**ug/L**	86.879	5697	0.001
	K	39	**3.328**	**ug/L**	55.503	524112	0.046
	Ca	43	**0.968**	**ug/L**	59.645	341	0.000
>	Sc	45		**ug/L**		419767	419767.140
	Ti	47	**0.004**	**ug/L**	877.318	365	0.000
	V	51	**-1.017**	**ug/L**	82.790	-111	-0.020
	Cr	52	**-0.487**	**ug/L**	21.332	828	-0.008
	Cr	53		**ug/L**		109105	-0.018
	Mn	55	**-0.010**	**ug/L**	62.129	1378	-0.000
	Fe	57	**-2.374**	**ug/L**	42.893	5645	-0.001
	Co	59	**0.017**	**ug/L**	11.866	281	0.000
	Ni	60	**0.018**	**ug/L**	17.750	162	0.000
	Cu	63		**ug/L**		554	0.000
	Cu	65	**0.028**	**ug/L**	53.165	297	0.000
	Zn	66	**0.008**	**ug/L**	100.614	644	0.000
	Zn	67		**ug/L**		13924	0.000
	Zn	68		**ug/L**		1632	0.000
>	Ge	74		**ug/L**		518179	518178.770
	As	75	**0.331**	**ug/L**	97.478	-143	0.001
	Se	77		**ug/L**		6369	-0.002
	Se	82	**0.194**	**ug/L**	18.296	32	0.000
	Kr	83		**ug/L**		147	-0.000
	Sr	88	**0.016**	**ug/L**	25.521	573	0.001
	Y	89		**ug/L**		59	-0.000
	Mo	98	**0.086**	**ug/L**	12.447	565	0.001
	Ag	107	**0.009**	**ug/L**	7.425	155	0.000
	Cd	111	**0.019**	**ug/L**	49.545	72	0.000
	Cd	114		**ug/L**		158	0.000
>	In	115		**ug/L**		354160	354159.678
	Sn	120	**0.048**	**ug/L**	27.503	801	0.001
	Sb	121	**0.877**	**ug/L**	10.887	6799	0.018
	Sb	123		**ug/L**		5313	0.014
	Ba	135		**ug/L**		88	0.000
	Ba	137	**0.015**	**ug/L**	32.187	150	0.000
	Ho	165		**ug/L**		30	0.000
>	Lu	175		**ug/L**		692811	692811.033
	Tl	205	**0.297**	**ug/L**	15.828	10425	0.012
	Pb	208	**0.072**	**ug/L**	19.153	4624	0.005
	Bi	209		**ug/L**		573	-0.000
	Th	232	**0.062**	**ug/L**	6.357	4669	0.006
	U	238	**0.087**	**ug/L**	17.296	6259	0.008

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 03:06:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**53.465**	**ug/L**	1.954	118632	0.306
|	Be	9	**53.925**	**ug/L**	1.997	25821	0.067
|	B	11	**99.750**	**ug/L**	1.592	48652	0.124
|	Na	23	**4455.631**	**ug/L**	3.102	18422685	47.468
|	Mg	24	**4776.217**	**ug/L**	5.396	13019219	33.568
|	Al	27	**5033.646**	**ug/L**	3.899	17701688	45.633
|	P	31	**4544.170**	**ug/L**	0.649	1053826	2.706
|	K	39	**4592.157**	**ug/L**	5.447	25279389	64.018
|	Ca	43	**4816.015**	**ug/L**	1.923	67269	0.173
|>	Sc	45		**ug/L**		387700	387700.329
|	Ti	47	**49.528**	**ug/L**	3.202	36438	0.093
|	V	51	**49.899**	**ug/L**	3.841	392794	0.993
|	Cr	52	**51.839**	**ug/L**	1.935	323304	0.824
|	Cr	53		**ug/L**		170480	0.162
|	Mn	55	**54.104**	**ug/L**	2.127	535329	1.377
|	Fe	57	**4692.131**	**ug/L**	2.583	1028649	2.639
|	Co	59	**52.684**	**ug/L**	1.709	415824	1.072
|	Ni	60	**52.046**	**ug/L**	2.538	94908	0.245
|	Cu	63		**ug/L**		227636	0.586
⌊	Cu	65	**51.237**	**ug/L**	1.995	112052	0.288
⌈	Zn	66	**50.843**	**ug/L**	0.318	71998	0.148
|	Zn	67		**ug/L**		29748	0.035
|	Zn	68		**ug/L**		51891	0.105
|>	Ge	74		**ug/L**		481221	481220.561
|	As	75	**47.765**	**ug/L**	1.495	69952	0.147
|	Se	77		**ug/L**		13474	0.014
|	Se	82	**49.353**	**ug/L**	3.993	7546	0.016
⌊	Kr	83		**ug/L**		134	-0.000
⌈	Sr	88	**52.285**	**ug/L**	2.686	918989	2.773
|	Y	89		**ug/L**		155	0.000
|	Mo	98	**47.993**	**ug/L**	2.726	227104	0.685
|	Ag	107	**51.141**	**ug/L**	2.709	406585	1.227
|	Cd	111	**49.932**	**ug/L**	3.069	100630	0.304
|	Cd	114		**ug/L**		235139	0.709
|>	In	115		**ug/L**		331469	331469.489
|	Sn	120	**52.088**	**ug/L**	3.245	419230	1.264
|	Sb	121	**51.190**	**ug/L**	3.297	342473	1.032
⌊	Sb	123		**ug/L**		271371	0.818
⌈	Ba	135		**ug/L**		110871	0.165
|	Ba	137	**48.101**	**ug/L**	0.597	197420	0.294
|	Ho	165		**ug/L**		62	0.000
|>	Lu	175		**ug/L**		671772	671772.270
|	Tl	205	**50.110**	**ug/L**	2.090	1368390	2.034
|	Pb	208	**53.590**	**ug/L**	2.298	2621957	3.902
|	Bi	209		**ug/L**		848	0.000
|	Th	232	**50.971**	**ug/L**	1.947	3062468	4.558
⌊	U	238	**51.964**	**ug/L**	0.543	3270061	4.867

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	106.929				
|	Be	9	107.850				
|	B	11	99.750				
|	Na	23	89.113				
|	Mg	24	95.524				
|	Al	27	99.676				
|	P	31	90.883				
|	K	39	91.843				
|	Ca	43	96.320				
|>	Sc	45		83.0			
|	Ti	47	99.055				
|	V	51	99.799				
|	Cr	52	103.679				
|	Cr	53					
|	Mn	55	108.207				
|	Fe	57	93.843				
|	Co	59	105.369				
|	Ni	60	104.092				
|	Cu	63					
⌊	Cu	65	102.474				
⌈	Zn	66	101.686				
|	Zn	67					
|	Zn	68					
|>	Ge	74		84.1			
|	As	75	95.529				
|	Se	77					
|	Se	82	98.706				
⌊	Kr	83					
⌈	Sr	88	104.570				
|	Y	89					
|	Mo	98	95.986				
|	Ag	107	102.281				
|	Cd	111	99.864				
|	Cd	114					
|>	In	115		87.3			
|	Sn	120	104.176				
|	Sb	121	102.380				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	96.202				
|	Ho	165					
|>	Lu	175		94.8			
|	Tl	205	100.221				
|	Pb	208	107.179				
|	Bi	209					
|	Th	232	101.942				
⌊	U	238	103.927				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 03:12:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**-0.002**	**ug/L**	181.797	93	-0.000
|	Be	9	**0.013**	**ug/L**	92.819	29	0.000
|	B	11	**2.538**	**ug/L**	12.464	1751	0.003
|	Na	23	**0.699**	**ug/L**	252.559	18680	0.007
|	Mg	24	**-0.119**	**ug/L**	174.163	3334	-0.001
|	Al	27	**0.522**	**ug/L**	164.908	8336	0.005
|	P	31	**1.329**	**ug/L**	32.453	5261	0.001
|	K	39	**7.771**	**ug/L**	109.355	516903	0.108
|	Ca	43	**2.269**	**ug/L**	113.069	339	0.000
|>	Sc	45		**ug/L**		394424	394423.568
|	Ti	47	**0.008**	**ug/L**	876.599	346	0.000
|	V	51	**-1.188**	**ug/L**	23.281	-1433	-0.024
|	Cr	52	**-0.577**	**ug/L**	10.875	218	-0.009
|	Cr	53		**ug/L**		112822	0.008
|	Mn	55	**-0.016**	**ug/L**	16.502	1237	-0.000
|	Fe	57	**-2.116**	**ug/L**	7.287	5362	-0.001
|	Co	59	**0.004**	**ug/L**	23.457	153	0.000
|	Ni	60	**0.003**	**ug/L**	344.680	124	0.000
|	Cu	63		**ug/L**		385	-0.000
⌊	Cu	65	**-0.003**	**ug/L**	129.972	211	-0.000
⌈	Zn	66	**-0.014**	**ug/L**	215.355	588	-0.000
|	Zn	67		**ug/L**		13821	0.001
|	Zn	68		**ug/L**		1600	0.000
|>	Ge	74		**ug/L**		497771	497770.977
|	As	75	**0.140**	**ug/L**	10.133	-434	0.000
|	Se	77		**ug/L**		6583	-0.001
|	Se	82	**-0.002**	**ug/L**	3289.256	-0	-0.000
⌊	Kr	83		**ug/L**		151	0.000
⌈	Sr	88	**0.003**	**ug/L**	27.952	314	0.000
|	Y	89		**ug/L**		62	-0.000
|	Mo	98	**0.020**	**ug/L**	18.977	229	0.000
|	Ag	107	**0.003**	**ug/L**	65.382	102	0.000
|	Cd	111	**0.007**	**ug/L**	30.382	44	0.000
|	Cd	114		**ug/L**		74	0.000
|>	In	115		**ug/L**		347292	347291.835
|	Sn	120	**0.009**	**ug/L**	15.923	465	0.000
|	Sb	121	**0.142**	**ug/L**	15.937	1529	0.003
⌊	Sb	123		**ug/L**		1169	0.002
⌈	Ba	135		**ug/L**		65	0.000
|	Ba	137	**-0.000**	**ug/L**	430.105	87	-0.000
|	Ho	165		**ug/L**		28	0.000
|>	Lu	175		**ug/L**		688217	688216.705
|	Tl	205	**0.228**	**ug/L**	22.575	8414	0.009
|	Pb	208	**0.005**	**ug/L**	6.134	1229	0.000
|	Bi	209		**ug/L**		507	-0.000
|	Th	232	**0.025**	**ug/L**	11.434	2360	0.002
⌊	U	238	**0.006**	**ug/L**	7.177	1001	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		84.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 04:01:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**53.297**	**ug/L**	0.876	110710	0.305
|	Be	9	**54.146**	**ug/L**	3.019	24265	0.067
|	B	11	**100.480**	**ug/L**	3.587	45859	0.125
|	Na	23	**4171.471**	**ug/L**	2.958	16138293	44.441
|	Mg	24	**4586.782**	**ug/L**	5.716	11694894	32.237
|	Al	27	**5055.741**	**ug/L**	4.486	16631740	45.833
|	P	31	**4577.718**	**ug/L**	2.256	993543	2.726
|	K	39	**4802.389**	**ug/L**	2.715	24743549	66.949
|	Ca	43	**4846.935**	**ug/L**	0.926	63379	0.174
|>	Sc	45		**ug/L**		362947	362947.495
|	Ti	47	**49.047**	**ug/L**	3.723	33775	0.092
|	V	51	**50.336**	**ug/L**	6.076	370668	1.002
|	Cr	52	**51.846**	**ug/L**	1.989	302704	0.824
|	Cr	53		**ug/L**		167069	0.183
|	Mn	55	**53.537**	**ug/L**	2.899	495800	1.363
|	Fe	57	**4713.288**	**ug/L**	3.470	967035	2.651
|	Co	59	**53.158**	**ug/L**	2.348	392706	1.082
|	Ni	60	**52.434**	**ug/L**	1.328	89505	0.246
|	Cu	63		**ug/L**		213057	0.586
⌊	Cu	65	**51.062**	**ug/L**	1.162	104532	0.287
⌈	Zn	66	**50.557**	**ug/L**	2.303	67110	0.148
|	Zn	67		**ug/L**		27645	0.035
|	Zn	68		**ug/L**		49177	0.106
|>	Ge	74		**ug/L**		451139	451139.409
|	As	75	**48.399**	**ug/L**	2.181	66454	0.149
|	Se	77		**ug/L**		13618	0.016
|	Se	82	**50.015**	**ug/L**	0.660	7172	0.016
⌊	Kr	83		**ug/L**		136	-0.000
⌈	Sr	88	**53.795**	**ug/L**	2.400	874162	2.853
|	Y	89		**ug/L**		146	0.000
|	Mo	98	**48.885**	**ug/L**	0.506	213906	0.698
|	Ag	107	**51.628**	**ug/L**	1.230	379525	1.239
|	Cd	111	**50.511**	**ug/L**	0.583	94137	0.307
|	Cd	114		**ug/L**		218241	0.712
|>	In	115		**ug/L**		306374	306373.728
|	Sn	120	**52.632**	**ug/L**	1.336	391718	1.278
|	Sb	121	**52.095**	**ug/L**	0.572	322301	1.050
⌊	Sb	123		**ug/L**		255324	0.832
⌈	Ba	135		**ug/L**		104261	0.162
|	Ba	137	**47.032**	**ug/L**	1.624	184518	0.287
|	Ho	165		**ug/L**		64	0.000
|>	Lu	175		**ug/L**		642286	642285.524
|	Tl	205	**47.409**	**ug/L**	2.192	1238198	1.924
|	Pb	208	**53.506**	**ug/L**	1.974	2502884	3.896
|	Bi	209		**ug/L**		767	0.000
|	Th	232	**50.854**	**ug/L**	1.982	2920992	4.548
⌊	U	238	**52.228**	**ug/L**	2.841	3141856	4.892

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	106.593				
|	Be	9	108.292				
|	B	11	100.480				
|	Na	23	83.429				
|	Mg	24	91.736				
|	Al	27	100.114				
|	P	31	91.554				
|	K	39	96.048				
|	Ca	43	96.939				
|>	Sc	45		77.7			
|	Ti	47	98.095				
|	V	51	100.671				
|	Cr	52	103.692				
|	Cr	53					
|	Mn	55	107.074				
|	Fe	57	94.266				
|	Co	59	106.317				
|	Ni	60	104.868				
|	Cu	63					
⌊	Cu	65	102.124				
⌈	Zn	66	101.114				
|	Zn	67					
|	Zn	68					
|>	Ge	74		78.9			
|	As	75	96.798				
|	Se	77					
|	Se	82	100.031				
⌊	Kr	83					
⌈	Sr	88	107.591				
|	Y	89					
|	Mo	98	97.769				
|	Ag	107	103.257				
|	Cd	111	101.022				
|	Cd	114					
|>	In	115		80.7			
|	Sn	120	105.263				
|	Sb	121	104.191				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	94.064				
|	Ho	165					
|>	Lu	175		90.7			
|	Tl	205	94.818				
|	Pb	208	107.012				
|	Bi	209					
|	Th	232	101.709				
⌊	U	238	104.456				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 04:07:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**-0.007**	**ug/L**	70.600	75	-0.000
|	Be	9	**0.001**	**ug/L**	427.705	21	0.000
|	B	11	**2.858**	**ug/L**	13.649	1735	0.004
|	Na	23	**2.439**	**ug/L**	61.149	23687	0.026
|	Mg	24	**-0.394**	**ug/L**	209.953	2334	-0.003
|	Al	27	**0.134**	**ug/L**	261.103	6335	0.001
|	P	31	**1.182**	**ug/L**	136.933	4755	0.001
|	K	39	**5.490**	**ug/L**	106.207	458943	0.077
|	Ca	43	**3.046**	**ug/L**	45.207	318	0.000
\>	Sc	45		**ug/L**		358890	358890.056
|	Ti	47	**0.028**	**ug/L**	71.080	328	0.000
|	V	51	**-1.351**	**ug/L**	6.580	-2470	-0.027
|	Cr	52	**-0.516**	**ug/L**	15.492	547	-0.008
|	Cr	53		**ug/L**		104474	0.013
|	Mn	55	**-0.015**	**ug/L**	1.320	1138	-0.000
|	Fe	57	**-3.066**	**ug/L**	9.844	4687	-0.002
|	Co	59	**0.004**	**ug/L**	29.358	141	0.000
|	Ni	60	**0.018**	**ug/L**	28.015	139	0.000
|	Cu	63		**ug/L**		370	0.000
⌊	Cu	65	**-0.003**	**ug/L**	222.559	192	-0.000
⌈	Zn	66	**-0.088**	**ug/L**	17.806	449	-0.000
|	Zn	67		**ug/L**		12172	-0.001
|	Zn	68		**ug/L**		1411	0.000
\>	Ge	74		**ug/L**		466737	466736.805
|	As	75	**0.324**	**ug/L**	144.041	-140	0.001
|	Se	77		**ug/L**		6273	-0.001
|	Se	82	**0.082**	**ug/L**	142.286	12	0.000
⌊	Kr	83		**ug/L**		123	-0.000
⌈	Sr	88	**0.003**	**ug/L**	29.478	298	0.000
|	Y	89		**ug/L**		55	-0.000
|	Mo	98	**0.024**	**ug/L**	22.589	233	0.000
|	Ag	107	**0.003**	**ug/L**	88.056	98	0.000
|	Cd	111	**0.002**	**ug/L**	268.427	32	0.000
|	Cd	114		**ug/L**		77	0.000
\>	In	115		**ug/L**		324681	324681.252
|	Sn	120	**0.012**	**ug/L**	31.440	456	0.000
|	Sb	121	**0.144**	**ug/L**	16.700	1443	0.003
⌊	Sb	123		**ug/L**		1182	0.002
⌈	Ba	135		**ug/L**		58	0.000
|	Ba	137	**-0.000**	**ug/L**	774.420	84	-0.000
|	Ho	165		**ug/L**		23	0.000
\>	Lu	175		**ug/L**		664658	664658.160
|	Tl	205	**1.290**	**ug/L**	8.742	36744	0.052
|	Pb	208	**0.004**	**ug/L**	43.036	1148	0.000
|	Bi	209		**ug/L**		514	-0.000
|	Th	232	**0.027**	**ug/L**	8.660	2372	0.002
⌊	U	238	**0.006**	**ug/L**	26.064	963	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		76.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		81.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 04:14:08
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032562.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.016**	**ug/L**	22.151	128	0.000
	Be	9	**-0.009**	**ug/L**	29.117	17	-0.000
	B	11	**1.401**	**ug/L**	17.463	1134	0.002
	Na	23	**4.350**	**ug/L**	35.523	32371	0.046
	Mg	24	**-0.560**	**ug/L**	68.232	2000	-0.004
	Al	27	**7.783**	**ug/L**	4.956	32704	0.071
	P	31	**6.164**	**ug/L**	43.133	6087	0.004
	K	39	**21.005**	**ug/L**	11.696	561489	0.293
	Ca	43	**30.231**	**ug/L**	3.138	699	0.001
>	Sc	45		**ug/L**		375746	375745.796
	Ti	47	**0.449**	**ug/L**	5.663	641	0.001
	V	51	**-7.066**	**ug/L**	16.943	-45278	-0.141
	Cr	52	**-0.014**	**ug/L**	288.062	3574	-0.000
	Cr	53		**ug/L**		299123	0.519
	Mn	55	**0.270**	**ug/L**	5.227	3919	0.007
	Fe	57	**19.815**	**ug/L**	3.550	9741	0.011
	Co	59	**-0.002**	**ug/L**	64.075	105	-0.000
	Ni	60	**0.059**	**ug/L**	20.296	218	0.000
	Cu	63		**ug/L**		660	0.001
	Cu	65	**0.067**	**ug/L**	16.819	348	0.000
	Zn	66	**1.501**	**ug/L**	2.297	2515	0.004
	Zn	67		**ug/L**		55765	0.097
	Zn	68		**ug/L**		4784	0.008
>	Ge	74		**ug/L**		449040	449040.038
	As	75	**-1.259**	**ug/L**	75.403	-2320	-0.004
	Se	77		**ug/L**		21464	0.033
	Se	82	**0.095**	**ug/L**	50.908	14	0.000
	Kr	83		**ug/L**		116	-0.000
	Sr	88	**0.103**	**ug/L**	3.988	1818	0.005
	Y	89		**ug/L**		82	0.000
	Mo	98	**0.030**	**ug/L**	15.255	234	0.000
	Ag	107	**-0.001**	**ug/L**	75.904	61	-0.000
	Cd	111	**-0.003**	**ug/L**	179.448	20	-0.000
	Cd	114		**ug/L**		35	-0.000
>	In	115		**ug/L**		291215	291215.233
	Sn	120	**0.147**	**ug/L**	3.602	1361	0.004
	Sb	121	**0.093**	**ug/L**	28.490	990	0.002
	Sb	123		**ug/L**		800	0.002
	Ba	135		**ug/L**		131	0.000
	Ba	137	**0.040**	**ug/L**	11.205	230	0.000
	Ho	165		**ug/L**		28	0.000
>	Lu	175		**ug/L**		620339	620338.726
	Tl	205	**0.831**	**ug/L**	3.621	22760	0.034
	Pb	208	**0.012**	**ug/L**	8.330	1401	0.001
	Bi	209		**ug/L**		329	-0.000
	Th	232	**0.032**	**ug/L**	27.318	2528	0.003
	U	238	**-0.006**	**ug/L**	5.233	219	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		80.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		78.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		76.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 04:20:19
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032563.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**49.569**	**ug/L**	1.851	104603	0.283
|	Be	9	**53.487**	**ug/L**	0.551	24361	0.066
|	B	11	**98.988**	**ug/L**	1.738	45918	0.123
|	Na	23	**1723.869**	**ug/L**	3.011	6784493	18.365
|	Mg	24	**1958.303**	**ug/L**	5.903	5078942	13.763
|	Al	27	**2003.800**	**ug/L**	6.081	6705005	18.165
|	P	31	**1877.731**	**ug/L**	2.492	416782	1.118
|	K	39	**1949.349**	**ug/L**	7.980	10459592	27.175
|	Ca	43	**1885.290**	**ug/L**	1.577	25220	0.068
|>	Sc	45		**ug/L**		368745	368744.994
|	Ti	47	**42.497**	**ug/L**	2.978	29779	0.080
|	V	51	**38.420**	**ug/L**	4.356	289276	0.765
|	Cr	52	**47.878**	**ug/L**	3.131	284186	0.761
|	Cr	53		**ug/L**		324168	0.602
|	Mn	55	**50.570**	**ug/L**	2.495	475927	1.287
|	Fe	57	**1870.062**	**ug/L**	1.803	393191	1.052
|	Co	59	**49.544**	**ug/L**	3.461	371830	1.008
|	Ni	60	**48.465**	**ug/L**	2.757	84051	0.228
|	Cu	63		**ug/L**		202473	0.548
⌊	Cu	65	**47.455**	**ug/L**	2.259	98703	0.267
⌈	Zn	66	**49.371**	**ug/L**	2.096	64352	0.144
|	Zn	67		**ug/L**		66996	0.125
|	Zn	68		**ug/L**		49465	0.109
|>	Ge	74		**ug/L**		442864	442864.089
|	As	75	**45.802**	**ug/L**	0.542	61708	0.141
|	Se	77		**ug/L**		25591	0.043
|	Se	82	**49.700**	**ug/L**	0.975	6997	0.016
⌊	Kr	83		**ug/L**		127	-0.000
⌈	Sr	88	**52.381**	**ug/L**	1.355	801820	2.778
|	Y	89		**ug/L**		124	0.000
|	Mo	98	**48.629**	**ug/L**	2.407	200393	0.694
|	Ag	107	**51.470**	**ug/L**	2.157	356353	1.235
|	Cd	111	**48.569**	**ug/L**	2.043	85251	0.295
|	Cd	114		**ug/L**		197890	0.685
|>	In	115		**ug/L**		288597	288597.458
|	Sn	120	**50.304**	**ug/L**	2.798	352607	1.221
|	Sb	121	**52.327**	**ug/L**	2.756	304870	1.055
⌊	Sb	123		**ug/L**		240133	0.831
⌈	Ba	135		**ug/L**		92888	0.152
|	Ba	137	**44.194**	**ug/L**	2.352	165053	0.270
|	Ho	165		**ug/L**		52	0.000
|>	Lu	175		**ug/L**		611402	611401.608
|	Tl	205	**43.929**	**ug/L**	5.775	1091482	1.783
|	Pb	208	**52.668**	**ug/L**	1.824	2345327	3.835
|	Bi	209		**ug/L**		1852324	3.029
|	Th	232	**47.940**	**ug/L**	2.144	2621285	4.287
⌊	U	238	**49.516**	**ug/L**	2.470	2835286	4.638

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45		79.0			
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74		77.4			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115		76.0			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175		86.3			
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245965001
Sample Date/Time: Thursday, February 25, 2010 04:38:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\245965001.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**0.121**	**ug/L**	14.200	342	0.001
|	Be	9	**-0.003**	**ug/L**	560.931	20	-0.000
|	B	11	**18.337**	**ug/L**	1.675	8749	0.023
|	Na	23	**92.785**	**ug/L**	3.700	373147	0.988
|	Mg	24	**4.557**	**ug/L**	36.551	15008	0.032
|	Al	27	**21.167**	**ug/L**	17.587	75536	0.192
|	P	31	**7.994**	**ug/L**	15.725	6279	0.005
|	K	39	**218.840**	**ug/L**	3.598	1543092	3.051
|	Ca	43	**47.151**	**ug/L**	13.763	895	0.002
|>	Sc	45		**ug/L**		362863	362863.027
|	Ti	47	**0.872**	**ug/L**	4.653	908	0.002
|	V	51	**-6.286**	**ug/L**	9.059	-38145	-0.125
|	Cr	52	**0.314**	**ug/L**	70.409	5348	0.005
|	Cr	53		**ug/L**		304190	0.561
|	Mn	55	**0.537**	**ug/L**	1.229	6244	0.014
|	Fe	57	**16.645**	**ug/L**	2.886	8762	0.009
|	Co	59	**0.006**	**ug/L**	14.668	156	0.000
|	Ni	60	**0.151**	**ug/L**	6.891	367	0.001
|	Cu	63		**ug/L**		2570	0.006
⌊	Cu	65	**0.509**	**ug/L**	8.148	1239	0.003
⌈	Zn	66	**1.406**	**ug/L**	3.515	2297	0.004
|	Zn	67		**ug/L**		59279	0.111
|	Zn	68		**ug/L**		4822	0.008
|>	Ge	74		**ug/L**		431644	431643.921
|	As	75	**-1.714**	**ug/L**	32.473	-2837	-0.005
|	Se	77		**ug/L**		22065	0.037
|	Se	82	**-0.003**	**ug/L**	5240.051	-0	-0.000
⌊	Kr	83		**ug/L**		132	0.000
⌈	Sr	88	**0.191**	**ug/L**	3.537	3078	0.010
|	Y	89		**ug/L**		218	0.001
|	Mo	98	**0.046**	**ug/L**	13.385	292	0.001
|	Ag	107	**0.003**	**ug/L**	22.215	87	0.000
|	Cd	111	**0.002**	**ug/L**	275.413	28	0.000
|	Cd	114		**ug/L**		33	-0.000
|>	In	115		**ug/L**		282899	282899.208
|	Sn	120	**0.386**	**ug/L**	4.590	2962	0.009
|	Sb	121	**-0.005**	**ug/L**	37.115	404	-0.000
⌊	Sb	123		**ug/L**		315	-0.000
⌈	Ba	135		**ug/L**		1794	0.003
|	Ba	137	**0.835**	**ug/L**	4.334	3156	0.005
|	Ho	165		**ug/L**		36	0.000
|>	Lu	175		**ug/L**		604228	604227.989
|	Tl	205	**0.503**	**ug/L**	4.506	14143	0.020
|	Pb	208	**0.055**	**ug/L**	3.927	3284	0.004
|	Bi	209		**ug/L**		356	-0.000
|	Th	232	**0.007**	**ug/L**	8.400	1088	0.001
⌊	U	238	**-0.002**	**ug/L**	15.290	452	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
\>	Sc	45		77.7			
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
\>	Ge	74		75.5			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
\>	In	115		74.5			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
\>	Lu	175		85.3			
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 04:57:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**53.506**	**ug/L**	0.339	109582	0.306
|	Be	9	**54.515**	**ug/L**	0.898	24094	0.067
|	B	11	**99.038**	**ug/L**	1.385	44587	0.123
|	Na	23	**4616.235**	**ug/L**	9.139	17595928	49.179
|	Mg	24	**5036.190**	**ug/L**	4.456	12664742	35.395
|	Al	27	**5078.636**	**ug/L**	3.934	16474220	46.040
|	P	31	**4592.433**	**ug/L**	3.138	982657	2.734
|	K	39	**4762.234**	**ug/L**	3.561	24180152	66.389
|	Ca	43	**4847.075**	**ug/L**	1.802	62484	0.174
|>	Sc	45		**ug/L**		357833	357833.029
|	Ti	47	**49.687**	**ug/L**	0.710	33742	0.093
|	V	51	**50.563**	**ug/L**	4.728	367223	1.007
|	Cr	52	**51.936**	**ug/L**	2.975	298873	0.826
|	Cr	53		**ug/L**		170179	0.198
|	Mn	55	**54.215**	**ug/L**	1.908	495131	1.380
|	Fe	57	**4774.446**	**ug/L**	3.694	965925	2.685
|	Co	59	**53.053**	**ug/L**	2.866	386422	1.080
|	Ni	60	**53.199**	**ug/L**	1.625	89530	0.250
|	Cu	63		**ug/L**		210242	0.587
⌊	Cu	65	**51.309**	**ug/L**	2.290	103546	0.289
⌈	Zn	66	**49.773**	**ug/L**	1.522	66136	0.145
|	Zn	67		**ug/L**		28288	0.036
|	Zn	68		**ug/L**		48867	0.105
|>	Ge	74		**ug/L**		451461	451460.838
|	As	75	**48.008**	**ug/L**	0.832	65967	0.147
|	Se	77		**ug/L**		13698	0.016
|	Se	82	**49.592**	**ug/L**	2.864	7117	0.016
⌊	Kr	83		**ug/L**		128	-0.000
⌈	Sr	88	**52.768**	**ug/L**	1.425	855952	2.798
|	Y	89		**ug/L**		149	0.000
|	Mo	98	**48.988**	**ug/L**	3.210	213900	0.699
|	Ag	107	**51.362**	**ug/L**	2.086	376828	1.232
|	Cd	111	**50.212**	**ug/L**	2.678	93390	0.305
|	Cd	114		**ug/L**		216323	0.707
|>	In	115		**ug/L**		305832	305831.645
|	Sn	120	**51.900**	**ug/L**	2.512	385500	1.260
|	Sb	121	**52.095**	**ug/L**	1.504	321698	1.050
⌊	Sb	123		**ug/L**		251575	0.821
⌈	Ba	135		**ug/L**		102932	0.163
|	Ba	137	**47.701**	**ug/L**	2.112	184012	0.291
|	Ho	165		**ug/L**		65	0.000
|>	Lu	175		**ug/L**		631515	631515.344
|	Tl	205	**46.443**	**ug/L**	1.654	1192587	1.885
|	Pb	208	**54.462**	**ug/L**	2.067	2505112	3.966
|	Bi	209		**ug/L**		753	0.000
|	Th	232	**51.448**	**ug/L**	0.273	2906226	4.601
⌊	U	238	**52.522**	**ug/L**	1.676	3106822	4.919

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.011				
	Be	9	109.029				
	B	11	99.038				
	Na	23	92.325				
	Mg	24	100.724				
	Al	27	100.567				
	P	31	91.849				
	K	39	95.245				
	Ca	43	96.942				
>	Sc	45		76.7			
	Ti	47	99.375				
	V	51	101.126				
	Cr	52	103.872				
	Cr	53					
	Mn	55	108.431				
	Fe	57	95.489				
	Co	59	106.105				
	Ni	60	106.397				
	Cu	63					
	Cu	65	102.617				
	Zn	66	99.546				
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75	96.016				
	Se	77					
	Se	82	99.183				
	Kr	83					
	Sr	88	105.535				
	Y	89					
	Mo	98	97.976				
	Ag	107	102.723				
	Cd	111	100.424				
	Cd	114					
>	In	115		80.5			
	Sn	120	103.799				
	Sb	121	104.191				
	Sb	123					
	Ba	135					
	Ba	137	95.401				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	92.886				
	Pb	208	108.923				
	Bi	209					
	Th	232	102.896				
	U	238	105.044				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 05:03:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**-0.012**	**ug/L**	7.011	65	-0.000
|	Be	9	**0.018**	**ug/L**	81.045	29	0.000
|	B	11	**2.520**	**ug/L**	20.602	1581	0.003
|	Na	23	**1.317**	**ug/L**	109.316	19347	0.014
|	Mg	24	**-0.261**	**ug/L**	317.906	2667	-0.002
|	Al	27	**-0.580**	**ug/L**	91.800	4001	-0.005
|	P	31	**0.653**	**ug/L**	186.201	4630	0.000
|	K	39	**4.170**	**ug/L**	428.340	451196	0.058
|	Ca	43	**1.918**	**ug/L**	39.840	303	0.000
|>	Sc	45		**ug/L**		357906	357906.486
|	Ti	47	**-0.014**	**ug/L**	177.898	299	-0.000
|	V	51	**-1.313**	**ug/L**	9.952	-2185	-0.026
|	Cr	52	**-0.637**	**ug/L**	9.607	-145	-0.010
|	Cr	53		**ug/L**		103662	0.012
|	Mn	55	**-0.012**	**ug/L**	60.588	1158	-0.000
|	Fe	57	**-2.516**	**ug/L**	16.303	4785	-0.001
|	Co	59	**0.005**	**ug/L**	11.714	149	0.000
|	Ni	60	**0.003**	**ug/L**	57.184	112	0.000
|	Cu	63		**ug/L**		346	-0.000
⌊	Cu	65	**0.006**	**ug/L**	92.591	210	0.000
⌈	Zn	66	**-0.091**	**ug/L**	4.032	435	-0.000
|	Zn	67		**ug/L**		12332	0.000
|	Zn	68		**ug/L**		1377	0.000
|>	Ge	74		**ug/L**		455989	455989.224
|	As	75	**0.415**	**ug/L**	33.315	-11	0.001
|	Se	77		**ug/L**		6238	-0.001
|	Se	82	**0.102**	**ug/L**	102.734	15	0.000
⌊	Kr	83		**ug/L**		125	-0.000
⌈	Sr	88	**0.004**	**ug/L**	21.231	308	0.000
|	Y	89		**ug/L**		59	-0.000
|	Mo	98	**0.022**	**ug/L**	28.215	216	0.000
|	Ag	107	**0.004**	**ug/L**	88.816	106	0.000
|	Cd	111	**0.006**	**ug/L**	78.285	39	0.000
|	Cd	114		**ug/L**		85	0.000
|>	In	115		**ug/L**		318667	318667.410
|	Sn	120	**0.016**	**ug/L**	16.376	477	0.000
|	Sb	121	**0.142**	**ug/L**	18.622	1397	0.003
⌊	Sb	123		**ug/L**		1102	0.002
⌈	Ba	135		**ug/L**		65	0.000
|	Ba	137	**-0.000**	**ug/L**	3212.883	83	-0.000
|	Ho	165		**ug/L**		22	0.000
|>	Lu	175		**ug/L**		652645	652644.906
|	Tl	205	**1.016**	**ug/L**	10.806	28833	0.041
|	Pb	208	**0.005**	**ug/L**	2.478	1156	0.000
|	Bi	209		**ug/L**		551	0.000
|	Th	232	**0.027**	**ug/L**	8.748	2327	0.002
⌊	U	238	**0.006**	**ug/L**	19.481	960	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		76.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		79.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		83.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 05:15:52
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032564.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.124**	**ug/L**	3.159	347	0.001
	Be	9	**-0.001**	**ug/L**	1434.911	21	-0.000
	B	11	**18.592**	**ug/L**	1.446	8852	0.023
	Na	23	**251.160**	**ug/L**	6.598	984201	2.676
	Mg	24	**9.424**	**ug/L**	27.192	27360	0.066
	Al	27	**41.416**	**ug/L**	11.427	142042	0.375
	P	31	**8.631**	**ug/L**	15.302	6409	0.005
	K	39	**182.608**	**ug/L**	5.241	1357995	2.546
	Ca	43	**57.893**	**ug/L**	8.766	1034	0.002
>	Sc	45		**ug/L**		362357	362357.332
	Ti	47	**1.030**	**ug/L**	0.840	1014	0.002
	V	51	**-6.936**	**ug/L**	16.071	-42796	-0.138
	Cr	52	**0.861**	**ug/L**	29.754	8488	0.014
	Cr	53		**ug/L**		307959	0.572
	Mn	55	**0.615**	**ug/L**	0.837	6960	0.016
	Fe	57	**18.038**	**ug/L**	7.781	9033	0.010
	Co	59	**0.004**	**ug/L**	3.140	146	0.000
	Ni	60	**0.110**	**ug/L**	11.094	296	0.001
	Cu	63		**ug/L**		2657	0.006
	Cu	65	**0.543**	**ug/L**	1.168	1308	0.003
	Zn	66	**1.349**	**ug/L**	0.752	2194	0.004
	Zn	67		**ug/L**		53014	0.098
	Zn	68		**ug/L**		4405	0.007
>	Ge	74		**ug/L**		425364	425364.422
	As	75	**-1.587**	**ug/L**	30.338	-2626	-0.005
	Se	77		**ug/L**		24785	0.044
	Se	82	**0.113**	**ug/L**	126.016	15	0.000
	Kr	83		**ug/L**		114	-0.000
	Sr	88	**0.222**	**ug/L**	1.047	3507	0.012
	Y	89		**ug/L**		359	0.001
	Mo	98	**0.012**	**ug/L**	14.229	151	0.000
	Ag	107	**0.011**	**ug/L**	24.348	139	0.000
	Cd	111	**0.001**	**ug/L**	1063.766	26	0.000
	Cd	114		**ug/L**		47	-0.000
>	In	115		**ug/L**		280041	280040.501
	Sn	120	**0.276**	**ug/L**	0.637	2189	0.007
	Sb	121	**0.011**	**ug/L**	90.073	488	0.000
	Sb	123		**ug/L**		386	0.000
	Ba	135		**ug/L**		796	0.001
	Ba	137	**0.345**	**ug/L**	4.685	1343	0.002
	Ho	165		**ug/L**		45	0.000
>	Lu	175		**ug/L**		600179	600178.698
	Tl	205	**0.274**	**ug/L**	4.149	8469	0.011
	Pb	208	**0.137**	**ug/L**	3.445	6828	0.010
	Bi	209		**ug/L**		768	0.000
	Th	232	**0.014**	**ug/L**	11.562	1439	0.001
	U	238	**0.007**	**ug/L**	10.552	920	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		77.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		74.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		73.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		84.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 05:22:04
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032565.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**46.348**	**ug/L**	0.616	100386	0.265
|	Be	9	**51.058**	**ug/L**	1.288	23862	0.063
|	B	11	**112.113**	**ug/L**	3.218	53293	0.140
|	Na	23	**2102.246**	**ug/L**	1.918	8491428	22.396
|	Mg	24	**2025.051**	**ug/L**	9.582	5393717	14.232
|	Al	27	**2096.404**	**ug/L**	8.492	7192425	19.005
|	P	31	**1776.591**	**ug/L**	2.501	404903	1.058
|	K	39	**1918.428**	**ug/L**	2.266	10575946	26.744
|	Ca	43	**1903.254**	**ug/L**	3.144	26117	0.068
|>	Sc	45		**ug/L**		378395	378394.950
|	Ti	47	**41.965**	**ug/L**	2.097	30182	0.079
|	V	51	**35.766**	**ug/L**	2.849	276914	0.712
|	Cr	52	**48.741**	**ug/L**	1.558	296849	0.775
|	Cr	53		**ug/L**		334865	0.607
|	Mn	55	**47.573**	**ug/L**	2.893	459466	1.211
|	Fe	57	**1784.687**	**ug/L**	3.326	385228	1.004
|	Co	59	**46.837**	**ug/L**	3.092	360716	0.953
|	Ni	60	**45.989**	**ug/L**	2.969	81841	0.216
|	Cu	63		**ug/L**		194638	0.514
⌊	Cu	65	**44.187**	**ug/L**	1.800	94328	0.249
⌈	Zn	66	**48.302**	**ug/L**	2.556	61956	0.141
|	Zn	67		**ug/L**		65350	0.123
|	Zn	68		**ug/L**		47075	0.105
|>	Ge	74		**ug/L**		435812	435811.885
|	As	75	**69.840**	**ug/L**	2.673	92868	0.214
|	Se	77		**ug/L**		25509	0.044
|	Se	82	**19.025**	**ug/L**	4.187	2635	0.006
⌊	Kr	83		**ug/L**		139	0.000
⌈	Sr	88	**51.998**	**ug/L**	1.358	767904	2.758
|	Y	89		**ug/L**		361	0.001
|	Mo	98	**49.210**	**ug/L**	2.112	195647	0.702
|	Ag	107	**52.208**	**ug/L**	1.463	348760	1.253
|	Cd	111	**10.250**	**ug/L**	2.148	17377	0.062
|	Cd	114		**ug/L**		38530	0.138
|>	In	115		**ug/L**		278448	278447.753
|	Sn	120	**50.999**	**ug/L**	1.680	344926	1.238
|	Sb	121	**196.030**	**ug/L**	2.833	1100667	3.953
⌊	Sb	123		**ug/L**		889988	3.196
⌈	Ba	135		**ug/L**		90502	0.147
|	Ba	137	**42.890**	**ug/L**	1.118	161441	0.262
|	Ho	165		**ug/L**		363	0.001
|>	Lu	175		**ug/L**		616160	616160.306
|	Tl	205	**58.182**	**ug/L**	9.183	1455510	2.362
|	Pb	208	**41.180**	**ug/L**	0.863	1848411	2.999
|	Bi	209		**ug/L**		1068	0.001
|	Th	232	**46.865**	**ug/L**	2.967	2582182	4.191
⌊	U	238	**47.673**	**ug/L**	3.116	2750697	4.465

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		81.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		76.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		73.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 05:28:16
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032566.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.006**	**ug/L**	54.667	104	0.000
	Be	9	**0.006**	**ug/L**	35.881	24	0.000
	B	11	**5.792**	**ug/L**	13.589	3137	0.007
	Na	23	**24.488**	**ug/L**	2.682	111434	0.261
	Mg	24	**0.719**	**ug/L**	72.606	5334	0.005
	Al	27	**6.155**	**ug/L**	11.270	26692	0.056
	P	31	**0.485**	**ug/L**	351.904	4746	0.000
	K	39	**38.380**	**ug/L**	33.080	641813	0.535
	Ca	43	**15.310**	**ug/L**	11.022	491	0.001
>	Sc	45		**ug/L**		370232	370232.331
	Ti	47	**0.207**	**ug/L**	11.588	463	0.000
	V	51	**-2.110**	**ug/L**	32.082	-8236	-0.042
	Cr	52	**0.149**	**ug/L**	116.356	4463	0.002
	Cr	53		**ug/L**		162376	0.161
	Mn	55	**0.103**	**ug/L**	10.337	2279	0.003
	Fe	57	**-0.969**	**ug/L**	127.725	5267	-0.001
	Co	59	**0.000**	**ug/L**	2365.380	117	0.000
	Ni	60	**0.023**	**ug/L**	10.007	152	0.000
	Cu	63		**ug/L**		665	0.001
	Cu	65	**0.071**	**ug/L**	8.532	351	0.000
	Zn	66	**0.311**	**ug/L**	4.184	961	0.001
	Zn	67		**ug/L**		17816	0.013
	Zn	68		**ug/L**		2050	0.002
>	Ge	74		**ug/L**		451489	451488.745
	As	75	**-0.393**	**ug/L**	65.339	-1130	-0.001
	Se	77		**ug/L**		12404	0.013
	Se	82	**0.092**	**ug/L**	176.230	13	0.000
	Kr	83		**ug/L**		114	-0.000
	Sr	88	**0.043**	**ug/L**	7.643	920	0.002
	Y	89		**ug/L**		105	0.000
	Mo	98	**0.011**	**ug/L**	20.574	161	0.000
	Ag	107	**0.000**	**ug/L**	504.683	73	0.000
	Cd	111	**-0.002**	**ug/L**	40.906	22	-0.000
	Cd	114		**ug/L**		40	-0.000
>	In	115		**ug/L**		303525	303525.381
	Sn	120	**0.059**	**ug/L**	8.927	775	0.001
	Sb	121	**0.003**	**ug/L**	180.420	486	0.000
	Sb	123		**ug/L**		379	0.000
	Ba	135		**ug/L**		167	0.000
	Ba	137	**0.056**	**ug/L**	7.739	299	0.000
	Ho	165		**ug/L**		32	0.000
>	Lu	175		**ug/L**		636269	636269.192
	Tl	205	**3.215**	**ug/L**	9.914	84931	0.130
	Pb	208	**0.015**	**ug/L**	2.741	1592	0.001
	Bi	209		**ug/L**		410	-0.000
	Th	232	**0.013**	**ug/L**	9.472	1473	0.001
	U	238	**-0.000**	**ug/L**	1010.928	572	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
\>	Sc	45		79.3			
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
\>	Ge	74		78.9			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
\>	In	115		79.9			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
\>	Lu	175		89.8			
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 05:34:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**52.917**	**ug/L**	1.868	108597	0.303
|	Be	9	**54.344**	**ug/L**	3.265	24062	0.067
|	B	11	**98.597**	**ug/L**	4.825	44462	0.123
|	Na	23	**4364.899**	**ug/L**	10.122	16677592	46.502
|	Mg	24	**5166.651**	**ug/L**	5.836	13022055	36.312
|	Al	27	**5309.819**	**ug/L**	5.270	17255876	48.136
|	P	31	**4490.103**	**ug/L**	3.876	962807	2.674
|	K	39	**4761.044**	**ug/L**	2.718	24229143	66.373
|	Ca	43	**4781.332**	**ug/L**	1.206	61786	0.172
| >	Sc	45		**ug/L**		358648	358648.450
|	Ti	47	**49.162**	**ug/L**	3.254	33457	0.092
|	V	51	**48.521**	**ug/L**	5.223	353326	0.966
|	Cr	52	**51.502**	**ug/L**	4.424	296952	0.819
|	Cr	53		**ug/L**		159249	0.166
|	Mn	55	**53.828**	**ug/L**	3.683	492501	1.370
|	Fe	57	**4662.444**	**ug/L**	3.954	945190	2.622
|	Co	59	**52.524**	**ug/L**	2.604	383384	1.069
|	Ni	60	**51.967**	**ug/L**	2.640	87643	0.244
|	Cu	63		**ug/L**		208193	0.580
⌊	Cu	65	**51.065**	**ug/L**	2.197	103281	0.288
⌈	Zn	66	**50.165**	**ug/L**	2.388	65743	0.146
|	Zn	67		**ug/L**		26546	0.033
|	Zn	68		**ug/L**		48197	0.105
| >	Ge	74		**ug/L**		445320	445319.542
|	As	75	**47.833**	**ug/L**	2.613	64826	0.147
|	Se	77		**ug/L**		13497	0.016
|	Se	82	**50.120**	**ug/L**	1.860	7094	0.016
⌊	Kr	83		**ug/L**		138	0.000
⌈	Sr	88	**52.759**	**ug/L**	3.617	862826	2.798
|	Y	89		**ug/L**		136	0.000
|	Mo	98	**47.856**	**ug/L**	2.730	210771	0.683
|	Ag	107	**50.495**	**ug/L**	4.061	373528	1.211
|	Cd	111	**49.369**	**ug/L**	3.327	92594	0.300
|	Cd	114		**ug/L**		215515	0.699
| >	In	115		**ug/L**		308474	308473.645
|	Sn	120	**50.731**	**ug/L**	1.832	380087	1.231
|	Sb	121	**50.710**	**ug/L**	3.139	315747	1.023
⌊	Sb	123		**ug/L**		248882	0.806
⌈	Ba	135		**ug/L**		103265	0.162
|	Ba	137	**46.919**	**ug/L**	2.371	183074	0.287
|	Ho	165		**ug/L**		62	0.000
| >	Lu	175		**ug/L**		638898	638898.483
|	Tl	205	**46.584**	**ug/L**	5.676	1208963	1.891
|	Pb	208	**54.008**	**ug/L**	2.258	2512712	3.933
|	Bi	209		**ug/L**		723	0.000
|	Th	232	**50.785**	**ug/L**	5.054	2899879	4.542
⌊	U	238	**52.456**	**ug/L**	4.393	3137205	4.913

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	105.835				
|	Be	9	108.687				
|	B	11	98.597				
|	Na	23	87.298				
|	Mg	24	103.333				
|	Al	27	105.145				
|	P	31	89.802				
|	K	39	95.221				
|	Ca	43	95.627				
|>	Sc	45		76.8			
|	Ti	47	98.324				
|	V	51	97.043				
|	Cr	52	103.003				
|	Cr	53					
|	Mn	55	107.655				
|	Fe	57	93.249				
|	Co	59	105.048				
|	Ni	60	103.935				
|	Cu	63					
⌊	Cu	65	102.130				
⌈	Zn	66	100.329				
|	Zn	67					
|	Zn	68					
|>	Ge	74		77.9			
|	As	75	95.665				
|	Se	77					
|	Se	82	100.239				
⌊	Kr	83					
⌈	Sr	88	105.518				
|	Y	89					
|	Mo	98	95.711				
|	Ag	107	100.990				
|	Cd	111	98.739				
|	Cd	114					
|>	In	115		81.2			
|	Sn	120	101.463				
|	Sb	121	101.420				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	93.838				
|	Ho	165					
|>	Lu	175		90.2			
|	Tl	205	93.168				
|	Pb	208	108.016				
|	Bi	209					
|	Th	232	101.570				
⌊	U	238	104.911				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	P	31	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 05:40:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**-0.008**	**ug/L**	35.434	71	-0.000
|	Be	9	**0.012**	**ug/L**	44.342	26	0.000
|	B	11	**2.894**	**ug/L**	15.369	1738	0.004
|	Na	23	**1.175**	**ug/L**	54.758	18679	0.013
|	Mg	24	**-0.791**	**ug/L**	27.434	1333	-0.006
|	Al	27	**1.002**	**ug/L**	131.615	9003	0.009
|	P	31	**-0.273**	**ug/L**	450.430	4404	-0.000
|	K	39	**5.024**	**ug/L**	159.839	452058	0.070
|	Ca	43	**1.755**	**ug/L**	118.621	299	0.000
| >	Sc	45		**ug/L**		355897	355897.204
|	Ti	47	**0.024**	**ug/L**	59.762	323	0.000
|	V	51	**-1.430**	**ug/L**	43.242	-3078	-0.028
|	Cr	52	**-0.546**	**ug/L**	13.221	364	-0.009
|	Cr	53		**ug/L**		100757	0.005
|	Mn	55	**-0.012**	**ug/L**	22.218	1151	-0.000
|	Fe	57	**-2.595**	**ug/L**	49.371	4738	-0.001
|	Co	59	**0.003**	**ug/L**	75.329	136	0.000
|	Ni	60	**0.006**	**ug/L**	57.367	117	0.000
|	Cu	63		**ug/L**		374	0.000
⌊	Cu	65	**0.001**	**ug/L**	1267.111	198	0.000
⌈	Zn	66	**-0.105**	**ug/L**	6.230	414	-0.000
|	Zn	67		**ug/L**		11868	-0.001
|	Zn	68		**ug/L**		1291	-0.000
| >	Ge	74		**ug/L**		453770	453770.256
|	As	75	**0.178**	**ug/L**	92.795	-343	0.001
|	Se	77		**ug/L**		6176	-0.001
|	Se	82	**-0.039**	**ug/L**	402.610	-5	-0.000
⌊	Kr	83		**ug/L**		130	-0.000
⌈	Sr	88	**0.002**	**ug/L**	136.865	273	0.000
|	Y	89		**ug/L**		58	-0.000
|	Mo	98	**0.027**	**ug/L**	29.378	238	0.000
|	Ag	107	**0.004**	**ug/L**	72.977	103	0.000
|	Cd	111	**0.006**	**ug/L**	24.325	40	0.000
|	Cd	114		**ug/L**		74	0.000
| >	In	115		**ug/L**		316780	316780.065
|	Sn	120	**0.009**	**ug/L**	42.527	422	0.000
|	Sb	121	**0.141**	**ug/L**	22.448	1380	0.003
⌊	Sb	123		**ug/L**		1128	0.002
⌈	Ba	135		**ug/L**		52	0.000
|	Ba	137	**-0.002**	**ug/L**	173.345	75	-0.000
|	Ho	165		**ug/L**		32	0.000
| >	Lu	175		**ug/L**		652981	652980.698
|	Tl	205	**2.263**	**ug/L**	3.135	61943	0.092
|	Pb	208	**0.005**	**ug/L**	17.380	1143	0.000
|	Bi	209		**ug/L**		536	-0.000
|	Th	232	**0.025**	**ug/L**	6.004	2231	0.002
⌊	U	238	**0.005**	**ug/L**	19.730	901	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
>	Sc	45		76.2			
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
>	Ge	74		79.3			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
>	In	115		83.4			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
>	Lu	175		92.2			
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 7	Tl	205	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 25, 2010 10:21:12
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.587
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	7667.7	7667.657	92.696	1.2
	Mg	24.0	65438.4	65438.352	810.719	1.2
	Co	58.9	148768.2	148768.250	1242.721	0.8
	Rh	102.9	281248.6	281248.630	3259.965	1.2
	In	114.9	364299.1	364299.123	3937.746	1.1
	Pb	208.0	327198.7	327198.660	900.422	0.3
⌈>	Ba	137.9	337284.3	337284.262	1053.536	0.3
⌊	Ba++	69.0	6381.2	0.019	0.000	1.2
⌈>	Ce	139.9	411857.7	411857.650	5034.814	1.2
⌊	CeO	155.9	10883.8	0.026	0.000	1.5
	Bkgd	220.0	24.6	24.600	6.358	25.8

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.8	7423.9
Co	59	13	6.3	140852.6
In	115	13	6.8	347281.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	589	2072	0.604
Be	9.0	9.0	2056	2088	0.598
Mg	24.0	24.0	5695	2100	0.591
Mg	25.0	25.0	5935	2100	0.577
Mg	26.0	26.0	6177	2100	0.596
Co	58.9	59.0	14189	2125	0.594
Rh	102.9	102.9	24878	2180	0.579
In	114.9	114.9	27792	2200	0.585
Ce	139.9	139.9	33864	2220	0.581
Pb	206.0	206.0	49948	2305	0.587
Pb	207.0	207.0	50159	2240	0.631
Pb	208.0	208.0	50451	2265	0.710
U	238.1	238.1	57732	2275	0.744

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 14:12:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Blank.347

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		25	
>	Sc	45		ug/L		668888	
	Mn	55		ug/L		2291	
>	Lu	175		ug/L		595837	
	Tl	205		ug/L		883	
	Pb	208		ug/L		475	
	U	238		ug/L		204	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Mn	55	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 14:14:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Standard 1.348

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**10.000**	**ug/L**	0.828	6540	0.010
|>	Sc	45		**ug/L**		676851	676850.534
⌊	Mn	55	**10.000**	**ug/L**	1.904	177072	0.258
⌈>	Lu	175		**ug/L**		589758	589757.524
|	Tl	205	**10.000**	**ug/L**	0.453	263884	0.446
|	Pb	208	**10.000**	**ug/L**	2.877	474859	0.805
⌊	U	238	**10.000**	**ug/L**	0.241	601643	1.020

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 14:17:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Standard 2.349

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.022**	**ug/L**	1.049	63615	0.098
>	Sc	45		**ug/L**		645973	645972.524
	Mn	55	**99.878**	**ug/L**	2.401	1486823	2.298
>	Lu	175		**ug/L**		584303	584303.328
	Tl	205	**99.812**	**ug/L**	2.029	2189635	3.747
	Pb	208	**99.844**	**ug/L**	1.355	4061519	6.951
	U	238	**99.831**	**ug/L**	0.936	5089463	8.710

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 14:19:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 1.350

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.337**	**ug/L**	0.831	31823	0.051
>	Sc	45		**ug/L**		629483	629482.623
	Mn	55	**54.535**	**ug/L**	2.129	791888	1.255
>	Lu	175		**ug/L**		589274	589274.225
	Tl	205	**52.420**	**ug/L**	0.813	1160354	1.968
	Pb	208	**53.310**	**ug/L**	1.745	2187052	3.711
	U	238	**52.301**	**ug/L**	0.705	2689274	4.563

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	102.674				
>	Sc	45		94.1			
	Mn	55	109.069				
>	Lu	175		98.9			
	Tl	205	104.839				
	Pb	208	106.620				
	U	238	104.602				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 14:22:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 2.351

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.002**	**ug/L**	214.675	24	-0.000
|>	Sc	45		**ug/L**		654529	654529.493
⌊	Mn	55	**-0.004**	**ug/L**	100.755	2183	-0.000
⌈>	Lu	175		**ug/L**		595331	595330.522
|	Tl	205	**0.102**	**ug/L**	6.118	3167	0.004
|	Pb	208	**0.003**	**ug/L**	26.105	579	0.000
⌊	U	238	**0.008**	**ug/L**	1.572	602	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.9			
	Mn	55					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 14:24:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 3.352

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.557**	**ug/L**	9.676	385	0.001
|>	Sc	45		**ug/L**		658791	658790.794
⌊	Mn	55	**6.275**	**ug/L**	4.301	97305	0.144
⌈>	Lu	175		**ug/L**		592978	592978.327
|	Tl	205	**1.277**	**ug/L**	1.263	29298	0.048
|	Pb	208	**2.551**	**ug/L**	2.809	105733	0.178
⌊	U	238	**0.290**	**ug/L**	0.556	15199	0.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	111.411				
>	Sc	45		98.5			
	Mn	55	125.508				
>	Lu	175		99.5			
	Tl	205	127.675				
	Pb	208	127.538				
	U	238	144.913				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 14:27:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 4.353

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.089**	**ug/L**	12.417	70	0.000
>	Sc	45		**ug/L**		556722	556721.917
	Mn	55	**6.374**	**ug/L**	2.843	83520	0.147
>	Lu	175		**ug/L**		546173	546173.398
	Tl	205	**0.027**	**ug/L**	7.143	1352	0.001
	Pb	208	**0.239**	**ug/L**	1.772	9511	0.017
	U	238	**-0.001**	**ug/L**	7.538	150	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		83.2			
	Mn	55	109.892				
>	Lu	175		91.7			
	Tl	205					
	Pb	208	126.313				
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 14:29:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 5.354

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**19.782**	**ug/L**	1.989	10470	0.019
|>	Sc	45		**ug/L**		536856	536856.079
⌊	Mn	55	**28.447**	**ug/L**	1.663	353252	0.655
⌈>	Lu	175		**ug/L**		544762	544762.461
|	Tl	205	**21.404**	**ug/L**	1.003	438467	0.803
|	Pb	208	**21.975**	**ug/L**	2.109	833709	1.530
⌊	U	238	**23.745**	**ug/L**	0.446	1128817	2.072

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	98.910				
|>	Sc	45		80.3			
⌊	Mn	55	110.258				
⌈>	Lu	175		91.4			
|	Tl	205	107.019				
|	Pb	208	108.847				
⌊	U	238	118.723				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 14:32:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.355

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.548**	**ug/L**	3.801	31989	0.053
>	Sc	45		**ug/L**		606838	606838.403
	Mn	55	**54.439**	**ug/L**	2.137	762096	1.253
>	Lu	175		**ug/L**		601484	601484.197
	Tl	205	**51.997**	**ug/L**	0.762	1174882	1.952
	Pb	208	**54.077**	**ug/L**	2.248	2264396	3.765
	U	238	**53.307**	**ug/L**	0.482	2797685	4.651

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	107.095				
>	Sc	45		90.7			
	Mn	55	108.878				
>	Lu	175		100.9			
	Tl	205	103.993				
	Pb	208	108.154				
	U	238	106.613				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 14:34:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.356

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.001**	**ug/L**	739.982	24	-0.000
|>	Sc	45		**ug/L**		649200	649199.690
⌊	Mn	55	**-0.021**	**ug/L**	1.269	1911	-0.000
⌈>	Lu	175		**ug/L**		625070	625069.607
|	Tl	205	**0.087**	**ug/L**	3.030	2978	0.003
|	Pb	208	**0.000**	**ug/L**	61.802	513	0.000
⌊	U	238	**0.005**	**ug/L**	17.144	503	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		97.1			
⌊	Mn	55					
⌈>	Lu	175		104.9			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 14:56:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 8.364

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.970**	**ug/L**	1.302	31179	0.052
>	Sc	45		**ug/L**		597786	597786.220
	Mn	55	**55.100**	**ug/L**	1.866	759807	1.268
>	Lu	175		**ug/L**		595134	595133.877
	Tl	205	**52.325**	**ug/L**	0.329	1169829	1.964
	Pb	208	**53.592**	**ug/L**	1.336	2220837	3.731
	U	238	**52.623**	**ug/L**	2.770	2733100	4.591

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.941				
>	Sc	45		89.4			
	Mn	55	110.199				
>	Lu	175		99.9			
	Tl	205	104.651				
	Pb	208	107.184				
	U	238	105.247				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Mn	55	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 14:59:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 9.365

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.001**	**ug/L**	1466.131	23	0.000
>	Sc	45		**ug/L**		607338	607337.892
	Mn	55	**0.001**	**ug/L**	693.699	2089	0.000
>	Lu	175		**ug/L**		599774	599774.272
	Tl	205	**0.874**	**ug/L**	1.983	20554	0.033
	Pb	208	**0.003**	**ug/L**	4.189	607	0.000
	U	238	**0.008**	**ug/L**	2.310	641	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.8			
	Mn	55					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 15:13:21
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032562.370

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.005**	**ug/L**	99.825	21	-0.000
>	Sc	45		**ug/L**		643470	643470.488
	Mn	55	**0.283**	**ug/L**	5.774	6389	0.007
>	Lu	175		**ug/L**		585134	585134.328
	Tl	205	**0.483**	**ug/L**	1.138	11475	0.018
	Pb	208	**0.021**	**ug/L**	5.320	1327	0.001
	U	238	**-0.000**	**ug/L**	198.800	193	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.2			
	Mn	55					
>	Lu	175		98.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 15:15:56
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032563.371

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.625**	**ug/L**	4.308	32048	0.049
>	Sc	45		**ug/L**		656083	656083.082
	Mn	55	**50.137**	**ug/L**	2.054	758987	1.154
>	Lu	175		**ug/L**		589037	589037.009
	Tl	205	**42.034**	**ug/L**	2.037	930318	1.578
	Pb	208	**52.764**	**ug/L**	2.619	2163992	3.673
	U	238	**51.774**	**ug/L**	0.516	2660967	4.517

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.1			
	Mn	55					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 15:23:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.374

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.183**	**ug/L**	1.937	31055	0.053
>	Sc	45		**ug/L**		582090	582090.176
	Mn	55	**54.374**	**ug/L**	3.736	730010	1.251
>	Lu	175		**ug/L**		593497	593496.547
	Tl	205	**52.300**	**ug/L**	3.630	1165289	1.963
	Pb	208	**54.421**	**ug/L**	2.513	2248095	3.789
	U	238	**53.119**	**ug/L**	0.451	2750767	4.635

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	108.365				
>	Sc	45		87.0			
	Mn	55	108.748				
>	Lu	175		99.6			
	Tl	205	104.601				
	Pb	208	108.842				
	U	238	106.238				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 15:26:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.375

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.005**	**ug/L**	23.854	26	0.000
>	Sc	45		**ug/L**		602746	602745.952
	Mn	55	**0.003**	**ug/L**	113.169	2105	0.000
>	Lu	175		**ug/L**		615579	615578.706
	Tl	205	**0.490**	**ug/L**	4.079	12233	0.018
	Pb	208	**0.001**	**ug/L**	113.914	533	0.000
	U	238	**0.006**	**ug/L**	6.248	549	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.1			
	Mn	55					
>	Lu	175		103.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245965001
Sample Date/Time: Thursday, February 25, 2010 15:28:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\245965001.376

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.000**	**ug/L**	5640.172	24	0.000
>	Sc	45		**ug/L**		631919	631918.742
	Mn	55	**0.531**	**ug/L**	2.839	9887	0.012
>	Lu	175		**ug/L**		588208	588207.946
	Tl	205	**0.308**	**ug/L**	4.530	7670	0.012
	Pb	208	**0.067**	**ug/L**	2.168	3226	0.005
	U	238	**0.006**	**ug/L**	9.873	512	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.5			
	Mn	55					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 15:39:45
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032564.380

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	216.799	22	-0.000
>	Sc	45		ug/L		643322	643321.984
	Mn	55	0.626	ug/L	2.225	11465	0.014
>	Lu	175		ug/L		594600	594599.800
	Tl	205	0.097	ug/L	3.017	3045	0.004
	Pb	208	0.145	ug/L	1.845	6466	0.010
	U	238	0.013	ug/L	4.690	878	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.2			
	Mn	55					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 15:42:21
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032565.381

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.665**	**ug/L**	3.328	29818	0.047
>	Sc	45		**ug/L**		635371	635371.076
	Mn	55	**48.892**	**ug/L**	0.732	717113	1.125
>	Lu	175		**ug/L**		588240	588240.219
	Tl	205	**57.057**	**ug/L**	5.253	1260682	2.142
	Pb	208	**42.232**	**ug/L**	0.828	1729953	2.940
	U	238	**51.407**	**ug/L**	1.109	2638697	4.485

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.0			
	Mn	55					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 15:44:58
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032566.382

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.000**	**ug/L**	11232.568	23	0.000
>	Sc	45		**ug/L**		614367	614367.315
	Mn	55	**0.101**	**ug/L**	4.725	3533	0.002
>	Lu	175		**ug/L**		627621	627620.913
	Tl	205	**2.853**	**ug/L**	3.675	68114	0.107
	Pb	208	**0.023**	**ug/L**	6.465	1516	0.002
	U	238	**0.004**	**ug/L**	2.553	424	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.8			
	Mn	55					
>	Lu	175		105.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 15:50:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.384

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.732**	**ug/L**	4.848	29509	0.051
>	Sc	45		**ug/L**		579534	579534.140
	Mn	55	**53.551**	**ug/L**	1.178	716125	1.232
>	Lu	175		**ug/L**		613922	613922.104
	Tl	205	**50.004**	**ug/L**	1.850	1153173	1.877
	Pb	208	**52.325**	**ug/L**	1.116	2236872	3.643
	U	238	**51.422**	**ug/L**	0.906	2754482	4.487

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	103.463				
>	Sc	45		86.6			
	Mn	55	107.101				
>	Lu	175		103.0			
	Tl	205	100.009				
	Pb	208	104.651				
	U	238	102.844				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 15:52:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.385

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.002**	**ug/L**	176.091	23	0.000
|>	Sc	45		**ug/L**		580751	580751.122
⌊	Mn	55	**0.006**	**ug/L**	93.107	2066	0.000
⌈>	Lu	175		**ug/L**		608046	608045.886
|	Tl	205	**1.444**	**ug/L**	1.703	33844	0.054
|	Pb	208	**0.002**	**ug/L**	22.146	571	0.000
⌊	U	238	**0.007**	**ug/L**	7.541	605	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		86.8			
⌊	Mn	55					
⌈>	Lu	175		102.0			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Tl	205	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 15:57:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Blank.386

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		599602	
	U	238		ug/L		354	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 15:58:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Standard 1.387

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		598286	598285.760
	U	238	10.000	ug/L	1.095	639626	1.069

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 16:00:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Standard 2.388

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		591647	591647.028
	U	238	99.816	ug/L	0.480	5330455	9.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 16:01:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 1.389

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		594744	594744.465
	U	238	52.109	ug/L	1.185	2797259	4.703

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.2			
	U	238	104.217				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 16:03:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 2.390

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		616563	616563.277
	U	238	0.017	ug/L	6.946	1307	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		102.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 16:05:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 3.391

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		600065	600064.857
	U	238	0.244	ug/L	1.225	13546	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		100.1			
	U	238	121.797				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 16:07:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 4.392

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		544306	544305.822
	U	238	-0.001	ug/L	6.362	248	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		90.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 16:08:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 5.393

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		539792	539791.708
	U	238	23.423	ug/L	0.126	1141451	2.114

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		90.0			
	U	238	117.115				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:10:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.394

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		596598	596598.137
	U	238	51.765	ug/L	0.946	2787532	4.672

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.5			
	U	238	103.530				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:12:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.395

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		594162	594161.567
	U	238	0.010	ug/L	6.225	887	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 16:13:44
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032562.396

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		561602	561602.446
	U	238	-0.000	ug/L	231.891	321	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 16:15:27
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032563.397

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		570802	570802.292
	U	238	50.564	ug/L	1.023	2605073	4.564

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		95.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245965001
Sample Date/Time: Thursday, February 25, 2010 16:20:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\245965001.400

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		573133	573132.564
	U	238	0.002	ug/L	6.374	467	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		95.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:24:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.402

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		619346	619345.966
	U	238	49.089	ug/L	0.403	2744254	4.430

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		103.3			
	U	238	98.177				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:25:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.403

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		622016	622015.783
	U	238	0.010	ug/L	6.333	921	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Lu	175		103.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 16:30:55
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032564.406

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		587644	587643.561
	U	238	0.010	ug/L	6.425	883	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.0			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 16:32:39
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032565.407

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		587968	587967.926
	U	238	49.454	ug/L	1.450	2624658	4.463

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 16:34:25
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032566.408

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		624063	624063.010
[	U	238	0.006	ug/L	8.896	693	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		104.1			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:36:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.409

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		604405	604404.935
	U	238	50.306	ug/L	0.810	2744319	4.540

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		100.8			
	U	238	100.612				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:37:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.410

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		601216	601215.925
[	U	238	0.010	ug/L	9.203	908	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		100.3			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, February 28, 2010 11:19:11
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.612
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6196.3	6196.344	143.347	2.3
	Mg	24.0	67234.2	67234.247	309.860	0.5
	Co	58.9	132558.2	132558.202	1103.361	0.8
	Rh	102.9	258781.3	258781.341	1982.494	0.8
	In	114.9	336320.1	336320.050	2837.596	0.8
	Pb	208.0	320426.5	320426.537	1072.771	0.3
⌈>	Ba	137.9	331832.6	331832.612	2204.656	0.7
⌊	Ba++	69.0	5415.4	0.016	0.000	1.6
⌈>	Ce	139.9	412164.8	412164.835	3829.750	0.9
⌊	CeO	155.9	10667.4	0.026	0.001	3.8
	Bkgd	220.0	21.3	21.300	4.604	21.6

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.00	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	6.0	6925.3
Co	59	13	6.5	130705.5
In	115	13	7.3	340695.4

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	595	2050	0.661
Be	9.0	9.0	2061	2075	0.622
Mg	24.0	24.0	5689	2080	0.610
Mg	25.0	25.0	5941	2080	0.625
Mg	26.0	26.0	6167	2080	0.630
Co	58.9	58.9	14183	2110	0.614
Rh	102.9	102.9	24875	2160	0.629
In	114.9	114.9	27789	2180	0.626
Ce	139.9	139.9	33873	2200	0.627
Pb	206.0	206.0	49948	2295	0.581
Pb	207.0	207.0	50171	2240	0.628
Pb	208.0	208.0	50451	2265	0.688
U	238.1	238.1	57734	2275	0.722

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 28, 2010 11:32:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		677057	
	Tl	205		ug/L		808	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 28, 2010 11:35:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		667556	667556.025
	Tl	205	10.000	ug/L	0.862	294295	0.440

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 28, 2010 11:38:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		659367	659366.978
	Tl	205	99.812	ug/L	1.331	2437008	3.695

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 28, 2010 11:42:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		673365	673364.882
	Tl	205	53.184	ug/L	1.645	1326362	1.969

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.5			
	Tl	205	106.368				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 28, 2010 11:45:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		681777	681776.982
	Tl	205	0.030	ug/L	1.811	1560	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		100.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 28, 2010 11:48:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		672467	672467.132
[	Tl	205	1.266	ug/L	0.670	32318	0.047

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		99.3			
[	Tl	205	126.599				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 28, 2010 11:51:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		588832	588831.842
	Tl	205	0.013	ug/L	10.715	984	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		87.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 28, 2010 11:54:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		590656	590656.176
[	Tl	205	22.733	ug/L	1.043	497747	0.842

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		87.2			
[	Tl	205	113.667				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 11:57:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		670145	670145.439
	Tl	205	53.996	ug/L	0.427	1340274	1.999

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.0			
	Tl	205	107.992				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 12:01:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		686615	686614.820
	Tl	205	0.021	ug/L	4.777	1342	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		101.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 12:20:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		686305	686304.568
	Tl	205	52.972	ug/L	1.323	1346565	1.961

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		101.4			
	Tl	205	105.943				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 12:23:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		688824	688824.054
[	Tl	205	0.058	ug/L	1.241	2291	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		101.7			
[	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 12:42:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		668337	668336.676
	Tl	205	53.656	ug/L	1.715	1328080	1.986

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.7			
	Tl	205	107.312				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 12:45:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		670679	670678.529
	Tl	205	0.170	ug/L	2.585	5015	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:06:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		668176	668175.537
	Tl	205	52.327	ug/L	0.462	1295066	1.937

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.7			
	Tl	205	104.655				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:09:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		649044	649044.468
	Tl	205	0.080	ug/L	1.399	2707	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		95.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:29:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		635047	635047.332
	Tl	205	53.266	ug/L	1.058	1252817	1.972

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.8			
	Tl	205	106.531				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:32:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		653533	653533.489
	Tl	205	0.138	ug/L	1.085	4121	0.005

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		96.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:51:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		630598	630597.877
	Tl	205	53.890	ug/L	0.285	1258712	1.995

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.1			
	Tl	205	107.780				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:54:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		655368	655368.483
[	Tl	205	0.124	ug/L	1.141	3781	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		96.8			
[	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 14:10:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		656527	656526.813
	Tl	205	52.015	ug/L	0.912	1264760	1.925

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		97.0			
	Tl	205	104.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 14:13:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		633750	633749.781
	Tl	205	0.304	ug/L	2.392	7889	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Sunday, February 28, 2010 14:17:07
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032562.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		637279	637278.987
[	Tl	205	0.165	ug/L	0.459	4652	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		94.1			
[	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Sunday, February 28, 2010 14:20:21
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032563.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		618802	618801.549
[	Tl	205	52.260	ug/L	0.827	1197858	1.935

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		91.4			
[	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245965001
Sample Date/Time: Sunday, February 28, 2010 14:30:07
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\245965001.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		636730	636730.318
	Tl	205	0.149	ug/L	2.413	4277	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		94.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 14:39:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		636661	636661.313
[	Tl	205	51.753	ug/L	1.268	1220367	1.916

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		94.0			
[	Tl	205	103.507				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 14:42:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		646420	646420.439
	Tl	205	0.124	ug/L	3.474	3745	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		95.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Sunday, February 28, 2010 14:49:15
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032564.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		606403	606402.736
	Tl	205	0.035	ug/L	8.276	1508	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		89.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Sunday, February 28, 2010 14:52:24
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032565.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		604264	604263.531
[	Tl	205	74.988	ug/L	1.789	1678038	2.776

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		89.2			
[	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Sunday, February 28, 2010 14:55:34
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032566.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		622697	622697.219
[	Tl	205	1.665	ug/L	1.459	39115	0.062

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		92.0			
[	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 14:58:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 6.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		639572	639571.983
	Tl	205	52.103	ug/L	0.346	1234316	1.929

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		94.5			
	Tl	205	104.206				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 15:01:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 7.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		627865	627864.641
	Tl	205	0.778	ug/L	1.776	18837	0.029

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		92.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\020510W1.SIF
Batch ID:
Results Data Set: 020510W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 12/28/2009 15:47:50**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 2/5/2010 09:03:54**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	0.0006	0.0003	09:04:56	Yes
2		[0.00]	0.0002	-0.0003	0.0002	09:05:30	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	20.18				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 2/5/2010 09:05:49**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0019	0.0085	0.0021	09:06:50	Yes
2		[0.2]	0.0019	0.0079	0.0021	09:07:24	Yes
Mean:		[0.2]	0.0019				
SD:		0.0	0.0000				
%RSD:		0.0	0.42				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00933 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 2/5/2010 09:07:43**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0047	0.0201	0.0049	09:08:45	Yes
2		[0.5]	0.0048	0.0214	0.0050	09:09:19	Yes
Mean:		[0.5]	0.0047				
SD:		0.0	0.0001				
%RSD:		0.0	1.87				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999967 Slope: 0.00950 Intercept: -0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 2/5/2010 09:09:39**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0191	0.0825	0.0194	09:10:40	Yes
2		[2.0]	0.0190	0.0814	0.0192	09:11:15	Yes
Mean:		[2.0]	0.0190				
SD:		0.0	0.0001				
%RSD:		0.0	0.73				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999998 Slope: 0.00953 Intercept: -0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 2/5/2010 09:11:35**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0473	0.2057	0.0476	09:12:37	Yes
2		[5.0]	0.0469	0.2028	0.0471	09:13:12	Yes
Mean:		[5.0]	0.0471				
SD:		0.0	0.0003				
%RSD:		0.0	0.72				

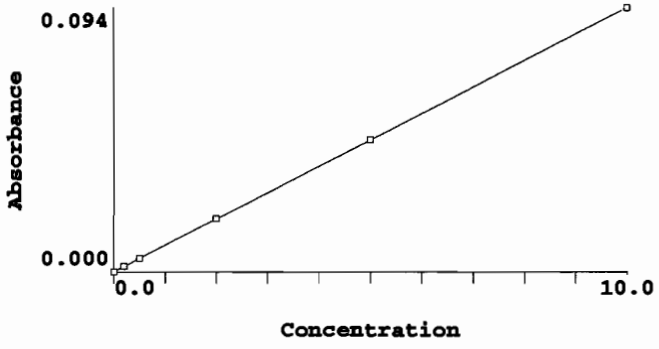
Standard number 4 applied. [5.0]
Correlation Coef.: 0.999989 Slope: 0.00942 Intercept: 0.00004

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 2/5/2010 09:13:32**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0944	0.4143	0.0947	09:14:32	Yes
2		[10.0]	0.0937	0.4076	0.0940	09:15:07	Yes
Mean:		[10.0]	0.0941				
SD:		0.0	0.0005				
%RSD:		0.0	0.53				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006



Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.006	0.00	20.2
S0.2	0.0019	0.2	0.192	0.00	0.4
S0.5	0.0047	0.5	0.498	0.00	1.9
S2.0	0.0190	2.0	2.019	0.00	0.7

S5.0	0.0471	5.0	5.001	0.00	0.7
S10.0	0.0941	10.0	9.996	0.00	0.5

Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 2/5/2010 09:15:26**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.965	4.965	0.0468	0.2021	0.0470	09:16:27	Yes
2	4.945	4.945	0.0466	0.2010	0.0468	09:17:02	Yes
Mean:	4.955	4.955	0.0467				
SD:	0.014	0.014	0.0001				
%RSD:	0.281	0.281	0.28				

QC value within limits for Hg 253.7 Recovery = 99.10%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 2/5/2010 09:17:22**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	-0.0008	0.0002	09:18:23	Yes
2	-0.012	-0.012	-0.0000	-0.0006	0.0002	09:18:58	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	11.89	11.89	23.69				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 2/5/2010 09:19:18**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.191	0.191	0.0019	0.0082	0.0021	09:20:19	Yes
2	0.191	0.191	0.0019	0.0082	0.0021	09:20:54	Yes
Mean:	0.191	0.191	0.0019				
SD:	0.000	0.000	0.0000				
%RSD:	0.034	0.034	0.03				

QC value within limits for Hg 253.7 Recovery = 95.30%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 09:21:14**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.014	5.014	0.0472	0.2051	0.0475	09:22:14	Yes
2	4.974	4.974	0.0468	0.2038	0.0471	09:22:50	Yes
Mean:	4.994	4.994	0.0470				
SD:	0.029	0.029	0.0003				
%RSD:	0.577	0.577	0.58				

QC value within limits for Hg 253.7 Recovery = 99.88%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/5/2010 09:23:09**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.011	-0.011	-0.0000	-0.0002	0.0002	09:24:10	Yes
2	-0.006	-0.006	0.0000	0.0002	0.0002	09:24:45	Yes
Mean:	-0.009	-0.009	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	42.32	42.32	156.50				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202029931|947628|1 **Date Collected: 2/5/2010 09:25:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202029931|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0000	-0.0005	0.0002	09:26:06	Yes
2	-0.005	-0.005	0.0000	-0.0001	0.0002	09:26:40	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	44.19	44.19	224.20				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202029932|947628|1 **Date Collected: 2/5/2010 09:27:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202029932|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.022	2.022	0.0191	0.0835	0.0193	09:28:02	Yes
2	2.026	2.026	0.0191	0.0827	0.0193	09:28:37	Yes
Mean:	2.024	2.024	0.0191				
SD:	0.003	0.003	0.0000				
%RSD:	0.144	0.144	0.14				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 245601001|947628|1 **Date Collected: 2/5/2010 09:28:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 245601001|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0002	0.0002	09:29:58	Yes
2	0.002	0.002	0.0001	0.0008	0.0003	09:30:33	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	299.4	299.4	87.21				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 245614001|947628|1 **Date Collected: 2/5/2010 09:30:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 245614001|947628|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202029937|947628|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	09:41:26	Yes
2	-0.008	-0.008	-0.0000	-0.0004	0.0002	09:42:01	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.270	1.270	5.82				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 1202033203|949020|1 **Date Collected: 2/5/2010 09:42:20**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033203|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0006	0.0003	09:43:21	Yes
2	0.003	0.003	0.0001	0.0014	0.0003	09:43:56	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	53.61	53.61	15.02				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 09:44:15**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.947	4.947	0.0466	0.2056	0.0468	09:45:17	Yes
2	4.906	4.906	0.0462	0.2030	0.0464	09:45:52	Yes
Mean:	4.927	4.927	0.0464				
SD:	0.029	0.029	0.0003				
%RSD:	0.589	0.589	0.59				

QC value within limits for Hg 253.7 Recovery = 98.53%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/5/2010 09:46:11**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	-0.0000	0.0003	0.0002	09:47:12	Yes
2	0.006	0.006	0.0001	0.0006	0.0003	09:47:46	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.009	0.009	0.0001				
%RSD:	>999.9%	>999.9%	153.08				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 1202033204|949020|1 **Date Collected: 2/5/2010 09:48:06**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033204|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.013	2.013	0.0190	0.0852	0.0192	09:49:07	Yes
2	2.004	2.004	0.0189	0.0839	0.0191	09:49:42	Yes

Mean:	2.009	2.009	0.0190
SD:	0.006	0.006	0.0001
%RSD:	0.312	0.312	0.31

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 245911001|949020|1 **Date Collected: 2/5/2010 09:50:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 245911001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0002	0.0022	0.0004	09:51:03	Yes
2	0.017	0.017	0.0002	0.0028	0.0005	09:51:38	Yes
Mean:	0.016	0.016	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	7.972	7.972	5.75				

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 245922001|949020|1 **Date Collected: 2/5/2010 09:51:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 245922001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0001	0.0012	0.0003	09:53:00	Yes
2	0.007	0.007	0.0001	0.0009	0.0004	09:53:35	Yes
Mean:	0.006	0.006	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	44.12	44.12	20.60				

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 245939001|949020|1 **Date Collected: 2/5/2010 09:53:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 245939001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0002	0.0030	0.0005	09:54:57	Yes
2	0.022	0.022	0.0003	0.0034	0.0005	09:55:32	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	14.54	14.54	11.04				

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: 245939002|949020|1 **Date Collected: 2/5/2010 09:55:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 245939002|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0010	0.0003	09:56:53	Yes
2	0.006	0.006	0.0001	0.0011	0.0003	09:57:28	Yes
Mean:	0.004	0.004	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	80.46	80.46	31.18				

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: 245953001|949020|1 **Date Collected: 2/5/2010 09:57:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 245953001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	-0.0001	0.0003	09:58:48	Yes
2	0.005	0.005	0.0001	0.0008	0.0003	09:59:23	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	292.1	292.1	59.58				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 245965001|949020|1 **Date Collected: 2/5/2010 09:59:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 245965001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0001	0.0007	0.0003	10:00:43	Yes
2	0.004	0.004	0.0001	0.0002	0.0003	10:01:18	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	33.02	33.02	15.09				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 245975001|949020|1 **Date Collected: 2/5/2010 10:01:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 245975001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0001	0.0010	0.0003	10:02:38	Yes
2	0.004	0.004	0.0001	0.0015	0.0003	10:03:12	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	165.2	165.2	34.46				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 245981001|949020|1 **Date Collected: 2/5/2010 10:03:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 245981001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0002	0.0021	0.0004	10:04:32	Yes
2	0.019	0.019	0.0002	0.0034	0.0005	10:05:07	Yes
Mean:	0.015	0.015	0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	43.49	43.49	30.52				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 246000001|949020|1 **Date Collected: 2/5/2010 10:05:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 246000001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0018	0.0003	10:06:27	Yes
2	0.012	0.012	0.0002	0.0024	0.0004	10:07:02	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	42.51	42.51	25.13				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 10:07:22**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.069	5.069	0.0477	0.2135	0.0480	10:08:22	Yes
2	5.033	5.033	0.0474	0.2110	0.0476	10:08:58	Yes
Mean:	5.051	5.051	0.0476				
SD:	0.025	0.025	0.0002				
%RSD:	0.502	0.502	0.50				

QC value within limits for Hg 253.7 Recovery = 101.01%
All analyte(s) passed QC.

==========

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 10:09:16
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0004	0.0003	10:10:17	Yes
2	0.005	0.005	0.0001	0.0009	0.0003	10:10:52	Yes
Mean:	0.001	0.001	0.0001				
SD:	0.007	0.007	0.0001				
%RSD:	>999.9%	>999.9%	94.99				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 Autosampler Location: 32
Sample ID: 246010001|949020|1 Date Collected: 2/5/2010 10:11:11
Analyst: JXL Data Type: Original

Replicate Data: 246010001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0000	0.0003	0.0002	10:12:12	Yes
2	-0.004	-0.004	0.0000	0.0007	0.0002	10:12:47	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	17.81	17.81	51.51				

==========

Sequence No.: 37 Autosampler Location: 33
Sample ID: 246056001|949020|1 Date Collected: 2/5/2010 10:13:07
Analyst: JXL Data Type: Original

Replicate Data: 246056001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0000	0.0004	0.0003	10:14:08	Yes
2	0.002	0.002	0.0001	0.0012	0.0003	10:14:43	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	>999.9%	>999.9%	65.75				

==========

Sequence No.: 38 Autosampler Location: 34
Sample ID: 1202033205|949020|1 Date Collected: 2/5/2010 10:15:03
Analyst: JXL Data Type: Original

Replicate Data: 1202033205|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0008	0.0002	10:16:04	Yes

2	0.005	0.005	0.0001	0.0017	0.0003	10:16:39	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	>999.9%	>999.9%	95.21				

Sequence No.: 39 **Autosampler Location: 35**
Sample ID: 1202033206|949020|1 **Date Collected: 2/5/2010 10:16:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033206|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.503	1.503	0.0142	0.0680	0.0144	10:18:00	Yes
2	1.495	1.495	0.0141	0.0670	0.0143	10:18:35	Yes
Mean:	1.499	1.499	0.0142				
SD:	0.006	0.006	0.0001				
%RSD:	0.393	0.393	0.39				

Sequence No.: 40 **Autosampler Location: 36**
Sample ID: 1202033207|949020|5 **Date Collected: 2/5/2010 10:18:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033207|949020|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	10:19:57	Yes
2	-0.002	-0.002	0.0000	0.0011	0.0003	10:20:32	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	84.26	84.26	326.78				

Sequence No.: 41 **Autosampler Location: 37**
Sample ID: 246056002|949020|1 **Date Collected: 2/5/2010 10:20:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056002|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	0.0010	0.0003	10:21:54	Yes
2	-0.003	-0.003	0.0000	0.0008	0.0003	10:22:29	Yes
Mean:	-0.002	-0.002	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	8.003	8.003	5.22				

Sequence No.: 42 **Autosampler Location: 38**
Sample ID: 246056003|949020|1 **Date Collected: 2/5/2010 10:22:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056003|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0002	0.0024	0.0005	10:23:50	Yes
2	0.023	0.023	0.0003	0.0022	0.0005	10:24:25	Yes
Mean:	0.021	0.021	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	10.47	10.47	8.06				

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 246056004|949020|1 **Date Collected: 2/5/2010 10:24:44**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056004|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0004	0.0044	0.0006	10:25:45	Yes
2	0.016	0.016	0.0002	0.0017	0.0004	10:26:21	Yes
Mean:	0.026	0.026	0.0003				
SD:	0.015	0.015	0.0001				
%RSD:	56.65	56.65	45.73				

Sequence No.: 44 — **Autosampler Location: 40**
Sample ID: 1202033224|949028|1 — **Date Collected: 2/5/2010 10:26:40**
Analyst: JXL — **Data Type: Original**

Replicate Data: 1202033224|949028|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0003	0.0022	0.0005	10:27:41	Yes
2	0.017	0.017	0.0002	0.0020	0.0005	10:28:17	Yes
Mean:	0.019	0.019	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	11.82	11.82	8.89				

Sequence No.: 45 — **Autosampler Location: 41**
Sample ID: 1202033226|949028|1 — **Date Collected: 2/5/2010 10:28:36**
Analyst: JXL — **Data Type: Original**

Replicate Data: 1202033226|949028|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.106	2.106	0.0199	0.0883	0.0201	10:29:37	Yes
2	2.076	2.076	0.0196	0.0876	0.0198	10:30:12	Yes
Mean:	2.091	2.091	0.0197				
SD:	0.022	0.022	0.0002				
%RSD:	1.033	1.033	1.03				

Sequence No.: 46 — **Autosampler Location: 7**
Sample ID: CCV — **Date Collected: 2/5/2010 10:30:32**
Analyst: — **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.111	5.111	0.0481	0.2129	0.0484	10:31:32	Yes
2	5.088	5.088	0.0479	0.2132	0.0481	10:32:08	Yes
Mean:	5.099	5.099	0.0480				
SD:	0.016	0.016	0.0001				
%RSD:	0.309	0.309	0.31				

QC value within limits for Hg 253.7 Recovery = 101.99%
All analyte(s) passed QC.

Sequence No.: 47 — **Autosampler Location: 8**
Sample ID: CCB — **Date Collected: 2/5/2010 10:32:26**
Analyst: — **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0010	0.0002	10:33:27	Yes
2	-0.005	-0.005	0.0000	0.0011	0.0002	10:34:02	Yes
Mean:	-0.004	-0.004	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	7.051	7.051	16.61				

QC value within limits for Hg 253.7 Recovery = Not calculated

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____
Batch: 948730
Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032558	UI100120-01	.25	mL
LCS	1202032558	UI100120-06	.25	mL
MS	1202032560	UI100120-01	.25	mL
MS	1202032560	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032557		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
LCS	1202032558		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939002		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245965001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245975001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245981001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246000001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
DUP	1202032559	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
MS	1202032560	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1202032561	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948739

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032563	UI100120-A	.5	mL
LCS	1202032563	UI100120-B	.5	mL
MS	1202032565	UI090930-A	.5	mL
MS	1202032565	UI090930-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032562		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
LCS	1202032563		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939002		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245965001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245975001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245981001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246000001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
DUP	1202032564	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
MS	1202032565	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1202032566	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 949018

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033204	WHG100204-13	.2	mL
MS	1202033206	WHG100204-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033203		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
LCS	1202033204		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245911001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245922001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245939001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245939002		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245953001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245965001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245975001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245981001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246000001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246010001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
DUP	1202033205	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
MS	1202033206	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SDILT	1202033207	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056002		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056003		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056004		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1257474-1	.5 mL	NITRIC ACID
1261483-C	1.5 mL	5% Potassium Persulfate
1264984-C	3 mL	5% KMnO4 solution
1255532-C	1 mL	Hg reducing agent
WHG100204-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100204-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100204-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100204-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100204-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100204-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 04-FEB-10 12:15
Digestion End Date: 04-FEB-10 14:15

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3005/6020	Liquid	LANL
Batch ID:	**Sample Numbers:**		
948740	See Below		

Potentially affected work order(s)(SDG): 245939(10-1506-1),245965(10-1511-1),245975(10-1512-1),245981(10-1514-1),246000(10-1517-1)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202032565MS	The matrix spike recovery failed outside of the control limits for Tl due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 01-MAR-10

Data Validator/Group Leader:

Samantha Jacobs 01-MAR-10

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI090930-A **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100114-48 **Opened:** 22-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-JAN-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 22-JAN-11 **Lot Number :** 1018466
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100114-49.16 **Opened:** 11-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 18-JAN-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 12-FEB-10 **Lot Number :** 1018458
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L

Analyte	Concentration	Analyte	Concentration
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100120-A **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1018097
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI100120-B **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1017644
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI100128-40 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100128-41 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI

Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100204-01 **Opened:** 04-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 04-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 05-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100204-01a **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100204-03 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100204-04 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100204-05 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100204-06 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100204-13 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100211-42 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100211-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100211-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100211-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100211-43 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100211-44 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1266496
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100211-45 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100211-46 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1266496
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100211-47 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL &1%HNO3-1266496
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100224-04 **Opened:** 24-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100224-04A **Opened:** 24-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 24-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100224-04B **Opened:** 24-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS100224-05 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 24-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100224-06 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 24-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100224-07 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 24-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100224-08 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 24-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100224-70 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 24-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100225-04 **Opened:** 25-FEB-10 **Amount :** 50 mL

Name: ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 4025216

Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598

Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768

Supplier: GEL

Description: ICPMS Calibration Standard (100 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100225-04A **Opened:** 25-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100225-05 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100225-06 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 25-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100225-07 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 25-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-08 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100228-04 **Opened:** 28-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 28-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 01-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100228-04A **Opened:** 28-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 28-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100228-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100228-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100228-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100228-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100228-05 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 28-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100228-06 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 28-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100228-07 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 28-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 01-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100228-08 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 28-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1261483-C **Opened:** 28-JAN-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-JAN-10
Type: Reagent/Solvent **Expires:** 28-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.

Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1266496 **Opened:** 08-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 20-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 14-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 01-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1511

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948614 and 948618	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948612 and 948616	**Method:**	SSW846 9010B Prep

Sample Analysis
The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202032232	Method Blank (MB)
1202032233	245950006(RE16-10-12065) Sample Duplicate (DUP)
1202032234	245950007(RE16-10-12062) Sample Duplicate (DUP)
1202032235	245950006(RE16-10-12065) Matrix Spike (MS)
1202032236	245950007(RE16-10-12062) Matrix Spike (MS)
1202032237	245950006(RE16-10-12065) Matrix Spike Duplicate (MSD)
1202032238	245950007(RE16-10-12062) Matrix Spike Duplicate (MSD)
1202032239	Laboratory Control Sample (LCS)
1202032248	Method Blank (MB)
1202032249	245960007(RE15-10-7313) Sample Duplicate (DUP)
1202032250	245960008(RE15-10-7314) Sample Duplicate (DUP)
1202032251	245960007(RE15-10-7313) Matrix Spike (MS)
1202032252	245960008(RE15-10-7314) Matrix Spike (MS)
1202032253	245960007(RE15-10-7313) Matrix Spike Duplicate (MSD)
1202032254	245960008(RE15-10-7314) Matrix Spike Duplicate (MSD)
1202032255	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information
The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

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

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245950006 (RE16-10-12065), 245950007 (RE16-10-12062)- Batch 948614, 245960007 (RE15-10-7313) and 245960008 (RE15-10-7314)- Batch 948618.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the client specified acceptance limits due to matrix interference: 1202032235 (RE16-10-12065)- Batch 948614. The spike recovery falls outside of the client specified acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202032236 (RE16-10-12062)- Batch 948614.

Matrix Spike Duplicate (MSD) Recovery Statement
The spike recovery duplicate falls outside of the client specified acceptance limits due to matrix interference: 1202032237 (RE16-10-12065)- Batch 948614. The spike duplicate recovery falls outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202032253 (RE15-10-7313) and 1202032254 (RE15-10-7314)- Batch 948618.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202032233 (RE16-10-12065)- Batch 948614. The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202032234 (RE16-10-12062)- Batch 948614, 1202032249 (RE15-10-7313), 1202032250 (RE15-10-7314), 245960007 (RE15-10-7313) and 245960008 (RE15-10-7314)- Batch 948618.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202032239 (LCS)- Batch 948614 and 1202032255 (LCS)- Batch 948618.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 790754 1202032235 (RE16-10-12065), 1202032236 (RE16-10-12062) and 1202032237 (RE16-10-12065)- Batch 948614. The following DERs were generated for this SDG: 790788 1202032253 (RE15-10-7313) and 1202032254 (RE15-10-7314)- Batch 948618.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

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

Review Validation:

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

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

Reviewer: _____ **Date:** 26Feb10

Sample Data Summary

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

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1511 GEL Work Order: 245960

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by

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

Certificate of Analysis

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7309	Project:	LANL01004
Sample ID:	245960001	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.84%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.2	243	ug/kg	1	AXC2 02/11/10	1342	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7308	Project:	LANL01004
Sample ID:	245960002	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	22.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.4	277	ug/kg	1	AXC2 02/11/10	1343	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7315	Project:	LANL01004
Sample ID:	245960003	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	8.92%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.7	245	ug/kg	1	AXC2 02/11/10	1344	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7317	Project:	LANL01004
Sample ID:	245960004	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.3	269	ug/kg	1	AXC2 02/11/10	1345	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7319	Project:	LANL01004
Sample ID:	245960005	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	65.7	242	ug/kg	1	AXC2 02/11/10	1346	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7312	Project:	LANL01004
Sample ID:	245960006	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	29.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	92.5	340	ug/kg	1	AXC2 02/11/10	1347	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7313	Project:	LANL01004
Sample ID:	245960007	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.72%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	63.8	235	ug/kg	1	AXC2 02/11/10	1353	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7314	Project:	LANL01004
Sample ID:	245960008	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	32.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	209	91.7	337	ug/kg	1	AXC2 02/11/10	1356	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7316	Project:	LANL01004
Sample ID:	245960009	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	35.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	230	96.0	353	ug/kg	1	AXC2 02/11/10	1400	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7318	Project:	LANL01004
Sample ID:	245960010	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.3	277	ug/kg	1	AXC2 02/11/10	1401	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7324	Project:	LANL01004
Sample ID:	245960011	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.9	268	ug/kg	1	AXC2 02/11/10	1405	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

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

QC Summary

Report Date: February 23, 2010

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

Workorder: **245960**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 948614										
QC1202032233 245950006 DUP										
Cyanide, Total		345	J	211	ug/kg	48.2 ^		(+/-259)	AXC2	02/11/10 13:29
QC1202032234 245950007 DUP										
Cyanide, Total	J	150	U	ND	ug/kg	200 ^				02/11/10 13:32
QC1202032239 LCS										
Cyanide, Total	67900			59800	ug/kg		88	(32%-157%)		02/11/10 13:17
QC1202032232 MB										
Cyanide, Total			U	250	ug/kg					02/11/10 13:16
QC1202032235 245950006 MS										
Cyanide, Total	4640	345		3620	ug/kg		70.7	(26%-158%)		02/11/10 13:30
QC1202032236 245950007 MS										
Cyanide, Total	4870 J	150		3680	ug/kg		72.6	(26%-158%)		02/11/10 13:33
QC1202032237 245950006 MSD										
Cyanide, Total	5070	345		3900	ug/kg	7.33	70	(0%-30%)		02/11/10 13:31
QC1202032238 245950007 MSD										
Cyanide, Total	5140 J	150		4140	ug/kg	11.6	77.6	(0%-30%)		02/11/10 13:34
Batch 948618										
QC1202032249 245960007 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	02/11/10 13:54
QC1202032250 245960008 DUP										
Cyanide, Total	J	209	U	ND	ug/kg	200 ^				02/11/10 13:57
QC1202032255 LCS										
Cyanide, Total	67900			73500	ug/kg		108	(32%-157%)		02/11/10 13:48
QC1202032248 MB										
Cyanide, Total			U	250	ug/kg					02/11/10 13:47
QC1202032251 245960007 MS										
Cyanide, Total	5130 U	ND		4380	ug/kg		85.5	(26%-158%)		02/11/10 13:55
QC1202032252 245960008 MS										
Cyanide, Total	6290 J	209		5440	ug/kg		83.2	(26%-158%)		02/11/10 13:58
QC1202032253 245960007 MSD										
Cyanide, Total	5040 U	ND		3410	ug/kg	25.0	67.7	(0%-30%)		02/11/10 13:56
QC1202032254 245960008 MSD										
Cyanide, Total	6750 J	209		5240	ug/kg	3.71	74.6	(0%-30%)		02/11/10 13:59

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-FEB-2010 18:47

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-1511

Flow Injection Analysis
Method: SW846 9012A Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**11-FEB-2010 09:59:47**	**OM_2-11-2010_09-49-17**	**146**	**150**	**97.3**	**(90%-110%)**	**Yes**
CCV	11-FEB-2010 13:12:27	OM_2-11-2010_13-11-41	94.8	100	94.8	(90%-110%)	Yes
CCV	11-FEB-2010 13:24:54	OM_2-11-2010_13-11-41	92.8	100	92.8	(90%-110%)	Yes
CCV	11-FEB-2010 13:37:21	OM_2-11-2010_13-11-41	93.7	100	93.7	(90%-110%)	Yes
CCV	11-FEB-2010 13:49:43	OM_2-11-2010_13-11-41	94.6	100	94.6	(90%-110%)	Yes
CCV	11-FEB-2010 14:02:14	OM_2-11-2010_13-11-41	93.9	100	93.9	(90%-110%)	Yes
CCV	11-FEB-2010 14:14:42	OM_2-11-2010_13-11-41	97.6	100	97.6	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**11-FEB-2010 10:01:38**	**OM_2-11-2010_09-49-17**	**-1.07**	**10**	**Yes**
CCB	11-FEB-2010 13:14:17	OM_2-11-2010_13-11-41	1.93	10	Yes
CCB	11-FEB-2010 13:26:45	OM_2-11-2010_13-11-41	1.48	10	Yes
CCB	11-FEB-2010 13:39:10	OM_2-11-2010_13-11-41	2.68	10	Yes
CCB	11-FEB-2010 13:51:33	OM_2-11-2010_13-11-41	2.13	10	Yes
CCB	11-FEB-2010 14:04:04	OM_2-11-2010_13-11-41	1.78	10	Yes
CCB	11-FEB-2010 14:16:32	OM_2-11-2010_13-11-41	1.36	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948612

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032239	URF1200957-01	.25	g
MS	1202032235	URF1184831-02	.025	mL
MS	1202032236	URF1184831-02	.025	mL
MSD	1202032237	URF1184831-02	.025	mL
MSD	1202032238	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032232		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.5 g	25 mL	50	SOIL
LCS	1202032239		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245938001		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245938002		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245938003		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245938004		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	245938005		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245938006		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245938007		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245938008		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245950006		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
DUP	1202032233	245950006	SW846 9010B Prep	10-FEB-2010 14:46	>12	0.52 g	25 mL	48.07692	SOIL
MS	1202032235	245950006	SW846 9010B Prep	10-FEB-2010 14:46	>12	0.58 g	25 mL	43.10345	SOIL
MSD	1202032237	245950006	SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245950007		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
DUP	1202032234	245950007	SW846 9010B Prep	10-FEB-2010 14:46	>12	0.51 g	25 mL	49.01961	SOIL
MS	1202032236	245950007	SW846 9010B Prep	10-FEB-2010 14:46	>12	0.56 g	25 mL	44.64286	SOIL
MSD	1202032238	245950007	SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245950008		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245950009		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245955001		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245955002		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245960001		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	245960002		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245960003		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245960004		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245960005		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245960006		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.52 g	25 mL	48.07692	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100210-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948616

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032255	URF1200957-01	.25	g
MS	1202032251	URF1184831-02	.025	mL
MS	1202032252	URF1184831-02	.025	mL
MSD	1202032253	URF1184831-02	.025	mL
MSD	1202032254	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032248		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.5 g	25 mL	50	SOIL
LCS	1202032255		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245960007		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.59 g	25 mL	42.37288	SOIL
DUP	1202032249	245960007	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
MS	1202032251	245960007	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.54 g	25 mL	46.2963	SOIL
MSD	1202032253	245960007	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245960008		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
DUP	1202032250	245960008	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.51 g	25 mL	49.01961	SOIL
MS	1202032252	245960008	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.59 g	25 mL	42.37288	SOIL
MSD	1202032254	245960008	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245960009		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245960010		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245960011		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245998001		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245998002		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.59 g	25 mL	42.37288	SOIL
SAMPLE	245998003		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245998004		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245998005		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245998006		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245998007		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245998008		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245998009		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246012001		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246012002		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246012003		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246012004		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246012005		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246012006		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.56 g	25 mL	44.64286	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100210-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/11/2010 9:52:37	OM_2-11-2010_09-49-17
150 ppb		1	axc2	2/11/2010 9:53:30	OM_2-11-2010_09-49-17
100 ppb		1	axc2	2/11/2010 9:54:22	OM_2-11-2010_09-49-17
50 ppb		1	axc2	2/11/2010 9:55:15	OM_2-11-2010_09-49-17
10 ppb		1	axc2	2/11/2010 9:56:08	OM_2-11-2010_09-49-17
CRDL 5.0 ppb		1	axc2	2/11/2010 9:57:02	OM_2-11-2010_09-49-17
ICAL-00		1	axc2	2/11/2010 9:57:56	OM_2-11-2010_09-49-17
ICV		1	axc2	2/11/2010 9:59:47	OM_2-11-2010_09-49-17
ICB		1	axc2	2/11/2010 10:01:38	OM_2-11-2010_09-49-17
		1	axc2	2/11/2010 10:03:27	OM_2-11-2010_09-49-17
1202034323	949511	1	axc2	2/11/2010 10:05:17	OM_2-11-2010_09-49-17
1202034330	949511	1	axc2	2/11/2010 10:06:10	OM_2-11-2010_09-49-17
245934002	949511	1	axc2	2/11/2010 10:07:04	OM_2-11-2010_09-49-17
1202034324	949511	1	axc2	2/11/2010 10:07:57	OM_2-11-2010_09-49-17
1202034326	949511	1	axc2	2/11/2010 10:08:50	OM_2-11-2010_09-49-17
1202034328	949511	1	axc2	2/11/2010 10:09:43	OM_2-11-2010_09-49-17
245934003	949511	1	axc2	2/11/2010 10:10:35	OM_2-11-2010_09-49-17
246064001	949511	1	axc2	2/11/2010 10:11:28	OM_2-11-2010_09-49-17
1202034325	949511	1	axc2	2/11/2010 10:12:20	OM_2-11-2010_09-49-17
1202034327	949511	1	axc2	2/11/2010 10:13:12	OM_2-11-2010_09-49-17
CCV		1	axc2	2/11/2010 10:14:05	OM_2-11-2010_09-49-17
CCB		1	axc2	2/11/2010 10:15:55	OM_2-11-2010_09-49-17
1202034329	949511	1	axc2	2/11/2010 10:17:43	OM_2-11-2010_09-49-17
246064005	949511	1	axc2	2/11/2010 10:18:36	OM_2-11-2010_09-49-17
246064009	949511	1	axc2	2/11/2010 10:19:27	OM_2-11-2010_09-49-17
246225002	949511	1	axc2	2/11/2010 10:20:19	OM_2-11-2010_09-49-17
246264001	949511	1	axc2	2/11/2010 10:21:11	OM_2-11-2010_09-49-17
246269001	949511	1	axc2	2/11/2010 10:22:05	OM_2-11-2010_09-49-17
246278001	949511	1	axc2	2/11/2010 10:22:58	OM_2-11-2010_09-49-17
246292001	949511	1	axc2	2/11/2010 10:23:52	OM_2-11-2010_09-49-17
246292002	949511	1	axc2	2/11/2010 10:24:45	OM_2-11-2010_09-49-17
246293001	949511	1	axc2	2/11/2010 10:25:38	OM_2-11-2010_09-49-17
CCV		1	axc2	2/11/2010 10:26:31	OM_2-11-2010_09-49-17
CCB		1	axc2	2/11/2010 10:28:21	OM_2-11-2010_09-49-17
246293003	949511	1	axc2	2/11/2010 10:30:10	OM_2-11-2010_09-49-17
246306001	949511	1	axc2	2/11/2010 10:31:03	OM_2-11-2010_09-49-17
246313001	949511	1	axc2	2/11/2010 10:31:55	OM_2-11-2010_09-49-17
246323001	949511	1	axc2	2/11/2010 10:32:47	OM_2-11-2010_09-49-17
246334001	949511	1	axc2	2/11/2010 10:33:40	OM_2-11-2010_09-49-17
246436001	949511	1	axc2	2/11/2010 10:34:33	OM_2-11-2010_09-49-17
246448001	949511	1	axc2	2/11/2010 10:35:25	OM_2-11-2010_09-49-17
246472001	949511	1	axc2	2/11/2010 10:36:17	OM_2-11-2010_09-49-17
CCV		1	axc2	2/11/2010 10:37:09	OM_2-11-2010_09-49-17
CCB		1	axc2	2/11/2010 10:38:59	OM_2-11-2010_09-49-17

Author: axc2 Date : 2/11/2010

Original Run Filename: OM_2-11-2010_09-49-17.OMN created 2/11/2010 09:49:17
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-11-2010_09-49-17.OMN last modified 2/11/2010 10:40:05
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100211-01	1	S1	200	8.83	2/11/2010@09:52:37			200 ppb
WCN100211-02	1	S2	150	6.63	2/11/2010@09:53:30			150 ppb
WCN100211-03	1	S3	100	4.36	2/11/2010@09:54:22			100 ppb
WCN100211-04	1	S4	50.0	2.20	2/11/2010@09:55:15			50 ppb
WCN100211-05	1	S5	10.0	0.540	2/11/2010@09:56:08			10 ppb
WCN100211-06	1	S6	5.00	0.362	2/11/2010@09:57:02			CRDL 5.0 ppb
WCN100211-08	1	S7	0.00	0.0328	2/11/2010@09:57:56			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99988 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100211-07	1	S8	146	6.43	2/11/2010@09:59:47			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100211-08	1	S7	-1.07	0.0209	2/11/2010@10:01:38			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.07 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.07 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100211-06	1	S6	6.35	0.345	2/11/2010@10:03:27			
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.35 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.35 > 2.50					
		Message	Pass					
		Action	None					
1202034323|949511|MB	1	1	-1.45	0.00419	2/11/2010@10:05:17			
1202034330||LCS	1	2	48.1	2.17	2/11/2010@10:06:10			
245934002	1	3	2.66	0.183	2/11/2010@10:07:04			
1202034324||DUP	1	4	4.23	0.252	2/11/2010@10:07:57			
1202034326||MS	1	5	105	4.65	2/11/2010@10:08:50			
1202034328||MSD	1	6	92.5	4.10	2/11/2010@10:09:43			
245934003	1	7	-0.642	0.0396	2/11/2010@10:10:35			
246064001	1	8	1.58	0.136	2/11/2010@10:11:28			
1202034325||DUP	1	9	2.13	0.161	2/11/2010@10:12:20			
1202034327||MS	1	10	104	4.59	2/11/2010@10:13:12			
WCN100211-03	1	S3	102	4.52	2/11/2010@10:14:05			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.1 < 10.0					

		Message	CCV Passed						
		Action	Continue						
DQM Test: < - Percent Relative Difference									
		Result:	2.1 < 10.0						
		Message	CCV Passed						
		Action	Continue						
WCN100211-08	1	S7	-0.943	0.0264	2/11/2010@10:15:55			CCB	
	Known Conc:		0.00						
DQM Test: > + Concentration Limit									
		Result:	-0.943 < 5.00						
		Message	CCB Passed						
		Action	Continue						
DQM Test: < - Concentration Limit									
		Result:	-0.943 > -5.00						
		Message	CCB Passed						
		Action	Continue						
1202034329||MSD	1	11	104	4.62	2/11/2010@10:17:43				
246064005	1	12	2.07	0.158	2/11/2010@10:18:36				
246064009	1	13	0.264	0.0791	2/11/2010@10:19:27				
246225002	1	14	39.6	1.80	2/11/2010@10:20:19				
246264001	1	15	-0.705	0.0368	2/11/2010@10:21:11				
246269001	1	16	0.112	0.0725	2/11/2010@10:22:05				
246278001	1	17	-1.45	0.00411	2/11/2010@10:22:58				
246292001	1	18	-0.826	0.0315	2/11/2010@10:23:52				
246292002	1	19	-1.37	0.00769	2/11/2010@10:24:45				
246293001	1	20	0.188	0.0758	2/11/2010@10:25:38				
WCN100211-03	1	S3	103	4.55	2/11/2010@10:26:31			CCV	
	Known Conc:		100						
DQM Test: > + Percent Relative Difference									
		Result:	2.6 < 10.0						
		Message	CCV Passed						
		Action	Continue						
DQM Test: < - Percent Relative Difference									
		Result:	2.6 < 10.0						
		Message	CCV Passed						
		Action	Continue						
WCN100211-08	1	S7	-1.02	0.0233	2/11/2010@10:28:21			CCB	
	Known Conc:		0.00						
DQM Test: > + Concentration Limit									
		Result:	-1.02 < 5.00						
		Message	CCB Passed						
		Action	Continue						
DQM Test: < - Concentration Limit									
		Result:	-1.02 > -5.00						
		Message	CCB Passed						
		Action	Continue						
246293003	1	21	-0.359	0.0519	2/11/2010@10:30:10				
246306001	1	22	-0.770	0.0340	2/11/2010@10:31:03				
246313001	1	23	-1.08	0.0206	2/11/2010@10:31:55				
246323001	1	24	-0.601	0.0413	2/11/2010@10:32:47				
246334001	1	25	-2.72	-0.0512	2/11/2010@10:33:40				
246436001	1	26	-0.864	0.0299	2/11/2010@10:34:33				
246448001	1	27	-1.37	0.00777	2/11/2010@10:35:25				
246472001	1	28	-0.472	0.0470	2/11/2010@10:36:17				
WCN100211-03	1	S3	103	4.55	2/11/2010@10:37:09			CCV	
	Known Conc:		100						
DQM Test: > + Percent Relative Difference									
		Result:	2.7 < 10.0						
		Message	CCV Passed						
		Action	Continue						
DQM Test: < - Percent Relative Difference									
		Result:	2.7 < 10.0						
		Message	CCV Passed						
		Action	Continue						
WCN100211-08	1	S7	-0.764	0.0342	2/11/2010@10:38:59			CCB	
	Known Conc:		0.00						
DQM Test: > + Concentration Limit									
		Result:	-0.764 < 5.00						

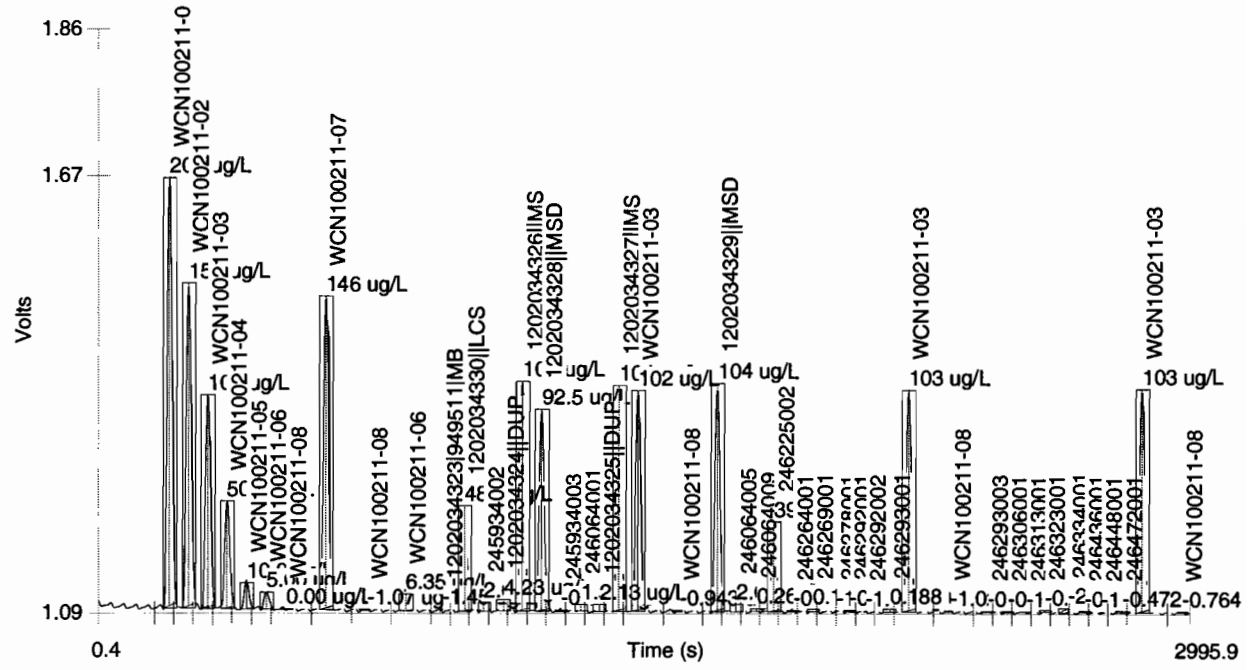
Author: axc2 Date : 2/11/2010

Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	-0.764 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_2-11-2010_09-49-17.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

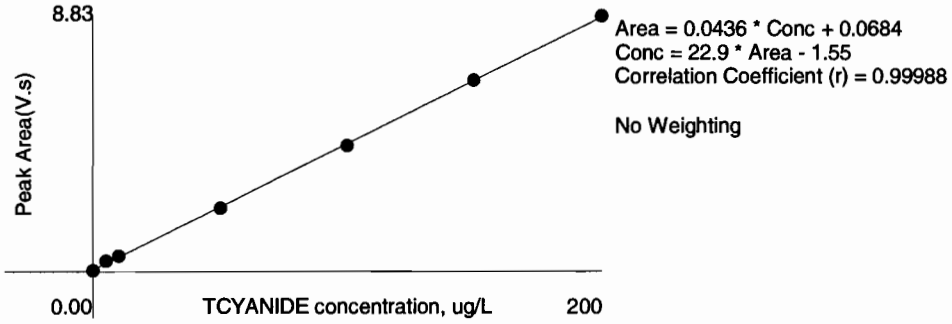


Author: axc2 Date : 2/11/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.83	0.563	-0.4	2/11/2010	09:53:41
2	150	1	6.63	0.424	-0.2	2/11/2010	09:54:33
3	100	1	4.36	0.279	1.6	2/11/2010	09:55:25
4	50.0	1	2.20	0.140	2.4	2/11/2010	09:56:18
5	10.0	1	0.540	0.0343	-7.1	2/11/2010	09:57:11
6	5.00	1	0.362	0.0225	-26.4	2/11/2010	09:58:05
7	0.00	1	0.0328	0.00101		2/11/2010	09:58:59

Figure 1: TCYANIDE



This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	2/11/2010 13:12:27	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 13:14:17	OM_2-11-2010_13-11-41
1202032232	948614	1	axc2	2/11/2010 13:16:06	OM_2-11-2010_13-11-41
1202032239	948614	25	axc2	2/11/2010 13:17:00	OM_2-11-2010_13-11-41
245938001	948614	1	axc2	2/11/2010 13:17:53	OM_2-11-2010_13-11-41
245938002	948614	1	axc2	2/11/2010 13:18:46	OM_2-11-2010_13-11-41
245938003	948614	1	axc2	2/11/2010 13:19:39	OM_2-11-2010_13-11-41
245938004	948614	1	axc2	2/11/2010 13:20:32	OM_2-11-2010_13-11-41
245938005	948614	1	axc2	2/11/2010 13:21:25	OM_2-11-2010_13-11-41
245938006	948614	1	axc2	2/11/2010 13:22:17	OM_2-11-2010_13-11-41
245938007	948614	1	axc2	2/11/2010 13:23:10	OM_2-11-2010_13-11-41
245938008	948614	1	axc2	2/11/2010 13:24:02	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 13:24:54	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 13:26:45	OM_2-11-2010_13-11-41
245950006	948614	1	axc2	2/11/2010 13:28:34	OM_2-11-2010_13-11-41
1202032233	948614	1	axc2	2/11/2010 13:29:26	OM_2-11-2010_13-11-41
1202032235	948614	1	axc2	2/11/2010 13:30:17	OM_2-11-2010_13-11-41
1202032237	948614	1	axc2	2/11/2010 13:31:09	OM_2-11-2010_13-11-41
245950007	948614	1	axc2	2/11/2010 13:32:00	OM_2-11-2010_13-11-41
1202032234	948614	1	axc2	2/11/2010 13:32:54	OM_2-11-2010_13-11-41
1202032236	948614	1	axc2	2/11/2010 13:33:48	OM_2-11-2010_13-11-41
1202032238	948614	1	axc2	2/11/2010 13:34:42	OM_2-11-2010_13-11-41
245950008	948614	1	axc2	2/11/2010 13:35:35	OM_2-11-2010_13-11-41
245950009	948614	1	axc2	2/11/2010 13:36:28	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 13:37:21	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 13:39:10	OM_2-11-2010_13-11-41
245955001	948614	1	axc2	2/11/2010 13:40:59	OM_2-11-2010_13-11-41
245955002	948614	1	axc2	2/11/2010 13:41:53	OM_2-11-2010_13-11-41
245960001	948614	1	axc2	2/11/2010 13:42:45	OM_2-11-2010_13-11-41
245960002	948614	1	axc2	2/11/2010 13:43:37	OM_2-11-2010_13-11-41
245960003	948614	1	axc2	2/11/2010 13:44:30	OM_2-11-2010_13-11-41
245960004	948614	1	axc2	2/11/2010 13:45:22	OM_2-11-2010_13-11-41
245960005	948614	1	axc2	2/11/2010 13:46:14	OM_2-11-2010_13-11-41
245960006	948614	1	axc2	2/11/2010 13:47:06	OM_2-11-2010_13-11-41
1202032248	948618	1	axc2	2/11/2010 13:47:59	OM_2-11-2010_13-11-41
1202032255	948618	25	axc2	2/11/2010 13:48:50	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 13:49:43	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 13:51:33	OM_2-11-2010_13-11-41
245960007	948618	1	axc2	2/11/2010 13:53:23	OM_2-11-2010_13-11-41
1202032249	948618	1	axc2	2/11/2010 13:54:17	OM_2-11-2010_13-11-41
1202032251	948618	1	axc2	2/11/2010 13:55:10	OM_2-11-2010_13-11-41
1202032253	948618	1	axc2	2/11/2010 13:56:04	OM_2-11-2010_13-11-41
245960008	948618	1	axc2	2/11/2010 13:56:58	OM_2-11-2010_13-11-41
1202032250	948618	1	axc2	2/11/2010 13:57:50	OM_2-11-2010_13-11-41
1202032252	948618	1	axc2	2/11/2010 13:58:43	OM_2-11-2010_13-11-41
1202032254	948618	1	axc2	2/11/2010 13:59:37	OM_2-11-2010_13-11-41
245960009	948618	1	axc2	2/11/2010 14:00:29	OM_2-11-2010_13-11-41
245960010	948618	1	axc2	2/11/2010 14:01:22	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 14:02:14	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 14:04:04	OM_2-11-2010_13-11-41
245960011	948618	1	axc2	2/11/2010 14:05:52	OM_2-11-2010_13-11-41
245998001	948618	1	axc2	2/11/2010 14:06:45	OM_2-11-2010_13-11-41
245998002	948618	1	axc2	2/11/2010 14:07:37	OM_2-11-2010_13-11-41
245998003	948618	1	axc2	2/11/2010 14:08:29	OM_2-11-2010_13-11-41
245998004	948618	1	axc2	2/11/2010 14:09:21	OM_2-11-2010_13-11-41
245998005	948618	1	axc2	2/11/2010 14:10:15	OM_2-11-2010_13-11-41
245998006	948618	1	axc2	2/11/2010 14:11:10	OM_2-11-2010_13-11-41
245998007	948618	1	axc2	2/11/2010 14:12:03	OM_2-11-2010_13-11-41

245998008	948618	1	axc2	2/11/2010 14:12:56	OM_2-11-2010_13-11-41
245998009	948618	1	axc2	2/11/2010 14:13:50	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 14:14:42	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 14:16:32	OM_2-11-2010_13-11-41
246012001	948618	1	axc2	2/11/2010 14:18:21	OM_2-11-2010_13-11-41
246012002	948618	1	axc2	2/11/2010 14:19:15	OM_2-11-2010_13-11-41
246012003	948618	1	axc2	2/11/2010 14:20:08	OM_2-11-2010_13-11-41
246012004	948618	1	axc2	2/11/2010 14:21:01	OM_2-11-2010_13-11-41
246012005	948618	1	axc2	2/11/2010 14:21:53	OM_2-11-2010_13-11-41
246012006	948618	1	axc2	2/11/2010 14:22:47	OM_2-11-2010_13-11-41
1202040197	951938	1	axc2	2/11/2010 14:23:39	OM_2-11-2010_13-11-41
1202040204	951938	25	axc2	2/11/2010 14:24:31	OM_2-11-2010_13-11-41
246280011	951938	1	axc2	2/11/2010 14:25:23	OM_2-11-2010_13-11-41
1202040198	951938	1	axc2	2/11/2010 14:26:15	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 14:27:08	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 14:28:58	OM_2-11-2010_13-11-41
1202040200	951938	1	axc2	2/11/2010 14:30:48	OM_2-11-2010_13-11-41
1202040202	951938	1	axc2	2/11/2010 14:31:43	OM_2-11-2010_13-11-41
246291009	951938	1	axc2	2/11/2010 14:32:37	OM_2-11-2010_13-11-41
1202040199	951938	1	axc2	2/11/2010 14:33:30	OM_2-11-2010_13-11-41
1202040201	951938	1	axc2	2/11/2010 14:34:25	OM_2-11-2010_13-11-41
1202040203	951938	1	axc2	2/11/2010 14:35:17	OM_2-11-2010_13-11-41
246557001	951938	1	axc2	2/11/2010 14:36:10	OM_2-11-2010_13-11-41
246562001	951938	1	axc2	2/11/2010 14:37:04	OM_2-11-2010_13-11-41
246587007	951938	1	axc2	2/11/2010 14:37:58	OM_2-11-2010_13-11-41
246592001	951938	1	axc2	2/11/2010 14:38:49	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 14:39:42	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 14:41:33	OM_2-11-2010_13-11-41
246592002	951938	1	axc2	2/11/2010 14:43:22	OM_2-11-2010_13-11-41
246592003	951938	1	axc2	2/11/2010 14:44:15	OM_2-11-2010_13-11-41
246592004	951938	1	axc2	2/11/2010 14:45:07	OM_2-11-2010_13-11-41
246594001	951938	1	axc2	2/11/2010 14:45:59	OM_2-11-2010_13-11-41
246594002	951938	1	axc2	2/11/2010 14:46:51	OM_2-11-2010_13-11-41
246594003	951938	1	axc2	2/11/2010 14:47:46	OM_2-11-2010_13-11-41
246594004	951938	1	axc2	2/11/2010 14:48:40	OM_2-11-2010_13-11-41
246594005	951938	1	axc2	2/11/2010 14:49:34	OM_2-11-2010_13-11-41
246594006	951938	1	axc2	2/11/2010 14:50:28	OM_2-11-2010_13-11-41
246610001	951938	1	axc2	2/11/2010 14:51:22	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 14:52:15	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 14:54:05	OM_2-11-2010_13-11-41
246610002*	951938	1	axc2	2/11/2010 14:55:56	OM_2-11-2010_13-11-41
246610003*	951938	1	axc2	2/11/2010 14:56:50	OM_2-11-2010_13-11-41
246612001*	951938	1	axc2	2/11/2010 14:57:43	OM_2-11-2010_13-11-41
246615001*	951938	1	axc2	2/11/2010 14:58:36	OM_2-11-2010_13-11-41
1202040194*	951932	1	axc2	2/11/2010 14:59:31	OM_2-11-2010_13-11-41
1202040196*	951932	1	axc2	2/11/2010 15:00:25	OM_2-11-2010_13-11-41
246612001*	951932	1	axc2	2/11/2010 15:01:18	OM_2-11-2010_13-11-41
1202040195*	951932	1	axc2	2/11/2010 15:02:12	OM_2-11-2010_13-11-41
246615001*	951932	1	axc2	2/11/2010 15:03:05	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 15:03:58	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 15:05:48	OM_2-11-2010_13-11-41

Author: axc2 Date : 2/11/2010

Original Run Filename: OM_2-11-2010_13-11-41.OMN created 2/11/2010 13:11:41
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-11-2010_13-11-41.OMN last modified 2/11/2010 15:06:53
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100211-03	1	S3	94.8	4.20	2/11/2010@13:12:27			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-5.2 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-5.2 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100211-08	1	S7	1.93	0.152	2/11/2010@13:14:17			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		1.93 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.93 > -5.00					
	Message		CCB Passed					
	Action		Continue					
	Calibration:		Table/Fig. 1					
1202032232|948614|MB	1	1	-0.686	0.0376	2/11/2010@13:16:06			
1202032239||LCS	1	2	23.9	1.11	2/11/2010@13:17:00		25.00	
245938001	1	3	2.59	0.180	2/11/2010@13:17:53			
245938002	1	4	-0.603	0.0412	2/11/2010@13:18:46			
245938003	1	5	0.184	0.0756	2/11/2010@13:19:39			
245938004	1	6	-0.847	0.0306	2/11/2010@13:20:32			
245938005	1	7	1.39	0.128	2/11/2010@13:21:25			
245938006	1	8	-0.839	0.0309	2/11/2010@13:22:17			
245938007	1	9	-0.337	0.0529	2/11/2010@13:23:10			
245938008	1	10	0.766	0.101	2/11/2010@13:24:02			
WCN100211-03	1	S3	92.8	4.12	2/11/2010@13:24:54			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-7.2 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-7.2 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100211-08	1	S7	1.48	0.132	2/11/2010@13:26:45			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		1.48 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.48 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245950006	1	11	6.80	0.364	2/11/2010@13:28:34			
1202032233||DUP	1	12	4.08	0.246	2/11/2010@13:29:26			
1202032235||MS	1	13	78.1	3.48	2/11/2010@13:30:17			
1202032237||MSD	1	14	76.8	3.42	2/11/2010@13:31:09			
245950007	1	15	2.92	0.195	2/11/2010@13:32:00			

1202032234||DUP	1	16	1.00	0.111	2/11/2010@13:32:54			
1202032236||MS	1	17	75.7	3.37	2/11/2010@13:33:48			
1202032238||MSD	1	18	80.5	3.58	2/11/2010@13:34:42			
245950008	1	19	2.77	0.189	2/11/2010@13:35:35			
245950009	1	20	13.9	0.676	2/11/2010@13:36:28			
WCN100211-03	1	S3	93.7	4.16	2/11/2010@13:37:21			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-6.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-6.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100211-08	1	S7	2.68	0.185	2/11/2010@13:39:10			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		2.68 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		2.68 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245955001	1	21	-0.0162	0.0669	2/11/2010@13:40:59			
245955002	1	22	-1.55	-1.59e-4	2/11/2010@13:41:53			
245960001	1	23	0.0402	0.0693	2/11/2010@13:42:45			
245960002	1	24	1.17	0.118	2/11/2010@13:43:37			
245960003	1	25	0.304	0.0808	2/11/2010@13:44:30			
245960004	1	26	0.287	0.0801	2/11/2010@13:45:22			
245960005	1	27	0.431	0.0864	2/11/2010@13:46:14			
245960006	1	28	0.770	0.101	2/11/2010@13:47:06			
1202032248|948618|MB	1	29	0.407	0.0853	2/11/2010@13:47:59			
1202032255||LCS	1	30	29.4	1.35	2/11/2010@13:48:50		25.00	
WCN100211-03	1	S3	94.6	4.19	2/11/2010@13:49:43			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-5.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-5.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100211-08	1	S7	2.13	0.160	2/11/2010@13:51:33			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		2.13 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		2.13 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245960007	1	31	0.0379	0.0692	2/11/2010@13:53:23			
1202032249||DUP	1	32	0.746	0.100	2/11/2010@13:54:17			
1202032251||MS	1	33	85.5	3.80	2/11/2010@13:55:10			
1202032253||MSD	1	34	67.7	3.02	2/11/2010@13:56:04			
245960008	1	35	3.10	0.203	2/11/2010@13:56:58			
1202032250||DUP	1	36	0.363	0.0834	2/11/2010@13:57:50			
1202032252||MS	1	37	86.5	3.84	2/11/2010@13:58:43			
1202032254||MSD	1	38	77.7	3.46	2/11/2010@13:59:37			
245960009	1	39	3.26	0.210	2/11/2010@14:00:29			
245960010	1	40	1.29	0.124	2/11/2010@14:01:22			
WCN100211-03	1	S3	93.9	4.17	2/11/2010@14:02:14			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								

		Result:	-6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.78	0.145	2/11/2010@14:04:04			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	1.78 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.78 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245960011	1	41	0.196	0.0761	2/11/2010@14:05:52			
245998001	1	42	-0.395	0.0503	2/11/2010@14:06:45			
245998002	1	43	0.821	0.103	2/11/2010@14:07:37			
245998003	1	44	-0.139	0.0615	2/11/2010@14:08:29			
245998004	1	45	0.289	0.0802	2/11/2010@14:09:21			
245998005	1	46	-0.410	0.0497	2/11/2010@14:10:15			
245998006	1	47	5.12	0.291	2/11/2010@14:11:10			
245998007	1	48	0.146	0.0739	2/11/2010@14:12:03			
245998008	1	49	-1.76	-0.00916	2/11/2010@14:12:56			
245998009	1	50	0.375	0.0839	2/11/2010@14:13:50			
WCN100211-03	1	S3	97.6	4.33	2/11/2010@14:14:42			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.36	0.127	2/11/2010@14:16:32			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	1.36 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.36 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246012001	1	51	0.266	0.0792	2/11/2010@14:18:21			
246012002	1	52	-0.481	0.0466	2/11/2010@14:19:15			
246012003	1	53	0.188	0.0758	2/11/2010@14:20:08			
246012004	1	54	-0.326	0.0533	2/11/2010@14:21:01			
246012005	1	55	-0.0652	0.0647	2/11/2010@14:21:53			
246012006	1	56	-0.712	0.0365	2/11/2010@14:22:47			
1202040197|951938|MB	1	57	-2.19	-0.0282	2/11/2010@14:23:39			
1202040204||LCS	1	58	23.2	1.08	2/11/2010@14:24:31		25.00	
246280011	1	59	-0.125	0.0621	2/11/2010@14:25:23			
1202040198||DUP	1	60	-0.908	0.0280	2/11/2010@14:26:15			
WCN100211-03	1	S3	93.4	4.15	2/11/2010@14:27:08			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.94	0.152	2/11/2010@14:28:58			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.94 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.94 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202040200||MS	1	61	91.2	4.05	2/11/2010@14:30:48			
1202040202||MSD	1	62	92.5	4.11	2/11/2010@14:31:43			
246291009	1	63	2.70	0.186	2/11/2010@14:32:37			
1202040199||DUP	1	64	-0.845	0.0307	2/11/2010@14:33:30			
1202040201||MS	1	65	80.2	3.57	2/11/2010@14:34:25			
1202040203||MSD	1	66	81.0	3.60	2/11/2010@14:35:17			
246557001	1	67	2.25	0.166	2/11/2010@14:36:10			
246562001	1	68	-0.806	0.0324	2/11/2010@14:37:04			
246587007	1	69	-0.127	0.0620	2/11/2010@14:37:58			
246592001	1	70	1.11	0.116	2/11/2010@14:38:49			
WCN100211-03	1	S3	93.3	4.14	2/11/2010@14:39:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-6.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.81	0.147	2/11/2010@14:41:33			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.81 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.81 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246592002	1	71	0.567	0.0923	2/11/2010@14:43:22			
246592003	1	72	1.71	0.142	2/11/2010@14:44:15			
246592004	1	73	0.407	0.0853	2/11/2010@14:45:07			
246594001	1	74	-0.143	0.0613	2/11/2010@14:45:59			
246594002	1	75	-0.134	0.0617	2/11/2010@14:46:51			
246594003	1	76	-0.329	0.0532	2/11/2010@14:47:46			
246594004	1	77	0.0585	0.0701	2/11/2010@14:48:40			
246594005	1	78	-2.65	-0.0480	2/11/2010@14:49:34			
246594006	1	79	-1.79	-0.0107	2/11/2010@14:50:28			
246610001	1	80	-1.55	0.00	2/11/2010@14:51:22			
WCN100211-03	1	S3	93.6	4.15	2/11/2010@14:52:15			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.02	0.112	2/11/2010@14:54:05			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.02 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.02 > -5.00					
		Message	CCB Passed					

		Action	Continue					
246610002	1	81	-0.827	0.0315	2/11/2010@14:55:56			
246610003	1	82	-1.05	0.0217	2/11/2010@14:56:50			
246612001	1	83	0.0685	0.0706	2/11/2010@14:57:43			
246615001	1	84	22.5	1.05	2/11/2010@14:58:36			
1202040194|951932|MB	1	95	-0.101	0.0631	2/11/2010@14:59:31			
1202040196||LCS	1	96	-0.953	0.0259	2/11/2010@15:00:25			
246612001	1	97	1.37	0.128	2/11/2010@15:01:18			
1202040195||DUP	1	98	3.09	0.203	2/11/2010@15:02:12			
246615001	1	99	39.0	1.77	2/11/2010@15:03:05			
WCN100211-03	1	S3	94.2	4.18	2/11/2010@15:03:58			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	-39.9	-1.67	2/11/2010@15:05:48			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-39.9 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-39.9 < -5.00					
		Message	CCB Failed					
		Action	Stop Run					

Analyte Properties Table for OM_2-11-2010_13-11-41.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/11/2010

Channel 1: Current View

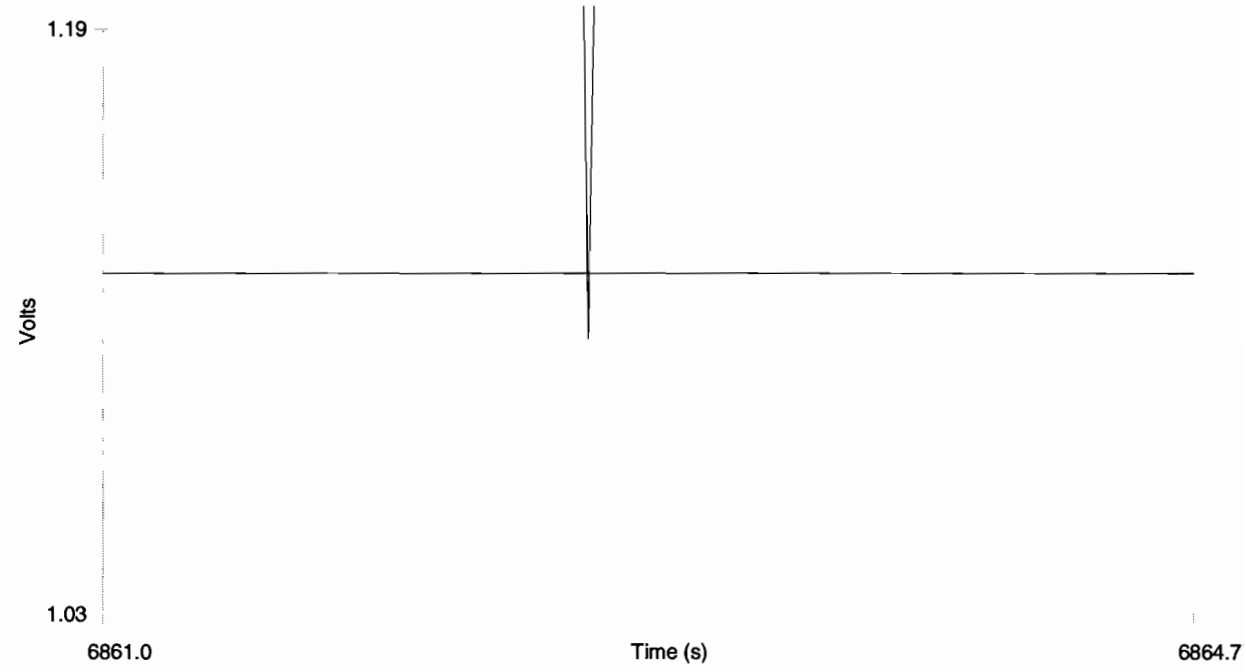
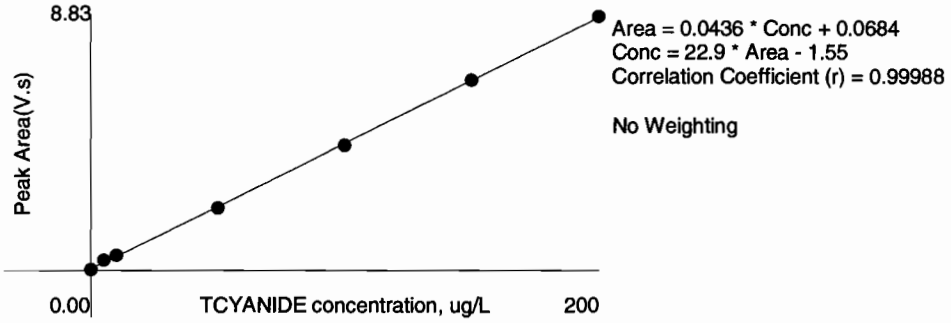


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.83	0.563	-0.4	2/11/2010	09:53:41
2	150	1	6.63	0.424	-0.2	2/11/2010	09:54:33
3	100	1	4.36	0.279	1.6	2/11/2010	09:55:25
4	50.0	1	2.20	0.140	2.4	2/11/2010	09:56:18
5	10.0	1	0.540	0.0343	-7.1	2/11/2010	09:57:11
6	5.00	1	0.362	0.0225	-26.4	2/11/2010	09:58:05
7	0.00	1	0.0328	0.00101		2/11/2010	09:58:59

Figure 1: TCYANIDE



Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
15-FEB-10			
Instrument Type:	**Test / Method:** SW846 9012A	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 948614	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 245938(10-1506),245950(10-1508),245955(10-1509),245960(10-1511)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202032235MS 1202032237MSD 2. Failed Recovery for MS: QC 1202032237MS	1. The matrix spike falls outside of the client specified acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD(soil sample). 2. The matrix spike recovery falls outside of the client specified acceptance limits. Since both the matrix spike duplicate and the RPD are within acceptance limits, the data is reported(soil sample).

Originator's Name:

Ashley Earl 15-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 16-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
15-FEB-10			
Instrument Type:	**Test / Method:** SW846 9012A	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 948618	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 245960(10-1511),245998(10-1517),246012(10-1523)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD: QC 1202032253MSD 1202032254MSD	1. The spike recovery falls duplicate outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported.

Originator's Name:

Ashley Earl 15-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 22-FEB-10

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1511-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948940	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948939	**Method:**	SSW846 9010B Prep

Sample Analysis
The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245965001	RE15-10-7326
1202033006	Method Blank (MB)
1202033007	246004001(RE16-10-11766) Sample Duplicate (DUP)
1202033008	245926003(CAMO-10-9289) Sample Duplicate (DUP)
1202033009	246004001(RE16-10-11766) Matrix Spike (MS)
1202033010	245926003(CAMO-10-9289) Matrix Spike (MS)
1202033011	246004001(RE16-10-11766) Matrix Spike Duplicate (MSD)
1202033012	245926003(CAMO-10-9289) Matrix Spike Duplicate (MSD)
1202033013	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information
The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

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

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245926003 (CAMO-10-9289) and 246004001 (RE16-10-11766).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

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

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202033008 (CAMO-10-9289).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 245965001 (RE15-10-7326).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

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

Review Validation:

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

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

Reviewer: _____ **Date:** 26Feb10

Sample Data Summary

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

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1511-1 GEL Work Order: 245965

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by

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

Certificate of Analysis

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

Report Date: February 12, 2010
Client SDG: 10-1511-1

Client Sample ID:	RE15-10-7326	Project:	LANL01004
Sample ID:	245965001	Client ID:	LANL010
Matrix:	W		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1509	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

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

QC Summary

Report Date: February 12, 2010

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

Workorder: **245965**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 948940										
QC1202033007 246004001 DUP										
Cyanide, Total		U	ND	U	ND	ug/L	N/A		AXC2	02/08/10 15:01
QC1202033008 245926003 DUP										
Cyanide, Total		U	ND	U	ND	ug/L	N/A			02/08/10 14:44
QC1202033013 LCS										
Cyanide, Total	50.0				51.4	ug/L		103	(90%-110%)	02/08/10 14:37
QC1202033006 MB										
Cyanide, Total				U	5.00	ug/L				02/08/10 14:36
QC1202033009 246004001 MS										
Cyanide, Total	100	U	ND		96.2	ug/L		96.2	(60%-144%)	02/08/10 15:02
QC1202033010 245926003 MS										
Cyanide, Total	100	U	ND		93.6	ug/L		92.2	(60%-144%)	02/08/10 14:45
QC1202033011 246004001 MSD										
Cyanide, Total	100	U	ND		94.3	ug/L	1.99	94.3	(0%-20%)	02/08/10 15:03
QC1202033012 245926003 MSD										
Cyanide, Total	100	U	ND		94.0	ug/L	0.426	92.6	(0%-20%)	02/08/10 14:46

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.

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

QC Summary

Workorder: 245965

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 12-FEB-2010 13:10

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-1511-1

Flow Injection Analysis
Method: SW846 9012A Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-FEB-2010 13:22:34**	**OM_2-8-2010_13-14-40**	**151**	**150**	**101**	**(90%-110%)**	**Yes**
CCV	08-FEB-2010 14:26:41	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:39:11	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:51:47	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 15:04:19	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes
CCV	08-FEB-2010 15:16:55	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-FEB-2010 13:24:24**	**OM_2-8-2010_13-14-40**	**-1.45**	**10**	**Yes**
CCB	08-FEB-2010 14:28:32	OM_2-8-2010_13-14-40	-1.47	10	Yes
CCB	08-FEB-2010 14:41:01	OM_2-8-2010_13-14-40	-1.57	10	Yes
CCB	08-FEB-2010 14:53:37	OM_2-8-2010_13-14-40	-1.83	10	Yes
CCB	08-FEB-2010 15:06:09	OM_2-8-2010_13-14-40	-1.82	10	Yes
CCB	08-FEB-2010 15:18:45	OM_2-8-2010_13-14-40	-1.49	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948939

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033013	URF1184831-02	.0125	mL
MS	1202033009	URF1184831-02	.025	mL
MS	1202033010	URF1184831-02	.025	mL
MSD	1202033011	URF1184831-02	.025	mL
MSD	1202033012	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033006		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
LCS	1202033013		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245926001		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926002		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926003		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
DUP	1202033008	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
MS	1202033010	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
MSD	1202033012	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926004		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926005		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926006		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926007		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245939001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245939002		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245953001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245965001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245975001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245981001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246000001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246004001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
DUP	1202033007	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
MS	1202033009	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
MSD	1202033011	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056002		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056003		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056004		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246080001		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100205-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/8/2010 13:15:25	OM_2-8-2010_13-14-40
150 ppb		1	axc2	2/8/2010 13:16:17	OM_2-8-2010_13-14-40
100 ppb		1	axc2	2/8/2010 13:17:10	OM_2-8-2010_13-14-40
50 ppb		1	axc2	2/8/2010 13:18:03	OM_2-8-2010_13-14-40
10 ppb		1	axc2	2/8/2010 13:18:56	OM_2-8-2010_13-14-40
CRDL 5.0 ppb		1	axc2	2/8/2010 13:19:50	OM_2-8-2010_13-14-40
ICAL-00		1	axc2	2/8/2010 13:20:43	OM_2-8-2010_13-14-40
ICV		1	axc2	2/8/2010 13:22:34	OM_2-8-2010_13-14-40
ICB		1	axc2	2/8/2010 13:24:24	OM_2-8-2010_13-14-40
CRDL		1	axc2	2/8/2010 13:26:14	OM_2-8-2010_13-14-40
1202029242*	947315	1	axc2	2/8/2010 13:28:03	OM_2-8-2010_13-14-40
1202029249	947315	25	axc2	2/8/2010 13:28:57	OM_2-8-2010_13-14-40
245682001	947315	1	axc2	2/8/2010 13:29:50	OM_2-8-2010_13-14-40
245682002	947315	1	axc2	2/8/2010 13:30:43	OM_2-8-2010_13-14-40
245682003	947315	1	axc2	2/8/2010 13:31:36	OM_2-8-2010_13-14-40
245682004	947315	1	axc2	2/8/2010 13:32:29	OM_2-8-2010_13-14-40
245682005	947315	1	axc2	2/8/2010 13:33:21	OM_2-8-2010_13-14-40
245682006	947315	1	axc2	2/8/2010 13:34:14	OM_2-8-2010_13-14-40
245682007	947315	1	axc2	2/8/2010 13:35:07	OM_2-8-2010_13-14-40
245682008	947315	1	axc2	2/8/2010 13:35:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:36:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:38:42	OM_2-8-2010_13-14-40
1202029242	947315	1	axc2	2/8/2010 13:40:30	OM_2-8-2010_13-14-40
245682009	947315	1	axc2	2/8/2010 13:41:23	OM_2-8-2010_13-14-40
245682010	947315	1	axc2	2/8/2010 13:42:15	OM_2-8-2010_13-14-40
245688011	947315	1	axc2	2/8/2010 13:43:06	OM_2-8-2010_13-14-40
1202029243	947315	1	axc2	2/8/2010 13:43:58	OM_2-8-2010_13-14-40
1202029245	947315	1	axc2	2/8/2010 13:44:50	OM_2-8-2010_13-14-40
1202029247	947315	1	axc2	2/8/2010 13:45:44	OM_2-8-2010_13-14-40
245688012	947315	1	axc2	2/8/2010 13:46:37	OM_2-8-2010_13-14-40
1202029244	947315	1	axc2	2/8/2010 13:47:31	OM_2-8-2010_13-14-40
1202029246	947315	1	axc2	2/8/2010 13:48:24	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:49:17	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:51:07	OM_2-8-2010_13-14-40
1202029248	947315	1	axc2	2/8/2010 13:52:56	OM_2-8-2010_13-14-40
245688013	947315	1	axc2	2/8/2010 13:53:50	OM_2-8-2010_13-14-40
245688014	947315	1	axc2	2/8/2010 13:54:42	OM_2-8-2010_13-14-40
245797001	947315	1	axc2	2/8/2010 13:55:35	OM_2-8-2010_13-14-40
245797002	947315	1	axc2	2/8/2010 13:56:27	OM_2-8-2010_13-14-40
245797003	947315	1	axc2	2/8/2010 13:57:20	OM_2-8-2010_13-14-40
245797004	947315	1	axc2	2/8/2010 13:58:12	OM_2-8-2010_13-14-40
245797005	947315	1	axc2	2/8/2010 13:59:04	OM_2-8-2010_13-14-40
245797006	947315	1	axc2	2/8/2010 13:59:57	OM_2-8-2010_13-14-40
1202029230	947312	1	axc2	2/8/2010 14:00:48	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:01:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:03:31	OM_2-8-2010_13-14-40
1202029237	947312	25	axc2	2/8/2010 14:05:20	OM_2-8-2010_13-14-40
245612007	947312	1	axc2	2/8/2010 14:06:13	OM_2-8-2010_13-14-40
1202029231	947312	1	axc2	2/8/2010 14:07:07	OM_2-8-2010_13-14-40
1202029233	947312	1	axc2	2/8/2010 14:08:01	OM_2-8-2010_13-14-40
1202029235	947312	1	axc2	2/8/2010 14:08:54	OM_2-8-2010_13-14-40
245612008	947312	1	axc2	2/8/2010 14:09:48	OM_2-8-2010_13-14-40
1202029232	947312	1	axc2	2/8/2010 14:10:41	OM_2-8-2010_13-14-40
1202029234	947312	1	axc2	2/8/2010 14:11:33	OM_2-8-2010_13-14-40
1202029236	947312	1	axc2	2/8/2010 14:12:26	OM_2-8-2010_13-14-40
245612009	947312	1	axc2	2/8/2010 14:13:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:14:12	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:16:04	OM_2-8-2010_13-14-40

245612010	947312	1	axc2	2/8/2010	14:17:52	OM_2-8-2010_13-14-40
245612011	947312	1	axc2	2/8/2010	14:18:45	OM_2-8-2010_13-14-40
245612012	947312	1	axc2	2/8/2010	14:19:37	OM_2-8-2010_13-14-40
245612013	947312	1	axc2	2/8/2010	14:20:29	OM_2-8-2010_13-14-40
245612014	947312	1	axc2	2/8/2010	14:21:22	OM_2-8-2010_13-14-40
245612015	947312	1	axc2	2/8/2010	14:22:13	OM_2-8-2010_13-14-40
245612016	947312	1	axc2	2/8/2010	14:23:07	OM_2-8-2010_13-14-40
245688001	947312	1	axc2	2/8/2010	14:24:02	OM_2-8-2010_13-14-40
245688002	947312	1	axc2	2/8/2010	14:24:55	OM_2-8-2010_13-14-40
245688003	947312	1	axc2	2/8/2010	14:25:50	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:26:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:28:32	OM_2-8-2010_13-14-40
245688004	947312	1	axc2	2/8/2010	14:30:23	OM_2-8-2010_13-14-40
245688005	947312	1	axc2	2/8/2010	14:31:15	OM_2-8-2010_13-14-40
245688006	947312	1	axc2	2/8/2010	14:32:08	OM_2-8-2010_13-14-40
245688007	947312	1	axc2	2/8/2010	14:33:01	OM_2-8-2010_13-14-40
245688008	947312	1	axc2	2/8/2010	14:33:55	OM_2-8-2010_13-14-40
245688009	947312	1	axc2	2/8/2010	14:34:47	OM_2-8-2010_13-14-40
245688010	947312	1	axc2	2/8/2010	14:35:40	OM_2-8-2010_13-14-40
1202033006	948940	1	axc2	2/8/2010	14:36:34	OM_2-8-2010_13-14-40
1202033013	948940	1	axc2	2/8/2010	14:37:26	OM_2-8-2010_13-14-40
245926001	948940	1	axc2	2/8/2010	14:38:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:39:11	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:41:01	OM_2-8-2010_13-14-40
245926002	948940	1	axc2	2/8/2010	14:42:50	OM_2-8-2010_13-14-40
245926003	948940	1	axc2	2/8/2010	14:43:43	OM_2-8-2010_13-14-40
1202033008	948940	1	axc2	2/8/2010	14:44:35	OM_2-8-2010_13-14-40
1202033010	948940	1	axc2	2/8/2010	14:45:29	OM_2-8-2010_13-14-40
1202033012	948940	1	axc2	2/8/2010	14:46:24	OM_2-8-2010_13-14-40
245926004	948940	1	axc2	2/8/2010	14:47:19	OM_2-8-2010_13-14-40
245926005	948940	1	axc2	2/8/2010	14:48:12	OM_2-8-2010_13-14-40
245926006	948940	1	axc2	2/8/2010	14:49:06	OM_2-8-2010_13-14-40
245926007	948940	1	axc2	2/8/2010	14:50:01	OM_2-8-2010_13-14-40
245939001	948940	1	axc2	2/8/2010	14:50:54	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:51:47	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:53:37	OM_2-8-2010_13-14-40
245939002*	948940	1	axc2	2/8/2010	14:55:27	OM_2-8-2010_13-14-40
245953001*	948940	1	axc2	2/8/2010	14:56:21	OM_2-8-2010_13-14-40
245965001*	948940	1	axc2	2/8/2010	14:57:14	OM_2-8-2010_13-14-40
245975001	948940	1	axc2	2/8/2010	14:58:06	OM_2-8-2010_13-14-40
245981001	948940	1	axc2	2/8/2010	14:59:00	OM_2-8-2010_13-14-40
246000001	948940	1	axc2	2/8/2010	14:59:52	OM_2-8-2010_13-14-40
246004001	948940	1	axc2	2/8/2010	15:00:45	OM_2-8-2010_13-14-40
1202033007	948940	1	axc2	2/8/2010	15:01:38	OM_2-8-2010_13-14-40
1202033009	948940	1	axc2	2/8/2010	15:02:32	OM_2-8-2010_13-14-40
1202033011	948940	1	axc2	2/8/2010	15:03:27	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:04:19	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:06:09	OM_2-8-2010_13-14-40
245939002	948940	1	axc2	2/8/2010	15:07:59	OM_2-8-2010_13-14-40
245953001	948940	1	axc2	2/8/2010	15:08:53	OM_2-8-2010_13-14-40
245965001	948940	1	axc2	2/8/2010	15:09:46	OM_2-8-2010_13-14-40
246056001	948940	1	axc2	2/8/2010	15:10:41	OM_2-8-2010_13-14-40
246056002	948940	1	axc2	2/8/2010	15:11:35	OM_2-8-2010_13-14-40
246056003	948940	1	axc2	2/8/2010	15:12:29	OM_2-8-2010_13-14-40
246056004	948940	1	axc2	2/8/2010	15:13:23	OM_2-8-2010_13-14-40
246080001	948940	1	axc2	2/8/2010	15:14:17	OM_2-8-2010_13-14-40
1202029252	947318	1	axc2	2/8/2010	15:15:10	OM_2-8-2010_13-14-40
1202029259	947318	25	axc2	2/8/2010	15:16:03	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:16:55	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:18:45	OM_2-8-2010_13-14-40

245797007	947318	1	axc2	2/8/2010 15:20:34	OM_2-8-2010_13-14-40
1202029253	947318	1	axc2	2/8/2010 15:21:26	OM_2-8-2010_13-14-40
1202029255	947318	1	axc2	2/8/2010 15:22:20	OM_2-8-2010_13-14-40
1202029257	947318	1	axc2	2/8/2010 15:23:14	OM_2-8-2010_13-14-40
245797008	947318	1	axc2	2/8/2010 15:24:08	OM_2-8-2010_13-14-40
1202029254	947318	1	axc2	2/8/2010 15:25:02	OM_2-8-2010_13-14-40
1202029256	947318	1	axc2	2/8/2010 15:25:56	OM_2-8-2010_13-14-40
1202029258	947318	1	axc2	2/8/2010 15:26:50	OM_2-8-2010_13-14-40
245797009	947318	1	axc2	2/8/2010 15:27:43	OM_2-8-2010_13-14-40
245797010	947318	1	axc2	2/8/2010 15:28:36	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 15:29:29	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 15:31:18	OM_2-8-2010_13-14-40
245797011	947318	1	axc2	2/8/2010 15:33:08	OM_2-8-2010_13-14-40
245797012	947318	1	axc2	2/8/2010 15:34:00	OM_2-8-2010_13-14-40
245797013	947318	1	axc2	2/8/2010 15:34:53	OM_2-8-2010_13-14-40
245797014	947318	1	axc2	2/8/2010 15:35:46	OM_2-8-2010_13-14-40
245797015	947318	1	axc2	2/8/2010 15:36:38	OM_2-8-2010_13-14-40
245797016	947318	1	axc2	2/8/2010 15:37:31	OM_2-8-2010_13-14-40
245797017	947318	1	axc2	2/8/2010 15:38:23	OM_2-8-2010_13-14-40
245797018	947318	1	axc2	2/8/2010 15:39:17	OM_2-8-2010_13-14-40
245797019	947318	1	axc2	2/8/2010 15:40:11	OM_2-8-2010_13-14-40
245806001	947318	1	axc2	2/8/2010 15:41:06	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 15:41:58	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 15:43:48	OM_2-8-2010_13-14-40
245806002	947318	1	axc2	2/8/2010 15:45:38	OM_2-8-2010_13-14-40
245806003	947318	1	axc2	2/8/2010 15:46:33	OM_2-8-2010_13-14-40
245806004	947318	1	axc2	2/8/2010 15:47:26	OM_2-8-2010_13-14-40
245806005	947318	1	axc2	2/8/2010 15:48:19	OM_2-8-2010_13-14-40
245806006	947318	1	axc2	2/8/2010 15:49:13	OM_2-8-2010_13-14-40
245806007	947318	1	axc2	2/8/2010 15:50:06	OM_2-8-2010_13-14-40
1202034313	949504	1	axc2	2/8/2010 15:51:00	OM_2-8-2010_13-14-40
1202034315	949504	250	axc2	2/8/2010 15:51:53	OM_2-8-2010_13-14-40
246078001	949504	1	axc2	2/8/2010 15:52:47	OM_2-8-2010_13-14-40
1202034314	949504	1	axc2	2/8/2010 15:53:40	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 15:54:33	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 15:56:23	OM_2-8-2010_13-14-40
246078002	949504	1	axc2	2/8/2010 15:58:12	OM_2-8-2010_13-14-40
246078003	949504	1	axc2	2/8/2010 15:59:05	OM_2-8-2010_13-14-40
246078004	949504	1	axc2	2/8/2010 15:59:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 16:00:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 16:02:41	OM_2-8-2010_13-14-40

Author: axc2 Date : 2/8/2010

Original Run Filename: OM_2-8-2010_13-14-40.OMN created 2/8/2010 13:14:40
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-8-2010_13-14-40.OMN last modified 2/8/2010 16:03:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100208-01	1	S1	200	8.74	2/8/2010@13:15:25			200 ppb
WCN100208-02	1	S2	150	6.63	2/8/2010@13:16:17			150 ppb
WCN100208-03	1	S3	100	4.52	2/8/2010@13:17:10			100 ppb
WCN100208-04	1	S4	50.0	2.28	2/8/2010@13:18:03			50 ppb
WCN100208-05	1	S5	10.0	0.511	2/8/2010@13:18:56			10 ppb
WCN100208-06	1	S6	5.00	0.321	2/8/2010@13:19:50			CRDL 5.0 ppb
WCN100208-08	1	S7	0.00	0.00906	2/8/2010@13:20:43			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99989 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100208-07	1	S8	151	6.65	2/8/2010@13:22:34			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100208-08	1	S7	-1.45	0.0181	2/8/2010@13:24:24			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.45 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.45 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100208-06	1	S6	5.53	0.322	2/8/2010@13:26:14			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.53 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.53 > 2.50					
		Message	CRDL Passed					
		Action	Continue					
1202029242|947315|MB	1	1	441	19.3	2/8/2010@13:28:03			
1202029249||LCS	1	2	26.6	1.24	2/8/2010@13:28:57		25.00	
245682001	1	3	-0.713	0.0500	2/8/2010@13:29:50			
245682002	1	4	-0.651	0.0528	2/8/2010@13:30:43			
245682003	1	5	0.833	0.117	2/8/2010@13:31:36			
245682004	1	6	-1.86	-1.22e-4	2/8/2010@13:32:29			
245682005	1	7	-0.452	0.0614	2/8/2010@13:33:21			
245682006	1	8	-0.944	0.0400	2/8/2010@13:34:14			
245682007	1	9	-1.19	0.0293	2/8/2010@13:35:07			
245682008	1	10	6.00	0.343	2/8/2010@13:35:58			
WCN100208-03	1	S3	105	4.68	2/8/2010@13:36:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.40	0.0203	2/8/2010@13:38:42			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029242|947315|MB	1	1	-1.06	0.0348	2/8/2010@13:40:30			
245682009	1	11	-0.822	0.0453	2/8/2010@13:41:23			
245682010	1	12	1.86	0.162	2/8/2010@13:42:15			
245688011	1	13	-0.777	0.0473	2/8/2010@13:43:06			
1202029243||DUP	1	14	-2.01	-0.00640	2/8/2010@13:43:58			
1202029245||MS	1	15	86.6	3.85	2/8/2010@13:44:50			
1202029247||MSD	1	16	78.4	3.50	2/8/2010@13:45:44			
245688012	1	17	0.261	0.0925	2/8/2010@13:46:37			
1202029244||DUP	1	18	0.738	0.113	2/8/2010@13:47:31			
1202029246||MS	1	19	69.2	3.10	2/8/2010@13:48:24			
WCN100208-03	1	S3	105	4.67	2/8/2010@13:49:17			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.92	-0.00263	2/8/2010@13:51:07			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.92 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.92 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029248||MSD	1	20	71.4	3.19	2/8/2010@13:52:56			
245688013	1	21	-1.01	0.0373	2/8/2010@13:53:50			
245688014	1	22	0.338	0.0958	2/8/2010@13:54:42			
245797001	1	23	-0.979	0.0385	2/8/2010@13:55:35			
245797002	1	24	-0.863	0.0435	2/8/2010@13:56:27			
245797003	1	25	-0.309	0.0676	2/8/2010@13:57:20			
245797004	1	26	0.938	0.122	2/8/2010@13:58:12			
245797005	1	27	2.23	0.178	2/8/2010@13:59:04			
245797006	1	28	-0.105	0.0766	2/8/2010@13:59:57			
1202029230|947312|MB	1	29	-1.23	0.0277	2/8/2010@14:00:48			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:01:41			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	0.00	2/8/2010@14:03:31			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029237||LCS	1	30	28.0	1.30	2/8/2010@14:05:20		25.00	
245612007	1	31	-0.913	0.0414	2/8/2010@14:06:13			
1202029231||DUP	1	32	-1.27	0.0256	2/8/2010@14:07:07			
1202029233||MS	1	33	89.8	3.99	2/8/2010@14:08:01			
1202029235||MSD	1	34	85.3	3.80	2/8/2010@14:08:54			
245612008	1	35	-0.535	0.0578	2/8/2010@14:09:48			
1202029232||DUP	1	36	-1.07	0.0347	2/8/2010@14:10:41			
1202029234||MS	1	37	86.4	3.85	2/8/2010@14:11:33			
1202029236||MSD	1	38	84.8	3.78	2/8/2010@14:12:26			
245612009	1	39	-0.656	0.0526	2/8/2010@14:13:19			
WCN100208-03	1	S3	105	4.65	2/8/2010@14:14:12			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.95	-0.00373	2/8/2010@14:16:04			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.95 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.95 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245612010	1	40	-0.280	0.0689	2/8/2010@14:17:52			
245612011	1	41	-1.09	0.0336	2/8/2010@14:18:45			
245612012	1	42	-1.19	0.0295	2/8/2010@14:19:37			
245612013	1	43	1.77	0.158	2/8/2010@14:20:29			
245612014	1	44	-0.868	0.0433	2/8/2010@14:21:22			
245612015	1	45	-0.814	0.0457	2/8/2010@14:22:13			
245612016	1	46	-1.07	0.0344	2/8/2010@14:23:07			
245688001	1	47	0.570	0.106	2/8/2010@14:24:02			
245688002	1	48	-0.480	0.0602	2/8/2010@14:24:55			
245688003	1	49	-0.404	0.0635	2/8/2010@14:25:50			
WCN100208-03	1	S3	105	4.64	2/8/2010@14:26:41			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.47	0.0172	2/8/2010@14:28:32			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.47 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.47 > -5.00					
		Message	CCB Passed					
		Action	Continue					

245688004	1	50	-0.636	0.0534	2/8/2010@14:30:23			
245688005	1	51	-0.336	0.0665	2/8/2010@14:31:15			
245688006	1	52	1.16	0.131	2/8/2010@14:32:08			
245688007	1	53	-0.543	0.0575	2/8/2010@14:33:01			
245688008	1	54	-1.27	0.0259	2/8/2010@14:33:55			
245688009	1	55	-0.570	0.0563	2/8/2010@14:34:47			
245688010	1	56	-0.384	0.0644	2/8/2010@14:35:40			
1202033006|948940|MB	1	85	-1.45	0.0179	2/8/2010@14:36:34			
1202033013||LCS	1	86	51.4	2.32	2/8/2010@14:37:26			
245926001	1	87	14.3	0.704	2/8/2010@14:38:19			
WCN100208-03	1	S3	105	4.67	2/8/2010@14:39:11			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		5.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		5.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100208-08	1	S7	-1.57	0.0127	2/8/2010@14:41:01			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.57 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.57 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245926002	1	88	13.4	0.665	2/8/2010@14:42:50			
245926003	1	89	1.37	0.141	2/8/2010@14:43:43			
1202033008||DUP	1	90	-1.19	0.0293	2/8/2010@14:44:35			
1202033010||MS	1	91	93.6	4.16	2/8/2010@14:45:29			
1202033012||MSD	1	92	94.0	4.18	2/8/2010@14:46:24			
245926004	1	93	-1.04	0.0356	2/8/2010@14:47:19			
245926005	1	94	-1.86	-1.28e-4	2/8/2010@14:48:12			
245926006	1	95	-1.99	-0.00557	2/8/2010@14:49:06			
245926007	1	96	-1.18	0.0298	2/8/2010@14:50:01			
245939001	1	97	-1.20	0.0290	2/8/2010@14:50:54			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:51:47			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		5.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		5.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100208-08	1	S7	-1.83	0.00132	2/8/2010@14:53:37			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.83 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.83 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245939002	1	98	81.1	3.62	2/8/2010@14:55:27			
245953001	1	99	-11.0	-0.399	2/8/2010@14:56:21			
245965001	1	100	257	11.3	2/8/2010@14:57:14			
245975001	1	101	-1.84	9.46e-4	2/8/2010@14:58:06			
245981001	1	102	-1.72	0.00598	2/8/2010@14:59:00			
246000001	1	103	-1.86	2.83e-4	2/8/2010@14:59:52			
246004001	1	104	-2.03	-0.00731	2/8/2010@15:00:45			
1202033007||DUP	1	105	-1.87	-2.30e-4	2/8/2010@15:01:38			

1202033009||MS	1	106	96.2	4.27	2/8/2010@15:02:32			
1202033011||MSD	1	107	94.3	4.19	2/8/2010@15:03:27			
WCN100208-03	1	S3	104	4.63	2/8/2010@15:04:19			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:	4.5 < 10.0							
Message	CCV Passed							
Action	Continue							
DQM Test: < - Percent Relative Difference								
Result:	4.5 < 10.0							
Message	CCV Passed							
Action	Continue							
WCN100208-08	1	S7	-1.82	0.00202	2/8/2010@15:06:09			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:	-1.82 < 5.00							
Message	CCB Passed							
Action	Continue							
DQM Test: < - Concentration Limit								
Result:	-1.82 > -5.00							
Message	CCB Passed							
Action	Continue							
245939002	1	98	-1.86	1.33e-4	2/8/2010@15:07:59			
245953001	1	99	-1.90	-0.00162	2/8/2010@15:08:53			
245965001	1	100	-1.86	-1.03e-4	2/8/2010@15:09:46			
246056001	1	108	-1.29	0.0251	2/8/2010@15:10:41			
246056002	1	109	-2.00	-0.00595	2/8/2010@15:11:35			
246056003	1	110	-1.42	0.0194	2/8/2010@15:12:29			
246056004	1	111	-2.00	-0.00588	2/8/2010@15:13:23			
246080001	1	112	-1.45	0.0179	2/8/2010@15:14:17			
1202029252|947318|MB	1	57	-1.86	-1.18e-4	2/8/2010@15:15:10			
1202029259||LCS	1	58	29.0	1.35	2/8/2010@15:16:03		25.00	
WCN100208-03	1	S3	104	4.62	2/8/2010@15:16:55			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:	4.1 < 10.0							
Message	CCV Passed							
Action	Continue							
DQM Test: < - Percent Relative Difference								
Result:	4.1 < 10.0							
Message	CCV Passed							
Action	Continue							
WCN100208-08	1	S7	-1.49	0.0161	2/8/2010@15:18:45			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:	-1.49 < 5.00							
Message	CCB Passed							
Action	Continue							
DQM Test: < - Concentration Limit								
Result:	-1.49 > -5.00							
Message	CCB Passed							
Action	Continue							
245797007	1	59	-0.787	0.0468	2/8/2010@15:20:34			
1202029253||DUP	1	60	-0.616	0.0543	2/8/2010@15:21:26			
1202029255||MS	1	61	83.5	3.72	2/8/2010@15:22:20			
1202029257||MSD	1	62	84.4	3.76	2/8/2010@15:23:14			
245797008	1	63	3.82	0.248	2/8/2010@15:24:08			
1202029254||DUP	1	64	1.23	0.135	2/8/2010@15:25:02			
1202029256||MS	1	65	89.1	3.96	2/8/2010@15:25:56			
1202029258||MSD	1	66	78.7	3.51	2/8/2010@15:26:50			
245797009	1	67	-0.647	0.0529	2/8/2010@15:27:43			
245797010	1	68	-0.409	0.0633	2/8/2010@15:28:36			
WCN100208-03	1	S3	105	4.66	2/8/2010@15:29:29			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:	5.1 < 10.0							
Message	CCV Passed							
Action	Continue							

DQM Test: < - Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	2.47e-4	2/8/2010@15:31:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797011	1	69	1.59	0.150	2/8/2010@15:33:08			
245797012	1	70	-0.296	0.0682	2/8/2010@15:34:00			
245797013	1	71	-0.166	0.0739	2/8/2010@15:34:53			
245797014	1	72	5.34	0.314	2/8/2010@15:35:46			
245797015	1	73	0.400	0.0985	2/8/2010@15:36:38			
245797016	1	74	0.789	0.115	2/8/2010@15:37:31			
245797017	1	75	0.157	0.0880	2/8/2010@15:38:23			
245797018	1	76	3.07	0.215	2/8/2010@15:39:17			
245797019	1	77	-0.779	0.0472	2/8/2010@15:40:11			
245806001	1	78	-1.11	0.0326	2/8/2010@15:41:06			
WCN100208-03	1	S3	105	4.65	2/8/2010@15:41:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00186	2/8/2010@15:43:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245806002	1	79	0.0705	0.0842	2/8/2010@15:45:38			
245806003	1	80	-0.264	0.0696	2/8/2010@15:46:33			
245806004	1	81	-0.767	0.0477	2/8/2010@15:47:26			
245806005	1	82	-0.805	0.0461	2/8/2010@15:48:19			
245806006	1	83	-0.580	0.0559	2/8/2010@15:49:13			
245806007	1	84	0.973	0.124	2/8/2010@15:50:06			
1202034313|949504|MB	1	113	-1.24	0.0270	2/8/2010@15:51:00			
1202034315||LCS	1	114	107	4.74	2/8/2010@15:51:53		250.00	
246078001	1	115	-1.01	0.0370	2/8/2010@15:52:47			
1202034314||DUP	1	116	-1.86	1.40e-4	2/8/2010@15:53:40			
WCN100208-03	1	S3	105	4.67	2/8/2010@15:54:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.93	-0.00287	2/8/2010@15:56:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.93 < 5.00					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.93 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246078002	1	117	-0.783	0.0470	2/8/2010@15:58:12			
246078003	1	118	-1.88	-6.47e-4	2/8/2010@15:59:05			
246078004	1	119	17.8	0.856	2/8/2010@15:59:58			
WCN100208-03	1	S3	105	4.64	2/8/2010@16:00:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.52	0.0147	2/8/2010@16:02:41			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.52 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.52 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-8-2010_13-14-40.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2

Date : 2/8/2010

Channel 1: Current View

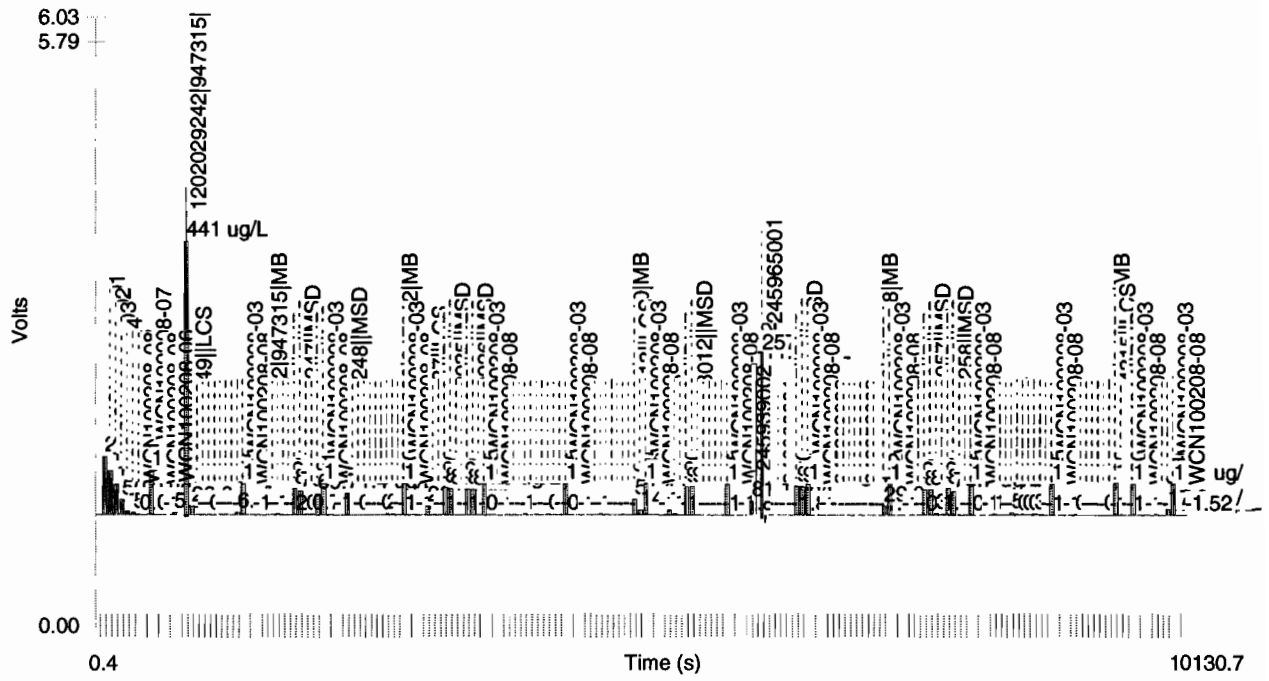
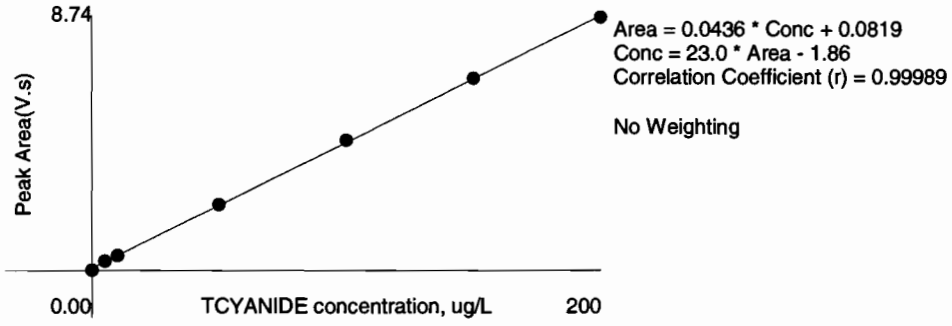


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.74	0.574	0.7	2/8/2010	13:16:28
2	150	1	6.63	0.438	-0.3	2/8/2010	13:17:20
3	100	1	4.52	0.298	-1.8	2/8/2010	13:18:12
4	50.0	1	2.28	0.149	-0.9	2/8/2010	13:19:05
5	10.0	1	0.511	0.0326	1.3	2/8/2010	13:19:59
6	5.00	1	0.321	0.0198	-7.0	2/8/2010	13:20:52
7	0.00	1	0.00906	0.00212		2/8/2010	13:21:47

Figure 1: TCYANIDE



RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1511

Method/Analysis Information

Product:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	948542

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202032013	245955001(RE16-10-1474) Sample Duplicate (DUP)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 245955001 (RE16-10-1474). The QC was from LANL work order 245955.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

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

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949823
Prep Batch Number:	948542

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960007	RE15-10-7313
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202034998	Method Blank (MB)
1202034999	245978001(RE15-10-7880) Sample Duplicate (DUP)
1202035000	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202034998 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245978001 (RE15-10-7880). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202035000 (LCS) was recounted due to high carrier/tracer yield.

Miscellaneous Information:

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

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample, 1202035000 (LCS), did not meet the client tracer yield requirements, however it is less than 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	955380
Prep Batch Number:	948542

Sample ID	Client ID
245960006	RE15-10-7312
245960008	RE15-10-7314
1202048270	Method Blank (MB)
1202048271	245785015(RE46-10-11882) Sample Duplicate (DUP)
1202048272	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202048270 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245785015 (RE46-10-11882). The QC was from LANL work order 245785.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 245960006 (RE15-10-7312) and 245960008 (RE15-10-7314) were reprepped due to high carrier/tracer yield.

Miscellaneous Information:

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

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949824
Prep Batch Number:	948542

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202035001	Method Blank (MB)
1202035002	245978001(RE15-10-7880) Sample Duplicate (DUP)
1202035003	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202035001 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245978001 (RE15-10-7880). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 245960004 (RE15-10-7317) was recounted due to low carrier/tracer yield. Sample 1202035003 (LCS) was recounted due to poor resolution. Sample 1202035002 (RE15-10-7880) was recounted due to a negative result greater than three times the error. Second count being reported.

Miscellaneous Information:

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

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level

The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949825
Prep Batch Number:	948542

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202035005	Method Blank (MB)
1202035006	245978001(RE15-10-7880) Sample Duplicate (DUP)
1202035007	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202035005 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245978001 (RE15-10-7880). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and 238 blank result 1202035005 (MB) is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202035005 (MB) was recounted due to high carrier/tracer yield.

Miscellaneous Information:

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

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-233/234 and 238 blank result 1202035005 (MB) is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	954007
Prep Batch Number:	948542

Sample ID	Client ID
245960008	RE15-10-7314
1202045181	Method Blank (MB)
1202045182	245960008(RE15-10-7314) Sample Duplicate (DUP)
1202045183	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202045181 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245960008 (RE15-10-7314). The QC was from LANL work order 245960.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and U-238 blank, 1202045181 (MB), result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 245960008 (RE15-10-7314) was reprepped due to low carrier/tracer yield.

Miscellaneous Information:

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

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-233/234 blank, 1202045181 (MB), result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	948717
Prep Batch Number:	948542

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202032510	Method Blank (MB)
1202032511	245960002(RE15-10-7308) Sample Duplicate (DUP)
1202032512	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, March 2009, April 2009, May 2009, June 2009, July 2009, October 2009, November 2009, December 2009, January 2010 and February 2010.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245960002 (RE15-10-7308). The QC was from LANL work order 245960.

QC Information
Refer to Data Exception Report (DER).

CSU

The blank 1202032510 (MB) result is greater than 1.65 times the CSU but less than the MDC for Na-22.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:
DER 791258 was generated due to Other. 1. Samples 245960002 and duplicate 1202032511 did not meet the relative error ratio limits for K-40. However, all other nuclides meet the relative error ratio requirements. 1. Reporting results.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The method blank, 1202032510 (MB), result for Pb-212 is greater than the decision level, but less than the MDC.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	245960001	RE15-10-7309
			245960002	RE15-10-7308
			245960003	RE15-10-7315
			245960004	RE15-10-7317
			245960005	RE15-10-7319
			245960006	RE15-10-7312
			245960007	RE15-10-7313
			245960008	RE15-10-7314
			245960009	RE15-10-7316
			245960010	RE15-10-7318

			245960011	RE15-10-7324
			1202032511	RE15-10-7308(245960002DUP)
		Cadmium-109	245960001	RE15-10-7309
			245960002	RE15-10-7308
			245960003	RE15-10-7315
			245960004	RE15-10-7317
			245960005	RE15-10-7319
			245960006	RE15-10-7312
			245960007	RE15-10-7313
			245960008	RE15-10-7314
			245960009	RE15-10-7316
			245960010	RE15-10-7318
			245960011	RE15-10-7324
			1202032511	RE15-10-7308(245960002DUP)
		Mercury-203	245960004	RE15-10-7317
			245960007	RE15-10-7313
		Radium-224	245960001	RE15-10-7309
			245960002	RE15-10-7308
			245960003	RE15-10-7315
			245960004	RE15-10-7317
			245960005	RE15-10-7319
			245960006	RE15-10-7312
			245960007	RE15-10-7313
			245960008	RE15-10-7314
			245960009	RE15-10-7316
			245960010	RE15-10-7318
			245960011	RE15-10-7324
			1202032511	RE15-10-7308(245960002DUP)
UI	Data rejected due to low abundance.	Cesium-134	245960002	RE15-10-7308

	245960003	RE15-10-7315
	245960004	RE15-10-7317
	245960005	RE15-10-7319
	245960009	RE15-10-7316
	245960011	RE15-10-7324
	1202032511	RE15-10-7308(245960002DUP)
Strontium-85	245960003	RE15-10-7315
	245960007	RE15-10-7313
	245960008	RE15-10-7314
	245960010	RE15-10-7318
	1202032510	MB for batch 948717

Certification Statement

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

Review Validation:

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

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

Reviewer/Date: _____ 2/25/10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-FEB-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GAMMA SPECTROMETER	DOE HASL 300, 4.5.2.3/Ga-01-R	Solid	LANL
Batch ID:	**Sample Numbers:**		
948717	See Below		

Potentially affected work order(s)(SDG): 245955(10-1509),245960(10-1511)

Application Issues:

Other

Specification and Requirements Exception Description:	DER Disposition:
1. Samples 245960002 and duplicate 1202032511 did not meet the relative error ratio limits for K-40. However, all other nuclides meet the relative error ratio requirements.	1. Reporting results.

Originator's Name:

Jimmy Hartley 16-FEB-10

Data Validator/Group Leader:

Kenshalla Oston 16-FEB-10

SAMPLE DATA SUMMARY

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

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1511 GEL Work Order: 245960

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

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

Certificate of Analysis

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7309
Sample ID: 245960001
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 9.84%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00144	0.0241	+/-0.00162	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00108	0.023	+/-0.00185	0.050	pCi/g		HAKB	02/13/10	2134	949824	3
Plutonium-239/240	U	-0.00282	0.0174	+/-0.00263	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.07	0.0919	+/-0.098	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236	U	0.0405	0.0586	+/-0.0165	0.100	pCi/g						
Uranium-238		1.07	0.0628	+/-0.0984	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.033	0.0844	+/-0.0256	0.200	pCi/g		MXR1	02/12/10	1444	948717	5
Bismuth-211	UI	4.74	0.318	+/-0.329		pCi/g						
Bismuth-214		1.41	0.132	+/-0.129	0.200	pCi/g						
Cadmium-109	UI	4.01	0.734	+/-0.399		pCi/g						
Cerium-139	U	0.00731	0.044	+/-0.0124	0.050	pCi/g						
Cesium-134	U	0.0869	0.122	+/-0.0463	0.100	pCi/g						
Cesium-137	U	-0.0133	0.0798	+/-0.025	0.100	pCi/g						
Cobalt-60	U	-0.0193	0.0808	+/-0.0256	0.100	pCi/g						
Europium-152	U	-0.0479	0.153	+/-0.0489	0.200	pCi/g						
Lanthanum-140	U	-0.0369	0.181	+/-0.0694		pCi/g						
Lead-212		1.95	0.0877	+/-0.115	0.100	pCi/g						
Lead-214		1.65	0.111	+/-0.122	0.100	pCi/g						
Mercury-203	U	0.0289	0.0654	+/-0.0206	0.100	pCi/g						
Potassium-40		22.5	0.713	+/-1.38	1.00	pCi/g						
Radium-223	U	0.0234	1.09	+/-0.371		pCi/g						
Radium-224	UI	5.48	1.00	+/-0.545		pCi/g						
Radium-226		1.41	0.132	+/-0.129		pCi/g						
Radium-228		1.72	0.266	+/-0.197	0.500	pCi/g						
Ruthenium-106	U	-0.224	0.589	+/-0.196	0.800	pCi/g						

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7309 Project: LANL01004
Sample ID: 245960001 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Sodium-22	U	0.0324	0.103	+/-0.0299	0.080	pCi/g						
Strontium-85	U	0.0221	0.0667	+/-0.0212		pCi/g						
Thallium-208		0.543	0.0709	+/-0.0594	0.080	pCi/g						
Thorium-227	U	0.0974	0.587	+/-0.171		pCi/g						
Thorium-231	U	0.0234	1.09	+/-0.371		pCi/g						
Thorium-234		1.01	0.775	+/-0.430	2.00	pCi/g						
Tin-113	U	-0.0445	0.081	+/-0.0271	0.100	pCi/g						
Uranium-235	U	0.147	0.305	+/-0.0921	0.500	pCi/g						
Yttrium-88	U	0.0151	0.0875	+/-0.0253	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	100	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7309
Sample ID: 245960001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7308	Project:	LANL01004
Sample ID:	245960002	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	22.3%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0029	0.0234	+/-0.00214	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0231	+/-0.00151	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.00751	0.0174	+/-0.00338	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		3.62	0.102	+/-0.285	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.215	0.0652	+/-0.0363	0.100	pCi/g						
Uranium-238		4.59	0.0699	+/-0.354	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.235	0.377	+/-0.119	0.200	pCi/g		MXR1	02/12/10	1445	948717	5
Bismuth-211	UI	3.58	0.425	+/-0.282		pCi/g						
Bismuth-214		1.26	0.131	+/-0.102	0.200	pCi/g						
Cadmium-109	UI	3.47	1.61	+/-0.615		pCi/g						
Cerium-139	U	0.00945	0.0588	+/-0.0176	0.050	pCi/g						
Cesium-134	UI	0.107	0.106	+/-0.0301	0.100	pCi/g						
Cesium-137		0.223	0.0674	+/-0.0486	0.100	pCi/g						
Cobalt-60	U	-0.015	0.0729	+/-0.0235	0.100	pCi/g						
Europium-152	U	-0.0814	0.179	+/-0.0641	0.200	pCi/g						
Lanthanum-140	U	-0.159	0.0984	+/-0.0458		pCi/g						
Lead-212		1.50	0.101	+/-0.0807	0.100	pCi/g						
Lead-214		1.24	0.141	+/-0.103	0.100	pCi/g						
Mercury-203	U	-0.00814	0.0794	+/-0.0233	0.100	pCi/g						
Potassium-40		20.0	0.519	+/-1.14	1.00	pCi/g						
Radium-223	U	-0.917	1.14	+/-0.429		pCi/g						
Radium-224	UI	4.25	1.14	+/-0.728		pCi/g						
Radium-226		1.26	0.131	+/-0.102		pCi/g						
Radium-228		1.41	0.186	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.126	0.572	+/-0.180	0.800	pCi/g						
Sodium-22	U	-0.0441	0.0699	+/-0.0243	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7308 Project: LANL01004
Sample ID: 245960002 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0664	0.0751	+/-0.0205		pCi/g						
Thallium-208		0.576	0.0613	+/-0.0455	0.080	pCi/g						
Thorium-227	U	0.00271	0.703	+/-0.215		pCi/g						
Thorium-231	U	-0.917	1.14	+/-0.429		pCi/g						
Thorium-234		6.32	2.99	+/-1.56	2.00	pCi/g						
Tin-113	U	-0.0534	0.0742	+/-0.0239	0.100	pCi/g						
Uranium-235		0.421	0.409	+/-0.168	0.500	pCi/g						
Yttrium-88	U	-0.00168	0.057	+/-0.0175	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	88.1	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7308
Sample ID: 245960002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7315	Project:	LANL01004
Sample ID:	245960003	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	8.92%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00131	0.0274	+/-0.00226	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00106	0.0227	+/-0.00182	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.00739	0.0172	+/-0.00333	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.07	0.0857	+/-0.0962	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.0714	0.0547	+/-0.018	0.100	pCi/g						
Uranium-238		1.25	0.0585	+/-0.110	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0949	0.213	+/-0.0658	0.200	pCi/g		MXR1	02/12/10	1547	948717	5
Bismuth-211	UI	4.51	0.273	+/-0.334		pCi/g						
Bismuth-214		1.30	0.101	+/-0.104	0.200	pCi/g						
Cadmium-109	UI	3.13	1.17	+/-0.459		pCi/g						
Cerium-139	U	0.000265	0.0484	+/-0.014	0.050	pCi/g						
Cesium-134	UI	0.132	0.077	+/-0.0337	0.100	pCi/g						
Cesium-137	U	0.0375	0.0606	+/-0.0173	0.100	pCi/g						
Cobalt-60	U	0.00324	0.0458	+/-0.0137	0.100	pCi/g						
Europium-152	U	0.0788	0.154	+/-0.0562	0.200	pCi/g						
Lanthanum-140	U	-0.116	0.108	+/-0.0386		pCi/g						
Lead-212		1.79	0.0798	+/-0.129	0.100	pCi/g						
Lead-214		1.57	0.095	+/-0.123	0.100	pCi/g						
Mercury-203	U	0.032	0.068	+/-0.0201	0.100	pCi/g						
Potassium-40		20.5	0.417	+/-1.12	1.00	pCi/g						
Radium-223	U	0.557	0.988	+/-0.319		pCi/g						
Radium-224	UI	5.02	0.907	+/-0.649		pCi/g						
Radium-226		1.30	0.101	+/-0.104		pCi/g						
Radium-228		1.63	0.181	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	0.127	0.480	+/-0.140	0.800	pCi/g						
Sodium-22	U	-0.0332	0.0547	+/-0.0178	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7315 Project: LANL01004
Sample ID: 245960003 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.175	0.0711	+/-0.0215		pCi/g						
Thallium-208		0.509	0.0521	+/-0.0433	0.080	pCi/g						
Thorium-227	U	0.299	0.605	+/-0.178		pCi/g						
Thorium-231	U	0.557	0.988	+/-0.319		pCi/g						
Thorium-234		1.79	1.77	+/-0.816	2.00	pCi/g						
Tin-113	U	-0.00411	0.0678	+/-0.0203	0.100	pCi/g						
Uranium-235	U	0.100	0.331	+/-0.096	0.500	pCi/g						
Yttrium-88	U	-0.0101	0.041	+/-0.0133	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	69.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.6	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7315
Sample ID: 245960003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7317	Project:	LANL01004
Sample ID:	245960004	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00455	0.0238	+/-0.00271	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00106	0.0172	+/-0.00149	0.050	pCi/g		HAKB	02/18/10	1842	949824	3
Plutonium-239/240	U	0.00211	0.013	+/-0.0015	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.09	0.0794	+/-0.0962	0.100	pCi/g		HAKB	02/13/10	2124	949825	5
Uranium-235/236		0.0777	0.0506	+/-0.0182	0.100	pCi/g						
Uranium-238		1.17	0.0542	+/-0.102	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.00338	0.0777	+/-0.0253	0.200	pCi/g		MXR1	02/12/10	1547	948717	6
Bismuth-211	UI	4.22	0.301	+/-0.317		pCi/g						
Bismuth-214		1.25	0.125	+/-0.113	0.200	pCi/g						
Cadmium-109	UI	4.08	0.773	+/-0.418		pCi/g						
Cerium-139	U	0.00339	0.0416	+/-0.0122	0.050	pCi/g						
Cesium-134	UI	0.159	0.103	+/-0.0385	0.100	pCi/g						
Cesium-137	U	0.0122	0.0691	+/-0.0315	0.100	pCi/g						
Cobalt-60	U	-0.000929	0.0702	+/-0.0219	0.100	pCi/g						
Europium-152	U	0.0242	0.148	+/-0.0483	0.200	pCi/g						
Lanthanum-140	U	0.00201	0.174	+/-0.0522		pCi/g						
Lead-212		1.90	0.122	+/-0.124	0.100	pCi/g						
Lead-214		1.47	0.105	+/-0.117	0.100	pCi/g						
Mercury-203	UI	0.0703	0.0599	+/-0.0247	0.100	pCi/g						
Potassium-40		20.8	0.542	+/-1.16	1.00	pCi/g						
Radium-223	U	0.276	1.03	+/-0.331		pCi/g						
Radium-224	UI	3.66	1.05	+/-0.499		pCi/g						
Radium-226		1.25	0.125	+/-0.113		pCi/g						
Radium-228		1.67	0.213	+/-0.191	0.500	pCi/g						
Ruthenium-106	U	0.0466	0.553	+/-0.161	0.800	pCi/g						
Sodium-22	U	0.0175	0.0797	+/-0.0233	0.080	pCi/g						

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Certificate of Analysis

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7317 Project: LANL01004
Sample ID: 245960004 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0254	0.0639	+/-0.0211		pCi/g						
Thallium-208		0.598	0.0595	+/-0.0569	0.080	pCi/g						
Thorium-227	U	-0.246	0.587	+/-0.189		pCi/g						
Thorium-231	U	0.276	1.03	+/-0.331		pCi/g						
Thorium-234		1.78	0.732	+/-0.471	2.00	pCi/g						
Tin-113	U	-0.0176	0.0681	+/-0.0209	0.100	pCi/g						
Uranium-235	U	0.0801	0.302	+/-0.0885	0.500	pCi/g						
Yttrium-88	U	-0.022	0.0495	+/-0.0177	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	101	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7317
Sample ID: 245960004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7319	Project:	LANL01004
Sample ID:	245960005	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0102	0.0256	+/-0.00422	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00583	0.0222	+/-0.00311	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.00433	0.0167	+/-0.00251	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.38	0.0898	+/-0.120	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.0924	0.0573	+/-0.0212	0.100	pCi/g						
Uranium-238		1.49	0.0613	+/-0.128	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0423	0.253	+/-0.078	0.200	pCi/g		MXR1	02/12/10	1548	948717	5
Bismuth-211	UI	4.43	0.308	+/-0.262		pCi/g						
Bismuth-214		1.35	0.117	+/-0.0926	0.200	pCi/g						
Cadmium-109	UI	3.98	1.29	+/-0.470		pCi/g						
Cerium-139	U	-0.000378	0.0468	+/-0.0141	0.050	pCi/g						
Cesium-134	UI	0.125	0.0977	+/-0.0354	0.100	pCi/g						
Cesium-137	U	-0.0125	0.0625	+/-0.0194	0.100	pCi/g						
Cobalt-60	U	-0.0188	0.0603	+/-0.0196	0.100	pCi/g						
Europium-152	U	-0.0246	0.148	+/-0.0463	0.200	pCi/g						
Lanthanum-140	U	0.0476	0.168	+/-0.0542		pCi/g						
Lead-212		1.70	0.0911	+/-0.0814	0.100	pCi/g						
Lead-214		1.54	0.107	+/-0.0995	0.100	pCi/g						
Mercury-203	U	0.00869	0.0682	+/-0.0197	0.100	pCi/g						
Potassium-40		19.0	0.578	+/-1.05	1.00	pCi/g						
Radium-223	U	-0.345	1.07	+/-0.374		pCi/g						
Radium-224	UI	4.94	1.04	+/-0.676		pCi/g						
Radium-226		1.35	0.117	+/-0.0926		pCi/g						
Radium-228		1.60	0.209	+/-0.169	0.500	pCi/g						
Ruthenium-106	U	-0.0347	0.506	+/-0.151	0.800	pCi/g						
Sodium-22	U	-0.0225	0.0758	+/-0.0241	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7319 Project: LANL01004
Sample ID: 245960005 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0483	0.0664	+/-0.0211		pCi/g						
Thallium-208		0.552	0.0529	+/-0.0459	0.080	pCi/g						
Thorium-227	U	0.269	0.628	+/-0.177		pCi/g						
Thorium-231	U	-0.345	1.07	+/-0.374		pCi/g						
Thorium-234		2.27	2.09	+/-1.05	2.00	pCi/g						
Tin-113	U	0.0066	0.0715	+/-0.0212	0.100	pCi/g						
Uranium-235	U	0.00721	0.345	+/-0.104	0.500	pCi/g						
Yttrium-88	U	-0.0285	0.0501	+/-0.0181	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.0	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7319
Sample ID: 245960005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7312	Project:	LANL01004
Sample ID:	245960006	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	29.4%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00509	0.022	+/-0.00267	0.050	pCi/g		CXM2	02/20/10	1337	955380	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00183	0.0219	+/-0.00227	0.050	pCi/g		HAKB	02/13/10	2135	949824	5
Plutonium-239/240	U	0.0133	0.0166	+/-0.00469	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		7.59	0.0951	+/-0.565	0.100	pCi/g		HAKB	02/13/10	2124	949825	6
Uranium-235/236		0.405	0.0606	+/-0.0521	0.100	pCi/g						
Uranium-238		7.64	0.0649	+/-0.568	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.00654	0.125	+/-0.0396	0.200	pCi/g		MXR1	02/12/10	1548	948717	7
Bismuth-211	UI	4.20	0.395	+/-0.340		pCi/g						
Bismuth-214		1.32	0.148	+/-0.120	0.200	pCi/g						
Cadmium-109	UI	2.11	1.34	+/-0.445		pCi/g						
Cerium-139	U	-0.0234	0.0562	+/-0.0175	0.050	pCi/g						
Cesium-134	U	0.111	0.118	+/-0.0473	0.100	pCi/g						
Cesium-137		0.348	0.0764	+/-0.0519	0.100	pCi/g						
Cobalt-60	U	0.0248	0.0902	+/-0.0253	0.100	pCi/g						
Europium-152	U	-0.000504	0.197	+/-0.060	0.200	pCi/g						
Lanthanum-140	U	-0.103	0.167	+/-0.0606		pCi/g						
Lead-212		1.69	0.0986	+/-0.107	0.100	pCi/g						
Lead-214		1.46	0.138	+/-0.124	0.100	pCi/g						
Mercury-203	U	-0.0187	0.0798	+/-0.0237	0.100	pCi/g						
Potassium-40		19.9	0.509	+/-1.29	1.00	pCi/g						
Radium-223	U	-0.261	1.24	+/-0.426		pCi/g						
Radium-224	UI	4.50	1.12	+/-0.552		pCi/g						
Radium-226		1.32	0.148	+/-0.120		pCi/g						
Radium-228		1.54	0.254	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	0.156	0.701	+/-0.209	0.800	pCi/g						
Sodium-22	U	-0.03	0.082	+/-0.0274	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7312 Project: LANL01004
Sample ID: 245960006 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0042	0.0766	+/-0.0264		pCi/g						
Thallium-208		0.570	0.0694	+/-0.0534	0.080	pCi/g						
Thorium-227	U	-0.263	0.682	+/-0.222		pCi/g						
Thorium-231	U	-0.261	1.24	+/-0.426		pCi/g						
Thorium-234		8.43	1.16	+/-1.04	2.00	pCi/g						
Tin-113	U	-0.00517	0.0912	+/-0.0273	0.100	pCi/g						
Uranium-235		0.549	0.369	+/-0.232	0.500	pCi/g						
Yttrium-88	U	0.0029	0.0745	+/-0.0226	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	66.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.0	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Report Date: February 25, 2010

Client Sample ID: RE15-10-7312 Project: LANL01004
Sample ID: 245960006 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7313	Project:	LANL01004
Sample ID:	245960007	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.72%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00181	0.0232	+/-0.00155	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0218	+/-0.00142	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.000793	0.0164	+/-0.00247	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.984	0.091	+/-0.0917	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.102	0.058	+/-0.0226	0.100	pCi/g						
Uranium-238		1.17	0.0621	+/-0.105	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.16	0.261	+/-0.0862	0.200	pCi/g		MXR1	02/12/10	1549	948717	5
Bismuth-211	UI	3.64	0.234	+/-0.213		pCi/g						
Bismuth-214		1.16	0.083	+/-0.0813	0.200	pCi/g						
Cadmium-109	UI	2.59	1.13	+/-0.434		pCi/g						
Cerium-139	U	0.0103	0.0406	+/-0.0113	0.050	pCi/g						
Cesium-134	U	0.064	0.0661	+/-0.0207	0.100	pCi/g						
Cesium-137	U	0.00697	0.0474	+/-0.0137	0.100	pCi/g						
Cobalt-60	U	-0.0152	0.0488	+/-0.0156	0.100	pCi/g						
Europium-152	U	0.0302	0.122	+/-0.0443	0.200	pCi/g						
Lanthanum-140	U	-0.0221	0.0936	+/-0.0351		pCi/g						
Lead-212		1.57	0.0723	+/-0.0723	0.100	pCi/g						
Lead-214		1.27	0.0814	+/-0.081	0.100	pCi/g						
Mercury-203	UI	0.0601	0.0487	+/-0.0207	0.100	pCi/g						
Potassium-40		19.2	0.347	+/-0.912	1.00	pCi/g						
Radium-223	U	-0.0218	0.835	+/-0.289		pCi/g						
Radium-224	UI	4.21	0.822	+/-0.552		pCi/g						
Radium-226		1.16	0.083	+/-0.0813		pCi/g						
Radium-228		1.57	0.147	+/-0.151	0.500	pCi/g						
Ruthenium-106	U	0.083	0.407	+/-0.121	0.800	pCi/g						
Sodium-22	U	-0.00867	0.0504	+/-0.0156	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7313 Project: LANL01004
Sample ID: 245960007 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.0899	0.0554	+/-0.0161		pCi/g						
Thallium-208		0.480	0.0448	+/-0.0361	0.080	pCi/g						
Thorium-227	U	-0.0212	0.517	+/-0.153		pCi/g						
Thorium-231	U	-0.0218	0.835	+/-0.289		pCi/g						
Thorium-234		2.31	2.08	+/-0.930	2.00	pCi/g						
Tin-113	U	-0.00883	0.0544	+/-0.016	0.100	pCi/g						
Uranium-235	U	-0.172	0.289	+/-0.0924	0.500	pCi/g						
Yttrium-88	U	-0.00487	0.0397	+/-0.0125	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.6	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7313
Sample ID: 245960007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7314
Sample ID: 245960008
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 32.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00281	0.0183	+/-0.0018	0.050	pCi/g		CXM2	02/20/10	1337	955380	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.000397	0.0218	+/-0.00175	0.050	pCi/g		HAKB	02/13/10	2135	949824	5
Plutonium-239/240	U	0.00567	0.0164	+/-0.00285	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.47	0.0968	+/-0.203	0.100	pCi/g		HAKB	02/23/10	2117	954007	6
Uranium-235/236		0.166	0.0617	+/-0.0305	0.100	pCi/g						
Uranium-238		2.99	0.0661	+/-0.241	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0119	0.302	+/-0.0999	0.200	pCi/g		MXR1	02/12/10	1553	948717	9
Bismuth-211	UI	4.07	0.386	+/-0.339		pCi/g						
Bismuth-214		1.21	0.119	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	3.10	1.46	+/-0.507		pCi/g						
Cerium-139	U	0.0111	0.0598	+/-0.0171	0.050	pCi/g						
Cesium-134	U	0.0437	0.107	+/-0.031	0.100	pCi/g						
Cesium-137		0.271	0.0681	+/-0.0347	0.100	pCi/g						
Cobalt-60	U	0.0239	0.0773	+/-0.0217	0.100	pCi/g						
Europium-152	U	-0.00967	0.182	+/-0.063	0.200	pCi/g						
Lanthanum-140	U	-0.0192	0.149	+/-0.0482		pCi/g						
Lead-212		1.64	0.107	+/-0.105	0.100	pCi/g						
Lead-214		1.41	0.139	+/-0.123	0.100	pCi/g						
Mercury-203	U	0.0362	0.0838	+/-0.024	0.100	pCi/g						
Potassium-40		22.0	0.554	+/-1.30	1.00	pCi/g						
Radium-223	U	-0.283	1.30	+/-0.398		pCi/g						
Radium-224	UI	4.84	1.22	+/-0.661		pCi/g						
Radium-226		1.21	0.119	+/-0.107		pCi/g						
Radium-228		1.59	0.228	+/-0.180	0.500	pCi/g						
Ruthenium-106	U	-0.168	0.601	+/-0.185	0.800	pCi/g						
Sodium-22	U	-0.0113	0.0825	+/-0.0253	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7314 Project: LANL01004
Sample ID: 245960008 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.0988	0.0872	+/-0.0266		pCi/g						
Thallium-208		0.566	0.0609	+/-0.0548	0.080	pCi/g						
Thorium-227	U	-0.274	0.748	+/-0.229		pCi/g						
Thorium-231	U	-0.283	1.30	+/-0.398		pCi/g						
Thorium-234		3.12	2.47	+/-1.27	2.00	pCi/g						
Tin-113	U	-0.0293	0.0841	+/-0.0266	0.100	pCi/g						
Uranium-235	U	-0.0861	0.406	+/-0.120	0.500	pCi/g						
Yttrium-88	U	-0.0122	0.0634	+/-0.0209	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.6	(50%-105%)

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

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

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Client Sample ID: RE15-10-7314
Sample ID: 245960008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7316
Sample ID: 245960009
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 35.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00352	0.0243	+/-0.003	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00254	0.0207	+/-0.00802	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.00888	0.0156	+/-0.00383	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.05	0.101	+/-0.172	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.108	0.0641	+/-0.0244	0.100	pCi/g						
Uranium-238		2.95	0.0686	+/-0.237	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.149	0.361	+/-0.115	0.200	pCi/g		MXR1	02/12/10	1554	948717	5
Bismuth-211	UI	4.03	0.414	+/-0.316		pCi/g						
Bismuth-214		1.28	0.138	+/-0.112	0.200	pCi/g						
Cadmium-109	UI	2.82	2.03	+/-0.617		pCi/g						
Cerium-139	U	0.0017	0.0605	+/-0.0182	0.050	pCi/g						
Cesium-134	UI	0.186	0.115	+/-0.057	0.100	pCi/g						
Cesium-137		0.260	0.0733	+/-0.0485	0.100	pCi/g						
Cobalt-60	U	0.0285	0.0699	+/-0.0193	0.100	pCi/g						
Europium-152	U	-0.0635	0.193	+/-0.0682	0.200	pCi/g						
Lanthanum-140	U	0.0626	0.189	+/-0.0525		pCi/g						
Lead-212		1.61	0.119	+/-0.0865	0.100	pCi/g						
Lead-214		1.40	0.144	+/-0.116	0.100	pCi/g						
Mercury-203	U	0.0255	0.0885	+/-0.0253	0.100	pCi/g						
Potassium-40		18.7	0.557	+/-1.03	1.00	pCi/g						
Radium-223	U	-0.822	1.33	+/-0.420		pCi/g						
Radium-224	UI	4.80	1.36	+/-0.706		pCi/g						
Radium-226		1.28	0.138	+/-0.112		pCi/g						
Radium-228		1.68	0.258	+/-0.222	0.500	pCi/g						
Ruthenium-106	U	0.0585	0.604	+/-0.182	0.800	pCi/g						
Sodium-22	U	-0.0131	0.0782	+/-0.0249	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7316
Sample ID: 245960009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0668	0.0874	+/-0.0275		pCi/g						
Thallium-208		0.553	0.0693	+/-0.0496	0.080	pCi/g						
Thorium-227	U	-0.0604	0.772	+/-0.239		pCi/g						
Thorium-231	U	-0.822	1.33	+/-0.420		pCi/g						
Thorium-234		4.91	2.98	+/-1.17	2.00	pCi/g						
Tin-113	U	-0.00475	0.0902	+/-0.027	0.100	pCi/g						
Uranium-235	U	-0.0472	0.414	+/-0.125	0.500	pCi/g						
Yttrium-88	U	0.0194	0.0699	+/-0.0193	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	83.1	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7316
Sample ID: 245960009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7318
Sample ID: 245960010
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 14.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0136	0.0231	+/-0.00467	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00264	0.0216	+/-0.00264	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.0145	0.0162	+/-0.00444	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		4.65	0.0859	+/-0.349	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.252	0.0547	+/-0.0371	0.100	pCi/g						
Uranium-238		7.77	0.0586	+/-0.568	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0199	0.213	+/-0.0708	0.200	pCi/g		MXR1	02/12/10	1624	948717	5
Bismuth-211	UI	4.26	0.399	+/-0.341		pCi/g						
Bismuth-214		1.30	0.132	+/-0.117	0.200	pCi/g						
Cadmium-109	UI	3.32	1.33	+/-0.528		pCi/g						
Cerium-139	U	-0.019	0.0545	+/-0.0176	0.050	pCi/g						
Cesium-134	U	0.0886	0.0999	+/-0.0417	0.100	pCi/g						
Cesium-137		0.259	0.0751	+/-0.0529	0.100	pCi/g						
Cobalt-60	U	-0.000576	0.0728	+/-0.0223	0.100	pCi/g						
Europium-152	U	-0.0389	0.182	+/-0.0652	0.200	pCi/g						
Lanthanum-140	U	0.0676	0.171	+/-0.0536		pCi/g						
Lead-212		1.86	0.100	+/-0.111	0.100	pCi/g						
Lead-214		1.48	0.139	+/-0.125	0.100	pCi/g						
Mercury-203	U	0.00503	0.0782	+/-0.0234	0.100	pCi/g						
Potassium-40		23.6	0.518	+/-1.35	1.00	pCi/g						
Radium-223	U	-0.132	1.30	+/-0.400		pCi/g						
Radium-224	UI	5.99	1.14	+/-0.966		pCi/g						
Radium-226		1.30	0.132	+/-0.117		pCi/g						
Radium-228		1.74	0.258	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	-0.135	0.576	+/-0.179	0.800	pCi/g						
Sodium-22	U	-0.00621	0.0736	+/-0.0228	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7318 Project: LANL01004
Sample ID: 245960010 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.089	0.0839	+/-0.025		pCi/g						
Thallium-208		0.553	0.0654	+/-0.0521	0.080	pCi/g						
Thorium-227	U	0.143	0.730	+/-0.215		pCi/g						
Thorium-231	U	-0.132	1.30	+/-0.400		pCi/g						
Thorium-234		9.31	1.88	+/-1.32	2.00	pCi/g						
Tin-113	U	0.0183	0.0849	+/-0.0255	0.100	pCi/g						
Uranium-235		0.492	0.376	+/-0.169	0.500	pCi/g						
Yttrium-88	U	-0.0405	0.040	+/-0.0176	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	105	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Certificate of Analysis

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7318
Sample ID: 245960010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7324	Project:	LANL01004
Sample ID:	245960011	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.3%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00316	0.0248	+/-0.0023	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00249	0.0203	+/-0.00249	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.00248	0.0153	+/-0.00176	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.04	0.0995	+/-0.0977	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.0682	0.0634	+/-0.0189	0.100	pCi/g						
Uranium-238		1.06	0.0679	+/-0.0996	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0971	0.355	+/-0.102	0.200	pCi/g		MXR1	02/12/10	1631	948717	5
Bismuth-211	UI	4.14	0.303	+/-0.268		pCi/g						
Bismuth-214		1.20	0.103	+/-0.0822	0.200	pCi/g						
Cadmium-109	UI	2.71	1.36	+/-0.517		pCi/g						
Cerium-139	U	0.00232	0.046	+/-0.0136	0.050	pCi/g						
Cesium-134	UI	0.096	0.0959	+/-0.0286	0.100	pCi/g						
Cesium-137	U	-0.0302	0.0604	+/-0.0187	0.100	pCi/g						
Cobalt-60	U	0.00303	0.0635	+/-0.0188	0.100	pCi/g						
Europium-152	U	0.0866	0.154	+/-0.0473	0.200	pCi/g						
Lanthanum-140	U	-0.106	0.127	+/-0.0472		pCi/g						
Lead-212		1.65	0.0865	+/-0.0866	0.100	pCi/g						
Lead-214		1.44	0.106	+/-0.100	0.100	pCi/g						
Mercury-203	U	0.00405	0.0661	+/-0.0189	0.100	pCi/g						
Potassium-40		19.8	0.603	+/-1.06	1.00	pCi/g						
Radium-223	U	-0.576	1.05	+/-0.324		pCi/g						
Radium-224	UI	4.64	0.985	+/-0.654		pCi/g						
Radium-226		1.20	0.103	+/-0.0822		pCi/g						
Radium-228		1.68	0.194	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	-0.00296	0.474	+/-0.146	0.800	pCi/g						
Sodium-22	U	0.00202	0.0696	+/-0.0206	0.080	pCi/g						

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

Report Date: February 25, 2010

Client Sample ID: RE15-10-7324
Sample ID: 245960011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0123	0.0576	+/-0.0193		pCi/g						
Thallium-208		0.504	0.0557	+/-0.0458	0.080	pCi/g						
Thorium-227	U	0.0518	0.588	+/-0.167		pCi/g						
Thorium-231	U	-0.576	1.05	+/-0.324		pCi/g						
Thorium-234	U	1.38	2.99	+/-0.828	2.00	pCi/g						
Tin-113	U	-0.0291	0.0646	+/-0.0202	0.100	pCi/g						
Uranium-235	U	-0.0498	0.314	+/-0.0939	0.500	pCi/g						
Yttrium-88	U	0.0162	0.0546	+/-0.0151	0.100	pCi/g						

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.7	(50%-105%)

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

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A The TIC is a suspected aldol-condensation product
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E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
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E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7324 Project: LANL01004
Sample ID: 245960011 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC
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QC Summary

Report Date: February 25, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico
Contact: Ms. Joylene Valdez

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 949823										
QC1202034999 245978001 DUP										
Americium-241	U	-0.0018	U	0.00234	pCi/g	0.552		(0-1)	HAKB	02/15/1007:41
	TPU:	+/-0.00194		+/-0.00181						
	Yield:	68.2		93.4						
QC1202035000 LCS										
Americium-241	33.2			30.0	pCi/g		90.4	(75%-125%)		02/18/1018:42
	TPU:			+/-2.13						
	Yield:			106						
QC1202034998 MB										
Americium-241			U	-0.00331	pCi/g					02/15/1007:41
	TPU:			+/-0.00355						
	Yield:			97.1						
Batch 949824										
QC1202035002 245978001 DUP										
Plutonium-238	U	0.00493	U	-0.00203	pCi/g	0.712		(0-1)	HAKB	02/18/1018:43
	TPU:	+/-0.00286		+/-0.00203						
	Yield:	70.1		93.8						
Plutonium-239/240	U	0.00493	U	0.00203	pCi/g	0.337		(0-1)		
	TPU:	+/-0.00286		+/-0.00144						
	Yield:	70.1		93.8						
QC1202035003 LCS										
Plutonium-238				7.01	pCi/g			(75%-125%)		02/18/1018:43
	TPU:			+/-0.502						
	Yield:			98.7						
Plutonium-239/240	41.8			36.9	pCi/g		88.4	(75%-125%)		
	TPU:			+/-2.25						
	Yield:			98.7						
QC1202035001 MB										
Plutonium-238			U	0.00	pCi/g					02/13/1021:40
	TPU:			+/-0.00164						
	Yield:			85.7						
Plutonium-239/240			U	0.00327	pCi/g					
	TPU:			+/-0.00462						
	Yield:			85.7						
Batch 949825										
QC1202035006 245978001 DUP										
Uranium-233/234		0.753		0.691	pCi/g	0.209		(0-1)	HAKB	02/13/1021:25
	TPU:	+/-0.0791		+/-0.0699						
	Yield:	81.6		99.7						
Uranium-235/236	U	0.0219		0.0661	pCi/g	0.741		(0-1)		
	TPU:	+/-0.0111		+/-0.0188						
	Yield:	81.6		99.7						
Uranium-238		0.957		1.23	pCi/g	0.662		(0-1)		
	TPU:	+/-0.0946		+/-0.109						

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 949825										
	Yield:	81.6		99.7						
QC1202035007 LCS										
Uranium-233/234				5.82	pCi/g			(75%-125%)		02/13/1021:25
	TPU:			+/-0.576						
	Yield:			87.3						
Uranium-235/236			U	0.329	pCi/g			(75%-125%)		
	TPU:			+/-0.0949						
	Yield:			87.3						
Uranium-238	5.75			6.82	pCi/g		119	(75%-125%)		
	TPU:			+/-0.657						
	Yield:			87.3						
QC1202035005 MB										
Uranium-233/234			U	0.0197	pCi/g					02/15/1021:17
	TPU:			+/-0.00624						
	Yield:			102						
Uranium-235/236			U	0.00359	pCi/g					
	TPU:			+/-0.0036						
	Yield:			102						
Uranium-238			U	0.016	pCi/g					
	TPU:			+/-0.00535						
	Yield:			102						
Batch 954007										
QC1202045182 245960008 DUP										
Uranium-233/234		2.47		2.88	pCi/g	0.473		(0-1)	HAKB	02/23/1021:17
	TPU:	+/-0.203		+/-0.228						
	Yield:	93.6		98.3						
Uranium-235/236		0.166		0.136	pCi/g	0.262		(0-1)		
	TPU:	+/-0.0305		+/-0.0266						
	Yield:	93.6		98.3						
Uranium-238		2.99		3.16	pCi/g	0.181		(0-1)		
	TPU:	+/-0.241		+/-0.248						
	Yield:	93.6		98.3						
QC1202045183 LCS										
Uranium-233/234				5.70	pCi/g			(75%-125%)		02/23/1021:17
	TPU:			+/-0.548						
	Yield:			101						
Uranium-235/236			U	0.197	pCi/g			(75%-125%)		
	TPU:			+/-0.0675						
	Yield:			101						
Uranium-238	5.75			5.93	pCi/g		103	(75%-125%)		
	TPU:			+/-0.566						
	Yield:			101						
QC1202045181 MB										
Uranium-233/234			U	0.0185	pCi/g					02/23/1010:41
	TPU:			+/-0.00528						
	Yield:			104						
Uranium-235/236			U	0.00	pCi/g					
	TPU:			+/-0.002						
	Yield:			104						
Uranium-238			U	0.00799	pCi/g					

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 954007										
	TPU:			+/-0.00383						
	Yield:			104						
Batch 955380										
QC1202048271 245785015 DUP										
Americium-241	U	0.004	U	0.0015	pCi/g	0.362		(0-1)	CXM2	02/20/1013:37
	TPU:	+/-0.00217		+/-0.00129						
	Yield:	81.0		84.1						
QC1202048272 LCS										
Americium-241	33.2			35.0	pCi/g		105	(75%-125%)		02/20/1013:39
	TPU:			+/-2.54						
	Yield:			97.4						
QC1202048270 MB										
Americium-241			U	-0.0066	pCi/g					02/20/1013:37
	TPU:			+/-0.00322						
	Yield:			79.5						
Rad Gamma Spec										
Batch 948717										
QC1202032511 245960002 DUP										
Americium-241	U	0.235	U	0.113	pCi/g	0.303		(0-1)	MXR1	02/12/1016:38
	TPU:	+/-0.119		+/-0.0826						
Bismuth-211	UI	3.58	UI	4.14	pCi/g	0.480		(0-1)		
	TPU:	+/-0.282		+/-0.305						
Bismuth-214		1.26		1.26	pCi/g	0.00969		(0-1)		
	TPU:	+/-0.102		+/-0.104						
Cadmium-109	UI	3.47	UI	2.27	pCi/g	0.517		(0-1)		
	TPU:	+/-0.615		+/-0.550						
Cerium-139	U	0.00945	U	-0.0133	pCi/g	0.357		(0-1)		
	TPU:	+/-0.0176		+/-0.0144						
Cesium-134	UI	0.107	UI	0.162	pCi/g	0.389		(0-1)		
	TPU:	+/-0.0301		+/-0.0414						
Cesium-137		0.223		0.248	pCi/g	0.145		(0-1)		
	TPU:	+/-0.0486		+/-0.0371						
Cobalt-60	U	-0.015	U	-0.00954	pCi/g	0.0691		(0-1)		
	TPU:	+/-0.0235		+/-0.0164						
Europium-152	U	-0.0814	U	-0.0521	pCi/g	0.138		(0-1)		
	TPU:	+/-0.0641		+/-0.0422						
Lanthanum-140	U	-0.159	U	-0.0558	pCi/g	0.601		(0-1)		
	TPU:	+/-0.0458		+/-0.0404						
Lead-212		1.50		1.62	pCi/g	0.295		(0-1)		
	TPU:	+/-0.0807		+/-0.117						
Lead-214		1.24		1.44	pCi/g	0.455		(0-1)		
	TPU:	+/-0.103		+/-0.112						
Mercury-203	U	-0.00814	U	-0.00312	pCi/g	0.0586		(0-1)		
	TPU:	+/-0.0233		+/-0.0195						
Potassium-40		20.0		25.3	pCi/g	1.04		(0-1)		
	TPU:	+/-1.14		+/-1.39						
Radium-223	U	-0.917	U	-0.39	pCi/g	0.334		(0-1)		
	TPU:	+/-0.429		+/-0.361						
Radium-224	UI	4.25	UI	2.82	pCi/g	0.583		(0-1)		
	TPU:	+/-0.728		+/-0.499						

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948717										
Radium-226		1.26		1.26	pCi/g	0.00969		(0-1)		
	TPU:	+/-0.102		+/-0.104						
Radium-228		1.41		1.63	pCi/g	0.302		(0-1)		
	TPU:	+/-0.176		+/-0.178						
Ruthenium-106	U	-0.126	U	-0.036	pCi/g	0.141		(0-1)		
	TPU:	+/-0.180		+/-0.140						
Sodium-22	U	-0.0441	U	0.0342	pCi/g	0.892		(0-1)		
	TPU:	+/-0.0243		+/-0.0196						
Strontium-85	U	0.0664	U	0.0233	pCi/g	0.550		(0-1)		
	TPU:	+/-0.0205		+/-0.0188						
Thallium-208		0.576		0.511	pCi/g	0.348		(0-1)		
	TPU:	+/-0.0455		+/-0.0469						
Thorium-227	U	0.00271	U	-0.263	pCi/g	0.330		(0-1)		
	TPU:	+/-0.215		+/-0.187						
Thorium-231	U	-0.917	U	-0.39	pCi/g	0.334		(0-1)		
	TPU:	+/-0.429		+/-0.361						
Thorium-234		6.32		4.83	pCi/g	0.282		(0-1)		
	TPU:	+/-1.56		+/-1.08						
Tin-113	U	-0.0534	U	-0.0184	pCi/g	0.400		(0-1)		
	TPU:	+/-0.0239		+/-0.0198						
Uranium-235		0.421		0.343	pCi/g	0.125		(0-1)		
	TPU:	+/-0.168		+/-0.145						
Yttrium-88	U	-0.00168	U	0.00812	pCi/g	0.144		(0-1)		
	TPU:	+/-0.0175		+/-0.0165						
QC1202032512 LCS										
Americium-241	15.9			13.8	pCi/g		86.6	(75%-125%)		02/12/1016:33
	TPU:			+/-0.983						
Bismuth-211				1.97	pCi/g					
	TPU:			+/-0.337						
Bismuth-214				0.679	pCi/g					
	TPU:			+/-0.129						
Cadmium-109				31.9	pCi/g					
	TPU:			+/-2.39						
Cerium-139			U	0.0119	pCi/g					
	TPU:			+/-0.0286						
Cesium-134			U	0.0896	pCi/g					
	TPU:			+/-0.0528						
Cesium-137	5.56			5.70	pCi/g		102	(75%-125%)		
	TPU:			+/-0.284						
Cobalt-60	6.40			6.42	pCi/g		100	(75%-125%)		
	TPU:			+/-0.360						
Europium-152			U	0.130	pCi/g					
	TPU:			+/-0.112						
Lanthanum-140			U	0.0302	pCi/g					
	TPU:			+/-0.0453						
Lead-212				1.09	pCi/g					
	TPU:			+/-0.139						
Lead-214				0.687	pCi/g					
	TPU:			+/-0.119						
Mercury-203			U	0.0726	pCi/g					
	TPU:			+/-0.0398						

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948717										
Potassium-40			U	0.361	pCi/g					
	TPU:			+/-0.289						
Radium-223			U	-1.68	pCi/g					
	TPU:			+/-0.757						
Radium-224				10.9	pCi/g					
	TPU:			+/-1.08						
Radium-226				0.679	pCi/g					
	TPU:			+/-0.129						
Radium-228				1.33	pCi/g					
	TPU:			+/-0.294						
Ruthenium-106			U	0.206	pCi/g					
	TPU:			+/-0.351						
Sodium-22			U	0.0228	pCi/g					
	TPU:			+/-0.0277						
Strontium-85				0.136	pCi/g					
	TPU:			+/-0.0412						
Thallium-208				0.368	pCi/g					
	TPU:			+/-0.0643						
Thorium-227			U	-0.302	pCi/g					
	TPU:			+/-0.418						
Thorium-231			U	-1.68	pCi/g					
	TPU:			+/-0.757						
Thorium-234			U	-1.29	pCi/g					
	TPU:			+/-1.86						
Tin-113			U	0.0777	pCi/g					
	TPU:			+/-0.0476						
Uranium-235			U	0.0119	pCi/g					
	TPU:			+/-0.202						
Yttrium-88			U	0.0544	pCi/g					
	TPU:			+/-0.0252						
QC1202032510 MB										
Americium-241			U	-0.0499	pCi/g					02/12/1016:32
	TPU:			+/-0.0281						
Bismuth-211			U	-0.204	pCi/g					
	TPU:			+/-0.0567						
Bismuth-214			U	-0.0388	pCi/g					
	TPU:			+/-0.0224						
Cadmium-109			U	-0.0332	pCi/g					
	TPU:			+/-0.182						
Cerium-139			U	0.00552	pCi/g					
	TPU:			+/-0.00696						
Cesium-134			U	0.0112	pCi/g					
	TPU:			+/-0.0111						
Cesium-137			U	-0.0112	pCi/g					
	TPU:			+/-0.00993						
Cobalt-60			U	0.00291	pCi/g					
	TPU:			+/-0.0103						
Europium-152			U	0.00033	pCi/g					
	TPU:			+/-0.0264						
Lanthanum-140			U	0.0123	pCi/g					
	TPU:			+/-0.0174						

QC Summary

Workorder: 245960

Parmname	NOM	Sample Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec									
Batch 948717									
Lead-212		U	0.0366	pCi/g					
	TPU:		+/-0.0274						
Lead-214		U	-0.0459	pCi/g					
	TPU:		+/-0.0192						
Mercury-203		U	-0.0105	pCi/g					
	TPU:		+/-0.0093						
Potassium-40		U	0.0305	pCi/g					
	TPU:		+/-0.133						
Radium-223		U	-0.0536	pCi/g					
	TPU:		+/-0.158						
Radium-224		U	0.214	pCi/g					
	TPU:		+/-0.172						
Radium-226		U	-0.0388	pCi/g					
	TPU:		+/-0.0224						
Radium-228		U	0.0424	pCi/g					
	TPU:		+/-0.0401						
Ruthenium-106		U	-0.0442	pCi/g					
	TPU:		+/-0.0739						
Sodium-22		U	0.0184	pCi/g					
	TPU:		+/-0.0098						
Strontium-85		UI	0.0547	pCi/g					
	TPU:		+/-0.0111						
Thallium-208		U	-0.00937	pCi/g					
	TPU:		+/-0.010						
Thorium-227		U	-0.116	pCi/g					
	TPU:		+/-0.0923						
Thorium-231		U	-0.0536	pCi/g					
	TPU:		+/-0.158						
Thorium-234		U	-0.46	pCi/g					
	TPU:		+/-0.256						
Tin-113		U	0.00387	pCi/g					
	TPU:		+/-0.0112						
Uranium-235		U	0.00905	pCi/g					
	TPU:		+/-0.0528						
Yttrium-88		U	0.0191	pCi/g					
	TPU:		+/-0.0134						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 949823 Product: AM Date: 2/21/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	X		
Instrument source check is within limits. Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	X		case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	X		
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly statused.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 2/2/10

Secondary Review Performed By: 2/22/10

2/13-2/23

CAM

√P

Am/Cm Que Sheet

05-FEB-10

Batch #: 949823 Analyst: HAKB First Client Due Date: 23-FEB-10 Internal Due Date: 13-FEB-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-55 Expiration Date: 5/11/10 Vol: 0.1

LCS Isotope(s): Am241/Cm244 LCS Code(s): SQM 0244-8 / NA Expiration Date: 4/30/20 / NA Vol(s): 0.103 / NA

Spike Isotope(s): Am241/Cm244 Spike Code(s): NA / NA Expiration Date: NA / NA Vol(s): NA / NA

Prep Date: 2/8/10 Initials: HAKB Pipet ID: 2971058 Balance ID: 504 10272 Witness: JMO 02/08/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
245955001-1	RE16-10-1474	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	1	1	1.260	246
245955002-1	RE16-10-1475	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	2	2	1.271	248
245960001-1	RE15-10-7309	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	3	3	1.281	250
245960002-1	RE15-10-7308	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	4	4	1.268	252
245960003-1	RE15-10-7315	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	5	5	1.253	254
245960004-1	RE15-10-7317	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	6	6	1.252	256
245960005-1	RE15-10-7319	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	7	7	1.257	213
~~245960006-1~~	~~RE15-10-7312~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~28-JAN-10~~	8	8	1.284	214
245960007-1	RE15-10-7313	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	9	9	1.261	215
~~245960008-1~~	~~RE15-10-7314~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~28-JAN-10~~	10	10	1.262	~~216~~ 216
245960009-1	RE15-10-7316	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	11	11	1.260	217
245960010-1	RE15-10-7318	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	12	12	1.270	224
245960011-1	RE15-10-7324	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	13	13	1.261	225
245978001-1	RE15-10-7880	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	14	1.271	226
245978002-1	RE15-10-7891	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	15	1.267	227
245978003-1	RE15-10-7892	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	16	1.264	228
245978004-1	RE15-10-7967	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	17	1.252	~~229~~ 235
245978005-1	RE15-10-7976	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	18	1.258	230
245978006-1	RE15-10-7968	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	19	1.258	231
~~245978007-1~~	~~RE15-10-7965~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	20	20	1.284	232
1202034998-1	MB for batch 949823	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1.00	218
1202034999-1	RE15-10-7880(245978001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	1.260	219
1202035000-1	LCS for batch 949823	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.103	~~220~~ 236

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 2/21/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 949823

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202034999	DUP	Americium-241	1.26 g	0.00234	0.00181	0.0207	-.00262698	pCi/g	NO
1202035000	LCS	Americium-241	0.103 g	30.0	2.13	0.223	-.03213592	pCi/g	NO
1202034998	MB	Americium-241	1.00 g	-0.00331	0.00355	0.0257	-.00331	pCi/g	NO
245955001	RE16-10-1474	Americium-241	1.26 g	0.00421	0.00253	0.0225	-.00262698	pCi/g	NO
245955002	RE16-10-1475	Americium-241	1.27 g	-0.0018	0.00142	0.0212	-.00260630	pCi/g	NO
245960001	RE15-10-7309	Americium-241	1.28 g	0.00144	0.00162	0.0241	-.00258594	pCi/g	NO
245960002	RE15-10-7308	Americium-241	1.27 g	0.0029	0.00214	0.0234	-.00260630	pCi/g	NO
245960003	RE15-10-7315	Americium-241	1.25 g	-0.00131	0.00226	0.0274	-.002648	pCi/g	NO
245960004	RE15-10-7317	Americium-241	1.25 g	0.00455	0.00271	0.0238	-.002648	pCi/g	NO
245960005	RE15-10-7319	Americium-241	1.26 g	0.0102	0.00422	0.0256	-.00262698	pCi/g	NO
245960007	RE15-10-7313	Americium-241	1.26 g	-0.00181	0.00155	0.0232	-.00262698	pCi/g	NO
245960009	RE15-10-7316	Americium-241	1.26 g	0.00352	0.003	0.0243	-.00262698	pCi/g	NO
245960010	RE15-10-7318	Americium-241	1.27 g	0.0136	0.00467	0.0231	-.00260630	pCi/g	NO
245960011	RE15-10-7324	Americium-241	1.26 g	0.00316	0.0023	0.0248	-.00262698	pCi/g	NO
245978001	RE15-10-7880	Americium-241	1.27 g	-0.0018	0.00194	0.029	-.00260630	pCi/g	NO
245978002	RE15-10-7891	Americium-241	1.27 g	0.0102	0.00424	0.0257	-.00260630	pCi/g	NO
245978003	RE15-10-7892	Americium-241	1.26 g	0.00303	0.00268	0.0221	-.00262698	pCi/g	NO
245978004	RE15-10-7967	Americium-241	1.25 g	0.0142	0.00485	0.0239	-.002648	pCi/g	NO
245978005	RE15-10-7976	Americium-241	1.26 g	6.35E-06	0.00176	0.0213	-.00262698	pCi/g	NO
245978006	RE15-10-7968	Americium-241	1.26 g	0.00487	0.00287	0.025	-.00262698	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 250	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960001_AM	DETECTOR S/N : 79443	BKG FILE : B250.CNF;80
SAMPLE QTY : 1.281 G	AVERAGE %EFFICIENCY : 39.2720	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:39:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W250.CNF;29
% YIELD : 77.169		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2507E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

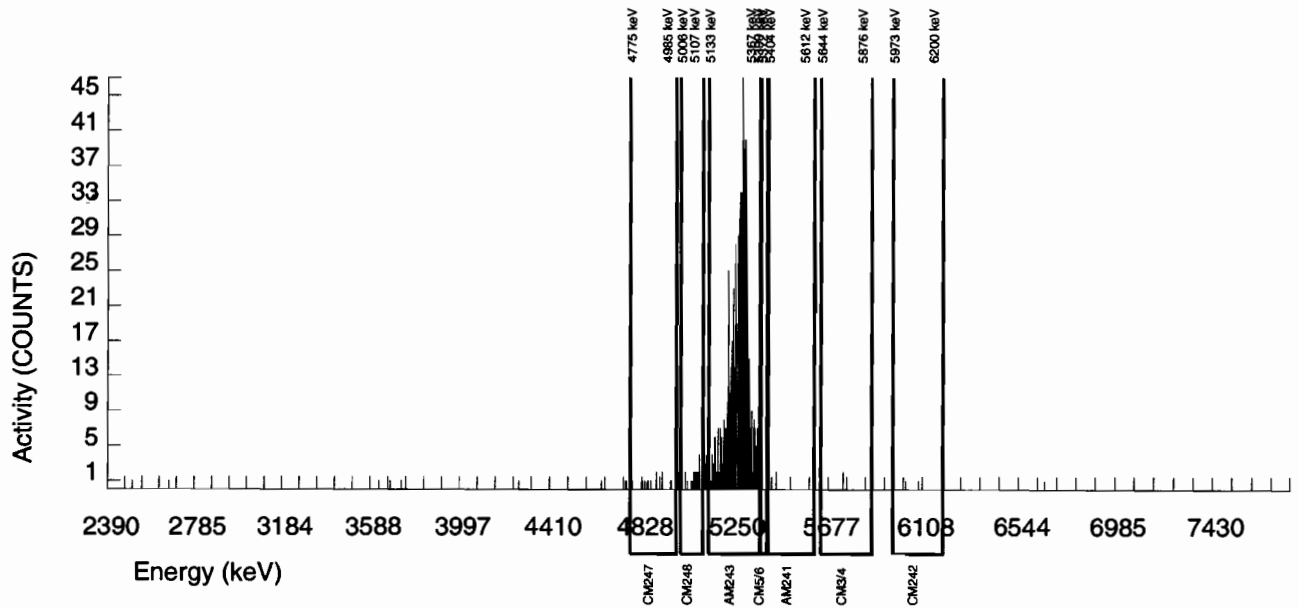
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5446.674	4.906	2.000	0.895	0.000	2.8409	99.94000	1.44E-03	1.62E-03	9.88E-03	2.41E-02	1.61E-03
AM243	5270.000	5273.595	80.051	635.000	635.000	0.000	0.0000	99.78000	1.03E+00	7.65E-02	0.00E+00	4.38E-03	4.07E-02
CM-242	6102.000	6067.408	58.877	2.000	2.000	0.000	4.3413	100.0000	3.49E-03	2.48E-03	1.51E-02	3.46E-02	2.47E-03
CM-3/4	5795.020	5717.801	4.906	3.000	1.560	1.440	5.1799	100.0000	2.52E-03	3.25E-03	1.80E-02	4.04E-02	3.24E-03
CM-5/6	5386.000	5378.925	0.000	7.000	7.000	0.000	14.2480	86.09000	1.31E-02	5.02E-03	5.75E-02	1.20E-01	4.95E-03
CM-247	4946.000	4891.035	29.439	13.000	13.000	0.000	13.7917	79.30000	2.64E-02	7.51E-03	6.05E-02	1.26E-01	7.33E-03
CM-248	5078.600	5077.872	7.206	21.000	21.000	0.000	19.5080	91.00000	3.72E-02	8.45E-03	7.45E-02	1.54E-01	8.12E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 252	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960002_AM	DETECTOR S/N : 79445	BKG FILE : B252.CNF;80
SAMPLE QTY : 1.268 G	AVERAGE %EFFICIENCY : 37.8334	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:39:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W252.CNF;29
% YIELD : 83.328		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4303E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

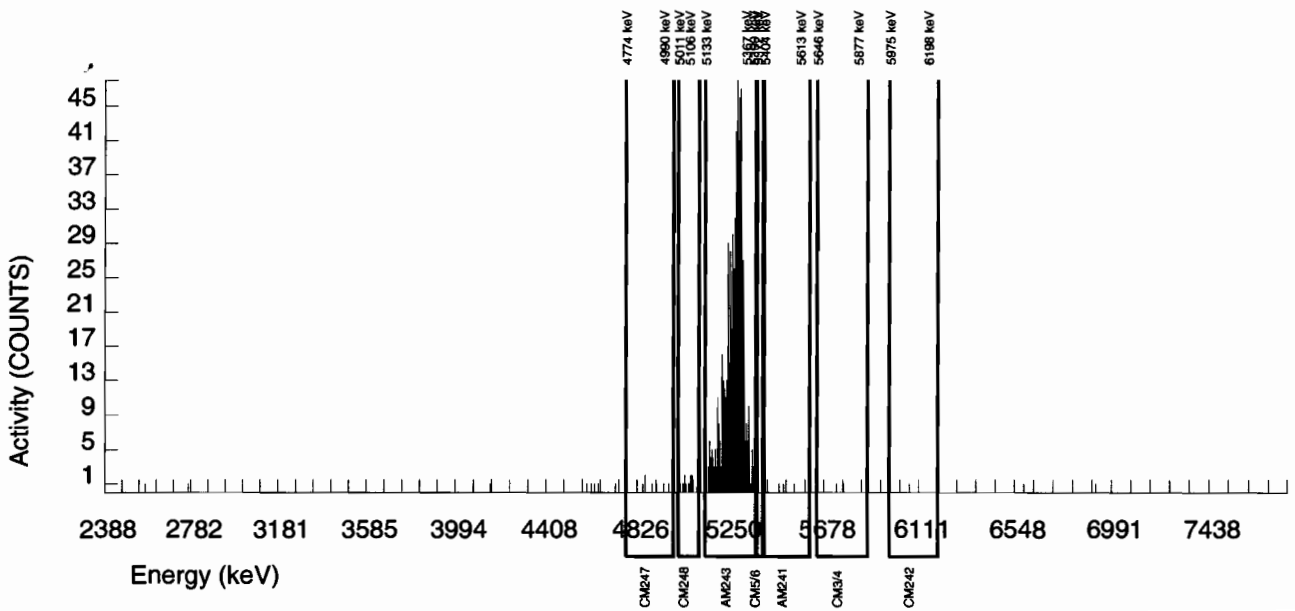
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.546	68.606	3.000	1.851	0.000	2.8409	99.94000	2.90E-03	2.14E-03	9.60E-03	2.34E-02	2.13E-03
AM243	5270.000	5272.475	66.570	662.000	660.560	1.440	1.2000	99.78000	1.04E+00	7.65E-02	4.06E-03	1.24E-02	4.04E-02
CM-242	6102.000	6072.563	4.900	1.000	1.000	0.000	4.3413	100.0000	1.69E-03	1.70E-03	1.47E-02	3.36E-02	1.69E-03
CM-3/4	5795.020	5758.569	34.303	2.000	2.000	0.000	5.1799	100.0000	3.14E-03	2.23E-03	1.75E-02	3.92E-02	2.22E-03
CM-5/6	5386.000	5377.629	7.351	5.000	5.000	0.000	14.2480	86.09000	9.09E-03	4.10E-03	5.59E-02	1.17E-01	4.07E-03
CM-247	4946.000	4906.200	4.900	7.000	6.280	0.720	13.7917	79.30000	1.24E-02	5.47E-03	5.87E-02	1.23E-01	5.41E-03
CM-248	5078.600	5068.064	0.000	18.000	18.000	0.000	19.5080	91.00000	3.10E-02	7.55E-03	7.24E-02	1.49E-01	7.30E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 254	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960003_AM	DETECTOR S/N : 79447	BKG FILE : B254.CNF;80
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 39.2943	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:39:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W254.CNF;28
% YIELD : 69.352		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.0227E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

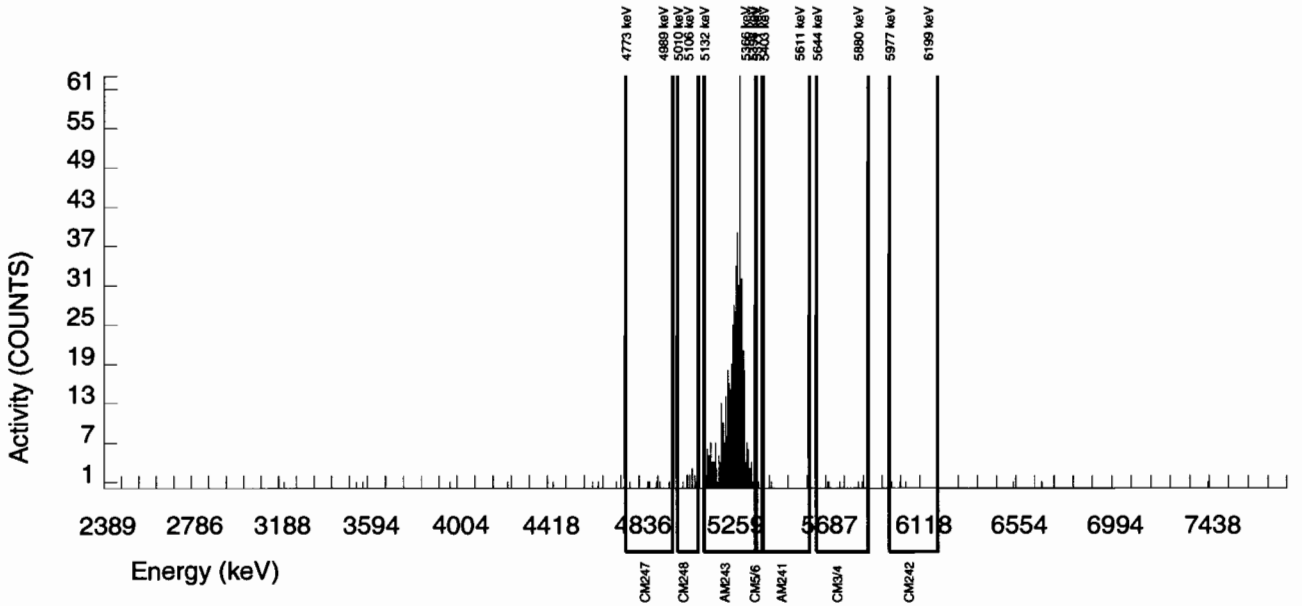
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5445.703	4.937	1.000	-0.714	0.720	2.8409	99.94000	-1.31E-03	2.26E-03	1.12E-02	2.74E-02	2.26E-03
AM243	5270.000	5273.121	22.743	571.000	571.000	0.000	0.0000	99.78000	1.05E+00	8.07E-02	0.00E+00	4.98E-03	4.39E-02
CM-242	6102.000	6029.968	64.182	4.000	4.000	0.000	4.3413	100.0000	7.93E-03	4.00E-03	1.72E-02	3.93E-02	3.97E-03
CM-3/4	5795.020	5773.529	147.494	5.000	3.560	1.440	5.1799	100.0000	6.54E-03	4.53E-03	2.05E-02	4.59E-02	4.51E-03
CM-5/6	5386.000	5377.989	0.000	10.000	9.280	0.720	14.2480	86.09000	1.98E-02	7.02E-03	6.54E-02	1.37E-01	6.90E-03
CM-247	4946.000	4898.128	172.797	7.000	7.000	0.000	13.7917	79.30000	1.62E-02	6.20E-03	6.87E-02	1.44E-01	6.11E-03
CM-248	5078.600	5063.898	0.000	16.000	16.000	0.000	19.5080	91.00000	3.22E-02	8.32E-03	8.47E-02	1.75E-01	8.05E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 256	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960004_AM	DETECTOR S/N : 79449	BKG FILE : B256.CNF;82
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 37.7639	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:39:32	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W256.CNF;28
% YIELD : 83.158		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4254E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

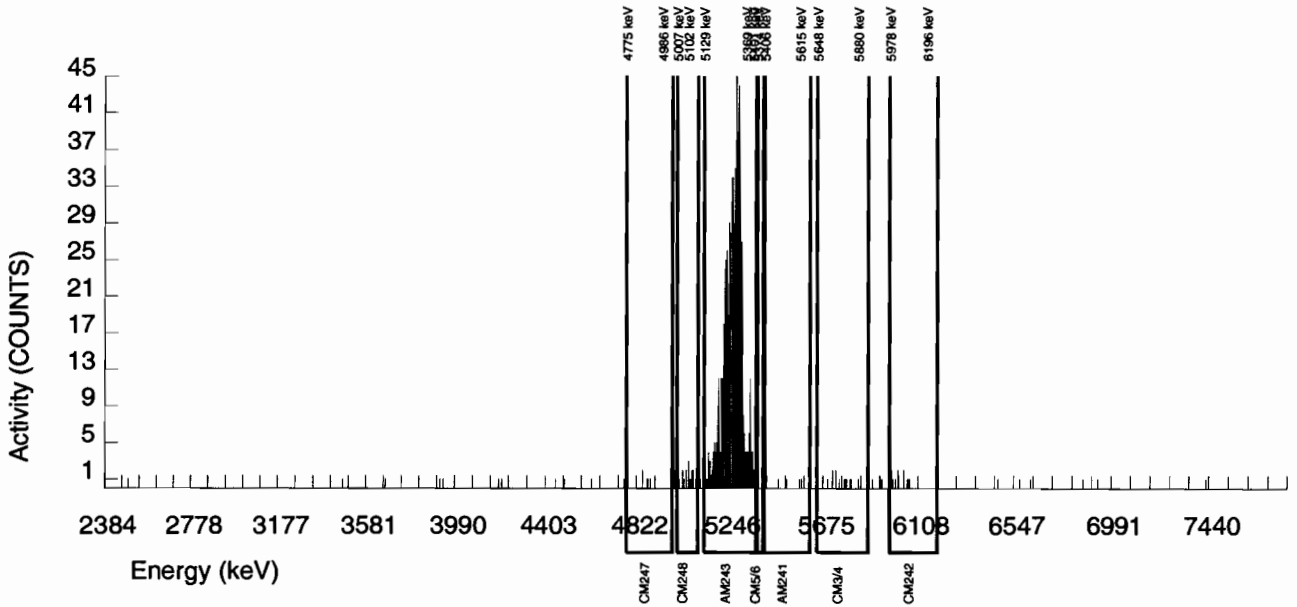
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5536.192	102.731	4.000	2.855	0.000	2.8409	99.94000	4.55E-03	2.71E-03	9.76E-03	2.38E-02	2.69E-03
AM243	5270.000	5266.472	75.694	658.000	658.000	0.000	0.0000	99.78000	1.05E+00	7.75E-02	0.00E+00	4.32E-03	4.09E-02
CM-242	6102.000	6031.732	53.709	11.000	11.000	0.000	4.3413	100.0000	1.89E-02	5.83E-03	1.49E-02	3.41E-02	5.71E-03
CM-3/4	5795.020	5765.668	19.568	13.000	11.560	1.440	5.1799	100.0000	1.84E-02	6.08E-03	1.78E-02	3.99E-02	5.97E-03
CM-5/6	5386.000	5384.781	4.892	1.000	1.000	0.000	14.2480	86.09000	1.85E-03	1.85E-03	5.68E-02	1.19E-01	1.85E-03
CM-247	4946.000	4855.559	4.892	6.000	4.560	1.440	13.7917	79.30000	9.15E-03	5.35E-03	5.97E-02	1.25E-01	5.32E-03
CM-248	5078.600	5063.139	0.000	20.000	19.280	0.720	19.5080	91.00000	3.37E-02	8.20E-03	7.36E-02	1.52E-01	7.92E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 213	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960005_AM	DETECTOR S/N : 79192	BKG FILE : B213.CNF;80
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 37.3130	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W213.CNF;28
% YIELD : 78.059		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2766E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

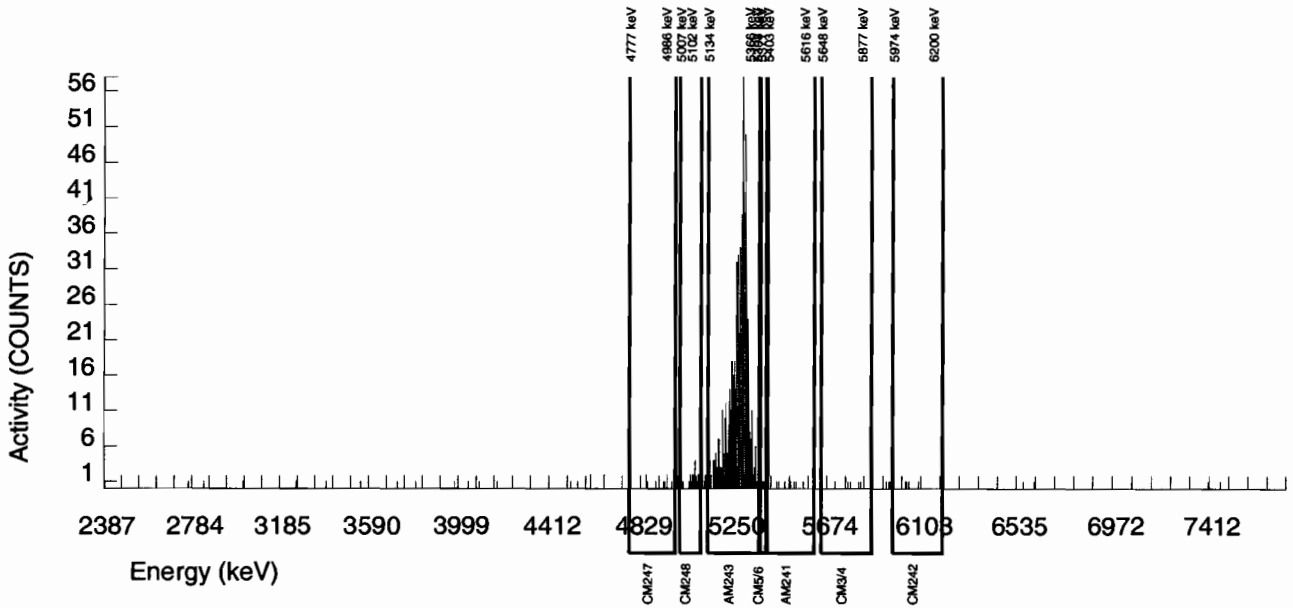
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.516	118.527	7.000	5.938	0.000	2.8409	99.94000	1.02E-02	4.22E-03	1.05E-02	2.56E-02	4.17E-03
AM243	5270.000	5277.816	42.184	611.000	610.280	0.720	0.8485	99.78000	1.05E+00	7.89E-02	3.14E-03	1.09E-02	4.24E-02
CM-242	6102.000	6058.498	58.646	4.000	4.000	0.000	4.3413	100.0000	7.40E-03	3.73E-03	1.60E-02	3.66E-02	3.70E-03
CM-3/4	5795.020	5750.538	4.939	7.000	6.280	0.720	5.1799	100.0000	1.08E-02	4.74E-03	1.91E-02	4.28E-02	4.69E-03
CM-5/6	5386.000	5378.214	0.000	10.000	10.000	0.000	14.2480	86.09000	1.98E-02	6.40E-03	6.10E-02	1.27E-01	6.28E-03
CM-247	4946.000	4916.093	93.731	11.000	11.000	0.000	13.7917	79.30000	2.37E-02	7.30E-03	6.41E-02	1.34E-01	7.15E-03
CM-248	5078.600	5076.579	0.000	22.000	22.000	0.000	19.5080	91.00000	4.13E-02	9.19E-03	7.90E-02	1.63E-01	8.81E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 215	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960007_AM	DETECTOR S/N : 79468	BKG FILE : B215.CNF;80
SAMPLE QTY : 1.261 G	AVERAGE %EFFICIENCY : 37.5541	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:12	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W215.CNF;33
% YIELD : 85.402		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4908E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

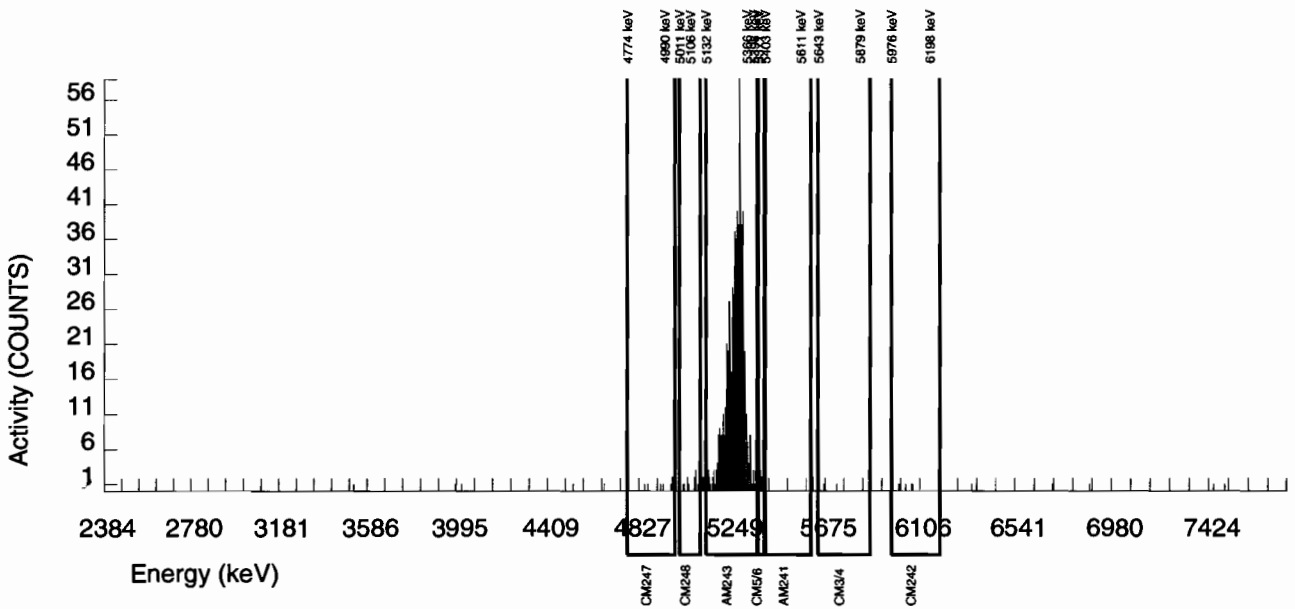
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5506.799	0.000	0.000	-1.169	0.000	2.8409	99.94000	-1.81E-03	1.55E-03	9.49E-03	2.32E-02	1.55E-03
AM243	5270.000	5271.186	41.131	672.000	672.000	0.000	0.0000	99.78000	1.04E+00	7.65E-02	0.00E+00	4.20E-03	4.02E-02
CM-242	6102.000	6046.508	63.433	5.000	5.000	0.000	4.3413	100.0000	8.37E-03	3.78E-03	1.45E-02	3.32E-02	3.74E-03
CM-3/4	5795.020	5753.882	167.513	3.000	2.280	0.720	5.1799	100.0000	3.53E-03	2.92E-03	1.73E-02	3.88E-02	2.91E-03
CM-5/6	5386.000	5384.904	12.317	8.000	8.000	0.000	14.2480	86.09000	1.44E-02	5.16E-03	5.52E-02	1.15E-01	5.08E-03
CM-247	4946.000	4939.938	9.854	9.000	9.000	0.000	13.7917	79.30000	1.76E-02	5.95E-03	5.80E-02	1.21E-01	5.85E-03
CM-248	5078.600	5073.230	37.927	12.000	12.000	0.000	19.5080	91.00000	2.04E-02	6.03E-03	7.15E-02	1.48E-01	5.89E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 217	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960009_AM	DETECTOR S/N : 79410	BKG FILE : B217.CNF;82
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 36.8046	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W217.CNF;30
% YIELD : 83.121		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4243E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

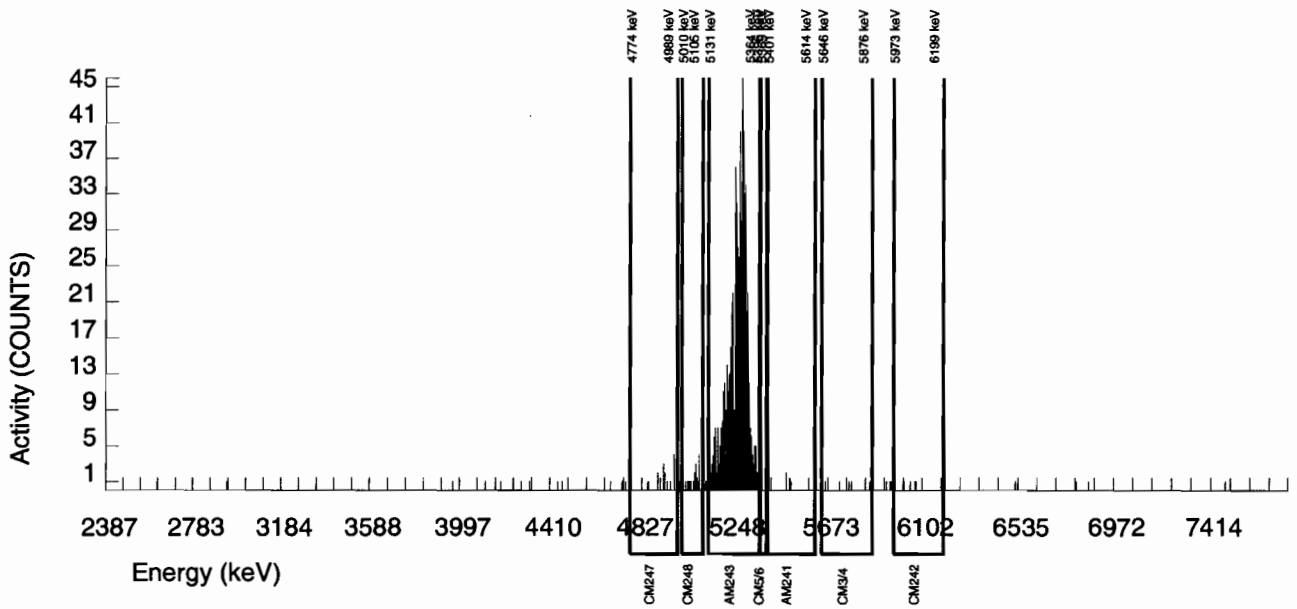
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5500.846	4.928	4.000	2.165	0.720	2.8409	99.94000	3.52E-03	3.00E-03	9.95E-03	2.43E-02	3.00E-03
AM243	5270.000	5266.669	50.446	641.000	641.000	0.000	0.0000	99.78000	1.04E+00	7.76E-02	0.00E+00	4.41E-03	4.12E-02
CM-242	6102.000	6039.005	98.562	6.000	6.000	0.000	4.3413	100.0000	1.05E-02	4.35E-03	1.52E-02	3.48E-02	4.30E-03
CM-3/4	5795.020	5765.683	192.196	5.000	5.000	0.000	5.1799	100.0000	8.13E-03	3.67E-03	1.81E-02	4.07E-02	3.64E-03
CM-5/6	5386.000	5374.721	4.928	2.000	2.000	0.000	14.2480	86.09000	3.77E-03	2.68E-03	5.80E-02	1.21E-01	2.67E-03
CM-247	4946.000	4938.425	48.460	16.000	16.000	0.000	13.7917	79.30000	3.27E-02	8.44E-03	6.09E-02	1.27E-01	8.19E-03
CM-248	5078.600	5063.920	22.121	22.000	22.000	0.000	19.5080	91.00000	3.92E-02	8.72E-03	7.51E-02	1.55E-01	8.37E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 224	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960010_AM	DETECTOR S/N : 79417	BKG FILE : B224.CNF;80
SAMPLE QTY : 1.270 G	AVERAGE %EFFICIENCY : 37.7809	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W224.CNF;28
% YIELD : 84.545		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4658E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

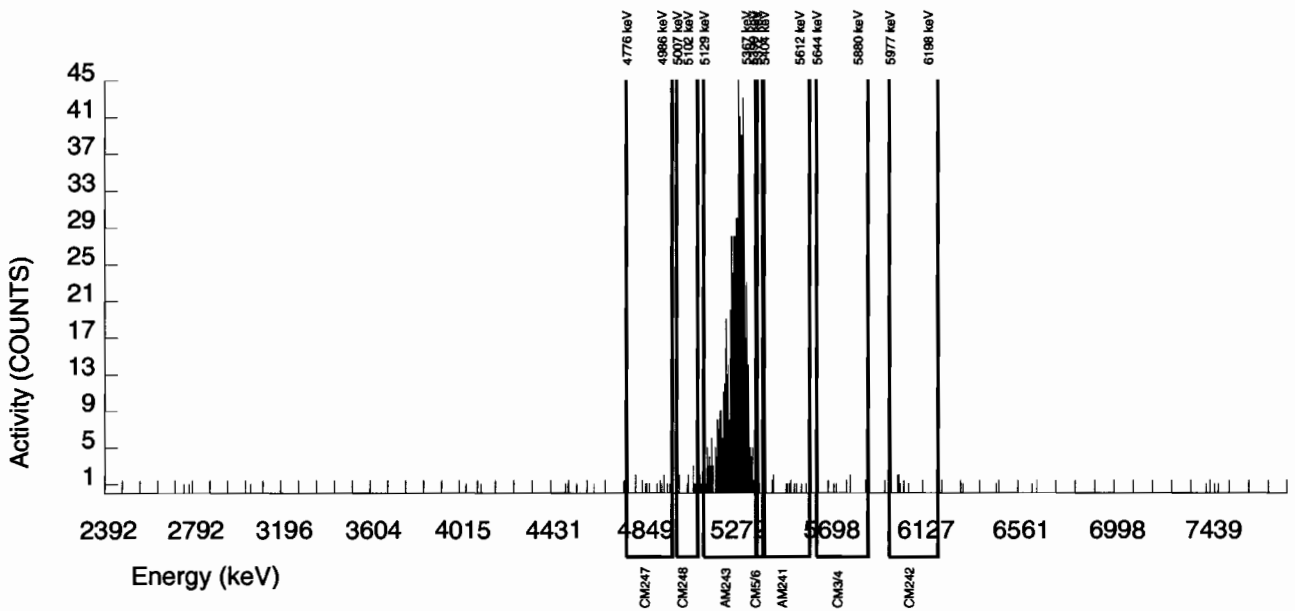
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5515.612	4.981	10.000	8.835	0.000	2.8409	99.94000	1.36E-02	4.67E-03	9.46E-03	2.31E-02	4.59E-03
AM243	5270.000	5276.583	67.989	670.000	669.280	0.720	0.8485	99.78000	1.03E+00	7.61E-02	2.83E-03	9.85E-03	4.00E-02
CM-242	6102.000	6031.279	11.519	6.000	6.000	0.000	4.3413	100.0000	1.00E-02	4.14E-03	1.44E-02	3.31E-02	4.09E-03
CM-3/4	5795.020	5769.925	4.981	4.000	3.280	0.720	5.1799	100.0000	5.07E-03	3.30E-03	1.72E-02	3.86E-02	3.28E-03
CM-5/6	5386.000	5379.774	0.000	8.000	8.000	0.000	14.2480	86.09000	1.43E-02	5.15E-03	5.51E-02	1.15E-01	5.07E-03
CM-247	4946.000	4899.192	129.512	12.000	12.000	0.000	13.7917	79.30000	2.33E-02	6.89E-03	5.79E-02	1.21E-01	6.74E-03
CM-248	5078.600	5067.000	65.908	12.000	12.000	0.000	19.5080	91.00000	2.03E-02	6.01E-03	7.13E-02	1.47E-01	5.87E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 225	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960011_AM	DETECTOR S/N : 79418	BKG FILE : B225.CNF;80
SAMPLE QTY : 1.261 G	AVERAGE %EFFICIENCY : 38.7926	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W225.CNF;28
% YIELD : 77.296		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2544E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

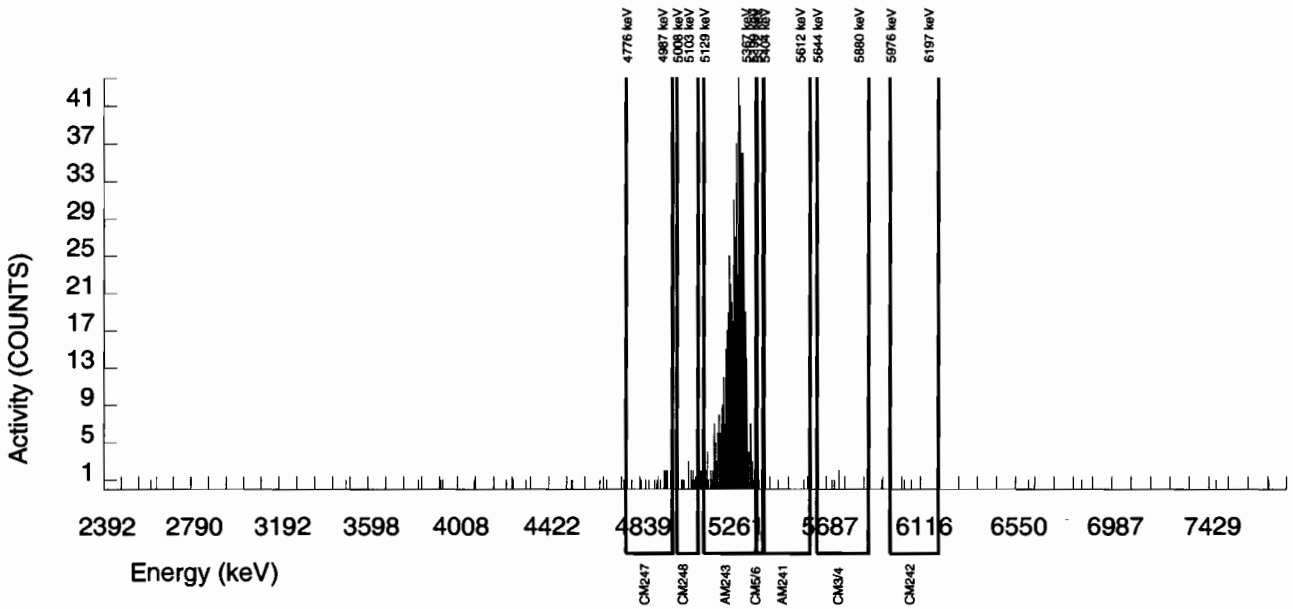
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5500.097	148.544	3.000	1.907	0.000	2.8409	99.94000	3.16E-03	2.29E-03	1.01E-02	2.48E-02	2.29E-03
AM243	5270.000	5275.832	68.985	629.000	628.280	0.720	0.8485	99.78000	1.04E+00	7.80E-02	3.04E-03	1.06E-02	4.16E-02
CM-242	6102.000	6035.578	94.078	3.000	3.000	0.000	4.3413	100.0000	5.37E-03	3.12E-03	1.55E-02	3.55E-02	3.10E-03
CM-3/4	5795.020	5728.530	4.951	5.000	4.280	0.720	5.1799	100.0000	7.10E-03	3.92E-03	1.85E-02	4.15E-02	3.89E-03
CM-5/6	5386.000	5379.576	0.000	3.000	3.000	0.000	14.2480	86.09000	5.77E-03	3.35E-03	5.91E-02	1.23E-01	3.33E-03
CM-247	4946.000	4933.065	0.000	18.000	17.280	0.720	13.7917	79.30000	3.61E-02	9.26E-03	6.21E-02	1.30E-01	8.98E-03
CM-248	5078.600	5072.372	24.757	14.000	12.560	1.440	19.5080	91.00000	2.28E-02	7.20E-03	7.65E-02	1.58E-01	7.05E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 226	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978001_AM	DETECTOR S/N : 79419	BKG FILE : B226.CNF;80
SAMPLE QTY : 1.271 G	AVERAGE %EFFICIENCY : 37.2343	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W226.CNF;28
% YIELD : 68.190		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 1.9888E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

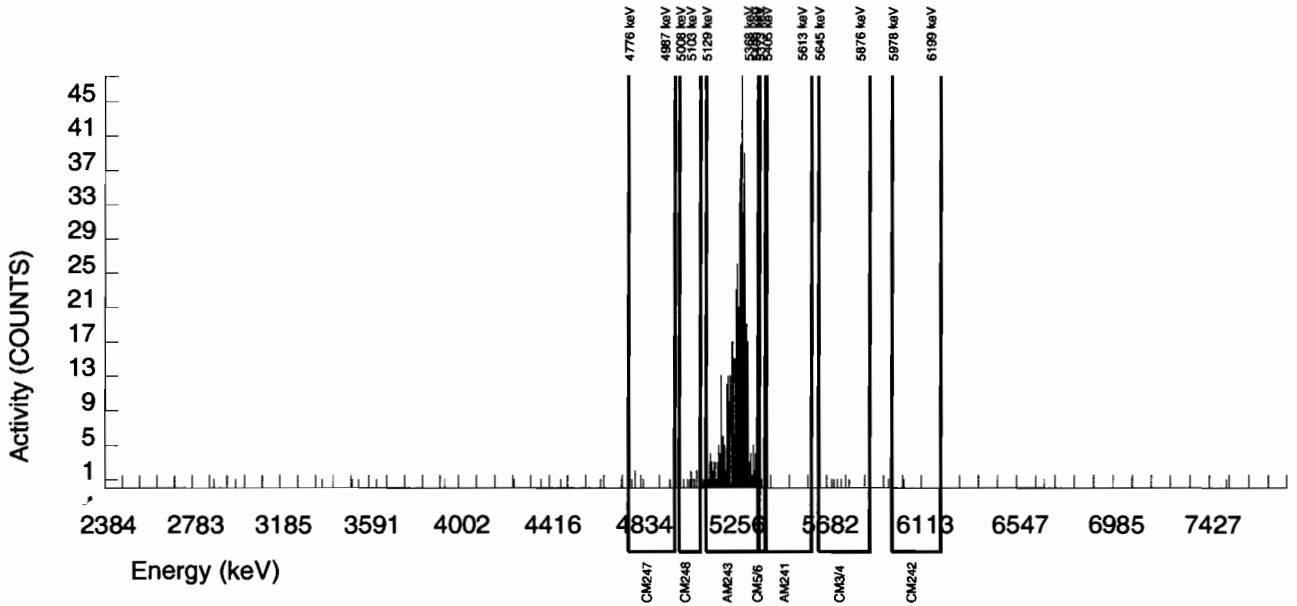
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.883	0.000	0.000	-0.926	0.000	2.8409	99.94000	-1.80E-03	1.94E-03	1.19E-02	2.90E-02	1.94E-03
AM243	5270.000	5276.667	39.465	532.000	532.000	0.000	0.0000	99.78000	1.03E+00	8.12E-02	0.00E+00	5.27E-03	4.48E-02
CM-242	6102.000	6037.050	4.955	1.000	1.000	0.000	4.3413	100.0000	2.11E-03	2.11E-03	1.82E-02	4.16E-02	2.11E-03
CM-3/4	5795.020	5741.394	79.274	5.000	4.280	0.720	5.1799	100.0000	8.31E-03	4.60E-03	2.17E-02	4.86E-02	4.56E-03
CM-5/6	5386.000	5379.774	7.277	4.000	4.000	0.000	14.2480	86.09000	9.01E-03	4.54E-03	6.92E-02	1.45E-01	4.50E-03
CM-247	4946.000	4848.850	4.955	5.000	2.840	2.160	13.7917	79.30000	6.94E-03	6.28E-03	7.27E-02	1.52E-01	6.26E-03
CM-248	5078.600	5068.201	32.205	9.000	9.000	0.000	19.5080	91.00000	1.92E-02	6.51E-03	8.97E-02	1.85E-01	6.39E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 218	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202034998_AM	DETECTOR S/N : 79411	BKG FILE : B218.CNF;80
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 37.5225	BKG DATE : 14-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 15-FEB-2010 07:41:22	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W218.CNF;28
% YIELD : 97.083		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.8315E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

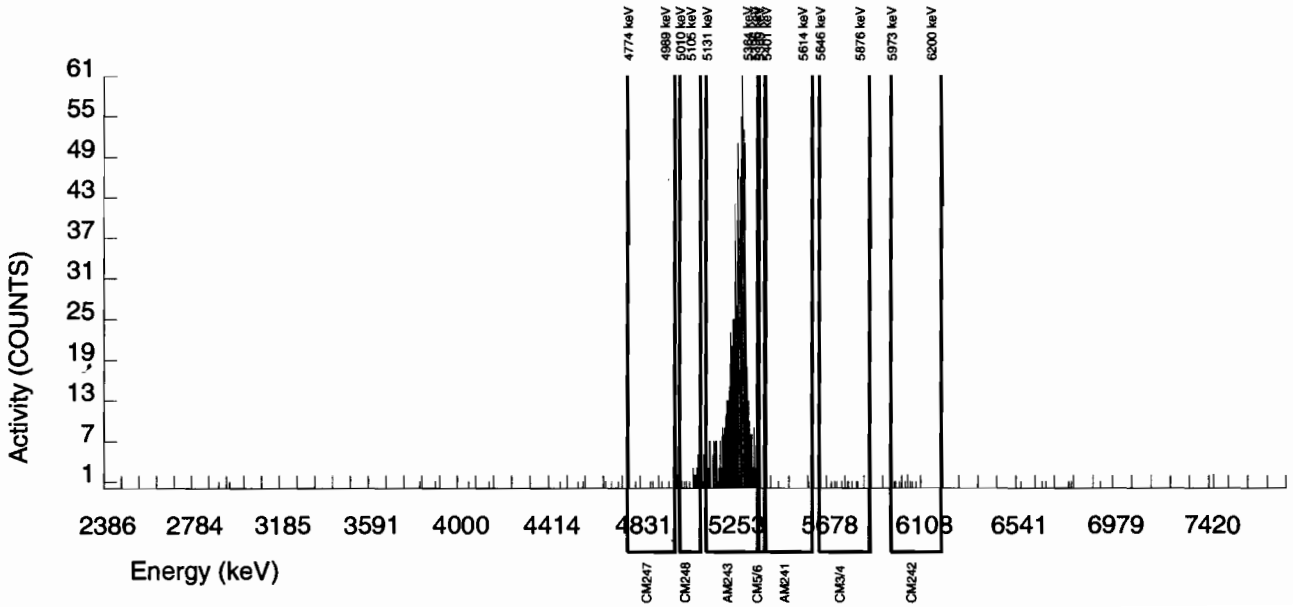
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5560.936	0.000	3.000	-1.928	3.600	2.8409	99.94000	-3.31E-03	3.55E-03	1.05E-02	2.57E-02	3.55E-03
AM243	5270.000	5277.232	48.018	764.000	763.280	0.720	0.8485	99.78000	1.31E+00	9.33E-02	3.15E-03	1.10E-02	4.76E-02
CM-242	6102.000	6043.712	4.944	9.000	9.000	0.000	4.3413	100.0000	1.60E-02	5.41E-03	1.61E-02	3.68E-02	5.32E-03
CM-3/4	5795.020	5759.040	168.093	11.000	11.000	0.000	5.1799	100.0000	1.89E-02	5.82E-03	1.92E-02	4.30E-02	5.70E-03
CM-5/6	5386.000	5372.661	0.000	5.000	4.280	0.720	14.2480	86.09000	8.54E-03	4.72E-03	6.13E-02	1.28E-01	4.69E-03
CM-247	4946.000	4899.614	148.318	5.000	2.840	2.160	13.7917	79.30000	6.15E-03	5.56E-03	6.44E-02	1.35E-01	5.54E-03
CM-248	5078.600	5078.091	0.000	24.000	22.560	1.440	19.5080	91.00000	4.26E-02	9.79E-03	7.94E-02	1.64E-01	9.44E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 219	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202034999_AM	DETECTOR S/N : 79412	BKG FILE : B219.CNF;80
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 38.4458	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W219.CNF;28
% YIELD : 93.352		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.7227E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

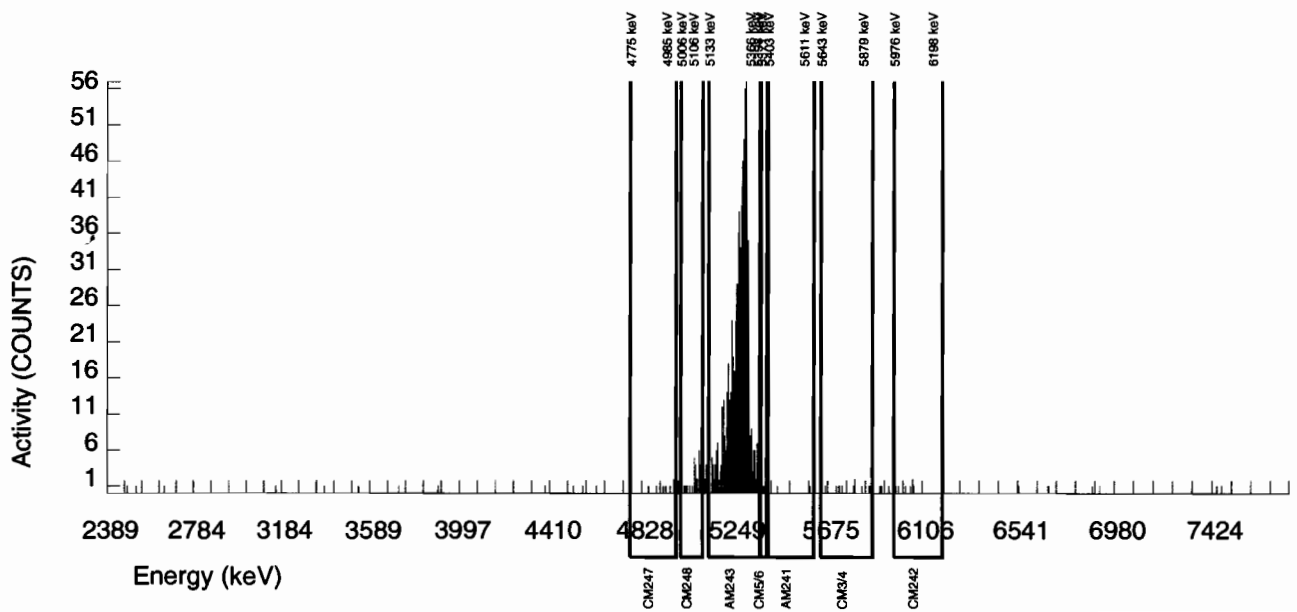
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5484.873	0.000	3.000	1.691	0.000	2.8409	99.94000	2.34E-03	1.81E-03	8.48E-03	2.07E-02	1.80E-03
AM243	5270.000	5276.857	49.546	752.000	752.000	0.000	0.0000	99.78000	1.04E+00	7.43E-02	0.00E+00	3.76E-03	3.80E-02
CM-242	6102.000	6040.348	7.220	8.000	8.000	0.000	4.3413	100.0000	1.20E-02	4.32E-03	1.30E-02	2.97E-02	4.25E-03
CM-3/4	5795.020	5779.022	7.220	12.000	12.000	0.000	5.1799	100.0000	1.66E-02	4.91E-03	1.55E-02	3.47E-02	4.80E-03
CM-5/6	5386.000	5378.583	0.000	11.000	11.000	0.000	14.2480	86.09000	1.77E-02	5.44E-03	4.94E-02	1.03E-01	5.33E-03
CM-247	4946.000	4924.962	7.220	9.000	7.560	1.440	13.7917	79.30000	1.32E-02	5.59E-03	5.19E-02	1.09E-01	5.53E-03
CM-248	5078.600	5072.415	0.000	38.000	38.000	0.000	19.5080	91.00000	5.78E-02	1.00E-02	6.40E-02	1.32E-01	9.37E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 236	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202035000_AM	DETECTOR S/N : 79429	BKG FILE : B236.CNF;80
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 38.6953	BKG DATE : 14-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 18-FEB-2010 18:42:55	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W236.CNF;28
% YIELD : 105.646		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 3.0812E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

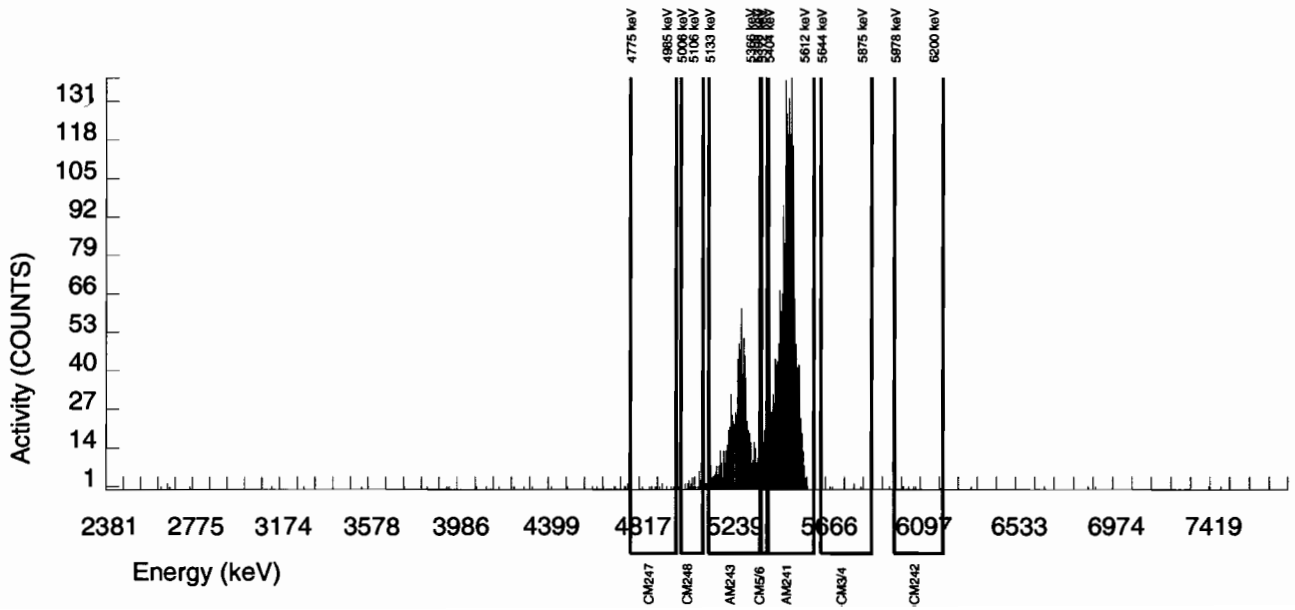
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5493.946	51.735	2017.000	2015.510	0.000	2.8409	99.94000	3.00E+01	2.13E+00	9.11E-02	2.23E-01	6.67E-01
AM243	5270.000	5273.112	66.354	858.000	856.560	1.440	1.2000	99.78000	1.28E+01	9.66E-01	3.86E-02	1.17E-01	4.36E-01
CM-242	6102.000	6049.406	58.191	5.000	5.000	0.000	4.3413	100.0000	7.79E-02	3.52E-02	1.39E-01	3.19E-01	3.48E-02
CM-3/4	5795.020	5765.562	4.900	5.000	5.000	0.000	5.1799	100.0000	7.44E-02	3.36E-02	1.66E-01	3.72E-01	3.33E-02
CM-5/6	5386.000	5384.850	0.000	98.000	98.000	0.000	14.2480	86.09000	1.69E+00	2.06E-01	5.31E-01	1.11E+00	1.71E-01
CM-247	4946.000	4913.693	4.900	11.000	10.280	0.720	13.7917	79.30000	1.93E-01	6.49E-02	5.57E-01	1.17E+00	6.36E-02
CM-248	5078.600	5066.467	36.625	30.000	30.000	0.000	19.5080	91.00000	4.90E-01	9.54E-02	6.87E-01	1.42E+00	8.94E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Radiochemistry Batch Checklist, Rev10

Batch# 949824 Product: Pu Date: 2/21/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	X		
Instrument source check is within limits. Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	X		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	X		
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly statused.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 2/21/10

Secondary Review Performed By: 2/22/10

2/23/10

√P

Plutonium Que Sheet

05-FEB-10

Batch #: 949824 Analyst: HAKB First Client Due Date:23-FEB-10 Internal Due Date:13-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1315-A Expiration Date: 1/8/11 Vol: Ø.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: SRM 0244-B Expiration Date: 4/30/20 Vol: Ø.103

Spike Isotope(s): Pu-239/Pu-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/8/10 Initials: HAKB Pipet ID: 29710 58 Balance ID: 5041027Z Witness: HAKB 02/09/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g)	Pu Det #
245955001-1	RE16-10-1474	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	1	1	1.260	247
245955002-1	RE16-10-1475	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	2	2	1.271	248
245960001-1	RE15-10-7309	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	3	3	1.281	249
245960002-1	RE15-10-7308	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	4	4	1.268	250
245960003-1	RE15-10-7315	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	5	5	1.253	251
245960004-1	RE15-10-7317	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	6	6	1.252	223 ~~252~~
245960005-1	RE15-10-7319	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	7	7	1.257	~~253~~
245960006-1	RE15-10-7312	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	8	8	1.284	254
245960007-1	RE15-10-7313	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	9	9	1.261	255
245960008-1	RE15-10-7314	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	10	10	1.252	256
245960009-1	RE15-10-7316	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	11	11	1.260	25
245960010-1	RE15-10-7318	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	12	12	1.270	26
245960011-1	RE15-10-7324	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	13	13	1.261	27
245978001-1	RE15-10-7880	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	14	1.271	28
245978002-1	RE15-10-7891	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	15	1.267	213 ~~29~~
245978003-1	RE15-10-7892	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	16	1.264	~~30~~
245978004-1	RE15-10-7967	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	17	1.252	214 ~~77~~ *
245978005-1	RE15-10-7976	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	18	1.258	79
245978006-1	RE15-10-7968	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	19	1.258	80
245978007-1	RE15-10-7965	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	20	20	1.281	81
1202835001-1	MB for batch 949824	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1.0	82
1202835002-1	RE15-10-7880(245978001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	1.260 *	~~211~~ 221 *
1202835003-1	LCS for batch 949824	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.103 *	~~212~~ 222

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 2/2/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 949824

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202035002	DUP	Plutonium-238	1.26 g	-0.00203	0.00203	0.0166	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00203	0.00144	0.0125	.002595238	pCi/g	YES
1202035003	LCS	Plutonium-238	0.103 g	7.01	0.502	0.201	0	pCi/g	NO
		Plutonium-239/240	0.103 g	36.9	2.25	0.152	.031747573	pCi/g	NO
1202035001	MB	Plutonium-238	1.00 g	0.00	0.00164	0.0267	0	pCi/g	NO
		Plutonium-239/240	1.00 g	0.00327	0.00462	0.0201	.00327	pCi/g	YES
245955001	RE16-10-1474	Plutonium-238	1.26 g	-0.00111	0.00189	0.0236	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0105	0.00502	0.0178	.002595238	pCi/g	YES
245955002	RE16-10-1475	Plutonium-238	1.27 g	0.00281	0.00199	0.0216	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0014	0.00141	0.0163	.002574803	pCi/g	YES
245960001	RE15-10-7309	Plutonium-238	1.28 g	-0.00108	0.00185	0.023	0	pCi/g	YES
		Plutonium-239/240	1.28 g	-0.00282	0.00263	0.0174	.002554688	pCi/g	YES
245960002	RE15-10-7308	Plutonium-238	1.27 g	0.00	0.00151	0.0231	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00751	0.00338	0.0174	.002574803	pCi/g	YES
245960003	RE15-10-7315	Plutonium-238	1.25 g	-0.00106	0.00182	0.0227	0	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00739	0.00333	0.0172	.002616	pCi/g	YES
245960004	RE15-10-7317	Plutonium-238	1.25 g	-0.00106	0.00149	0.0172	0	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00211	0.0015	0.013	.002616	pCi/g	YES
245960005	RE15-10-7319	Plutonium-238	1.26 g	-0.00583	0.00311	0.0222	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00433	0.00251	0.0167	.002595238	pCi/g	YES
245960006	RE15-10-7312	Plutonium-238	1.28 g	0.00183	0.00227	0.0219	0	pCi/g	NO
		Plutonium-239/240	1.28 g	0.0133	0.00469	0.0166	.002554688	pCi/g	NO
245960007	RE15-10-7313	Plutonium-238	1.26 g	0.00	0.00142	0.0218	0	pCi/g	NO
		Plutonium-239/240	1.26 g	0.000793	0.00247	0.0164	.002595238	pCi/g	YES
245960008	RE15-10-7314	Plutonium-238	1.25 g	0.000397	0.00175	0.0218	0	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00567	0.00285	0.0164	.002616	pCi/g	YES
245960009	RE15-10-7316	Plutonium-238	1.26 g	-0.00254	0.00802	0.0207	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00888	0.00383	0.0156	.002595238	pCi/g	YES
245960010	RE15-10-7318	Plutonium-238	1.27 g	0.00264	0.00264	0.0216	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0145	0.00444	0.0162	.002574803	pCi/g	NO
245960011	RE15-10-7324	Plutonium-238	1.26 g	0.00249	0.00249	0.0203	0	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00248	0.00176	0.0153	.002595238	pCi/g	YES
245978001	RE15-10-7880	Plutonium-238	1.27 g	0.00493	0.00286	0.0269	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00493	0.00286	0.0202	.002574803	pCi/g	YES
245978002	RE15-10-7891	Plutonium-238	1.27 g	0.00225	0.0016	0.0184	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0214	0.00527	0.0139	.002574803	pCi/g	NO
245978003	RE15-10-7892	Plutonium-238	1.26 g	-0.00666	0.0061	0.0218	0	pCi/g	YES
		Plutonium-239/240	1.26 g	-0.00266	0.00231	0.0164	.002595238	pCi/g	YES
245978004	RE15-10-7967	Plutonium-238	1.25 g	0.0012	0.00121	0.0197	0	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245978004	RE15-10-7967	Plutonium-239/240	1.25 g	0.0723	0.0102	0.0148	.002616	pCi/g	NO
245978005	RE15-10-7976	Plutonium-238	1.26 g	-0.00126	0.00178	0.0206	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0151	0.00477	0.0155	.002595238	pCi/g	NO
245978006	RE15-10-7968	Plutonium-238	1.26 g	-0.00123	0.00276	0.0202	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0123	0.00432	0.0152	.002595238	pCi/g	YES
245978007	RE15-10-7965	Plutonium-238	1.28 g	0.00397	0.0023	0.0216	0	pCi/g	NO
		Plutonium-239/240	1.28 g	0.0159	0.00466	0.0163	.002554688	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 249	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960001_PU	DETECTOR S/N : 79442	BKG FILE : B249.CNF;78
SAMPLE QTY : 1.281 G	AVERAGE %EFFICIENCY : 38.9612	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:34:59	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W249.CNF;31
% YIELD : 83.646		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8279E+00 dpm		

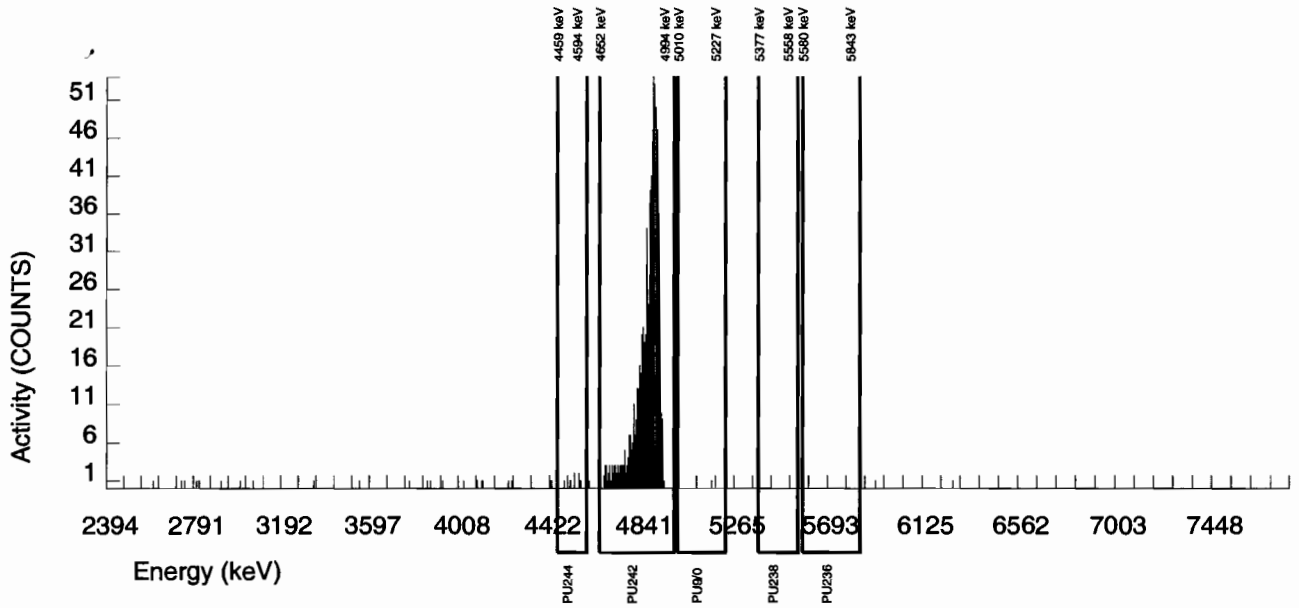
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5697.892	4.932	1.000	1.000	0.000	2.6925	100.0000	1.52E-03	1.52E-03	8.71E-03	2.15E-02	1.52E-03
PU-238	5499.000	5467.323	0.000	0.000	-0.720	0.720	2.9312	99.90000	-1.08E-03	1.85E-03	9.49E-03	2.30E-02	1.85E-03
PU-9/0	5155.000	5168.969	4.932	1.000	-1.880	2.880	2.0604	99.90000	-2.82E-03	2.63E-03	6.67E-03	1.74E-02	2.63E-03
PU242	4890.000	4878.378	62.219	794.000	793.280	0.720	0.8485	100.0000	1.19E+00	7.61E-02	2.74E-03	9.55E-03	4.22E-02
PU-244	4589.000	4543.928	27.125	9.000	9.000	0.000	3.7241	99.90000	1.35E-02	4.56E-03	1.21E-02	2.82E-02	4.50E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 250	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960002_PU	DETECTOR S/N : 79443	BKG FILE : B250.CNF;78
SAMPLE QTY : 1.268 G	AVERAGE %EFFICIENCY : 39.2720	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:35:02	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W250.CNF;29
% YIELD : 83.687		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8293E+00 dpm		

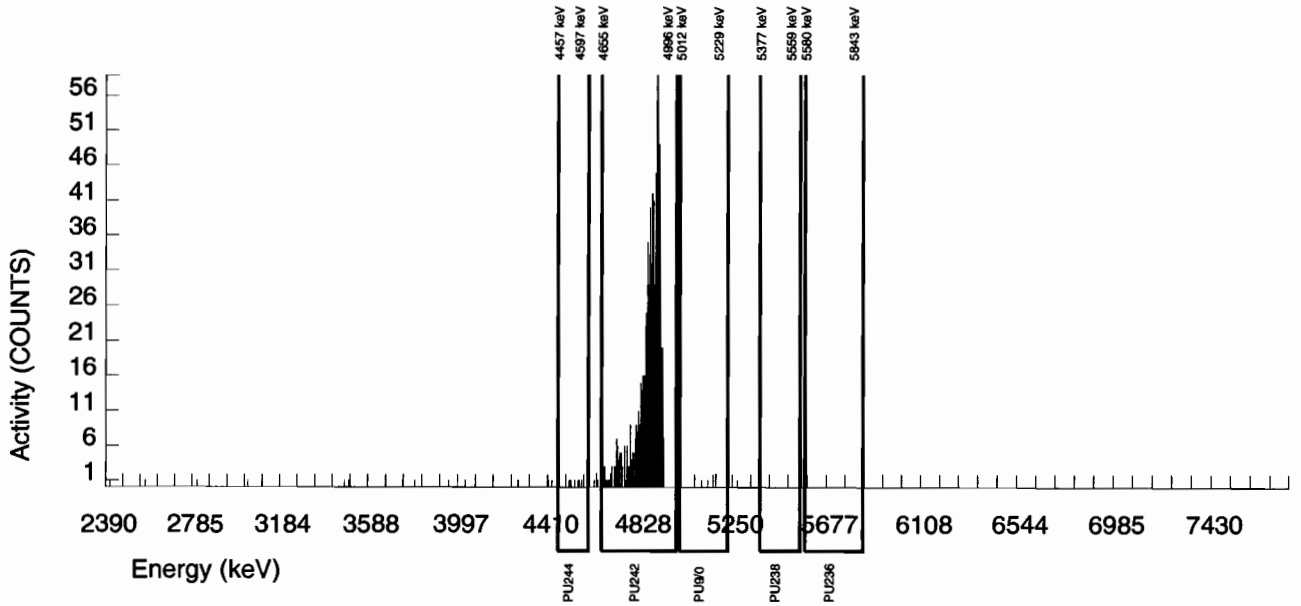
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5711.538	0.000	0.000	-1.440	1.440	2.6925	100.0000	-2.19E-03	2.17E-03	8.72E-03	2.15E-02	2.17E-03
PU-238	5499.000	5468.013	0.000	0.000	0.000	0.000	2.9312	99.90000	0.00E+00	1.51E-03	9.50E-03	2.31E-02	1.50E-03
PU-9/0	5155.000	5158.667	4.906	5.000	5.000	0.000	2.0604	99.90000	7.51E-03	3.38E-03	6.68E-03	1.74E-02	3.36E-03
PU242	4890.000	4873.821	59.353	800.000	800.000	0.000	0.0000	100.0000	1.20E+00	7.66E-02	0.00E+00	4.07E-03	4.25E-02
PU-244	4589.000	4552.672	0.000	9.000	9.000	0.000	3.7241	99.90000	1.35E-02	4.57E-03	1.21E-02	2.82E-02	4.51E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 251	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960003_PU	DETECTOR S/N : 79444	BKG FILE : B251.CNF;78
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 38.7077	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:35:06	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W251.CNF;29
% YIELD : 87.331		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9525E+00 dpm		

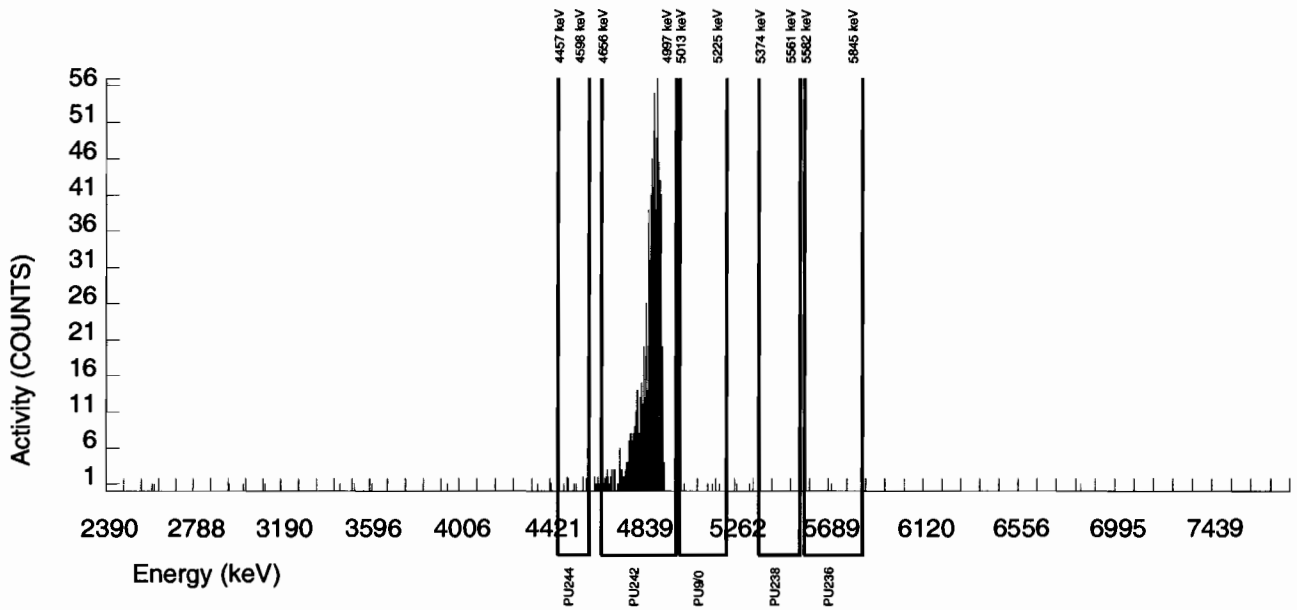
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5710.736	4.944	1.000	1.000	0.000	2.6925	100.0000	1.49E-03	1.50E-03	8.58E-03	2.12E-02	1.49E-03
PU-238	5499.000	5467.235	0.000	0.000	-0.720	0.720	2.9312	99.90000	-1.06E-03	1.82E-03	9.35E-03	2.27E-02	1.82E-03
PU-9/0	5155.000	5129.668	153.276	5.000	5.000	0.000	2.0604	99.90000	7.39E-03	3.33E-03	6.57E-03	1.72E-02	3.31E-03
PU242	4890.000	4879.582	59.395	825.000	822.840	2.160	1.4697	100.0000	1.22E+00	7.69E-02	4.68E-03	1.34E-02	4.25E-02
PU-244	4589.000	4525.915	74.166	12.000	11.280	0.720	3.7241	99.90000	1.67E-02	5.30E-03	1.19E-02	2.78E-02	5.23E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 223	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960004_PU	DETECTOR S/N : 79416	BKG FILE : B223.CNF;82
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 37.1371	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:42:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W223.CNF;28
% YIELD : 91.914		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1074E+00 dpm		

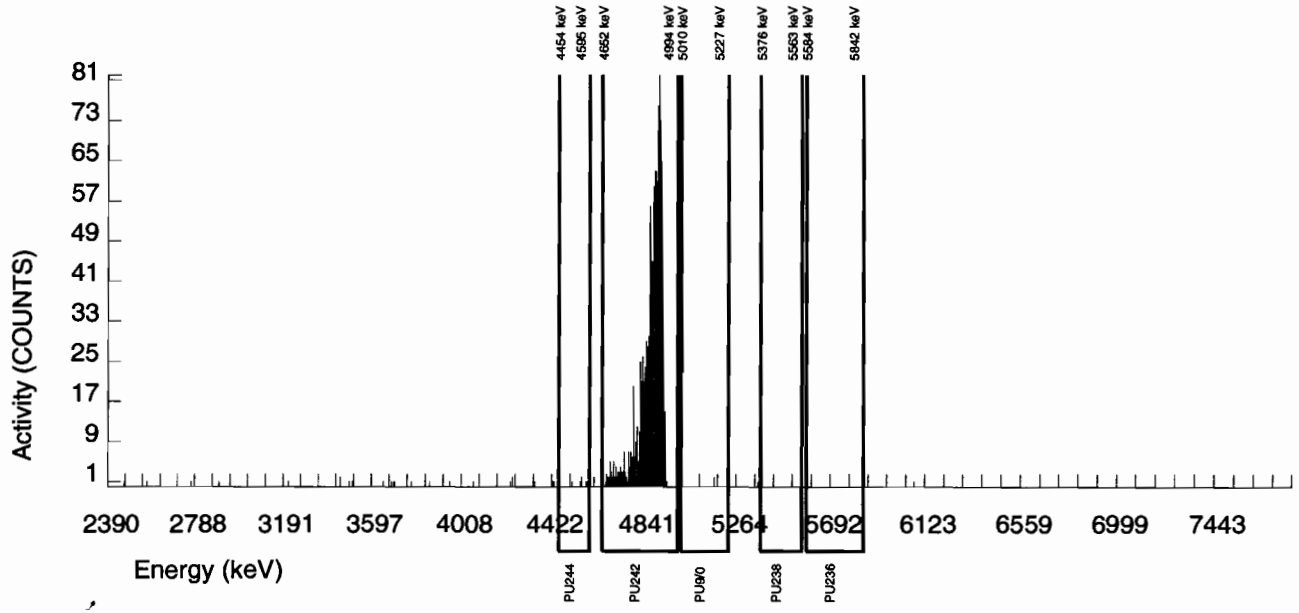
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	~~UNC~~ pCi/G
PU-236	5749.000	5713.184	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.07E-03	6.60E-03	1.61E-02	1.07E-03
PU-238	5499.000	5469.503	0.000	0.000	-1.000	1.000	2.9312	99.90000	-1.06E-03	1.49E-03	7.19E-03	1.72E-02	1.49E-03
PU-9/0	5155.000	5168.796	4.948	2.000	2.000	0.000	2.0604	99.90000	2.11E-03	1.50E-03	5.06E-03	1.30E-02	1.49E-03
PU242	4890.000	4878.105	59.480	1154.000	1154.000	0.000	0.0000	100.0000	1.22E+00	6.98E-02	0.00E+00	2.86E-03	3.58E-02
PU-244	4589.000	4548.265	7.267	7.000	7.000	0.000	3.7241	99.90000	7.39E-03	2.82E-03	9.14E-03	2.11E-02	2.79E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 253	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960005_PU	DETECTOR S/N : 79446	BKG FILE : B253.CNF;80
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 38.1689	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:35:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W253.CNF;28
% YIELD : 90.472		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0586E+00 dpm		

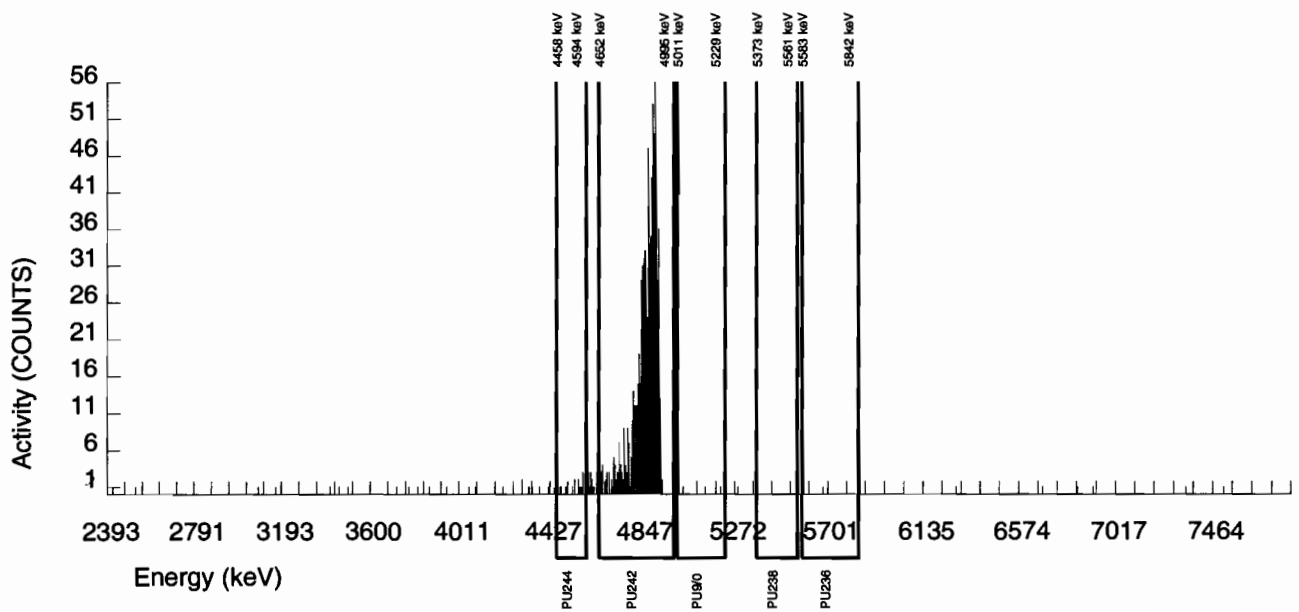
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5685.016	4.942	1.000	1.000	0.000	2.6925	100.0000	1.46E-03	1.46E-03	8.37E-03	2.07E-02	1.46E-03
PU-238	5499.000	5448.394	4.942	1.000	-4.040	5.040	2.9312	99.90000	-5.83E-03	3.11E-03	9.12E-03	2.22E-02	3.11E-03
PU-9/0	5155.000	5133.258	163.070	3.000	3.000	0.000	2.0604	99.90000	4.33E-03	2.51E-03	6.41E-03	1.67E-02	2.50E-03
PU242	4890.000	4871.512	76.096	842.000	840.560	1.440	1.2000	100.0000	1.21E+00	7.62E-02	3.73E-03	1.14E-02	4.18E-02
PU-244	4589.000	4542.979	38.245	18.000	16.560	1.440	3.7241	99.90000	2.39E-02	6.42E-03	1.16E-02	2.71E-02	6.29E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 254	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960006_PU	DETECTOR S/N : 79447	BKG FILE : B254.CNF;78
SAMPLE QTY : 1.284 G	AVERAGE %EFFICIENCY : 39.2943	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:35:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W254.CNF;28
% YIELD : 86.881		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9372E+00 dpm		

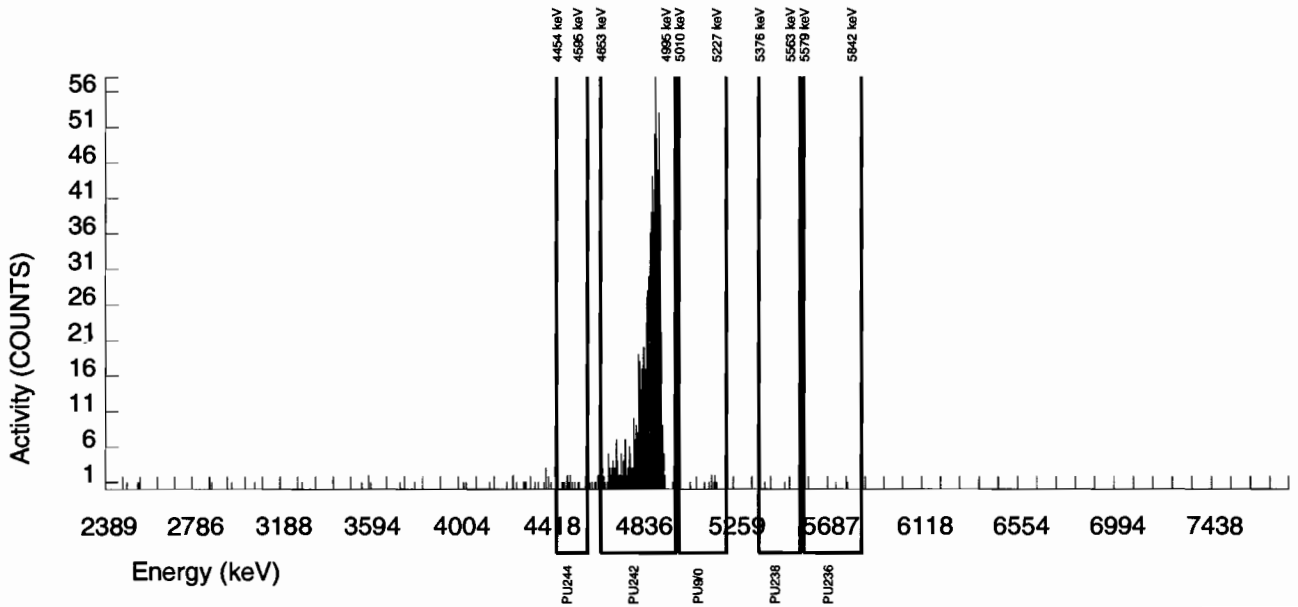
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5756.326	54.308	2.000	1.280	0.720	2.6925	100.0000	1.85E-03	2.29E-03	8.29E-03	2.04E-02	2.29E-03
PU-238	5499.000	5453.708	88.867	2.000	1.280	0.720	2.9312	99.90000	1.83E-03	2.27E-03	9.03E-03	2.19E-02	2.27E-03
PU-9/0	5155.000	5159.058	22.217	10.000	9.280	0.720	2.0604	99.90000	1.33E-02	4.69E-03	6.35E-03	1.66E-02	4.63E-03
PU242	4890.000	4874.908	54.856	831.000	831.000	0.000	0.0000	100.0000	1.19E+00	7.48E-02	0.00E+00	3.87E-03	4.11E-02
PU-244	4589.000	4526.951	14.708	13.000	13.000	0.000	3.7241	99.90000	1.86E-02	5.24E-03	1.15E-02	2.68E-02	5.15E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 255	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960007_PU	DETECTOR S/N : 79448	BKG FILE : B255.CNF;78
SAMPLE QTY : 1.261 G	AVERAGE %EFFICIENCY : 38.1825	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:35:18	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W255.CNF;28
% YIELD : 91.808		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1038E+00 dpm		

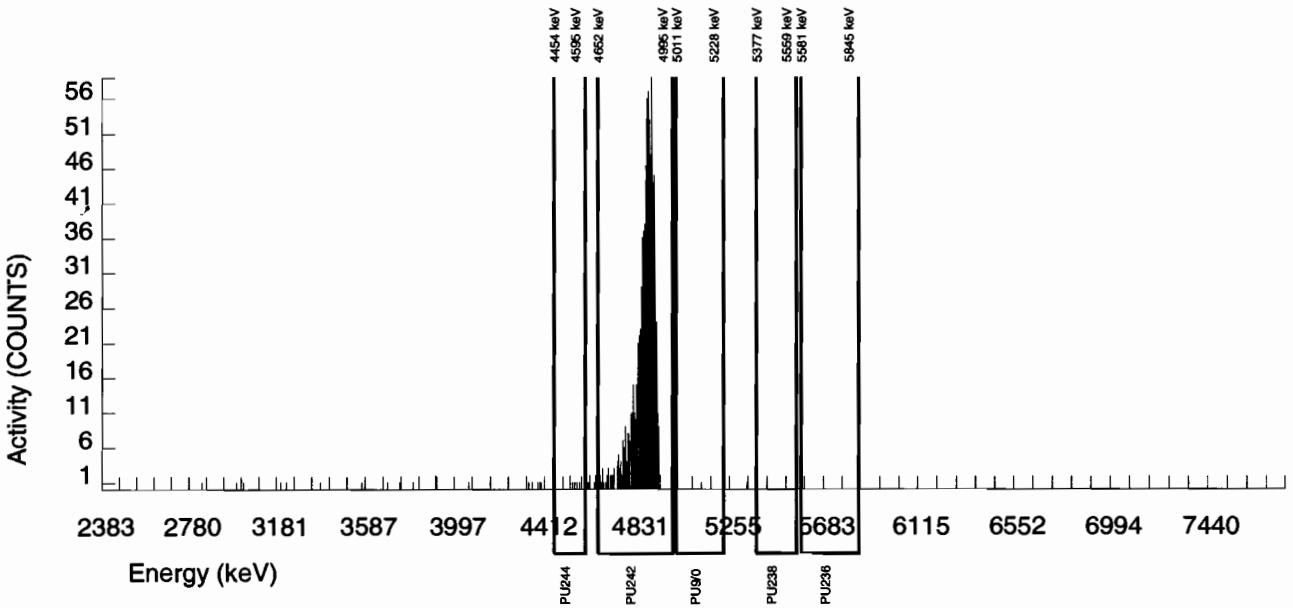
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.398	0.000	0.000	-0.720	0.720	2.6925	100.0000	-1.03E-03	1.77E-03	8.22E-03	2.03E-02	1.76E-03
PU-238	5499.000	5468.180	0.000	0.000	0.000	0.000	2.9312	99.90000	0.00E+00	1.42E-03	8.96E-03	2.18E-02	1.42E-03
PU-9/0	5155.000	5153.660	44.377	2.000	0.560	1.440	2.0604	99.90000	7.93E-04	2.47E-03	6.30E-03	1.64E-02	2.47E-03
PU242	4890.000	4869.306	58.624	854.000	853.280	0.720	0.8485	100.0000	1.21E+00	7.56E-02	2.59E-03	9.02E-03	4.14E-02
PU-244	4589.000	4548.922	4.931	8.000	7.280	0.720	3.7241	99.90000	1.03E-02	4.17E-03	1.14E-02	2.66E-02	4.13E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 256	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960008_PU	DETECTOR S/N : 79449	BKG FILE : B256.CNF;80
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 37.7639	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:35:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W256.CNF;28
% YIELD : 93.431		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1587E+00 dpm		

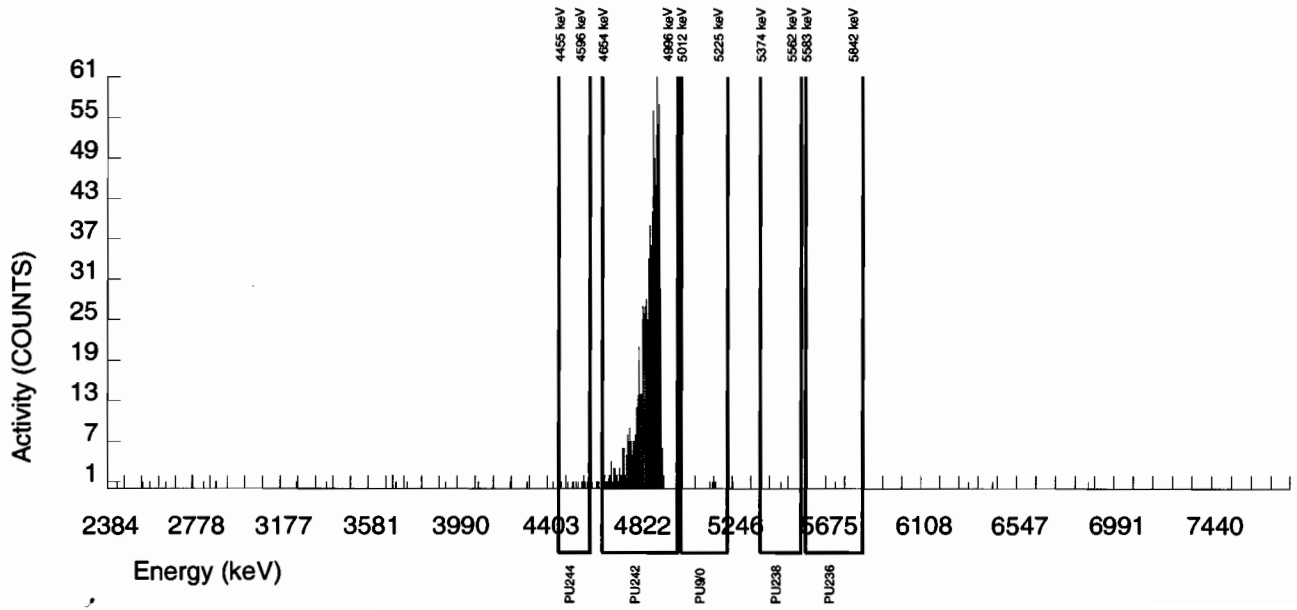
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	~~UNC~~ pCi/G
PU-236	5749.000	5723.292	4.892	1.000	-0.440	1.440	2.6925	100.0000	-6.30E-04	2.05E-03	8.23E-03	2.03E-02	2.04E-03
PU-238	5499.000	5475.821	4.892	1.000	0.280	0.720	2.9312	99.90000	3.97E-04	1.75E-03	8.97E-03	2.18E-02	1.75E-03
PU-9/0	5155.000	5164.810	29.352	4.000	4.000	0.000	2.0604	99.90000	5.67E-03	2.85E-03	6.30E-03	1.64E-02	2.84E-03
PU242	4890.000	4867.818	53.013	861.000	858.840	2.160	1.4697	100.0000	1.22E+00	7.60E-02	4.49E-03	1.28E-02	4.16E-02
PU-244	4589.000	4541.361	9.784	13.000	13.000	0.000	3.7241	99.90000	1.84E-02	5.20E-03	1.14E-02	2.66E-02	5.11E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 025	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960009_PU	DETECTOR S/N : 45-149AA5	BKG FILE : B025.CNF;1110
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 32.2436	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:55	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W025.CNF;328
% YIELD : 87.516		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9587E+00 dpm		

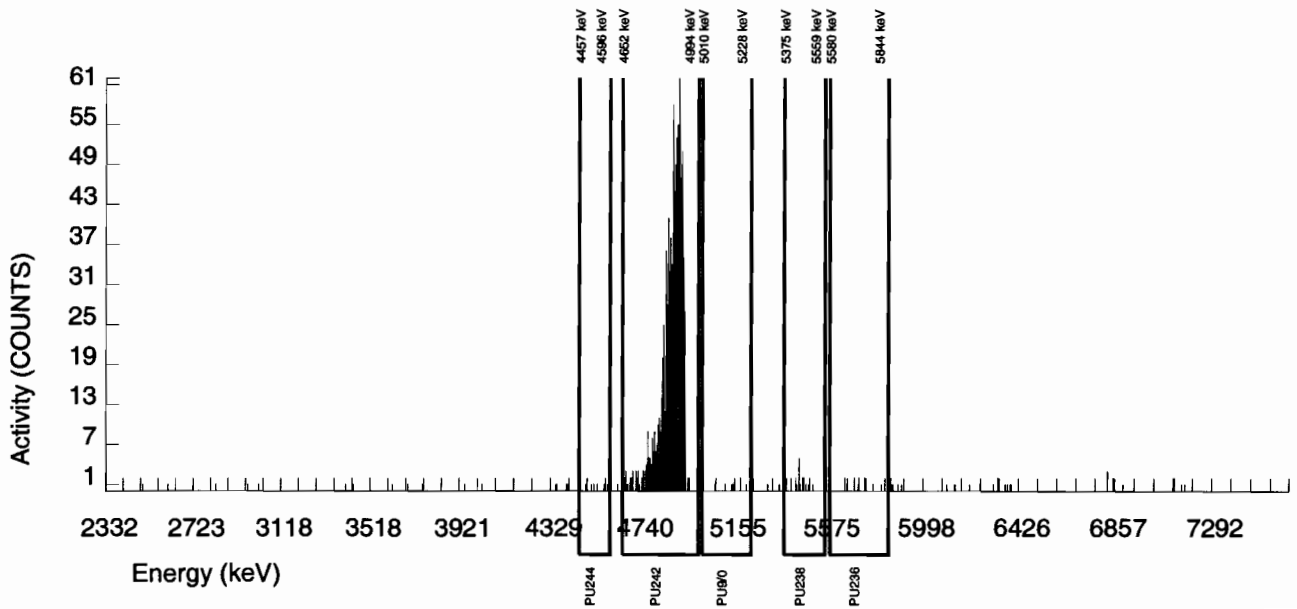
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5721.091	87.596	11.000	-7.000	18.000	2.6925	100.0000	-8.97E-03	6.90E-03	7.94E-03	1.93E-02	6.90E-03
PU-238	5499.000	5448.277	5.460	19.000	-2.000	21.000	2.9312	99.90000	-2.54E-03	8.02E-03	8.65E-03	2.07E-02	8.02E-03
PU-9/0	5155.000	5153.436	4.866	8.000	7.000	1.000	2.0604	99.90000	8.88E-03	3.83E-03	6.08E-03	1.56E-02	3.80E-03
PU242	4890.000	4877.567	76.296	955.000	954.000	1.000	1.0000	100.0000	1.21E+00	7.34E-02	2.95E-03	9.33E-03	3.92E-02
PU-244	4589.000	4530.125	126.527	7.000	7.000	0.000	3.7241	99.90000	8.88E-03	3.39E-03	1.10E-02	2.54E-02	3.36E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 026	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960010_PU	DETECTOR S/N : 78204	BKG FILE : B026.CNF;1111
SAMPLE QTY : 1.270 G	AVERAGE %EFFICIENCY : 31.5547	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:55	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W026.CNF;302
% YIELD : 85.303		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8839E+00 dpm		

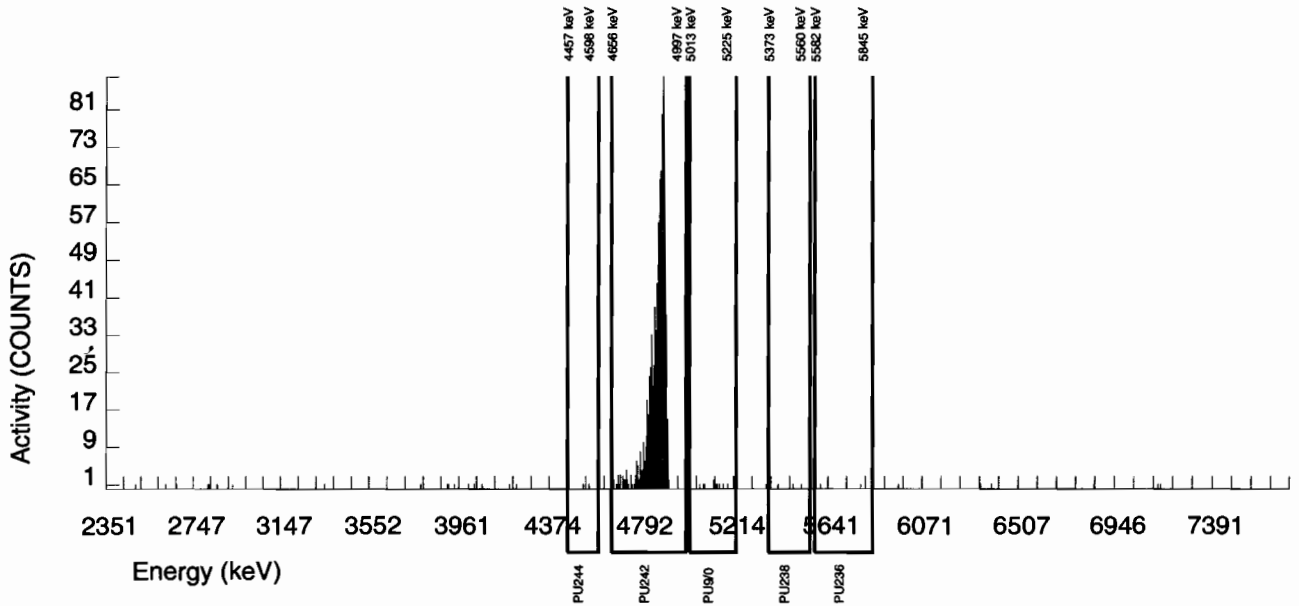
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5704.860	172.146	2.000	-1.000	3.000	2.6925	100.0000	-1.33E-03	2.98E-03	8.25E-03	2.01E-02	2.98E-03
PU-238	5499.000	5480.036	103.288	3.000	2.000	1.000	2.9312	99.90000	2.64E-03	2.64E-03	8.99E-03	2.16E-02	2.64E-03
PU-9/0	5155.000	5122.454	4.918	11.000	11.000	0.000	2.0604	99.90000	1.45E-02	4.44E-03	6.32E-03	1.62E-02	4.37E-03
PU242	4890.000	4869.184	37.500	910.000	910.000	0.000	0.0000	100.0000	1.20E+00	7.56E-02	0.00E+00	3.57E-03	3.97E-02
PU-244	4589.000	4518.073	0.000	3.000	0.000	3.000	3.7241	99.90000	0.00E+00	3.23E-03	1.14E-02	2.64E-02	3.23E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 027	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960011_PU	DETECTOR S/N : 42484	BKG FILE : B027.CNF;1117
SAMPLE QTY : 1.261 G	AVERAGE %EFFICIENCY : 33.6745	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:55	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W027.CNF;329
% YIELD : 85.467		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8894E+00 dpm		

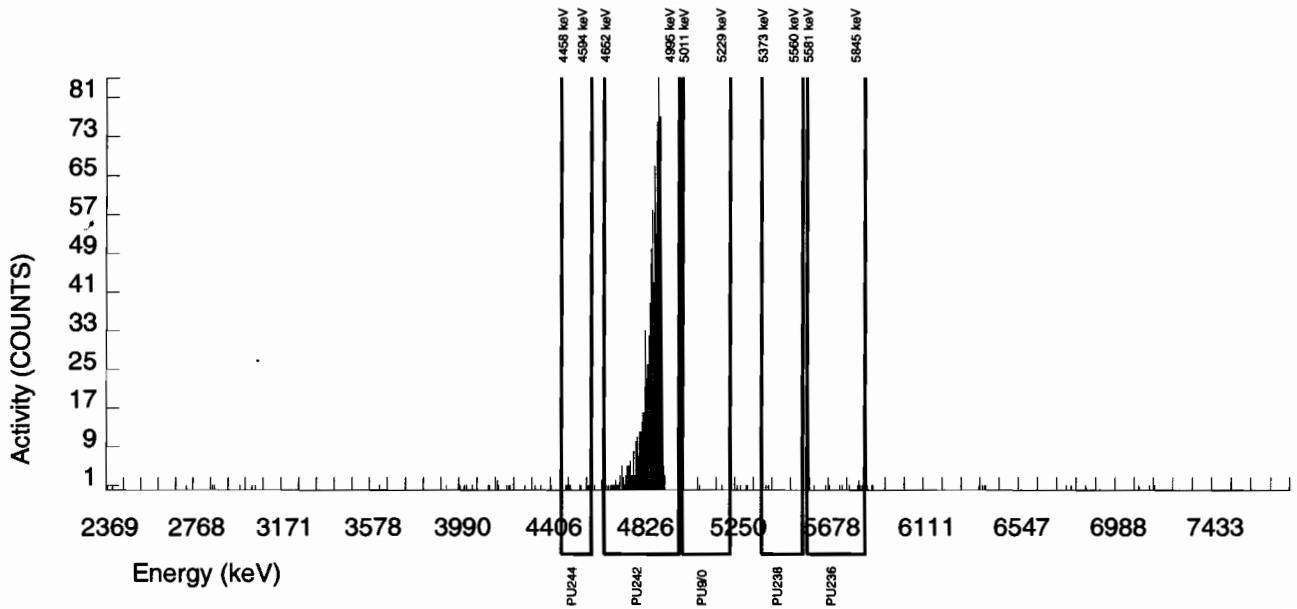
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5755.202	9.924	13.000	9.000	4.000	2.6925	100.0000	1.13E-02	5.21E-03	7.77E-03	1.89E-02	5.18E-03
PU-238	5499.000	5440.317	109.168	3.000	2.000	1.000	2.9312	99.90000	2.49E-03	2.49E-03	8.47E-03	2.03E-02	2.49E-03
PU-9/0	5155.000	5146.132	99.243	2.000	2.000	0.000	2.0604	99.90000	2.48E-03	1.76E-03	5.96E-03	1.53E-02	1.76E-03
PU242	4890.000	4876.466	48.873	974.000	973.000	1.000	1.0000	100.0000	1.21E+00	7.48E-02	2.89E-03	9.14E-03	3.88E-02
PU-244	4589.000	4516.721	0.000	10.000	10.000	0.000	3.7241	99.90000	1.24E-02	3.98E-03	1.08E-02	2.49E-02	3.93E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 028	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978001_PU	DETECTOR S/N : 78792	BKG FILE : B028.CNF;1121
SAMPLE QTY : 1.271 G	AVERAGE %EFFICIENCY : 30.7898	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:55	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W028.CNF;321
% YIELD : 70.130		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.3709E+00 dpm		

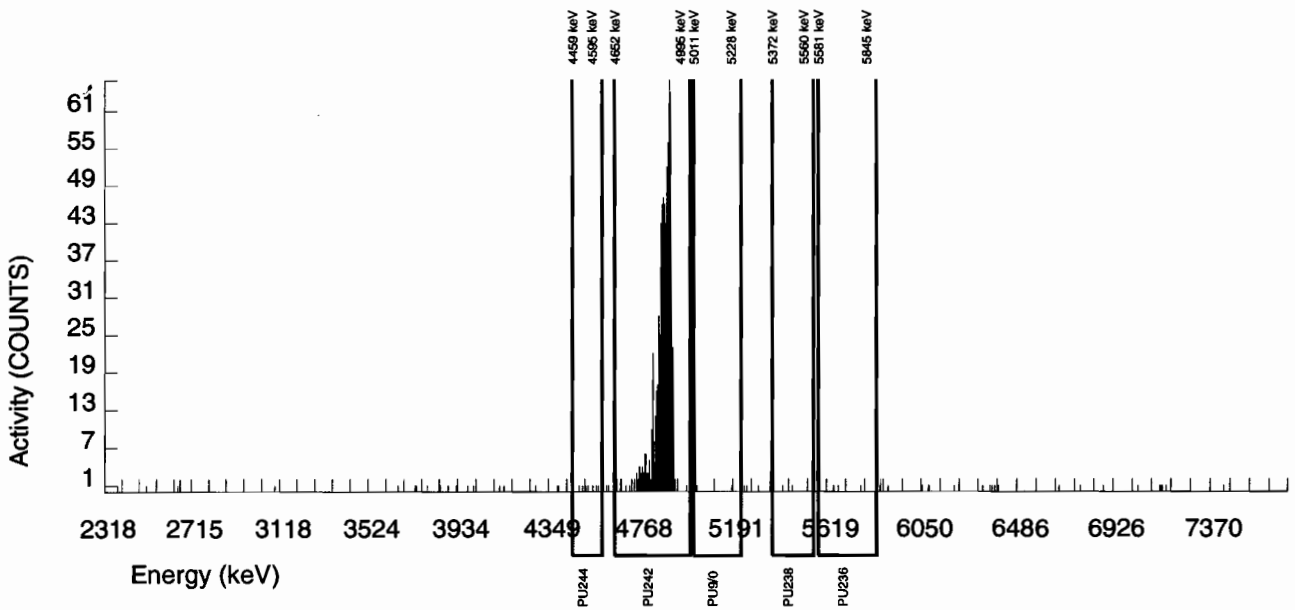
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5706.793	4.947	5.000	-3.000	8.000	2.6925	100.0000	-4.98E-03	5.99E-03	1.03E-02	2.50E-02	5.99E-03
PU-238	5499.000	5425.808	84.091	3.000	3.000	0.000	2.9312	99.90000	4.93E-03	2.86E-03	1.12E-02	2.69E-02	2.85E-03
PU-9/0	5155.000	5139.904	158.288	3.000	3.000	0.000	2.0604	99.90000	4.93E-03	2.86E-03	7.88E-03	2.02E-02	2.85E-03
PU242	4890.000	4876.693	47.862	730.000	730.000	0.000	0.0000	100.0000	1.20E+00	8.06E-02	0.00E+00	4.45E-03	4.43E-02
PU-244	4589.000	4540.873	89.037	7.000	6.000	1.000	3.7241	99.90000	9.86E-03	4.68E-03	1.42E-02	3.29E-02	4.65E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 082	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202035001_PU	DETECTOR S/N : 79997	BKG FILE : B082.CNF;1014
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 32.1841	BKG DATE : 7-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 13-FEB-2010 21:40:56	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.01	EFF FILE : W082.CNF;257
% YIELD : 85.748		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8989E+00 dpm		

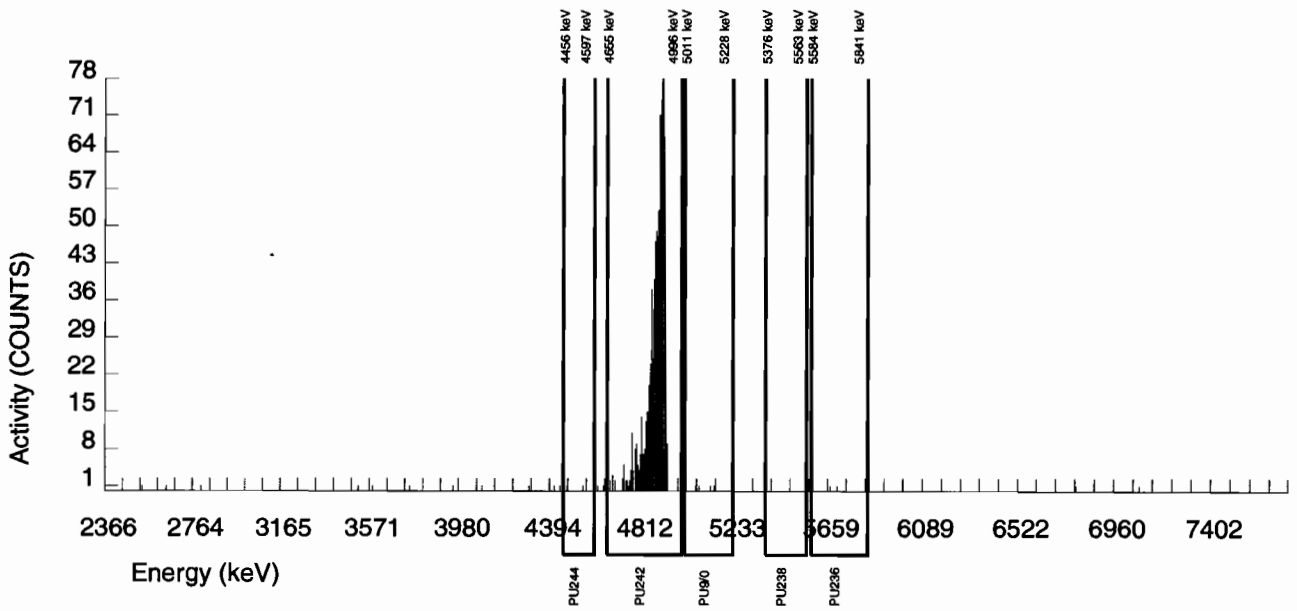
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5690.966	34.596	2.000	1.000	1.000	2.6925	100.0000	1.64E-03	2.84E-03	1.02E-02	2.49E-02	2.84E-03
PU-238	5499.000	5469.501	0.000	0.000	0.000	0.000	2.9312	99.90000	0.00E+00	1.64E-03	1.11E-02	2.67E-02	1.63E-03
PU-9/0	5155.000	5115.829	88.962	5.000	2.000	3.000	2.0604	99.90000	3.27E-03	4.62E-03	7.83E-03	2.01E-02	4.62E-03
PU242	4890.000	4882.608	49.152	934.000	933.000	1.000	1.0000	100.0000	1.52E+00	9.30E-02	3.80E-03	1.20E-02	4.99E-02
PU-244	4589.000	4513.667	74.135	2.000	0.000	2.000	3.7241	99.90000	-7.79E-10	3.27E-03	1.42E-02	3.27E-02	3.27E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 221	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202035002_PU	DETECTOR S/N : 79414	BKG FILE : B221.CNF;80
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 37.5959	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:43:04	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W221.CNF;28
% YIELD : 93.782		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1706E+00 dpm		

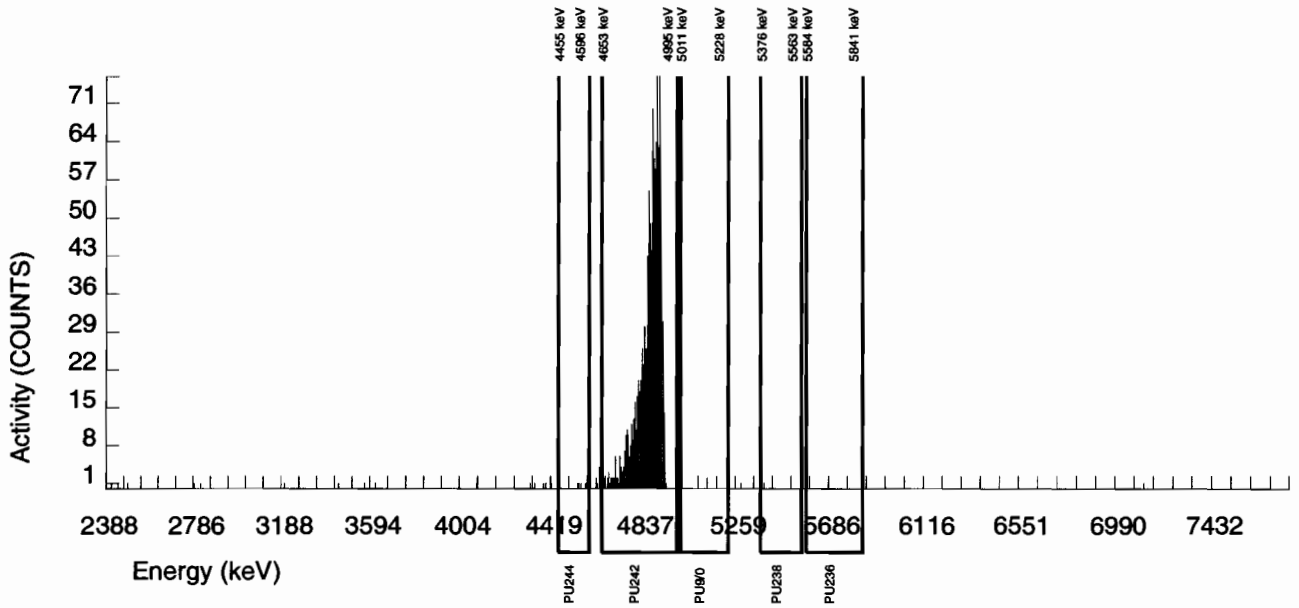
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.673	0.000	0.000	-1.000	1.000	2.6925	100.0000	-1.03E-03	1.46E-03	6.35E-03	1.55E-02	1.46E-03
PU-238	5499.000	5397.583	4.951	1.000	-2.000	3.000	2.9312	99.90000	-2.03E-03	2.03E-03	6.92E-03	1.66E-02	2.03E-03
PU-9/0	5155.000	5137.570	4.951	2.000	2.000	0.000	2.0604	99.90000	2.03E-03	1.44E-03	4.86E-03	1.25E-02	1.44E-03
PU242	4890.000	4875.339	64.164	1192.000	1192.000	0.000	0.0000	100.0000	1.21E+00	6.88E-02	0.00E+00	2.75E-03	3.50E-02
PU-244	4589.000	4552.438	118.817	6.000	6.000	0.000	3.7241	99.90000	6.09E-03	2.50E-03	8.79E-03	2.03E-02	2.49E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 222	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202035003_PU	DETECTOR S/N : 79415	BKG FILE : B222.CNF;80
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 36.0091	BKG DATE : 14-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 18-FEB-2010 18:43:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W222.CNF;28
% YIELD : 98.654		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.3353E+00 dpm		

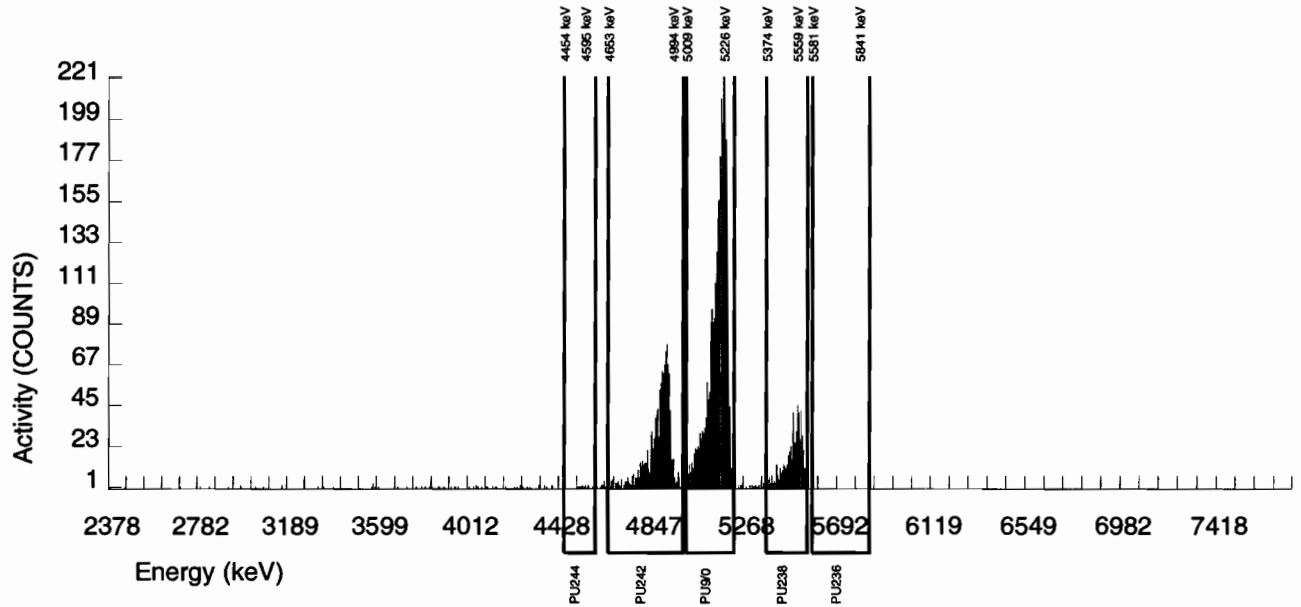
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5710.860	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.24E-02	7.71E-02	1.88E-01	1.24E-02
PU-238	5499.000	5498.090	54.481	569.000	569.000	0.000	2.9312	99.90000	7.01E+00	5.02E-01	8.40E-02	2.01E-01	2.94E-01
PU-9/0	5155.000	5155.416	53.382	2997.000	2996.000	1.000	2.0604	99.90000	3.69E+01	2.25E+00	5.91E-02	1.52E-01	6.75E-01
PU242	4890.000	4886.232	63.509	1201.000	1201.000	0.000	0.0000	100.0000	1.48E+01	9.59E-01	0.00E+00	3.34E-02	4.27E-01
PU-244	4589.000	4535.408	35.247	17.000	17.000	0.000	3.7241	99.90000	2.09E-01	5.22E-02	1.07E-01	2.47E-01	5.08E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Radiochemistry Batch Checklist, Rev10

Batch# 949825 Product: U Date: 2/16/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	X		
Instrument source check is within limits. Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	X		case narrative 02/18/10
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	X		case narrative
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly statused.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 2/16/10

Secondary Review Performed By: 2/18/10

2/13 2/23

CAM

Uranium Que Sheet

05-FEB-10

Batch #: 949825 Analyst: HAKB First Client Due Date:23-FEB-10 Internal Due Date:13-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-11 Expiration Date: 12/9/10 Vol: 0.1

LCS Isotope: U-238 LCS Code: SRM 0244-A Expiration Date: 10/31/20 Vol: 0.101 g

Spike Isotope: U-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/8/10 Initials: HAKB Pipet ID: 20710558 Balance ID: 504102772 Witness: 02/09/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet (Dry) Aliquot (1/1)	U Det #
245955001-1	RE16-10-1474	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	1	1	0.515	119
245955002-1	RE16-10-1475	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	2	2	0.506	120
245960001-1	RE15-10-7309	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	3	3	0.504	121
245960002-1	RE15-10-7308	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	4	4	0.505	122
245960003-1	RE15-10-7315	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	5	5	0.528	123
245960004-1	RE15-10-7317	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	6	6	0.551	124
245960005-1	RE15-10-7319	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	7	7	0.504	125
245960006-1	RE15-10-7312	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	8	8	0.524	126
245960007-1	RE15-10-7313	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	9	9	0.527	127
~~245960008-1~~	~~RE15-10-7314~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~28-JAN-10~~	~~10~~	10	0.526	128
245960009-1	RE15-10-7316	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	11	11	0.515	129
245960010-1	RE15-10-7318	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	12	12	0.508	130
245960011-1	RE15-10-7324	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	13	13	0.507	131
•245978001-1	RE15-10-7880	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	14	14	0.500	132
~~245978002-1~~	~~RE15-10-7891~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~15~~	15	0.545	133
245978003-1	RE15-10-7892	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	16	16	0.506	134
~~245978004-1~~	~~RE15-10-7967~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~17~~	17	0.506	139
245978005-1	RE15-10-7976	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	18	18	0.507	140
245978006-1	RE15-10-7968	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	19	19	0.526	141
245978007-1	RE15-10-7965	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	20	20	0.513	142
1202035005-1	MB for batch 949825	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	21	1.0	143 4
1202035006-1	RE15-10-7880(245978001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	0.504	144
1202035007-1	LCS for batch 949825	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	23	0.101	145

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By:

TIMS

Blank Correction Report

Batch ID 949825

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202035006	DUP	Uranium-233/234	0.504 g	0.691	0.0699	0.090	.039087302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0661	0.0188	0.0574	.007123016	pCi/g	NO
		Uranium-238	0.504 g	1.23	0.109	0.0614	.031746032	pCi/g	NO
1202035007	LCS	Uranium-233/234	0.101 g	5.82	0.576	0.517	.195049505	pCi/g	NO
		Uranium-235/236	0.101 g	0.329	0.0949	0.329	.035544554	pCi/g	NO
		Uranium-238	0.101 g	6.82	0.657	0.353	.158415842	pCi/g	NO
1202035005	MB	Uranium-233/234	1.00 g	0.0197	0.00624	0.0366	.0197	pCi/g	YES
		Uranium-235/236	1.00 g	0.00359	0.0036	0.0234	.00359	pCi/g	YES
		Uranium-238	1.00 g	0.016	0.00535	0.025	.016	pCi/g	YES
245955001	RE16-10-1474	Uranium-233/234	0.515 g	0.903	0.0837	0.0835	.038252427	pCi/g	NO
		Uranium-235/236	0.515 g	0.0491	0.0146	0.0533	.006970874	pCi/g	NO
		Uranium-238	0.515 g	0.821	0.0779	0.057	.031067961	pCi/g	NO
245955002	RE16-10-1475	Uranium-233/234	0.506 g	0.710	0.0698	0.0854	.038932806	pCi/g	NO
		Uranium-235/236	0.506 g	0.046	0.0142	0.0544	.007094862	pCi/g	NO
		Uranium-238	0.506 g	0.819	0.078	0.0583	.031620553	pCi/g	NO
245960001	RE15-10-7309	Uranium-233/234	0.504 g	1.07	0.098	0.0919	.039087302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0405	0.0165	0.0586	.007123016	pCi/g	NO
		Uranium-238	0.504 g	1.07	0.0984	0.0628	.031746032	pCi/g	NO
245960002	RE15-10-7308	Uranium-233/234	0.505 g	3.62	0.285	0.102	.039009901	pCi/g	NO
		Uranium-235/236	0.505 g	0.215	0.0363	0.0652	.007108911	pCi/g	NO
		Uranium-238	0.505 g	4.59	0.354	0.0699	.031683168	pCi/g	NO
245960003	RE15-10-7315	Uranium-233/234	0.528 g	1.07	0.0962	0.0857	.037310606	pCi/g	NO
		Uranium-235/236	0.528 g	0.0714	0.018	0.0547	.006799242	pCi/g	NO
		Uranium-238	0.528 g	1.25	0.110	0.0585	.030303030	pCi/g	NO
245960004	RE15-10-7317	Uranium-233/234	0.551 g	1.09	0.0962	0.0794	.035753176	pCi/g	NO
		Uranium-235/236	0.551 g	0.0777	0.0182	0.0506	.006515426	pCi/g	NO
		Uranium-238	0.551 g	1.17	0.102	0.0542	.029038113	pCi/g	NO
245960005	RE15-10-7319	Uranium-233/234	0.504 g	1.38	0.120	0.0898	.039087302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0924	0.0212	0.0573	.007123016	pCi/g	NO
		Uranium-238	0.504 g	1.49	0.128	0.0613	.031746032	pCi/g	NO
245960006	RE15-10-7312	Uranium-233/234	0.524 g	7.59	0.565	0.0951	.037595420	pCi/g	NO
		Uranium-235/236	0.524 g	0.405	0.0521	0.0606	.006851145	pCi/g	NO
		Uranium-238	0.524 g	7.64	0.568	0.0649	.030534351	pCi/g	NO
245960007	RE15-10-7313	Uranium-233/234	0.526 g	0.984	0.0917	0.091	.037452471	pCi/g	NO
		Uranium-235/236	0.526 g	0.102	0.0226	0.058	.006825095	pCi/g	NO
		Uranium-238	0.526 g	1.17	0.105	0.0621	.030418251	pCi/g	NO
245960009	RE15-10-7316	Uranium-233/234	0.515 g	2.05	0.172	0.101	.038252427	pCi/g	NO
		Uranium-235/236	0.515 g	0.108	0.0244	0.0641	.006970874	pCi/g	NO
		Uranium-238	0.515 g	2.95	0.237	0.0686	.031067961	pCi/g	NO
245960010	RE15-10-7318	Uranium-233/234	0.508 g	4.65	0.349	0.0859	.038779528	pCi/g	NO
		Uranium-235/236	0.508 g	0.252	0.0371	0.0547	.007066929	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245960010	RE15-10-7318	Uranium-238	0.508 g	7.77	0.568	0.0586	.031496063	pCi/g	NO
245960011	RE15-10-7324	Uranium-233/234	0.507 g	1.04	0.0977	0.0995	.038856016	pCi/g	NO
		Uranium-235/236	0.507 g	0.0682	0.0189	0.0634	.007080868	pCi/g	NO
		Uranium-238	0.507 g	1.06	0.0996	0.0679	.031558185	pCi/g	NO
245978001	RE15-10-7880	Uranium-233/234	0.500 g	0.753	0.0791	0.112	.0394	pCi/g	NO
		Uranium-235/236	0.500 g	0.0219	0.0111	0.0713	.00718	pCi/g	YES
		Uranium-238	0.500 g	0.957	0.0946	0.0763	.032	pCi/g	NO
245978003	RE15-10-7892	Uranium-233/234	0.506 g	1.17	0.105	0.0911	.038932806	pCi/g	NO
		Uranium-235/236	0.506 g	0.0803	0.0207	0.0581	.007094862	pCi/g	NO
		Uranium-238	0.506 g	2.42	0.195	0.0622	.031620553	pCi/g	NO
245978005	RE15-10-7976	Uranium-233/234	0.507 g	0.969	0.0899	0.0893	.038856016	pCi/g	NO
		Uranium-235/236	0.507 g	0.0612	0.018	0.0569	.007080868	pCi/g	NO
		Uranium-238	0.507 g	2.16	0.175	0.061	.031558185	pCi/g	NO
245978006	RE15-10-7968	Uranium-233/234	0.526 g	3.24	0.257	0.0893	.037452471	pCi/g	NO
		Uranium-235/236	0.526 g	0.363	0.0477	0.0569	.006825095	pCi/g	NO
		Uranium-238	0.526 g	19.4	1.42	0.061	.030418251	pCi/g	NO
245978007	RE15-10-7965	Uranium-233/234	0.513 g	8.51	0.630	0.0947	.038401559	pCi/g	NO
		Uranium-235/236	0.513 g	0.830	0.0856	0.0604	.006998051	pCi/g	NO
		Uranium-238	0.513 g	35.3	2.53	0.0647	.031189084	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 121	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960001_UU	DETECTOR S/N : 75545	BKG FILE : B121.CNF;444
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 24.4776	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:31	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W121.CNF;117
% YIELD : 100.229		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5165E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

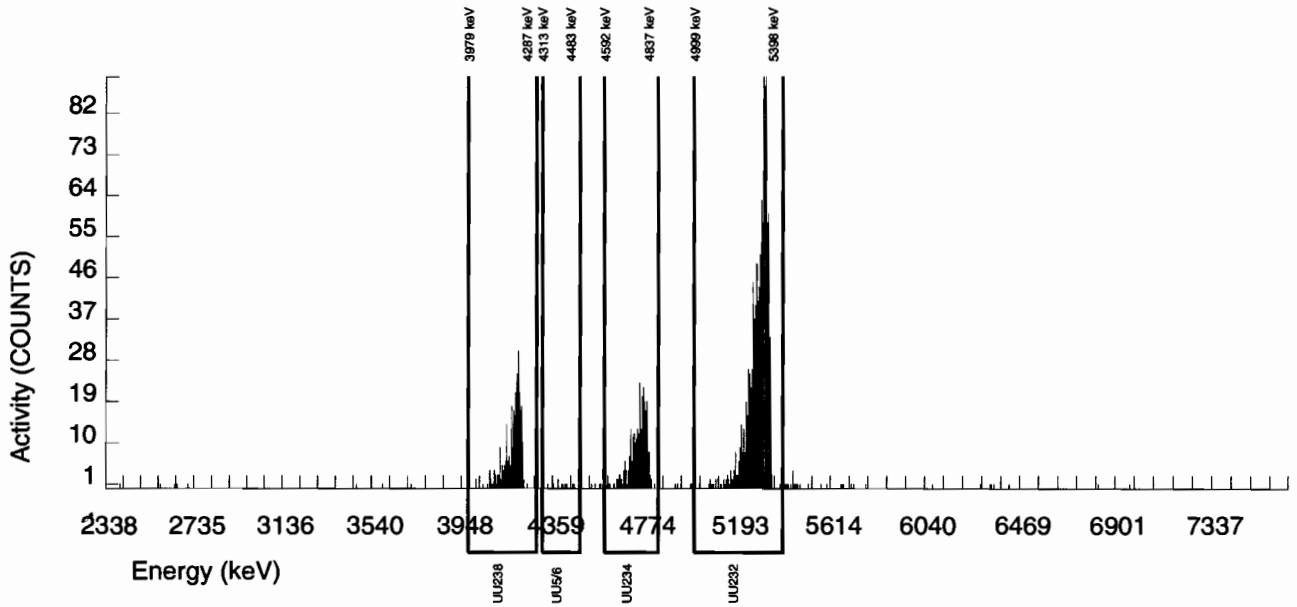
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5293.827	53.168	1110.000	1105.000	5.000	2.2361	100.0000	4.03E+00	3.09E-01	1.90E-02	4.78E-02	1.22E-01
U-3/4	4763.020	4748.750	76.002	295.000	293.882	0.000	4.8416	100.0000	1.07E+00	9.80E-02	4.10E-02	9.19E-02	6.25E-02
U-235	4391.000	4409.940	4.944	11.000	9.000	2.000	2.2152	80.90000	4.05E-02	1.65E-02	2.32E-02	5.86E-02	1.62E-02
U-238	4184.730	4182.952	47.416	296.000	295.000	1.000	3.1208	100.0000	1.07E+00	9.84E-02	2.64E-02	6.28E-02	6.28E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 122	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960002_UU	DETECTOR S/N : 75546	BKG FILE : B122.CNF;446
SAMPLE QTY : 0.505 G	AVERAGE %EFFICIENCY : 24.9662	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W122.CNF;120
% YIELD : 88.129		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9713E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

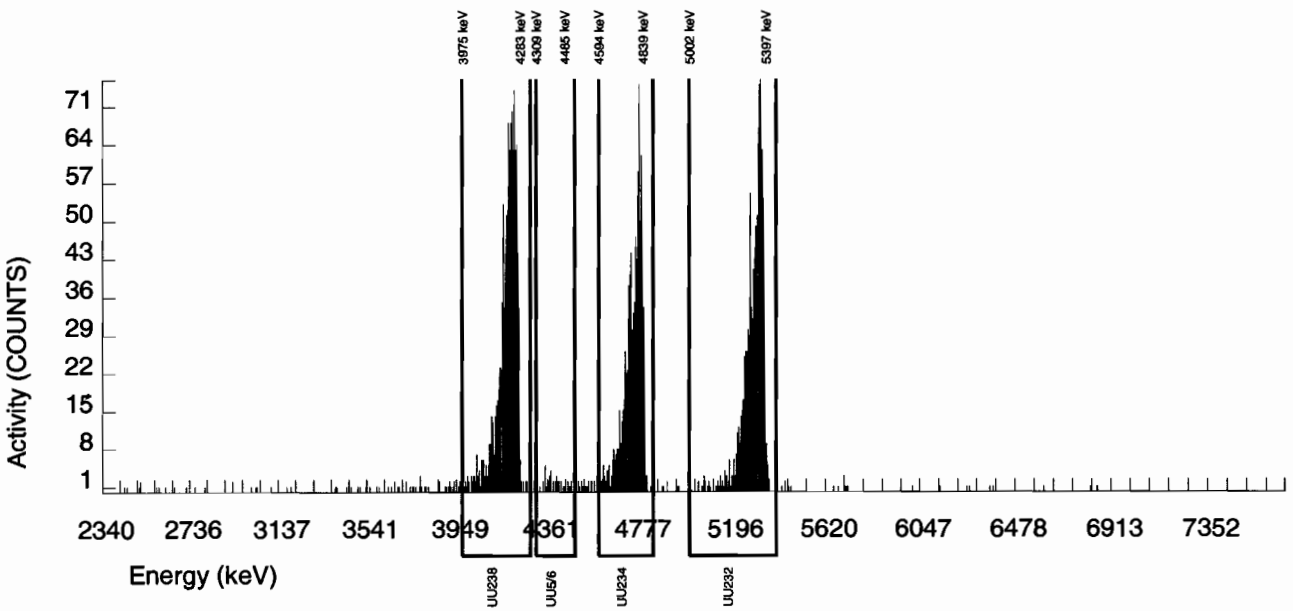
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5297.630	62.097	994.000	991.000	3.000	1.7321	100.0000	4.02E+00	3.14E-01	1.63E-02	4.37E-02	1.28E-01
U-3/4	4763.020	4754.126	63.363	895.000	893.997	0.000	4.8416	100.0000	3.62E+00	2.85E-01	4.57E-02	1.02E-01	1.21E-01
U-235	4391.000	4398.660	54.218	43.000	43.000	0.000	2.2152	80.90000	2.15E-01	3.63E-02	2.58E-02	6.52E-02	3.29E-02
U-238	4184.730	4181.466	71.962	1132.000	1132.000	0.000	3.1208	100.0000	4.59E+00	3.54E-01	2.94E-02	6.99E-02	1.36E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 123	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960003_UU	DETECTOR S/N : 45-142V3	BKG FILE : B123.CNF;444
SAMPLE QTY : 0.528 G	AVERAGE %EFFICIENCY : 25.9975	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:36	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W123.CNF;116
% YIELD : 96.589		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3525E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

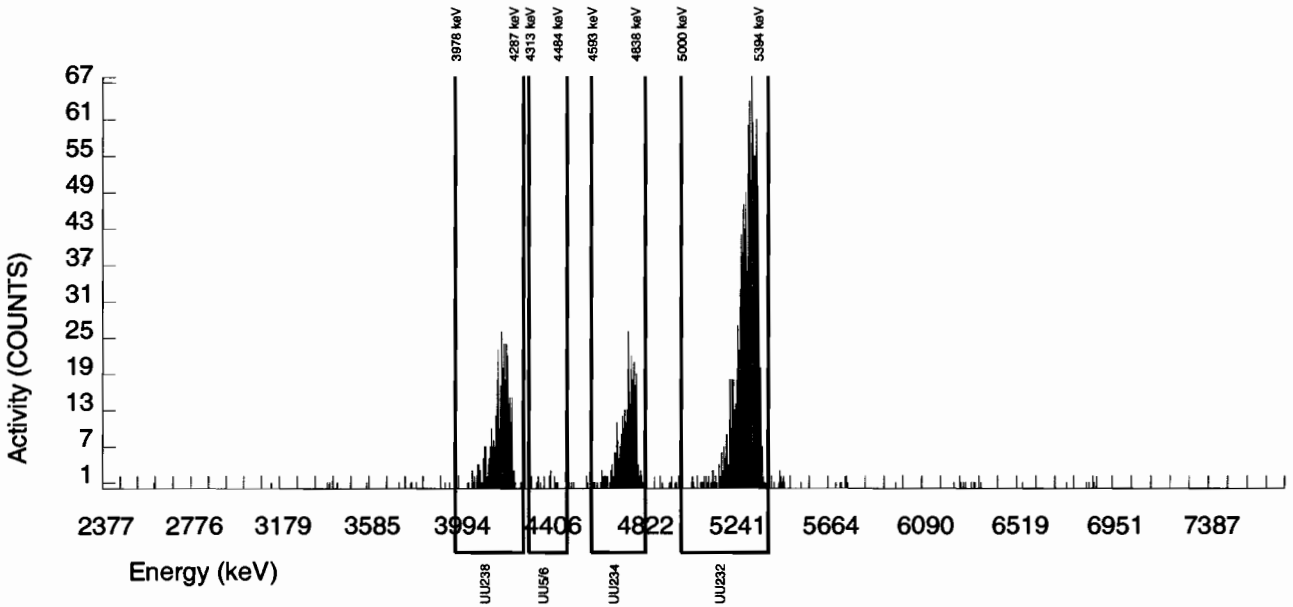
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.394	80.053	1136.000	1131.000	5.000	2.2361	100.0000	3.84E+00	2.94E-01	1.77E-02	4.46E-02	1.15E-01
U-3/4	4763.020	4757.407	43.045	315.000	313.855	0.000	4.8416	100.0000	1.07E+00	9.62E-02	3.83E-02	8.57E-02	6.02E-02
U-235	4391.000	4394.528	74.416	17.000	17.000	0.000	2.2152	80.90000	7.14E-02	1.80E-02	2.16E-02	5.47E-02	1.73E-02
U-238	4184.730	4185.093	69.524	369.000	368.000	1.000	3.1208	100.0000	1.25E+00	1.10E-01	2.47E-02	5.85E-02	6.54E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 124	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960004_UU	DETECTOR S/N : 45-142V2	BKG FILE : B124.CNF;440
SAMPLE QTY : 0.551 G	AVERAGE %EFFICIENCY : 25.8260	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:38	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W124.CNF;112
% YIELD : 100.670		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5363E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

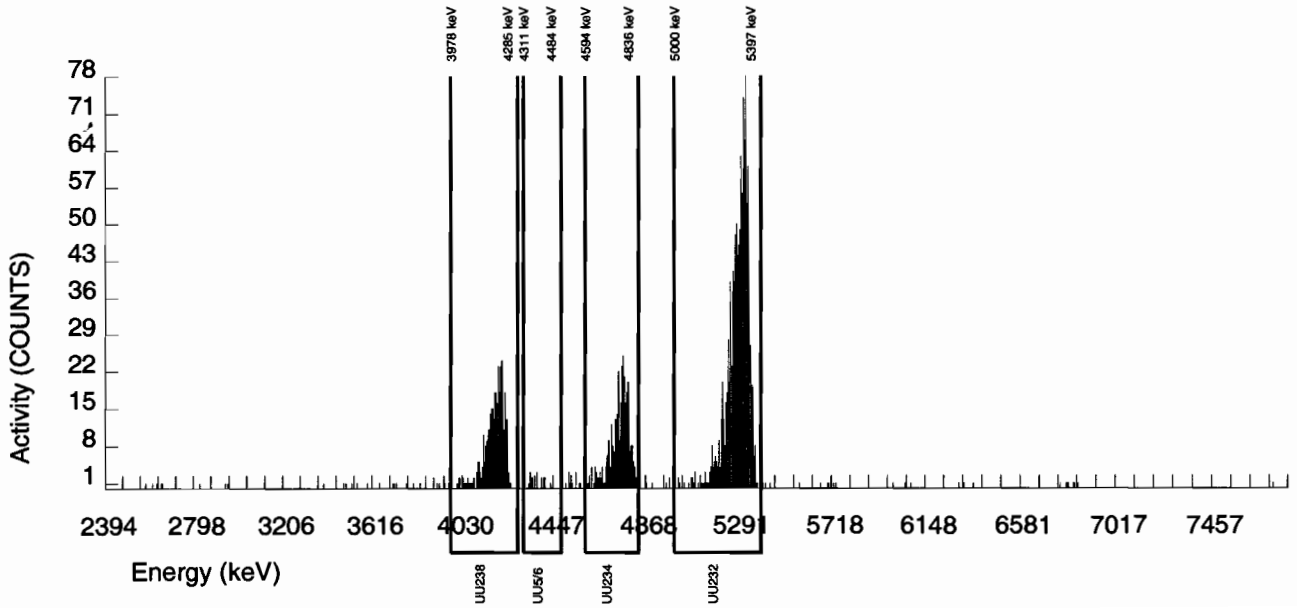
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.283	73.409	1176.000	1171.000	5.000	2.2361	100.0000	3.68E+00	2.80E-01	1.64E-02	4.12E-02	1.08E-01
U-3/4	4763.020	4754.241	62.322	348.000	345.815	1.000	4.8416	100.0000	1.09E+00	9.62E-02	3.54E-02	7.94E-02	5.86E-02
U-235	4391.000	4376.376	70.351	20.000	20.000	0.000	2.2152	80.90000	7.77E-02	1.82E-02	2.00E-02	5.06E-02	1.74E-02
U-238	4184.730	4182.790	78.860	373.000	373.000	0.000	3.1208	100.0000	1.17E+00	1.02E-01	2.28E-02	5.42E-02	6.07E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 125	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960005_UU	DETECTOR S/N : 75547	BKG FILE : B125.CNF;450
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 25.8749	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W125.CNF;130
% YIELD : 97.047		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3731E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

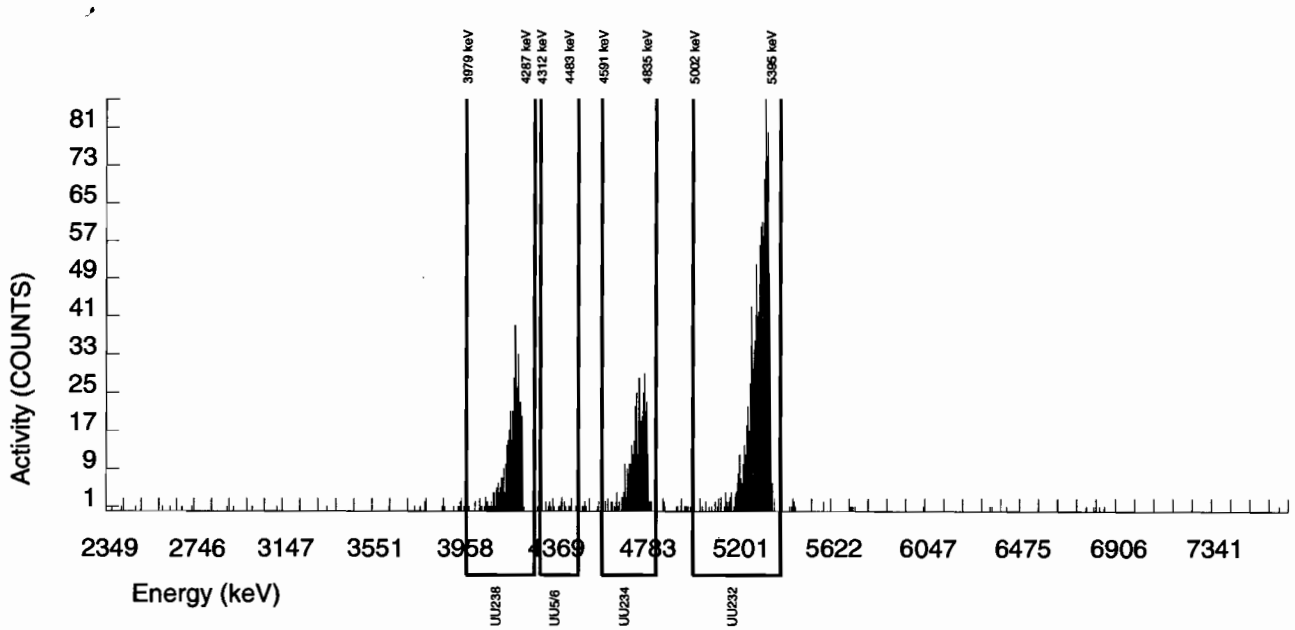
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.868	58.757	1135.000	1131.000	4.000	2.0000	100.0000	4.03E+00	3.08E-01	1.66E-02	4.28E-02	1.20E-01
U-3/4	4763.020	4755.204	58.846	392.000	388.855	2.000	4.8416	100.0000	1.38E+00	1.20E-01	4.01E-02	8.98E-02	7.05E-02
U-235	4391.000	4405.476	82.338	21.000	21.000	0.000	2.2152	80.90000	9.24E-02	2.12E-02	2.27E-02	5.73E-02	2.02E-02
U-238	4184.730	4189.251	51.342	422.000	419.000	3.000	3.1208	100.0000	1.49E+00	1.28E-01	2.58E-02	6.13E-02	7.34E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 126	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960006_UU	DETECTOR S/N : 75548	BKG FILE : B126.CNF;449
SAMPLE QTY : 0.524 G	AVERAGE %EFFICIENCY : 25.0717	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W126.CNF;132
% YIELD : 91.035		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1022E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

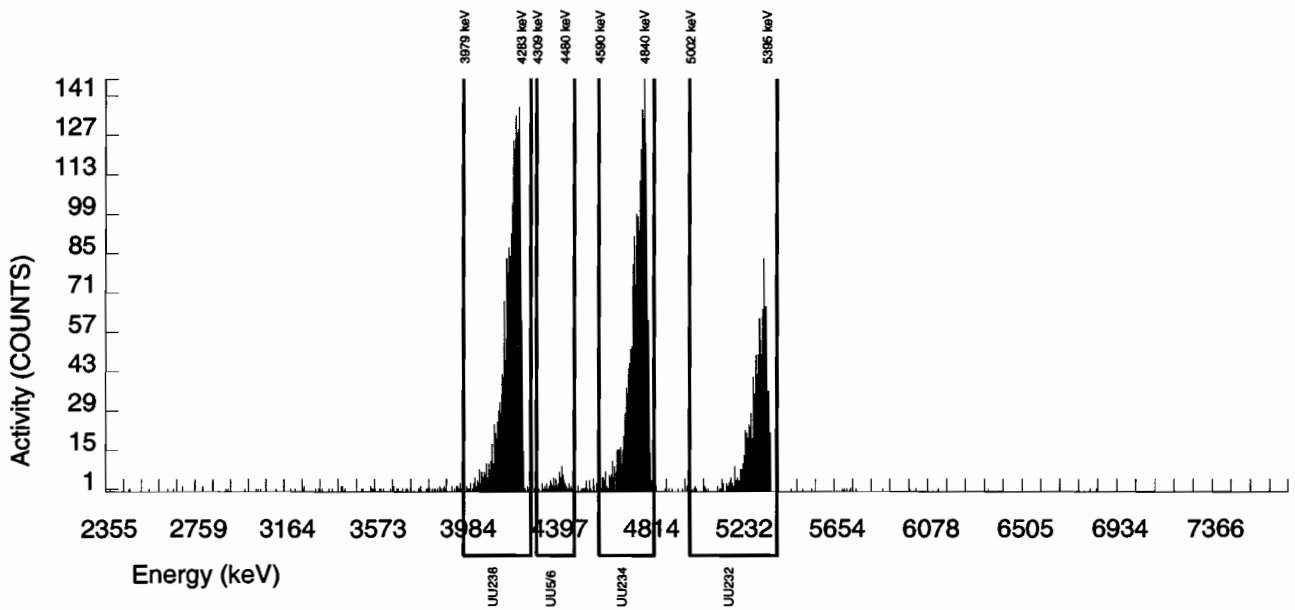
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.694	54.495	1030.000	1028.000	2.000	1.4142	100.0000	3.87E+00	3.00E-01	1.24E-02	3.50E-02	1.21E-01
U-3/4	4763.020	4768.599	65.210	2017.000	2015.960	0.000	4.8416	100.0000	7.59E+00	5.65E-01	4.24E-02	9.51E-02	1.69E-01
U-235	4391.000	4407.121	44.756	87.000	87.000	0.000	2.2152	80.90000	4.05E-01	5.21E-02	2.40E-02	6.06E-02	4.34E-02
U-238	4184.730	4195.765	66.210	2029.000	2029.000	0.000	3.1208	100.0000	7.64E+00	5.68E-01	2.73E-02	6.49E-02	1.70E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 127	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960007_UU	DETECTOR S/N : 78770	BKG FILE : B127.CNF;453
SAMPLE QTY : 0.526 G	AVERAGE %EFFICIENCY : 24.3481	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W127.CNF;123
% YIELD : 97.570		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3967E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

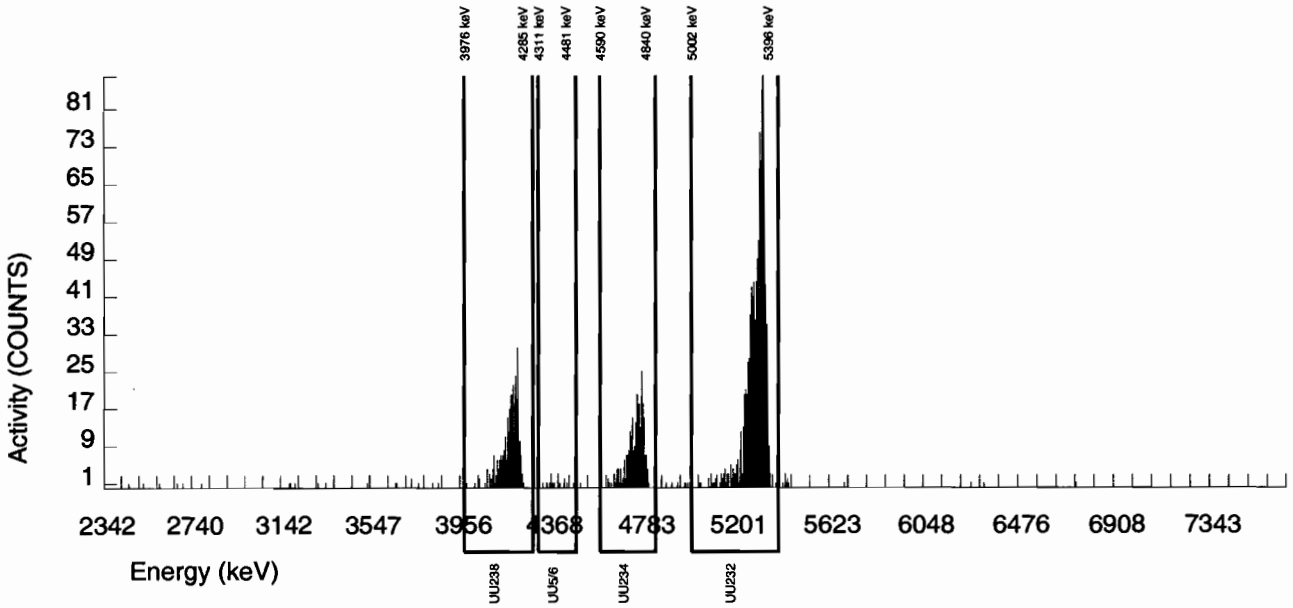
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.030	38.714	1070.000	1070.000	0.000	0.0000	100.0000	3.86E+00	2.97E-01	0.00E+00	9.77E-03	1.18E-01
U-3/4	4763.020	4751.324	54.103	275.000	272.917	1.000	4.8416	100.0000	9.84E-01	9.17E-02	4.06E-02	9.10E-02	5.98E-02
U-235	4391.000	4400.919	0.000	23.000	23.000	0.000	2.2152	80.90000	1.02E-01	2.26E-02	2.30E-02	5.80E-02	2.14E-02
U-238	4184.730	4184.127	40.708	324.000	324.000	0.000	3.1208	100.0000	1.17E+00	1.05E-01	2.62E-02	6.21E-02	6.49E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 129	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960009_UU	DETECTOR S/N : 76227	BKG FILE : B129.CNF;448
SAMPLE QTY : 0.515 G	AVERAGE %EFFICIENCY : 26.4183	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:49	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W129.CNF;128
% YIELD : 83.117		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.7454E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

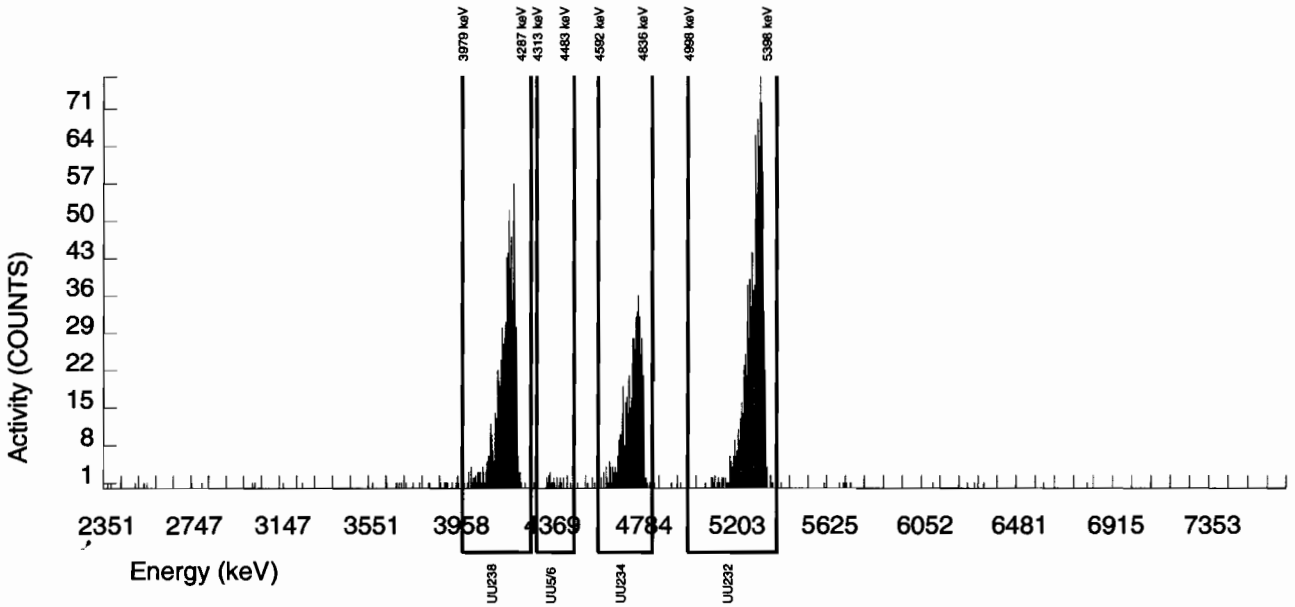
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5297.276	58.184	992.000	989.000	3.000	1.7321	100.0000	3.94E+00	3.08E-01	1.61E-02	4.29E-02	1.26E-01
U-3/4	4763.020	4748.085	85.818	518.000	514.999	2.000	4.8416	100.0000	2.05E+00	1.72E-01	4.49E-02	1.01E-01	9.07E-02
U-235	4391.000	4398.626	76.395	22.000	22.000	0.000	2.2152	80.90000	1.08E-01	2.43E-02	2.54E-02	6.41E-02	2.31E-02
U-238	4184.730	4176.354	61.031	741.000	741.000	0.000	3.1208	100.0000	2.95E+00	2.37E-01	2.89E-02	6.86E-02	1.08E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 130	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960010_UU	DETECTOR S/N : 76228	BKG FILE : B130.CNF;448
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 24.7378	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W130.CNF;130
% YIELD : 105.367		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.7480E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

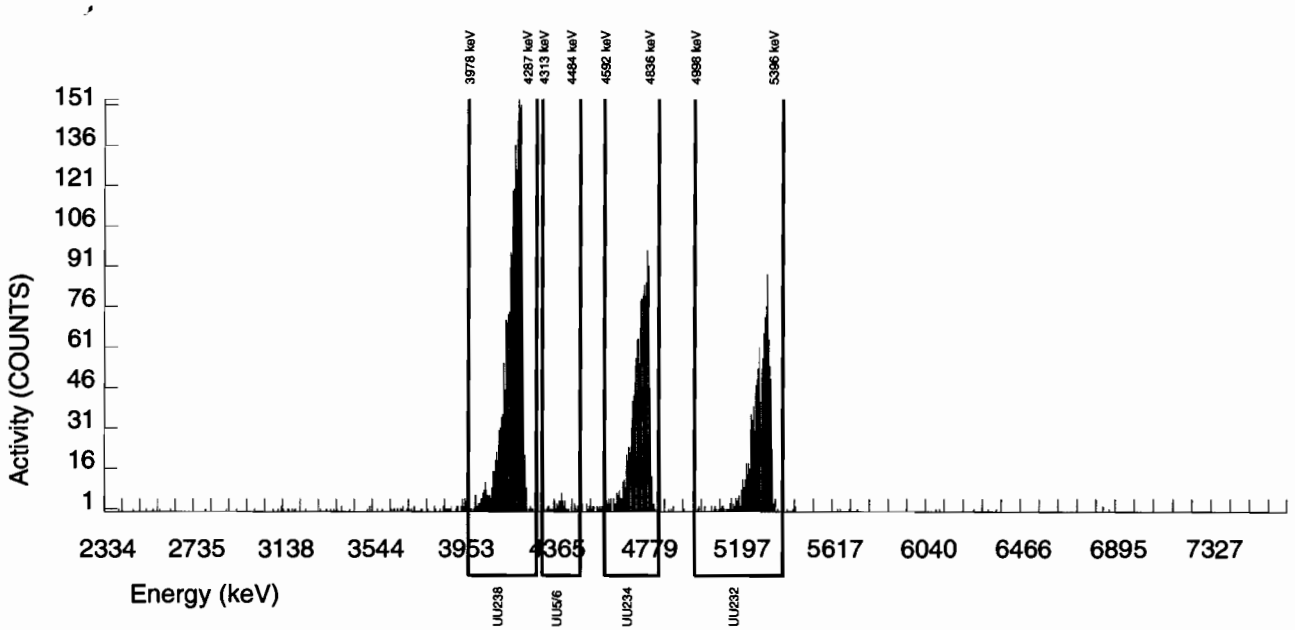
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5296.821	66.496	1176.000	1174.000	2.000	1.4142	100.0000	4.00E+00	3.04E-01	1.12E-02	3.16E-02	1.17E-01
U-3/4	4763.020	4754.508	64.194	1369.000	1366.812	1.000	4.8416	100.0000	4.65E+00	3.49E-01	3.83E-02	8.59E-02	1.26E-01
U-235	4391.000	4399.582	46.546	60.000	60.000	0.000	2.2152	80.90000	2.52E-01	3.71E-02	2.17E-02	5.47E-02	3.26E-02
U-238	4184.730	4181.849	60.749	2283.000	2283.000	0.000	3.1208	100.0000	7.77E+00	5.68E-01	2.47E-02	5.86E-02	1.63E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 131	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960011_UU	DETECTOR S/N : 80008	BKG FILE : B131.CNF;446
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 25.6996	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:55	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W131.CNF;132
% YIELD : 87.688		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9513E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

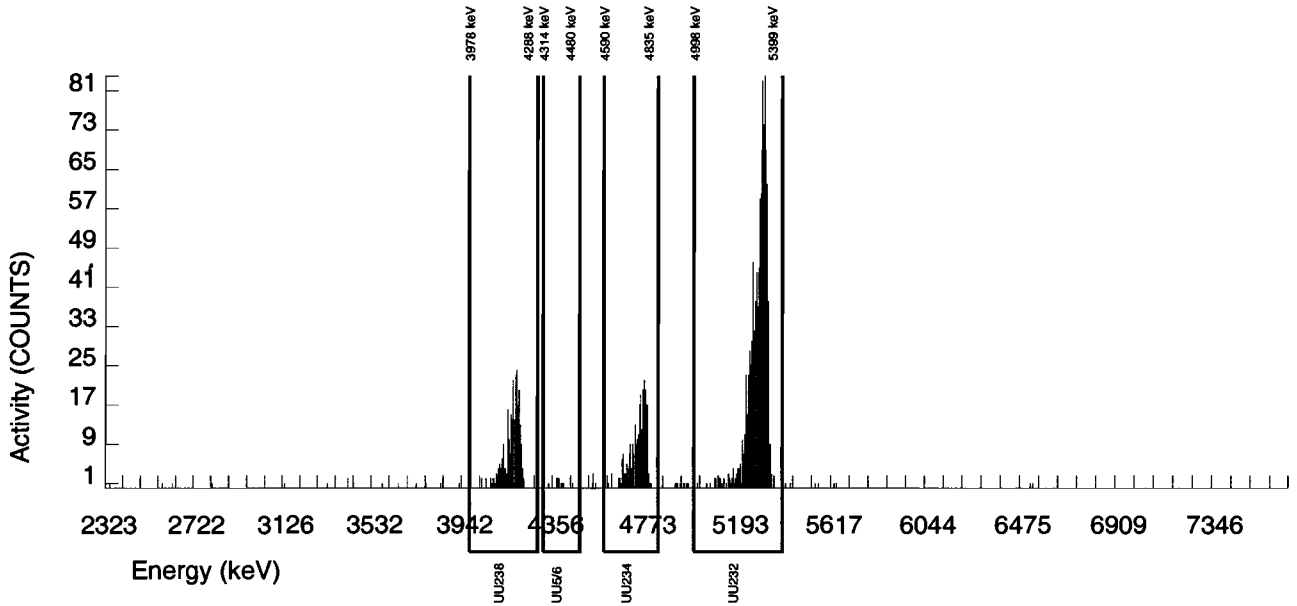
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5293.502	65.054	1016.000	1015.000	1.000	1.0000	100.0000	4.00E+00	3.11E-01	9.17E-03	2.90E-02	1.26E-01
U-3/4	4763.020	4748.377	58.029	265.000	262.973	1.000	4.8416	100.0000	1.04E+00	9.77E-02	4.44E-02	9.95E-02	6.42E-02
U-235	4391.000	4381.173	14.300	14.000	14.000	0.000	2.2152	80.90000	6.82E-02	1.89E-02	2.51E-02	6.34E-02	1.82E-02
U-238	4184.730	4175.612	57.030	270.000	270.000	0.000	3.1208	100.0000	1.06E+00	9.96E-02	2.86E-02	6.79E-02	6.48E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 132	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978001_UU	DETECTOR S/N : 67579	BKG FILE : B132.CNF;440
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 24.9091	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W132.CNF;130
% YIELD : 81.646		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6792E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

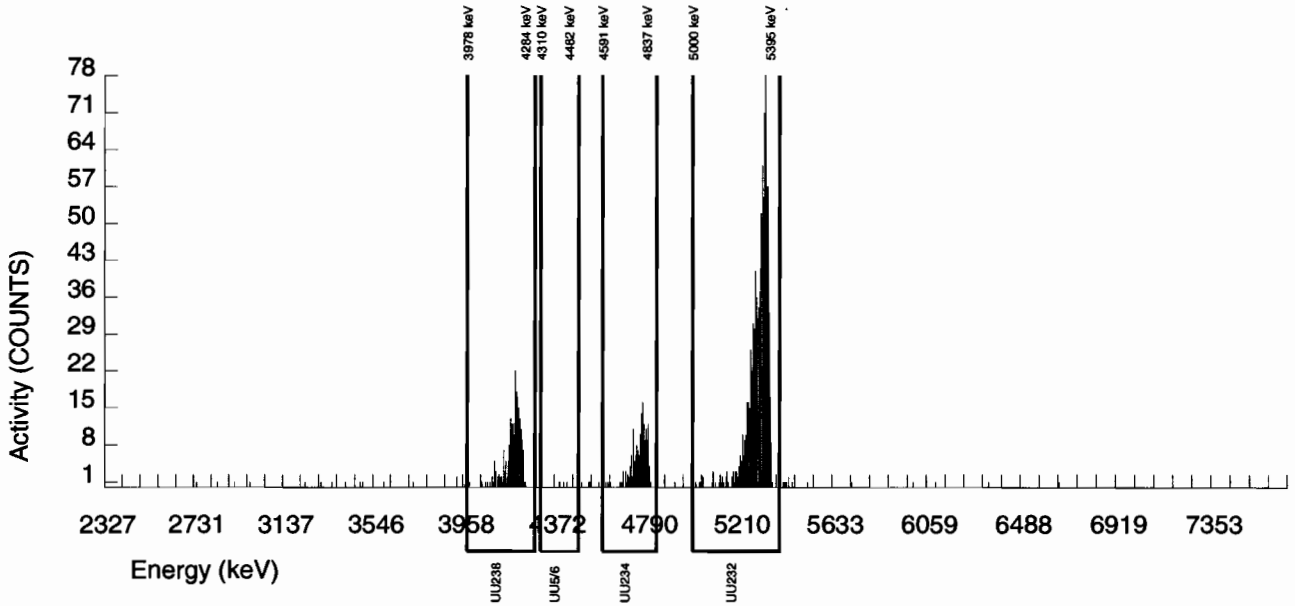
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.428	59.667	916.000	916.000	0.000	0.0000	100.0000	4.06E+00	3.21E-01	0.00E+00	1.20E-02	1.34E-01
U-3/4	4763.020	4762.426	69.464	171.000	170.073	0.000	4.8416	100.0000	7.53E-01	7.91E-02	4.99E-02	1.12E-01	5.78E-02
U-235	4391.000	4413.984	39.572	4.000	4.000	0.000	2.2152	80.90000	2.19E-02	1.11E-02	2.82E-02	7.13E-02	1.10E-02
U-238	4184.730	4189.479	46.356	216.000	216.000	0.000	3.1208	100.0000	9.57E-01	9.46E-02	3.22E-02	7.63E-02	6.51E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 004	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202035005_UU	DETECTOR S/N : 68548	BKG FILE : B004.CNF;1119
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 30.4786	BKG DATE : 14-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 15-FEB-2010 21:17:42	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W004.CNF;330
% YIELD : 101.771		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5846E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

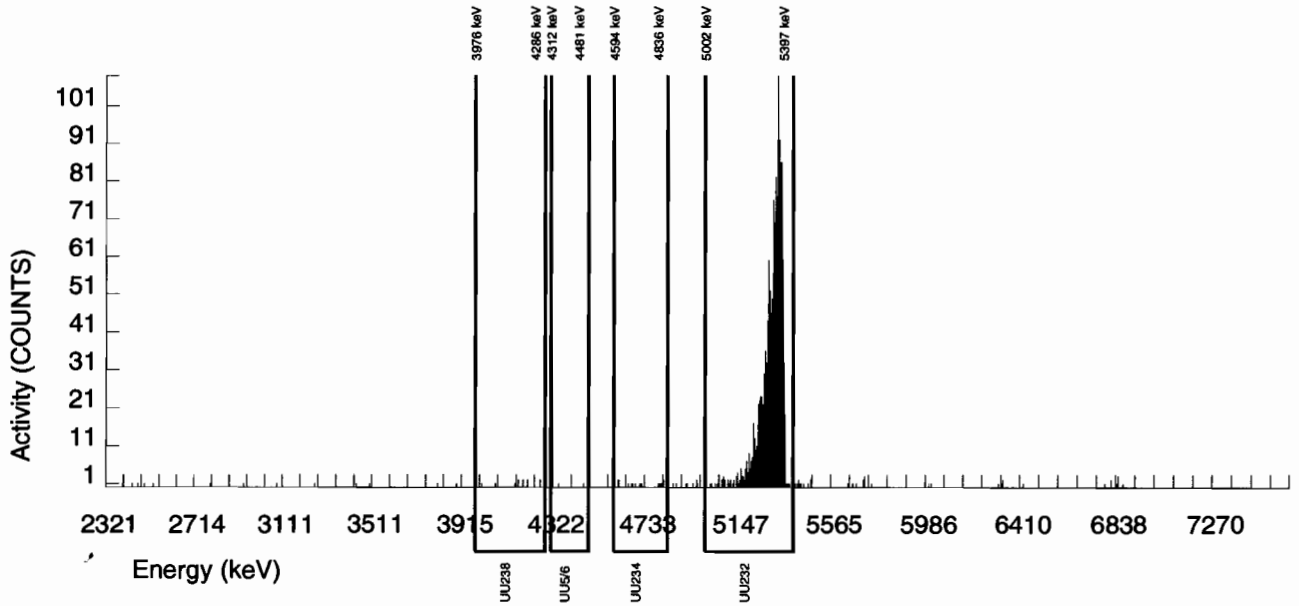
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.982	61.273	1402.000	1397.000	5.000	2.2361	100.0000	2.03E+00	1.50E-01	7.55E-03	1.90E-02	5.45E-02
U-3/4	4763.020	4721.488	200.062	17.000	13.586	2.000	4.8416	100.0000	1.97E-02	6.24E-03	1.64E-02	3.66E-02	6.09E-03
U-235	4391.000	4376.544	0.000	3.000	2.000	1.000	2.2152	80.90000	3.59E-03	3.60E-03	9.25E-03	2.34E-02	3.59E-03
U-238	4184.730	4182.872	97.890	12.000	11.000	1.000	3.1208	100.0000	1.60E-02	5.35E-03	1.05E-02	2.50E-02	5.24E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 144	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202035006_UU	DETECTOR S/N : 75551	BKG FILE : B144.CNF;393
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 25.1526	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:25:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W144.CNF;106
% YIELD : 99.657		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4909E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

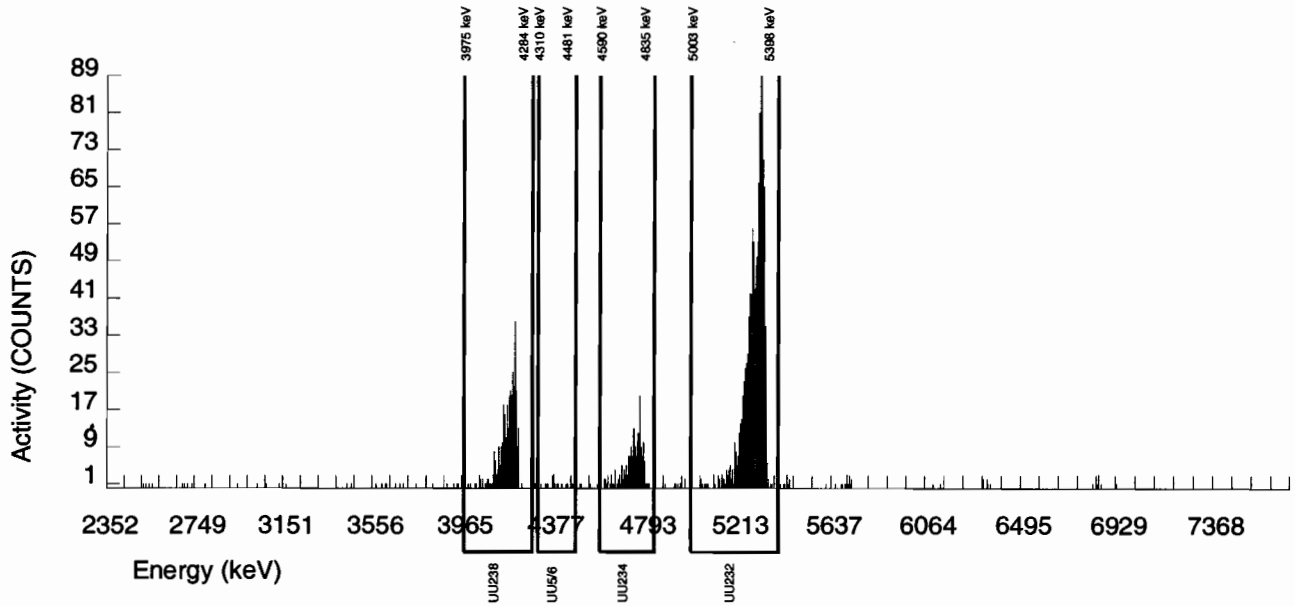
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5294.750	56.886	1134.000	1129.000	5.000	2.2361	100.0000	4.03E+00	3.08E-01	1.85E-02	4.68E-02	1.20E-01
U-3/4	4763.020	4744.952	36.624	197.000	193.857	2.000	4.8416	100.0000	6.91E-01	6.99E-02	4.02E-02	9.00E-02	5.02E-02
U-235	4391.000	4396.632	6.134	16.000	15.000	1.000	2.2152	80.90000	6.61E-02	1.88E-02	2.27E-02	5.74E-02	1.82E-02
U-238	4184.730	4177.830	32.338	346.000	344.000	2.000	3.1208	100.0000	1.23E+00	1.09E-01	2.59E-02	6.14E-02	6.65E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 145	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202035007_UU	DETECTOR S/N : 72526	BKG FILE : B145.CNF;391
SAMPLE QTY : 0.101 G	AVERAGE %EFFICIENCY : 24.9580	BKG DATE : 7-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 13-FEB-2010 21:25:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W145.CNF;111
% YIELD : 87.269		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9313E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

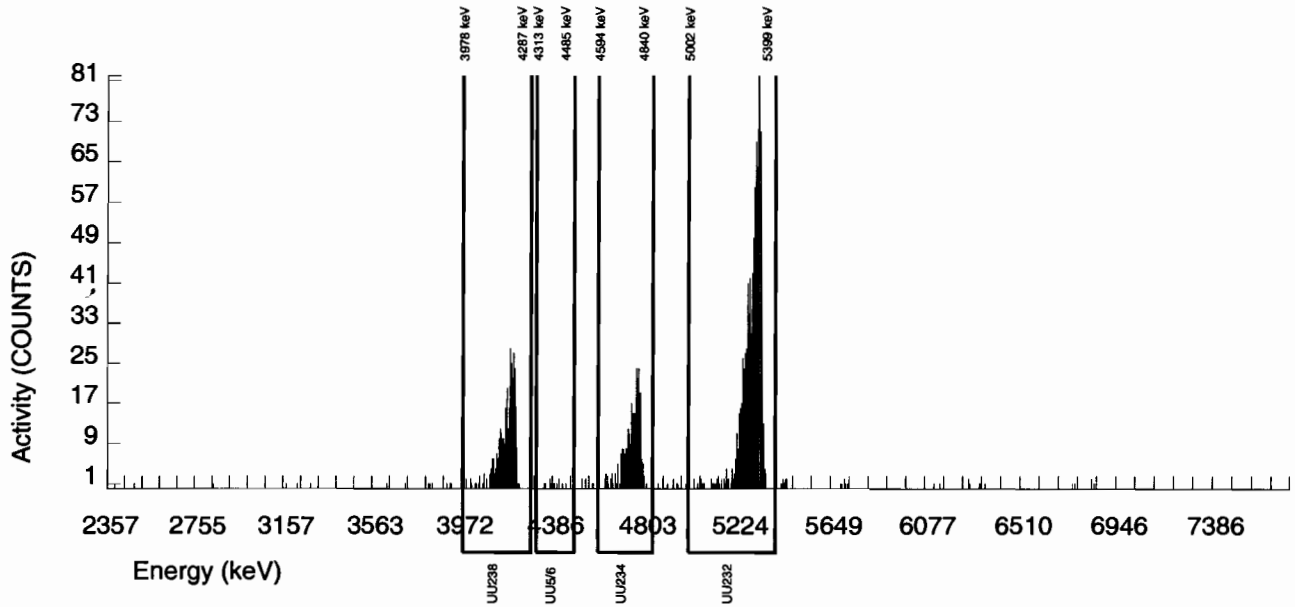
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5297.035	51.621	984.000	981.000	3.000	1.7321	100.0000	2.01E+01	1.72E+00	8.25E-02	2.21E-01	6.43E-01
U-3/4	4763.020	4751.526	45.112	286.000	284.007	1.000	4.8416	100.0000	5.82E+00	5.76E-01	2.31E-01	5.17E-01	3.46E-01
U-235	4391.000	4393.771	44.478	13.000	13.000	0.000	2.2152	80.90000	3.29E-01	9.49E-02	1.30E-01	3.29E-01	9.13E-02
U-238	4184.730	4178.924	46.672	334.000	333.000	1.000	3.1208	100.0000	6.82E+00	6.57E-01	1.49E-01	3.53E-01	3.75E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



1 1

Radiochemistry Batch Checklist, Rev10

Batch# 954007 Product: U Date: 2/24/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/24/10

Secondary Review Performed By: [signature] 2/24/10

3/2

Uranium Que Sheet

16-FEB-10

Batch #: 954007 Analyst: HAKB First Client Due Date:02-MAR-10 Internal Due Date24-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1

LCS Isotope: U-238 LCS Code: SRM 0244-A Expiration Date: 10/31/20 Vol: 0.103 g

Spike Isotope: U-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/17/10 Initials: HAKB Pipet ID: 2971058 Balance ID: 19350208 Witness: [illegible] 02/17/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) l/f)	U Det #
245960008-3	RE15-10-7314	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	1	1	0.503	145
1202045181-1	MB for batch 954007	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		2	2		164
1202045182-3	RE15-10-7314(245960008DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	28-JAN-10	3	3	0.505	146
1202045183-1	LCS for batch 954007	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		4	4	0.103	147

SRM 0244-A

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [signature] 2/24/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 954007

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202045182	DUP	Uranium-233/234	0.505 g	2.88	0.228	0.0926	.036633663	pCi/g	NO
		Uranium-235/236	0.505 g	0.136	0.0266	0.059	0	pCi/g	NO
		Uranium-238	0.505 g	3.16	0.248	0.0632	.015821782	pCi/g	NO
1202045183	LCS	Uranium-233/234	0.103 g	5.70	0.548	0.447	.179611650	pCi/g	NO
		Uranium-235/236	0.103 g	0.197	0.0675	0.285	0	pCi/g	NO
		Uranium-238	0.103 g	5.93	0.566	0.305	.077572816	pCi/g	NO
1202045181	MB	Uranium-233/234	1.00 g	0.0185	0.00528	0.0288	.0185	pCi/g	YES
		Uranium-235/236	1.00 g	0.00	0.002	0.0184	0	pCi/g	NO
		Uranium-238	1.00 g	0.00799	0.00383	0.0197	.00799	pCi/g	YES
245960008	RE15-10-7314	Uranium-233/234	0.503 g	2.47	0.203	0.0968	.036779324	pCi/g	NO
		Uranium-235/236	0.503 g	0.166	0.0305	0.0617	0	pCi/g	NO
		Uranium-238	0.503 g	2.99	0.241	0.0661	.015884692	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954007	CHAMBER : 145	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960008_UU	DETECTOR S/N : 72526	BKG FILE : B145.CNF;395
SAMPLE QTY : 0.503 G	AVERAGE %EFFICIENCY : 24.9308	BKG DATE : 21-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:17:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W145.CNF;113
% YIELD : 93.623		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2188E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

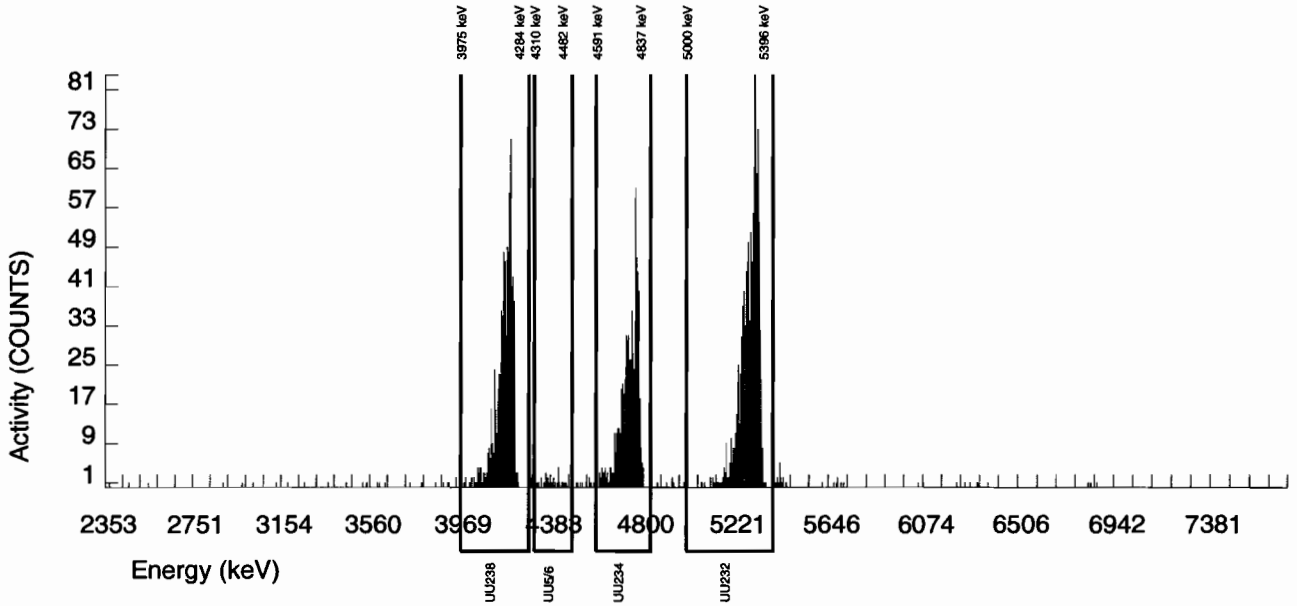
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5292.838	57.478	1054.000	1051.000	3.000	1.7321	100.0000	4.04E+00	3.17E-01	1.55E-02	4.13E-02	1.25E-01
U-3/4	4763.020	4745.572	34.155	645.000	643.936	0.000	4.8416	100.0000	2.47E+00	2.03E-01	4.32E-02	9.68E-02	9.74E-02
U-235	4391.000	4391.478	60.334	35.000	35.000	0.000	2.2152	80.90000	1.66E-01	3.05E-02	2.44E-02	6.17E-02	2.81E-02
U-238	4184.730	4176.812	49.629	778.000	778.000	0.000	3.1208	100.0000	2.98E+00	2.41E-01	2.79E-02	6.61E-02	1.07E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954007	CHAMBER : 164	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202045181_UU	DETECTOR S/N : 70325	BKG FILE : B164.CNF;172
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 37.7598	BKG DATE : 21-FEB-2010
SAMPLE DATE : 17-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 10:41:53	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W164.CNF;58
% YIELD : 104.454		CAL DATE : 22-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5037E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.7043E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

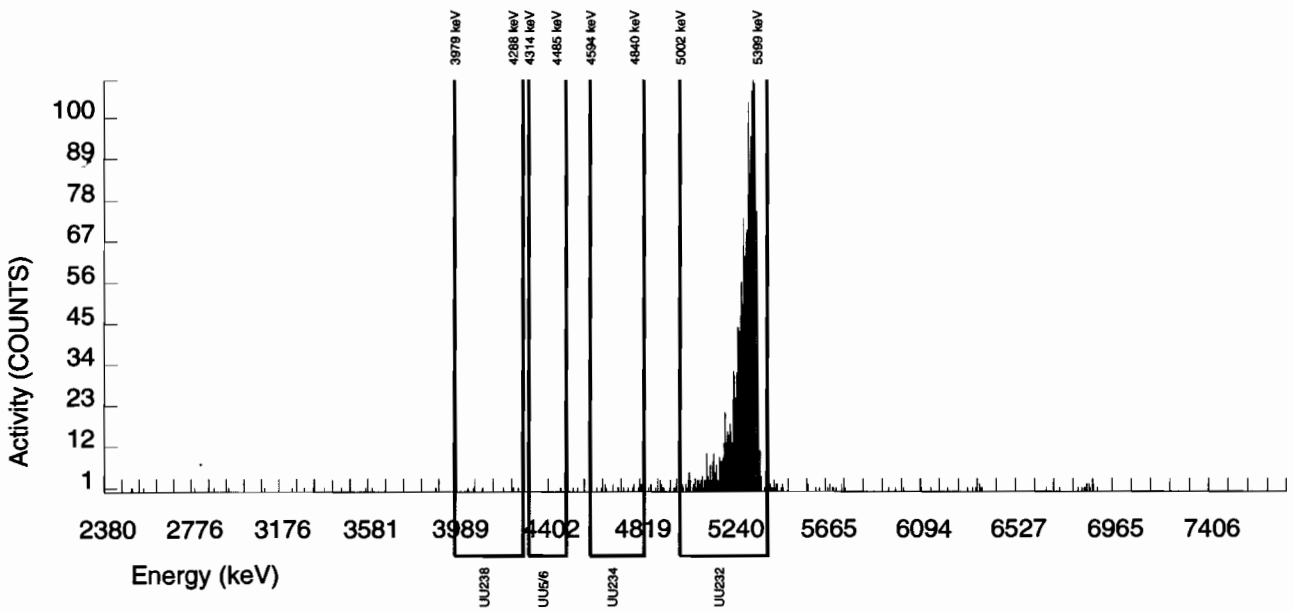
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5296.328	68.045	1778.000	1776.000	2.000	1.4142	100.0000	2.03E+00	1.45E-01	3.76E-03	1.06E-02	4.82E-02
U-3/4	4763.020	4739.897	162.423	20.000	16.202	2.000	4.8416	100.0000	1.85E-02	5.28E-03	1.29E-02	2.88E-02	5.13E-03
U-235	4391.000	4464.070	4.925	1.000	0.000	1.000	2.2152	80.90000	0.00E+00	2.00E-03	7.28E-03	1.84E-02	2.00E-03
U-238	4184.730	4164.018	0.000	9.000	7.000	2.000	3.1208	100.0000	7.99E-03	3.83E-03	8.29E-03	1.97E-02	3.79E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954007	CHAMBER : 146	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202045182_UU	DETECTOR S/N : 72527	BKG FILE : B146.CNF;400
SAMPLE QTY : 0.505 G	AVERAGE %EFFICIENCY : 24.7373	BKG DATE : 21-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:17:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W146.CNF;115
% YIELD : 98.306		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4298E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

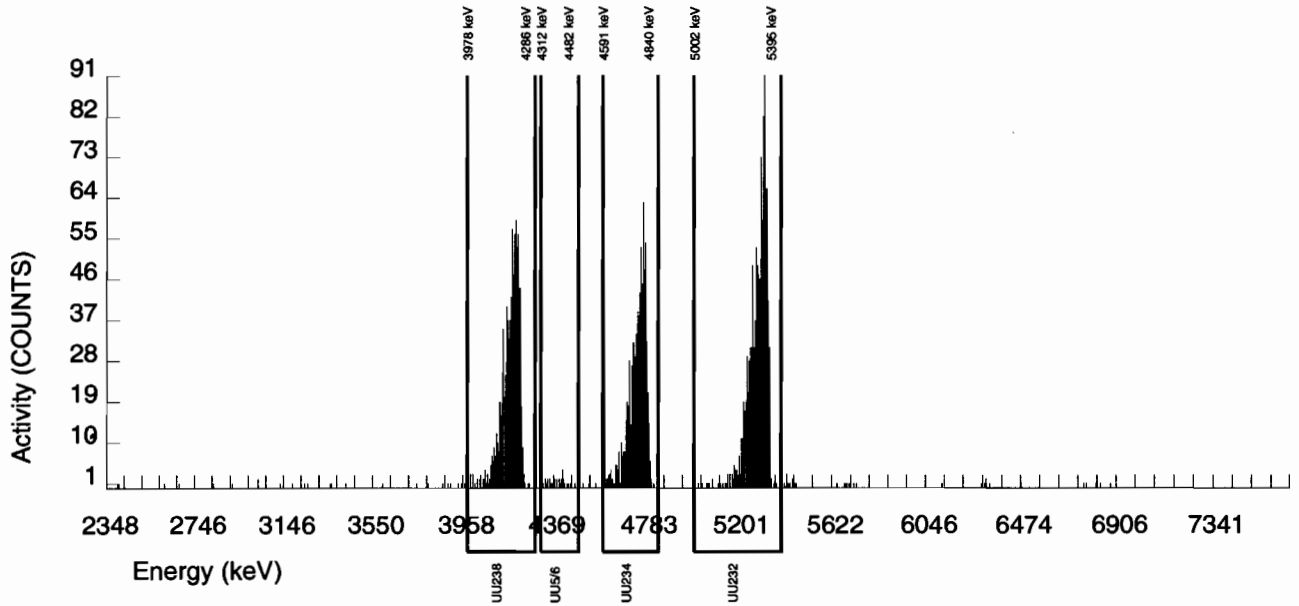
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5294.605	64.124	1102.000	1095.000	7.000	2.6458	100.0000	4.02E+00	3.09E-01	2.26E-02	5.51E-02	1.22E-01
U-3/4	4763.020	4748.854	60.025	786.000	784.892	0.000	4.8416	100.0000	2.88E+00	2.28E-01	4.13E-02	9.26E-02	1.03E-01
U-235	4391.000	4392.693	9.888	30.000	30.000	0.000	2.2152	80.90000	1.36E-01	2.66E-02	2.34E-02	5.90E-02	2.48E-02
U-238	4184.730	4178.601	78.402	862.000	862.000	0.000	3.1208	100.0000	3.16E+00	2.48E-01	2.66E-02	6.32E-02	1.08E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954007	CHAMBER : 147	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202045183_UU	DETECTOR S/N : 75550	BKG FILE : B147.CNF;400
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 24.4814	BKG DATE : 21-FEB-2010
SAMPLE DATE : 17-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:17:44	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W147.CNF;114
% YIELD : 100.876		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5037E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5431E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

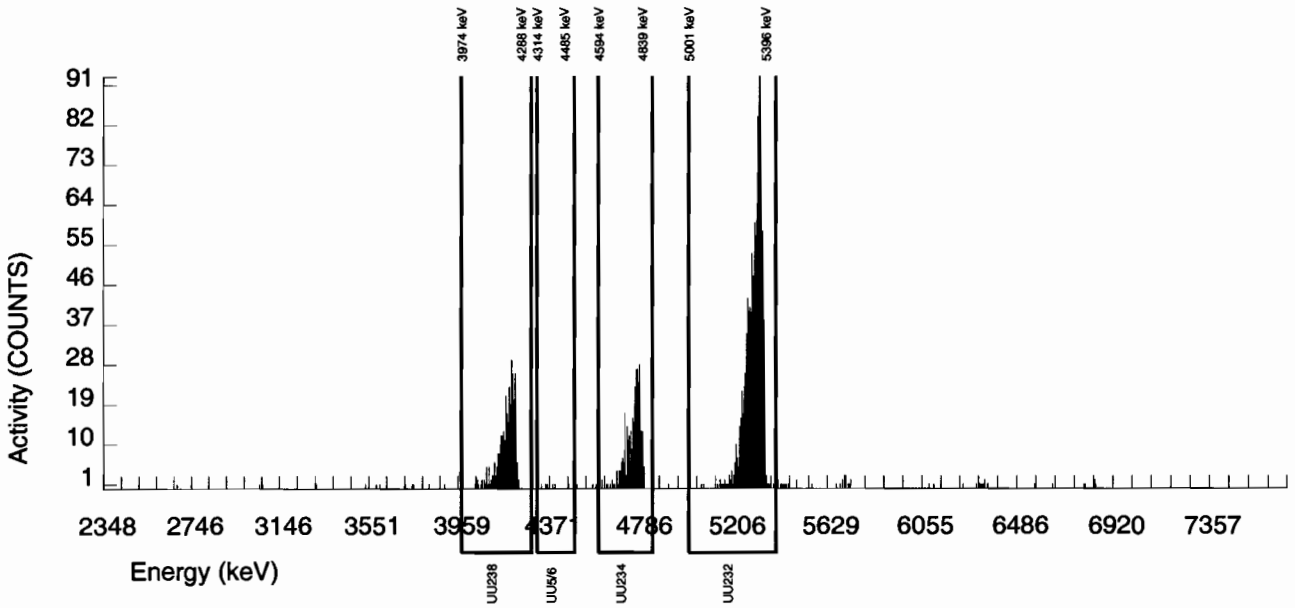
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5301.507	49.597	1114.000	1112.000	2.000	1.4142	100.0000	1.97E+01	1.65E+00	5.83E-02	1.65E-01	5.92E-01
U-3/4	4763.020	4755.471	70.230	324.000	321.874	1.000	4.8416	100.0000	5.70E+00	5.48E-01	1.99E-01	4.47E-01	3.19E-01
U-235	4391.000	4392.768	4.940	9.000	9.000	0.000	2.2152	80.90000	1.97E-01	6.75E-02	1.13E-01	2.85E-01	6.57E-02
U-238	4184.730	4181.253	46.590	335.000	335.000	0.000	3.1208	100.0000	5.93E+00	5.66E-01	1.29E-01	3.05E-01	3.24E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Radiochemistry Batch Checklist, Rev10

Batch# 355880 Product: Am Date: 2/21/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/21/10

Secondary Review Performed By: [signature] 2/22/10

LANL

2/15 - 2/24

P

Am/Cm Que Sheet

19-FEB-10

Batch #: 955380 Analyst: CXM2 First Client Due Date: 24-FEB-10 Internal Due Date: 18-FEB-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-255 Expiration Date: 5/M/10 Vol: 0.1 mL

LCS Isotope(s): Am241/Cm244 LCS Code(s): / / Expiration Date: / / Vol(s): / /

Spike Isotope(s): Am241/Cm244 Spike Code(s): / / Expiration Date: / / Vol(s): / /

Prep Date: 2/18/10 Initials: JMO Pipet ID: 2971058 Balance ID: 5041027Z Witness: JEH 2-19-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
245617007-2	RE46-10-11823	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	1	1	1.262	223
245785015-3	RE46-10-11882	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	2	2	1.270	224
245960006-3	RE15-10-7312	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	3	3	1.262	225
245960008-3	RE15-10-7314	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	4	4	1.283	226
1202048270-1	MB for batch 955380	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		5	5	1	237
1202048271-3	RE46-10-11882(245785015DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	6	6	1.254	227
1202048272-1	LCS for batch 955380	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		7	7	0.104	197

* SRM 0244-B Exp 4/30/20

Choose SOP Used: GL-RAD-A-011 GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 2/21/10

GEL Laboratories LLC, Radiochemistry Division

EAM 2/22/10

Blank Correction Report

Batch ID 955380

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202048271	DUP	Americium-241	1.25 g	0.0015	0.00129	0.0176	-.00528	pCi/g	NO
1202048272	LCS	Americium-241	0.104 g	35.0	2.54	0.277	-.06346154	pCi/g	NO
1202048270	MB	Americium-241	1.00 g	-0.0066	0.00322	0.0229	-.0066	pCi/g	NO
245617007	RE46-10-11823	Americium-241	1.26 g	0.0344	0.00647	0.0165	-.00523810	pCi/g	NO
245785015	RE46-10-11882	Americium-241	1.27 g	0.004	0.00217	0.0185	-.00519685	pCi/g	NO
245960006	RE15-10-7312	Americium-241	1.26 g	0.00509	0.00267	0.022	-.00523810	pCi/g	NO
245960008	RE15-10-7314	Americium-241	1.28 g	0.00281	0.0018	0.0183	-.00515625	pCi/g	NO

2/22/10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 955380	CHAMBER : 224	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245785015_AM	DETECTOR S/N : 79417	BKG FILE : B224.CNF;80
SAMPLE QTY : 1.270 G	AVERAGE %EFFICIENCY : 37.7809	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:02	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W224.CNF;28
% YIELD : 81.038		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.3635E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

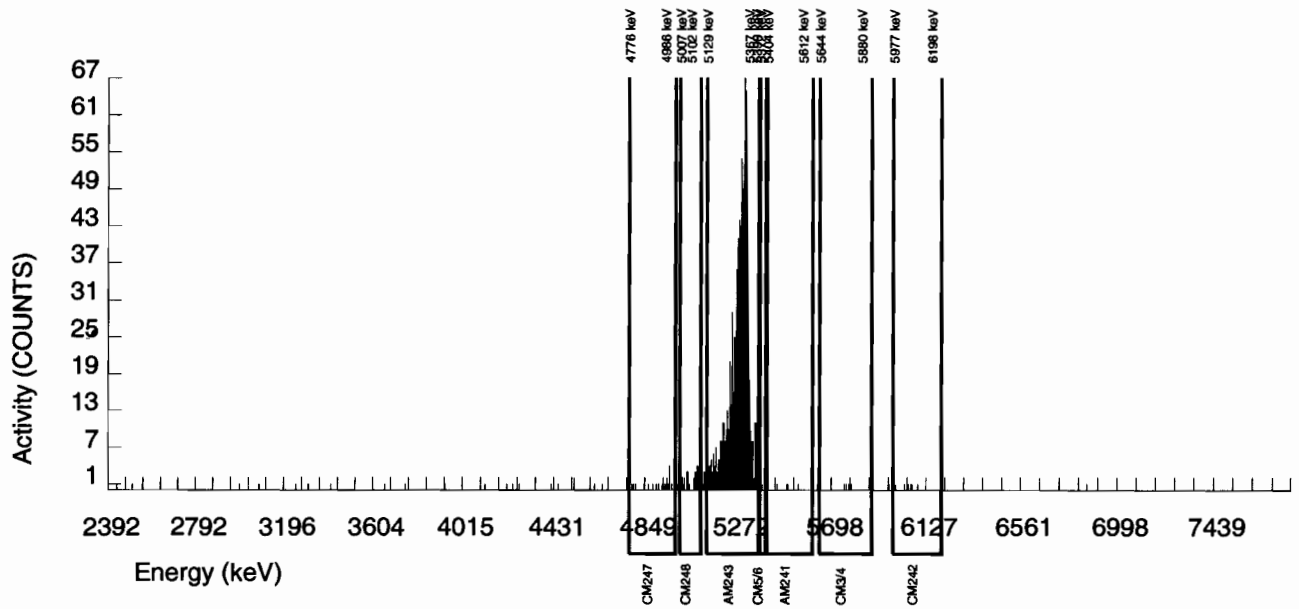
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.750	94.643	5.000	3.450	0.000	2.8409	99.94000	4.00E-03	2.17E-03	7.66E-03	1.85E-02	2.15E-03
AM243	5270.000	5280.685	52.425	892.000	891.000	1.000	1.0000	99.78000	1.03E+00	7.06E-02	2.70E-03	8.55E-03	3.47E-02
CM-242	6102.000	6041.920	103.983	7.000	7.000	0.000	4.3413	100.0000	9.02E-03	3.45E-03	1.17E-02	2.65E-02	3.41E-03
CM-3/4	5795.020	5777.960	34.869	4.000	3.000	1.000	5.1799	100.0000	3.48E-03	2.61E-03	1.40E-02	3.11E-02	2.60E-03
CM-5/6	5386.000	5379.332	0.000	24.000	24.000	0.000	14.2480	86.09000	3.23E-02	6.87E-03	4.46E-02	9.29E-02	6.59E-03
CM-247	4946.000	4918.140	5.786	20.000	20.000	0.000	13.7917	79.30000	2.92E-02	6.76E-03	4.69E-02	9.77E-02	6.53E-03
CM-248	5078.600	5061.080	54.586	33.000	33.000	0.000	19.5080	91.00000	4.20E-02	7.73E-03	5.78E-02	1.19E-01	7.31E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 955380	CHAMBER : 225	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960006_AM	DETECTOR S/N : 79418	BKG FILE : B225.CNF;80
SAMPLE QTY : 1.262 G	AVERAGE %EFFICIENCY : 38.7926	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W225.CNF;28
% YIELD : 66.701		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 1.9454E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

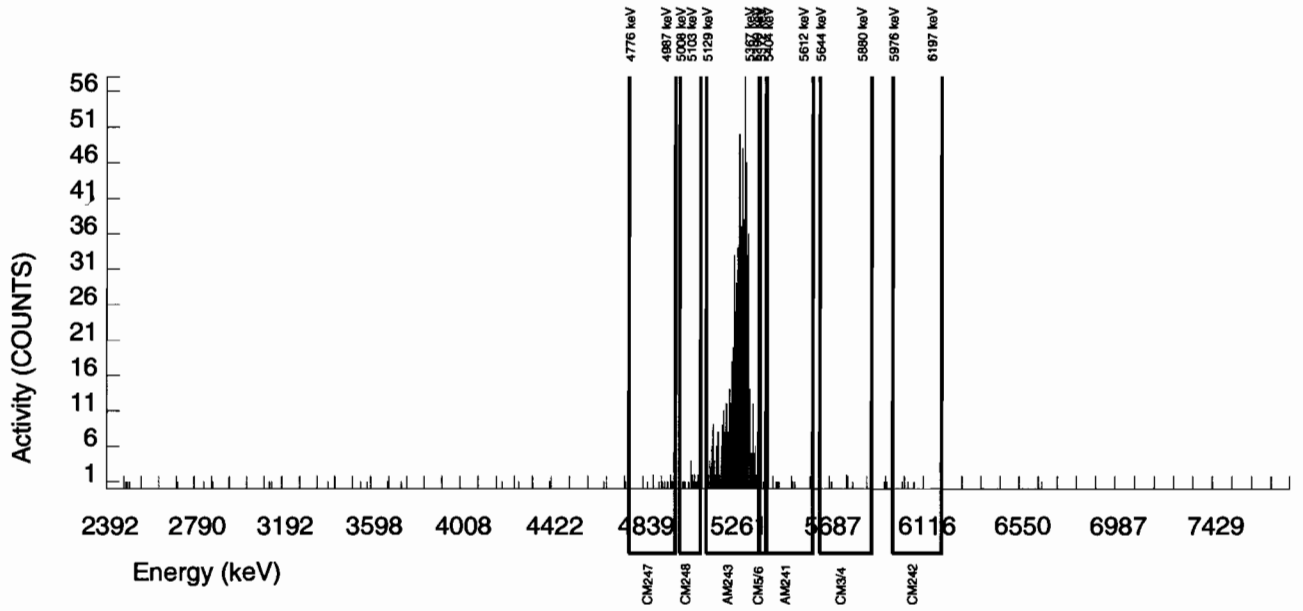
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5487.321	83.556	5.000	3.690	0.000	2.8409	99.94000	5.09E-03	2.67E-03	9.12E-03	2.20E-02	2.65E-03
AM243	5270.000	5278.209	62.441	754.000	753.000	1.000	1.0000	99.78000	1.04E+00	7.42E-02	3.22E-03	1.02E-02	3.80E-02
CM-242	6102.000	6051.738	54.466	3.000	3.000	0.000	4.3413	100.0000	4.58E-03	2.66E-03	1.39E-02	3.16E-02	2.65E-03
CM-3/4	5795.020	5782.065	4.951	5.000	4.000	1.000	5.1799	100.0000	5.53E-03	3.40E-03	1.66E-02	3.70E-02	3.39E-03
CM-5/6	5386.000	5383.117	9.800	8.000	8.000	0.000	14.2480	86.09000	1.28E-02	4.60E-03	5.31E-02	1.11E-01	4.53E-03
CM-247	4946.000	4930.186	81.699	14.000	13.000	1.000	13.7917	79.30000	2.26E-02	6.88E-03	5.58E-02	1.16E-01	6.74E-03
CM-248	5078.600	5067.097	7.272	21.000	19.000	2.000	19.5080	91.00000	2.88E-02	7.48E-03	6.88E-02	1.42E-01	7.27E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 955380	CHAMBER : 226	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960008_AM	DETECTOR S/N : 79419	BKG FILE : B226.CNF;80
SAMPLE QTY : 1.283 G	AVERAGE %EFFICIENCY : 37.2343	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W226.CNF;28
% YIELD : 82.228		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.3982E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

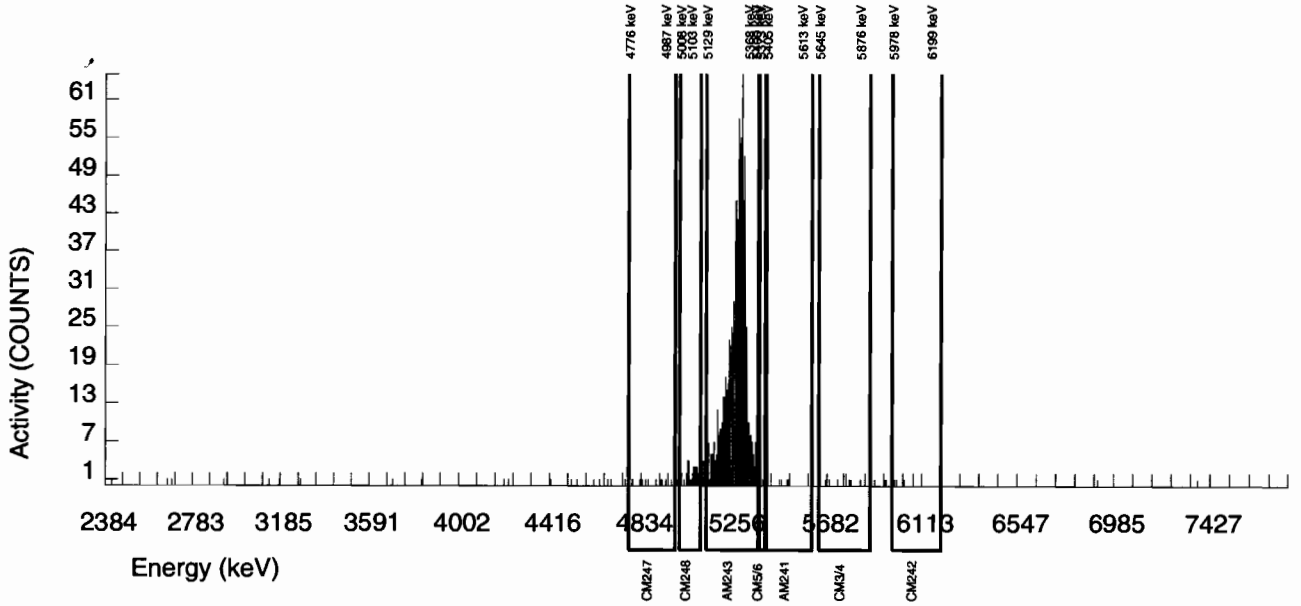
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5491.559	44.592	4.000	2.450	0.000	2.8409	99.94000	2.81E-03	1.80E-03	7.58E-03	1.83E-02	1.80E-03
AM243	5270.000	5271.550	51.231	891.000	891.000	0.000	0.0000	99.78000	1.02E+00	6.99E-02	0.00E+00	3.11E-03	3.43E-02
CM-242	6102.000	6023.186	4.955	7.000	7.000	0.000	4.3413	100.0000	8.89E-03	3.40E-03	1.16E-02	2.63E-02	3.36E-03
CM-3/4	5795.020	5758.142	4.955	8.000	7.000	1.000	5.1799	100.0000	8.05E-03	3.48E-03	1.38E-02	3.07E-02	3.45E-03
CM-5/6	5386.000	5377.194	0.000	17.000	17.000	0.000	14.2480	86.09000	2.26E-02	5.65E-03	4.42E-02	9.19E-02	5.49E-03
CM-247	4946.000	4886.321	4.955	14.000	11.000	3.000	13.7917	79.30000	1.59E-02	6.04E-03	4.64E-02	9.67E-02	5.96E-03
CM-248	5078.600	5061.602	80.823	36.000	36.000	0.000	19.5080	91.00000	4.54E-02	8.03E-03	5.72E-02	1.18E-01	7.56E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 955380	CHAMBER : 237	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202048270_AM	DETECTOR S/N : 79430	BKG FILE : B237.CNF;80
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 39.3990	BKG DATE : 14-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:36	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W237.CNF;28
% YIELD : 79.455		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 2.3173E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

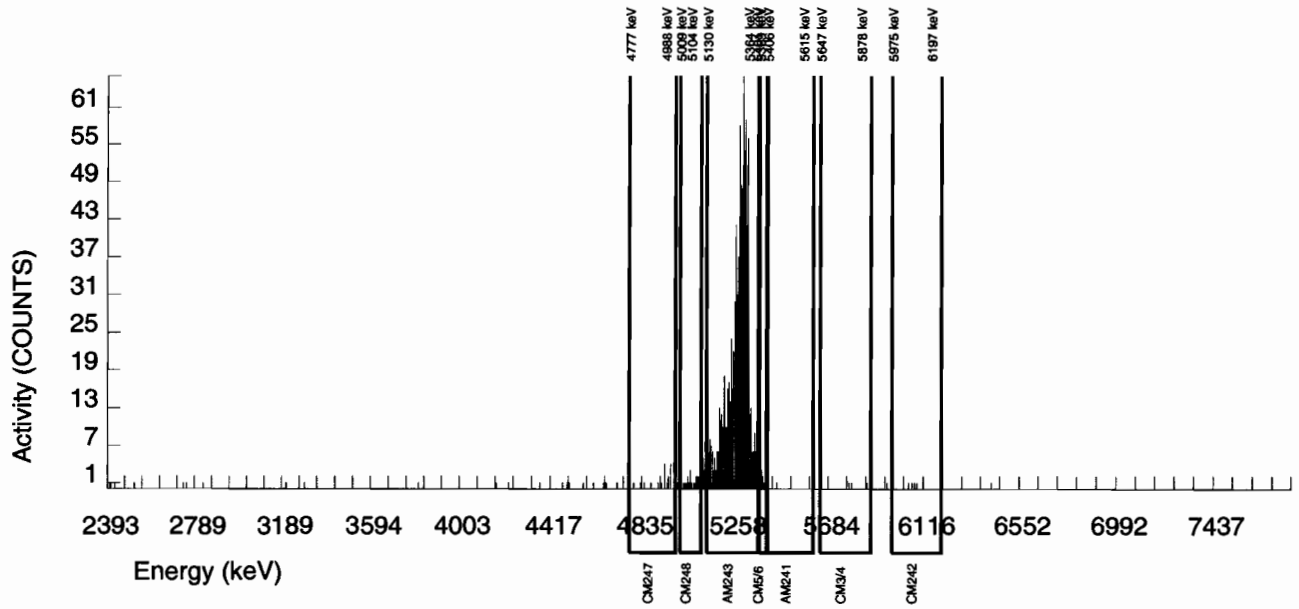
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5454.433	4.920	1.000	-4.585	4.000	2.8409	99.94000	-6.60E-03	3.22E-03	9.52E-03	2.29E-02	3.22E-03
AM243	5270.000	5274.829	56.616	913.000	911.000	2.000	1.4142	99.78000	1.31E+00	9.12E-02	4.74E-03	1.34E-02	4.36E-02
CM-242	6102.000	6076.565	39.358	4.000	4.000	0.000	4.3413	100.0000	5.83E-03	2.94E-03	1.45E-02	3.30E-02	2.91E-03
CM-3/4	5795.020	5816.999	78.716	3.000	2.000	1.000	5.1799	100.0000	2.88E-03	2.88E-03	1.73E-02	3.86E-02	2.88E-03
CM-5/6	5386.000	5377.154	0.000	24.000	24.000	0.000	14.2480	86.09000	4.01E-02	8.55E-03	5.54E-02	1.15E-01	8.19E-03
CM-247	4946.000	4933.583	29.519	19.000	17.000	2.000	13.7917	79.30000	3.08E-02	8.53E-03	5.82E-02	1.21E-01	8.32E-03
CM-248	5078.600	5066.164	0.000	23.000	23.000	0.000	19.5080	91.00000	3.64E-02	7.90E-03	7.18E-02	1.48E-01	7.58E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 955380	CHAMBER : 227	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202048271_AM	DETECTOR S/N : 79420	BKG FILE : B227.CNF;80
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 38.6409	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:10	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W227.CNF;28
% YIELD : 84.126		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4536E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

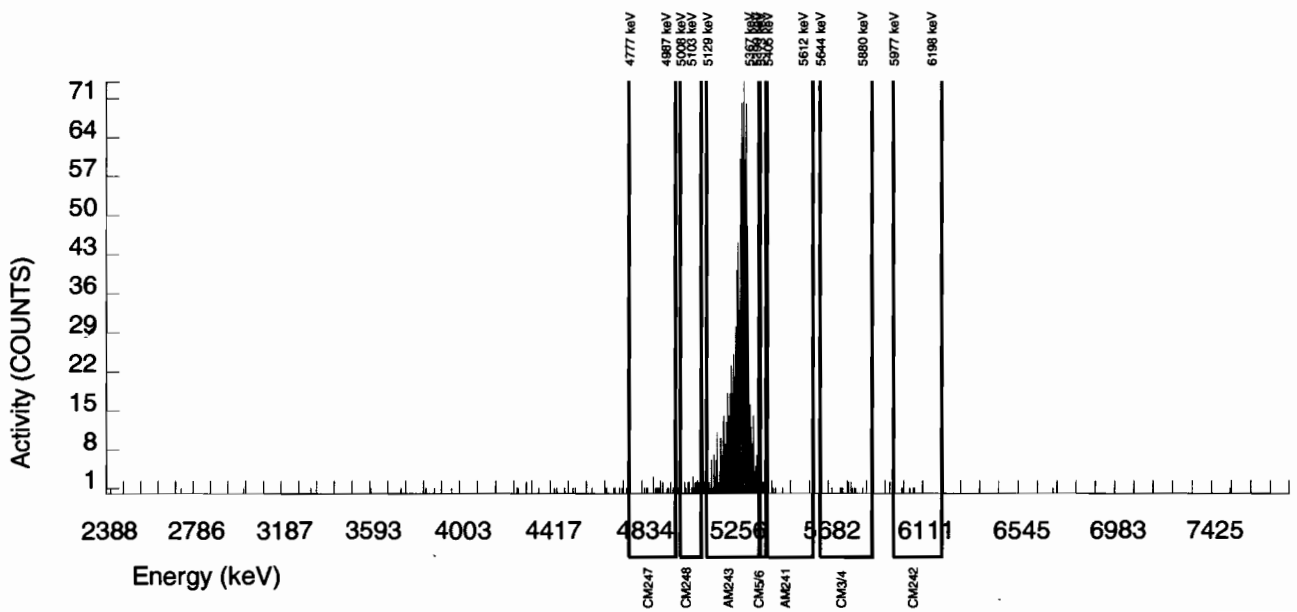
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5454.161	44.507	3.000	1.354	0.000	2.8409	99.94000	1.50E-03	1.29E-03	7.31E-03	1.76E-02	1.29E-03
AM243	5270.000	5280.389	48.326	947.000	946.000	1.000	1.0000	99.78000	1.05E+00	7.05E-02	2.58E-03	8.15E-03	3.41E-02
CM-242	6102.000	6051.068	58.725	5.000	5.000	0.000	4.3413	100.0000	6.14E-03	2.77E-03	1.12E-02	2.53E-02	2.75E-03
CM-3/4	5795.020	5777.174	17.308	12.000	11.000	1.000	5.1799	100.0000	1.22E-02	4.06E-03	1.33E-02	2.96E-02	3.99E-03
CM-5/6	5386.000	5379.563	0.000	20.000	20.000	0.000	14.2480	86.09000	2.57E-02	5.94E-03	4.25E-02	8.86E-02	5.74E-03
CM-247	4946.000	4911.014	77.887	21.000	21.000	0.000	13.7917	79.30000	2.93E-02	6.61E-03	4.47E-02	9.32E-02	6.39E-03
CM-248	5078.600	5062.578	0.000	27.000	27.000	0.000	19.5080	91.00000	3.28E-02	6.60E-03	5.51E-02	1.14E-01	6.31E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 955380	CHAMBER : 197	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202048272_AM	DETECTOR S/N : 78894	BKG FILE : B197.CNF;100
SAMPLE QTY : 0.104 G	AVERAGE %EFFICIENCY : 25.5731	BKG DATE : 14-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:39:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W197.CNF;51
% YIELD : 97.418		CAL DATE : 22-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 2.8413E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

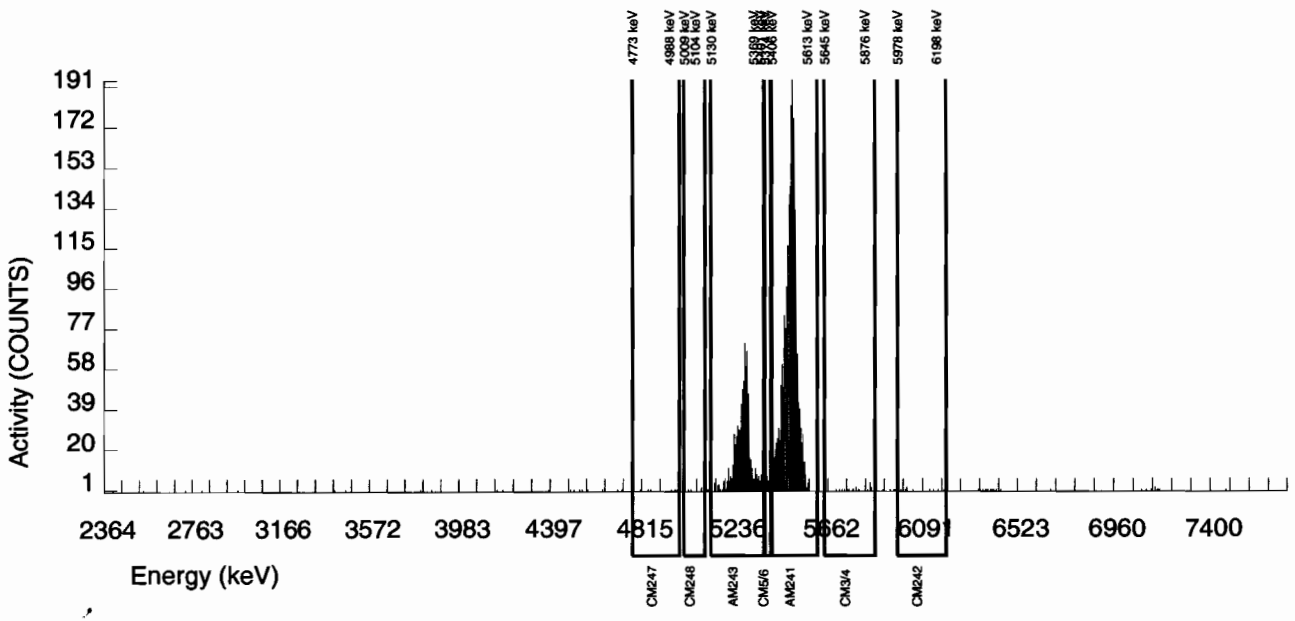
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	~~LINC~~ pCi/G
AM-241	5479.150	5495.550	38.653	2018.000	2013.738	3.000	2.8409	99.94000	3.50E+01	2.54E+00	1.15E-01	2.77E-01	7.82E-01
AM243	5270.000	5278.492	34.027	725.000	725.000	0.000	0.0000	99.78000	1.26E+01	9.91E-01	0.00E+00	4.72E-02	4.69E-01
CM-242	6102.000	6076.670	7.291	12.000	11.000	1.000	4.3413	100.0000	1.94E-01	6.49E-02	1.76E-01	3.98E-01	6.35E-02
CM-3/4	5795.020	5803.341	0.000	23.000	7.000	16.000	5.1799	100.0000	1.22E-01	1.09E-01	2.10E-01	4.66E-01	1.09E-01
CM-5/6	5386.000	5388.323	0.000	33.000	33.000	0.000	14.2480	86.09000	6.66E-01	1.25E-01	6.69E-01	1.39E+00	1.16E-01
CM-247	4946.000	4899.943	193.604	8.000	7.000	1.000	13.7917	79.30000	1.53E-01	6.66E-02	7.03E-01	1.47E+00	6.58E-02
CM-248	5078.600	5076.603	0.000	10.000	10.000	0.000	19.5080	91.00000	1.91E-01	6.18E-02	8.67E-01	1.79E+00	6.04E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Radiochemistry Batch Checklist, Rev10

Batch# 948717 Product: Gamma Solid LANL Date: 02/16/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		DER 791258
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is In REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER 791258
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 2/16/10

Secondary Review Performed By: 2/16/10

2b3

Gamma Spec Que Sheet I.G.-2/12/10

02/12/2010

Batch #:948717 **Analyst: CRO** **First Client DueDate02/23/2010** **Internal Due Date: 02/13/2010**

Gamma Spike Isotope: Mixed Gamma **Spike Code:** n/a **Expiration Date:** n/a **Vol:** n/a **Nominal Concentration:** n/a

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/12/10 **Vol:** 1.0mL **Nominal Concentration:** Cs137-5.561 Co60-6.404 Am241-15.90

Initials: RF **Prep Date:** 2/5/10 **Library:** Solid **Witness:** n/a

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (1 g/F)	Detector	Sealing Date/Time (if Applicable)
245955001-1	RE16-10-1474	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF	can	132.91	10	2/5/10
245955002-1	RE16-10-1475	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		123.56	11	
245960001-1	RE15-10-7309	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		120.48	21	
245960002-1	RE15-10-7308	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		121.12	23	
245960003-1	RE15-10-7315	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		130.50	22	
245960004-1	RE15-10-7317	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		121.72	25	
245960005-1	RE15-10-7319	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		127.60	12	
245960006-1	RE15-10-7312	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		117.77	17	
245960007-1	RE15-10-7313	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		136.21	18	
245960008-1	RE15-10-7314	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		123.38	1	
245960009-1	RE15-10-7316	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		117.96	6	
245960010-1	RE15-10-7318	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		105.20	7	
245960011-1	RE15-10-7324	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		132.02	4	
1202032510-1	MB	MB		QC ACCOUNT	SOIL	02/05/10	RF		136.21	14	
1202032511-1	DUP RE15-10-7308(245960002)	DUP		QC ACCOUNT	SOIL	28-JAN-10 12:00:00	RF		~~121.12~~ 121.30 RF 2/12/10	16	
1202032512-1	LCS	LCS		QC ACCOUNT	SOIL	02/05/10	RF		155.44	15	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 2/10/10

✓ no listing
✓ dailies

2/16/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
948717	245955001	SAMPLE	12-FEB-10		Americium-241	0.01303	0.3505	0.200
					Thorium-234	2.1	2.5	2.00
948717	245955002	SAMPLE	12-FEB-10					
948717	245960001	SAMPLE	12-FEB-10		Cesium-134	0.08686	0.1216	0.100
					Sodium-22	0.03244	0.1031	0.080
948717	245960002	SAMPLE	12-FEB-10		Americium-241	0.2347	0.3768	0.200
					Cerium-139	0.00945	0.05877	0.050
948717	245960003	SAMPLE	12-FEB-10		Americium-241	0.0949	0.2133	0.200
948717	245960004	SAMPLE	12-FEB-10					
948717	245960005	SAMPLE	12-FEB-10		Americium-241	0.04225	0.2528	0.200
948717	245960006	SAMPLE	12-FEB-10		Cerium-139	-0.0234	0.05618	0.050
					Cesium-134	0.1109	0.1183	0.100
					Sodium-22	-0.02995	0.08195	0.080
948717	245960007	SAMPLE	12-FEB-10		Americium-241	-0.1597	0.2614	0.200
948717	245960008	SAMPLE	12-FEB-10		Americium-241	0.0119	0.3024	0.200
					Cerium-139	0.01105	0.05981	0.050
					Cesium-134	0.04373	0.1071	0.100
					Sodium-22	-0.01132	0.08251	0.080
948717	245960009	SAMPLE	12-FEB-10		Americium-241	0.1489	0.3609	0.200
					Cerium-139	0.0017	0.06047	0.050
948717	245960010	SAMPLE	12-FEB-10		Americium-241	0.01994	0.2131	0.200
					Cerium-139	-0.01904	0.05445	0.050
948717	245960011	SAMPLE	12-FEB-10		Americium-241	-0.0971	0.3546	0.200
					Thorium-234	1.383	2.993	2.00
948717	1202032510	MB	12-FEB-10					
948717	1202032511	DUP	12-FEB-10		Americium-241	0.1127	0.255	0.200
948717	1202032512	LCS	12-FEB-10		Cerium-139	0.01185	0.09923	0.050
					Cesium-134	0.08958	0.1896	0.100
					Europium-152	0.1301	0.367	0.200
					Mercury-203	0.0726	0.145	0.100
					Potassium-40	0.3613	1.105	1.00
					Ruthenium-106	0.2062	1.19	0.800
					Sodium-22	0.02278	0.09684	0.080
					Thorium-234	-1.288	5.851	2.00
					Tin-113	0.07766	0.1706	0.100
					Uranium-235	0.01192	0.7054	0.500
					Yttrium-88	0.05441	0.102	0.100

GEL QUALS

Batch ID: 948717

Report run on: February 16, 2010 9:36 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245955001-1 12-FEB-2010 14:44	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.097			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		1.91			
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.449			
245955002-1 12-FEB-2010 14:44	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.763			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.798			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.907			
245960001-1 12-FEB-2010 14:44	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.735			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.008			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.477			
245960002-1 12-FEB-2010 14:45	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.577			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.471			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1068		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.25			
245960003-1 12-FEB-2010 15:47	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.508			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.126			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1318		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.015			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.175			
245960004-1 12-FEB-2010 15:47	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.222			

GEL QUALS

Batch ID: 948717

Report run on: February 16, 2010 9:36 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245960004-1 12-FEB-2010 15:47	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.082			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1585		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.07027		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.657			
245960005-1 12-FEB-2010 15:48	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.428			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.98			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1251		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.936			
245960006-1 12-FEB-2010 15:48	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.2			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.108			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.496			
245960007-1 12-FEB-2010 15:49	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.635			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.588			
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.06006		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.214			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08986			
245960008-1 12-FEB-2010 15:53	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.065			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.099			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.843			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.09877			

GEL QUALS

Batch ID: 948717

Report run on: February 16, 2010 9:36 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245960009-1 12-FEB-2010 15:54	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.028			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.823			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1857		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.795			
245960010-1 12-FEB-2010 16:24	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.257			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.319			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.994			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08903			
245960011-1 12-FEB-2010 16:31	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.141			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.71			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.09597		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.64			
1202032510-1 MB 12-FEB-2010 16:32	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.0547			
1202032511-1 DUP 12-FEB-2010 16:38	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.14			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.267			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1623		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.818			

Gamma Review Report based on Result > MDA for Batch:948717

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245955001	28-JAN-10 12:00	12-FEB-10 14:44	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 nr	1.222	0.1636	pCi/g	0.1895	N	910.3	3	1.991	IDENTIFIED	11.88	☐	
Americium-243 int nr	0.2764	0.03941	pCi/g	0.0936	N	74.5	1	1.074	IDENTIFIED	13.16	☐	
Annihilation Rad. HE	0.1001	0.03249	pCi/g	0.04223	N	510.2	1	1.593	IDENTIFIED	32.31	☐	
Barium-137m HE	0.06988	0.02054	pCi/g	0.05572	N	661.1	2	1.402	IDENTIFIED	29.28	☐	
Bismuth-211 int	2.097	0.2221	pCi/g	0.297	Y	351.5	4	1.143	IDENTIFIED	9.943	☐	ui
Bismuth-212 HE	0.7158	0.2876	pCi/g	0.6129	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	0.7322	0.07263	pCi/g	0.1035	0.200	608.8	4	1.237	IDENTIFIED	9.159	☐	
Cadmium-109 int	1.91	0.4104	pCi/g	1.357	Y	86.93	3	1.194	IDENTIFIED	20.73	☐	ui
Cerium-143 —	624	96.27	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-135 HE	0.2445	0.0958	pCi/g	0.2224	N	269.7	1	0.8027	IDENTIFIED	38.97	☐	
Cesium-137 ✔	0.07387	0.02171	pCi/g	0.0589	0.100	661.1	2	1.402	IDENTIFIED	29.28	☐	
Gross Gamma	7.872	1.46	pCi/g	2.2	N		0				☐	
Lead-212 ✔	1.187	0.06565	pCi/g	0.0814	0.100	238.3	4	1.099	IDENTIFIED	4.029	☐	
Lead-214 ✔	0.7296	0.07957	pCi/g	0.1035	0.100	351.5	4	1.143	IDENTIFIED	9.943	☐	
Lutetium-177 HE	2.525	0.6055	pCi/g	1.825	N	0	5	0	FAIL_ABUND	0	☐	
Neptunium-237 HE	0.5514	0.1314	pCi/g	0.4138	N	86.93	3	1.194	IDENTIFIED	20.73	☐	
Polonium-212 nr	1.187	0.06565	pCi/g	0.0814	N	238.3	4	1.099	IDENTIFIED	4.029	☐	
Polonium-214 nr	0.7296	0.07957	pCi/g	0.1035	N	351.5	4	1.143	IDENTIFIED	9.943	☐	
Polonium-216 nr	1.187	0.06565	pCi/g	0.0814	N	238.3	4	1.099	IDENTIFIED	4.029	☐	
Polonium-218 nr	0.7296	0.07957	pCi/g	0.1035	N	351.5	4	1.143	IDENTIFIED	9.943	☐	
Potassium-40 ✔	35.1	1.79	pCi/g	0.4716	1.00	1459	1	2.046	IDENTIFIED	2.727	☐	
Radium-224 int	2.449	0.5505	pCi/g	0.926	Y	241.2	1	1.696	IDENTIFIED	22.27	☐	ui
Radium-226 ✔	0.7322	0.07263	pCi/g	0.1035	Y	608.8	4	1.237	IDENTIFIED	9.159	☐	
Radium-228 ✔	1.222	0.1636	pCi/g	0.1895	0.500	910.3	3	1.991	IDENTIFIED	11.88	☐	
Thallium-208 ✔	0.4263	0.03903	pCi/g	0.04492	0.080	582.7	1	1.34	IDENTIFIED	8.516	☐	
Thorium-228 nr	1.205	0.06664	pCi/g	0.08263	N	238.3	4	1.099	IDENTIFIED	4.029	☐	
Thorium-230 nr	0.7322	0.07263	pCi/g	0.1035	N	608.8	4	1.237	IDENTIFIED	9.159	☐	
Thorium-232 nr	1.222	0.1636	pCi/g	0.1895	N	910.3	3	1.991	IDENTIFIED	11.88	☐	
Tin-126 HE	0.1878	0.04034	pCi/g	0.1343	N	86.93	3	1.194	IDENTIFIED	20.73	☐	
Titanium-44 HE	0.09651	0.01892	pCi/g	0.06898	N	0	5	0	NOT_IDENTI	0	☐	
Total Uranium —	6.2555	4.90E-06	ug/g	3.7211	N		0				☐	
Uranium-234 nr	0.7322	0.07263	pCi/g	0.1035	N	608.8	4	1.237	IDENTIFIED	9.159	☐	
Zirconium-97 —	4.46E+06	9.20E+05	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245955002	28-JAN-10 12:00	12-FEB-10 14:44	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 nr	1.38	0.1627	pCi/g	0.1681	N	911.4	3	1.234	IDENTIFIED	10.1	☐	
Americium-243 int nr	0.2612	0.02976	pCi/g	0.06198	N	74.93	1	0.9549	IDENTIFIED	10.65	☐	
Annihilation Rad. HE	0.07068	0.0322	pCi/g	0.04056	N	511	1	1.716	IDENTIFIED	45.24	☐	

Bismuth-211	int	2.763	0.2528	pCi/g	0.2647	Y	351.9	4	1.132	IDENTIFIED	6.365	☐	ui
Bismuth-212	HE	0.672	0.1965	pCi/g	0.5713	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	0.8457	0.08077	pCi/g	0.104	0.200	609.4	4	1.426	IDENTIFIED	7.698	☐	
Cadmium-109	int	2.798	0.4378	pCi/g	1.009	Y	87.24	3	1.113	IDENTIFIED	14.93	☐	ui
Cerium-143	—	250.3	71.28	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Gross Gamma	—	8.418	1.22	pCi/g	2.104	N		0				☐	
Iodine-123	HE	2.69E+06	2.30E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Iodine-133	HE	3783	2468	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212	✔	1.261	0.1004	pCi/g	0.07674	0.100	238.6	4	0.9577	IDENTIFIED	3.782	☐	
Lead-214	✔	0.961	0.09145	pCi/g	0.0961	0.100	351.9	4	1.132	IDENTIFIED	6.365	☐	
Neptunium-237	int nr	0.8076	0.1514	pCi/g	0.3089	N	87.24	3	1.113	IDENTIFIED	14.93	☐	
Polonium-212	nr	1.261	0.1004	pCi/g	0.07674	N	238.6	4	0.9577	IDENTIFIED	3.782	☐	
Polonium-214	nr	0.961	0.09145	pCi/g	0.0961	N	351.9	4	1.132	IDENTIFIED	6.365	☐	
Polonium-216	nr	1.261	0.1004	pCi/g	0.07674	N	238.6	4	0.9577	IDENTIFIED	3.782	☐	
Polonium-218	nr	0.961	0.09145	pCi/g	0.0961	N	351.9	4	1.132	IDENTIFIED	6.365	☐	
Potassium-40	✔	37.22	1.876	pCi/g	0.4521	1.00	1461	1	1.931	IDENTIFIED	2.592	☐	
Protactinium-234m	HE	8.809	2.672	pCi/g	7.831	N	0	8	0	FAIL_ABUND	0	☐	
Radium-224	int	3.907	0.4954	pCi/g	0.8736	Y	241.6	1	1.659	IDENTIFIED	10.76	☐	ui
Radium-226	✔	0.8457	0.08077	pCi/g	0.104	Y	609.4	4	1.426	IDENTIFIED	7.698	☐	
Radium-228	✔	1.38	0.1627	pCi/g	0.1681	0.500	911.4	3	1.234	IDENTIFIED	10.1	☐	
Sodium-24	HE	2.25E+05	2.90E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.4139	0.04475	pCi/g	0.04856	0.080	583.4	1	1.248	IDENTIFIED	9.369	☐	
Thorium-228	nr	1.28	0.1019	pCi/g	0.07791	N	238.6	4	0.9577	IDENTIFIED	3.782	☐	
Thorium-230	nr	0.8457	0.08077	pCi/g	0.104	N	609.4	4	1.426	IDENTIFIED	7.698	☐	
Thorium-232	nr	1.38	0.1627	pCi/g	0.1681	N	911.4	3	1.234	IDENTIFIED	10.1	☐	
Tin-126	int nr	0.275	0.04303	pCi/g	0.0995	N	87.24	3	1.113	IDENTIFIED	14.93	☐	
Titanium-44	la nr	0.2905	0.02294	pCi/g	0.0533	N	0	8	0	FAIL_ABUND	0	☐	
Total Uranium		2.9185	2.13E-06	ug/g	2.0985	N		0				☐	
Uranium-234	nr	0.8457	0.08077	pCi/g	0.104	N	609.4	4	1.426	IDENTIFIED	7.698	☐	
Zirconium-97	HE	5.60E+05	7.91E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960001	28-JAN-10 12:00	12-FEB-10 14:44	15.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.724	0.1972	pCi/g	0.2661	N	910.7	3	1.796	IDENTIFIED	9.931	☐	
Americium-243	int nr	0.3937	0.02806	pCi/g	0.04746	N	74.84	1	0.7555	IDENTIFIED	5.727	☐	
Annihilation Rad.	HE	0.1291	0.04017	pCi/g	0.0509	N	510.8	1	1.722	IDENTIFIED	30.76	☐	
Bismuth-210	HE	1.045	0.2939	pCi/g	0.6648	N	46.49	3	0.6833	IDENTIFIED	27.71	☐	
Bismuth-211	int	4.735	0.3289	pCi/g	0.3175	Y	351.7	4	1.061	IDENTIFIED	5.284	☐	ui
Bismuth-212	HE	1.191	0.3303	pCi/g	0.9313	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.406	0.1292	pCi/g	0.1321	0.200	609	4	1.187	IDENTIFIED	7.036	☐	
Cadmium-109	int	4.008	0.3991	pCi/g	0.734	Y	87.19	3	1.001	IDENTIFIED	8.795	☐	ui
Cerium-143	—	499	92.45	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Europium-155	HE	0.1912	0.06639	pCi/g	0.1155	N	105.4	1	1.013	IDENTIFIED	34.33	☐	
Gross Gamma	—	9.763	1.488	pCi/g	5.435	N		0				☐	
Iodine-123	HE	3.07E+06	2.34E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-135	HE	3.48E+15	3.83E+15	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

Lead-210	HE	1.045	0.2939	pCi/g	0.6648	N	46.49	3	0.6833	IDENTIFIED	27.71	☐
Lead-212 ✔		1.945	0.1146	pCi/g	0.08767	0.100	238.4	4	0.9364	IDENTIFIED	3.163	☐
Lead-214 ✔		1.647	0.1222	pCi/g	0.1107	0.100	351.7	4	1.061	IDENTIFIED	5.284	☐
Lutetium-177	HE	2.975	0.7115	pCi/g	1.924	N	0	10	0	FAIL_ABUND	0	☐
Neptunium-237	int nr	1.157	0.1659	pCi/g	0.2085	N	87.19	3	1.001	IDENTIFIED	8.795	☐
Polonium-210	HE	1.045	0.2932	pCi/g	0.6648	N	46.49	3	0.6833	IDENTIFIED	27.71	☐
Polonium-212	nr	1.945	0.1146	pCi/g	0.08767	N	238.4	4	0.9364	IDENTIFIED	3.163	☐
Polonium-214	nr	1.647	0.1222	pCi/g	0.1107	N	351.7	4	1.061	IDENTIFIED	5.284	☐
Polonium-216	nr	1.945	0.1146	pCi/g	0.08767	N	238.4	4	0.9364	IDENTIFIED	3.163	☐
Polonium-218	nr	1.647	0.1222	pCi/g	0.1107	N	351.7	4	1.061	IDENTIFIED	5.284	☐
Potassium-40 ✔		22.49	1.384	pCi/g	0.7127	1.00	1460	1	1.824	IDENTIFIED	4.43	☐
Radium-224	int	5.477	0.5448	pCi/g	1	Y	241.4	1	1.662	IDENTIFIED	8.899	☐ ui
Radium-226 ✔		1.406	0.1292	pCi/g	0.1321	Y	609	4	1.187	IDENTIFIED	7.036	☐
Radium-228 ✔		1.724	0.1972	pCi/g	0.2661	0.500	910.7	3	1.796	IDENTIFIED	9.931	☐
Sodium-24	HE	3.51E+05	4.04E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Technetium-99m		2.08E+16	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Thallium-200	HE	176.6	247.9	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Thallium-208 ✔		0.5432	0.05938	pCi/g	0.07091	0.080	583.1	1	1.268	IDENTIFIED	9.478	☐
Thorium-228	nr	1.975	0.1164	pCi/g	0.089	N	238.4	4	0.9364	IDENTIFIED	3.163	☐
Thorium-230	nr	1.406	0.1292	pCi/g	0.1321	N	609	4	1.187	IDENTIFIED	7.036	☐
Thorium-232	nr	1.724	0.1972	pCi/g	0.2661	N	910.7	3	1.796	IDENTIFIED	9.931	☐
Thorium-234 ✔		1.012	0.4304	pCi/g	0.7748	2.00	63.29	2	0.8096	IDENTIFIED	41.62	☐
Tin-126	int nr	0.3939	0.03923	pCi/g	0.07202	N	87.19	3	1.001	IDENTIFIED	8.795	☐
Titanium-44	la nr	0.4181	0.02398	pCi/g	0.04038	N	0	10	0	FAIL_ABUND	0	☐
Total Uranium		3.078	1.28E-06	ug/g	1.1554	N		0				☐
Uranium-234	nr	1.406	0.1292	pCi/g	0.1321	N	609	4	1.187	IDENTIFIED	7.036	☐
Uranium-238	HE	1.012	0.4304	pCi/g	0.7748	N	63.29	2	0.8096	IDENTIFIED	41.62	☐
Zirconium-97	HE	1.96E+06	1.05E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960002	28-JAN-10 12:00	12-FEB-10 14:45	15.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.411	0.1757	pCi/g	0.1856	N	910.2	3	1.454	IDENTIFIED	11.04	☐	
Americium-243	int nr	0.3876	0.05254	pCi/g	0.1162	N	74.76	1	1.279	IDENTIFIED	12.81	☐	
Annihilation Rad.		0.156	0.04858	pCi/g	0.04978	N	510.8	1	2.767	IDENTIFIED	31.01	☐	
Barium-137m		0.2111	0.04598	pCi/g	0.06377	N	660.9	2	1.701	IDENTIFIED	21.63	☐	
Bismuth-211	int	3.577	0.2816	pCi/g	0.4245	Y	351.4	4	1.473	IDENTIFIED	7.166	☐ ui	
Bismuth-212	HE	0.9801	0.2732	pCi/g	0.7342	N	0	11	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.263	0.1024	pCi/g	0.1309	0.200	608.6	4	1.477	IDENTIFIED	7.181	☐	
Cadmium-109	int	3.471	0.615	pCi/g	1.607	Y	87.13	3	1.155	IDENTIFIED	17.04	☐ ui	
Cerium-143 —		1231	168.6	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1068	0.03005	pCi/g	0.1056	0.100	0	11	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	int nr	0.677	0.1492	pCi/g	0.2606	N	269.6	1	1.188	IDENTIFIED	21.71	☐	
Cesium-137 ✔		0.2232	0.04861	pCi/g	0.06741	0.100	660.9	2	1.701	IDENTIFIED	21.63	☐	
Gross Gamma		8.793	1.334	pCi/g	3.376	N		0				☐	
Iodine-123	HE	1.64E+06	3.20E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.501	0.08074	pCi/g	0.1006	0.100	238.4	4	1.258	IDENTIFIED	4.004	☐	

Lead-214 ✔	1.244	0.1032	pCi/g	0.1406	0.100	351.4	4	1.473	IDENTIFIED	7.166	☐	
Lutetium-177 HE	3.375	0.8221	pCi/g	2.244	N	0	11	0	FAIL_ABUND	0	☐	
Neptunium-237 int nr	1.002	0.2054	pCi/g	0.4667	N	87.13	3	1.155	IDENTIFIED	17.04	☐	
Niobium-95m la nr	0.621	0.09215	pCi/g	0.305	N	0	11	0	NOT_IDENTI	0	☐	
Niobium-97 —	1.74E+05	70360	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Polonium-212 nr	1.501	0.08074	pCi/g	0.1006	N	238.4	4	1.258	IDENTIFIED	4.004	☐	
Polonium-214 nr	1.244	0.1032	pCi/g	0.1406	N	351.4	4	1.473	IDENTIFIED	7.166	☐	
Polonium-216 nr	1.501	0.08074	pCi/g	0.1006	N	238.4	4	1.258	IDENTIFIED	4.004	☐	
Polonium-218 nr	1.244	0.1032	pCi/g	0.1406	N	351.4	4	1.473	IDENTIFIED	7.166	☐	
Potassium-40 ✔	20.01	1.143	pCi/g	0.5188	1.00	1460	1	2.529	IDENTIFIED	4.312	☐	
Radium-224 int	4.25	0.7283	pCi/g	1.144	Y	241.2	1	1.756	IDENTIFIED	16.9	☐	ui
Radium-226 ✔	1.263	0.1024	pCi/g	0.1309	Y	608.6	4	1.477	IDENTIFIED	7.181	☐	
Radium-228 ✔	1.411	0.1757	pCi/g	0.1856	0.500	910.2	3	1.454	IDENTIFIED	11.04	☐	
Technetium-99m —	7.61E+14	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Thallium-200 HE	117.3	257.2	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Thallium-208 ✔	0.5758	0.0455	pCi/g	0.06129	0.080	582.4	1	1.623	IDENTIFIED	7.203	☐	
Thorium-228 nr	1.523	0.08196	pCi/g	0.1021	N	238.4	4	1.258	IDENTIFIED	4.004	☐	
Thorium-230 nr	1.263	0.1024	pCi/g	0.1309	N	608.6	4	1.477	IDENTIFIED	7.181	☐	
Thorium-232 nr	1.411	0.1757	pCi/g	0.1856	N	910.2	3	1.454	IDENTIFIED	11.04	☐	
Thorium-234 ✔	6.321	1.563	pCi/g	2.985	2.00	63.34	2	1.147	IDENTIFIED	23.02	☐	
Tin-126 int nr	0.3412	0.06044	pCi/g	0.1589	N	87.13	3	1.155	IDENTIFIED	17.04	☐	
Titanium-44 la nr	0.3841	0.0343	pCi/g	0.1004	N	0	11	0	FAIL_ABUND	0	☐	
Total Uranium	18.999	4.65E-06	ug/g	4.4439	N		0				☐	
Uranium-234 nr	1.263	0.1024	pCi/g	0.1309	N	608.6	4	1.477	IDENTIFIED	7.181	☐	
Uranium-235 ✔	0.4213	0.1683	pCi/g	0.4087	0.500	143.4	1	1.435	IDENTIFIED	39.11	☐	
Uranium-238 nr	6.321	1.563	pCi/g	2.985	N	63.34	2	1.147	IDENTIFIED	23.02	☐	
Zirconium-97	5.59E+06	1.26E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960003	28-JAN-10 12:00	12-FEB-10 15:47	15.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 nr	1.629	0.1661	pCi/g	0.1813	N	911.3	3	2.163	IDENTIFIED	7.748	☐	
Americium-243 int nr	0.3779	0.03581	pCi/g	0.0775	N	74.87	1	1.155	IDENTIFIED	8.551	☐	
Annihilation Rad. —	0.1393	0.0325	pCi/g	0.04099	N	510.9	1	2.056	IDENTIFIED	22.78	☐	
Bismuth-211 int	4.508	0.3337	pCi/g	0.2725	Y	351.9	4	1.344	IDENTIFIED	4.58	☐	ui
Bismuth-212 la nr	1.308	0.2561	pCi/g	0.5859	N	0	13	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.295	0.1041	pCi/g	0.101	0.200	609.4	4	1.739	IDENTIFIED	5.55	☐	
Cadmium-109 int	3.126	0.4589	pCi/g	1.174	Y	87.28	3	1.155	IDENTIFIED	13.91	☐	ui
Cerium-143 —	981.3	145.9	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1318	0.03371	pCi/g	0.07697	0.100	0	13	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Gross Gamma —	8.651	1.088	pCi/g	2.217	N		0				☐	
Iodine-123 HE	3.02E+06	2.80E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Iodine-135 HE	8.25E+13	2.50E+15	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Krypton-85 la nr	34.11	4.185	pCi/g	13.87	N	0	13	0	NOT_IDENTI	0	☐	
Lead-212 ✔	1.785	0.1287	pCi/g	0.0798	0.100	238.7	4	1.254	IDENTIFIED	2.887	☐	
Lead-214 ✔	1.568	0.1231	pCi/g	0.09497	0.100	351.9	4	1.344	IDENTIFIED	4.58	☐	
Lutetium-177 HE	3.357	0.8919	pCi/g	2.003	N	0	13	0	FAIL_ABUND	0	☐	

Neptunium-237	int nr	0.9021	0.1619	pCi/g	0.3754	N	87.28	3	1.155	IDENTIFIED	13.91	☐	
Niobium-95m	HE	0.2272	0.066	pCi/g	0.2049	N	0	13	0	NOT_IDENTI	0	☐	
Polonium-212	nr	1.785	0.1287	pCi/g	0.0798	N	238.7	4	1.254	IDENTIFIED	2.887	☐	
Polonium-214	nr	1.568	0.1231	pCi/g	0.09497	N	351.9	4	1.344	IDENTIFIED	4.58	☐	
Polonium-216	nr	1.785	0.1287	pCi/g	0.0798	N	238.7	4	1.254	IDENTIFIED	2.887	☐	
Polonium-218	nr	1.568	0.1231	pCi/g	0.09497	N	351.9	4	1.344	IDENTIFIED	4.58	☐	
Potassium-40	✔	20.46	1.122	pCi/g	0.4169	1.00	1461	1	2.594	IDENTIFIED	3.011	☐	
Radium-224	int	5.015	0.6489	pCi/g	0.907	Y	241.8	1	1.886	IDENTIFIED	11.31	☐	ui
Radium-226	✔	1.295	0.1041	pCi/g	0.101	Y	609.4	4	1.739	IDENTIFIED	5.55	☐	
Radium-228	✔	1.629	0.1661	pCi/g	0.1813	0.500	911.3	3	2.163	IDENTIFIED	7.748	☐	
Sodium-24	HE	2.83E+05	3.48E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.175	0.02146	pCi/g	0.07114	Y	0	13	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-200	HE	78.46	206.4	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.5086	0.04331	pCi/g	0.05206	0.080	583.3	1	1.649	IDENTIFIED	6.567	☐	
Thorium-228	nr	1.812	0.1307	pCi/g	0.08101	N	238.7	4	1.254	IDENTIFIED	2.887	☐	
Thorium-230	nr	1.295	0.1041	pCi/g	0.101	N	609.4	4	1.739	IDENTIFIED	5.55	☐	
Thorium-232	nr	1.629	0.1661	pCi/g	0.1813	N	911.3	3	2.163	IDENTIFIED	7.748	☐	
Thorium-234	✔	1.785	0.8164	pCi/g	1.772	2.00	63.32	2	0.8341	IDENTIFIED	44.9	☐	
Tin-126	int nr	0.3072	0.04511	pCi/g	0.1158	N	87.28	3	1.155	IDENTIFIED	13.91	☐	
Titanium-44	la nr	0.3737	0.02567	pCi/g	0.07153	N	0	13	0	FAIL_ABUND	0	☐	
Total Uranium		5.3568	2.43E-06	ug/g	2.6389	N		0				☐	
Uranium-234	nr	1.295	0.1041	pCi/g	0.101	N	609.4	4	1.739	IDENTIFIED	5.55	☐	
Uranium-238	HE	1.785	0.8164	pCi/g	1.772	N	63.32	2	0.8341	IDENTIFIED	44.9	☐	
Zirconium-97		5.81E+06	9.89E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960004	28-JAN-10 12:00	12-FEB-10 15:47	15.2	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.668	0.1908	pCi/g	0.2132	N	911	3	1.451	IDENTIFIED	9.772	☐	
Americium-243	int nr	0.3908	0.0285	pCi/g	0.04724	N	74.86	1	0.8099	IDENTIFIED	5.23	☐	
Annihilation Rad.		0.1778	0.03517	pCi/g	0.04701	N	510.4	1	1.591	IDENTIFIED	19.1	☐	
Bismuth-210	nr	1.167	0.2868	pCi/g	0.5642	N	46.65	3	0.8352	IDENTIFIED	24.04	☐	
Bismuth-211	int	4.222	0.3167	pCi/g	0.3007	Y	351.9	4	1.042	IDENTIFIED	5.347	☐	ui
Bismuth-212	la nr	1.356	0.2528	pCi/g	0.7669	N	0	11	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.251	0.1132	pCi/g	0.1249	0.200	609.2	4	1.52	IDENTIFIED	6.744	☐	
Cadmium-109	int	4.082	0.4181	pCi/g	0.7732	Y	87.24	3	1.205	IDENTIFIED	8.732	☐	ui
Cerium-143	-	484.8	90.57	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1585	0.03849	pCi/g	0.1027	0.100	0	11	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Gross Gamma	-	9.562	1.4	pCi/g	3.866	N		0				☐	
Iodine-123	HE	6.93E+05	2.46E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Iodine-133	HE	2113	3215	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Lead-210	nr	1.167	0.2868	pCi/g	0.5642	N	46.65	3	0.8352	IDENTIFIED	24.04	☐	
Lead-212	✔	1.9	0.1238	pCi/g	0.1216	0.100	238.6	4	1.063	IDENTIFIED	3.166	☐	
Lead-214	✔	1.469	0.1166	pCi/g	0.1049	0.100	351.9	4	1.042	IDENTIFIED	5.347	☐	
Lutetium-177	la nr	3.12	0.6259	pCi/g	1.816	N	0	11	0	FAIL_ABUND	0	☐	
Mercury-203	int	0.07027	0.02469	pCi/g	0.05987	0.100	277.9	1	0.9783	IDENTIFIED	34.67	☐	ui
Neptunium-237	int nr	1.178	0.1713	pCi/g	0.2217	N	87.24	3	1.205	IDENTIFIED	8.732	☐	

Niobium-97	HE	15010	58130	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Polonium-210	nr	1.167	0.2859	pCi/g	0.5642	N	46.65	3	0.8352	IDENTIFIED	24.04	☐	
Polonium-212	nr	1.9	0.1238	pCi/g	0.1216	N	238.6	4	1.063	IDENTIFIED	3.166	☐	
Polonium-214	nr	1.469	0.1166	pCi/g	0.1049	N	351.9	4	1.042	IDENTIFIED	5.347	☐	
Polonium-216	nr	1.9	0.1238	pCi/g	0.1216	N	238.6	4	1.063	IDENTIFIED	3.166	☐	
Polonium-218	nr	1.469	0.1166	pCi/g	0.1049	N	351.9	4	1.042	IDENTIFIED	5.347	☐	
Potassium-40	✔	20.76	1.156	pCi/g	0.5421	1.00	1460	1	2.077	IDENTIFIED	3.587	☐	
Radium-224	int	3.657	0.4989	pCi/g	1.047	Y	241.7	1	1.684	IDENTIFIED	12.59	☐	ui
Radium-226	✔	1.251	0.1132	pCi/g	0.1249	Y	609.2	4	1.52	IDENTIFIED	6.744	☐	
Radium-228	✔	1.668	0.1908	pCi/g	0.2132	0.500	911	3	1.451	IDENTIFIED	9.772	☐	
Sodium-24	HE	1.79E+05	4.33E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Technetium-99m		2.62E+15	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.5978	0.05694	pCi/g	0.05949	0.080	583.1	1	1.319	IDENTIFIED	7.679	☐	
Thorium-228	nr	1.929	0.1257	pCi/g	0.1235	N	238.6	4	1.063	IDENTIFIED	3.166	☐	
Thorium-230	nr	1.251	0.1132	pCi/g	0.1249	N	609.2	4	1.52	IDENTIFIED	6.744	☐	
Thorium-232	nr	1.668	0.1908	pCi/g	0.2132	N	911	3	1.451	IDENTIFIED	9.772	☐	
Thorium-234	✔	1.778	0.4709	pCi/g	0.7324	2.00	63.53	2	0.8598	IDENTIFIED	24.8	☐	
Tin-126	int nr	0.4012	0.04109	pCi/g	0.07584	N	87.24	3	1.205	IDENTIFIED	8.732	☐	
Titanium-44	la nr	0.3933	0.02542	pCi/g	0.04815	N	0	11	0	FAIL_ABUND	0	☐	
Total Uranium		5.3265	1.40E-06	ug/g	1.0923	N		0				☐	
Uranium-234	nr	1.251	0.1132	pCi/g	0.1249	N	609.2	4	1.52	IDENTIFIED	6.744	☐	
Uranium-238	nr	1.778	0.4709	pCi/g	0.7324	N	63.53	2	0.8598	IDENTIFIED	24.8	☐	
Zirconium-97	HE	1.55E+06	1.03E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960005	28-JAN-10 12:00	12-FEB-10 15:48	15.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.6	0.1689	pCi/g	0.2087	N	910.6	3	1.811	IDENTIFIED	9.018	☐	
Americium-243	int nr	0.3897	0.04049	pCi/g	0.09558	N	74.72	1	0.9635	IDENTIFIED	9.817	☐	
Annihilation Rad.		0.1517	0.03225	pCi/g	0.04859	N	510.4	1	1.826	IDENTIFIED	21.04	☐	
Bismuth-211	int	4.428	0.2618	pCi/g	0.3076	Y	351.6	4	1.371	IDENTIFIED	5.007	☐	ui
Bismuth-212	nr	1.866	0.239	pCi/g	0.424	N	726.5	1	1.736	IDENTIFIED	12.05	☐	
Bismuth-214	✔	1.347	0.09264	pCi/g	0.117	0.200	608.9	4	1.373	IDENTIFIED	5.51	☐	
Cadmium-109	int	3.98	0.4696	pCi/g	1.292	Y	87.03	3	1.162	IDENTIFIED	11.17	☐	ui
Cerium-143	—	850	128.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1251	0.03538	pCi/g	0.09771	0.100	0	10	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Gross Gamma	—	9.146	1.428	pCi/g	4.141	N		0				☐	
Iodine-133	HE	627.1	2908	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-135	HE	3.19E+15	3.08E+15	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212	✔	1.696	0.08144	pCi/g	0.09112	0.100	238.4	4	1.082	IDENTIFIED	3.232	☐	
Lead-214	✔	1.54	0.09953	pCi/g	0.1072	0.100	351.6	4	1.371	IDENTIFIED	5.007	☐	
Lutetium-177	HE	3.497	0.9145	pCi/g	2.019	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr	1.149	0.18	pCi/g	0.3506	N	87.03	3	1.162	IDENTIFIED	11.17	☐	
Niobium-95	HE	0.1054	0.02714	pCi/g	0.09213	N	0	10	0	NOT_IDENTI	0	☐	
Niobium-97	HE	38050	50490	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.696	0.08144	pCi/g	0.09112	N	238.4	4	1.082	IDENTIFIED	3.232	☐	
Polonium-214	nr	1.54	0.09953	pCi/g	0.1072	N	351.6	4	1.371	IDENTIFIED	5.007	☐	

Polonium-216	nr	1.696	0.08144	pCi/g	0.09112	N	238.4	4	1.082	IDENTIFIED	3.232	☐	
Polonium-218	nr	1.54	0.09953	pCi/g	0.1072	N	351.6	4	1.371	IDENTIFIED	5.007	☐	
Potassium-40	✔	19.04	1.054	pCi/g	0.5778	1.00	1460	1	1.942	IDENTIFIED	4.233	☐	
Radium-224	int	4.936	0.6757	pCi/g	1.037	Y	241.4	1	1.844	IDENTIFIED	13.41	☐	ui
Radium-226	✔	1.347	0.09264	pCi/g	0.117	Y	608.9	4	1.373	IDENTIFIED	5.51	☐	
Radium-228	✔	1.6	0.1689	pCi/g	0.2087	0.500	910.6	3	1.811	IDENTIFIED	9.018	☐	
Thallium-200	HE	23.2	223.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.5516	0.0459	pCi/g	0.0529	0.080	582.8	1	1.353	IDENTIFIED	7.514	☐	
Thorium-228	nr	1.722	0.08268	pCi/g	0.09251	N	238.4	4	1.082	IDENTIFIED	3.232	☐	
Thorium-230	nr	1.347	0.09264	pCi/g	0.117	N	608.9	4	1.373	IDENTIFIED	5.51	☐	
Thorium-232	nr	1.6	0.1689	pCi/g	0.2087	N	910.6	3	1.811	IDENTIFIED	9.018	☐	
Thorium-234	✔	2.268	1.045	pCi/g	2.094	2.00	63.31	2	0.8345	IDENTIFIED	45.29	☐	
Tin-126	int nr	0.3912	0.04615	pCi/g	0.1276	N	87.03	3	1.162	IDENTIFIED	11.17	☐	
Titanium-44	la nr	0.4287	0.03014	pCi/g	0.07831	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium		6.752	3.11E-06	ug/g	3.1174	N		0				☐	
Uranium-234	nr	1.347	0.09264	pCi/g	0.117	N	608.9	4	1.373	IDENTIFIED	5.51	☐	
Uranium-238	HE	2.268	1.045	pCi/g	2.094	N	63.31	2	0.8345	IDENTIFIED	45.29	☐	
Zirconium-97		3.32E+06	1.11E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960006	28-JAN-10 12:00	12-FEB-10 15:48	15.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.54	0.1962	pCi/g	0.2543	N	910.6	3	1.656	IDENTIFIED	11.41	☐	
Americium-243	int nr	0.3633	0.03361	pCi/g	0.06513	N	74.8	1	1.082	IDENTIFIED	7.86	☐	
Annihilation Rad.		0.2285	0.04619	pCi/g	0.05904	N	510.5	1	2.043	IDENTIFIED	19.72	☐	
Barium-137m		0.329	0.04906	pCi/g	0.0723	N	661.5	2	1.217	IDENTIFIED	14.31	☐	
Bismuth-210	nr	2.081	0.4631	pCi/g	0.9319	N	46.66	3	0.8764	IDENTIFIED	21.58	☐	
Bismuth-211	int	4.2	0.3402	pCi/g	0.3954	Y	351.7	4	1.288	IDENTIFIED	6.624	☐	ui
Bismuth-212	HE	1.478	0.3359	pCi/g	0.9324	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.317	0.1204	pCi/g	0.1484	0.200	609	4	1.471	IDENTIFIED	7.597	☐	
Cadmium-109	int	2.108	0.4447	pCi/g	1.335	Y	87.17	3	0.8045	IDENTIFIED	20.52	☐	ui
Cerium-141	HE	0.1648	0.0686	pCi/g	0.102	N	144.1	2	1.426	IDENTIFIED	41.32	☐	
Cerium-143	—	648.7	123.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-137	✔	0.3478	0.05187	pCi/g	0.07642	0.100	661.5	2	1.217	IDENTIFIED	14.31	☐	
Gadolinium-153	HE	0.1327	0.04874	pCi/g	0.1325	N	0	10	0	FAIL_ABUND	0	☐	
Gold-195	HE	0.6568	0.1869	pCi/g	0.4216	N	0	10	0	FAIL_ABUND	0	☐	
Gross Gamma	—	9.96	1.428	pCi/g	4.87	N		0				☐	
Iodine-123	HE	1.79E+06	3.23E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-133	HE	400.6	4116	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-210	nr	2.081	0.4631	pCi/g	0.9319	N	46.66	3	0.8764	IDENTIFIED	21.58	☐	
Lead-212	✔	1.692	0.1068	pCi/g	0.09857	0.100	238.6	4	1.073	IDENTIFIED	3.798	☐	
Lead-214	✔	1.461	0.1243	pCi/g	0.1379	0.100	351.7	4	1.288	IDENTIFIED	6.624	☐	
Lutetium-177	HE	2.809	0.9606	pCi/g	2.285	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.6084	0.1429	pCi/g	0.3835	N	87.17	3	0.8045	IDENTIFIED	20.52	☐	
Polonium-210	nr	2.081	0.4612	pCi/g	0.9319	N	46.66	3	0.8764	IDENTIFIED	21.58	☐	
Polonium-212	nr	1.692	0.1068	pCi/g	0.09857	N	238.6	4	1.073	IDENTIFIED	3.798	☐	
Polonium-214	nr	1.461	0.1243	pCi/g	0.1379	N	351.7	4	1.288	IDENTIFIED	6.624	☐	

Polonium-216 nr	1.692	0.1068	pCi/g	0.09857	N	238.6	4	1.073	IDENTIFIED	3.798	☐	
Polonium-218 nr	1.461	0.1243	pCi/g	0.1379	N	351.7	4	1.288	IDENTIFIED	6.624	☐	
Potassium-40 ✔	19.93	1.286	pCi/g	0.5094	1.00	1460	1	2.029	IDENTIFIED	4.678	☐	
Radium-224 int	4.496	0.5521	pCi/g	1.123	Y	241.7	1	1.245	IDENTIFIED	11.42	☐	ui
Radium-226 ✔	1.317	0.1204	pCi/g	0.1484	Y	609	4	1.471	IDENTIFIED	7.597	☐	
Radium-228 ✔	1.54	0.1962	pCi/g	0.2543	0.500	910.6	3	1.656	IDENTIFIED	11.41	☐	
Technetium-99m	4.18E+15	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208 ✔	0.5699	0.05336	pCi/g	0.06941	0.080	583	1	1.141	IDENTIFIED	8.082	☐	
Thorium-228 nr	1.718	0.1084	pCi/g	0.1001	N	238.6	4	1.073	IDENTIFIED	3.798	☐	
Thorium-230 nr	1.317	0.1204	pCi/g	0.1484	N	609	4	1.471	IDENTIFIED	7.597	☐	
Thorium-232 nr	1.54	0.1962	pCi/g	0.2543	N	910.6	3	1.656	IDENTIFIED	11.41	☐	
Thorium-234 ✔	8.425	1.035	pCi/g	1.162	2.00	63.3	2	1.049	IDENTIFIED	7.992	☐	
Tin-126 HE	0.2072	0.04371	pCi/g	0.131	N	87.17	3	0.8045	IDENTIFIED	20.52	☐	
Titanium-44 la nr	0.4072	0.02917	pCi/g	0.07073	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium .	25.319	3.08E-06	ug/g	1.7311	N		0				☐	
Uranium-234 nr	1.317	0.1204	pCi/g	0.1484	N	609	4	1.471	IDENTIFIED	7.597	☐	
Uranium-235 ✔	0.5492	0.2324	pCi/g	0.3694	0.500	144.1	2	1.426	IDENTIFIED	41.32	☐	
Uranium-238 nr	8.425	1.035	pCi/g	1.162	N	63.3	2	1.049	IDENTIFIED	7.992	☐	
Zirconium-97	3.55E+06	1.32E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960007	28-JAN-10 12:00	12-FEB-10 15:49	15.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 nr	1.566	0.1509	pCi/g	0.1472	N	910.9	3	1.852	IDENTIFIED	6.998	☐	
Americium-243 int nr	0.3772	0.03894	pCi/g	0.08558	N	75.08	1	1.134	IDENTIFIED	9.439	☐	
Annihilation Rad.	0.1084	0.02595	pCi/g	0.03553	N	510.9	1	2.047	IDENTIFIED	23.72	☐	
Bismuth-211 int	3.635	0.2126	pCi/g	0.2336	Y	352	4	1.27	IDENTIFIED	4.889	☐	ui
Bismuth-212 la nr	0.9771	0.1992	pCi/g	0.5099	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.156	0.08126	pCi/g	0.08295	0.200	609.2	4	1.591	IDENTIFIED	5.425	☐	
Cadmium-109 int	2.588	0.4341	pCi/g	1.129	Y	87.46	3	1.055	IDENTIFIED	16.13	☐	ui
Cerium-143 —	684.4	101.1	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Gross Gamma —	7.998	1.132	pCi/g	2.217	N		0				☐	
Iodine-123 HE	5.44E+05	2.25E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-133 HE	3869	2187	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Krypton-85 la nr	17.52	3.133	pCi/g	10.8	N	0	10	0	NOT_IDENTI	0	☐	
Lead-212 ✔	1.571	0.07225	pCi/g	0.07232	0.100	238.8	4	1.214	IDENTIFIED	2.896	☐	
Lead-214 ✔	1.265	0.08098	pCi/g	0.0814	0.100	352	4	1.27	IDENTIFIED	4.889	☐	
Lutetium-177 HE	2.737	0.7163	pCi/g	1.731	N	0	10	0	FAIL_ABUND	0	☐	
Mercury-203 int	0.06006	0.02073	pCi/g	0.04871	0.100	278.2	1	1.686	IDENTIFIED	34.39	☐	ui
Neptunium-237 int nr	0.7468	0.1471	pCi/g	0.3331	N	87.46	3	1.055	IDENTIFIED	16.13	☐	
Niobium-95 HE	0.06176	0.01793	pCi/g	0.05952	N	0	10	0	NOT_IDENTI	0	☐	
Polonium-212 nr	1.571	0.07225	pCi/g	0.07232	N	238.8	4	1.214	IDENTIFIED	2.896	☐	
Polonium-214 nr	1.265	0.08098	pCi/g	0.0814	N	352	4	1.27	IDENTIFIED	4.889	☐	
Polonium-216 nr	1.571	0.07225	pCi/g	0.07232	N	238.8	4	1.214	IDENTIFIED	2.896	☐	
Polonium-218 nr	1.265	0.08098	pCi/g	0.0814	N	352	4	1.27	IDENTIFIED	4.889	☐	
Potassium-40 ✔	19.22	0.9123	pCi/g	0.3465	1.00	1460	1	2.427	IDENTIFIED	2.85	☐	
Radium-224 int	4.214	0.5518	pCi/g	0.8219	Y	241.7	1	1.767	IDENTIFIED	12.79	☐	ui

Radium-226		1.156	0.08126	pCi/g	0.08295	Y	609.2	4	1.591	IDENTIFIED	5.425	☐	
Radium-228		1.566	0.1509	pCi/g	0.1472	0.500	910.9	3	1.852	IDENTIFIED	6.998	☐	
Strontium-85	la	0.08986	0.01607	pCi/g	0.05542	Y	0	10	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208		0.4802	0.03611	pCi/g	0.04483	0.080	583.1	1	1.541	IDENTIFIED	6.417	☐	
Thorium-228	nr	1.595	0.07335	pCi/g	0.07342	N	238.8	4	1.214	IDENTIFIED	2.896	☐	
Thorium-230	nr	1.156	0.08125	pCi/g	0.08295	N	609.2	4	1.591	IDENTIFIED	5.425	☐	
Thorium-232	nr	1.566	0.1509	pCi/g	0.1472	N	910.9	3	1.852	IDENTIFIED	6.998	☐	
Thorium-234		2.305	0.9302	pCi/g	2.077	2.00	63.26	2	1.356	IDENTIFIED	39.38	☐	
Tin-126	int nr	0.2543	0.04267	pCi/g	0.1117	N	87.46	3	1.055	IDENTIFIED	16.13	☐	
Titanium-44	la nr	0.363	0.02702	pCi/g	0.0789	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium		6.7786	2.77E-06	ug/g	3.092	N		0				☐	
Uranium-234	nf	1.156	0.08125	pCi/g	0.08295	N	609.2	4	1.591	IDENTIFIED	5.425	☐	
Uranium-238	HE	2.305	0.9302	pCi/g	2.077	N	63.26	2	1.356	IDENTIFIED	39.38	☐	
Zirconium-97		3.15E+06	8.69E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960008	28-JAN-10 12:00	12-FEB-10 15:53	15.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.585	0.1795	pCi/g	0.2281	N	911.4	3	1.788	IDENTIFIED	9.732	☐	
Americium-243	int nr	0.4101	0.04825	pCi/g	0.09947	N	74.81	1	1.305	IDENTIFIED	11.01	☐	
Annihilation Rad.		0.1368	0.04018	pCi/g	0.05593	N	511.1	1	2.154	IDENTIFIED	29.07	☐	
Barium-137m		0.2559	0.03286	pCi/g	0.06438	N	661.8	2	1.743	IDENTIFIED	12.17	☐	
Bismuth-211	int	4.065	0.3386	pCi/g	0.3856	Y	352.2	4	1.336	IDENTIFIED	6.984	☐	ui
Bismuth-212	HE	1.273	0.387	pCi/g	0.7906	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214		1.206	0.1068	pCi/g	0.119	0.200	609.6	4	1.433	IDENTIFIED	7.353	☐	
Cadmium-109	int	3.099	0.5068	pCi/g	1.457	Y	87.37	3	1.366	IDENTIFIED	15.66	☐	ui
Cerium-143		302.5	96.46	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-137		0.2705	0.03474	pCi/g	0.06806	0.100	661.8	2	1.743	IDENTIFIED	12.17	☐	
Gross Gamma		9.144	1.378	pCi/g	3.79	N		0				☐	
Iodine-135	HE	2.44E+15	3.29E+15	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Krypton-85	HE	19.25	5.18	pCi/g	16.99	N	0	8	0	NOT_IDENTI	0	☐	
Lead-212		1.644	0.1052	pCi/g	0.1069	0.100	239	4	1.286	IDENTIFIED	3.909	☐	
Lead-214		1.414	0.1234	pCi/g	0.139	0.100	352.2	4	1.336	IDENTIFIED	6.984	☐	
Neptunium-237	int nr	0.8945	0.173	pCi/g	0.4655	N	87.37	3	1.366	IDENTIFIED	15.66	☐	
Niobium-97	HE	9576	67500	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.644	0.1052	pCi/g	0.1069	N	239	4	1.286	IDENTIFIED	3.909	☐	
Polonium-214	nr	1.414	0.1234	pCi/g	0.139	N	352.2	4	1.336	IDENTIFIED	6.984	☐	
Polonium-216	nr	1.644	0.1052	pCi/g	0.1069	N	239	4	1.286	IDENTIFIED	3.909	☐	
Polonium-218	nr	1.414	0.1234	pCi/g	0.139	N	352.2	4	1.336	IDENTIFIED	6.984	☐	
Potassium-40		22.02	1.3	pCi/g	0.5536	1.00	1461	1	2.216	IDENTIFIED	3.883	☐	
Radium-224	int	4.843	0.6611	pCi/g	1.217	Y	242.1	1	1.708	IDENTIFIED	12.87	☐	ui
Radium-226		1.206	0.1068	pCi/g	0.119	Y	609.6	4	1.433	IDENTIFIED	7.353	☐	
Radium-228		1.585	0.1795	pCi/g	0.2281	0.500	911.4	3	1.788	IDENTIFIED	9.732	☐	
Strontium-85	la	0.09877	0.02657	pCi/g	0.08717	Y	0	8	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208		0.5658	0.05478	pCi/g	0.06088	0.080	583.4	1	1.682	IDENTIFIED	8.552	☐	
Thorium-228	nr	1.669	0.1068	pCi/g	0.1085	N	239	4	1.286	IDENTIFIED	3.909	☐	
Thorium-230	nr	1.206	0.1068	pCi/g	0.119	N	609.6	4	1.433	IDENTIFIED	7.353	☐	

Thorium-232 nr	1.585	0.1795	pCi/g	0.2281	N	911.4	3	1.788	IDENTIFIED	9.732	☐	
Thorium-234 ✔	3.124	1.272	pCi/g	2.468	2.00	62.99	2	1.068	IDENTIFIED	39.78	☐	
Tin-126 int nr	0.3046	0.04981	pCi/g	0.1439	N	87.37	3	1.366	IDENTIFIED	15.66	☐	
Titanium-44 la nr	0.3754	0.03329	pCi/g	0.09047	N	0	8	0	FAIL_ABUND	0	☐	
Total Uranium	9.2527	3.79E-06	ug/g	3.6751	N		0				☐	
Uranium-234 nr	1.206	0.1068	pCi/g	0.119	N	609.6	4	1.433	IDENTIFIED	7.353	☐	
Uranium-238 HE	3.124	1.272	pCi/g	2.468	N	62.99	2	1.068	IDENTIFIED	39.78	☐	
Zirconium-97	2.60E+06	1.03E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960009	28-JAN-10 12:00	12-FEB-10 15:54	15.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 nr	1.684	0.2222	pCi/g	0.2578	N	911	3	1.557	IDENTIFIED	12.16	☐	
Americium-243 int nr	0.3847	0.0457	pCi/g	0.109	N	74.71	1	1.121	IDENTIFIED	10.99	☐	
Annihilation Rad.	0.1722	0.03929	pCi/g	0.0539	N	510.8	1	2.06	IDENTIFIED	22.65	☐	
Barium-137m	0.2461	0.04584	pCi/g	0.06932	N	661.8	2	1.41	IDENTIFIED	18.46	☐	
Bismuth-211 int	4.028	0.3159	pCi/g	0.4143	Y	351.6	4	1.268	IDENTIFIED	7.146	☐	ui
Bismuth-212 HE	0.8296	0.2598	pCi/g	0.7622	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.284	0.112	pCi/g	0.1378	0.200	609	4	1.611	IDENTIFIED	7.907	☐	
Cadmium-109 int	2.823	0.6166	pCi/g	2.034	Y	86.83	3	1.056	IDENTIFIED	21.29	☐	ui
Cerium-143 –	902.5	153.7	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1857	0.057	pCi/g	0.1148	0.100	0	10	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Cesium-137 ✔	0.2601	0.04846	pCi/g	0.07328	0.100	661.8	2	1.41	IDENTIFIED	18.46	☐	
Gross Gamma	8.518	1.439	pCi/g	3.816	N		0				☐	
Iodine-133 HE	2290	3524	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212 ✔	1.609	0.0865	pCi/g	0.119	0.100	238.4	4	1.057	IDENTIFIED	3.912	☐	
Lead-214 ✔	1.401	0.1158	pCi/g	0.1444	0.100	351.6	4	1.268	IDENTIFIED	7.146	☐	
Neptunium-237 HE	0.8148	0.1968	pCi/g	0.5512	N	86.83	3	1.056	IDENTIFIED	21.29	☐	
Niobium-95m HE	0.4725	0.1011	pCi/g	0.3215	N	0	10	0	NOT_IDENTI	0	☐	
Niobium-97 HE	1.22E+05	65700	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Polonium-212 nr	1.609	0.0865	pCi/g	0.119	N	238.4	4	1.057	IDENTIFIED	3.912	☐	
Polonium-214 nr	1.401	0.1158	pCi/g	0.1444	N	351.6	4	1.268	IDENTIFIED	7.146	☐	
Polonium-216 nr	1.609	0.0865	pCi/g	0.119	N	238.4	4	1.057	IDENTIFIED	3.912	☐	
Polonium-218 nr	1.401	0.1158	pCi/g	0.1444	N	351.6	4	1.268	IDENTIFIED	7.146	☐	
Potassium-40 ✔	18.72	1.029	pCi/g	0.5569	1.00	1461	1	1.973	IDENTIFIED	4.389	☐	
Radium-224 int	4.795	0.7059	pCi/g	1.355	Y	241.4	1	1.709	IDENTIFIED	14.43	☐	ui
Radium-226 ✔	1.284	0.112	pCi/g	0.1378	Y	609	4	1.611	IDENTIFIED	7.907	☐	
Radium-228 ✔	1.684	0.2222	pCi/g	0.2578	0.500	911	3	1.557	IDENTIFIED	12.16	☐	
Sodium-24 HE	3.81E+05	4.20E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-200 HE	149.5	289.3	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208 ✔	0.5533	0.04958	pCi/g	0.06932	0.080	582.9	1	1.431	IDENTIFIED	8.384	☐	
Thorium-228 nr	1.634	0.08781	pCi/g	0.1208	N	238.4	4	1.057	IDENTIFIED	3.912	☐	
Thorium-230 nr	1.284	0.112	pCi/g	0.1378	N	609	4	1.611	IDENTIFIED	7.907	☐	
Thorium-232 nr	1.684	0.2222	pCi/g	0.2578	N	911	3	1.557	IDENTIFIED	12.16	☐	
Thorium-234 ✔	4.906	1.166	pCi/g	2.976	2.00	62.65	2	0.9224	IDENTIFIED	21.97	☐	
Tin-126 HE	0.2775	0.06061	pCi/g	0.1902	N	86.83	3	1.056	IDENTIFIED	21.29	☐	
Titanium-44 la nr	0.4078	0.03438	pCi/g	0.0994	N	0	10	0	FAIL_ABUND	0	☐	

Total Uranium		14.574	3.47E-06	ug/g	4.4309	N		0				☐
Uranium-234	nr	1.284	0.112	pCi/g	0.1378	N	609	4	1.611	IDENTIFIED	7.907	☐
Uranium-238	HE	4.906	1.166	pCi/g	2.976	N	62.65	2	0.9224	IDENTIFIED	21.97	☐
Zirconium-97		6.15E+06	1.38E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960010	28-JAN-10 12:00	12-FEB-10 16:24	15.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.736	0.1958	pCi/g	0.2583	N	911.4	3	1.233	IDENTIFIED	9.657	☐	
Americium-243	int nr	0.3669	0.04408	pCi/g	0.08734	N	74.76	1	1.339	IDENTIFIED	11.32	☐	
Annihilation Rad.	—	0.1444	0.04334	pCi/g	0.05369	N	511.4	1	1.778	IDENTIFIED	29.69	☐	
Barium-137m		0.245	0.05003	pCi/g	0.07106	N	661.8	2	1.223	IDENTIFIED	19.93	☐	
Bismuth-211	int	4.257	0.3405	pCi/g	0.3991	Y	352	4	1.142	IDENTIFIED	6.623	☐	ui
Bismuth-212	la nr	1.854	0.4017	pCi/g	0.8243	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.3	0.117	pCi/g	0.1323	0.200	609.4	4	1.586	IDENTIFIED	7.365	☐	
Cadmium-109	int	3.319	0.5279	pCi/g	1.332	Y	87.18	3	1.338	IDENTIFIED	15.21	☐	ui
Cerium-143	—	525.1	111.5	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.259	0.05289	pCi/g	0.07511	0.100	661.8	2	1.223	IDENTIFIED	19.93	☐	
Gross Gamma	—	10.53	1.579	pCi/g	5.075	N		0				☐	
Iodine-133	HE	2205	3626	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Krypton-85	HE	17.35	4.876	pCi/g	16.35	N	0	9	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.864	0.1107	pCi/g	0.1003	0.100	238.8	4	1.165	IDENTIFIED	3.522	☐	
Lead-214	✓	1.481	0.1246	pCi/g	0.1391	0.100	352	4	1.142	IDENTIFIED	6.623	☐	
Lutetium-177	HE	3.522	0.934	pCi/g	2.25	N	0	9	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr	0.9578	0.1816	pCi/g	0.3782	N	87.18	3	1.338	IDENTIFIED	15.21	☐	
Niobium-97	HE	56790	66510	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.864	0.1107	pCi/g	0.1003	N	238.8	4	1.165	IDENTIFIED	3.522	☐	
Polonium-214	nr	1.481	0.1246	pCi/g	0.1391	N	352	4	1.142	IDENTIFIED	6.623	☐	
Polonium-216	nr	1.864	0.1107	pCi/g	0.1003	N	238.8	4	1.165	IDENTIFIED	3.522	☐	
Polonium-218	nr	1.481	0.1246	pCi/g	0.1391	N	352	4	1.142	IDENTIFIED	6.623	☐	
Potassium-40	✓	23.63	1.351	pCi/g	0.5176	1.00	1461	1	1.706	IDENTIFIED	3.778	☐	
Radium-224	int	5.994	0.9658	pCi/g	1.142	Y	241.7	1	2.211	IDENTIFIED	15.55	☐	ui
Radium-226	✓	1.3	0.117	pCi/g	0.1323	Y	609.4	4	1.586	IDENTIFIED	7.365	☐	
Radium-228	✓	1.736	0.1958	pCi/g	0.2583	0.500	911.4	3	1.233	IDENTIFIED	9.657	☐	
Strontium-85	la	0.08903	0.02502	pCi/g	0.08387	Y	0	9	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208	✓	0.553	0.05212	pCi/g	0.06544	0.080	583.3	1	1.486	IDENTIFIED	8.121	☐	
Thorium-228	nr	1.892	0.1124	pCi/g	0.1019	N	238.8	4	1.165	IDENTIFIED	3.522	☐	
Thorium-230	nr	1.3	0.117	pCi/g	0.1323	N	609.4	4	1.586	IDENTIFIED	7.365	☐	
Thorium-232	nr	1.736	0.1958	pCi/g	0.2583	N	911.4	3	1.233	IDENTIFIED	9.657	☐	
Thorium-234	✓	9.312	1.322	pCi/g	1.88	2.00	63.25	2	1.015	IDENTIFIED	11.22	☐	
Tin-126	int nr	0.3262	0.05188	pCi/g	0.1342	N	87.18	3	1.338	IDENTIFIED	15.21	☐	
Titanium-44	la nr	0.4044	0.02978	pCi/g	0.08306	N	0	9	0	FAIL_ABUND	0	☐	
Total Uranium		27.931	3.93E-06	ug/g	2.7989	N		0				☐	
Uranium-234	nr	1.3	0.117	pCi/g	0.1323	N	609.4	4	1.586	IDENTIFIED	7.365	☐	
Uranium-235	✓	0.4921	0.1693	pCi/g	0.3764	0.500	143.8	1	1.371	IDENTIFIED	33.29	☐	
Uranium-238	nr	9.312	1.322	pCi/g	1.88	N	63.25	2	1.015	IDENTIFIED	11.22	☐	
Zirconium-97	HE	1.11E+06	1.27E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960011	28-JAN-10 12:00	12-FEB-10 16:31	15.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 nr	1.679	0.1657	pCi/g	0.1935	N	911.1	3	1.58	IDENTIFIED	8.225	☐	
Americium-243 int nr	0.3966	0.04892	pCi/g	0.09725	N	74.79	1	1.108	IDENTIFIED	10.92	☐	
Annihilation Rad.	0.1252	0.02955	pCi/g	0.0433	N	510.8	1	1.735	IDENTIFIED	23.43	☐	
Bismuth-211 int	4.141	0.2677	pCi/g	0.3033	Y	351.8	4	1.242	IDENTIFIED	5.513	☐ ui	
Bismuth-212 la nr	1.005	0.1886	pCi/g	0.6203	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.201	0.08222	pCi/g	0.1032	0.200	609.2	4	1.364	IDENTIFIED	5.779	☐	
Cadmium-109 int	2.71	0.5166	pCi/g	1.362	Y	87.17	3	1.019	IDENTIFIED	18.1	☐ ui	
Cerium-143	700.8	110.4	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.09597	0.02856	pCi/g	0.09594	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 int nr	0.6146	0.1363	pCi/g	0.2293	N	269.6	1	1.211	IDENTIFIED	21.77	☐	
Gross Gamma	8.35	1.153	pCi/g	2.826	N		0				☐	
Lead-212 ✔	1.646	0.08661	pCi/g	0.08651	0.100	238.6	4	1.121	IDENTIFIED	3.4	☐	
Lead-214 ✔	1.44	0.1004	pCi/g	0.1057	0.100	351.8	4	1.242	IDENTIFIED	5.513	☐	
Lutetium-177 HE	2.799	0.624	pCi/g	2.023	N	0	7	0	FAIL_ABUND	0	☐	
Neptunium-237 int nr	0.7822	0.1695	pCi/g	0.4036	N	87.17	3	1.019	IDENTIFIED	18.1	☐	
Polonium-212 nr	1.646	0.08661	pCi/g	0.08651	N	238.6	4	1.121	IDENTIFIED	3.4	☐	
Polonium-214 nr	1.44	0.1004	pCi/g	0.1057	N	351.8	4	1.242	IDENTIFIED	5.513	☐	
Polonium-216 nr	1.646	0.08661	pCi/g	0.08651	N	238.6	4	1.121	IDENTIFIED	3.4	☐	
Polonium-218 nr	1.44	0.1004	pCi/g	0.1057	N	351.8	4	1.242	IDENTIFIED	5.513	☐	
Potassium-40 ✔	19.78	1.056	pCi/g	0.6031	1.00	1461	1	1.917	IDENTIFIED	3.981	☐	
Radium-224 int	4.64	0.6538	pCi/g	0.9846	Y	241.6	1	1.863	IDENTIFIED	13.69	☐ ui	
Radium-226 ✔	1.201	0.08222	pCi/g	0.1032	Y	609.2	4	1.364	IDENTIFIED	5.779	☐	
Radium-228 ✔	1.679	0.1657	pCi/g	0.1935	0.500	911.1	3	1.58	IDENTIFIED	8.225	☐	
Sodium-24 HE	6.67E+05	3.70E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208 ✔	0.504	0.04578	pCi/g	0.0557	0.080	583.1	1	1.458	IDENTIFIED	8.521	☐	
Thorium-228 nr	1.671	0.08793	pCi/g	0.08783	N	238.6	4	1.121	IDENTIFIED	3.4	☐	
Thorium-230 nr	1.201	0.08222	pCi/g	0.1032	N	609.2	4	1.364	IDENTIFIED	5.779	☐	
Thorium-232 nr	1.679	0.1657	pCi/g	0.1935	N	911.1	3	1.58	IDENTIFIED	8.225	☐	
Tin-126 int nr	0.2664	0.05077	pCi/g	0.1349	N	87.17	3	1.019	IDENTIFIED	18.1	☐	
Titanium-44 la nr	0.4079	0.03582	pCi/g	0.08508	N	0	7	0	FAIL_ABUND	0	☐	
Uranium-234 nr	1.201	0.08222	pCi/g	0.1032	N	609.2	4	1.364	IDENTIFIED	5.779	☐	
Zirconium-97 HE	1.40E+06	9.61E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032510		12-FEB-10 16:32	0	MB	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Annihilation Rad. HE	0.04025	0.01747	pCi/g	0.0223	N	511.1	1	2.997	IDENTIFIED	43.3	☐	
Iodine-133 HE	1.352	4.299	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Iodine-135 HE	1.39E+07	9.48E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Krypton-85 HE	11.54	2.337	pCi/g	8.876	N	0	8	0	NOT_IDENTI	0	☐	
Niobium-97 HE	13.07	17.44	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Sodium-24 HE	38.27	60.09	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

Strontium-85	la	0.0547	0.01108	pCi/g	0.04209	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	HE	2.55E+06	1.06E+07	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Zirconium-97		1338	427.9	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032511	28-JAN-10 12:00	12-FEB-10 16:38	15.2	DUP	LOAD	1		LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.625	0.1782	pCi/g	0.2038	N	911	3	1.327	IDENTIFIED	9.215	☐	
Americium-243	int nr	0.3771	0.03877	pCi/g	0.08637	N	74.88	1	0.9538	IDENTIFIED	9.407	☐	
Annihilation Rad.		0.122	0.03301	pCi/g	0.04597	N	511	1	1.854	IDENTIFIED	26.64	☐	
Barium-137m		0.2346	0.03511	pCi/g	0.0583	N	661.4	2	1.202	IDENTIFIED	14.29	☐	
Bismuth-211	int	4.14	0.3047	pCi/g	0.305	Y	351.8	4	1.116	IDENTIFIED	4.938	☐	ui
Bismuth-212	la nr	1.069	0.2025	pCi/g	0.6634	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.259	0.1039	pCi/g	0.1046	0.200	609.3	4	1.241	IDENTIFIED	6.339	☐	
Cadmium-109	int	2.267	0.5501	pCi/g	1.173	Y	87	3	1.131	IDENTIFIED	23.8	☐	ui
Cerium-143	—	468.7	97.89	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1623	0.04136	pCi/g	0.09631	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✔	0.248	0.03712	pCi/g	0.06163	0.100	661.4	2	1.202	IDENTIFIED	14.29	☐	
Gross Gamma		9.908	1.42	pCi/g	3.35	N		0				☐	
Iodine-123	HE	4.78E+06	3.03E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212	✔	1.618	0.1174	pCi/g	0.1328	0.100	238.5	4	1.045	IDENTIFIED	4.2	☐	
Lead-214	✔	1.44	0.1124	pCi/g	0.1002	0.100	351.8	4	1.116	IDENTIFIED	4.938	☐	
Lutetium-177	la nr	4.529	0.816	pCi/g	2.005	N	0	8	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.6542	0.1725	pCi/g	0.411	N	87	3	1.131	IDENTIFIED	23.8	☐	
Polonium-212	nr	1.618	0.1174	pCi/g	0.1328	N	238.5	4	1.045	IDENTIFIED	4.2	☐	
Polonium-214	nr	1.44	0.1124	pCi/g	0.1002	N	351.8	4	1.116	IDENTIFIED	4.938	☐	
Polonium-216	nr	1.618	0.1174	pCi/g	0.1328	N	238.5	4	1.045	IDENTIFIED	4.2	☐	
Polonium-218	nr	1.44	0.1124	pCi/g	0.1002	N	351.8	4	1.116	IDENTIFIED	4.938	☐	
Potassium-40	✔	25.3	1.391	pCi/g	0.4658	1.00	1461	1	2.021	IDENTIFIED	3.304	☐	
Radium-224	int	2.818	0.4992	pCi/g	1.362	Y	241.8	1	0.9734	IDENTIFIED	16.83	☐	ui
Radium-226	✔	1.259	0.1039	pCi/g	0.1046	Y	609.3	4	1.241	IDENTIFIED	6.339	☐	
Radium-228	✔	1.625	0.1782	pCi/g	0.2038	0.500	911	3	1.327	IDENTIFIED	9.215	☐	
Thallium-200	HE	186.4	219	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.5114	0.04693	pCi/g	0.05926	0.080	583.2	1	1.274	IDENTIFIED	7.725	☐	
Thorium-228	nr	1.643	0.1192	pCi/g	0.1348	N	238.5	4	1.045	IDENTIFIED	4.2	☐	
Thorium-230	nr	1.259	0.1039	pCi/g	0.1045	N	609.3	4	1.241	IDENTIFIED	6.339	☐	
Thorium-232	nr	1.625	0.1782	pCi/g	0.2038	N	911	3	1.327	IDENTIFIED	9.215	☐	
Thorium-234	✔	4.833	1.079	pCi/g	2.071	2.00	63.28	2	0.8853	IDENTIFIED	20.56	☐	
Tin-126	HE	0.2228	0.05407	pCi/g	0.1374	N	87	3	1.131	IDENTIFIED	23.8	☐	
Titanium-44	la nr	0.4065	0.02865	pCi/g	0.07478	N	0	8	0	FAIL_ABUND	0	☐	
Total Uranium		14.537	3.21E-06	ug/g	3.084	N		0				☐	
Uranium-234	nr	1.259	0.1039	pCi/g	0.1045	N	609.3	4	1.241	IDENTIFIED	6.339	☐	
Uranium-235	✔	0.3428	0.1452	pCi/g	0.3133	0.500	143.8	1	1.048	IDENTIFIED	41.44	☐	
Uranium-238	nr	4.833	1.079	pCi/g	2.071	N	63.28	2	0.8853	IDENTIFIED	20.56	☐	
Zirconium-97	—	2.28E+06	8.95E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032512		12-FEB-10 16:33	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228		1.333	0.294	pCi/g	0.6256	N	911	3	1.322	IDENTIFIED	21.26	☐	
Americium-241		13.78	0.9826	pCi/g	0.9896	0.200	59.73	1	1.271	IDENTIFIED	4.041	☐	
Annihilation Rad.	HE	0.1659	0.07194	pCi/g	0.1107	N	510.9	1	2.189	IDENTIFIED	43.14	☐	
Barium-137m		5.39	0.2685	pCi/g	0.1295	N	661.6	2	1.706	IDENTIFIED	2.814	☐	
Bismuth-211		1.974	0.3367	pCi/g	0.704	Y	351.9	4	1.088	IDENTIFIED	16.32	☐	
Bismuth-214		0.6789	0.1286	pCi/g	0.3592	0.200	0	13	0	FAIL_ABUND	0	☐	
Cadmium-109		31.88	2.394	pCi/g	2.713	Y	88.25	2	1.475	IDENTIFIED	4.259	☐	
Cerium-143	HE	15.7	4.128	pCi/g	12.89	N	0	13	0	FAIL_ABUND	0	☐	
Cesium-137		5.697	0.2842	pCi/g	0.1368	0.100	661.6	2	1.706	IDENTIFIED	2.814	☐	
Cobalt-57		0.2458	0.03557	pCi/g	0.08317	N	122.2	1	1.305	IDENTIFIED	13.57	☐	
Cobalt-60		6.423	0.36	pCi/g	0.0879	0.100	1332	1	2.109	IDENTIFIED	2.886	☐	
Gross Gamma		26.76	3.058	pCi/g	3.61	N		0				☐	
Krypton-85	HE	28.76	8.688	pCi/g	28.71	N	0	13	0	NOT_IDENTI	0	☐	
Lead-212		1.086	0.1387	pCi/g	0.202	0.100	238.8	4	1.214	IDENTIFIED	11.3	☐	
Lead-214		0.6865	0.1185	pCi/g	0.2643	0.100	351.9	4	1.088	IDENTIFIED	16.32	☐	
Neptunium-237		6.101	0.8185	pCi/g	1.467	N	0	13	0	NOT_IDENTI	0	☐	
Niobium-97		1080	120.2	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Polonium-212		1.086	0.1387	pCi/g	0.202	N	238.8	4	1.214	IDENTIFIED	11.3	☐	
Polonium-214		0.6865	0.1185	pCi/g	0.2643	N	351.9	4	1.088	IDENTIFIED	16.32	☐	
Polonium-216		1.086	0.1387	pCi/g	0.202	N	238.8	4	1.214	IDENTIFIED	11.3	☐	
Polonium-218		0.6865	0.1185	pCi/g	0.2643	N	351.9	4	1.088	IDENTIFIED	16.32	☐	
Radium-224		10.89	1.084	pCi/g	3.546	Y	0	13	0	NOT_IDENTI	0	☐	
Radium-226		0.6789	0.1286	pCi/g	0.3592	Y	0	13	0	FAIL_ABUND	0	☐	
Radium-228		1.333	0.294	pCi/g	0.6256	0.500	911	3	1.322	IDENTIFIED	21.26	☐	
Silver-110m		0.4194	0.05904	pCi/g	0.2092	N	0	13	0	NOT_IDENTI	0	☐	
Strontium-85		0.1364	0.04119	pCi/g	0.1361	Y	0	13	0	NOT_IDENTI	0	☐	
Thallium-208		0.3682	0.06431	pCi/g	0.1376	0.080	583.3	1	1.691	IDENTIFIED	16.86	☐	
Thorium-228		1.094	0.1397	pCi/g	0.2036	N	238.8	4	1.214	IDENTIFIED	11.3	☐	
Thorium-230		0.6789	0.1286	pCi/g	0.3592	N	0	13	0	FAIL_ABUND	0	☐	
Thorium-232		1.333	0.294	pCi/g	0.6256	N	911	3	1.322	IDENTIFIED	21.26	☐	
Tin-126		3.169	0.2379	pCi/g	0.3121	N	88.25	2	1.475	IDENTIFIED	4.259	☐	
Titanium-44	HE	0.1778	0.04877	pCi/g	0.1595	N	0	13	0	FAIL_ABUND	0	☐	
Uranium-234		0.6789	0.1286	pCi/g	0.3592	N	0	13	0	FAIL_ABUND	0	☐	
Zirconium-97		4612	1464	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
948717	245960010	SAMPLE	12-FEB-10	Radium-228	1.736	0.1958	pCi/g	0.1292	0.500
				Strontium-85	0.08903	0.02502	pCi/g	0.04196	Y
				Thallium-208	0.553	0.05212	pCi/g	0.03274	0.080
				Thorium-234	9.312	1.322	pCi/g	0.9404	2.00
				Uranium-235	0.4921	0.1693	pCi/g	0.1883	0.500
				Uranium-238	9.312	1.322	pCi/g	0.9404	N
				Zirconium-97	1.11E+06	1.27E+06	pCi/g	0	N
948717	245960011	SAMPLE	12-FEB-10	Bismuth-211	4.141	0.2677	pCi/g	0.1517	Y
				Bismuth-214	1.201	0.08222	pCi/g	0.05165	0.200
				Cadmium-109	2.71	0.5166	pCi/g	0.6815	Y
				Cadmium-115	11.42	5.337	pCi/g	9.551	N
				Cerium-143	700.8	110.4	pCi/g	0	N
				Cesium-134	0.09597	0.02856	pCi/g	0.048	0.100
				Europium-152	0.0866	0.04733	pCi/g	0.07699	0.200
				Gross Gamma	8.35	1.153	pCi/g	1.36	N
				Lead-212	1.646	0.08661	pCi/g	0.04328	0.100
				Lead-214	1.44	0.1004	pCi/g	0.05289	0.100
				Potassium-40	19.78	1.056	pCi/g	0.3017	1.00
				Radium-224	4.64	0.6538	pCi/g	0.4926	Y
				Radium-226	1.201	0.08222	pCi/g	0.05165	Y
				Radium-228	1.679	0.1657	pCi/g	0.09682	0.500
				Sodium-24	6.67E+05	3.70E+05	pCi/g	0	N
				Thallium-208	0.504	0.04578	pCi/g	0.02787	0.080
				Zirconium-97	1.40E+06	9.61E+05	pCi/g	0	N
948717	1202032510	MB	12-FEB-10	Iodine-135	1.39E+07	9.48E+06	pCi/g	0	N
				Krypton-85	11.54	2.337	pCi/g	4.44	N
				Lead-212	0.03658	0.02737	pCi/g	0.02892	0.100
				Niobium-97	13.07	17.44	pCi/g	0	N
				Sodium-24	38.27	60.09	pCi/g	0	N
				Strontium-85	0.0547	0.01108	pCi/g	0.02106	Y
				Technetium-99m	2.55E+06	1.06E+07	pCi/g	0	N
				Zirconium-97	1338	427.9	pCi/g	0	N
948717	1202032511	DUP	12-FEB-10	Bismuth-211	4.14	0.3047	pCi/g	0.1526	Y
				Bismuth-214	1.259	0.1039	pCi/g	0.05231	0.200
				Cadmium-109	2.267	0.5501	pCi/g	0.5868	Y
				Cerium-143	468.7	97.89	pCi/g	0	N
				Cesium-134	0.1623	0.04136	pCi/g	0.04818	0.100

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:47:06.39

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960001.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:44:51
Sample ID : G245960001 Sample quantity : 1.20480E+02 GRAM
Detector name : GAM21 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:25.56 0.4%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.49*	100	249	0.68	92.97	90	6	1.39E-02	27.7	
2	0	63.29	101	556	0.81	126.54	123	8	1.40E-02	41.6	
3	3	74.84*	690	415	0.76	149.63	146	11	9.58E-02	5.7	2.23E+00
4	3	77.09*	1082	277	0.67	154.14	146	11	1.50E-01	3.8	
5	0	84.13*	134	285	1.08	168.21	166	6	1.86E-02	21.9	
6	4	87.19	381	307	1.00	174.31	171	12	5.29E-02	8.8	1.16E+00
7	4	89.94	237	240	0.90	179.82	171	12	3.29E-02	11.8	
8	0	93.10*	378	396	1.56	186.14	183	10	5.26E-02	11.3	
9	0	105.43*	97	307	1.01	210.79	206	9	1.35E-02	34.3	
10	0	128.93	81	280	0.89	257.76	254	8	1.12E-02	37.7	
11	0	185.67*	243	211	1.12	371.20	367	9	3.37E-02	12.8	
12	0	209.15	108	181	0.93	418.14	414	8	1.50E-02	23.5	
13	7	238.41*	1222	100	0.94	476.63	473	14	1.70E-01	3.2	6.40E+00
14	7	241.41*	301	139	1.66	482.63	473	14	4.18E-02	8.9	
15	0	270.48	81	181	1.27	540.75	536	11	1.13E-02	34.1	
16	0	276.93*	51	132	1.07	553.65	550	8	7.13E-03	41.8	
17	0	294.98*	393	113	0.98	589.74	584	11	5.45E-02	7.4	
18	0	299.54	83	130	1.00	598.85	595	10	1.15E-02	27.8	
19	0	328.19	38	103	1.03	656.14	650	8	5.29E-03	49.0	
20	0	338.19	228	165	0.91	676.13	670	11	3.16E-02	12.8	
21	0	351.70*	589	96	1.06	703.15	698	11	8.19E-02	5.3	
22	0	409.74	39	82	1.40	819.21	813	10	5.37E-03	46.8	
23	0	462.75	55	93	1.32	925.20	920	11	7.64E-03	36.6	
24	0	510.79*	84	88	1.72	1021.27	1015	16	1.17E-02	30.8	
25	0	583.08*	261	75	1.27	1165.86	1160	13	3.62E-02	9.5	
26	0	608.98*	355	65	1.19	1217.65	1213	11	4.93E-02	7.0	
27	0	727.18	64	63	0.93	1454.06	1449	11	8.89E-03	27.1	
28	0	768.12	30	48	1.01	1535.95	1530	10	4.21E-03	46.2	
29	0	795.32	27	49	1.22	1590.37	1585	11	3.81E-03	53.1	
30	0	860.88	67	34	2.06	1721.50	1712	18	9.25E-03	24.4	
31	0	910.72	174	30	1.80	1821.22	1816	13	2.42E-02	9.9	
32	0	969.06	85	74	1.16	1937.93	1931	11	1.18E-02	22.5	
33	0	1120.06	71	33	2.28	2240.06	2234	12	9.85E-03	20.1	
34	0	1262.65	25	12	0.59	2525.40	2518	12	3.47E-03	34.2	
35	0	1377.29	18	8	0.82	2754.83	2749	11	2.50E-03	38.8	
36	0	1460.15	555	9	1.82	2920.68	2913	18	7.71E-02	4.4	
37	0	1509.12	11	5	1.08	3018.68	3011	10	1.53E-03	48.5	
38	0	1591.94	19	6	1.92	3184.48	3180	9	2.57E-03	34.2	

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1728.55	13	8	0.96	3457.97	3453	10	1.85E-03	47.5	
40	0	1764.06*	52	7	2.64	3529.06	3522	15	7.23E-03	18.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 16:47:09

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:44:51
Sample ID : G245960001 Sample quantity : 120.48 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA21 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:25.56 0.4%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.249E+01	2.767E+00	7.143E-01	6.099E-02	31.486
CD-109	+	88.03	*	4.008E+00	7.983E-01	7.115E-01	6.694E-02	5.633
SN-126	+	64.28		4.005E-01	3.385E-01	2.961E-01	4.387E-02	1.353
	+	86.94		1.638E+00	7.384E-01	2.895E-01	1.202E-01	5.656
	+	87.57	*	3.939E-01	7.846E-02	6.981E-02	6.543E-03	5.643
EU-155		48.70		-3.249E-02	3.424E-01	5.315E-01	4.496E-02	-0.061
		60.01		8.494E-01	1.649E+00	2.607E+00	2.036E-01	0.326
	+	86.54		4.744E-01	9.468E-02	8.290E-02	7.771E-03	5.723
	+	105.31	*	1.912E-01	1.328E-01	1.122E-01	1.170E-02	1.704
TL-208	+	277.35		6.176E-01	5.224E-01	5.901E-01	7.404E-02	1.047
	+	510.84		5.975E-01	3.753E-01	2.331E-01	2.960E-02	2.564
	+	583.14	*	5.432E-01	1.188E-01	7.029E-02	7.657E-03	7.728
	+	860.37		1.387E+00	6.895E-01	5.510E-01	5.470E-02	2.517
BI-210	+	46.50	*	1.045E+00	5.879E-01	6.397E-01	6.100E-02	1.634
PB-210	+	46.50	*	1.045E+00	5.879E-01	6.397E-01	6.100E-02	1.634
PO-210	+	46.50	*	1.045E+00	5.864E-01	6.397E-01	5.552E-02	1.634
BI-211		72.87		1.482E+00	1.619E+00	2.559E+00	2.142E-01	0.579
	+	351.07	*	4.735E+00	6.578E-01	3.127E-01	2.823E-02	15.140
PB-212	+	74.81		2.428E+00	4.139E-01	2.833E-01	3.576E-02	8.570
	+	77.11		2.266E+00	2.599E-01	1.693E-01	1.461E-02	13.381
	+	87.30		1.822E+00	4.060E-01	3.225E-01	4.416E-02	5.649
	+	238.63	*	1.945E+00	2.292E-01	8.597E-02	8.549E-03	22.626
	+	300.09		2.152E+00	1.217E+00	1.119E+00	1.194E-01	1.923
PO-212	+	74.81		2.428E+00	4.139E-01	2.833E-01	3.576E-02	8.570
	+	77.11		2.266E+00	2.599E-01	1.693E-01	1.461E-02	13.381
	+	87.30		1.822E+00	4.060E-01	3.225E-01	4.416E-02	5.649
		115.19		6.376E-01	2.741E+00	4.406E+00	4.841E-01	0.145
	+	238.63	*	1.945E+00	2.292E-01	8.597E-02	8.549E-03	22.626
	+	300.09		2.152E+00	1.217E+00	1.119E+00	1.194E-01	1.923
BI-214	+	609.31	*	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
	+	1120.29		1.574E+00	6.546E-01	6.485E-01	6.963E-02	2.427
	+	1764.49		1.715E+00	6.454E-01	4.681E-01	3.892E-02	3.664
PB-214	+	74.81		4.184E+00	6.721E-01	4.882E-01	5.498E-02	8.570
	+	77.11		3.884E+00	5.348E-01	2.903E-01	3.341E-02	13.381

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		3.121E+00	6.666E-01	5.525E-01	6.696E-02	5.649
	+	241.98		2.889E+00	5.970E-01	4.660E-01	4.898E-02	6.199
	+	295.21		1.780E+00	3.261E-01	1.704E-01	1.856E-02	10.450
	+	351.92	*	1.647E+00	2.444E-01	1.091E-01	1.137E-02	15.096
PO-214	+	74.81		4.184E+00	6.721E-01	4.882E-01	5.498E-02	8.570
	+	77.11		3.884E+00	5.348E-01	2.903E-01	3.341E-02	13.381
	+	87.30		3.121E+00	6.666E-01	5.525E-01	6.696E-02	5.649
	+	241.98		2.889E+00	5.970E-01	4.660E-01	4.898E-02	6.199
	+	295.21		1.780E+00	3.261E-01	1.704E-01	1.856E-02	10.450
	+	351.92	*	1.647E+00	2.444E-01	1.091E-01	1.137E-02	15.096
PO-216	+	74.81		2.428E+00	4.139E-01	2.833E-01	3.576E-02	8.570
	+	77.11		2.266E+00	2.599E-01	1.693E-01	1.461E-02	13.381
	+	87.30		1.822E+00	4.060E-01	3.225E-01	4.416E-02	5.649
	+	238.63	*	1.945E+00	2.292E-01	8.597E-02	8.549E-03	22.626
	+	300.09		2.152E+00	1.217E+00	1.119E+00	1.194E-01	1.923
PO-218	+	74.81		4.184E+00	6.721E-01	4.882E-01	5.498E-02	8.570
	+	77.11		3.884E+00	5.348E-01	2.903E-01	3.341E-02	13.381
	+	87.30		3.121E+00	6.666E-01	5.525E-01	6.696E-02	5.649
	+	241.98		2.889E+00	5.970E-01	4.660E-01	4.898E-02	6.199
	+	295.21		1.780E+00	3.261E-01	1.704E-01	1.856E-02	10.450
	+	351.92	*	1.647E+00	2.444E-01	1.091E-01	1.137E-02	15.096
RA-224	+	240.98	*	5.477E+00	1.090E+00	9.812E-01	8.719E-02	5.582
RA-226	+	609.31	*	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
	+	1120.29		1.574E+00	6.546E-01	6.485E-01	6.963E-02	2.427
	+	1764.49		1.715E+00	6.454E-01	4.681E-01	3.892E-02	3.664
AC-228	+	338.32		1.996E+00	9.689E-01	4.005E-01	1.653E-01	4.983
	+	911.07	*	1.724E+00	3.944E-01	2.652E-01	3.010E-02	6.502
	+	969.11		1.486E+00	7.540E-01	4.870E-01	1.139E-01	3.052
RA-228	+	338.32		1.996E+00	9.689E-01	4.005E-01	1.653E-01	4.983
	+	911.07	*	1.724E+00	3.944E-01	2.652E-01	3.010E-02	6.502
	+	969.11		1.486E+00	7.540E-01	4.870E-01	1.139E-01	3.052
TH-228	+	74.81		2.465E+00	3.525E-01	2.876E-01	2.461E-02	8.570
	+	77.11		2.300E+00	2.638E-01	1.719E-01	1.483E-02	13.381
	+	87.30		1.850E+00	3.684E-01	3.274E-01	3.062E-02	5.649
	+	238.63	*	1.975E+00	2.327E-01	8.728E-02	8.678E-03	22.626
	+	300.09		2.185E+00	1.776E+00	1.136E+00	6.738E-01	1.923
TH-230	+	609.31	*	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
	+	1120.29		1.573E+00	6.546E-01	6.484E-01	6.962E-02	2.427
	+	1764.49		1.715E+00	6.454E-01	4.681E-01	3.892E-02	3.664
TH-232	+	338.32		1.996E+00	5.387E-01	4.005E-01	3.491E-02	4.983
	+	911.07	*	1.724E+00	3.944E-01	2.652E-01	3.010E-02	6.502
	+	969.11		1.486E+00	7.540E-01	4.870E-01	1.139E-01	3.052
TH-234	+	63.29	*	1.012E+00	8.608E-01	7.483E-01	1.322E-01	1.352
	+	92.38		2.719E+00	7.952E-01	4.448E-01	8.264E-02	6.112
U-234	+	609.31	*	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
	+	1120.29		1.573E+00	6.546E-01	6.484E-01	6.962E-02	2.427
	+	1764.49		1.715E+00	6.454E-01	4.681E-01	3.892E-02	3.664
U-235	+	89.95		3.381E+00	1.319E+00	9.656E-01	3.004E-01	3.501
	+	93.35		3.269E+00	1.185E+00	5.370E-01	1.523E-01	6.087

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	105.00		1.874E+00	1.407E+00	1.098E+00	3.335E-01	1.707
		143.76	*	1.474E-01	1.842E-01	2.976E-01	5.427E-02	0.495
		163.35		1.000E-01	3.931E-01	6.793E-01	1.288E-01	0.147
	+	185.71		2.568E-01	6.902E-02	6.368E-02	5.345E-03	4.033
		205.31		4.933E-01	5.080E-01	8.058E-01	1.537E-01	0.612
NP-237	+	86.50	*	1.157E+00	3.318E-01	2.021E-01	4.573E-02	5.724
		95.87		-5.143E-01	6.640E-01	9.147E-01	2.293E-01	-0.562
U-238	+	63.29	*	1.012E+00	8.608E-01	7.483E-01	1.322E-01	1.352
	+	92.38		2.719E+00	6.675E-01	4.448E-01	4.277E-02	6.112
AM-243	+	74.67	*	3.937E-01	5.612E-02	4.592E-02	3.892E-03	8.573
	+	86.72		4.338E+01	8.640E+00	7.585E+00	7.059E-01	5.719
		117.66		1.777E-01	3.004E+00	4.775E+00	5.330E-01	0.037
		142.18		6.873E-01	1.525E+01	2.385E+01	2.417E+00	0.029
ANH-511	+	511.00	*	1.291E-01	8.035E-02	5.037E-02	4.828E-03	2.563

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-9.481E-02	3.315E-01	5.408E-01	5.298E-02	-0.175
NA-22		1274.54	*	3.244E-02	5.977E-02	1.032E-01	8.463E-03	0.314
NA-24		1368.53	*	3.513E-01	5.977E-02	Half-Life too short		
AL-26		1129.67		-1.795E+00	2.278E+00	3.328E+00	2.801E-01	-0.539
		1808.65	*	-5.732E-03	5.079E-02	8.045E-02	6.658E-03	-0.071
TI-44		67.85		7.835E-03	1.979E-02	3.312E-02	2.686E-03	0.237
	+	78.38	*	4.181E-01	4.796E-02	3.909E-02	3.404E-03	10.696
SC-46		889.25	*	6.989E-03	4.580E-02	7.793E-02	6.930E-03	0.090
	+	1120.51		2.694E-01	1.106E-01	1.797E-01	1.519E-02	1.499
V-48		944.10		2.845E-01	1.198E+00	2.042E+00	1.790E-01	0.139
		983.50	*	3.288E-02	9.248E-02	1.593E-01	1.394E-02	0.206
		1312.09		-3.430E-02	1.025E-01	1.550E-01	1.263E-02	-0.221
CR-51		320.08	*	8.322E-02	3.574E-01	5.894E-01	5.479E-02	0.141
MN-52		744.21		1.159E-01	3.208E-01	5.356E-01	5.693E-02	0.216
		848.13		-3.534E+00	7.478E+00	1.177E+01	1.120E+00	-0.300
		935.52		1.280E-02	3.037E-01	5.073E-01	4.447E-02	0.025
		1246.25		4.927E+00	1.019E+01	1.737E+01	1.428E+00	0.284
		1333.61		-5.929E+00	6.613E+00	9.534E+00	7.740E-01	-0.622
		1434.06	*	-2.058E-01	2.938E-01	4.221E-01	3.486E-02	-0.488
MN-54		834.83	*	3.729E-02	4.384E-02	7.996E-02	7.750E-03	0.466
CO-56		846.75	*	-6.023E-03	4.018E-02	6.606E-02	6.297E-03	-0.091
		977.42		-1.999E+00	3.971E+00	6.169E+00	5.400E-01	-0.324
		1037.82		-2.025E-01	3.287E-01	4.857E-01	4.435E-02	-0.417
		1175.09		3.773E-01	2.847E+00	4.714E+00	3.885E-01	0.080
		1238.25		1.671E-01	1.266E-01	2.303E-01	1.954E-02	0.726
		1360.21		-3.377E-01	1.161E+00	1.844E+00	1.504E-01	-0.183
		1771.40		-7.558E-02	3.557E-01	5.508E-01	4.577E-02	-0.137
CO-57		122.06	*	1.203E-02	2.083E-02	3.393E-02	3.898E-03	0.355
		136.48		1.076E-01	1.840E-01	2.972E-01	3.293E-02	0.362
CO-58		810.76	*	-3.354E-03	4.756E-02	7.952E-02	7.958E-03	-0.042

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
FE-59		142.65		-7.200E-01	2.454E+00	3.760E+00	3.797E-01	-0.192
		192.34		2.897E-01	8.518E-01	1.461E+00	1.948E-01	0.198
		1099.22	*	-8.057E-02	1.186E-01	1.743E-01	1.608E-02	-0.462
		1291.56		-5.788E-02	1.693E-01	2.581E-01	2.425E-02	-0.224
CO-60		1173.22		6.512E-03	5.831E-02	9.604E-02	7.914E-03	0.068
		1332.49	*	-1.928E-02	5.111E-02	8.092E-02	6.568E-03	-0.238
ZN-65		1115.52	*	1.975E-02	1.243E-01	1.806E-01	1.531E-02	0.109
GE-68		1077.35	*	1.724E-01	1.788E+00	2.962E+00	2.543E-01	0.058
AS-73		53.44	*	1.607E-01	1.692E-01	2.949E-01	2.388E-02	0.545
AS-74		595.88	*	-8.356E-02	1.122E-01	1.699E-01	1.783E-02	-0.492
		634.78		2.153E-01	5.003E-01	8.479E-01	9.188E-02	0.254
SE-75		66.05		-1.351E+00	2.125E+00	3.138E+00	3.124E-01	-0.430
		96.73		-1.153E-01	5.260E-01	7.683E-01	1.109E-01	-0.150
		121.11		-6.993E-02	1.137E-01	1.725E-01	2.326E-02	-0.405
		136.00		7.900E-03	3.548E-02	5.623E-02	5.976E-03	0.140
		198.60		9.904E-02	1.630E+00	2.754E+00	2.615E-01	0.036
		264.65	*	8.317E-03	4.052E-02	6.763E-02	6.072E-03	0.123
		279.53		-1.409E-03	1.138E-01	1.664E-01	1.536E-02	-0.008
		303.91		-8.352E-01	2.272E+00	3.168E+00	3.705E-01	-0.264
		400.65		1.589E-01	2.976E-01	4.925E-01	5.272E-02	0.323
BR-77	+	87.88		8.653E+02	1.724E+02	2.381E+02	2.238E+01	3.634
		200.40		5.603E+01	1.451E+02	2.491E+02	2.134E+01	0.225
	+	239.00		3.122E+02	3.402E+01	4.324E+01	3.839E+00	7.219
		249.79		3.426E+00	6.214E+01	1.031E+02	9.196E+00	0.033
		281.68		-1.220E+01	8.928E+01	1.377E+02	1.228E+01	-0.089
		297.23		8.278E+01	6.461E+01	8.788E+01	7.843E+00	0.942
		303.76		-5.551E+01	1.927E+02	2.711E+02	2.416E+01	-0.205
		439.47		-1.499E+02	1.438E+02	2.188E+02	1.893E+01	-0.685
		484.57		7.244E+01	2.144E+02	3.713E+02	3.438E+01	0.195
		520.65	*	8.599E+00	1.236E+01	2.175E+01	2.110E+00	0.395
		574.64		2.314E+02	2.325E+02	4.188E+02	4.310E+01	0.552
		578.91		-7.886E+01	1.175E+02	1.537E+02	1.588E+01	-0.513
		585.48		3.923E+02	2.407E+02	4.072E+02	4.234E+01	0.963
		755.35		4.608E+00	2.129E+02	3.426E+02	3.611E+01	0.013
		817.79		-7.501E+01	1.674E+02	2.678E+02	2.652E+01	-0.280
SR-82		698.33		-1.509E+00	4.335E+01	6.987E+01	7.623E+00	-0.022
		776.49	*	-1.848E-01	4.583E-01	6.938E-01	7.182E-02	-0.266
		1395.20		-7.877E+00	1.314E+01	1.945E+01	1.597E+00	-0.405
RB-83		520.41	*	4.498E-02	8.187E-02	1.426E-01	1.383E-02	0.316
		529.64		-1.803E-02	1.105E-01	1.804E-01	1.769E-02	-0.100
		552.65		-2.059E-01	2.330E-01	3.499E-01	3.520E-02	-0.588
RB-84		881.50	*	5.507E-02	8.311E-02	1.495E-01	1.348E-02	0.368
KR-85		513.99	*	4.300E+00	8.250E+00	1.287E+01	1.239E+00	0.334
SR-85		513.99	*	2.205E-02	4.230E-02	6.601E-02	6.352E-03	0.334
RB-86		1076.63	*	1.320E-01	1.151E+00	1.910E+00	1.640E-01	0.069
Y-88		898.02		6.027E-03	4.968E-02	8.410E-02	7.392E-03	0.072
		1836.01	*	1.507E-02	5.061E-02	8.799E-02	7.265E-03	0.171
ZR-88		392.90	*	-3.015E-04	3.374E-02	5.353E-02	4.264E-03	-0.006
Y-91		1204.90	*	-5.722E+00	2.479E+01	3.899E+01	3.212E+00	-0.147

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94		702.63	*	2.237E-02	4.081E-02	6.976E-02	7.597E-03	0.321
		871.10		-2.170E-02	4.131E-02	6.462E-02	5.931E-03	-0.336
NB-95		765.79	*	2.288E-02	6.802E-02	9.943E-02	1.039E-02	0.230
NB-95M		235.69	*	-1.869E-02	1.204E-01	1.771E-01	1.784E-02	-0.106
ZR-95		724.18		-6.229E-03	1.510E-01	2.113E-01	2.403E-02	-0.029
		756.15	*	3.901E-02	9.175E-02	1.542E-01	1.736E-02	0.253
NB-97		657.90	*	-9.272E-02	9.175E-02	Half-Life too short		
		1024.50		-2.679E+00	9.175E-02	Half-Life too short		
ZR-97		254.15		-4.965E+00	9.175E-02	Half-Life too short		
		355.39		2.155E+00	9.175E-02	Half-Life too short		
		507.63	*	1.956E+00	9.175E-02	Half-Life too short		
		602.52		-2.627E+00	9.175E-02	Half-Life too short		
		1021.30		3.908E+00	9.175E-02	Half-Life too short		
		1147.95		-1.636E+00	9.175E-02	Half-Life too short		
		1362.66		-5.601E+00	9.175E-02	Half-Life too short		
		1750.46		-5.447E+00	9.175E-02	Half-Life too short		
MO-99		140.51		1.437E+01	2.336E+01	3.660E+01	1.034E+01	0.393
		181.06		6.308E+00	1.638E+01	2.559E+01	4.645E+00	0.247
		366.43		7.785E+01	9.104E+01	1.558E+02	1.306E+01	0.500
		739.58	*	-1.134E+01	1.465E+01	2.109E+01	3.465E+00	-0.537
		778.00		-1.159E+01	3.986E+01	6.124E+01	6.331E+00	-0.189
TC-99M		140.51	*	2.076E+10	3.986E+01	Half-Life too short		
RH-101		127.23		3.543E-03	2.783E-02	4.069E-02	4.542E-03	0.087
		198.01	*	3.513E-03	2.960E-02	5.017E-02	4.285E-03	0.070
		325.23		5.908E-02	2.483E-01	3.666E-01	3.233E-02	0.161
RH-102		418.52		2.270E-02	2.831E-01	4.835E-01	4.037E-02	0.047
		475.06	*	-8.032E-03	3.080E-02	5.044E-02	4.607E-03	-0.159
		631.29		5.926E-03	6.906E-02	1.138E-01	1.230E-02	0.052
		697.49		-1.305E-02	1.021E-01	1.630E-01	1.780E-02	-0.080
	+	766.84		2.089E-01	1.944E-01	2.785E-01	2.908E-02	0.750
		1046.59		-7.170E-02	1.589E-01	2.467E-01	2.136E-02	-0.291
		1112.84		7.117E-02	3.238E-01	4.959E-01	4.204E-02	0.144
RU-103		497.08	*	3.027E-02	4.744E-02	8.318E-02	1.219E-02	0.364
	+	610.33		1.518E+01	3.444E+00	3.843E+00	6.842E-01	3.950
RH-106	+	511.85		6.447E-01	4.013E-01	4.759E-01	4.567E-02	1.355
		621.84	*	-2.244E-01	3.916E-01	5.840E-01	8.648E-02	-0.384
		1050.47		7.395E-01	2.956E+00	5.008E+00	4.331E-01	0.148
RU-106	+	511.85		6.447E-01	4.013E-01	4.759E-01	4.567E-02	1.355
		621.84	*	-2.244E-01	3.910E-01	5.840E-01	6.266E-02	-0.384
		1050.47		7.395E-01	2.956E+00	5.008E+00	4.331E-01	0.148
AG-108M		433.93	*	4.622E-02	3.566E-02	6.583E-02	5.870E-03	0.702
		614.37		4.379E-03	4.879E-02	7.097E-02	7.764E-03	0.062
		722.95		1.465E-02	6.344E-02	9.221E-02	1.019E-02	0.159
AG-110M		657.75	*	-1.859E-02	4.290E-02	6.644E-02	7.452E-03	-0.280
		677.61		2.260E-01	3.778E-01	6.512E-01	7.286E-02	0.347
		706.67		-9.880E-02	2.439E-01	3.745E-01	4.141E-02	-0.264
		763.93		3.076E-02	2.413E-01	3.440E-01	3.671E-02	0.089
		884.67		-2.303E-04	6.268E-02	1.047E-01	9.667E-03	-0.002
		937.48		-5.344E-02	1.327E-01	2.091E-01	1.897E-02	-0.256

---- Non-Identified Nuclides ----

Nuclide		Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1384.27		9.210E-02	2.203E-01	3.689E-01	3.118E-02	0.250
IN-111		171.28		-5.920E-01	8.275E-01	1.355E+00	1.111E-01	-0.437
		245.39	*	-1.588E-01	1.038E+00	1.518E+00	1.352E-01	-0.105
IN-113M		391.69	*	-4.449E-02	5.424E-02	7.986E-02	6.577E-03	-0.557
SN-113		391.69	*	-4.449E-02	5.424E-02	7.986E-02	6.577E-03	-0.557
IN-114M		190.27	*	2.879E-02	1.739E-01	2.835E-01	2.396E-02	0.102
CD-115		260.90		-1.250E+02	1.171E+02	1.767E+02	1.579E+01	-0.708
		492.35		-6.739E+00	4.225E+01	6.967E+01	6.519E+00	-0.097
		527.90	*	-3.712E-01	1.161E+01	1.923E+01	1.881E+00	-0.019
SN-117M		156.02		-1.467E+00	1.922E+00	3.173E+00	2.863E-01	-0.462
		158.56	*	1.710E-02	4.509E-02	7.857E-02	6.916E-03	0.218
SB-122		563.90	*	2.391E-01	2.453E+00	4.088E+00	4.161E-01	0.058
		692.80		-1.075E+01	5.974E+01	9.496E+01	1.039E+01	-0.113
I-123		159.00	*	3.070E+00	5.974E+01	Half-Life too short		
		528.96		1.164E+02	5.974E+01	Half-Life too short		
TE-123M		159.00	*	1.521E-02	2.316E-02	4.083E-02	3.599E-03	0.372
I-124		602.71	*	-2.969E-01	8.002E-01	1.215E+00	1.283E-01	-0.244
		722.78		1.436E+00	6.615E+00	9.598E+00	1.034E+00	0.150
		1325.50		-1.481E+01	4.387E+01	6.988E+01	5.679E+00	-0.212
	+	1376.25		5.600E+01	4.371E+01	7.335E+01	6.003E+00	0.763
	+	1509.49		2.083E+01	2.030E+01	3.940E+01	3.279E+00	0.529
		1691.02		3.837E+00	5.825E+00	1.078E+01	9.004E-01	0.356
SB-124		602.71		-1.726E-02	4.652E-02	7.065E-02	7.461E-03	-0.244
		645.85		1.872E-02	6.230E-01	1.019E+00	1.155E-01	0.018
		709.31		2.901E-01	3.107E+00	5.076E+00	5.510E-01	0.057
		713.82		-2.165E+00	2.155E+00	3.043E+00	4.171E-01	-0.711
		722.78		1.210E-01	5.576E-01	8.089E-01	8.839E-02	0.150
	+	968.20		1.530E+01	7.017E+00	1.040E+01	9.107E-01	1.472
		1045.16		2.008E+00	3.167E+00	5.601E+00	4.851E-01	0.358
		1325.50		-1.333E+00	3.949E+00	6.290E+00	5.112E-01	-0.212
		1368.21		-4.669E-01	1.979E+00	3.164E+00	4.175E-01	-0.148
		1436.60		4.399E-02	4.539E+00	7.569E+00	6.252E-01	0.006
		1691.02	*	7.628E-02	1.158E-01	2.143E-01	1.865E-02	0.356
SB-125		427.89	*	3.305E-02	9.382E-02	1.633E-01	1.414E-02	0.202
	+	463.38		7.414E-01	5.471E-01	6.711E-01	6.463E-02	1.105
		600.56		4.780E-02	2.088E-01	3.503E-01	3.876E-02	0.136
		635.90		1.851E-01	3.707E-01	6.324E-01	7.213E-02	0.293
TE-125M		109.28	*	9.976E+00	7.188E+00	1.144E+01	1.375E+00	0.872
I-126		388.63		1.782E-01	2.484E-01	4.167E-01	3.337E-02	0.428
		666.33	*	9.895E-02	2.265E-01	3.841E-01	4.237E-02	0.258
		753.82		-1.181E+00	2.026E+00	3.031E+00	3.199E-01	-0.390
SB-126		223.80		8.528E-01	3.814E+00	6.442E+00	5.658E-01	0.132
		278.60		2.965E+00	2.629E+00	4.215E+00	3.759E-01	0.703
		296.50		1.061E+01	2.278E+00	3.671E+00	3.277E-01	2.890
		414.70		8.151E-03	7.822E-02	1.297E-01	1.076E-02	0.063
		415.30		1.809E-01	6.365E+00	1.083E+01	8.990E-01	0.017
		555.20		2.092E+00	4.601E+00	7.932E+00	8.002E-01	0.264
		573.80		-1.245E-02	1.213E+00	1.998E+00	2.054E-01	-0.006
		593.00		2.438E-01	1.056E+00	1.777E+00	1.860E-01	0.137

---- Non-Identified Nuclides ----

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		656.30		-4.935E-01	3.976E+00	6.381E+00	7.023E-01	-0.077
		666.33		4.135E-02	9.465E-02	1.605E-01	1.771E-02	0.258
		675.00		-5.709E-01	2.324E+00	3.661E+00	4.029E-01	-0.156
		695.00		2.355E-02	1.052E-01	1.739E-01	1.900E-02	0.135
		697.00		-3.705E-03	3.615E-01	5.842E-01	6.378E-02	-0.006
		720.50	*	-1.002E-01	2.174E-01	3.206E-01	3.460E-02	-0.312
		856.80		-3.061E-01	7.007E-01	9.518E-01	8.937E-02	-0.322
		989.30		-2.912E-01	1.569E+00	2.531E+00	2.213E-01	-0.115
		1034.80		-3.561E+00	9.267E+00	1.430E+01	1.241E+00	-0.249
		1213.00		1.840E+00	6.651E+00	1.109E+01	9.136E-01	0.166
SB-127		61.10		-8.058E+00	2.013E+01	3.026E+01	3.199E+00	-0.266
		252.40		1.283E+00	4.169E+00	6.966E+00	2.932E+00	0.184
		290.80		-7.194E+00	2.075E+01	2.908E+01	3.314E+00	-0.247
		411.60		-1.012E+01	1.559E+01	1.994E+01	3.096E+00	-0.507
		444.90		7.561E+00	1.021E+01	1.821E+01	2.295E+00	0.415
		473.00		-6.421E-01	1.805E+00	2.880E+00	3.800E-01	-0.223
		543.00		1.203E+01	1.791E+01	3.151E+01	4.800E+00	0.382
		603.60		3.167E+00	1.451E+01	2.151E+01	2.995E+00	0.147
		685.20	*	1.443E-01	1.629E+00	2.666E+00	3.532E-01	0.054
		698.50		-3.450E-01	1.933E+01	3.121E+01	5.361E+00	-0.011
		722.20		1.460E+00	4.622E+01	6.536E+01	8.432E+00	0.022
		783.80		1.122E+00	4.724E+00	7.754E+00	1.056E+00	0.145
XE-127		57.60		-9.163E-01	1.638E+00	2.654E+00	2.090E-01	-0.345
		145.22		-4.116E-02	6.097E-01	9.454E-01	9.365E-02	-0.044
		172.10		5.850E-02	1.002E-01	1.753E-01	1.439E-02	0.334
		202.84	*	-1.290E-02	4.172E-02	6.898E-02	5.928E-03	-0.187
		374.96		2.427E-01	2.148E-01	3.741E-01	3.087E-02	0.649
I-131		80.18		2.145E+00	2.574E+00	4.049E+00	3.596E-01	0.530
		284.30		1.751E+00	1.356E+00	2.414E+00	2.259E-01	0.725
		364.48	*	-1.517E-02	1.230E-01	1.944E-01	1.729E-02	-0.078
		636.97		1.250E+00	2.174E+00	3.725E+00	4.187E-01	0.335
		722.89		2.414E+00	1.068E+01	1.551E+01	1.678E+00	0.156
TE-132		49.72		-1.376E+00	2.871E+00	4.699E+00	5.008E-01	-0.293
		111.76		-1.044E+01	2.112E+01	3.250E+01	4.099E+00	-0.321
		116.30		-4.109E+00	2.140E+01	3.353E+01	4.319E+00	-0.123
		228.16	*	-1.630E-01	6.540E-01	1.073E+00	1.698E-01	-0.152
BA-133		53.15		7.346E-01	7.272E-01	1.270E+00	1.031E-01	0.578
		79.62		3.601E-01	7.229E-01	1.117E+00	1.712E-01	0.322
		81.00		-4.397E-02	5.645E-02	8.047E-02	1.289E-02	-0.546
	+	276.40		6.103E-01	5.183E-01	7.026E-01	1.028E-01	0.869
		302.84		-6.348E-03	1.546E-01	2.235E-01	3.012E-02	-0.028
		356.01	*	2.216E-02	5.008E-02	7.490E-02	9.843E-03	0.296
		383.85		-1.617E-01	3.490E-01	5.320E-01	6.519E-02	-0.304
I-133	+	510.53		1.311E+00	3.490E-01	Half-Life too short		
		529.87	*	-4.633E-04	3.490E-01	Half-Life too short		
		706.58		-1.807E-01	3.490E-01	Half-Life too short		
		856.28		-7.218E-01	3.490E-01	Half-Life too short		
		875.33		1.185E-01	3.490E-01	Half-Life too short		
		1236.41		1.391E+00	3.490E-01	Half-Life too short		

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1298.22		1.623E-01	3.490E-01	Half-Life too short		
CS-134		475.35		4.100E-01	1.915E+00	3.277E+00	2.995E-01	0.125
		563.23		3.388E-01	4.267E-01	7.536E-01	7.718E-02	0.450
		569.32		7.410E-02	2.143E-01	3.657E-01	3.780E-02	0.203
		604.70		-3.136E-02	4.609E-02	5.984E-02	6.340E-03	-0.524
	+	795.84	*	8.686E-02	9.265E-02	1.210E-01	1.235E-02	0.718
		801.93		-4.047E-01	5.446E-01	7.868E-01	7.971E-02	-0.514
		1038.57		-3.624E+00	4.315E+00	6.143E+00	5.328E-01	-0.590
		1167.94		-1.550E-01	3.483E+00	5.631E+00	4.653E-01	-0.028
		1365.15		-1.164E-01	1.332E+00	2.192E+00	1.882E-01	-0.053
CS-135		268.24	*	7.861E-02	1.669E-01	2.552E-01	2.613E-02	0.308
I-135		288.45		1.495E+10	1.669E-01	Half-Life too short		
		417.63		-9.831E+09	1.669E-01	Half-Life too short		
		546.56		-3.923E+08	1.669E-01	Half-Life too short		
		836.80		-1.287E+09	1.669E-01	Half-Life too short		
		1038.76		-1.607E+10	1.669E-01	Half-Life too short		
		1124.00		1.681E+10	1.669E-01	Half-Life too short		
		1131.51		-2.061E+09	1.669E-01	Half-Life too short		
		1260.41	*	3.480E+09	1.669E-01	Half-Life too short		
		1457.56		6.208E+11	1.669E-01	Half-Life too short		
		1678.03		-6.380E+08	1.669E-01	Half-Life too short		
		1706.46		-5.506E+09	1.669E-01	Half-Life too short		
		1791.20		-6.716E+09	1.669E-01	Half-Life too short		
CS-136		66.91		1.068E-01	3.438E-01	5.329E-01	8.065E-02	0.200
	+	86.29		5.140E+00	1.135E+00	1.337E+00	1.779E-01	3.843
		153.22		4.718E-01	5.631E-01	9.982E-01	1.020E-01	0.473
		163.89		1.253E-01	8.889E-01	1.529E+00	1.435E-01	0.082
		176.55		-1.127E-02	3.161E-01	5.363E-01	4.714E-02	-0.021
		273.65		7.197E-02	5.551E-01	6.562E-01	6.220E-02	0.110
		340.57		4.347E-02	1.419E-01	2.098E-01	1.877E-02	0.207
		818.51		-1.685E-02	9.410E-02	1.554E-01	1.539E-02	-0.108
		1048.07	*	-1.273E-01	1.427E-01	2.063E-01	1.861E-02	-0.617
		1235.34		3.435E-01	8.284E-01	1.395E+00	1.613E-01	0.246
BA-137M		661.65	*	-1.261E-02	4.736E-02	7.495E-02	8.278E-03	-0.168
CS-137		661.65	*	-1.333E-02	5.006E-02	7.923E-02	8.760E-03	-0.168
CE-139		165.85	*	7.306E-03	2.484E-02	4.299E-02	3.495E-03	0.170
BA-140		162.64		3.687E-02	6.399E-01	1.097E+00	9.811E-02	0.034
		304.84		-1.040E+00	1.493E+00	1.971E+00	5.541E-01	-0.528
		423.70		1.281E+00	2.074E+00	3.608E+00	1.168E+00	0.355
		537.32	*	5.882E-02	3.063E-01	5.150E-01	1.725E-01	0.114
LA-140	+	328.77		4.094E-01	4.033E-01	5.312E-01	4.924E-02	0.771
		432.53		6.475E-01	2.218E+00	3.837E+00	3.443E-01	0.169
		487.03		-3.389E-02	1.369E-01	2.234E-01	2.187E-02	-0.152
		751.79		-3.331E-01	2.271E+00	3.584E+00	4.062E-01	-0.093
		815.85		-1.421E-01	3.735E-01	6.002E-01	6.483E-02	-0.237
		867.82		1.750E+00	1.748E+00	2.976E+00	2.873E-01	0.588
		919.63		7.204E-01	3.357E+00	5.733E+00	6.170E-01	0.126
		925.24		-5.273E-01	1.309E+00	2.060E+00	1.915E-01	-0.256
		1596.49	*	-3.688E-02	1.388E-01	1.812E-01	1.515E-02	-0.204

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CE-141		145.44	*	-1.396E-02	5.488E-02	8.408E-02	8.429E-03	-0.166
CE-143		57.37		-2.091E-04	5.488E-02	Half-Life too short		
		231.56		-1.651E-03	5.488E-02	Half-Life too short		
		293.26	*	4.990E-04	5.488E-02	Half-Life too short		
	+	350.59		3.749E-02	5.488E-02	Half-Life too short		
		490.36		1.071E-03	5.488E-02	Half-Life too short		
		664.57		1.248E-03	5.488E-02	Half-Life too short		
		721.93		-1.042E-03	5.488E-02	Half-Life too short		
CE-144		80.11		9.415E-01	1.182E+00	1.856E+00	1.637E-01	0.507
		133.54	*	-1.004E-01	1.788E-01	2.697E-01	4.541E-02	-0.372
PM-144		476.78		-9.509E-03	6.855E-02	1.134E-01	1.126E-02	-0.084
		618.01		2.643E-02	3.728E-02	6.529E-02	7.109E-03	0.405
		696.49	*	1.847E-02	4.464E-02	7.520E-02	8.214E-03	0.246
		778.57		-1.723E+00	2.886E+00	4.253E+00	4.396E-01	-0.405
PR-144		696.49	*	1.252E+00	3.025E+00	5.096E+00	5.565E-01	0.246
		1489.15		-2.771E+00	1.457E+01	2.321E+01	1.929E+00	-0.119
PM-146		453.90	*	1.348E-02	4.686E-02	8.077E-02	8.813E-03	0.167
		633.02		4.993E-01	1.869E+00	3.114E+00	1.182E+00	0.160
		735.90		7.083E-02	1.744E-01	2.929E-01	8.579E-02	0.242
		747.13		-9.146E-02	1.347E-01	1.995E-01	3.060E-02	-0.458
ND-147	+	91.11		8.488E-01	2.174E-01	3.015E-01	3.076E-02	2.815
		319.41		7.006E-01	3.246E+00	5.345E+00	4.733E-01	0.131
		439.89		-6.199E+00	5.714E+00	8.621E+00	7.465E-01	-0.719
		531.02	*	-3.831E-02	5.908E-01	9.746E-01	1.527E-01	-0.039
PM-149		285.90	*	-5.974E+01	8.588E+01	1.320E+02	2.074E+01	-0.453
EU-152		121.78		1.357E-02	6.092E-02	9.745E-02	1.216E-02	0.139
		244.69		1.826E-02	3.154E-01	4.704E-01	4.188E-02	0.039
		344.27	*	-4.793E-02	9.773E-02	1.502E-01	1.377E-02	-0.319
		443.98		1.134E+00	9.905E-01	1.820E+00	1.586E-01	0.623
		778.89		1.153E-01	2.983E-01	5.016E-01	5.181E-02	0.230
		867.32		7.783E-01	1.067E+00	1.747E+00	1.613E-01	0.446
		964.01		6.036E-01	4.939E-01	8.131E-01	7.124E-02	0.742
		1085.78		-5.637E-01	4.834E-01	6.480E-01	5.548E-02	-0.870
		1112.02		-3.717E-02	4.248E-01	6.671E-01	5.657E-02	-0.056
		1407.95		6.624E-02	2.434E-01	4.228E-01	3.479E-02	0.157
GD-153		69.67		-3.462E-01	7.288E-01	1.174E+00	9.624E-02	-0.295
	+	83.37		2.423E+01	1.086E+01	1.428E+01	1.293E+00	1.696
		97.43	*	-2.188E-02	5.873E-02	8.490E-02	8.387E-03	-0.258
		103.18		2.767E-02	7.422E-02	1.125E-01	1.148E-02	0.246
EU-154		123.07		2.878E-03	4.357E-02	6.903E-02	9.398E-03	0.042
		247.94		-2.695E-01	3.323E-01	5.171E-01	6.048E-02	-0.521
		591.81		-5.302E-02	7.489E-01	1.223E+00	1.600E-01	-0.043
		723.30		1.179E-01	2.524E-01	3.792E-01	4.366E-02	0.311
		756.87		-6.659E-02	1.010E+00	1.609E+00	2.158E-01	-0.041
		873.19		-7.005E-02	3.607E-01	5.893E-01	7.437E-02	-0.119
		996.32		-1.095E-01	4.610E-01	7.379E-01	1.315E-01	-0.148
		1004.76		3.433E-02	2.750E-01	4.607E-01	5.399E-02	0.075
		1274.45	*	9.347E-02	1.675E-01	2.893E-01	3.180E-02	0.323
TB-160	+	86.79		1.267E+00	2.524E-01	3.715E-01	3.460E-02	3.411

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		8.951E-02	4.907E-01	8.348E-01	7.121E-02	0.107
		215.65		-1.745E-01	6.528E-01	1.075E+00	9.373E-02	-0.162
	+	298.57		3.131E-01	1.762E-01	2.066E-01	1.844E-02	1.515
		879.36	*	-1.842E-02	1.661E-01	2.740E-01	2.480E-02	-0.067
		962.29		4.333E-01	8.822E-01	1.414E+00	1.239E-01	0.306
		966.15		9.335E-01	4.346E-01	7.413E-01	6.494E-02	1.259
		1177.93		-2.223E-01	4.823E-01	7.389E-01	6.089E-02	-0.301
		1271.85		4.876E-01	9.308E-01	1.608E+00	1.318E-01	0.303
HO-166M		80.57		3.914E-03	1.407E-01	2.296E-01	2.033E-02	0.017
	+	184.41		1.926E-01	5.177E-02	5.821E-02	4.875E-03	3.309
		280.46		-5.861E-03	8.681E-02	1.262E-01	1.125E-02	-0.046
	+	410.95		4.201E-01	3.945E-01	4.501E-01	3.708E-02	0.933
		711.68	*	2.758E-02	6.926E-02	1.171E-01	1.269E-02	0.236
		752.31		-1.778E-01	3.689E-01	5.587E-01	5.902E-02	-0.318
		810.29		-2.026E-02	7.417E-02	1.213E-01	1.212E-02	-0.167
TM-171		51.35		-3.888E+00	5.433E+00	8.773E+00	7.230E-01	-0.443
		52.39		2.198E+00	2.996E+00	5.183E+00	4.233E-01	0.424
		59.40		6.052E+00	8.772E+00	1.399E+01	1.091E+00	0.433
		66.72	*	-1.657E-01	1.254E+01	1.915E+01	1.543E+00	-0.009
LU-176	+	88.36		9.343E-01	1.861E-01	2.215E-01	2.088E-02	4.218
		201.83		-2.226E-02	2.575E-02	4.121E-02	3.537E-03	-0.540
		306.84	*	1.726E-02	2.521E-02	4.294E-02	3.823E-03	0.402
		401.10		2.360E+00	7.573E+00	1.233E+01	9.975E-01	0.191
LU-177		112.95		2.674E-02	1.172E+00	1.865E+00	2.021E-01	0.014
	+	208.36	*	2.975E+00	1.423E+00	1.883E+00	1.629E-01	1.580
LU-177M		52.97		3.406E-01	3.259E-01	5.700E-01	4.633E-02	0.598
		54.07		-3.945E-02	1.828E-01	3.022E-01	2.436E-02	-0.131
		61.30		-2.747E-01	5.270E-01	7.870E-01	6.177E-02	-0.349
		121.62		3.051E-02	3.121E-01	4.959E-01	5.676E-02	0.062
		147.16		-7.747E-01	5.615E-01	7.852E-01	7.660E-02	-0.987
		171.86		7.435E-02	3.992E-01	6.860E-01	5.630E-02	0.108
		218.09		3.398E-01	7.654E-01	1.311E+00	1.145E-01	0.259
		268.79		1.219E+00	8.782E-01	1.427E+00	1.275E-01	0.854
		319.02		4.696E-02	2.540E-01	4.173E-01	3.695E-02	0.113
		367.43		7.794E-01	9.657E-01	1.647E+00	1.379E-01	0.473
		413.65	*	1.094E-01	2.043E-01	3.065E-01	2.537E-02	0.357
HF-181		56.28		-7.100E-02	2.221E-01	3.643E-01	2.892E-02	-0.195
		57.53		-8.406E-02	1.371E-01	2.214E-01	1.744E-02	-0.380
		65.20		-5.353E-02	3.879E-01	5.894E-01	4.711E-02	-0.091
		133.02		-5.317E-02	5.742E-02	8.461E-02	9.124E-03	-0.628
		136.25		2.399E-01	4.030E-01	6.514E-01	6.880E-02	0.368
		345.85		-5.075E-03	2.050E-01	3.127E-01	2.703E-02	-0.016
		482.03	*	-1.170E-04	4.163E-02	6.973E-02	6.433E-03	-0.002
W-181		56.28		-2.789E-02	8.696E-02	1.426E-01	1.132E-02	-0.196
		57.53		-3.301E-02	5.369E-02	8.672E-02	6.832E-03	-0.381
		65.20	*	-2.081E-02	1.507E-01	2.291E-01	1.831E-02	-0.091
TA-182		67.75		3.089E-02	4.668E-02	7.891E-02	6.396E-03	0.391
		100.10		1.166E-01	1.252E-01	2.099E-01	2.105E-02	0.556
		152.43		-1.272E-01	3.227E-01	4.884E-01	4.556E-02	-0.261

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		222.10		-1.084E-01	3.327E-01	5.454E-01	4.783E-02	-0.199
		1001.68		4.204E-01	2.584E+00	4.348E+00	3.796E-01	0.097
	+	1121.28		7.439E-01	3.056E-01	4.742E-01	4.006E-02	1.569
		1189.05		1.936E-01	4.320E-01	7.359E-01	6.064E-02	0.263
		1221.42	*	-1.156E-01	2.817E-01	4.339E-01	3.572E-02	-0.266
		1230.97		6.470E-02	6.486E-01	1.060E+00	8.722E-02	0.061
RE-183		57.98		-9.503E-03	5.569E-02	9.196E-02	7.226E-03	-0.103
		59.32		2.577E-02	3.599E-02	5.746E-02	4.484E-03	0.448
		67.20		3.364E-02	8.904E-02	1.385E-01	1.119E-02	0.243
		162.32	*	6.489E-03	9.263E-02	1.589E-01	1.344E-02	0.041
	+	208.81		2.675E+00	1.280E+00	1.764E+00	1.527E-01	1.516
		291.72		-4.502E-01	8.983E-01	1.234E+00	1.102E-01	-0.365
RE-184		57.98		-3.502E-02	2.052E-01	3.389E-01	2.663E-02	-0.103
		59.32		9.489E-02	1.325E-01	2.116E-01	1.651E-02	0.448
		67.20		1.239E-01	3.280E-01	5.103E-01	4.123E-02	0.243
		161.27		6.164E-02	2.955E-01	5.104E-01	4.367E-02	0.121
		216.55		2.963E-02	2.333E-01	3.931E-01	3.430E-02	0.075
		252.85	*	-1.129E-01	2.202E-01	3.509E-01	3.132E-02	-0.322
		318.01		-1.009E-01	4.375E-01	6.948E-01	6.156E-02	-0.145
		792.07		1.031E-01	1.633E+00	2.294E+00	2.339E-01	0.045
		903.28		9.211E-01	1.253E+00	2.213E+00	1.937E-01	0.416
		920.93		4.879E-02	5.456E-01	9.182E-01	8.046E-02	0.053
OS-185		59.72		5.704E-02	9.755E-02	1.548E-01	1.207E-02	0.369
		61.14		-2.381E-02	5.731E-02	8.613E-02	6.756E-03	-0.276
		69.30		-4.731E-02	1.299E-01	2.104E-01	1.721E-02	-0.225
		592.07		4.533E-01	2.943E+00	4.913E+00	5.139E-01	0.092
		646.12	*	9.874E-03	5.212E-02	8.665E-02	9.469E-03	0.114
		717.42		6.659E-01	1.270E+00	2.152E+00	2.326E-01	0.309
		874.81		3.475E-01	6.667E-01	1.185E+00	1.081E-01	0.293
		880.27		-4.684E-01	9.362E-01	1.467E+00	1.326E-01	-0.319
RE-188		155.03	*	5.100E-02	1.458E-01	2.538E-01	2.312E-02	0.201
		477.96		-3.485E-01	3.148E+00	5.223E+00	4.791E-01	-0.067
		633.10		1.009E+00	3.759E+00	6.294E+00	6.813E-01	0.160
W-188	+	63.58		4.066E+01	3.400E+01	3.681E+01	2.918E+00	1.105
		227.08		-5.867E+00	1.199E+01	1.941E+01	1.709E+00	-0.302
		290.67	*	-2.165E+00	7.207E+00	1.016E+01	9.070E-01	-0.213
IR-192	+	295.96		1.358E+00	2.341E-01	3.325E-01	2.988E-02	4.083
		308.46		3.163E-02	1.018E-01	1.689E-01	1.510E-02	0.187
		316.51	*	-5.682E-03	3.370E-02	5.382E-02	4.783E-03	-0.106
		468.07		-6.446E-02	8.033E-02	1.063E-01	1.024E-02	-0.606
		604.41		-2.568E-01	6.005E-01	8.097E-01	1.165E-01	-0.317
		612.46		-5.948E-01	9.375E-01	1.219E+00	1.427E-01	-0.488
AU-195		65.12		-8.288E-03	6.970E-02	1.060E-01	8.470E-03	-0.078
		66.83		1.203E-02	4.114E-02	6.379E-02	5.143E-03	0.189
	+	75.70		1.274E+00	1.816E-01	2.489E-01	2.125E-02	5.118
		98.88	*	2.393E-01	1.570E-01	2.691E-01	2.680E-02	0.889
	+	129.76		4.683E+00	3.566E+00	4.151E+00	4.565E-01	1.128
TL-200		367.94	*	1.766E-04	3.566E+00	Half-Life too short		
		579.30		-2.420E-03	3.566E+00	Half-Life too short		

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		828.27		2.286E-03	3.566E+00	Half-Life too short		
		1205.75		-8.453E-04	3.566E+00	Half-Life too short		
TL-201		68.90		-5.768E-01	2.066E+00	3.360E+00	2.741E-01	-0.172
		70.82		-2.328E-01	1.311E+00	1.975E+00	1.631E-01	-0.118
		80.30		1.858E+00	2.826E+00	4.408E+00	3.895E-01	0.422
		135.34		1.417E+01	2.238E+01	3.625E+01	3.851E+00	0.391
		167.43	*	-3.413E-01	5.672E+00	9.647E+00	7.857E-01	-0.035
TL-202		68.90		-5.190E-02	1.858E-01	3.023E-01	2.467E-02	-0.172
		70.82		-2.088E-02	1.176E-01	1.772E-01	1.464E-02	-0.118
		80.30		1.668E-01	2.537E-01	3.956E-01	3.496E-02	0.422
		439.56	*	-7.445E-02	6.950E-02	1.053E-01	9.115E-03	-0.707
HG-203		70.83		-9.013E-02	5.100E-01	7.684E-01	1.028E-01	-0.117
		72.87		2.948E-01	3.233E-01	5.089E-01	6.637E-02	0.579
		82.60		-3.025E-01	6.183E-01	8.994E-01	1.258E-01	-0.336
		279.20	*	2.888E-02	4.121E-02	6.426E-02	5.882E-03	0.449
BI-207		72.80		8.084E-02	9.413E-02	1.485E-01	1.242E-02	0.544
	+	74.97		7.066E-01	1.007E-01	1.497E-01	1.271E-02	4.721
	+	84.90		3.134E-01	1.405E-01	1.943E-01	1.782E-02	1.613
		569.67		4.891E-03	3.378E-02	5.655E-02	5.790E-03	0.086
		1063.62	*	-2.807E-02	6.274E-02	9.636E-02	8.305E-03	-0.291
		1770.23		3.222E-02	7.667E-01	1.085E+00	9.017E-02	0.030
TL-207		81.07		-9.749E-02	1.240E-01	1.777E-01	1.580E-02	-0.549
	+	83.78		2.067E-01	9.263E-02	1.297E-01	1.178E-02	1.594
		94.90		1.027E-01	1.513E-01	2.344E-01	2.284E-02	0.438
		122.32		1.002E+00	1.443E+00	2.363E+00	2.824E-01	0.424
		144.24		9.192E-01	5.907E-01	9.916E-01	1.078E-01	0.927
		154.21		4.242E-01	3.402E-01	6.105E-01	6.100E-02	0.695
	+	269.46		4.776E-01	3.290E-01	3.579E-01	3.260E-02	1.335
		323.87	*	2.344E-02	7.411E-01	1.072E+00	1.908E-01	0.022
	+	338.28		8.334E+00	2.366E+00	3.116E+00	3.858E-01	2.675
		445.03		1.645E+00	2.366E+00	4.209E+00	5.121E-01	0.391
PO-209		260.50		-8.103E+00	8.602E+00	1.314E+01	1.174E+00	-0.617
		262.80		6.014E+00	2.405E+01	4.029E+01	3.601E+00	0.149
		896.60	*	8.588E+00	8.709E+00	1.617E+01	1.418E+00	0.531
PB-211		404.84	*	-7.641E-01	1.304E+00	1.572E+00	9.843E-01	-0.486
		427.08		6.253E-02	2.177E+00	3.694E+00	2.295E+00	0.017
		831.96		-5.944E-01	1.442E+00	2.225E+00	1.398E+00	-0.267
BI-212	+	727.18	*	1.191E+00	6.605E-01	9.255E-01	1.100E-01	1.286
		785.46		1.426E+00	2.373E+00	4.035E+00	4.142E-01	0.353
		1620.62		4.540E-01	1.926E+00	3.298E+00	2.758E-01	0.138
PO-215		81.07		-9.749E-02	1.240E-01	1.777E-01	1.580E-02	-0.549
	+	83.78		2.067E-01	9.263E-02	1.297E-01	1.178E-02	1.594
		94.90		1.027E-01	1.513E-01	2.344E-01	2.284E-02	0.438
		122.32		1.002E+00	1.443E+00	2.363E+00	2.824E-01	0.424
		144.24		9.192E-01	5.907E-01	9.916E-01	1.078E-01	0.927
		154.21		4.242E-01	3.402E-01	6.105E-01	6.100E-02	0.695
	+	269.46		4.776E-01	3.290E-01	3.579E-01	3.260E-02	1.335
		323.87	*	2.344E-02	7.411E-01	1.072E+00	1.908E-01	0.022
	+	338.28		8.334E+00	2.366E+00	3.116E+00	3.858E-01	2.675

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		1.645E+00	2.366E+00	4.209E+00	5.121E-01	0.391
RN-219	+	271.23		6.128E-01	4.234E-01	4.504E-01	4.764E-02	1.360
		401.81	*	-2.954E-01	4.978E-01	7.446E-01	1.097E-01	-0.397
RN-220		549.76	*	1.247E+01	2.950E+01	5.079E+01	5.094E+00	0.245
RA-223		81.07		-9.749E-02	1.240E-01	1.777E-01	1.580E-02	-0.549
	+	83.78		2.067E-01	9.263E-02	1.297E-01	1.178E-02	1.594
		94.90		1.027E-01	1.513E-01	2.344E-01	2.284E-02	0.438
		122.32		1.002E+00	1.443E+00	2.363E+00	2.824E-01	0.424
		144.24		9.192E-01	5.907E-01	9.916E-01	1.078E-01	0.927
		154.21		4.242E-01	3.402E-01	6.105E-01	6.100E-02	0.695
	+	269.46		4.776E-01	3.290E-01	3.579E-01	3.260E-02	1.335
		323.87	*	2.344E-02	7.411E-01	1.072E+00	1.908E-01	0.022
	+	338.28		8.334E+00	2.366E+00	3.116E+00	3.858E-01	2.675
		445.03		1.645E+00	2.366E+00	4.209E+00	5.121E-01	0.391
AC-227		79.80		9.380E-01	9.029E-01	1.408E+00	3.037E-01	0.666
		236.00		-2.770E-02	2.309E-01	3.407E-01	4.230E-02	-0.081
		256.20	*	9.741E-02	3.428E-01	5.761E-01	8.944E-02	0.169
		286.10		-9.178E-01	1.444E+00	2.236E+00	2.997E-01	-0.411
	+	299.80		3.988E+00	2.325E+00	2.814E+00	4.963E-01	1.417
		304.40		-1.145E+00	2.075E+00	2.822E+00	5.241E-01	-0.406
		334.20		-1.316E+00	2.760E+00	3.751E+00	7.303E-01	-0.351
TH-227		79.80		9.380E-01	9.034E-01	1.408E+00	3.076E-01	0.666
	+	94.00		1.051E+01	3.327E+00	2.501E+00	5.559E-01	4.201
		236.00		-2.770E-02	2.309E-01	3.407E-01	3.839E-02	-0.081
		256.20	*	9.741E-02	3.429E-01	5.761E-01	1.049E-01	0.169
		286.10		-9.178E-01	1.708E+00	2.236E+00	2.245E+00	-0.411
	+	299.80		3.988E+00	2.325E+00	2.814E+00	4.963E-01	1.417
		304.40		-1.145E+00	2.075E+00	2.822E+00	5.241E-01	-0.406
		334.20		-1.316E+00	2.760E+00	3.751E+00	7.303E-01	-0.351
TH-229	+	85.43		3.094E-01	1.387E-01	1.814E-01	1.670E-02	1.706
	+	88.47		5.378E-01	1.071E-01	1.254E-01	1.182E-02	4.289
		100.00		1.283E-01	1.303E-01	2.189E-01	2.194E-02	0.586
		193.63	*	-3.877E-01	4.579E-01	7.369E-01	6.256E-02	-0.526
		210.97		5.904E-01	7.249E-01	1.153E+00	1.000E-01	0.512
PA-231		283.67	*	9.854E-01	1.451E+00	2.477E+00	3.805E-01	0.398
		301.29		6.798E-01	6.379E-01	1.008E+00	1.256E-01	0.674
TH-231		81.07		-9.749E-02	1.240E-01	1.777E-01	1.580E-02	-0.549
	+	83.78		2.067E-01	9.263E-02	1.297E-01	1.178E-02	1.594
		94.90		1.027E-01	1.513E-01	2.344E-01	2.284E-02	0.438
		122.32		1.002E+00	1.443E+00	2.363E+00	2.824E-01	0.424
		144.24		9.192E-01	5.907E-01	9.916E-01	1.078E-01	0.927
		154.21		4.242E-01	3.402E-01	6.105E-01	6.100E-02	0.695
	+	269.46		4.776E-01	3.290E-01	3.579E-01	3.260E-02	1.335
		323.87	*	2.344E-02	7.411E-01	1.072E+00	1.908E-01	0.022
	+	338.28		8.334E+00	2.366E+00	3.116E+00	3.858E-01	2.675
		445.03		1.645E+00	2.366E+00	4.209E+00	5.121E-01	0.391
U-231	+	84.21		8.896E+00	3.987E+00	5.741E+00	5.234E-01	1.549
	+	92.29		1.037E+01	2.546E+00	2.725E+00	2.619E-01	3.806
		95.87	*	-5.825E-01	7.400E-01	1.036E+00	1.015E-01	-0.562

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-5.095E-02	1.616E+00	2.355E+00	2.475E-01	-0.022
PA-233	+	75.28		2.062E+01	3.937E+00	4.338E+00	6.631E-01	4.754
	+	86.59		7.712E+00	2.489E+00	2.183E+00	5.903E-01	3.533
	+	300.12		1.112E+00	6.400E-01	7.799E-01	1.174E-01	1.426
		311.98	*	-2.353E-02	6.223E-02	9.774E-02	8.920E-03	-0.241
		340.50		2.389E-01	6.922E-01	1.024E+00	2.444E-01	0.233
		398.62		2.058E+00	2.458E+00	4.081E+00	1.079E+00	0.504
		415.76		-1.124E-01	1.626E+00	2.743E+00	5.878E-01	-0.041
PA-234	+	63.00		1.179E+00	9.976E-01	1.059E+00	1.600E-01	1.114
		94.67		1.577E-01	1.133E-01	1.801E-01	2.377E-02	0.876
		98.44		5.767E-02	7.150E-02	1.073E-01	6.008E-02	0.538
		99.86		2.867E-01	3.337E-01	5.574E-01	5.582E-02	0.514
		111.00		-8.117E-02	1.341E-01	2.048E-01	2.795E-02	-0.396
		131.20		2.598E-03	9.589E-02	1.388E-01	1.514E-02	0.019
		152.70		6.468E-02	3.064E-01	4.805E-01	8.363E-02	0.135
	+	186.00		6.934E+00	2.793E+00	2.508E+00	7.812E-01	2.765
		226.40		1.265E-02	3.769E-01	6.295E-01	8.386E-02	0.020
		227.20		-2.211E-01	4.039E-01	6.510E-01	5.734E-02	-0.340
		248.90		-5.915E-01	7.800E-01	1.206E+00	2.718E-01	-0.490
	+	293.70		8.546E+00	1.951E+00	1.848E+00	3.225E-01	4.626
		369.80		-4.948E-01	9.147E-01	1.378E+00	2.985E-01	-0.359
		568.70		-3.263E-02	1.100E+00	1.810E+00	1.851E-01	-0.018
		569.50		5.395E-02	3.008E-01	5.053E-01	5.173E-02	0.107
		574.00		5.092E-01	1.711E+00	2.902E+00	2.984E-01	0.175
		699.00		5.664E-02	9.090E-01	1.480E+00	2.992E-01	0.038
		706.10		-3.117E-01	1.228E+00	1.912E+00	8.618E-01	-0.163
		733.00		-9.272E-02	5.401E-01	7.370E-01	1.702E-01	-0.126
		742.81		1.726E+00	2.115E+00	3.142E+00	2.121E+00	0.549
	+	796.30		1.688E+00	1.852E+00	2.271E+00	6.264E-01	0.743
		805.60		-1.181E-01	1.243E+00	2.074E+00	6.446E-01	-0.057
		819.60		9.350E-01	1.564E+00	2.729E+00	1.046E+00	0.343
		826.30		1.417E-02	9.775E-01	1.647E+00	7.407E-01	0.009
		831.60		-4.102E-01	7.188E-01	1.108E+00	3.343E-01	-0.370
		876.40		-1.649E-01	1.002E+00	1.617E+00	1.663E+00	-0.102
		880.51		-1.694E-01	3.385E-01	5.304E-01	4.791E-02	-0.319
		883.24		-1.403E-01	3.679E-01	5.663E-01	3.810E-01	-0.248
		899.00		-9.627E-01	1.112E+00	1.516E+00	6.632E-01	-0.635
		925.00		-5.482E-01	1.360E+00	2.140E+00	1.875E-01	-0.256
		926.50		-8.304E-03	1.983E-01	3.280E-01	8.306E-02	-0.025
		946.00	*	-1.212E-01	3.931E-01	6.277E-01	1.182E-01	-0.193
		949.00		4.465E-02	5.982E-01	1.001E+00	8.775E-02	0.045
		980.50		1.108E+00	9.557E-01	1.781E+00	1.558E-01	0.622
		1394.10		4.272E-01	1.315E+00	2.281E+00	1.484E+00	0.187
PA-234M		766.42		1.711E+01	2.056E+01	2.910E+01	1.486E+01	0.588
		1001.03	*	-1.645E+00	5.973E+00	9.530E+00	9.589E-01	-0.173
NP-236		94.67		1.211E-01	8.538E-02	1.368E-01	1.332E-02	0.885
		98.44		4.356E-02	4.841E-02	8.109E-02	8.055E-03	0.537
		111.00		-6.140E-02	1.013E-01	1.549E-01	1.658E-02	-0.396
		160.31	*	-3.802E-02	6.754E-02	1.124E-01	9.718E-03	-0.338

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		9.821E-02	1.118E-01	1.869E-01	1.869E-02	0.525
		117.00	*	-1.060E-01	1.526E-01	2.312E-01	2.570E-02	-0.459
	+	209.75		2.110E+00	1.010E+00	1.421E+00	1.231E-01	1.485
		228.18		-4.977E-02	2.141E-01	3.519E-01	3.102E-02	-0.141
	+	277.60		2.979E-01	2.506E-01	3.361E-01	2.998E-02	0.886
		334.30		-8.092E-01	1.555E+00	2.110E+00	1.847E-01	-0.383
AM-241		59.54	*	3.295E-02	5.117E-02	8.140E-02	6.905E-03	0.405
CM-243		99.55		1.011E-01	1.151E-01	1.923E-01	1.923E-02	0.525
		103.76	*	5.048E-02	6.963E-02	1.079E-01	1.105E-02	0.468
		117.00		-1.091E-01	1.570E-01	2.379E-01	2.644E-02	-0.459
	+	209.75		2.081E+00	9.952E-01	1.401E+00	1.214E-01	1.485
		228.18		-5.029E-02	2.164E-01	3.556E-01	3.134E-02	-0.141
	+	277.60		3.003E-01	2.526E-01	3.388E-01	3.023E-02	0.886
AM-246		798.80		-2.309E-02	2.069E-01	2.821E-01	2.856E-02	-0.082
		1036.00		-1.383E-01	2.947E-01	4.451E-01	3.863E-02	-0.311
		1062.04		-1.207E-01	2.639E-01	4.036E-01	3.480E-02	-0.299
		1078.86	*	2.002E-01	2.013E-01	3.651E-01	3.133E-02	0.548
CM-247	+	278.00		1.235E+00	1.039E+00	1.386E+00	1.236E-01	0.892
		287.40		-5.435E-01	1.120E+00	1.759E+00	1.570E-01	-0.309
		402.60	*	-1.521E-02	4.354E-02	6.680E-02	5.420E-03	-0.228
CF-249		252.85		-4.237E-01	8.261E-01	1.317E+00	1.175E-01	-0.322
		333.44		3.204E-02	1.961E-01	2.865E-01	2.510E-02	0.112
		387.95	*	5.252E-02	4.710E-02	8.133E-02	6.523E-03	0.646
CF-251		176.60	*	-5.136E-03	1.090E-01	1.848E-01	1.528E-02	-0.028
		227.00		-1.619E-01	3.606E-01	5.851E-01	5.152E-02	-0.277
		285.00		3.227E-03	1.685E+00	2.755E+00	2.459E-01	0.001

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960001		
Acquisition date	: 12-FEB-2010 14:44:51	Detector SN#	:
Detector ID	: GAM21	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:25.56	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960001	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.2048E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

Standard Weight	: 0.00000		
CALIB. DATE/TIME	: 28-JUL-2009 10:09:51	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.249E+01	2.712E+00	7.127E-01	0.000E+00
CD-109	4.008E+00	7.823E-01	7.340E-01	0.000E+00
SN-126	3.939E-01	7.689E-02	7.202E-02	0.000E+00
EU-155	1.912E-01	1.301E-01	1.155E-01	0.000E+00
TL-208	5.432E-01	1.164E-01	7.091E-02	0.000E+00
BI-210	1.045E+00	5.761E-01	6.648E-01	0.000E+00
PB-210	1.045E+00	5.761E-01	6.648E-01	0.000E+00
PO-210	1.045E+00	5.747E-01	6.648E-01	0.000E+00
BI-211	4.735E+00	6.447E-01	3.175E-01	0.000E+00
PB-212	1.945E+00	2.246E-01	8.767E-02	0.000E+00
PO-212	1.945E+00	2.246E-01	8.767E-02	0.000E+00
BI-214	1.406E+00	2.531E-01	1.321E-01	0.000E+00
PB-214	1.647E+00	2.396E-01	1.107E-01	0.000E+00
PO-214	1.647E+00	2.396E-01	1.107E-01	0.000E+00
PO-216	1.945E+00	2.246E-01	8.767E-02	0.000E+00
PO-218	1.647E+00	2.396E-01	1.107E-01	0.000E+00
RA-224	5.477E+00	1.068E+00	1.000E+00	0.000E+00
RA-226	1.406E+00	2.531E-01	1.321E-01	0.000E+00
AC-228	1.724E+00	3.865E-01	2.661E-01	0.000E+00
RA-228	1.724E+00	3.865E-01	2.661E-01	0.000E+00
TH-228	1.975E+00	2.281E-01	8.900E-02	0.000E+00
TH-230	1.406E+00	2.531E-01	1.321E-01	0.000E+00
TH-232	1.724E+00	3.865E-01	2.661E-01	0.000E+00
TH-234	1.012E+00	8.436E-01	7.748E-01	0.000E+00
U-234	1.406E+00	2.531E-01	1.321E-01	0.000E+00
U-235	1.474E-01	1.805E-01	3.053E-01	0.000E+00
NP-237	1.157E+00	3.251E-01	2.085E-01	0.000E+00
U-238	1.012E+00	8.436E-01	7.748E-01	0.000E+00
AM-243	3.937E-01	5.500E-02	4.746E-02	0.000E+00
ANH-511	1.291E-01	7.874E-02	5.090E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-9.481E-02	3.249E-01	5.469E-01	0.000E+00	NOT IDENT.
NA-22	3.244E-02	5.858E-02	1.031E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.923E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-5.732E-03	4.978E-02	8.005E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.700E-02	4.038E-02	0.000E+00	FAIL ABUN
SC-46	6.989E-03	4.488E-02	7.822E-02	0.000E+00	FAIL ABUN
V-48	3.288E-02	9.063E-02	1.597E-01	0.000E+00	NOT IDENT.
CR-51	8.322E-02	3.502E-01	5.989E-01	0.000E+00	NOT IDENT.
MN-52	-2.058E-01	2.879E-01	4.212E-01	0.000E+00	NOT IDENT.
MN-54	3.729E-02	4.297E-02	8.032E-02	0.000E+00	NOT IDENT.
CO-56	-6.023E-03	3.938E-02	6.635E-02	0.000E+00	NOT IDENT.
CO-57	1.203E-02	2.042E-02	3.487E-02	0.000E+00	NOT IDENT.
CO-58	-3.354E-03	4.661E-02	7.991E-02	0.000E+00	NOT IDENT.
FE-59	-8.057E-02	1.162E-01	1.745E-01	0.000E+00	NOT IDENT.
CO-60	-1.928E-02	5.009E-02	8.083E-02	0.000E+00	NOT IDENT.
ZN-65	1.975E-02	1.218E-01	1.808E-01	0.000E+00	NOT IDENT.
GE-68	1.724E-01	1.752E+00	2.966E+00	0.000E+00	NOT IDENT.
AS-73	1.607E-01	1.658E-01	3.060E-01	0.000E+00	NOT IDENT.
AS-74	-8.356E-02	1.099E-01	1.714E-01	0.000E+00	NOT IDENT.
SE-75	8.317E-03	3.971E-02	6.888E-02	0.000E+00	NOT IDENT.
BR-77	8.599E+00	1.211E+01	2.198E+01	0.000E+00	FAIL ABUN
SR-82	-1.848E-01	4.492E-01	6.976E-01	0.000E+00	NOT IDENT.
RB-83	4.498E-02	8.024E-02	1.440E-01	0.000E+00	NOT IDENT.
RB-84	5.507E-02	8.145E-02	1.500E-01	0.000E+00	NOT IDENT.
KR-85	4.300E+00	8.085E+00	1.301E+01	0.000E+00	NOT IDENT.
SR-85	2.205E-02	4.145E-02	6.670E-02	0.000E+00	NOT IDENT.
RB-86	1.320E-01	1.128E+00	1.913E+00	0.000E+00	NOT IDENT.
Y-88	1.507E-02	4.959E-02	8.754E-02	0.000E+00	NOT IDENT.
ZR-88	-3.015E-04	3.307E-02	5.426E-02	0.000E+00	NOT IDENT.
Y-91	-5.722E+00	2.429E+01	3.899E+01	0.000E+00	NOT IDENT.
NB-94	2.237E-02	3.999E-02	7.022E-02	0.000E+00	NOT IDENT.
NB-95	2.288E-02	6.666E-02	9.999E-02	0.000E+00	NOT IDENT.
NB-95M	-1.869E-02	1.180E-01	1.806E-01	0.000E+00	NOT IDENT.
ZR-95	3.901E-02	8.992E-02	1.551E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.196E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.066E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.134E+01	1.436E+01	2.122E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.313E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.513E-03	2.901E-02	5.127E-02	0.000E+00	NOT IDENT.
RH-102	-8.032E-03	3.019E-02	5.101E-02	0.000E+00	FAIL ABUN
RU-103	3.027E-02	4.649E-02	8.408E-02	0.000E+00	FAIL ABUN
RH-106	-2.244E-01	3.838E-01	5.888E-01	0.000E+00	FAIL ABUN
RU-106	-2.244E-01	3.832E-01	5.888E-01	0.000E+00	FAIL ABUN
AG-108M	4.622E-02	3.495E-02	6.666E-02	0.000E+00	NOT IDENT.
AG-110M	-1.859E-02	4.205E-02	6.693E-02	0.000E+00	NOT IDENT.
IN-111	-1.588E-01	1.017E+00	1.548E+00	0.000E+00	NOT IDENT.
IN-113M	-4.449E-02	5.315E-02	8.096E-02	0.000E+00	NOT IDENT.
SN-113	-4.449E-02	5.315E-02	8.096E-02	0.000E+00	NOT IDENT.
IN-114M	2.879E-02	1.705E-01	2.899E-01	0.000E+00	NOT IDENT.
CD-115	-3.712E-01	1.138E+01	1.942E+01	0.000E+00	NOT IDENT.
SN-117M	1.710E-02	4.419E-02	8.050E-02	0.000E+00	NOT IDENT.
SB-122	2.391E-01	2.404E+00	4.126E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.582E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.521E-02	2.270E-02	4.184E-02	0.000E+00	NOT IDENT.
I-124	-2.969E-01	7.842E-01	1.225E+00	0.000E+00	FAIL ABUN
SB-124	7.628E-02	1.135E-01	2.134E-01	0.000E+00	FAIL ABUN
SB-125	3.305E-02	9.195E-02	1.654E-01	0.000E+00	FAIL ABUN
TE-125M	9.976E+00	7.044E+00	1.177E+01	0.000E+00	NOT IDENT.
I-126	9.895E-02	2.220E-01	3.869E-01	0.000E+00	NOT IDENT.
SB-126	-1.002E-01	2.130E-01	3.227E-01	0.000E+00	NOT IDENT.
SB-127	1.443E-01	1.596E+00	2.685E+00	0.000E+00	NOT IDENT.
XE-127	-1.290E-02	4.089E-02	7.048E-02	0.000E+00	NOT IDENT.
I-131	-1.517E-02	1.205E-01	1.973E-01	0.000E+00	NOT IDENT.
TE-132	-1.630E-01	6.409E-01	1.095E+00	0.000E+00	NOT IDENT.
BA-133	2.216E-02	4.908E-02	7.602E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.181E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.686E-02	9.080E-02	1.216E-01	0.000E+00	FAIL ABUN
CS-135	7.861E-02	1.636E-01	2.599E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.497E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.273E-01	1.399E-01	2.067E-01	0.000E+00	FAIL ABUN
BA-137M	-1.261E-02	4.641E-02	7.550E-02	0.000E+00	NOT IDENT.
CS-137	-1.333E-02	4.906E-02	7.982E-02	0.000E+00	NOT IDENT.
CE-139	7.306E-03	2.434E-02	4.403E-02	0.000E+00	NOT IDENT.
BA-140	5.882E-02	3.001E-01	5.201E-01	0.000E+00	NOT IDENT.
LA-140	-3.688E-02	1.360E-01	1.806E-01	0.000E+00	FAIL ABUN

CE-141	-1.396E-02	5.379E-02	8.623E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.812E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.004E-01	1.752E-01	2.769E-01	0.000E+00	NOT IDENT.
PM-144	1.847E-02	4.375E-02	7.571E-02	0.000E+00	NOT IDENT.
PR-144	1.252E+00	2.965E+00	5.130E+00	0.000E+00	NOT IDENT.
PM-146	1.348E-02	4.592E-02	8.173E-02	0.000E+00	NOT IDENT.
ND-147	-3.831E-02	5.790E-01	9.844E-01	0.000E+00	FAIL ABUN
PM-149	-5.974E+01	8.417E+01	1.343E+02	0.000E+00	NOT IDENT.
EU-152	-4.793E-02	9.578E-02	1.525E-01	0.000E+00	NOT IDENT.
GD-153	-2.188E-02	5.755E-02	8.748E-02	0.000E+00	FAIL ABUN
EU-154	9.347E-02	1.641E-01	2.891E-01	0.000E+00	NOT IDENT.
TB-160	-1.842E-02	1.628E-01	2.751E-01	0.000E+00	FAIL ABUN
HO-166M	2.758E-02	6.787E-02	1.178E-01	0.000E+00	FAIL ABUN
TM-171	-1.657E-01	1.229E+01	1.982E+01	0.000E+00	NOT IDENT.
LU-176	1.726E-02	2.470E-02	4.365E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.395E+00	1.924E+00	0.000E+00	FAIL ABUN
LU-177M	1.094E-01	2.002E-01	3.105E-01	0.000E+00	NOT IDENT.
HF-181	-1.170E-04	4.080E-02	7.051E-02	0.000E+00	NOT IDENT.
W-181	-2.081E-02	1.477E-01	2.371E-01	0.000E+00	NOT IDENT.
TA-182	-1.156E-01	2.760E-01	4.339E-01	0.000E+00	FAIL ABUN
RE-183	6.489E-03	9.077E-02	1.628E-01	0.000E+00	FAIL ABUN
RE-184	-1.129E-01	2.158E-01	3.576E-01	0.000E+00	NOT IDENT.
OS-185	9.874E-03	5.107E-02	8.732E-02	0.000E+00	NOT IDENT.
RE-188	5.100E-02	1.429E-01	2.601E-01	0.000E+00	NOT IDENT.
W-188	-2.165E+00	7.063E+00	1.034E+01	0.000E+00	FAIL ABUN
IR-192	-5.682E-03	3.302E-02	5.470E-02	0.000E+00	FAIL ABUN
AU-195	2.393E-01	1.538E-01	2.773E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.859E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.413E-01	5.558E+00	9.879E+00	0.000E+00	NOT IDENT.
TL-202	-7.445E-02	6.811E-02	1.066E-01	0.000E+00	NOT IDENT.
HG-203	2.888E-02	4.039E-02	6.541E-02	0.000E+00	NOT IDENT.
BI-207	-2.807E-02	6.149E-02	9.651E-02	0.000E+00	FAIL ABUN
TL-207	2.344E-02	7.263E-01	1.089E+00	0.000E+00	FAIL ABUN
PO-209	8.588E+00	8.534E+00	1.623E+01	0.000E+00	NOT IDENT.
PB-211	-7.641E-01	1.278E+00	1.593E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.473E-01	9.313E-01	0.000E+00	FAIL ABUN
PO-215	2.344E-02	7.263E-01	1.089E+00	0.000E+00	FAIL ABUN
RN-219	-2.954E-01	4.879E-01	7.546E-01	0.000E+00	FAIL ABUN
RN-220	1.247E+01	2.891E+01	5.128E+01	0.000E+00	NOT IDENT.
RA-223	2.344E-02	7.263E-01	1.089E+00	0.000E+00	FAIL ABUN
AC-227	9.741E-02	3.359E-01	5.870E-01	0.000E+00	FAIL ABUN
TH-227	9.741E-02	3.360E-01	5.870E-01	0.000E+00	FAIL ABUN
TH-229	-3.877E-01	4.487E-01	7.532E-01	0.000E+00	FAIL ABUN
PA-231	9.854E-01	1.422E+00	2.521E+00	0.000E+00	NOT IDENT.
TH-231	2.344E-02	7.263E-01	1.089E+00	0.000E+00	FAIL ABUN
U-231	-5.825E-01	7.252E-01	1.068E+00	0.000E+00	FAIL ABUN
PA-233	-2.353E-02	6.098E-02	9.935E-02	0.000E+00	FAIL ABUN
PA-234	-1.212E-01	3.852E-01	6.296E-01	0.000E+00	FAIL ABUN
PA-234M	-1.645E+00	5.853E+00	9.553E+00	0.000E+00	NOT IDENT.
NP-236	-3.802E-02	6.619E-02	1.152E-01	0.000E+00	NOT IDENT.
NP-239	-1.060E-01	1.495E-01	2.377E-01	0.000E+00	FAIL ABUN
AM-241	3.295E-02	5.014E-02	8.435E-02	0.000E+00	NOT IDENT.
CM-243	5.048E-02	6.824E-02	1.111E-01	0.000E+00	FAIL ABUN
AM-246	2.002E-01	1.973E-01	3.657E-01	0.000E+00	NOT IDENT.
CM-247	-1.521E-02	4.267E-02	6.769E-02	0.000E+00	FAIL ABUN
CF-249	5.252E-02	4.616E-02	8.246E-02	0.000E+00	NOT IDENT.
CF-251	-5.136E-03	1.068E-01	1.891E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:47:07.48

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960001.CNF;1
Sample date      : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:44:51
Sample ID        : G245960001           Sample quantity  : 1.20480E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:25.56  0.4%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 948717               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	555	10.67*	7.206E-01	2.249E+01	2.249E+01	12.30
CD-109	88.03	381	3.72*	8.137E+00	3.918E+00	4.008E+00	19.92
SN-126	64.28	101	9.60	8.182E+00	4.005E-01	4.005E-01	84.54
	86.94	381	8.90	8.137E+00	1.638E+00	1.638E+00	45.09
	87.57	381	37.00*	8.137E+00	3.939E-01	3.939E-01	19.92
EU-155	48.70	------	4.60	7.522E+00	------ Line Not Found		------
	60.01	------	1.11	8.097E+00	------ Line Not Found		------
	86.54	381	30.90	8.137E+00	4.717E-01	4.744E-01	19.96
	105.31	97	20.70*	7.704E+00	1.901E-01	1.912E-01	69.46
TL-208	277.35	51	6.80	3.807E+00	6.176E-01	6.176E-01	84.58
	510.84	84	21.60	2.038E+00	5.975E-01	5.975E-01	62.81
	583.14	261	84.20*	1.777E+00	5.432E-01	5.432E-01	21.86
	860.37	67	12.46	1.200E+00	1.387E+00	1.387E+00	49.73
BI-210	46.50	100	4.05*	7.348E+00	1.044E+00	1.045E+00	56.23
PB-210	46.50	100	4.05*	7.348E+00	1.044E+00	1.045E+00	56.23
PO-210	46.50	100	4.05*	7.348E+00	1.044E+00	1.045E+00	56.09
BI-211	72.87	------	1.27	8.278E+00	------ Line Not Found		------
	351.07	589	12.94*	2.998E+00	4.735E+00	4.735E+00	13.89
PB-212	74.81	690	10.70	8.275E+00	2.428E+00	2.428E+00	17.05
	77.11	1082	18.00	8.264E+00	2.266E+00	2.266E+00	11.47
	87.30	381	8.00	8.137E+00	1.822E+00	1.822E+00	22.29
	238.63	1222	44.60*	4.389E+00	1.945E+00	1.945E+00	11.78
	300.09	83	3.41	3.524E+00	2.152E+00	2.152E+00	56.58
PO-212	74.81	690	10.70	8.275E+00	2.428E+00	2.428E+00	17.05
	77.11	1082	18.00	8.264E+00	2.266E+00	2.266E+00	11.47
	87.30	381	8.00	8.137E+00	1.822E+00	1.822E+00	22.29
	115.19	------	0.60	7.423E+00	------ Line Not Found		------
	238.63	1222	44.60*	4.389E+00	1.945E+00	1.945E+00	11.78
	300.09	83	3.41	3.524E+00	2.152E+00	2.152E+00	56.58
BI-214	609.31	355	46.30*	1.700E+00	1.406E+00	1.406E+00	18.37
	1120.29	71	15.10	9.296E-01	1.573E+00	1.574E+00	41.60
	1764.49	52	15.80	5.984E-01	1.715E+00	1.715E+00	37.63

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PB-214	74.81	690	6.21	8.275E+00	4.184E+00	4.184E+00	16.06
	77.11	1082	10.50	8.264E+00	3.884E+00	3.884E+00	13.77
	87.30	381	4.67	8.137E+00	3.121E+00	3.121E+00	21.36
	241.98	301	7.49	4.338E+00	2.888E+00	2.889E+00	20.67
	295.21	393	19.20	3.578E+00	1.780E+00	1.780E+00	18.31
	351.92	589	37.20*	2.998E+00	1.647E+00	1.647E+00	14.84
PO-214	74.81	690	6.21	8.275E+00	4.184E+00	4.184E+00	16.06
	77.11	1082	10.50	8.264E+00	3.884E+00	3.884E+00	13.77
	87.30	381	4.67	8.137E+00	3.121E+00	3.121E+00	21.36
	241.98	301	7.49	4.338E+00	2.888E+00	2.889E+00	20.67
	295.21	393	19.20	3.578E+00	1.780E+00	1.780E+00	18.31
	351.92	589	37.20*	2.998E+00	1.647E+00	1.647E+00	14.84
PO-216	74.81	690	10.70	8.275E+00	2.428E+00	2.428E+00	17.05
	77.11	1082	18.00	8.264E+00	2.266E+00	2.266E+00	11.47
	87.30	381	8.00	8.137E+00	1.822E+00	1.822E+00	22.29
	238.63	1222	44.60*	4.389E+00	1.945E+00	1.945E+00	11.78
	300.09	83	3.41	3.524E+00	2.152E+00	2.152E+00	56.58
PO-218	74.81	690	6.21	8.275E+00	4.184E+00	4.184E+00	16.06
	77.11	1082	10.50	8.264E+00	3.884E+00	3.884E+00	13.77
	87.30	381	4.67	8.137E+00	3.121E+00	3.121E+00	21.36
	241.98	301	7.49	4.338E+00	2.888E+00	2.889E+00	20.67
	295.21	393	19.20	3.578E+00	1.780E+00	1.780E+00	18.31
	351.92	589	37.20*	2.998E+00	1.647E+00	1.647E+00	14.84
RA-224	240.98	301	3.95*	4.338E+00	5.477E+00	5.477E+00	19.89
RA-226	609.31	355	46.30*	1.700E+00	1.406E+00	1.406E+00	18.37
	1120.29	71	15.10	9.296E-01	1.573E+00	1.574E+00	41.60
	1764.49	52	15.80	5.984E-01	1.715E+00	1.715E+00	37.63
AC-228	338.32	228	11.40	3.120E+00	1.996E+00	1.996E+00	48.55
	911.07	174	27.70*	1.136E+00	1.724E+00	1.724E+00	22.88
	969.11	85	16.60	1.069E+00	1.486E+00	1.486E+00	50.72
RA-228	338.32	228	11.40	3.120E+00	1.996E+00	1.996E+00	48.55
	911.07	174	27.70*	1.136E+00	1.724E+00	1.724E+00	22.88
	969.11	85	16.60	1.069E+00	1.486E+00	1.486E+00	50.72
TH-228	74.81	690	10.70	8.275E+00	2.428E+00	2.465E+00	14.30
	77.11	1082	18.00	8.264E+00	2.266E+00	2.300E+00	11.47
	87.30	381	8.00	8.137E+00	1.822E+00	1.850E+00	19.92
	238.63	1222	44.60*	4.389E+00	1.945E+00	1.975E+00	11.78
	300.09	83	3.41	3.524E+00	2.152E+00	2.185E+00	81.28
TH-230	609.31	355	46.30*	1.700E+00	1.406E+00	1.406E+00	18.37
	1120.29	71	15.10	9.296E-01	1.573E+00	1.573E+00	41.60
	1764.49	52	15.80	5.984E-01	1.715E+00	1.715E+00	37.63
TH-232	338.32	228	11.40	3.120E+00	1.996E+00	1.996E+00	26.99
	911.07	174	27.70*	1.136E+00	1.724E+00	1.724E+00	22.88
	969.11	85	16.60	1.069E+00	1.486E+00	1.486E+00	50.72
TH-234	63.29	101	3.80*	8.182E+00	1.012E+00	1.012E+00	85.09
	92.38	378	5.41	8.017E+00	2.719E+00	2.719E+00	29.25
U-234	609.31	355	46.30*	1.700E+00	1.406E+00	1.406E+00	18.37
	1120.29	71	15.10	9.296E-01	1.573E+00	1.573E+00	41.60
	1764.49	52	15.80	5.984E-01	1.715E+00	1.715E+00	37.63

Sample ID : G245960001 Acquisition date : 12-FEB-2010 14:44:51

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-235	89.95	237	2.70	8.084E+00	3.381E+00	3.381E+00	39.00
	93.35	378	4.50	8.017E+00	3.269E+00	3.269E+00	36.25
	105.00	97	2.10	7.704E+00	1.874E+00	1.874E+00	75.09
	143.76	------	10.50*	6.567E+00	------ Line Not Found		------
	163.35	------	4.70	6.016E+00	------ Line Not Found		------
	185.71	243	54.00	5.452E+00	2.568E-01	2.568E-01	26.88
	205.31	------	4.70	5.015E+00	------ Line Not Found		------
NP-237	86.50	381	12.60*	8.137E+00	1.157E+00	1.157E+00	28.68
	95.87	------	2.60	7.953E+00	------ Line Not Found		------
U-238	63.29	101	3.80*	8.182E+00	1.012E+00	1.012E+00	85.09
	92.38	378	5.41	8.017E+00	2.719E+00	2.719E+00	24.55
AM-243	74.67	690	66.00*	8.275E+00	3.937E-01	3.937E-01	14.26
	86.72	381	0.34	8.137E+00	4.338E+01	4.338E+01	19.92
	117.66	------	0.55	7.349E+00	------ Line Not Found		------
	142.18	------	0.13	6.613E+00	------ Line Not Found		------
ANH-511	511.00	84	100.00*	2.038E+00	1.291E-01	1.291E-01	62.25

Flag: "*" = Keyline

Sample ID : G245960001 Acquisition date : 12-FEB-2010 14:44:51

Total number of lines in spectrum 40
Number of unidentified lines 3
Number of lines tentatively identified by NID 37 92.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.249E+01	2.249E+01	0.277E+01	12.30	
CD-109	464.00D	1.02	3.918E+00	4.008E+00	0.798E+00	19.92	
SN-126	1.00E+05Y	1.00	3.939E-01	3.939E-01	0.785E-01	19.92	
EU-155	4.96Y	1.01	1.901E-01	1.912E-01	1.328E-01	69.46	
TL-208	1.41E+10Y	1.00	5.432E-01	5.432E-01	1.188E-01	21.86	
BI-210	22.26Y	1.00	1.044E+00	1.045E+00	0.588E+00	56.23	
PB-210	22.26Y	1.00	1.044E+00	1.045E+00	0.588E+00	56.23	
PO-210	22.26Y	1.00	1.044E+00	1.045E+00	0.586E+00	56.09	
BI-211	7.04E+08Y	1.00	4.735E+00	4.735E+00	0.658E+00	13.89	
PB-212	1.41E+10Y	1.00	1.945E+00	1.945E+00	0.229E+00	11.78	
PO-212	1.41E+10Y	1.00	1.945E+00	1.945E+00	0.229E+00	11.78	
BI-214	1600.00Y	1.00	1.406E+00	1.406E+00	0.258E+00	18.37	
PB-214	1600.00Y	1.00	1.647E+00	1.647E+00	0.244E+00	14.84	
PO-214	1600.00Y	1.00	1.647E+00	1.647E+00	0.244E+00	14.84	
PO-216	1.41E+10Y	1.00	1.945E+00	1.945E+00	0.229E+00	11.78	
PO-218	1600.00Y	1.00	1.647E+00	1.647E+00	0.244E+00	14.84	
RA-224	1.41E+10Y	1.00	5.477E+00	5.477E+00	1.090E+00	19.89	
RA-226	1600.00Y	1.00	1.406E+00	1.406E+00	0.258E+00	18.37	
AC-228	1.41E+10Y	1.00	1.724E+00	1.724E+00	0.394E+00	22.88	
RA-228	1.41E+10Y	1.00	1.724E+00	1.724E+00	0.394E+00	22.88	
TH-228	1.91Y	1.02	1.945E+00	1.975E+00	0.233E+00	11.78	
TH-230	4.47E+09Y	1.00	1.406E+00	1.406E+00	0.258E+00	18.37	
TH-232	1.41E+10Y	1.00	1.724E+00	1.724E+00	0.394E+00	22.88	
TH-234	4.47E+09Y	1.00	1.012E+00	1.012E+00	0.861E+00	85.09	
U-234	4.47E+09Y	1.00	1.406E+00	1.406E+00	0.258E+00	18.37	
U-235	7.04E+08Y	1.00	2.568E-01	2.568E-01	0.690E-01	26.88	K
NP-237	2.14E+06Y	1.00	1.157E+00	1.157E+00	0.332E+00	28.68	
U-238	4.47E+09Y	1.00	1.012E+00	1.012E+00	0.861E+00	85.09	
AM-243	7380.00Y	1.00	3.937E-01	3.937E-01	0.561E-01	14.26	
ANH-511	1.00E+09Y	1.00	1.291E-01	1.291E-01	0.803E-01	62.25	
	Total Activity :		6.836E+01	6.848E+01			

Grand Total Activity : 6.836E+01 6.848E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960001 Acquisition date : 12-FEB-2010 14:44:51

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.13	134	285	1.08	168.21	166	6	1.86E-02	43.9	8.19E+00	T
0	128.93	81	280	0.89	257.76	254	8	1.12E-02	75.3	7.01E+00	T
0	209.15	108	181	0.93	418.14	414	8	1.50E-02	47.0	4.93E+00	T
0	270.48	81	181	1.27	540.75	536	11	1.13E-02	68.3	3.90E+00	T
0	328.19	38	103	1.03	656.14	650	8	5.29E-03	98.0	3.22E+00	T
0	409.74	39	82	1.40	819.21	813	10	5.37E-03	93.5	2.56E+00	T
0	462.75	55	93	1.32	925.20	920	11	7.64E-03	73.2	2.26E+00	T
0	727.18	64	63	0.93	1454.06	1449	11	8.89E-03	54.2	1.42E+00	T
0	768.12	30	48	1.01	1535.95	1530	10	4.21E-03	92.5	1.34E+00	T
0	795.32	27	49	1.22	1590.37	1585	11	3.81E-03	****	1.30E+00	T
0	1262.65	25	12	0.59	2525.40	2518	12	3.47E-03	68.4	8.29E-01	
0	1377.29	18	8	0.82	2754.83	2749	11	2.50E-03	77.6	7.62E-01	T
0	1509.12	11	5	1.08	3018.68	3011	10	1.53E-03	97.1	6.98E-01	T
0	1591.94	19	6	1.92	3184.48	3180	9	2.57E-03	68.5	6.62E-01	
0	1728.55	13	8	0.96	3457.97	3453	10	1.85E-03	94.9	6.11E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:47:12.07

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960001.CNF;1		
Acquisition date	: 12-FEB-2010 14:44:51	Detector SN#	:
Detector ID	: GAM21	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:25.56	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960001	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.20480E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 28-JUL-2009 10:09:51.9	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.249E+01	2.767E+00	7.143E-01	6.099E-02	31.486
CD-109	4.008E+00	7.983E-01	7.115E-01	6.694E-02	5.633
SN-126	3.939E-01	7.846E-02	6.981E-02	6.543E-03	5.643
EU-155	1.912E-01	1.328E-01	1.122E-01	1.170E-02	1.704
TL-208	5.432E-01	1.188E-01	7.029E-02	7.657E-03	7.728
BI-210	1.045E+00	5.879E-01	6.397E-01	6.100E-02	1.634
PB-210	1.045E+00	5.879E-01	6.397E-01	6.100E-02	1.634
PO-210	1.045E+00	5.864E-01	6.397E-01	5.552E-02	1.634
BI-211	4.735E+00	6.578E-01	3.127E-01	2.823E-02	15.140
PB-212	1.945E+00	2.292E-01	8.597E-02	8.549E-03	22.626
PO-212	1.945E+00	2.292E-01	8.597E-02	8.549E-03	22.626
BI-214	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
PB-214	1.647E+00	2.444E-01	1.091E-01	1.137E-02	15.096
PO-214	1.647E+00	2.444E-01	1.091E-01	1.137E-02	15.096
PO-216	1.945E+00	2.292E-01	8.597E-02	8.549E-03	22.626
PO-218	1.647E+00	2.444E-01	1.091E-01	1.137E-02	15.096
RA-224	5.477E+00	1.090E+00	9.812E-01	8.719E-02	5.582
RA-226	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.724E+00	3.944E-01	2.652E-01	3.010E-02	6.502
RA-228	1.724E+00	3.944E-01	2.652E-01	3.010E-02	6.502
TH-228	1.975E+00	2.327E-01	8.728E-02	8.678E-03	22.626
TH-230	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
TH-232	1.724E+00	3.944E-01	2.652E-01	3.010E-02	6.502
TH-234	1.012E+00	8.608E-01	7.483E-01	1.322E-01	1.352
U-234	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
U-235	2.568E-01	6.902E-02	2.976E-01	5.427E-02	0.863
NP-237	1.157E+00	3.318E-01	2.021E-01	4.573E-02	5.724
U-238	1.012E+00	8.608E-01	7.483E-01	1.322E-01	1.352
AM-243	3.937E-01	5.612E-02	4.592E-02	3.892E-03	8.573
ANH-511	1.291E-01	8.035E-02	5.037E-02	4.828E-03	2.563

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-9.481E-02		3.315E-01	5.408E-01	5.298E-02	-0.175
NA-22	3.244E-02		5.977E-02	1.032E-01	8.463E-03	0.314
NA-24	3.513E-01		4.042E-01	Half-Life too short		
AL-26	-5.732E-03		5.079E-02	8.045E-02	6.658E-03	-0.071
TI-44	4.181E-01	+	4.796E-02	3.909E-02	3.404E-03	10.696
SC-46	6.989E-03		4.580E-02	7.793E-02	6.930E-03	0.090
V-48	3.288E-02		9.248E-02	1.593E-01	1.394E-02	0.206
CR-51	8.322E-02		3.574E-01	5.894E-01	5.479E-02	0.141
MN-52	-2.058E-01		2.938E-01	4.221E-01	3.486E-02	-0.488
MN-54	3.729E-02		4.384E-02	7.996E-02	7.750E-03	0.466
CO-56	-6.023E-03		4.018E-02	6.606E-02	6.297E-03	-0.091
CO-57	1.203E-02		2.083E-02	3.393E-02	3.898E-03	0.355
CO-58	-3.354E-03		4.756E-02	7.952E-02	7.958E-03	-0.042
FE-59	-8.057E-02		1.186E-01	1.743E-01	1.608E-02	-0.462
CO-60	-1.928E-02		5.111E-02	8.092E-02	6.568E-03	-0.238
ZN-65	1.975E-02		1.243E-01	1.806E-01	1.531E-02	0.109
GE-68	1.724E-01		1.788E+00	2.962E+00	2.543E-01	0.058
AS-73	1.607E-01		1.692E-01	2.949E-01	2.388E-02	0.545
AS-74	-8.356E-02		1.122E-01	1.699E-01	1.783E-02	-0.492
SE-75	8.317E-03		4.052E-02	6.763E-02	6.072E-03	0.123
BR-77	8.599E+00		1.236E+01	2.175E+01	2.110E+00	0.395
SR-82	-1.848E-01		4.583E-01	6.938E-01	7.182E-02	-0.266
RB-83	4.498E-02		8.187E-02	1.426E-01	1.383E-02	0.316
RB-84	5.507E-02		8.311E-02	1.495E-01	1.348E-02	0.368
KR-85	4.300E+00		8.250E+00	1.287E+01	1.239E+00	0.334
SR-85	2.205E-02		4.230E-02	6.601E-02	6.352E-03	0.334
RB-86	1.320E-01		1.151E+00	1.910E+00	1.640E-01	0.069
Y-88	1.507E-02		5.061E-02	8.799E-02	7.265E-03	0.171
ZR-88	-3.015E-04		3.374E-02	5.353E-02	4.264E-03	-0.006
Y-91	-5.722E+00		2.479E+01	3.899E+01	3.212E+00	-0.147
NB-94	2.237E-02		4.081E-02	6.976E-02	7.597E-03	0.321

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95	2.288E-02		6.802E-02	9.943E-02	1.039E-02	0.230
NB-95M	-1.869E-02		1.204E-01	1.771E-01	1.784E-02	-0.106
ZR-95	3.901E-02		9.175E-02	1.542E-01	1.736E-02	0.253
NB-97	-9.272E-02		6.103E-02	Half-Life too short		
ZR-97	1.956E+00		1.054E+00	Half-Life too short		
MO-99	-1.134E+01		1.465E+01	2.109E+01	3.465E+00	-0.537
TC-99M	2.076E+10		1.690E+10	Half-Life too short		
RH-101	3.513E-03		2.960E-02	5.017E-02	4.285E-03	0.070
RH-102	-8.032E-03		3.080E-02	5.044E-02	4.607E-03	-0.159
RU-103	3.027E-02		4.744E-02	8.318E-02	1.219E-02	0.364
RH-106	-2.244E-01		3.916E-01	5.840E-01	8.648E-02	-0.384
RU-106	-2.244E-01		3.910E-01	5.840E-01	6.266E-02	-0.384
AG-108M	4.622E-02		3.566E-02	6.583E-02	5.870E-03	0.702
AG-110M	-1.859E-02		4.290E-02	6.644E-02	7.452E-03	-0.280
IN-111	-1.588E-01		1.038E+00	1.518E+00	1.352E-01	-0.105
IN-113M	-4.449E-02		5.424E-02	7.986E-02	6.577E-03	-0.557
SN-113	-4.449E-02		5.424E-02	7.986E-02	6.577E-03	-0.557
IN-114M	2.879E-02		1.739E-01	2.835E-01	2.396E-02	0.102
CD-115	-3.712E-01		1.161E+01	1.923E+01	1.881E+00	-0.019
SN-117M	1.710E-02		4.509E-02	7.857E-02	6.916E-03	0.218
SB-122	2.391E-01		2.453E+00	4.088E+00	4.161E-01	0.058
I-123	3.070E+00		2.338E+00	Half-Life too short		
TE-123M	1.521E-02		2.316E-02	4.083E-02	3.599E-03	0.372
I-124	-2.969E-01		8.002E-01	1.215E+00	1.283E-01	-0.244
SB-124	7.628E-02		1.158E-01	2.143E-01	1.865E-02	0.356
SB-125	3.305E-02		9.382E-02	1.633E-01	1.414E-02	0.202
TE-125M	9.976E+00		7.188E+00	1.144E+01	1.375E+00	0.872
I-126	9.895E-02		2.265E-01	3.841E-01	4.237E-02	0.258
SB-126	-1.002E-01		2.174E-01	3.206E-01	3.460E-02	-0.312
SB-127	1.443E-01		1.629E+00	2.666E+00	3.532E-01	0.054
XE-127	-1.290E-02		4.172E-02	6.898E-02	5.928E-03	-0.187
I-131	-1.517E-02		1.230E-01	1.944E-01	1.729E-02	-0.078
TE-132	-1.630E-01		6.540E-01	1.073E+00	1.698E-01	-0.152
BA-133	2.216E-02		5.008E-02	7.490E-02	9.843E-03	0.296
I-133	-4.633E-04		3.154E-03	Half-Life too short		
CS-134	8.686E-02	+	9.265E-02	1.210E-01	1.235E-02	0.718
CS-135	7.861E-02		1.669E-01	2.552E-01	2.613E-02	0.308
I-135	3.480E+09		3.825E+09	Half-Life too short		
CS-136	-1.273E-01		1.427E-01	2.063E-01	1.861E-02	-0.617
BA-137M	-1.261E-02		4.736E-02	7.495E-02	8.278E-03	-0.168
CS-137	-1.333E-02		5.006E-02	7.923E-02	8.760E-03	-0.168
CE-139	7.306E-03		2.484E-02	4.299E-02	3.495E-03	0.170
BA-140	5.882E-02		3.063E-01	5.150E-01	1.725E-01	0.114
LA-140	-3.688E-02		1.388E-01	1.812E-01	1.515E-02	-0.204
CE-141	-1.396E-02		5.488E-02	8.408E-02	8.429E-03	-0.166
CE-143	4.990E-04		9.245E-05	Half-Life too short		
CE-144	-1.004E-01		1.788E-01	2.697E-01	4.541E-02	-0.372
PM-144	1.847E-02		4.464E-02	7.520E-02	8.214E-03	0.246

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144	1.252E+00		3.025E+00	5.096E+00	5.565E-01	0.246
PM-146	1.348E-02		4.686E-02	8.077E-02	8.813E-03	0.167
ND-147	-3.831E-02		5.908E-01	9.746E-01	1.527E-01	-0.039
PM-149	-5.974E+01		8.588E+01	1.320E+02	2.074E+01	-0.453
EU-152	-4.793E-02		9.773E-02	1.502E-01	1.377E-02	-0.319
GD-153	-2.188E-02		5.873E-02	8.490E-02	8.387E-03	-0.258
EU-154	9.347E-02		1.675E-01	2.893E-01	3.180E-02	0.323
TB-160	-1.842E-02		1.661E-01	2.740E-01	2.480E-02	-0.067
HO-166M	2.758E-02		6.926E-02	1.171E-01	1.269E-02	0.236
TM-171	-1.657E-01		1.254E+01	1.915E+01	1.543E+00	-0.009
LU-176	1.726E-02		2.521E-02	4.294E-02	3.823E-03	0.402
LU-177	2.975E+00	+	1.423E+00	1.883E+00	1.629E-01	1.580
LU-177M	1.094E-01		2.043E-01	3.065E-01	2.537E-02	0.357
HF-181	-1.170E-04		4.163E-02	6.973E-02	6.433E-03	-0.002
W-181	-2.081E-02		1.507E-01	2.291E-01	1.831E-02	-0.091
TA-182	-1.156E-01		2.817E-01	4.339E-01	3.572E-02	-0.266
RE-183	6.489E-03		9.263E-02	1.589E-01	1.344E-02	0.041
RE-184	-1.129E-01		2.202E-01	3.509E-01	3.132E-02	-0.322
OS-185	9.874E-03		5.212E-02	8.665E-02	9.469E-03	0.114
RE-188	5.100E-02		1.458E-01	2.538E-01	2.312E-02	0.201
W-188	-2.165E+00		7.207E+00	1.016E+01	9.070E-01	-0.213
IR-192	-5.682E-03		3.370E-02	5.382E-02	4.783E-03	-0.106
AU-195	2.393E-01		1.570E-01	2.691E-01	2.680E-02	0.889
TL-200	1.766E-04		2.479E-04	Half-Life too short		
TL-201	-3.413E-01		5.672E+00	9.647E+00	7.857E-01	-0.035
TL-202	-7.445E-02		6.950E-02	1.053E-01	9.115E-03	-0.707
HG-203	2.888E-02		4.121E-02	6.426E-02	5.882E-03	0.449
BI-207	-2.807E-02		6.274E-02	9.636E-02	8.305E-03	-0.291
TL-207	2.344E-02		7.411E-01	1.072E+00	1.908E-01	0.022
PO-209	8.588E+00		8.709E+00	1.617E+01	1.418E+00	0.531
PB-211	-7.641E-01		1.304E+00	1.572E+00	9.843E-01	-0.486
BI-212	1.191E+00	+	6.605E-01	9.255E-01	1.100E-01	1.286
PO-215	2.344E-02		7.411E-01	1.072E+00	1.908E-01	0.022
RN-219	-2.954E-01		4.978E-01	7.446E-01	1.097E-01	-0.397
RN-220	1.247E+01		2.950E+01	5.079E+01	5.094E+00	0.245
RA-223	2.344E-02		7.411E-01	1.072E+00	1.908E-01	0.022
AC-227	9.741E-02		3.428E-01	5.761E-01	8.944E-02	0.169
TH-227	9.741E-02		3.429E-01	5.761E-01	1.049E-01	0.169
TH-229	-3.877E-01		4.579E-01	7.369E-01	6.256E-02	-0.526
PA-231	9.854E-01		1.451E+00	2.477E+00	3.805E-01	0.398
TH-231	2.344E-02		7.411E-01	1.072E+00	1.908E-01	0.022
U-231	-5.825E-01		7.400E-01	1.036E+00	1.015E-01	-0.562
PA-233	-2.353E-02		6.223E-02	9.774E-02	8.920E-03	-0.241
PA-234	-1.212E-01		3.931E-01	6.277E-01	1.182E-01	-0.193
PA-234M	-1.645E+00		5.973E+00	9.530E+00	9.589E-01	-0.173
NP-236	-3.802E-02		6.754E-02	1.124E-01	9.718E-03	-0.338
NP-239	-1.060E-01		1.526E-01	2.312E-01	2.570E-02	-0.459
AM-241	3.295E-02		5.117E-02	8.140E-02	6.905E-03	0.405

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	5.048E-02		6.963E-02	1.079E-01	1.105E-02	0.468
AM-246	2.002E-01		2.013E-01	3.651E-01	3.133E-02	0.548
CM-247	-1.521E-02		4.354E-02	6.680E-02	5.420E-03	-0.228
CF-249	5.252E-02		4.710E-02	8.133E-02	6.523E-03	0.646
CF-251	-5.136E-03		1.090E-01	1.848E-01	1.528E-02	-0.028

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                               DETECTOR DATA                                 *
*                                                                             *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960001              *
* Acquisition date : 12-FEB-2010 14:44:51 Detector SN#    :                  *
* Detector ID      : GAM21                Sensitivity     : 5.000            *
* Geometry         : CAN                  Energy tolerance: 1.500            *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000           *
* Elapsed real time:    0 02:00:25.56     Half life ratio : 8.000            *
*******************************************************************************
*                                                                             *
*                               SAMPLE DATA                                   *
*                                                                             *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID            *
* Sample ID        : G245960001           Analyst initials: MXR1             *
* Batch Number     : 948717               Sample Quantity : 1.2048E+02 GRAM  *
* Recovery         :    1.00000           Carrier Weight :    0.00000        *
*******************************************************************************
*                                                                             *
*                                 QC DATA                                     *
*                                                                             *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                  *
* MSD DPM          :    0.000             MSD Isotope     :                  *
* LCS DPM          :    0.000             LCS Isotope     :                  *
* LCSD DPM         :    0.000             LCSD Isotope    :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.249E+01	2.712E+00	3.566E-01	1.384E+00
CD-109	4.008E+00	7.823E-01	3.672E-01	3.991E-01
SN-126	3.939E-01	7.689E-02	3.603E-02	3.923E-02
EU-155	1.912E-01	1.301E-01	5.778E-02	6.639E-02
TL-208	5.432E-01	1.164E-01	3.548E-02	5.938E-02
BI-210	1.045E+00	5.761E-01	3.326E-01	2.939E-01
PB-210	1.045E+00	5.761E-01	3.326E-01	2.939E-01
PO-210	1.045E+00	5.747E-01	3.326E-01	2.932E-01
BI-211	4.735E+00	6.447E-01	1.588E-01	3.289E-01
PB-212	1.945E+00	2.246E-01	4.386E-02	1.146E-01
PO-212	1.945E+00	2.246E-01	4.386E-02	1.146E-01
BI-214	1.406E+00	2.531E-01	6.607E-02	1.292E-01
PB-214	1.647E+00	2.396E-01	5.541E-02	1.222E-01
PO-214	1.647E+00	2.396E-01	5.541E-02	1.222E-01
PO-216	1.945E+00	2.246E-01	4.386E-02	1.146E-01
PO-218	1.647E+00	2.396E-01	5.541E-02	1.222E-01
RA-224	5.477E+00	1.068E+00	5.005E-01	5.448E-01
RA-226	1.406E+00	2.531E-01	6.607E-02	1.292E-01
AC-228	1.724E+00	3.865E-01	1.331E-01	1.972E-01
RA-228	1.724E+00	3.865E-01	1.331E-01	1.972E-01
TH-228	1.975E+00	2.281E-01	4.452E-02	1.164E-01
TH-230	1.406E+00	2.531E-01	6.607E-02	1.292E-01
TH-232	1.724E+00	3.865E-01	1.331E-01	1.972E-01
TH-234	1.012E+00	8.436E-01	3.877E-01	4.304E-01
U-234	1.406E+00	2.531E-01	6.607E-02	1.292E-01
U-235	1.474E-01	1.805E-01	1.527E-01	9.210E-02
NP-237	1.157E+00	3.251E-01	1.043E-01	1.659E-01
U-238	1.012E+00	8.436E-01	3.877E-01	4.304E-01
AM-243	3.937E-01	5.500E-02	2.375E-02	2.806E-02
ANH-511	1.291E-01	7.874E-02	2.546E-02	4.017E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-9.481E-02	3.249E-01	2.736E-01	1.658E-01	NOT IDENT.
NA-22	3.244E-02	5.858E-02	5.158E-02	2.989E-02	NOT IDENT.
NA-24	3.513E+05	7.923E+05	0.000E+00	4.042E+05	SHORT HLIF
AL-26	-5.732E-03	4.978E-02	4.005E-02	2.540E-02	NOT IDENT.
TI-44	4.181E-01	4.700E-02	2.020E-02	2.398E-02	FAIL ABUN
SC-46	6.989E-03	4.488E-02	3.913E-02	2.290E-02	FAIL ABUN
V-48	3.288E-02	9.063E-02	7.990E-02	4.624E-02	NOT IDENT.
CR-51	8.322E-02	3.502E-01	2.996E-01	1.787E-01	NOT IDENT.
MN-52	-2.058E-01	2.879E-01	2.107E-01	1.469E-01	NOT IDENT.
MN-54	3.729E-02	4.297E-02	4.019E-02	2.192E-02	NOT IDENT.
CO-56	-6.023E-03	3.938E-02	3.319E-02	2.009E-02	NOT IDENT.
CO-57	1.203E-02	2.042E-02	1.745E-02	1.042E-02	NOT IDENT.
CO-58	-3.354E-03	4.661E-02	3.998E-02	2.378E-02	NOT IDENT.
FE-59	-8.057E-02	1.162E-01	8.731E-02	5.928E-02	NOT IDENT.
CO-60	-1.928E-02	5.009E-02	4.044E-02	2.556E-02	NOT IDENT.
ZN-65	1.975E-02	1.218E-01	9.045E-02	6.214E-02	NOT IDENT.
GE-68	1.724E-01	1.752E+00	1.484E+00	8.940E-01	NOT IDENT.
AS-73	1.607E-01	1.658E-01	1.531E-01	8.459E-02	NOT IDENT.
AS-74	-8.356E-02	1.099E-01	8.573E-02	5.608E-02	NOT IDENT.
SE-75	8.317E-03	3.971E-02	3.446E-02	2.026E-02	NOT IDENT.
BR-77	8.599E+00	1.211E+01	1.100E+01	6.178E+00	FAIL ABUN
SR-82	-1.848E-01	4.492E-01	3.490E-01	2.292E-01	NOT IDENT.
RB-83	4.498E-02	8.024E-02	7.206E-02	4.094E-02	NOT IDENT.
RB-84	5.507E-02	8.145E-02	7.507E-02	4.156E-02	NOT IDENT.
KR-85	4.300E+00	8.085E+00	6.508E+00	4.125E+00	NOT IDENT.
SR-85	2.205E-02	4.145E-02	3.337E-02	2.115E-02	NOT IDENT.
RB-86	1.320E-01	1.128E+00	9.571E-01	5.754E-01	NOT IDENT.
Y-88	1.507E-02	4.959E-02	4.380E-02	2.530E-02	NOT IDENT.
ZR-88	-3.015E-04	3.307E-02	2.715E-02	1.687E-02	NOT IDENT.
Y-91	-5.722E+00	2.429E+01	1.951E+01	1.239E+01	NOT IDENT.
NB-94	2.237E-02	3.999E-02	3.513E-02	2.040E-02	NOT IDENT.
NB-95	2.288E-02	6.666E-02	5.002E-02	3.401E-02	NOT IDENT.
NB-95M	-1.869E-02	1.180E-01	9.036E-02	6.020E-02	NOT IDENT.
ZR-95	3.901E-02	8.992E-02	7.758E-02	4.588E-02	NOT IDENT.
NB-97	-9.272E+04	1.196E+05	0.000E+00	6.103E+04	SHORT HLIF
ZR-97	1.956E+06	2.066E+06	0.000E+00	1.054E+06	SHORT HLIF
MO-99	-1.134E+01	1.436E+01	1.062E+01	7.326E+00	NOT IDENT.
TC-99M	2.076E+16	3.313E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.513E-03	2.901E-02	2.565E-02	1.480E-02	NOT IDENT.
RH-102	-8.032E-03	3.019E-02	2.552E-02	1.540E-02	FAIL ABUN
RU-103	3.027E-02	4.649E-02	4.207E-02	2.372E-02	FAIL ABUN
RH-106	-2.244E-01	3.838E-01	2.946E-01	1.958E-01	FAIL ABUN
RU-106	-2.244E-01	3.832E-01	2.946E-01	1.955E-01	FAIL ABUN
AG-108M	4.622E-02	3.495E-02	3.335E-02	1.783E-02	NOT IDENT.
AG-110M	-1.859E-02	4.205E-02	3.349E-02	2.145E-02	NOT IDENT.
IN-111	-1.588E-01	1.017E+00	7.744E-01	5.190E-01	NOT IDENT.
IN-113M	-4.449E-02	5.315E-02	4.051E-02	2.712E-02	NOT IDENT.
SN-113	-4.449E-02	5.315E-02	4.051E-02	2.712E-02	NOT IDENT.
IN-114M	2.879E-02	1.705E-01	1.450E-01	8.697E-02	NOT IDENT.
CD-115	-3.712E-01	1.138E+01	9.716E+00	5.804E+00	NOT IDENT.
SN-117M	1.710E-02	4.419E-02	4.027E-02	2.254E-02	NOT IDENT.
SB-122	2.391E-01	2.404E+00	2.064E+00	1.226E+00	NOT IDENT.
I-123	3.070E+06	4.582E+06	0.000E+00	2.338E+06	SHORT HLIF
TE-123M	1.521E-02	2.270E-02	2.093E-02	1.158E-02	NOT IDENT.
I-124	-2.969E-01	7.842E-01	6.131E-01	4.001E-01	FAIL ABUN
SB-124	7.628E-02	1.135E-01	1.068E-01	5.791E-02	FAIL ABUN
SB-125	3.305E-02	9.195E-02	8.276E-02	4.691E-02	FAIL ABUN
TE-125M	9.976E+00	7.044E+00	5.889E+00	3.594E+00	NOT IDENT.
I-126	9.895E-02	2.220E-01	1.936E-01	1.133E-01	NOT IDENT.
SB-126	-1.002E-01	2.130E-01	1.614E-01	1.087E-01	NOT IDENT.
SB-127	1.443E-01	1.596E+00	1.343E+00	8.143E-01	NOT IDENT.
XE-127	-1.290E-02	4.089E-02	3.526E-02	2.086E-02	NOT IDENT.
I-131	-1.517E-02	1.205E-01	9.869E-02	6.148E-02	NOT IDENT.
TE-132	-1.630E-01	6.409E-01	5.478E-01	3.270E-01	NOT IDENT.
BA-133	2.216E-02	4.908E-02	3.803E-02	2.504E-02	FAIL ABUN
I-133	-4.633E+02	6.181E+03	0.000E+00	3.154E+03	SHORT HLIF
CS-134	8.686E-02	9.080E-02	6.085E-02	4.633E-02	FAIL ABUN
CS-135	7.861E-02	1.636E-01	1.300E-01	8.345E-02	NOT IDENT.
I-135	3.480E+15	7.497E+15	0.000E+00	3.825E+15	SHORT HLIF
CS-136	-1.273E-01	1.399E-01	1.034E-01	7.137E-02	FAIL ABUN
BA-137M	-1.261E-02	4.641E-02	3.777E-02	2.368E-02	NOT IDENT.
CS-137	-1.333E-02	4.906E-02	3.993E-02	2.503E-02	NOT IDENT.
CE-139	7.306E-03	2.434E-02	2.203E-02	1.242E-02	NOT IDENT.
BA-140	5.882E-02	3.001E-01	2.602E-01	1.531E-01	NOT IDENT.
LA-140	-3.688E-02	1.360E-01	9.036E-02	6.938E-02	FAIL ABUN

CE-141	-1.396E-02	5.379E-02	4.314E-02	2.744E-02	NOT IDENT.
CE-143	4.990E+02	1.812E+02	0.000E+00	9.245E+01	SHORT HLIF
CE-144	-1.004E-01	1.752E-01	1.385E-01	8.940E-02	NOT IDENT.
PM-144	1.847E-02	4.375E-02	3.788E-02	2.232E-02	NOT IDENT.
PR-144	1.252E+00	2.965E+00	2.567E+00	1.513E+00	NOT IDENT.
PM-146	1.348E-02	4.592E-02	4.089E-02	2.343E-02	NOT IDENT.
ND-147	-3.831E-02	5.790E-01	4.925E-01	2.954E-01	FAIL ABUN
PM-149	-5.974E+01	8.417E+01	6.718E+01	4.294E+01	NOT IDENT.
EU-152	-4.793E-02	9.578E-02	7.628E-02	4.887E-02	NOT IDENT.
GD-153	-2.188E-02	5.755E-02	4.377E-02	2.936E-02	FAIL ABUN
EU-154	9.347E-02	1.641E-01	1.447E-01	8.374E-02	NOT IDENT.
TB-160	-1.842E-02	1.628E-01	1.376E-01	8.307E-02	FAIL ABUN
HO-166M	2.758E-02	6.787E-02	5.895E-02	3.463E-02	FAIL ABUN
TM-171	-1.657E-01	1.229E+01	9.914E+00	6.270E+00	NOT IDENT.
LU-176	1.726E-02	2.470E-02	2.184E-02	1.260E-02	FAIL ABUN
LU-177	2.975E+00	1.395E+00	9.624E-01	7.115E-01	FAIL ABUN
LU-177M	1.094E-01	2.002E-01	1.554E-01	1.022E-01	NOT IDENT.
HF-181	-1.170E-04	4.080E-02	3.528E-02	2.081E-02	NOT IDENT.
W-181	-2.081E-02	1.477E-01	1.186E-01	7.537E-02	NOT IDENT.
TA-182	-1.156E-01	2.760E-01	2.171E-01	1.408E-01	FAIL ABUN
RE-183	6.489E-03	9.077E-02	8.143E-02	4.631E-02	FAIL ABUN
RE-184	-1.129E-01	2.158E-01	1.789E-01	1.101E-01	NOT IDENT.
OS-185	9.874E-03	5.107E-02	4.369E-02	2.606E-02	NOT IDENT.
RE-188	5.100E-02	1.429E-01	1.301E-01	7.289E-02	NOT IDENT.
W-188	-2.165E+00	7.063E+00	5.171E+00	3.604E+00	FAIL ABUN
IR-192	-5.682E-03	3.302E-02	2.737E-02	1.685E-02	FAIL ABUN
AU-195	2.393E-01	1.538E-01	1.387E-01	7.849E-02	FAIL ABUN
TL-200	1.766E+02	4.859E+02	0.000E+00	2.479E+02	SHORT HLIF
TL-201	-3.413E-01	5.558E+00	4.942E+00	2.836E+00	NOT IDENT.
TL-202	-7.445E-02	6.811E-02	5.335E-02	3.475E-02	NOT IDENT.
HG-203	2.888E-02	4.039E-02	3.272E-02	2.061E-02	NOT IDENT.
BI-207	-2.807E-02	6.149E-02	4.828E-02	3.137E-02	FAIL ABUN
TL-207	2.344E-02	7.263E-01	5.447E-01	3.706E-01	FAIL ABUN
PO-209	8.588E+00	8.534E+00	8.118E+00	4.354E+00	NOT IDENT.
PB-211	-7.641E-01	1.278E+00	7.971E-01	6.519E-01	NOT IDENT.
BI-212	1.191E+00	6.473E-01	4.659E-01	3.303E-01	FAIL ABUN
PO-215	2.344E-02	7.263E-01	5.447E-01	3.706E-01	FAIL ABUN
RN-219	-2.954E-01	4.879E-01	3.775E-01	2.489E-01	FAIL ABUN
RN-220	1.247E+01	2.891E+01	2.566E+01	1.475E+01	NOT IDENT.
RA-223	2.344E-02	7.263E-01	5.447E-01	3.706E-01	FAIL ABUN
AC-227	9.741E-02	3.359E-01	2.936E-01	1.714E-01	FAIL ABUN
TH-227	9.741E-02	3.360E-01	2.936E-01	1.714E-01	FAIL ABUN
TH-229	-3.877E-01	4.487E-01	3.768E-01	2.289E-01	FAIL ABUN
PA-231	9.854E-01	1.422E+00	1.261E+00	7.256E-01	NOT IDENT.
TH-231	2.344E-02	7.263E-01	5.447E-01	3.706E-01	FAIL ABUN
U-231	-5.825E-01	7.252E-01	5.342E-01	3.700E-01	FAIL ABUN
PA-233	-2.353E-02	6.098E-02	4.971E-02	3.111E-02	FAIL ABUN
PA-234	-1.212E-01	3.852E-01	3.150E-01	1.965E-01	FAIL ABUN
PA-234M	-1.645E+00	5.853E+00	4.779E+00	2.986E+00	NOT IDENT.
NP-236	-3.802E-02	6.619E-02	5.761E-02	3.377E-02	NOT IDENT.
NP-239	-1.060E-01	1.495E-01	1.189E-01	7.630E-02	FAIL ABUN
AM-241	3.295E-02	5.014E-02	4.220E-02	2.558E-02	NOT IDENT.
CM-243	5.048E-02	6.824E-02	5.556E-02	3.481E-02	FAIL ABUN
AM-246	2.002E-01	1.973E-01	1.829E-01	1.007E-01	NOT IDENT.
CM-247	-1.521E-02	4.267E-02	3.387E-02	2.177E-02	FAIL ABUN
CF-249	5.252E-02	4.616E-02	4.125E-02	2.355E-02	NOT IDENT.
CF-251	-5.136E-03	1.068E-01	9.459E-02	5.449E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417

GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	172.2172
46.50	172.2172
46.50	172.2172
48.70	162.8838
49.72	182.3289
51.35	204.9984
52.39	174.4535
52.97	173.9942
53.15	174.1390
53.44	170.6424
54.07	199.1910
56.28	192.6757
56.28	192.6780
57.37	0.0000
57.53	230.7760
57.53	230.7788
57.60	230.8465
57.98	232.1790
57.98	232.1790
59.32	234.7945
59.32	234.7945
59.40	234.8740
59.54	235.0144
59.72	235.1931
60.01	234.2016
61.10	267.4151
61.14	267.4596
61.30	272.7841
63.00	257.5275
63.29	257.8312
63.29	257.8312
63.58	258.1335
64.28	258.8618
65.12	277.0445
65.20	277.1329
65.20	277.1329
66.05	310.8528
66.72	287.9944
66.83	274.9652
66.91	275.0502
67.20	275.3585
67.20	275.3585
67.75	269.3417
67.85	281.3349
68.90	290.4227
68.90	290.4227
69.30	293.8522
69.67	294.2640
70.82	285.8471
70.82	285.8471
70.83	285.8580
72.80	294.6667
72.87	294.7402
72.87	294.7402
74.67	299.7084
74.81	299.8592
74.81	299.8592
74.81	299.8592
74.81	299.8592
74.81	299.8592
74.81	299.8592
74.81	299.8592
74.97	300.0302
75.28	300.3611
75.70	300.8067
77.11	302.2989
77.11	302.2989

77.11	302.2989
77.11	302.2989
77.11	302.2989
77.11	302.2989
77.11	302.2989
78.38	230.5557
79.62	237.0476
79.80	206.8542
79.80	206.8542
80.11	226.3992
80.18	226.4526
80.30	233.4512
80.30	233.4512
80.57	242.6515
81.00	264.4630
81.07	264.5252
81.07	264.5252
81.07	264.5252
81.07	264.5252
82.60	231.0768
83.37	196.7709
83.78	197.0377
83.78	197.0377
83.78	197.0377
83.78	197.0377
84.21	221.1042
84.90	197.7577
85.43	198.0962
86.29	198.6427
86.50	205.1200
86.54	205.1467
86.59	205.1792
86.72	205.2636
86.79	205.3080
86.94	209.6439
87.30	209.8825
87.30	209.8825
87.30	209.8825
87.30	209.8825
87.30	209.8825
87.30	209.8825
87.30	209.8825
87.57	210.0623
87.88	210.2677
88.03	210.3674
88.36	210.5850
88.47	210.6575
89.95	211.6303
91.11	199.5166
92.29	200.2347
92.38	178.0356
92.38	178.0356
93.35	178.5565
94.00	178.9059
94.67	179.2604
94.67	179.2629
94.90	179.3853
94.90	179.3853
94.90	179.3853
94.90	179.3853
95.87	204.5650
95.87	204.5650
96.73	181.8110
97.43	209.8726
98.44	183.0793
98.44	183.0799
98.88	164.6519
99.55	185.8636
99.55	185.8636
99.86	183.8272
100.00	176.1914
100.10	176.2439
103.18	149.6270
103.76	146.9008
105.00	150.7534
105.31	150.8811
108.00	174.1251
109.28	143.0905

111.00	181.5686
111.00	181.5686
111.76	172.8334
112.95	165.3840
115.19	175.5148
116.30	181.7629
117.00	198.2176
117.00	198.2176
117.66	177.7676
121.11	199.0860
121.62	183.0141
121.78	180.7531
122.06	170.3742
122.32	168.1458
122.32	168.1458
122.32	168.1458
122.32	168.1458
123.07	188.3390
127.23	173.2827
129.76	194.9102
131.20	182.8391
133.02	209.5428
133.54	200.2007
135.34	179.3475
136.00	195.2820
136.25	177.2990
136.48	177.3910
140.51	168.0127
140.51	0.0000
142.18	183.2840
142.65	206.7063
143.76	167.9659
144.24	148.5008
144.24	148.5008
144.24	148.5008
144.24	148.5008
145.22	185.7063
145.44	185.7916
147.16	193.8759
152.43	210.9767
152.70	193.6057
153.22	180.0549
154.21	169.5569
154.21	169.5569
154.21	169.5569
154.21	169.5569
155.03	185.7339
156.02	204.5446
158.56	163.4527
159.00	0.0000
159.00	154.3169
160.31	191.0668
161.27	168.5561
162.32	175.6880
162.64	179.1946
163.35	166.6830
163.89	167.7077
165.85	162.3554
167.43	157.7001
171.28	167.4706
171.86	152.0951
172.10	147.8385
176.55	165.6044
176.60	165.6199
181.06	163.4293
184.41	164.3942
185.71	167.4226
186.00	167.5072
190.27	174.6301
192.34	160.3687
193.63	181.3672
197.04	154.4069
198.01	163.6980
198.60	167.4756
200.40	150.7195
201.83	175.6405
202.84	162.2541
205.31	134.5272

208.36	155.4101
208.81	155.5201
209.75	147.9169
209.75	147.9169
210.97	131.5788
215.65	139.5096
216.55	133.1810
218.09	131.6267
222.10	160.5995
223.80	144.0585
226.40	142.7222
227.00	151.3623
227.08	151.3802
227.20	151.4063
228.16	148.7766
228.18	148.7814
228.18	148.7814
231.56	0.0000
235.69	137.9458
236.00	148.0704
236.00	148.0704
238.63	134.6737
238.63	134.6737
238.63	134.6737
238.63	134.6737
239.00	134.7435
240.98	135.1180
241.98	108.7280
241.98	108.7280
241.98	108.7280
244.69	106.2263
245.39	110.6984
247.94	122.7790
248.90	126.8420
249.79	113.3190
252.40	110.7769
252.85	121.6349
252.85	121.6349
254.15	0.0000
256.20	97.5458
256.20	97.5458
260.50	109.9905
260.90	112.0321
262.80	93.4244
264.65	97.6331
268.24	106.5910
268.79	102.1598
269.46	101.2445
269.46	101.2445
269.46	101.2445
269.46	101.2445
271.23	101.4706
273.65	93.7190
276.40	100.1098
277.35	110.8567
277.60	110.8924
277.60	110.8924
278.00	104.8666
278.60	91.2561
279.20	85.2356
279.53	100.4965
280.46	94.5156
281.68	100.1517
283.67	84.6836
284.30	68.4108
285.00	97.0835
285.90	100.2590
286.10	100.2829
286.10	100.2829
287.40	92.2412
288.45	0.0000
290.67	84.8868
290.80	84.8985
291.72	84.9925
293.26	0.0000
293.70	65.0559
295.21	65.1713
295.21	65.1713

295.21	65.1713
295.96	65.2289
296.50	65.2700
297.23	65.3264
298.57	65.4289
299.80	85.8032
299.80	85.8032
300.09	85.8318
300.09	85.8318
300.09	85.8318
300.09	85.8318
300.12	85.8351
301.29	90.6392
302.84	92.3676
303.76	94.0320
303.91	95.6159
304.40	100.3750
304.40	100.3750
304.84	109.8407
306.84	84.9271
308.46	96.6382
311.98	87.5323
316.51	83.7350
318.01	83.8748
319.02	79.7165
319.41	78.6867
320.08	75.5531
323.87	86.5519
323.87	86.5519
323.87	86.5519
323.87	86.5519
325.23	85.0737
328.77	93.4570
333.44	89.0645
334.20	103.7227
334.20	103.7227
334.30	103.7344
338.28	96.5742
338.28	96.5742
338.28	96.5742
338.28	96.5742
338.32	96.5778
338.32	96.5778
338.32	96.5778
340.50	86.4663
340.57	86.4727
344.27	82.9827
345.85	78.7441
350.59	0.0000
351.07	70.3685
351.92	70.4297
351.92	70.4297
351.92	70.4297
355.39	0.0000
356.01	71.2726
364.48	75.7751
366.43	64.7544
367.43	63.7006
367.94	0.0000
369.80	79.5298
374.96	60.7896
383.85	88.5514
387.95	70.6569
388.63	80.9656
391.69	99.4928
391.69	99.4928
392.90	72.1273
398.62	66.7510
400.65	72.6400
401.10	71.5159
401.81	92.3372
402.60	85.4737
404.84	85.0666
410.95	68.0762
411.60	80.3414
413.65	54.2415
414.70	63.0483
415.30	64.8336

415.76	61.3536
417.63	0.0000
418.52	58.8663
423.70	60.8972
427.08	65.4998
427.89	56.6875
432.53	62.2476
433.93	50.7474
439.47	67.0853
439.56	67.0898
439.89	64.4249
443.98	44.8917
444.90	50.3168
445.03	50.3228
445.03	50.3228
445.03	50.3228
445.03	50.3228
453.90	57.9316
463.38	55.6396
468.07	65.9180
473.00	56.0650
475.06	57.0758
475.35	46.9604
476.78	51.6216
477.59	54.4212
477.96	51.6686
482.03	45.3528
484.57	38.0227
487.03	48.3152
490.36	0.0000
492.35	63.4377
497.08	53.3653
507.63	0.0000
510.53	0.0000
510.84	50.1299
511.00	50.1363
511.85	50.1675
511.85	50.1675
513.99	48.5391
513.99	48.5391
520.41	52.3849
520.65	50.4897
527.90	46.9214
528.96	0.0000
529.64	46.0210
529.87	0.0000
531.02	45.1067
537.32	50.1274
543.00	38.7134
546.56	0.0000
549.76	44.7281
552.65	61.3812
555.20	45.8712
563.23	46.1222
563.90	53.9963
568.70	47.2764
569.32	42.3688
569.50	45.3304
569.67	45.3360
573.80	51.3906
574.00	46.4550
574.64	36.5867
578.91	61.8763
579.30	0.0000
583.14	52.7008
585.48	46.2088
591.81	51.9984
592.07	46.0056
593.00	43.0315
595.88	61.1582
600.56	49.2737
602.52	0.0000
602.71	55.2388
602.71	55.2388
603.60	45.1377
604.41	56.4512
604.70	62.9142
609.31	50.5585

609.31	50.5585
609.31	50.5585
609.31	50.5585
610.33	38.8535
612.46	58.3576
614.37	43.8209
618.01	38.6332
621.84	48.9155
621.84	48.9155
631.29	49.1997
633.02	53.3568
633.10	53.3584
634.78	56.4955
635.90	52.4225
636.97	54.5123
645.85	46.5326
646.12	43.4368
656.30	44.7401
657.75	51.0262
657.90	0.0000
661.65	58.4490
661.65	58.4490
664.57	0.0000
666.33	45.0025
666.33	45.0025
675.00	42.0728
677.61	37.9226
685.20	40.2022
692.80	58.4375
695.00	53.1906
696.49	46.8467
696.49	46.8467
697.00	55.3801
697.49	55.3960
698.33	50.0924
698.50	50.0967
699.00	49.0449
702.63	39.5293
706.10	42.8162
706.58	0.0000
706.67	43.9003
709.31	35.3858
711.68	33.2838
713.82	56.9724
717.42	49.5446
720.50	64.1150
721.93	0.0000
722.20	53.5598
722.78	50.1199
722.78	50.1199
722.89	50.1234
722.95	50.1255
723.30	43.2190
724.18	60.5356
727.18	53.0539
733.00	43.4448
735.90	31.5462
739.58	46.8672
742.81	33.8457
744.21	42.6110
747.13	61.2791
751.79	46.0708
752.31	50.4725
753.82	53.8061
755.35	41.7608
756.15	38.4799
756.87	43.9935
763.93	44.1541
765.79	53.0361
766.42	51.2838
766.84	44.2200
776.49	38.8837
778.00	35.5771
778.57	43.3727
778.89	27.8076
783.80	41.2569
785.46	40.1759
792.07	51.9536

795.84	37.6913
796.30	41.2911
798.80	41.3416
801.93	46.1313
805.60	40.5791
810.29	41.5752
810.76	37.0652
815.85	35.3447
817.79	41.7268
818.51	39.9266
819.60	30.8689
826.30	33.7011
828.27	0.0000
831.60	37.4395
831.96	37.4455
834.83	29.2656
836.80	0.0000
846.75	25.7517
848.13	32.2109
856.28	0.0000
856.80	44.6611
860.37	32.3947
867.32	23.2129
867.82	20.1226
871.10	36.2750
873.19	33.5171
874.81	24.2246
875.33	0.0000
876.40	31.7007
879.36	31.7438
880.27	35.4923
880.51	35.4970
881.50	25.2327
883.24	36.4759
884.67	34.6279
889.25	28.1345
896.60	21.6406
898.02	30.1273
899.00	40.5015
903.28	27.2618
911.07	33.1423
911.07	33.1423
911.07	33.1423
919.63	28.5146
920.93	29.4818
925.00	30.4867
925.24	30.4898
926.50	26.6930
935.52	30.6250
937.48	33.5243
944.10	34.5797
946.00	37.4908
949.00	36.5769
962.29	41.9443
964.01	45.2026
966.15	64.6322
968.20	71.8031
969.11	35.5916
969.11	35.5916
969.11	35.5916
977.42	39.9350
980.50	23.4064
983.50	30.2704
989.30	31.3211
996.32	33.3733
1001.03	37.3710
1001.68	32.4618
1004.76	28.5625
1021.30	0.0000
1024.50	0.0000
1034.80	22.9248
1036.00	20.9405
1037.82	24.9475
1038.57	28.9476
1038.76	0.0000
1045.16	26.0190
1046.59	40.0527
1048.07	40.0762

1050.47	29.0821
1050.47	29.0821
1062.04	28.2037
1063.62	30.2373
1076.63	38.4898
1077.35	37.4860
1078.86	28.3842
1085.78	35.5725
1099.22	34.7305
1112.02	34.2106
1112.84	32.2649
1115.52	29.1164
1120.29	39.4601
1120.29	39.4601
1120.29	39.4601
1120.29	39.4601
1120.51	39.4639
1121.28	48.0566
1124.00	0.0000
1129.67	41.3164
1131.51	0.0000
1147.95	0.0000
1167.94	38.7416
1173.22	32.5197
1175.09	29.3918
1177.93	37.8264
1189.05	35.8627
1204.90	38.1797
1205.75	0.0000
1213.00	40.4121
1221.42	47.9927
1230.97	40.6570
1235.34	43.9309
1236.41	0.0000
1238.25	35.3928
1246.25	33.3356
1260.41	0.0000
1271.85	22.7729
1274.45	24.9631
1274.54	24.9631
1291.56	29.4653
1298.22	0.0000
1312.09	23.0672
1325.50	22.9808
1325.50	22.9808
1332.49	23.9529
1333.61	27.6465
1360.21	16.7249
1362.66	0.0000
1365.15	13.0276
1368.21	14.9023
1368.53	0.0000
1376.25	20.8076
1384.27	14.9753
1394.10	10.3255
1395.20	17.8411
1407.95	16.9658
1434.06	18.0460
1436.60	13.3073
1457.56	0.0000
1460.81	14.3573
1489.15	12.5435
1509.49	14.9715
1596.49	15.3275
1620.62	13.9966
1678.03	0.0000
1691.02	8.1426
1691.02	8.1426
1706.46	0.0000
1750.46	0.0000
1764.49	9.3267
1764.49	9.3267
1764.49	9.3267
1764.49	9.3267
1770.23	8.8947
1771.40	11.4181
1791.20	0.0000
1808.65	11.5197

1836.01 7.3774

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960001

Total Uranium Activity	3.0780E+00	ug/g
Total Uranium Counting Unc.	2.5111E+00	ug/g
Total Uranium Tpu	1.2811E-06	ug/g
Total Uranium Mda	1.1554E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G245960001
ANALYST	: MXR1	DETECTOR	: GAM21
SAMPLE DATE	: 28-JAN-2010 12:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 12-FEB-2010 14:44:51.80	SAMPLE ALQT	: 120.480 GRAM

GROSS GAMMA ACTIVITY	(pCi/GRAM)	: 9.763E+00
GROSS GAMMA ERROR	(pCi/GRAM)	: 1.488E+00
GROSS GAMMA MDA	(pCi/GRAM)	: 5.435E+00
GROSS GAMMA DLC	(pCi/GRAM)	: 2.623E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:46:17.33

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960002.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:45:14
Sample ID : G245960002 Sample quantity : 1.21120E+02 GRAM
Detector name : GAM23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.65 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.34*	201	503	1.15	126.68	121	11	2.79E-02	23.0	
2	3	74.76*	334	478	1.28	149.51	145	16	4.64E-02	12.8	2.80E+00
3	3	77.04	520	376	1.15	154.07	145	16	7.22E-02	7.7	
4	1	83.97	88	258	1.22	167.94	165	13	1.23E-02	29.3	9.48E-01
5	1	87.13*	213	382	1.15	174.25	165	13	2.95E-02	17.0	
6	1	89.63	86	165	1.16	179.26	178	17	1.20E-02	22.5	5.35E+00
7	1	92.58*	650	448	1.42	185.16	178	17	9.02E-02	7.2	
8	0	143.39*	88	326	1.43	286.79	283	9	1.23E-02	39.1	
9	0	185.59*	295	333	1.17	371.18	366	10	4.10E-02	13.4	
10	0	209.04	127	236	1.41	418.08	414	10	1.77E-02	24.2	
11	2	238.38*	1001	185	1.26	476.76	468	21	1.39E-01	4.0	1.80E+00
12	2	241.22	249	242	1.76	482.43	468	21	3.46E-02	16.9	
13	0	269.62	148	196	1.19	539.24	532	14	2.05E-02	21.7	
14	0	294.81*	333	241	1.15	589.63	583	13	4.62E-02	11.2	
15	0	299.37	27	171	1.28	598.74	596	8	3.70E-03	87.0	
16	0	327.53	87	72	1.58	655.06	652	7	1.21E-02	19.4	
17	0	338.12	238	138	0.98	676.23	671	11	3.31E-02	11.6	
18	0	351.41*	514	196	1.47	702.81	698	13	7.14E-02	7.2	
19	0	409.04	75	101	1.09	818.07	813	11	1.04E-02	28.4	
20	0	462.88*	71	83	1.10	925.77	920	11	9.92E-03	27.9	
21	0	510.78*	128	178	2.77	1021.55	1012	25	1.78E-02	31.0	
22	0	582.44*	356	60	1.62	1164.89	1157	15	4.95E-02	7.2	
23	0	608.64*	414	98	1.48	1217.28	1211	14	5.75E-02	7.2	
24	0	660.94	125	119	1.70	1321.88	1315	17	1.74E-02	21.6	
25	0	727.04	70	71	1.62	1454.07	1446	13	9.73E-03	27.6	
26	0	794.34	45	33	1.25	1588.69	1584	10	6.28E-03	27.9	
27	0	860.21	37	42	1.28	1720.41	1714	12	5.12E-03	38.8	
28	0	910.18*	193	53	1.45	1820.36	1814	14	2.67E-02	11.0	
29	0	968.49	89	65	1.43	1936.99	1932	13	1.24E-02	21.5	
30	0	1118.76	106	39	1.89	2237.52	2229	19	1.47E-02	17.0	
31	0	1459.51*	687	34	2.53	2919.02	2909	18	9.55E-02	4.3	
32	0	1763.17*	71	4	2.49	3526.34	3520	15	9.87E-03	13.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 16:46:20

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:45:14
Sample ID : G245960002 Sample quantity : 121.12 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.65 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.001E+01	2.285E+00	5.199E-01	3.889E-02	38.496
CD-109	+	88.03	*	3.471E+00	1.230E+00	1.556E+00	1.519E-01	2.231
SN-126	+	64.28		2.502E+00	1.213E+00	1.074E+00	1.635E-01	2.330
	+	86.94		1.418E+00	7.627E-01	7.490E-01	3.115E-01	1.893
	+	87.57	*	3.412E-01	1.209E-01	1.538E-01	1.497E-02	2.217
CS-135	+	268.24	*	6.770E-01	2.985E-01	2.558E-01	1.954E-02	2.647
BA-137M	+	661.65	*	2.111E-01	9.197E-02	6.327E-02	3.232E-03	3.336
CS-137	+	661.65	*	2.232E-01	9.722E-02	6.689E-02	3.435E-03	3.336
TL-208		277.35		1.020E+00	4.448E-01	7.762E-01	8.201E-02	1.314
	+	510.84		7.221E-01	4.538E-01	2.279E-01	2.315E-02	3.169
	+	583.14	*	5.758E-01	9.099E-02	6.071E-02	3.942E-03	9.484
	+	860.37		5.701E-01	4.456E-01	4.828E-01	4.364E-02	1.181
BI-211		72.87		9.481E+00	4.717E+00	7.317E+00	6.454E-01	1.296
	+	351.07	*	3.577E+00	5.631E-01	4.180E-01	2.723E-02	8.558
PB-212	+	74.81		2.391E+00	6.856E-01	6.900E-01	8.901E-02	3.465
	+	77.11		2.082E+00	3.717E-01	3.866E-01	3.478E-02	5.384
	+	87.30		1.578E+00	5.809E-01	7.141E-01	9.952E-02	2.209
	+	238.63	*	1.501E+00	1.615E-01	9.855E-02	7.086E-03	15.226
	+	300.09		6.212E-01	1.082E+00	1.415E+00	1.175E-01	0.439
PO-212	+	74.81		2.391E+00	6.856E-01	6.900E-01	8.901E-02	3.465
	+	77.11		2.082E+00	3.717E-01	3.866E-01	3.478E-02	5.384
	+	87.30		1.578E+00	5.809E-01	7.141E-01	9.952E-02	2.209
		115.19		-5.692E-01	4.230E+00	6.933E+00	4.423E-01	-0.082
	+	238.63	*	1.501E+00	1.615E-01	9.855E-02	7.086E-03	15.226
	+	300.09		6.212E-01	1.082E+00	1.415E+00	1.175E-01	0.439
BI-214	+	609.31	*	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
		1120.29		1.154E+00	4.328E-01	8.237E-01	7.654E-02	1.401
	+	1764.49		1.594E+00	4.472E-01	3.038E-01	1.889E-02	5.246
PB-214	+	74.81		4.119E+00	1.158E+00	1.189E+00	1.376E-01	3.465
	+	77.11		3.568E+00	6.928E-01	6.628E-01	7.814E-02	5.384
	+	87.30		2.703E+00	9.802E-01	1.223E+00	1.516E-01	2.209
	+	241.98		2.242E+00	7.784E-01	5.936E-01	4.721E-02	3.777
	+	295.21		1.359E+00	3.249E-01	2.354E-01	2.018E-02	5.774
	+	351.92	*	1.244E+00	2.064E-01	1.384E-01	1.156E-02	8.987

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		4.119E+00	1.158E+00	1.189E+00	1.376E-01	3.465
	+	77.11		3.568E+00	6.928E-01	6.628E-01	7.814E-02	5.384
	+	87.30		2.703E+00	9.802E-01	1.223E+00	1.516E-01	2.209
	+	241.98		2.242E+00	7.784E-01	5.936E-01	4.721E-02	3.777
	+	295.21		1.359E+00	3.249E-01	2.354E-01	2.018E-02	5.774
	+	351.92	*	1.244E+00	2.064E-01	1.384E-01	1.156E-02	8.987
PO-216	+	74.81		2.391E+00	6.856E-01	6.900E-01	8.901E-02	3.465
	+	77.11		2.082E+00	3.717E-01	3.866E-01	3.478E-02	5.384
	+	87.30		1.578E+00	5.809E-01	7.141E-01	9.952E-02	2.209
	+	238.63	*	1.501E+00	1.615E-01	9.855E-02	7.086E-03	15.226
	+	300.09		6.212E-01	1.082E+00	1.415E+00	1.175E-01	0.439
PO-218	+	74.81		4.119E+00	1.158E+00	1.189E+00	1.376E-01	3.465
	+	77.11		3.568E+00	6.928E-01	6.628E-01	7.814E-02	5.384
	+	87.30		2.703E+00	9.802E-01	1.223E+00	1.516E-01	2.209
	+	241.98		2.242E+00	7.784E-01	5.936E-01	4.721E-02	3.777
	+	295.21		1.359E+00	3.249E-01	2.354E-01	2.018E-02	5.774
	+	351.92	*	1.244E+00	2.064E-01	1.384E-01	1.156E-02	8.987
RA-224	+	240.98	*	4.250E+00	1.457E+00	1.122E+00	6.320E-02	3.789
RA-226	+	609.31	*	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
		1120.29		1.154E+00	4.328E-01	8.237E-01	7.654E-02	1.401
	+	1764.49		1.594E+00	4.472E-01	3.038E-01	1.889E-02	5.246
AC-228	+	338.32		1.823E+00	8.554E-01	4.127E-01	1.683E-01	4.418
	+	911.07	*	1.411E+00	3.514E-01	1.849E-01	2.134E-02	7.629
	+	969.11		1.153E+00	5.634E-01	5.465E-01	1.272E-01	2.110
RA-228	+	338.32		1.823E+00	8.554E-01	4.127E-01	1.683E-01	4.418
	+	911.07	*	1.411E+00	3.514E-01	1.849E-01	2.134E-02	7.629
	+	969.11		1.153E+00	5.634E-01	5.465E-01	1.272E-01	2.110
TH-228	+	74.81		2.427E+00	6.586E-01	7.005E-01	6.278E-02	3.465
	+	77.11		2.113E+00	3.773E-01	3.925E-01	3.531E-02	5.384
	+	87.30		1.602E+00	5.676E-01	7.250E-01	7.037E-02	2.209
	+	238.63	*	1.523E+00	1.639E-01	1.001E-01	7.193E-03	15.226
	+	300.09		6.306E-01	1.158E+00	1.437E+00	8.469E-01	0.439
TH-230	+	609.31	*	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
		1120.29		1.154E+00	4.328E-01	8.237E-01	7.654E-02	1.401
	+	1764.49		1.594E+00	4.472E-01	3.038E-01	1.889E-02	5.246
TH-232	+	338.32		1.823E+00	4.364E-01	4.127E-01	2.437E-02	4.418
	+	911.07	*	1.411E+00	3.514E-01	1.849E-01	2.134E-02	7.629
	+	969.11		1.153E+00	5.634E-01	5.465E-01	1.272E-01	2.110
TH-234	+	63.29	*	6.321E+00	3.125E+00	2.880E+00	5.189E-01	2.195
	+	92.38		6.668E+00	1.550E+00	9.404E-01	1.715E-01	7.090
U-234	+	609.31	*	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
		1120.29		1.154E+00	4.328E-01	8.237E-01	7.654E-02	1.401
	+	1764.49		1.594E+00	4.472E-01	3.038E-01	1.889E-02	5.246
U-235	+	89.95		1.838E+00	1.005E+00	2.580E+00	8.019E-01	0.712
	+	93.35		8.016E+00	2.533E+00	1.120E+00	3.144E-01	7.157
		105.00		1.406E+00	1.344E+00	2.176E+00	6.416E-01	0.646
	+	143.76	*	4.213E-01	3.365E-01	3.981E-01	6.438E-02	1.058
		163.35		3.035E-01	5.437E-01	9.022E-01	1.604E-01	0.336
	+	185.71		3.084E-01	8.420E-02	8.119E-02	4.251E-03	3.798

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		1.717E-01	6.568E-01	9.417E-01	1.681E-01	0.182
NP-237	+	86.50	*	1.002E+00	4.108E-01	4.519E-01	1.029E-01	2.217
		95.87		-5.192E-01	1.324E+00	1.881E+00	4.618E-01	-0.276
U-238	+	63.29	*	6.321E+00	3.125E+00	2.880E+00	5.189E-01	2.195
	+	92.38		6.668E+00	1.131E+00	9.404E-01	8.403E-02	7.090
AM-243	+	74.67	*	3.876E-01	1.051E-01	1.123E-01	9.980E-03	3.451
	+	86.72		3.757E+01	1.331E+01	1.689E+01	1.631E+00	2.224
		117.66		-3.403E+00	4.402E+00	7.011E+00	4.342E-01	-0.485
	+	142.18		3.539E+01	2.775E+01	3.360E+01	1.830E+00	1.053
ANH-511	+	511.00	*	1.560E-01	9.717E-02	4.924E-02	2.860E-03	3.168

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.651E-01	3.753E-01	6.582E-01	4.473E-02	0.555
NA-22		1274.54	*	-4.407E-02	4.861E-02	6.996E-02	4.698E-03	-0.630
NA-24		1368.53	*	-1.518E-01	4.861E-02	Half-Life too short		
AL-26		1129.67		5.450E-01	1.913E+00	3.170E+00	2.020E-01	0.172
		1808.65	*	-2.045E-02	3.012E-02	4.113E-02	2.472E-03	-0.497
TI-44		67.85		-1.906E-02	6.764E-02	9.818E-02	8.550E-03	-0.194
	+	78.38	*	3.841E-01	6.859E-02	9.713E-02	8.804E-03	3.955
SC-46		889.25	*	-8.413E-03	4.367E-02	7.137E-02	6.377E-03	-0.118
		1120.51		1.927E-01	7.249E-02	1.400E-01	9.119E-03	1.377
V-48		944.10		-4.263E-01	1.032E+00	1.642E+00	1.430E-01	-0.260
		983.50	*	6.078E-03	7.438E-02	1.243E-01	1.034E-02	0.049
		1312.09		-4.443E-02	9.345E-02	1.425E-01	1.014E-02	-0.312
CR-51		320.08	*	1.968E-01	4.254E-01	7.307E-01	4.791E-02	0.269
MN-52		744.21		-4.571E-02	2.733E-01	4.322E-01	2.751E-02	-0.106
		848.13		-2.690E+00	7.218E+00	1.161E+01	9.472E-01	-0.232
		935.52		8.982E-02	2.888E-01	4.937E-01	4.340E-02	0.182
		1246.25		5.413E+00	8.774E+00	1.514E+01	9.688E-01	0.358
		1333.61		-1.790E+00	5.950E+00	9.276E+00	6.809E-01	-0.193
		1434.06	*	-8.505E-02	2.802E-01	4.314E-01	3.121E-02	-0.197
MN-54		834.83	*	5.809E-03	4.283E-02	7.242E-02	5.734E-03	0.080
CO-56		846.75	*	6.749E-03	4.037E-02	6.856E-02	5.578E-03	0.098
		977.42		-1.738E+00	3.418E+00	5.062E+00	4.244E-01	-0.343
		1037.82		8.969E-02	3.708E-01	6.266E-01	5.137E-02	0.143
		1175.09		-3.440E-01	2.324E+00	3.743E+00	2.119E-01	-0.092
		1238.25		8.979E-02	1.060E-01	1.854E-01	1.234E-02	0.484
		1360.21		1.017E+00	1.218E+00	2.185E+00	1.600E-01	0.466
		1771.40		-4.761E-01	2.770E-01	2.746E-01	1.699E-02	-1.734
CO-57		122.06	*	-6.367E-03	2.905E-02	4.734E-02	2.791E-03	-0.135
		136.48		-3.109E-03	2.360E-01	3.865E-01	2.514E-02	-0.008
CO-58		810.76	*	1.350E-02	4.046E-02	6.991E-02	5.252E-03	0.193
FE-59	+	142.65		5.435E+00	4.261E+00	5.761E+00	3.133E-01	0.943
		192.34		-1.934E+00	1.162E+00	1.703E+00	1.971E-01	-1.136
		1099.22	*	-4.452E-02	1.134E-01	1.794E-01	1.382E-02	-0.248
		1291.56		7.385E-02	1.400E-01	2.420E-01	2.009E-02	0.305

---- Non-Identified Nuclides ----

Nuclide		Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-60		1173.22		-4.212E-02	5.017E-02	7.454E-02	4.205E-03	-0.565
		1332.49	*	-1.504E-02	4.692E-02	7.299E-02	5.358E-03	-0.206
ZN-65		1115.52	*	1.700E-01	1.122E-01	1.911E-01	1.262E-02	0.890
GE-68		1077.35	*	2.703E-01	1.379E+00	2.318E+00	1.659E-01	0.117
AS-73		53.44	*	2.386E-01	1.257E+00	2.128E+00	1.879E-01	0.112
AS-74		595.88	*	1.841E-02	1.048E-01	1.731E-01	9.548E-03	0.106
		634.78		-3.386E-02	4.239E-01	6.364E-01	3.369E-02	-0.053
SE-75		66.05		-1.997E+00	7.092E+00	1.030E+01	1.081E+00	-0.194
		96.73		-4.334E-01	1.068E+00	1.520E+00	2.037E-01	-0.285
		121.11		-7.731E-02	1.553E-01	2.499E-01	2.331E-02	-0.309
		136.00		1.599E-03	4.380E-02	7.190E-02	4.060E-03	0.022
		198.60		-2.023E+00	2.128E+00	3.286E+00	2.219E-01	-0.616
		264.65	*	-1.619E-02	5.840E-02	7.951E-02	4.628E-03	-0.204
		279.53		-6.590E-02	1.245E-01	2.045E-01	1.286E-02	-0.322
		303.91		3.405E-01	2.761E+00	4.078E+00	3.912E-01	0.083
		400.65		8.213E-02	2.873E-01	4.855E-01	4.418E-02	0.169
BR-77	+	87.88		7.494E+02	2.656E+02	4.210E+02	4.108E+01	1.780
		200.40		-5.827E+01	1.868E+02	2.976E+02	1.592E+01	-0.196
	+	239.00		2.408E+02	2.356E+01	4.064E+01	2.285E+00	5.925
		249.79		2.575E+01	7.396E+01	1.208E+02	6.870E+00	0.213
		281.68		-1.015E+02	9.987E+01	1.593E+02	9.286E+00	-0.637
		297.23		2.598E+02	1.093E+02	1.366E+02	8.024E+00	1.902
		303.76		3.748E+01	2.355E+02	3.487E+02	2.052E+01	0.108
		439.47		7.028E+01	1.614E+02	2.748E+02	1.608E+01	0.256
		484.57		-2.362E+00	2.649E+02	4.356E+02	2.547E+01	-0.005
		520.65	*	-9.650E-01	1.375E+01	1.935E+01	1.120E+00	-0.050
		574.64		1.199E+01	2.716E+02	4.033E+02	2.264E+01	0.030
		578.91		8.749E+01	1.140E+02	1.741E+02	9.740E+00	0.503
		585.48		6.646E+02	2.449E+02	4.267E+02	2.375E+01	1.558
		755.35		1.343E+01	1.703E+02	2.760E+02	1.807E+01	0.049
		817.79		2.035E+00	1.393E+02	2.335E+02	1.777E+01	0.009
SR-82		698.33		-2.414E+01	4.025E+01	6.146E+01	3.472E+00	-0.393
		776.49	*	-7.400E-01	4.052E-01	5.515E-01	3.804E-02	-1.342
		1395.20		3.001E+00	1.412E+01	2.351E+01	1.713E+00	0.128
RB-83		520.41	*	9.024E-04	9.142E-02	1.299E-01	7.518E-03	0.007
		529.64		-2.088E-02	1.275E-01	2.063E-01	1.190E-02	-0.101
		552.65		-1.187E-01	2.359E-01	3.700E-01	2.108E-02	-0.321
RB-84		881.50	*	3.829E-02	8.221E-02	1.427E-01	1.254E-02	0.268
KR-85		513.99	*	1.296E+01	7.989E+00	1.449E+01	8.410E-01	0.894
SR-85		513.99	*	6.644E-02	4.096E-02	7.431E-02	4.312E-03	0.894
RB-86		1076.63	*	-5.666E-02	9.194E-01	1.505E+00	1.078E-01	-0.038
Y-88		898.02		5.555E-02	4.792E-02	8.764E-02	8.013E-03	0.634
		1836.01	*	-1.683E-03	3.504E-02	5.728E-02	3.372E-03	-0.029
ZR-88		392.90	*	-2.001E-02	3.228E-02	5.131E-02	2.962E-03	-0.390
Y-91		1204.90	*	-1.424E+00	2.163E+01	3.514E+01	2.096E+00	-0.041
NB-94		702.63	*	-1.162E-02	3.916E-02	6.149E-02	3.514E-03	-0.189
		871.10		-1.970E-03	3.671E-02	6.090E-02	5.230E-03	-0.032
NB-95		765.79	*	4.957E-02	5.114E-02	8.790E-02	5.907E-03	0.564
NB-95M		235.69	*	6.210E-01	1.843E-01	2.988E-01	2.204E-02	2.078

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95		724.18		1.502E-01	1.384E-01	2.144E-01	1.516E-02	0.701
		756.15	*	-3.788E-02	8.005E-02	1.223E-01	9.383E-03	-0.310
NB-97		657.90	*	1.735E-01	8.005E-02	Half-Life too short		
		1024.50		7.559E-02	8.005E-02	Half-Life too short		
ZR-97		254.15		-4.045E+00	8.005E-02	Half-Life too short		
		355.39		-1.677E-01	8.005E-02	Half-Life too short		
		507.63	*	5.593E+00	8.005E-02	Half-Life too short		
		602.52		6.392E+00	8.005E-02	Half-Life too short		
		1021.30		-2.433E+00	8.005E-02	Half-Life too short		
		1147.95		-2.712E+00	8.005E-02	Half-Life too short		
		1362.66		2.094E+00	8.005E-02	Half-Life too short		
		1750.46		5.676E+00	8.005E-02	Half-Life too short		
MO-99		140.51		5.265E-01	3.504E+01	4.988E+01	1.341E+01	0.011
		181.06		-8.555E-01	2.202E+01	3.117E+01	5.283E+00	-0.027
		366.43		4.121E+00	9.218E+01	1.541E+02	9.033E+00	0.027
		739.58	*	-1.952E-01	1.346E+01	2.163E+01	3.026E+00	-0.009
		778.00		-1.742E+01	3.579E+01	5.731E+01	3.969E+00	-0.304
TC-99M		140.51	*	7.611E+08	3.579E+01	Half-Life too short		
RH-101		127.23		2.079E-02	3.868E-02	6.478E-02	3.720E-03	0.321
		198.01	*	9.616E-04	3.847E-02	6.228E-02	3.320E-03	0.015
		325.23		8.753E-02	2.824E-01	4.219E-01	2.493E-02	0.207
RH-102		418.52		-3.552E-01	3.112E-01	4.719E-01	2.750E-02	-0.753
		475.06	*	2.945E-02	3.472E-02	6.041E-02	3.536E-03	0.487
		631.29		-2.822E-03	6.159E-02	9.954E-02	5.291E-03	-0.028
		697.49		-2.631E-02	8.987E-02	1.413E-01	7.962E-03	-0.186
		766.84		1.436E-01	1.275E-01	2.236E-01	1.506E-02	0.642
		1046.59		1.704E-02	1.235E-01	2.068E-01	1.566E-02	0.082
		1112.84		2.120E-01	2.420E-01	3.923E-01	2.603E-02	0.540
RU-103		497.08	*	3.390E-02	4.492E-02	7.773E-02	9.840E-03	0.436
		610.33		1.199E+01	2.455E+00	3.284E+00	5.020E-01	3.652
RH-106	+	511.85		7.791E-01	4.853E-01	4.446E-01	2.582E-02	1.752
		621.84	*	-1.260E-01	3.605E-01	5.668E-01	6.536E-02	-0.222
		1050.47		7.329E-01	2.555E+00	4.341E+00	3.265E-01	0.169
RU-106	+	511.85		7.791E-01	4.853E-01	4.446E-01	2.582E-02	1.752
		621.84	*	-1.260E-01	3.603E-01	5.668E-01	3.046E-02	-0.222
		1050.47		7.329E-01	2.555E+00	4.341E+00	3.265E-01	0.169
AG-108M		433.93	*	-1.606E-02	3.886E-02	6.249E-02	3.962E-03	-0.257
		614.37		1.393E-02	4.907E-02	7.124E-02	4.232E-03	0.195
		722.95		1.067E-02	5.849E-02	8.297E-02	5.395E-03	0.129
AG-110M		657.75	*	4.883E-02	4.964E-02	7.695E-02	4.276E-03	0.635
		677.61		2.269E-01	3.818E-01	6.473E-01	3.704E-02	0.351
		706.67		8.405E-02	2.482E-01	4.118E-01	2.522E-02	0.204
		763.93		-2.640E-01	2.075E-01	2.896E-01	2.028E-02	-0.912
		884.67		3.230E-02	6.034E-02	1.051E-01	9.586E-03	0.307
		937.48		-1.612E-01	1.308E-01	1.891E-01	1.717E-02	-0.853
		1384.27		-9.356E-03	1.587E-01	2.545E-01	1.931E-02	-0.037
IN-111		171.28		-6.793E-01	1.163E+00	1.841E+00	9.443E-02	-0.369
		245.39	*	-1.886E-02	1.319E+00	1.842E+00	1.043E-01	-0.010
IN-113M		391.69	*	-5.337E-02	4.782E-02	7.317E-02	4.507E-03	-0.729

---- Non-Identified Nuclides ----

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SN-113		391.69	*	-5.337E-02	4.782E-02	7.317E-02	4.507E-03	-0.729
IN-114M		190.27	*	1.289E-02	2.339E-01	3.324E-01	1.752E-02	0.039
CD-115		260.90		9.622E+01	1.541E+02	2.547E+02	1.463E+01	0.378
		492.35		1.084E+01	4.109E+01	6.888E+01	4.021E+00	0.157
		527.90	*	-4.861E+00	1.340E+01	2.136E+01	1.232E+00	-0.228
SN-117M		156.02		-8.244E-03	2.526E+00	4.120E+00	2.156E-01	-0.002
		158.56	*	1.433E-02	6.087E-02	1.003E-01	5.211E-03	0.143
SB-122		563.90	*	-1.028E+00	2.350E+00	3.698E+00	2.092E-01	-0.278
		692.80		4.250E+01	4.969E+01	8.613E+01	4.793E+00	0.494
I-123		159.00	*	1.637E+00	4.969E+01	Half-Life too short		
		528.96		4.550E+01	4.969E+01	Half-Life too short		
TE-123M		159.00	*	8.112E-03	3.167E-02	5.221E-02	2.755E-03	0.155
I-124		602.71	*	3.981E-01	8.656E-01	1.280E+00	7.017E-02	0.311
		722.78		4.024E-01	6.058E+00	8.476E+00	5.107E-01	0.047
		1325.50		5.174E+00	3.621E+01	6.008E+01	4.363E+00	0.086
		1376.25		2.244E+01	3.621E+01	6.327E+01	4.623E+00	0.355
		1509.49		1.431E+01	1.896E+01	3.388E+01	2.403E+00	0.422
		1691.02		-1.560E-01	3.802E+00	6.262E+00	4.088E-01	-0.025
SB-124		602.71		2.315E-02	5.033E-02	7.444E-02	4.081E-03	0.311
		645.85		-1.747E-01	5.653E-01	8.899E-01	5.372E-02	-0.196
		709.31		-5.410E-01	3.202E+00	5.082E+00	2.956E-01	-0.106
		713.82		-1.084E+00	1.861E+00	2.824E+00	2.898E-01	-0.384
		722.78		3.392E-02	5.105E-01	7.144E-01	4.493E-02	0.047
	+	968.20		1.187E+01	5.197E+00	7.459E+00	6.324E-01	1.592
		1045.16		-1.101E+00	2.781E+00	4.393E+00	3.335E-01	-0.251
		1325.50		4.657E-01	3.260E+00	5.408E+00	3.928E-01	0.086
		1368.21		-4.694E-01	2.036E+00	3.188E+00	4.043E-01	-0.147
		1436.60		-1.686E+00	4.222E+00	6.364E+00	4.602E-01	-0.265
		1691.02	*	-3.100E-03	7.557E-02	1.245E-01	8.679E-03	-0.025
SB-125		427.89	*	5.331E-03	1.058E-01	1.758E-01	1.069E-02	0.030
	+	463.38		7.829E-01	4.407E-01	6.222E-01	4.239E-02	1.258
		600.56		-4.196E-02	2.138E-01	3.327E-01	2.144E-02	-0.126
		635.90		-9.853E-02	3.048E-01	4.797E-01	3.050E-02	-0.205
TE-125M		109.28	*	-1.256E+01	1.143E+01	1.800E+01	1.605E+00	-0.698
I-126		388.63		1.601E-01	2.190E-01	3.810E-01	2.203E-02	0.420
		666.33	*	1.937E-02	2.358E-01	3.326E-01	1.721E-02	0.058
		753.82		8.195E-01	1.562E+00	2.643E+00	1.724E-01	0.310
SB-126		223.80		-6.112E-01	4.783E+00	7.649E+00	4.224E-01	-0.080
		278.60		1.673E+00	2.773E+00	4.806E+00	2.796E-01	0.348
		296.50		1.205E+01	3.060E+00	4.171E+00	2.449E-01	2.889
		414.70		8.784E-02	9.328E-02	1.461E-01	8.501E-03	0.601
		415.30		1.636E+00	7.593E+00	1.165E+01	6.783E-01	0.140
		555.20		1.500E+00	4.645E+00	7.783E+00	4.427E-01	0.193
		573.80		-3.738E-01	1.338E+00	2.003E+00	1.125E-01	-0.187
		593.00		1.318E-02	1.062E+00	1.731E+00	9.573E-02	0.008
		656.30		9.317E-02	4.560E+00	6.388E+00	3.288E-01	0.015
		666.33		8.093E-03	9.854E-02	1.390E-01	7.193E-03	0.058
		675.00		-2.342E-01	2.474E+00	3.968E+00	2.103E-01	-0.059
		695.00		8.390E-02	8.899E-02	1.551E-01	8.686E-03	0.541

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		697.00		-7.361E-02	3.139E-01	4.961E-01	2.792E-02	-0.148
		720.50	*	1.296E-01	1.936E-01	2.914E-01	1.746E-02	0.445
		856.80		4.750E-01	5.377E-01	8.699E-01	7.238E-02	0.546
		989.30		-3.818E-01	1.324E+00	2.121E+00	1.751E-01	-0.180
		1034.80		-6.209E+00	1.066E+01	1.654E+01	1.277E+00	-0.375
		1213.00		3.464E+00	4.797E+00	8.437E+00	5.104E-01	0.411
SB-127		61.10		9.952E+01	8.817E+01	1.362E+02	1.527E+01	0.731
		252.40		2.053E-01	4.883E+00	7.838E+00	3.255E+00	0.026
		290.80		-8.345E+00	2.605E+01	3.726E+01	3.426E+00	-0.224
		411.60		1.255E+01	1.601E+01	2.452E+01	3.525E+00	0.512
		444.90		-1.136E+01	1.104E+01	1.676E+01	1.812E+00	-0.678
		473.00		-6.985E-01	2.046E+00	3.290E+00	3.685E-01	-0.212
		543.00		-1.776E+00	1.895E+01	3.076E+01	3.960E+00	-0.058
		603.60		7.523E-01	1.532E+01	2.165E+01	2.292E+00	0.035
		685.20	*	-4.656E-01	1.497E+00	2.344E+00	2.161E-01	-0.199
		698.50		-1.040E+01	1.774E+01	2.702E+01	3.895E+00	-0.385
		722.20		9.428E-01	4.098E+01	5.704E+01	5.303E+00	0.017
		783.80		2.512E+00	4.213E+00	7.384E+00	8.392E-01	0.340
XE-127		57.60		1.885E+00	9.898E+00	1.460E+01	1.279E+00	0.129
		145.22		1.245E-01	9.524E-01	1.374E+00	7.413E-02	0.091
		172.10		-1.098E-01	1.408E-01	2.209E-01	1.134E-02	-0.497
		202.84	*	2.319E-02	5.462E-02	8.702E-02	4.671E-03	0.267
		374.96		1.791E-01	2.259E-01	3.937E-01	2.297E-02	0.455
I-131		80.18		2.564E+00	8.307E+00	9.039E+00	8.336E-01	0.284
		284.30		1.481E-01	1.630E+00	2.759E+00	1.788E-01	0.054
		364.48	*	-1.585E-02	1.302E-01	2.155E-01	1.408E-02	-0.074
		636.97		-8.260E-01	1.746E+00	2.707E+00	1.634E-01	-0.305
		722.89		1.391E+00	9.820E+00	1.387E+01	8.466E-01	0.100
TE-132		49.72		-1.146E+01	3.204E+01	5.313E+01	5.673E+00	-0.216
		111.76		1.424E+01	3.629E+01	6.066E+01	5.685E+00	0.235
		116.30		-1.651E+01	3.258E+01	5.253E+01	4.790E+00	-0.314
		228.16	*	1.341E-01	7.820E-01	1.268E+00	1.809E-01	0.106
BA-133		53.15		3.097E+00	5.476E+00	9.388E+00	8.281E-01	0.330
		79.62		1.783E+00	2.371E+00	2.657E+00	4.124E-01	0.671
		81.00		1.723E-02	1.745E-01	1.865E-01	3.024E-02	0.092
		276.40		7.467E-01	4.746E-01	7.564E-01	9.809E-02	0.987
		302.84		1.514E-01	1.861E-01	2.872E-01	3.360E-02	0.527
		356.01	*	-1.092E-02	5.595E-02	7.982E-02	9.261E-03	-0.137
		383.85		2.085E-01	3.321E-01	5.730E-01	6.231E-02	0.364
I-133	+	510.53		1.584E+00	3.321E-01	Half-Life too short		
		529.87	*	-1.349E-03	3.321E-01	Half-Life too short		
		706.58		1.623E-01	3.321E-01	Half-Life too short		
		856.28		6.052E-01	3.321E-01	Half-Life too short		
		875.33		-1.588E-02	3.321E-01	Half-Life too short		
		1236.41		9.833E-01	3.321E-01	Half-Life too short		
		1298.22		-1.508E-01	3.321E-01	Half-Life too short		
CS-134		475.35		1.825E+00	2.339E+00	4.047E+00	2.369E-01	0.451
		563.23		-2.205E-01	4.141E-01	6.468E-01	3.740E-02	-0.341
		569.32		9.055E-02	2.348E-01	3.854E-01	2.240E-02	0.235

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		604.70		1.775E-02	4.573E-02	6.695E-02	3.685E-03	0.265
	+	795.84	*	1.068E-01	6.010E-02	1.050E-01	7.667E-03	1.018
		801.93		2.276E-01	4.757E-01	7.919E-01	5.853E-02	0.287
		1038.57		-3.297E-03	4.690E+00	7.742E+00	5.942E-01	0.000
		1167.94		6.884E-01	2.951E+00	4.947E+00	2.836E-01	0.139
		1365.15		-6.970E-01	1.504E+00	2.239E+00	1.741E-01	-0.311
I-135		288.45		1.167E+10	1.504E+00	Half-Life too short		
		417.63		-3.157E+10	1.504E+00	Half-Life too short		
		546.56		-2.730E+09	1.504E+00	Half-Life too short		
		836.80		1.654E+10	1.504E+00	Half-Life too short		
		1038.76		2.323E+09	1.504E+00	Half-Life too short		
		1124.00		4.808E+10	1.504E+00	Half-Life too short		
		1131.51		-4.324E+09	1.504E+00	Half-Life too short		
		1260.41	*	-1.115E+08	1.504E+00	Half-Life too short		
		1457.56		8.339E+11	1.504E+00	Half-Life too short		
		1678.03		-1.327E+10	1.504E+00	Half-Life too short		
		1706.46		1.541E+10	1.504E+00	Half-Life too short		
		1791.20		1.453E+10	1.504E+00	Half-Life too short		
CS-136		66.91		-6.767E-01	1.149E+00	1.638E+00	2.535E-01	-0.413
	+	86.29		4.451E+00	1.633E+00	2.483E+00	3.362E-01	1.793
		153.22		4.051E-01	7.664E-01	1.254E+00	8.539E-02	0.323
		163.89		5.352E-01	1.229E+00	2.037E+00	1.370E-01	0.263
		176.55		2.469E-01	4.223E-01	7.031E-01	4.192E-02	0.351
		273.65		-5.187E-01	6.178E-01	8.013E-01	5.300E-02	-0.647
		340.57		2.901E-01	1.541E-01	2.548E-01	1.596E-02	1.138
		818.51		-6.067E-03	7.618E-02	1.265E-01	9.657E-03	-0.048
		1048.07	*	-5.804E-02	1.206E-01	1.885E-01	1.502E-02	-0.308
		1235.34		8.079E-01	6.997E-01	1.247E+00	1.282E-01	0.648
CE-139		165.85	*	9.453E-03	3.522E-02	5.734E-02	2.923E-03	0.165
BA-140		162.64		-9.854E-02	8.679E-01	1.407E+00	8.362E-02	-0.070
		304.84		-1.501E+00	1.777E+00	2.368E+00	6.467E-01	-0.634
		423.70		7.319E-01	2.089E+00	3.522E+00	1.120E+00	0.208
		537.32	*	1.867E-01	3.180E-01	5.334E-01	1.734E-01	0.350
LA-140	+	328.77		8.222E-01	3.233E-01	6.229E-01	4.108E-02	1.320
		432.53		8.719E-01	2.354E+00	3.991E+00	2.573E-01	0.218
		487.03		3.404E-02	1.601E-01	2.674E-01	1.766E-02	0.127
		751.79		1.902E+00	1.740E+00	3.107E+00	2.384E-01	0.612
		815.85		6.122E-03	3.431E-01	5.753E-01	5.000E-02	0.011
		867.82		-1.354E-01	1.563E+00	2.466E+00	2.216E-01	-0.055
		919.63		-5.799E-01	2.902E+00	4.721E+00	5.146E-01	-0.123
		925.24		3.891E-01	1.280E+00	2.172E+00	2.043E-01	0.179
		1596.49	*	-1.594E-01	9.154E-02	9.874E-02	6.774E-03	-1.615
CE-141		145.44	*	-2.594E-03	8.597E-02	1.230E-01	6.934E-03	-0.021
CE-143		57.37		5.025E-05	8.597E-02	Half-Life too short		
		231.56		1.444E-05	8.597E-02	Half-Life too short		
		293.26	*	1.231E-03	8.597E-02	Half-Life too short		
	+	350.59		2.832E-02	8.597E-02	Half-Life too short		
		490.36		-4.852E-04	8.597E-02	Half-Life too short		
		664.57		1.007E-03	8.597E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		721.93		2.101E-04	8.597E-02	Half-Life too short		
CE-144		80.11		1.299E+00	3.829E+00	4.177E+00	3.829E-01	0.311
		133.54	*	-3.005E-01	2.383E-01	3.639E-01	5.139E-02	-0.826
PM-144		476.78		1.554E-02	7.967E-02	1.330E-01	9.291E-03	0.117
		618.01		-3.269E-03	3.582E-02	5.774E-02	3.331E-03	-0.057
		696.49	*	-3.625E-03	4.022E-02	6.439E-02	3.622E-03	-0.056
		778.57		-8.744E-01	2.420E+00	3.925E+00	2.723E-01	-0.223
PR-144		696.49	*	-2.456E-01	2.725E+00	4.363E+00	2.453E-01	-0.056
		1489.15		-9.794E+00	1.389E+01	1.951E+01	1.392E+00	-0.502
PM-146		453.90	*	8.087E-03	5.294E-02	8.826E-02	7.644E-03	0.092
		633.02		-3.566E-01	1.657E+00	2.448E+00	8.996E-01	-0.146
		735.90		-1.151E-01	1.680E-01	2.459E-01	6.879E-02	-0.468
		747.13		-5.194E-02	1.011E-01	1.535E-01	1.965E-02	-0.338
ND-147	+	91.11		3.354E+00	5.815E-01	7.747E-01	7.616E-02	4.329
		319.41		5.480E+00	3.806E+00	6.837E+00	4.040E-01	0.801
		439.89		3.837E-01	6.720E+00	1.115E+01	6.529E-01	0.034
		531.02	*	-1.616E-01	6.893E-01	1.109E+00	1.498E-01	-0.146
PM-149		285.90	*	2.966E+01	1.004E+02	1.716E+02	2.436E+01	0.173
EU-152		121.78		-2.040E-02	8.423E-02	1.371E-01	1.054E-02	-0.149
		244.69		1.258E-01	4.081E-01	5.844E-01	3.306E-02	0.215
		344.27	*	-8.138E-02	1.282E-01	1.764E-01	1.169E-02	-0.461
		443.98		-8.405E-01	1.067E+00	1.660E+00	9.719E-02	-0.506
		778.89		-6.555E-02	2.828E-01	4.646E-01	3.224E-02	-0.141
		867.32		-9.549E-02	9.607E-01	1.469E+00	1.251E-01	-0.065
		964.01		7.714E-01	3.849E-01	6.669E-01	5.683E-02	1.157
		1085.78		5.305E-02	4.923E-01	8.189E-01	5.763E-02	0.065
		1112.02		1.765E-01	3.383E-01	5.216E-01	3.467E-02	0.338
		1407.95		2.060E-01	2.312E-01	4.159E-01	3.025E-02	0.495
GD-153		69.67		-3.775E-01	2.395E+00	3.496E+00	3.055E-01	-0.108
	+	83.37		2.615E+01	1.551E+01	3.003E+01	2.819E+00	0.871
		97.43	*	4.693E-02	1.075E-01	1.597E-01	1.305E-02	0.294
		103.18		-2.150E-01	1.307E-01	1.988E-01	1.486E-02	-1.082
EU-154		123.07		-1.122E-02	5.930E-02	9.673E-02	9.130E-03	-0.116
		247.94		-2.595E-01	4.436E-01	6.276E-01	5.941E-02	-0.413
		591.81		-1.267E-01	7.017E-01	1.125E+00	1.082E-01	-0.113
		723.30		1.066E-01	2.489E-01	3.628E-01	2.638E-02	0.294
		756.87		-5.010E-01	8.644E-01	1.302E+00	1.380E-01	-0.385
		873.19		9.050E-02	3.161E-01	5.420E-01	6.639E-02	0.167
		996.32		-3.581E-01	4.319E-01	6.465E-01	1.135E-01	-0.554
		1004.76		-2.638E-01	2.540E-01	3.728E-01	4.193E-02	-0.708
		1274.45	*	-1.273E-01	1.356E-01	1.936E-01	1.922E-02	-0.658
EU-155		48.70		-3.716E+00	4.185E+00	6.789E+00	5.476E-01	-0.547
		60.01		6.292E+00	7.626E+00	1.157E+01	1.005E+00	0.544
	+	86.54		4.109E-01	1.457E-01	2.268E-01	2.204E-02	1.812
		105.31	*	1.697E-01	1.301E-01	2.241E-01	1.653E-02	0.757
TB-160	+	86.79		1.097E+00	3.889E-01	6.004E-01	5.801E-02	1.828
		197.04		6.864E-01	6.568E-01	1.110E+00	5.907E-02	0.619
		215.65		1.351E-01	8.561E-01	1.343E+00	7.339E-02	0.101
	+	298.57		9.039E-02	1.573E-01	2.302E-01	1.352E-02	0.393

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		879.36	*	-1.050E-01	1.618E-01	2.525E-01	2.208E-02	-0.416
		962.29		1.033E+00	6.923E-01	1.159E+00	9.893E-02	0.891
		966.15		9.842E-01	3.405E-01	5.970E-01	5.074E-02	1.649
		1177.93		-1.847E-01	3.733E-01	5.761E-01	3.277E-02	-0.321
		1271.85		-2.705E-01	7.912E-01	1.217E+00	8.124E-02	-0.222
HO-166M		80.57		1.224E-01	4.855E-01	5.258E-01	4.835E-02	0.233
	+	184.41		2.313E-01	6.315E-02	8.949E-02	4.677E-03	2.584
		280.46		-8.600E-02	9.596E-02	1.544E-01	8.993E-03	-0.557
		410.95		3.251E-01	3.414E-01	5.295E-01	3.078E-02	0.614
		711.68	*	-5.689E-03	7.022E-02	1.124E-01	6.576E-03	-0.051
		752.31		1.650E-01	2.832E-01	4.827E-01	3.136E-02	0.342
		810.29		-2.860E-02	6.353E-02	1.018E-01	7.613E-03	-0.281
TM-171		51.35		-1.259E+00	4.920E+01	8.266E+01	7.185E+00	-0.015
		52.39		1.288E+01	2.443E+01	4.184E+01	3.676E+00	0.308
		59.40		3.911E+01	4.096E+01	6.252E+01	5.432E+00	0.626
		66.72	*	-1.635E+01	4.130E+01	5.962E+01	5.185E+00	-0.274
LU-176	+	88.36		8.091E-01	2.867E-01	4.648E-01	4.505E-02	1.741
		201.83		-1.731E-02	3.274E-02	5.156E-02	2.764E-03	-0.336
		306.84	*	-1.498E-02	2.816E-02	4.594E-02	2.707E-03	-0.326
		401.10		3.464E+00	7.564E+00	1.292E+01	7.482E-01	0.268
LU-177		112.95		2.566E+00	1.952E+00	3.361E+00	2.204E-01	0.763
	+	208.36	*	3.375E+00	1.644E+00	2.196E+00	1.188E-01	1.537
LU-177M		52.97		1.669E+00	2.496E+00	4.294E+00	3.785E-01	0.389
		54.07		-4.574E-01	1.287E+00	2.132E+00	1.884E-01	-0.215
		61.30		2.439E+00	2.362E+00	3.638E+00	3.160E-01	0.670
		121.62		-1.471E-01	4.317E-01	6.999E-01	4.137E-02	-0.210
		147.16		1.624E-01	8.559E-01	1.239E+00	6.645E-02	0.131
		171.86		-4.817E-01	5.659E-01	8.845E-01	4.541E-02	-0.545
		218.09		-5.002E-01	9.740E-01	1.528E+00	8.377E-02	-0.327
	+	268.79		3.402E+00	1.490E+00	1.671E+00	9.656E-02	2.036
		319.02		4.234E-01	2.920E-01	5.254E-01	3.103E-02	0.806
		367.43		5.675E-02	1.022E+00	1.710E+00	1.001E-01	0.033
		413.65	*	3.368E-01	2.076E-01	3.442E-01	2.002E-02	0.979
HF-181		56.28		-1.444E+00	1.374E+00	2.203E+00	1.939E-01	-0.656
		57.53		-4.071E-03	8.411E-01	1.228E+00	1.076E-01	-0.003
		65.20		1.248E+00	1.432E+00	2.187E+00	1.900E-01	0.571
		133.02		-9.164E-02	7.660E-02	1.192E-01	6.692E-03	-0.769
		136.25		3.897E-02	5.118E-01	8.414E-01	4.670E-02	0.046
		345.85		1.465E-01	2.433E-01	3.711E-01	2.189E-02	0.395
		482.03	*	-2.749E-02	4.946E-02	7.802E-02	4.563E-03	-0.352
W-181		56.28		-5.655E-01	5.376E-01	8.621E-01	7.591E-02	-0.656
		57.53		-1.755E-03	3.295E-01	4.812E-01	4.217E-02	-0.004
		65.20	*	4.852E-01	5.565E-01	8.499E-01	7.384E-02	0.571
TA-182		67.75		-5.215E-02	1.614E-01	2.339E-01	2.036E-02	-0.223
		100.10		2.648E-01	2.370E-01	3.631E-01	2.842E-02	0.729
		152.43		3.078E-01	3.951E-01	6.532E-01	3.452E-02	0.471
		222.10		1.708E-01	4.063E-01	6.673E-01	3.677E-02	0.256
		1001.68		1.051E+00	2.360E+00	4.064E+00	3.300E-01	0.259
		1121.28		3.797E-01	2.190E-01	3.664E-01	2.383E-02	1.036

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		1189.05		1.692E-01	3.500E-01	6.003E-01	3.483E-02	0.282
		1221.42	*	1.396E-02	1.980E-01	3.260E-01	2.001E-02	0.043
		1230.97		-3.216E-01	5.671E-01	8.757E-01	5.463E-02	-0.367
RE-183		57.98		1.498E-01	3.183E-01	4.758E-01	4.161E-02	0.315
		59.32		1.583E-01	1.686E-01	2.572E-01	2.235E-02	0.615
		67.20		-1.771E-01	2.925E-01	4.175E-01	3.633E-02	-0.424
		162.32	*	-2.402E-02	1.278E-01	2.065E-01	1.062E-02	-0.116
	+	208.81		3.035E+00	1.478E+00	2.006E+00	1.086E-01	1.513
		291.72		4.072E-01	1.144E+00	1.722E+00	1.009E-01	0.236
RE-184		57.98		5.519E-01	1.173E+00	1.753E+00	1.533E-01	0.315
		59.32		5.827E-01	6.207E-01	9.469E-01	8.229E-02	0.615
		67.20		-6.524E-01	1.077E+00	1.538E+00	1.338E-01	-0.424
		161.27		-1.597E-01	4.050E-01	6.485E-01	3.345E-02	-0.246
		216.55		-6.965E-03	2.982E-01	4.801E-01	2.626E-02	-0.015
		252.85	*	-1.686E-02	2.609E-01	4.163E-01	2.374E-02	-0.040
		318.01		3.271E-01	5.154E-01	8.929E-01	5.273E-02	0.366
		792.07		1.331E+00	1.233E+00	2.013E+00	1.442E-01	0.661
		903.28		-1.030E+00	1.373E+00	1.756E+00	1.591E-01	-0.586
		920.93		1.967E-01	4.663E-01	8.093E-01	7.219E-02	0.243
OS-185		59.72		3.437E-01	4.552E-01	6.887E-01	5.980E-02	0.499
		61.14		1.669E-01	2.568E-01	3.901E-01	3.388E-02	0.428
		69.30		1.016E-01	4.266E-01	6.341E-01	5.536E-02	0.160
		592.07		-4.567E-01	2.849E+00	4.576E+00	2.532E-01	-0.100
		646.12	*	-1.630E-02	4.876E-02	7.660E-02	3.998E-03	-0.213
		717.42		-5.037E-01	1.058E+00	1.629E+00	9.677E-02	-0.309
		874.81		-1.779E-01	6.222E-01	1.007E+00	8.717E-02	-0.177
		880.27		6.182E-02	9.084E-01	1.524E+00	1.335E-01	0.041
RE-188		155.03	*	-2.558E-03	1.947E-01	3.175E-01	1.666E-02	-0.008
		477.96		2.908E+00	3.642E+00	6.318E+00	3.697E-01	0.460
		633.10		-7.638E-01	3.335E+00	4.935E+00	2.618E-01	-0.155
W-188	+	63.58		2.540E+02	1.190E+02	1.372E+02	1.192E+01	1.852
		227.08		1.940E+00	1.483E+01	2.401E+01	1.331E+00	0.081
		290.67	*	-2.831E+00	9.026E+00	1.292E+01	7.566E-01	-0.219
IR-192	+	295.96		1.036E+00	2.393E-01	3.280E-01	1.955E-02	3.159
		308.46		2.529E-02	1.086E-01	1.846E-01	1.100E-02	0.137
		316.51	*	-5.961E-03	4.012E-02	6.677E-02	3.961E-03	-0.089
		468.07		1.497E-03	8.655E-02	1.239E-01	8.343E-03	0.012
		604.41		1.316E-01	6.113E-01	8.793E-01	9.835E-02	0.150
		612.46		7.193E-01	9.095E-01	1.389E+00	1.012E-01	0.518
AU-195		65.12		2.747E-01	2.600E-01	3.996E-01	3.471E-02	0.688
		66.83		-5.251E-02	1.364E-01	1.970E-01	1.713E-02	-0.267
	+	75.70		1.254E+00	3.401E-01	5.804E-01	5.183E-02	2.161
		98.88	*	4.820E-01	3.000E-01	4.685E-01	3.738E-02	1.029
		129.76		6.015E+00	3.409E+00	5.931E+00	3.371E-01	1.014
TL-200		367.94	*	1.173E-04	3.409E+00	Half-Life too short		
		579.30		8.547E-03	3.409E+00	Half-Life too short		
		828.27		-1.196E-03	3.409E+00	Half-Life too short		
		1205.75		-1.007E-03	3.409E+00	Half-Life too short		
TL-201		68.90		-1.109E+00	7.494E+00	1.020E+01	8.894E-01	-0.109

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		70.82		1.175E+00	3.883E+00	5.782E+00	5.066E-01	0.203
		80.30		2.495E+00	9.034E+00	9.804E+00	8.999E-01	0.254
		135.34		-1.668E+01	2.840E+01	4.537E+01	2.526E+00	-0.368
		167.43	*	8.306E-01	8.302E+00	1.342E+01	6.847E-01	0.062
TL-202		68.90		-9.977E-02	6.743E-01	9.174E-01	8.002E-02	-0.109
		70.82		1.055E-01	3.484E-01	5.188E-01	4.546E-02	0.203
		80.30		2.239E-01	8.108E-01	8.800E-01	8.076E-02	0.254
		439.56	*	3.254E-02	7.807E-02	1.327E-01	7.766E-03	0.245
HG-203		70.83		4.588E-01	1.510E+00	2.248E+00	3.079E-01	0.204
		72.87		1.886E+00	9.569E-01	1.455E+00	1.941E-01	1.296
	+	82.60		1.944E+00	1.171E+00	2.257E+00	3.206E-01	0.861
		279.20	*	-8.136E-03	4.660E-02	7.793E-02	4.814E-03	-0.104
BI-207		72.80		4.948E-01	2.731E-01	4.220E-01	3.721E-02	1.173
	+	74.97		6.957E-01	1.886E-01	2.914E-01	2.593E-02	2.387
	+	84.90		3.382E-01	2.005E-01	4.027E-01	3.828E-02	0.840
		569.67		9.423E-03	3.669E-02	5.963E-02	3.360E-03	0.158
		1063.62	*	-8.982E-03	5.809E-02	9.415E-02	6.917E-03	-0.095
		1770.23		-1.291E-01	4.696E-01	5.921E-01	3.666E-02	-0.218
TL-207		81.07		2.626E-02	3.845E-01	4.101E-01	3.784E-02	0.064
	+	83.78		2.230E-01	1.322E-01	2.553E-01	2.405E-02	0.873
		94.90		8.076E-01	3.367E-01	5.307E-01	4.528E-02	1.522
		122.32		-4.789E-01	2.010E+00	3.273E+00	2.214E-01	-0.146
	+	144.24		1.365E+00	1.072E+00	1.410E+00	9.762E-02	0.968
		154.21		1.230E-01	4.477E-01	7.390E-01	4.857E-02	0.166
	+	269.46		7.965E-01	3.491E-01	3.967E-01	2.398E-02	2.008
		323.87	*	-9.174E-01	8.579E-01	1.120E+00	1.855E-01	-0.819
	+	338.28		7.614E+00	1.941E+00	2.797E+00	2.962E-01	2.722
		445.03		-2.502E+00	2.581E+00	3.942E+00	4.060E-01	-0.635
PO-209		260.50		6.444E+00	1.135E+01	1.871E+01	1.074E+00	0.344
		262.80		2.671E+01	3.522E+01	5.196E+01	2.989E+00	0.514
		896.60	*	1.300E+01	8.398E+00	1.581E+01	1.435E+00	0.822
BI-210		46.50	*	4.143E+00	6.333E+00	1.083E+01	8.435E-01	0.382
PB-210		46.50	*	4.143E+00	6.333E+00	1.083E+01	8.435E-01	0.382
PO-210		46.50	*	4.143E+00	6.331E+00	1.083E+01	7.268E-01	0.382
PB-211		404.84	*	-7.626E-01	1.369E+00	1.752E+00	1.092E+00	-0.435
		427.08		-2.370E-01	2.349E+00	3.856E+00	2.383E+00	-0.061
		831.96		1.053E+00	1.513E+00	2.428E+00	1.519E+00	0.434
BI-212	+	727.18	*	9.801E-01	5.465E-01	7.294E-01	5.789E-02	1.344
		785.46		6.539E-01	2.031E+00	3.495E+00	2.464E-01	0.187
		1620.62		1.840E+00	1.601E+00	3.073E+00	2.084E-01	0.599
PO-215		81.07		2.626E-02	3.845E-01	4.101E-01	3.784E-02	0.064
	+	83.78		2.230E-01	1.322E-01	2.553E-01	2.405E-02	0.873
		94.90		8.076E-01	3.367E-01	5.307E-01	4.528E-02	1.522
		122.32		-4.789E-01	2.010E+00	3.273E+00	2.214E-01	-0.146
	+	144.24		1.365E+00	1.072E+00	1.410E+00	9.762E-02	0.968
		154.21		1.230E-01	4.477E-01	7.390E-01	4.857E-02	0.166
	+	269.46		7.965E-01	3.491E-01	3.967E-01	2.398E-02	2.008
		323.87	*	-9.174E-01	8.579E-01	1.120E+00	1.855E-01	-0.819
	+	338.28		7.614E+00	1.941E+00	2.797E+00	2.962E-01	2.722

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-2.502E+00	2.581E+00	3.942E+00	4.060E-01	-0.635
RN-219		271.23		4.838E-01	3.237E-01	4.965E-01	4.020E-02	0.975
		401.81	*	3.543E-01	4.792E-01	8.096E-01	1.101E-01	0.438
RN-220		549.76	*	4.569E+00	2.969E+01	4.914E+01	2.804E+00	0.093
RA-223		81.07		2.626E-02	3.845E-01	4.101E-01	3.784E-02	0.064
	+	83.78		2.230E-01	1.322E-01	2.553E-01	2.405E-02	0.873
		94.90		8.076E-01	3.367E-01	5.307E-01	4.528E-02	1.522
		122.32		-4.789E-01	2.010E+00	3.273E+00	2.214E-01	-0.146
	+	144.24		1.365E+00	1.072E+00	1.410E+00	9.762E-02	0.968
		154.21		1.230E-01	4.477E-01	7.390E-01	4.857E-02	0.166
	+	269.46		7.965E-01	3.491E-01	3.967E-01	2.398E-02	2.008
		323.87	*	-9.174E-01	8.579E-01	1.120E+00	1.855E-01	-0.819
	+	338.28		7.614E+00	1.941E+00	2.797E+00	2.962E-01	2.722
		445.03		-2.502E+00	2.581E+00	3.942E+00	4.060E-01	-0.635
AC-227		79.80		1.664E+00	2.992E+00	3.300E+00	7.168E-01	0.504
		236.00		2.374E+00	4.132E-01	6.630E-01	6.859E-02	3.580
		256.20	*	2.708E-03	4.307E-01	6.896E-01	9.604E-02	0.004
		286.10		6.742E-01	1.667E+00	2.863E+00	3.316E-01	0.235
	+	299.80		1.151E+00	2.011E+00	3.000E+00	4.893E-01	0.384
		304.40		3.570E-01	2.413E+00	3.569E+00	6.185E-01	0.100
		334.20		-6.022E-01	2.916E+00	4.173E+00	7.664E-01	-0.144
TH-227		79.80		1.664E+00	2.993E+00	3.300E+00	7.258E-01	0.504
	+	94.00		2.577E+01	6.757E+00	5.599E+00	1.220E+00	4.602
		236.00		2.374E+00	3.942E-01	6.630E-01	5.923E-02	3.580
		256.20	*	2.708E-03	4.307E-01	6.896E-01	1.164E-01	0.004
		286.10		6.742E-01	1.797E+00	2.863E+00	2.868E+00	0.235
	+	299.80		1.151E+00	2.011E+00	3.000E+00	4.893E-01	0.384
		304.40		3.570E-01	2.413E+00	3.569E+00	6.185E-01	0.100
		334.20		-6.022E-01	2.916E+00	4.173E+00	7.664E-01	-0.144
TH-229	+	85.43		3.338E-01	1.979E-01	4.236E-01	4.044E-02	0.788
	+	88.47		1.831E-01	8.421E-02	2.658E-01	2.570E-02	0.689
		100.00		2.864E-01	2.466E-01	3.784E-01	2.966E-02	0.757
		193.63	*	3.512E-01	5.826E-01	9.684E-01	5.130E-02	0.363
		210.97		1.288E+00	9.874E-01	1.502E+00	8.156E-02	0.857
PA-231		283.67	*	8.621E-02	1.661E+00	2.807E+00	3.872E-01	0.031
		301.29		1.396E+00	7.645E-01	1.234E+00	1.296E-01	1.131
TH-231		81.07		2.626E-02	3.845E-01	4.101E-01	3.784E-02	0.064
	+	83.78		2.230E-01	1.322E-01	2.553E-01	2.405E-02	0.873
		94.90		8.076E-01	3.367E-01	5.307E-01	4.528E-02	1.522
		122.32		-4.789E-01	2.010E+00	3.273E+00	2.214E-01	-0.146
	+	144.24		1.365E+00	1.072E+00	1.410E+00	9.762E-02	0.968
		154.21		1.230E-01	4.477E-01	7.390E-01	4.857E-02	0.166
	+	269.46		7.965E-01	3.491E-01	3.967E-01	2.398E-02	2.008
		323.87	*	-9.174E-01	8.579E-01	1.120E+00	1.855E-01	-0.819
	+	338.28		7.614E+00	1.941E+00	2.797E+00	2.962E-01	2.722
		445.03		-2.502E+00	2.581E+00	3.942E+00	4.060E-01	-0.635
U-231	+	84.21		9.599E+00	5.692E+00	1.096E+01	1.036E+00	0.876
	+	92.29		2.544E+01	4.315E+00	5.951E+00	5.327E-01	4.274
		95.87	*	-5.881E-01	1.494E+00	2.131E+00	1.787E-01	-0.276

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-1.489E+00	2.495E+00	4.023E+00	2.811E-01	-0.370
PA-233	+	75.28		2.030E+01	6.078E+00	9.042E+00	1.403E+00	2.245
	+	86.59		6.679E+00	2.912E+00	3.677E+00	9.990E-01	1.816
	+	300.12		3.209E-01	5.598E-01	8.435E-01	1.136E-01	0.380
		311.98	*	-2.261E-02	7.019E-02	1.157E-01	7.233E-03	-0.195
		340.50		1.664E+00	8.470E-01	1.279E+00	2.941E-01	1.301
		398.62		-4.835E-01	2.345E+00	3.837E+00	9.921E-01	-0.126
		415.76		-1.293E+00	1.982E+00	2.909E+00	5.991E-01	-0.444
PA-234	+	63.00		7.368E+00	3.580E+00	4.083E+00	6.343E-01	1.805
		94.67		8.596E-01	2.659E-01	4.063E-01	5.024E-02	2.116
		98.44		1.446E-01	1.468E-01	1.893E-01	1.054E-01	0.764
		99.86		7.642E-01	6.261E-01	9.630E-01	7.566E-02	0.794
		111.00		4.716E-02	2.238E-01	3.719E-01	4.022E-02	0.127
		131.20		6.392E-02	1.231E-01	2.060E-01	1.165E-02	0.310
		152.70		3.528E-01	3.796E-01	6.253E-01	9.771E-02	0.564
	+	186.00		8.326E+00	3.377E+00	3.297E+00	1.004E+00	2.525
		226.40		-4.831E-03	4.665E-01	7.501E-01	8.575E-02	-0.006
		227.20		6.276E-02	5.008E-01	8.106E-01	4.495E-02	0.077
		248.90		4.569E-02	9.203E-01	1.479E+00	3.173E-01	0.031
	+	293.70		6.523E+00	1.795E+00	2.028E+00	3.266E-01	3.217
		369.80		-4.881E-02	9.602E-01	1.595E+00	3.324E-01	-0.031
		568.70		6.371E-01	1.161E+00	1.929E+00	1.087E-01	0.330
		569.50		9.186E-02	3.262E-01	5.312E-01	2.993E-02	0.173
		574.00		-1.942E-02	1.859E+00	2.854E+00	1.603E-01	-0.007
		699.00		-4.355E-01	8.229E-01	1.258E+00	2.256E-01	-0.346
		706.10		9.246E-01	1.273E+00	2.075E+00	9.157E-01	0.446
		733.00		1.472E-01	4.400E-01	6.666E-01	1.425E-01	0.221
		742.81		1.854E+00	1.952E+00	2.709E+00	1.814E+00	0.684
		796.30		1.156E+00	1.314E+00	2.029E+00	5.406E-01	0.570
		805.60		-2.317E-01	1.082E+00	1.774E+00	5.380E-01	-0.131
		819.60		1.850E-01	1.313E+00	2.224E+00	8.412E-01	0.083
		826.30		-2.466E-01	8.902E-01	1.438E+00	6.411E-01	-0.171
		831.60		4.975E-01	7.159E-01	1.243E+00	3.684E-01	0.400
		876.40		-3.194E-01	9.584E-01	1.447E+00	1.488E+00	-0.221
		880.51		5.504E-02	3.345E-01	5.659E-01	4.961E-02	0.097
		883.24		2.183E-01	3.761E-01	6.089E-01	4.095E-01	0.358
		899.00		3.152E-01	9.789E-01	1.662E+00	7.282E-01	0.190
		925.00		4.214E-01	1.332E+00	2.262E+00	2.010E-01	0.186
		926.50		-1.197E-02	2.022E-01	3.313E-01	8.402E-02	-0.036
		946.00	*	-1.612E-01	3.652E-01	5.789E-01	1.088E-01	-0.278
		949.00		4.377E-01	5.282E-01	9.406E-01	8.153E-02	0.465
		980.50		4.648E-01	7.767E-01	1.366E+00	1.141E-01	0.340
		1394.10		1.348E+00	1.659E+00	2.581E+00	1.676E+00	0.522
PA-234M		766.42		1.343E+01	1.541E+01	2.380E+01	1.201E+01	0.564
		1001.03	*	3.827E+00	5.304E+00	9.348E+00	8.920E-01	0.409
NP-236		94.67		6.588E-01	1.935E-01	3.088E-01	2.645E-02	2.134
		98.44		1.093E-01	9.324E-02	1.431E-01	1.150E-02	0.764
		111.00		3.567E-02	1.692E-01	2.813E-01	1.890E-02	0.127
		160.31	*	-2.825E-02	8.934E-02	1.436E-01	7.425E-03	-0.197

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		3.269E-01	2.083E-01	3.249E-01	2.565E-02	1.006
		117.00	*	-1.597E-01	2.229E-01	3.562E-01	2.223E-02	-0.448
	+	209.75		2.395E+00	1.166E+00	1.584E+00	8.584E-02	1.512
		228.18		4.121E-02	2.557E-01	4.147E-01	2.302E-02	0.099
		277.60		3.612E-01	2.149E-01	3.719E-01	2.162E-02	0.971
		334.30		-2.475E-01	1.656E+00	2.383E+00	1.408E-01	-0.104
AM-241		59.54	*	2.347E-01	2.378E-01	3.632E-01	3.379E-02	0.646
CM-243		99.55		3.364E-01	2.143E-01	3.343E-01	2.639E-02	1.006
		103.76	*	-3.740E-02	1.176E-01	1.899E-01	1.407E-02	-0.197
		117.00		-1.643E-01	2.294E-01	3.665E-01	2.287E-02	-0.448
	+	209.75		2.360E+00	1.150E+00	1.561E+00	8.462E-02	1.512
		228.18		4.164E-02	2.584E-01	4.190E-01	2.326E-02	0.099
		277.60		3.641E-01	2.166E-01	3.749E-01	2.180E-02	0.971
AM-246		798.80		3.061E-02	1.857E-01	2.740E-01	1.995E-02	0.112
		1036.00		2.611E-02	3.588E-01	5.966E-01	4.599E-02	0.044
		1062.04		1.816E-01	2.576E-01	4.545E-01	3.349E-02	0.399
		1078.86	*	-1.806E-02	1.596E-01	2.596E-01	1.853E-02	-0.070
CM-247		278.00		1.293E+00	8.400E-01	1.511E+00	8.788E-02	0.855
		287.40		2.155E-01	1.415E+00	2.275E+00	1.330E-01	0.095
		402.60	*	3.208E-02	4.470E-02	7.140E-02	4.139E-03	0.449
CF-249		252.85		-6.325E-02	9.791E-01	1.562E+00	8.907E-02	-0.040
		333.44		2.586E-02	2.390E-01	3.084E-01	1.822E-02	0.084
		387.95	*	4.697E-02	4.333E-02	7.684E-02	4.446E-03	0.611
CF-251		176.60	*	8.268E-02	1.455E-01	2.422E-01	1.251E-02	0.341
		227.00		1.373E-01	4.401E-01	7.189E-01	3.986E-02	0.191
		285.00		9.956E-01	1.878E+00	3.249E+00	1.897E-01	0.306

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960002		
Acquisition date	: 12-FEB-2010 14:45:14	Detector SN#	:
Detector ID	: GAM23	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.65	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960002	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.2112E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

Standard Weight	: 0.00000		
CALIB. DATE/TIME	: 2-JUN-2009 11:17:00	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.001E+01	2.240E+00	5.188E-01	0.000E+00
CD-109	3.471E+00	1.205E+00	1.607E+00	0.000E+00
SN-126	3.412E-01	1.185E-01	1.589E-01	0.000E+00
CS-135	6.770E-01	2.925E-01	2.606E-01	0.000E+00
BA-137M	2.111E-01	9.013E-02	6.377E-02	0.000E+00
CS-137	2.232E-01	9.528E-02	6.741E-02	0.000E+00
TL-208	5.758E-01	8.917E-02	6.129E-02	0.000E+00
BI-211	3.577E+00	5.519E-01	4.245E-01	0.000E+00
PB-212	1.501E+00	1.582E-01	1.006E-01	0.000E+00
PO-212	1.501E+00	1.582E-01	1.006E-01	0.000E+00
BI-214	1.263E+00	2.006E-01	1.309E-01	0.000E+00
PB-214	1.244E+00	2.022E-01	1.406E-01	0.000E+00
PO-214	1.244E+00	2.022E-01	1.406E-01	0.000E+00
PO-216	1.501E+00	1.582E-01	1.006E-01	0.000E+00
PO-218	1.244E+00	2.022E-01	1.406E-01	0.000E+00
RA-224	4.250E+00	1.427E+00	1.144E+00	0.000E+00
RA-226	1.263E+00	2.006E-01	1.309E-01	0.000E+00
AC-228	1.411E+00	3.444E-01	1.856E-01	0.000E+00
RA-228	1.411E+00	3.444E-01	1.856E-01	0.000E+00
TH-228	1.523E+00	1.606E-01	1.021E-01	0.000E+00
TH-230	1.263E+00	2.006E-01	1.309E-01	0.000E+00
TH-232	1.411E+00	3.444E-01	1.856E-01	0.000E+00
TH-234	6.321E+00	3.063E+00	2.985E+00	0.000E+00
U-234	1.263E+00	2.006E-01	1.309E-01	0.000E+00
U-235	4.213E-01	3.298E-01	4.087E-01	0.000E+00
NP-237	1.002E+00	4.026E-01	4.667E-01	0.000E+00
U-238	6.321E+00	3.063E+00	2.985E+00	0.000E+00
AM-243	3.876E-01	1.030E-01	1.162E-01	0.000E+00
ANH-511	1.560E-01	9.522E-02	4.978E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line Activity	K.L. Act error	MDA

Nuclide	(pCi/GRAM	) Ided	(pCi/GRAM	)	
BE-7	3.651E-01	3.678E-01	6.660E-01	0.000E+00	NOT IDENT.
NA-22	-4.407E-02	4.764E-02	6.993E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.104E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.045E-02	2.952E-02	4.094E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.722E-02	1.004E-01	0.000E+00	FAIL ABUN
SC-46	-8.413E-03	4.280E-02	7.167E-02	0.000E+00	NOT IDENT.
V-48	6.078E-03	7.289E-02	1.246E-01	0.000E+00	NOT IDENT.
CR-51	1.968E-01	4.169E-01	7.430E-01	0.000E+00	NOT IDENT.
MN-52	-8.505E-02	2.746E-01	4.306E-01	0.000E+00	NOT IDENT.
MN-54	5.809E-03	4.197E-02	7.278E-02	0.000E+00	NOT IDENT.
CO-56	6.749E-03	3.956E-02	6.889E-02	0.000E+00	NOT IDENT.
CO-57	-6.367E-03	2.847E-02	4.869E-02	0.000E+00	NOT IDENT.
CO-58	1.350E-02	3.965E-02	7.028E-02	0.000E+00	NOT IDENT.
FE-59	-4.452E-02	1.112E-01	1.797E-01	0.000E+00	FAIL ABUN
CO-60	-1.504E-02	4.599E-02	7.292E-02	0.000E+00	NOT IDENT.
ZN-65	1.700E-01	1.099E-01	1.914E-01	0.000E+00	NOT IDENT.
GE-68	2.703E-01	1.351E+00	2.322E+00	0.000E+00	NOT IDENT.
AS-73	2.386E-01	1.232E+00	2.210E+00	0.000E+00	NOT IDENT.
AS-74	1.841E-02	1.027E-01	1.747E-01	0.000E+00	NOT IDENT.
SE-75	-1.619E-02	5.723E-02	8.103E-02	0.000E+00	NOT IDENT.
BR-77	-9.650E-01	1.347E+01	1.956E+01	0.000E+00	FAIL ABUN
SR-82	-7.400E-01	3.971E-01	5.547E-01	0.000E+00	NOT IDENT.
RB-83	9.024E-04	8.959E-02	1.313E-01	0.000E+00	NOT IDENT.
RB-84	3.829E-02	8.057E-02	1.433E-01	0.000E+00	NOT IDENT.
KR-85	1.296E+01	7.829E+00	1.465E+01	0.000E+00	NOT IDENT.
SR-85	6.644E-02	4.014E-02	7.513E-02	0.000E+00	NOT IDENT.
RB-86	-5.666E-02	9.010E-01	1.507E+00	0.000E+00	NOT IDENT.
Y-88	-1.683E-03	3.434E-02	5.699E-02	0.000E+00	NOT IDENT.
ZR-88	-2.001E-02	3.164E-02	5.204E-02	0.000E+00	NOT IDENT.
Y-91	-1.424E+00	2.119E+01	3.515E+01	0.000E+00	NOT IDENT.
NB-94	-1.162E-02	3.838E-02	6.193E-02	0.000E+00	NOT IDENT.
NB-95	4.957E-02	5.012E-02	8.843E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.806E-01	3.050E-01	0.000E+00	NOT IDENT.
ZR-95	-3.788E-02	7.845E-02	1.230E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.379E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.467E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.952E-01	1.319E+01	2.176E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.964E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	9.616E-04	3.770E-02	6.370E-02	0.000E+00	NOT IDENT.
RH-102	2.945E-02	3.403E-02	6.113E-02	0.000E+00	NOT IDENT.
RU-103	3.390E-02	4.402E-02	7.861E-02	0.000E+00	NOT IDENT.
RH-106	-1.260E-01	3.533E-01	5.717E-01	0.000E+00	FAIL ABUN
RU-106	-1.260E-01	3.531E-01	5.717E-01	0.000E+00	FAIL ABUN
AG-108M	-1.606E-02	3.808E-02	6.331E-02	0.000E+00	NOT IDENT.
AG-110M	4.883E-02	4.865E-02	7.756E-02	0.000E+00	NOT IDENT.
IN-111	-1.886E-02	1.293E+00	1.879E+00	0.000E+00	NOT IDENT.
IN-113M	-5.337E-02	4.686E-02	7.421E-02	0.000E+00	NOT IDENT.
SN-113	-5.337E-02	4.686E-02	7.421E-02	0.000E+00	NOT IDENT.
IN-114M	1.289E-02	2.292E-01	3.401E-01	0.000E+00	NOT IDENT.
CD-115	-4.861E+00	1.313E+01	2.158E+01	0.000E+00	NOT IDENT.
SN-117M	1.433E-02	5.965E-02	1.028E-01	0.000E+00	NOT IDENT.
SB-122	-1.028E+00	2.303E+00	3.735E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.265E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	8.112E-03	3.104E-02	5.354E-02	0.000E+00	NOT IDENT.
I-124	3.981E-01	8.483E-01	1.292E+00	0.000E+00	NOT IDENT.
SB-124	-3.100E-03	7.406E-02	1.240E-01	0.000E+00	FAIL ABUN
SB-125	5.331E-03	1.037E-01	1.781E-01	0.000E+00	FAIL ABUN
TE-125M	-1.256E+01	1.120E+01	1.854E+01	0.000E+00	NOT IDENT.
I-126	1.937E-02	2.311E-01	3.352E-01	0.000E+00	NOT IDENT.
SB-126	1.296E-01	1.897E-01	2.934E-01	0.000E+00	NOT IDENT.
SB-127	-4.656E-01	1.467E+00	2.361E+00	0.000E+00	NOT IDENT.
XE-127	2.319E-02	5.353E-02	8.897E-02	0.000E+00	NOT IDENT.
I-131	-1.585E-02	1.276E-01	2.188E-01	0.000E+00	NOT IDENT.
TE-132	1.341E-01	7.664E-01	1.295E+00	0.000E+00	NOT IDENT.
BA-133	-1.092E-02	5.483E-02	8.106E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.133E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.889E-02	1.056E-01	0.000E+00	FAIL ABUN
I-135	0.000E+00	6.237E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.804E-02	1.182E-01	1.889E-01	0.000E+00	FAIL ABUN
CE-139	9.453E-03	3.452E-02	5.877E-02	0.000E+00	NOT IDENT.
BA-140	1.867E-01	3.116E-01	5.390E-01	0.000E+00	NOT IDENT.
LA-140	-1.594E-01	8.971E-02	9.842E-02	0.000E+00	FAIL ABUN
CE-141	-2.594E-03	8.425E-02	1.262E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.305E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.005E-01	2.335E-01	3.739E-01	0.000E+00	NOT IDENT.
PM-144	-3.625E-03	3.941E-02	6.485E-02	0.000E+00	NOT IDENT.

PR-144	-2.456E-01	2.671E+00	4.395E+00	0.000E+00	NOT IDENT.
PM-146	8.087E-03	5.188E-02	8.936E-02	0.000E+00	NOT IDENT.
ND-147	-1.616E-01	6.755E-01	1.121E+00	0.000E+00	FAIL ABUN
PM-149	2.966E+01	9.843E+01	1.748E+02	0.000E+00	NOT IDENT.
EU-152	-8.138E-02	1.257E-01	1.792E-01	0.000E+00	NOT IDENT.
GD-153	4.693E-02	1.053E-01	1.647E-01	0.000E+00	FAIL ABUN
EU-154	-1.273E-01	1.329E-01	1.935E-01	0.000E+00	NOT IDENT.
EU-155	1.697E-01	1.275E-01	2.310E-01	0.000E+00	FAIL ABUN
TB-160	-1.050E-01	1.586E-01	2.536E-01	0.000E+00	FAIL ABUN
HO-166M	-5.689E-03	6.882E-02	1.131E-01	0.000E+00	FAIL ABUN
TM-171	-1.635E+01	4.048E+01	6.177E+01	0.000E+00	NOT IDENT.
LU-176	-1.498E-02	2.760E-02	4.674E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.611E+00	2.244E+00	0.000E+00	FAIL ABUN
LU-177M	3.368E-01	2.034E-01	3.489E-01	0.000E+00	FAIL ABUN
HF-181	-2.749E-02	4.847E-02	7.894E-02	0.000E+00	NOT IDENT.
W-181	4.852E-01	5.454E-01	8.808E-01	0.000E+00	NOT IDENT.
TA-182	1.396E-02	1.940E-01	3.261E-01	0.000E+00	NOT IDENT.
RE-183	-2.402E-02	1.252E-01	2.117E-01	0.000E+00	FAIL ABUN
RE-184	-1.686E-02	2.557E-01	4.245E-01	0.000E+00	NOT IDENT.
OS-185	-1.630E-02	4.778E-02	7.722E-02	0.000E+00	NOT IDENT.
RE-188	-2.558E-03	1.908E-01	3.257E-01	0.000E+00	NOT IDENT.
W-188	-2.831E+00	8.845E+00	1.315E+01	0.000E+00	FAIL ABUN
IR-192	-5.961E-03	3.931E-02	6.791E-02	0.000E+00	FAIL ABUN
AU-195	4.820E-01	2.940E-01	4.831E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.040E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	8.306E-01	8.135E+00	1.375E+01	0.000E+00	NOT IDENT.
TL-202	3.254E-02	7.651E-02	1.344E-01	0.000E+00	NOT IDENT.
HG-203	-8.136E-03	4.567E-02	7.937E-02	0.000E+00	FAIL ABUN
BI-207	-8.982E-03	5.693E-02	9.433E-02	0.000E+00	FAIL ABUN
TL-207	-9.174E-01	8.407E-01	1.139E+00	0.000E+00	FAIL ABUN
PO-209	1.300E+01	8.230E+00	1.588E+01	0.000E+00	NOT IDENT.
BI-210	4.143E+00	6.207E+00	1.127E+01	0.000E+00	NOT IDENT.
PB-210	4.143E+00	6.207E+00	1.127E+01	0.000E+00	NOT IDENT.
PO-210	4.143E+00	6.205E+00	1.127E+01	0.000E+00	NOT IDENT.
PB-211	-7.626E-01	1.342E+00	1.777E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.356E-01	7.342E-01	0.000E+00	FAIL ABUN
PO-215	-9.174E-01	8.407E-01	1.139E+00	0.000E+00	FAIL ABUN
RN-219	3.543E-01	4.697E-01	8.209E-01	0.000E+00	NOT IDENT.
RN-220	4.569E+00	2.909E+01	4.964E+01	0.000E+00	NOT IDENT.
RA-223	-9.174E-01	8.407E-01	1.139E+00	0.000E+00	FAIL ABUN
AC-227	2.708E-03	4.221E-01	7.031E-01	0.000E+00	FAIL ABUN
TH-227	2.708E-03	4.221E-01	7.031E-01	0.000E+00	FAIL ABUN
TH-229	3.512E-01	5.709E-01	9.907E-01	0.000E+00	FAIL ABUN
PA-231	8.621E-02	1.628E+00	2.858E+00	0.000E+00	NOT IDENT.
TH-231	-9.174E-01	8.407E-01	1.139E+00	0.000E+00	FAIL ABUN
U-231	-5.881E-01	1.464E+00	2.198E+00	0.000E+00	FAIL ABUN
PA-233	-2.261E-02	6.879E-02	1.177E-01	0.000E+00	FAIL ABUN
PA-234	-1.612E-01	3.579E-01	5.808E-01	0.000E+00	FAIL ABUN
PA-234M	3.827E+00	5.198E+00	9.373E+00	0.000E+00	NOT IDENT.
NP-236	-2.825E-02	8.755E-02	1.472E-01	0.000E+00	NOT IDENT.
NP-239	-1.597E-01	2.185E-01	3.666E-01	0.000E+00	FAIL ABUN
AM-241	2.347E-01	2.330E-01	3.768E-01	0.000E+00	NOT IDENT.
CM-243	-3.740E-02	1.152E-01	1.957E-01	0.000E+00	FAIL ABUN
AM-246	-1.806E-02	1.564E-01	2.601E-01	0.000E+00	NOT IDENT.
CM-247	3.208E-02	4.380E-02	7.240E-02	0.000E+00	NOT IDENT.
CF-249	4.697E-02	4.247E-02	7.795E-02	0.000E+00	NOT IDENT.
CF-251	8.268E-02	1.426E-01	2.480E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:46:18.40

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960002.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:45:14
Sample ID : G245960002 Sample quantity : 1.21120E+02 GRAM
Detector name : GAM23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.65 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	687	10.67*	9.974E-01	2.001E+01	2.001E+01	11.42
CD-109	88.03	213	3.72*	5.219E+00	3.393E+00	3.471E+00	35.44
SN-126	64.28	201	9.60	2.596E+00	2.502E+00	2.502E+00	48.49
	86.94	213	8.90	5.219E+00	1.418E+00	1.418E+00	53.78
	87.57	213	37.00*	5.219E+00	3.412E-01	3.412E-01	35.44
CS-135	268.24	148	16.00*	4.230E+00	6.770E-01	6.770E-01	44.08
BA-137M	661.65	125	89.98*	2.042E+00	2.109E-01	2.111E-01	43.57
CS-137	661.65	125	85.12*	2.042E+00	2.229E-01	2.232E-01	43.57
TL-208	277.35	------	6.80	4.140E+00	------ Line Not Found		------
	510.84	128	21.60	2.544E+00	7.221E-01	7.221E-01	62.85
	583.14	356	84.20*	2.278E+00	5.758E-01	5.758E-01	15.80
	860.37	37	12.46	1.609E+00	5.701E-01	5.701E-01	78.16
BI-211	72.87	------	1.27	3.829E+00	------ Line Not Found		------
	351.07	514	12.94*	3.442E+00	3.577E+00	3.577E+00	15.74
PB-212	74.81	334	10.70	4.049E+00	2.391E+00	2.391E+00	28.68
	77.11	520	18.00	4.302E+00	2.082E+00	2.082E+00	17.86
	87.30	213	8.00	5.219E+00	1.578E+00	1.578E+00	36.82
	238.63	1001	44.60*	4.637E+00	1.501E+00	1.501E+00	10.76
	300.09	27	3.41	3.903E+00	6.212E-01	6.212E-01	174.11
PO-212	74.81	334	10.70	4.049E+00	2.391E+00	2.391E+00	28.68
	77.11	520	18.00	4.302E+00	2.082E+00	2.082E+00	17.86
	87.30	213	8.00	5.219E+00	1.578E+00	1.578E+00	36.82
	115.19	------	0.60	6.293E+00	------ Line Not Found		------
	238.63	1001	44.60*	4.637E+00	1.501E+00	1.501E+00	10.76
	300.09	27	3.41	3.903E+00	6.212E-01	6.212E-01	174.11
BI-214	609.31	414	46.30*	2.194E+00	1.263E+00	1.263E+00	16.21
	1120.29	------	15.10	1.258E+00	------ Line Not Found		------
	1764.49	71	15.80	8.744E-01	1.594E+00	1.594E+00	28.06
PB-214	74.81	334	6.21	4.049E+00	4.119E+00	4.119E+00	28.11
	77.11	520	10.50	4.302E+00	3.568E+00	3.568E+00	19.41
	87.30	213	4.67	5.219E+00	2.703E+00	2.703E+00	36.26
	241.98	249	7.49	4.597E+00	2.242E+00	2.242E+00	34.72

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	333	19.20	3.949E+00	1.359E+00	1.359E+00	23.91
	351.92	514	37.20*	3.442E+00	1.244E+00	1.244E+00	16.59
PO-214	74.81	334	6.21	4.049E+00	4.119E+00	4.119E+00	28.11
	77.11	520	10.50	4.302E+00	3.568E+00	3.568E+00	19.41
	87.30	213	4.67	5.219E+00	2.703E+00	2.703E+00	36.26
	241.98	249	7.49	4.597E+00	2.242E+00	2.242E+00	34.72
	295.21	333	19.20	3.949E+00	1.359E+00	1.359E+00	23.91
	351.92	514	37.20*	3.442E+00	1.244E+00	1.244E+00	16.59
PO-216	74.81	334	10.70	4.049E+00	2.391E+00	2.391E+00	28.68
	77.11	520	18.00	4.302E+00	2.082E+00	2.082E+00	17.86
	87.30	213	8.00	5.219E+00	1.578E+00	1.578E+00	36.82
	238.63	1001	44.60*	4.637E+00	1.501E+00	1.501E+00	10.76
	300.09	27	3.41	3.903E+00	6.212E-01	6.212E-01	174.11
PO-218	74.81	334	6.21	4.049E+00	4.119E+00	4.119E+00	28.11
	77.11	520	10.50	4.302E+00	3.568E+00	3.568E+00	19.41
	87.30	213	4.67	5.219E+00	2.703E+00	2.703E+00	36.26
	241.98	249	7.49	4.597E+00	2.242E+00	2.242E+00	34.72
	295.21	333	19.20	3.949E+00	1.359E+00	1.359E+00	23.91
	351.92	514	37.20*	3.442E+00	1.244E+00	1.244E+00	16.59
RA-224	240.98	249	3.95*	4.597E+00	4.250E+00	4.250E+00	34.27
RA-226	609.31	414	46.30*	2.194E+00	1.263E+00	1.263E+00	16.21
	1120.29	------	15.10	1.258E+00	------ Line Not Found		------
	1764.49	71	15.80	8.744E-01	1.594E+00	1.594E+00	28.06
AC-228	338.32	238	11.40	3.548E+00	1.823E+00	1.823E+00	46.91
	911.07	193	27.70*	1.527E+00	1.411E+00	1.411E+00	24.91
	969.11	89	16.60	1.441E+00	1.153E+00	1.153E+00	48.85
RA-228	338.32	238	11.40	3.548E+00	1.823E+00	1.823E+00	46.91
	911.07	193	27.70*	1.527E+00	1.411E+00	1.411E+00	24.91
	969.11	89	16.60	1.441E+00	1.153E+00	1.153E+00	48.85
TH-228	74.81	334	10.70	4.049E+00	2.391E+00	2.427E+00	27.14
	77.11	520	18.00	4.302E+00	2.082E+00	2.113E+00	17.86
	87.30	213	8.00	5.219E+00	1.578E+00	1.602E+00	35.44
	238.63	1001	44.60*	4.637E+00	1.501E+00	1.523E+00	10.76
	300.09	27	3.41	3.903E+00	6.212E-01	6.306E-01	183.63
TH-230	609.31	414	46.30*	2.194E+00	1.263E+00	1.263E+00	16.21
	1120.29	------	15.10	1.258E+00	------ Line Not Found		------
	1764.49	71	15.80	8.744E-01	1.594E+00	1.594E+00	28.06
TH-232	338.32	238	11.40	3.548E+00	1.823E+00	1.823E+00	23.93
	911.07	193	27.70*	1.527E+00	1.411E+00	1.411E+00	24.91
	969.11	89	16.60	1.441E+00	1.153E+00	1.153E+00	48.85
TH-234	63.29	201	3.80*	2.596E+00	6.321E+00	6.321E+00	49.44
	92.38	650	5.41	5.581E+00	6.668E+00	6.668E+00	23.25
U-234	609.31	414	46.30*	2.194E+00	1.263E+00	1.263E+00	16.21
	1120.29	------	15.10	1.258E+00	------ Line Not Found		------
	1764.49	71	15.80	8.744E-01	1.594E+00	1.594E+00	28.06
U-235	89.95	86	2.70	5.396E+00	1.838E+00	1.838E+00	54.70
	93.35	650	4.50	5.581E+00	8.016E+00	8.016E+00	31.61
	105.00	------	2.10	6.104E+00	------ Line Not Found		------
	143.76	88	10.50*	6.194E+00	4.213E-01	4.213E-01	79.87

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	163.35	------	4.70	5.886E+00	------ Line Not Found		------
	185.71	295	54.00	5.492E+00	3.084E-01	3.084E-01	27.30
	205.31	------	4.70	5.150E+00	------ Line Not Found		------
NP-237	86.50	213	12.60*	5.219E+00	1.002E+00	1.002E+00	41.01
	95.87	------	2.60	5.757E+00	------ Line Not Found		------
U-238	63.29	201	3.80*	2.596E+00	6.321E+00	6.321E+00	49.44
	92.38	650	5.41	5.581E+00	6.668E+00	6.668E+00	16.96
AM-243	74.67	334	66.00*	4.049E+00	3.876E-01	3.876E-01	27.11
	86.72	213	0.34	5.219E+00	3.757E+01	3.757E+01	35.44
	117.66	------	0.55	6.314E+00	------ Line Not Found		------
	142.18	88	0.13	6.194E+00	3.539E+01	3.539E+01	78.41
ANH-511	511.00	128	100.00*	2.544E+00	1.560E-01	1.560E-01	62.29

Flag: "*" = Keyline

Sample ID : G245960002 Acquisition date : 12-FEB-2010 14:45:14

Total number of lines in spectrum 32
Number of unidentified lines 2
Number of lines tentatively identified by NID 30 93.75%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.001E+01	2.001E+01	0.229E+01	11.42	
CD-109	464.00D	1.02	3.393E+00	3.471E+00	1.230E+00	35.44	
SN-126	1.00E+05Y	1.00	3.412E-01	3.412E-01	1.209E-01	35.44	
CS-135	2.30E+06Y	1.00	6.770E-01	6.770E-01	2.985E-01	44.08	
BA-137M	30.17Y	1.00	2.109E-01	2.111E-01	0.920E-01	43.57	
CS-137	30.17Y	1.00	2.229E-01	2.232E-01	0.972E-01	43.57	
TL-208	1.41E+10Y	1.00	5.758E-01	5.758E-01	0.910E-01	15.80	
BI-211	7.04E+08Y	1.00	3.577E+00	3.577E+00	0.563E+00	15.74	
PB-212	1.41E+10Y	1.00	1.501E+00	1.501E+00	0.161E+00	10.76	
PO-212	1.41E+10Y	1.00	1.501E+00	1.501E+00	0.161E+00	10.76	
BI-214	1600.00Y	1.00	1.263E+00	1.263E+00	0.205E+00	16.21	
PB-214	1600.00Y	1.00	1.244E+00	1.244E+00	0.206E+00	16.59	
PO-214	1600.00Y	1.00	1.244E+00	1.244E+00	0.206E+00	16.59	
PO-216	1.41E+10Y	1.00	1.501E+00	1.501E+00	0.161E+00	10.76	
PO-218	1600.00Y	1.00	1.244E+00	1.244E+00	0.206E+00	16.59	
RA-224	1.41E+10Y	1.00	4.250E+00	4.250E+00	1.457E+00	34.27	
RA-226	1600.00Y	1.00	1.263E+00	1.263E+00	0.205E+00	16.21	
AC-228	1.41E+10Y	1.00	1.411E+00	1.411E+00	0.351E+00	24.91	
RA-228	1.41E+10Y	1.00	1.411E+00	1.411E+00	0.351E+00	24.91	
TH-228	1.91Y	1.02	1.501E+00	1.523E+00	0.164E+00	10.76	
TH-230	4.47E+09Y	1.00	1.263E+00	1.263E+00	0.205E+00	16.21	
TH-232	1.41E+10Y	1.00	1.411E+00	1.411E+00	0.351E+00	24.91	
TH-234	4.47E+09Y	1.00	6.321E+00	6.321E+00	3.125E+00	49.44	
U-234	4.47E+09Y	1.00	1.263E+00	1.263E+00	0.205E+00	16.21	
U-235	7.04E+08Y	1.00	4.213E-01	4.213E-01	3.365E-01	79.87	
NP-237	2.14E+06Y	1.00	1.002E+00	1.002E+00	0.411E+00	41.01	
U-238	4.47E+09Y	1.00	6.321E+00	6.321E+00	3.125E+00	49.44	
AM-243	7380.00Y	1.00	3.876E-01	3.876E-01	1.051E-01	27.11	
ANH-511	1.00E+09Y	1.00	1.560E-01	1.560E-01	0.972E-01	62.29	
	Total Activity :		6.689E+01	6.699E+01			

Grand Total Activity : 6.689E+01 6.699E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960002 Acquisition date : 12-FEB-2010 14:45:14

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	83.97	88	258	1.22	167.94	165	13	1.23E-02	58.5	4.97E+00	T
0	209.04	127	236	1.41	418.08	414	10	1.77E-02	48.4	5.09E+00	T
0	327.53	87	72	1.58	655.06	652	7	1.21E-02	38.8	3.64E+00	T
0	409.04	75	101	1.09	818.07	813	11	1.04E-02	56.8	3.05E+00	
0	462.88	71	83	1.10	925.77	920	11	9.92E-03	55.9	2.76E+00	T
0	727.04	70	71	1.62	1454.07	1446	13	9.73E-03	55.2	1.88E+00	T
0	794.34	45	33	1.25	1588.69	1584	10	6.28E-03	55.8	1.73E+00	T
0	1118.76	106	39	1.89	2237.52	2229	19	1.47E-02	34.0	1.26E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:46:22.92

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960002.CNF;1		
Acquisition date	: 12-FEB-2010 14:45:14	Detector SN#	:
Detector ID	: GAM23	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:01.65	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960002	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.21120E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 2-JUN-2009 11:17:00.62	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.001E+01	2.285E+00	5.199E-01	3.889E-02	38.496
CD-109	3.471E+00	1.230E+00	1.556E+00	1.519E-01	2.231
SN-126	3.412E-01	1.209E-01	1.538E-01	1.497E-02	2.217
CS-135	6.770E-01	2.985E-01	2.558E-01	1.954E-02	2.647
BA-137M	2.111E-01	9.197E-02	6.327E-02	3.232E-03	3.336
CS-137	2.232E-01	9.722E-02	6.689E-02	3.435E-03	3.336
TL-208	5.758E-01	9.099E-02	6.071E-02	3.942E-03	9.484
BI-211	3.577E+00	5.631E-01	4.180E-01	2.723E-02	8.558
PB-212	1.501E+00	1.615E-01	9.855E-02	7.086E-03	15.226
PO-212	1.501E+00	1.615E-01	9.855E-02	7.086E-03	15.226
BI-214	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
PB-214	1.244E+00	2.064E-01	1.384E-01	1.156E-02	8.987
PO-214	1.244E+00	2.064E-01	1.384E-01	1.156E-02	8.987
PO-216	1.501E+00	1.615E-01	9.855E-02	7.086E-03	15.226
PO-218	1.244E+00	2.064E-01	1.384E-01	1.156E-02	8.987
RA-224	4.250E+00	1.457E+00	1.122E+00	6.320E-02	3.789
RA-226	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
AC-228	1.411E+00	3.514E-01	1.849E-01	2.134E-02	7.629

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.411E+00	3.514E-01	1.849E-01	2.134E-02	7.629
TH-228	1.523E+00	1.639E-01	1.001E-01	7.193E-03	15.226
TH-230	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
TH-232	1.411E+00	3.514E-01	1.849E-01	2.134E-02	7.629
TH-234	6.321E+00	3.125E+00	2.880E+00	5.189E-01	2.195
U-234	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
U-235	4.213E-01	3.365E-01	3.981E-01	6.438E-02	1.058
NP-237	1.002E+00	4.108E-01	4.519E-01	1.029E-01	2.217
U-238	6.321E+00	3.125E+00	2.880E+00	5.189E-01	2.195
AM-243	3.876E-01	1.051E-01	1.123E-01	9.980E-03	3.451
ANH-511	1.560E-01	9.717E-02	4.924E-02	2.860E-03	3.168

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.651E-01		3.753E-01	6.582E-01	4.473E-02	0.555
NA-22	-4.407E-02		4.861E-02	6.996E-02	4.698E-03	-0.630
NA-24	-1.518E-01		4.135E-01	Half-Life too short		
AL-26	-2.045E-02		3.012E-02	4.113E-02	2.472E-03	-0.497
TI-44	3.841E-01	+	6.859E-02	9.713E-02	8.804E-03	3.955
SC-46	-8.413E-03		4.367E-02	7.137E-02	6.377E-03	-0.118
V-48	6.078E-03		7.438E-02	1.243E-01	1.034E-02	0.049
CR-51	1.968E-01		4.254E-01	7.307E-01	4.791E-02	0.269
MN-52	-8.505E-02		2.802E-01	4.314E-01	3.121E-02	-0.197
MN-54	5.809E-03		4.283E-02	7.242E-02	5.734E-03	0.080
CO-56	6.749E-03		4.037E-02	6.856E-02	5.578E-03	0.098
CO-57	-6.367E-03		2.905E-02	4.734E-02	2.791E-03	-0.135
CO-58	1.350E-02		4.046E-02	6.991E-02	5.252E-03	0.193
FE-59	-4.452E-02		1.134E-01	1.794E-01	1.382E-02	-0.248
CO-60	-1.504E-02		4.692E-02	7.299E-02	5.358E-03	-0.206
ZN-65	1.700E-01		1.122E-01	1.911E-01	1.262E-02	0.890
GE-68	2.703E-01		1.379E+00	2.318E+00	1.659E-01	0.117
AS-73	2.386E-01		1.257E+00	2.128E+00	1.879E-01	0.112
AS-74	1.841E-02		1.048E-01	1.731E-01	9.548E-03	0.106
SE-75	-1.619E-02		5.840E-02	7.951E-02	4.628E-03	-0.204
BR-77	-9.650E-01		1.375E+01	1.935E+01	1.120E+00	-0.050
SR-82	-7.400E-01		4.052E-01	5.515E-01	3.804E-02	-1.342
RB-83	9.024E-04		9.142E-02	1.299E-01	7.518E-03	0.007
RB-84	3.829E-02		8.221E-02	1.427E-01	1.254E-02	0.268
KR-85	1.296E+01		7.989E+00	1.449E+01	8.410E-01	0.894
SR-85	6.644E-02		4.096E-02	7.431E-02	4.312E-03	0.894
RB-86	-5.666E-02		9.194E-01	1.505E+00	1.078E-01	-0.038
Y-88	-1.683E-03		3.504E-02	5.728E-02	3.372E-03	-0.029
ZR-88	-2.001E-02		3.228E-02	5.131E-02	2.962E-03	-0.390
Y-91	-1.424E+00		2.163E+01	3.514E+01	2.096E+00	-0.041
NB-94	-1.162E-02		3.916E-02	6.149E-02	3.514E-03	-0.189
NB-95	4.957E-02		5.114E-02	8.790E-02	5.907E-03	0.564

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	6.210E-01		1.843E-01	2.988E-01	2.204E-02	2.078
ZR-95	-3.788E-02		8.005E-02	1.223E-01	9.383E-03	-0.310
NB-97	1.735E-01		7.036E-02	Half-Life too short		
ZR-97	5.593E+00		1.258E+00	Half-Life too short		
MO-99	-1.952E-01		1.346E+01	2.163E+01	3.026E+00	-0.009
TC-99M	7.611E+08		2.533E+10	Half-Life too short		
RH-101	9.616E-04		3.847E-02	6.228E-02	3.320E-03	0.015
RH-102	2.945E-02		3.472E-02	6.041E-02	3.536E-03	0.487
RU-103	3.390E-02		4.492E-02	7.773E-02	9.840E-03	0.436
RH-106	-1.260E-01		3.605E-01	5.668E-01	6.536E-02	-0.222
RU-106	-1.260E-01		3.603E-01	5.668E-01	3.046E-02	-0.222
AG-108M	-1.606E-02		3.886E-02	6.249E-02	3.962E-03	-0.257
AG-110M	4.883E-02		4.964E-02	7.695E-02	4.276E-03	0.635
IN-111	-1.886E-02		1.319E+00	1.842E+00	1.043E-01	-0.010
IN-113M	-5.337E-02		4.782E-02	7.317E-02	4.507E-03	-0.729
SN-113	-5.337E-02		4.782E-02	7.317E-02	4.507E-03	-0.729
IN-114M	1.289E-02		2.339E-01	3.324E-01	1.752E-02	0.039
CD-115	-4.861E+00		1.340E+01	2.136E+01	1.232E+00	-0.228
SN-117M	1.433E-02		6.087E-02	1.003E-01	5.211E-03	0.143
SB-122	-1.028E+00		2.350E+00	3.698E+00	2.092E-01	-0.278
I-123	1.637E+00		3.197E+00	Half-Life too short		
TE-123M	8.112E-03		3.167E-02	5.221E-02	2.755E-03	0.155
I-124	3.981E-01		8.656E-01	1.280E+00	7.017E-02	0.311
SB-124	-3.100E-03		7.557E-02	1.245E-01	8.679E-03	-0.025
SB-125	5.331E-03		1.058E-01	1.758E-01	1.069E-02	0.030
TE-125M	-1.256E+01		1.143E+01	1.800E+01	1.605E+00	-0.698
I-126	1.937E-02		2.358E-01	3.326E-01	1.721E-02	0.058
SB-126	1.296E-01		1.936E-01	2.914E-01	1.746E-02	0.445
SB-127	-4.656E-01		1.497E+00	2.344E+00	2.161E-01	-0.199
XE-127	2.319E-02		5.462E-02	8.702E-02	4.671E-03	0.267
I-131	-1.585E-02		1.302E-01	2.155E-01	1.408E-02	-0.074
TE-132	1.341E-01		7.820E-01	1.268E+00	1.809E-01	0.106
BA-133	-1.092E-02		5.595E-02	7.982E-02	9.261E-03	-0.137
I-133	-1.349E-03		3.639E-03	Half-Life too short		
CS-134	1.068E-01	+	6.010E-02	1.050E-01	7.667E-03	1.018
I-135	-1.115E+08		3.182E+09	Half-Life too short		
CS-136	-5.804E-02		1.206E-01	1.885E-01	1.502E-02	-0.308
CE-139	9.453E-03		3.522E-02	5.734E-02	2.923E-03	0.165
BA-140	1.867E-01		3.180E-01	5.334E-01	1.734E-01	0.350
LA-140	-1.594E-01		9.154E-02	9.874E-02	6.774E-03	-1.615
CE-141	-2.594E-03		8.597E-02	1.230E-01	6.934E-03	-0.021
CE-143	1.231E-03		1.686E-04	Half-Life too short		
CE-144	-3.005E-01		2.383E-01	3.639E-01	5.139E-02	-0.826
PM-144	-3.625E-03		4.022E-02	6.439E-02	3.622E-03	-0.056
PR-144	-2.456E-01		2.725E+00	4.363E+00	2.453E-01	-0.056
PM-146	8.087E-03		5.294E-02	8.826E-02	7.644E-03	0.092
ND-147	-1.616E-01		6.893E-01	1.109E+00	1.498E-01	-0.146
PM-149	2.966E+01		1.004E+02	1.716E+02	2.436E+01	0.173

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-8.138E-02		1.282E-01	1.764E-01	1.169E-02	-0.461
GD-153	4.693E-02		1.075E-01	1.597E-01	1.305E-02	0.294
EU-154	-1.273E-01		1.356E-01	1.936E-01	1.922E-02	-0.658
EU-155	1.697E-01		1.301E-01	2.241E-01	1.653E-02	0.757
TB-160	-1.050E-01		1.618E-01	2.525E-01	2.208E-02	-0.416
HO-166M	-5.689E-03		7.022E-02	1.124E-01	6.576E-03	-0.051
TM-171	-1.635E+01		4.130E+01	5.962E+01	5.185E+00	-0.274
LU-176	-1.498E-02		2.816E-02	4.594E-02	2.707E-03	-0.326
LU-177	3.375E+00	+	1.644E+00	2.196E+00	1.188E-01	1.537
LU-177M	3.368E-01		2.076E-01	3.442E-01	2.002E-02	0.979
HF-181	-2.749E-02		4.946E-02	7.802E-02	4.563E-03	-0.352
W-181	4.852E-01		5.565E-01	8.499E-01	7.384E-02	0.571
TA-182	1.396E-02		1.980E-01	3.260E-01	2.001E-02	0.043
RE-183	-2.402E-02		1.278E-01	2.065E-01	1.062E-02	-0.116
RE-184	-1.686E-02		2.609E-01	4.163E-01	2.374E-02	-0.040
OS-185	-1.630E-02		4.876E-02	7.660E-02	3.998E-03	-0.213
RE-188	-2.558E-03		1.947E-01	3.175E-01	1.666E-02	-0.008
W-188	-2.831E+00		9.026E+00	1.292E+01	7.566E-01	-0.219
IR-192	-5.961E-03		4.012E-02	6.677E-02	3.961E-03	-0.089
AU-195	4.820E-01		3.000E-01	4.685E-01	3.738E-02	1.029
TL-200	1.173E-04		2.572E-04	Half-Life too short		
TL-201	8.306E-01		8.302E+00	1.342E+01	6.847E-01	0.062
TL-202	3.254E-02		7.807E-02	1.327E-01	7.766E-03	0.245
HG-203	-8.136E-03		4.660E-02	7.793E-02	4.814E-03	-0.104
BI-207	-8.982E-03		5.809E-02	9.415E-02	6.917E-03	-0.095
TL-207	-9.174E-01		8.579E-01	1.120E+00	1.855E-01	-0.819
PO-209	1.300E+01		8.398E+00	1.581E+01	1.435E+00	0.822
BI-210	4.143E+00		6.333E+00	1.083E+01	8.435E-01	0.382
PB-210	4.143E+00		6.333E+00	1.083E+01	8.435E-01	0.382
PO-210	4.143E+00		6.331E+00	1.083E+01	7.268E-01	0.382
PB-211	-7.626E-01		1.369E+00	1.752E+00	1.092E+00	-0.435
BI-212	9.801E-01	+	5.465E-01	7.294E-01	5.789E-02	1.344
PO-215	-9.174E-01		8.579E-01	1.120E+00	1.855E-01	-0.819
RN-219	3.543E-01		4.792E-01	8.096E-01	1.101E-01	0.438
RN-220	4.569E+00		2.969E+01	4.914E+01	2.804E+00	0.093
RA-223	-9.174E-01		8.579E-01	1.120E+00	1.855E-01	-0.819
AC-227	2.708E-03		4.307E-01	6.896E-01	9.604E-02	0.004
TH-227	2.708E-03		4.307E-01	6.896E-01	1.164E-01	0.004
TH-229	3.512E-01		5.826E-01	9.684E-01	5.130E-02	0.363
PA-231	8.621E-02		1.661E+00	2.807E+00	3.872E-01	0.031
TH-231	-9.174E-01		8.579E-01	1.120E+00	1.855E-01	-0.819
U-231	-5.881E-01		1.494E+00	2.131E+00	1.787E-01	-0.276
PA-233	-2.261E-02		7.019E-02	1.157E-01	7.233E-03	-0.195
PA-234	-1.612E-01		3.652E-01	5.789E-01	1.088E-01	-0.278
PA-234M	3.827E+00		5.304E+00	9.348E+00	8.920E-01	0.409
NP-236	-2.825E-02		8.934E-02	1.436E-01	7.425E-03	-0.197
NP-239	-1.597E-01		2.229E-01	3.562E-01	2.223E-02	-0.448
AM-241	2.347E-01		2.378E-01	3.632E-01	3.379E-02	0.646

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.740E-02		1.176E-01	1.899E-01	1.407E-02	-0.197
AM-246	-1.806E-02		1.596E-01	2.596E-01	1.853E-02	-0.070
CM-247	3.208E-02		4.470E-02	7.140E-02	4.139E-03	0.449
CF-249	4.697E-02		4.333E-02	7.684E-02	4.446E-03	0.611
CF-251	8.268E-02		1.455E-01	2.422E-01	1.251E-02	0.341

VAX/VMS Nuclide Identification Report Generated

```
*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960002              *
* Acquisition date : 12-FEB-2010 14:45:14 Detector SN#    :                  *
* Detector ID      : GAM23                Sensitivity     : 5.000            *
* Geometry         : CAN                  Energy tolerance: 1.500            *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000           *
* Elapsed real time:    0 02:00:01.65     Half life ratio : 8.000            *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID            *
* Sample ID        : G245960002           Analyst initials: MXR1             *
* Batch Number     : 948717               Sample Quantity : 1.2112E+02 GRAM  *
* Recovery         :    1.00000           Carrier Weight :    0.00000        *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                  *
* MSD DPM          :    0.000             MSD Isotope     :                  *
* LCS DPM          :    0.000             LCS Isotope     :                  *
* LCSD DPM         :    0.000             LCSD Isotope    :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.001E+01	2.240E+00	2.596E-01	1.143E+00
CD-109	3.471E+00	1.205E+00	8.038E-01	6.150E-01
SN-126	3.412E-01	1.185E-01	7.949E-02	6.044E-02
CS-135	6.770E-01	2.925E-01	1.304E-01	1.492E-01
BA-137M	2.111E-01	9.013E-02	3.190E-02	4.598E-02
CS-137	2.232E-01	9.528E-02	3.372E-02	4.861E-02
TL-208	5.758E-01	8.917E-02	3.066E-02	4.550E-02
BI-211	3.577E+00	5.519E-01	2.124E-01	2.816E-01
PB-212	1.501E+00	1.582E-01	5.031E-02	8.074E-02
PO-212	1.501E+00	1.582E-01	5.031E-02	8.074E-02
BI-214	1.263E+00	2.006E-01	6.551E-02	1.024E-01
PB-214	1.244E+00	2.022E-01	7.035E-02	1.032E-01
PO-214	1.244E+00	2.022E-01	7.035E-02	1.032E-01
PO-216	1.501E+00	1.582E-01	5.031E-02	8.074E-02
PO-218	1.244E+00	2.022E-01	7.035E-02	1.032E-01
RA-224	4.250E+00	1.427E+00	5.726E-01	7.283E-01
RA-226	1.263E+00	2.006E-01	6.551E-02	1.024E-01
AC-228	1.411E+00	3.444E-01	9.286E-02	1.757E-01
RA-228	1.411E+00	3.444E-01	9.286E-02	1.757E-01
TH-228	1.523E+00	1.606E-01	5.108E-02	8.196E-02
TH-230	1.263E+00	2.006E-01	6.551E-02	1.024E-01
TH-232	1.411E+00	3.444E-01	9.286E-02	1.757E-01
TH-234	6.321E+00	3.063E+00	1.493E+00	1.563E+00
U-234	1.263E+00	2.006E-01	6.551E-02	1.024E-01
U-235	4.213E-01	3.298E-01	2.045E-01	1.683E-01
NP-237	1.002E+00	4.026E-01	2.335E-01	2.054E-01
U-238	6.321E+00	3.063E+00	1.493E+00	1.563E+00
AM-243	3.876E-01	1.030E-01	5.813E-02	5.254E-02
ANH-511	1.560E-01	9.522E-02	2.491E-02	4.858E-02

---- Non-Identified Nuclides ----

Key-Line Activity	K.L Act error	DLC	TPU

Nuclide	(pCi/GRAM)		(pCi/GRAM)		
BE-7	3.651E-01	3.678E-01	3.332E-01	1.876E-01	NOT IDENT.
NA-22	-4.407E-02	4.764E-02	3.499E-02	2.431E-02	NOT IDENT.
NA-24	-1.518E+05	8.104E+05	0.000E+00	4.135E+05	SHORT HLIF
AL-26	-2.045E-02	2.952E-02	2.048E-02	1.506E-02	NOT IDENT.
TI-44	3.841E-01	6.722E-02	5.025E-02	3.430E-02	FAIL ABUN
SC-46	-8.413E-03	4.280E-02	3.585E-02	2.184E-02	NOT IDENT.
V-48	6.078E-03	7.289E-02	6.236E-02	3.719E-02	NOT IDENT.
CR-51	1.968E-01	4.169E-01	3.717E-01	2.127E-01	NOT IDENT.
MN-52	-8.505E-02	2.746E-01	2.154E-01	1.401E-01	NOT IDENT.
MN-54	5.809E-03	4.197E-02	3.641E-02	2.141E-02	NOT IDENT.
CO-56	6.749E-03	3.956E-02	3.446E-02	2.018E-02	NOT IDENT.
CO-57	-6.367E-03	2.847E-02	2.436E-02	1.452E-02	NOT IDENT.
CO-58	1.350E-02	3.965E-02	3.516E-02	2.023E-02	NOT IDENT.
FE-59	-4.452E-02	1.112E-01	8.989E-02	5.672E-02	FAIL ABUN
CO-60	-1.504E-02	4.599E-02	3.648E-02	2.346E-02	NOT IDENT.
ZN-65	1.700E-01	1.099E-01	9.574E-02	5.610E-02	NOT IDENT.
GE-68	2.703E-01	1.351E+00	1.162E+00	6.893E-01	NOT IDENT.
AS-73	2.386E-01	1.232E+00	1.106E+00	6.287E-01	NOT IDENT.
AS-74	1.841E-02	1.027E-01	8.740E-02	5.241E-02	NOT IDENT.
SE-75	-1.619E-02	5.723E-02	4.054E-02	2.920E-02	NOT IDENT.
BR-77	-9.650E-01	1.347E+01	9.787E+00	6.873E+00	FAIL ABUN
SR-82	-7.400E-01	3.971E-01	2.775E-01	2.026E-01	NOT IDENT.
RB-83	9.024E-04	8.959E-02	6.568E-02	4.571E-02	NOT IDENT.
RB-84	3.829E-02	8.057E-02	7.169E-02	4.111E-02	NOT IDENT.
KR-85	1.296E+01	7.829E+00	7.331E+00	3.995E+00	NOT IDENT.
SR-85	6.644E-02	4.014E-02	3.759E-02	2.048E-02	NOT IDENT.
RB-86	-5.666E-02	9.010E-01	7.542E-01	4.597E-01	NOT IDENT.
Y-88	-1.683E-03	3.434E-02	2.851E-02	1.752E-02	NOT IDENT.
ZR-88	-2.001E-02	3.164E-02	2.604E-02	1.614E-02	NOT IDENT.
Y-91	-1.424E+00	2.119E+01	1.759E+01	1.081E+01	NOT IDENT.
NB-94	-1.162E-02	3.838E-02	3.098E-02	1.958E-02	NOT IDENT.
NB-95	4.957E-02	5.012E-02	4.424E-02	2.557E-02	NOT IDENT.
NB-95M	6.210E-01	1.806E-01	1.526E-01	9.215E-02	NOT IDENT.
ZR-95	-3.788E-02	7.845E-02	6.156E-02	4.003E-02	NOT IDENT.
NB-97	1.735E+05	1.379E+05	0.000E+00	7.036E+04	SHORT HLIF
ZR-97	5.593E+06	2.467E+06	0.000E+00	1.258E+06	SHORT HLIF
MO-99	-1.952E-01	1.319E+01	1.089E+01	6.732E+00	NOT IDENT.
TC-99M	7.611E+14	4.964E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	9.616E-04	3.770E-02	3.187E-02	1.923E-02	NOT IDENT.
RH-102	2.945E-02	3.403E-02	3.059E-02	1.736E-02	NOT IDENT.
RU-103	3.390E-02	4.402E-02	3.933E-02	2.246E-02	NOT IDENT.
RH-106	-1.260E-01	3.533E-01	2.860E-01	1.802E-01	FAIL ABUN
RU-106	-1.260E-01	3.531E-01	2.860E-01	1.801E-01	FAIL ABUN
AG-108M	-1.606E-02	3.808E-02	3.167E-02	1.943E-02	NOT IDENT.
AG-110M	4.883E-02	4.865E-02	3.880E-02	2.482E-02	NOT IDENT.
IN-111	-1.886E-02	1.293E+00	9.403E-01	6.595E-01	NOT IDENT.
IN-113M	-5.337E-02	4.686E-02	3.713E-02	2.391E-02	NOT IDENT.
SN-113	-5.337E-02	4.686E-02	3.713E-02	2.391E-02	NOT IDENT.
IN-114M	1.289E-02	2.292E-01	1.701E-01	1.170E-01	NOT IDENT.
CD-115	-4.861E+00	1.313E+01	1.080E+01	6.698E+00	NOT IDENT.
SN-117M	1.433E-02	5.965E-02	5.144E-02	3.044E-02	NOT IDENT.
SB-122	-1.028E+00	2.303E+00	1.868E+00	1.175E+00	NOT IDENT.
I-123	1.637E+06	6.265E+06	0.000E+00	3.197E+06	SHORT HLIF
TE-123M	8.112E-03	3.104E-02	2.678E-02	1.584E-02	NOT IDENT.
I-124	3.981E-01	8.483E-01	6.463E-01	4.328E-01	NOT IDENT.
SB-124	-3.100E-03	7.406E-02	6.204E-02	3.779E-02	FAIL ABUN
SB-125	5.331E-03	1.037E-01	8.910E-02	5.291E-02	FAIL ABUN
TE-125M	-1.256E+01	1.120E+01	9.273E+00	5.715E+00	NOT IDENT.
I-126	1.937E-02	2.311E-01	1.677E-01	1.179E-01	NOT IDENT.
SB-126	1.296E-01	1.897E-01	1.468E-01	9.681E-02	NOT IDENT.
SB-127	-4.656E-01	1.467E+00	1.181E+00	7.485E-01	NOT IDENT.
XE-127	2.319E-02	5.353E-02	4.451E-02	2.731E-02	NOT IDENT.
I-131	-1.585E-02	1.276E-01	1.094E-01	6.509E-02	NOT IDENT.
TE-132	1.341E-01	7.664E-01	6.479E-01	3.910E-01	NOT IDENT.
BA-133	-1.092E-02	5.483E-02	4.056E-02	2.797E-02	NOT IDENT.
I-133	-1.349E+03	7.133E+03	0.000E+00	3.639E+03	SHORT HLIF
CS-134	1.068E-01	5.889E-02	5.281E-02	3.005E-02	FAIL ABUN
I-135	-1.115E+14	6.237E+15	0.000E+00	3.182E+15	SHORT HLIF
CS-136	-5.804E-02	1.182E-01	9.448E-02	6.030E-02	FAIL ABUN
CE-139	9.453E-03	3.452E-02	2.940E-02	1.761E-02	NOT IDENT.
BA-140	1.867E-01	3.116E-01	2.697E-01	1.590E-01	NOT IDENT.
LA-140	-1.594E-01	8.971E-02	4.924E-02	4.577E-02	FAIL ABUN
CE-141	-2.594E-03	8.425E-02	6.314E-02	4.299E-02	NOT IDENT.
CE-143	1.231E+03	3.305E+02	0.000E+00	1.686E+02	SHORT HLIF
CE-144	-3.005E-01	2.335E-01	1.871E-01	1.191E-01	NOT IDENT.
PM-144	-3.625E-03	3.941E-02	3.245E-02	2.011E-02	NOT IDENT.

PR-144	-2.456E-01	2.671E+00	2.199E+00	1.363E+00	NOT IDENT.
PM-146	8.087E-03	5.188E-02	4.471E-02	2.647E-02	NOT IDENT.
ND-147	-1.616E-01	6.755E-01	5.606E-01	3.446E-01	FAIL ABUN
PM-149	2.966E+01	9.843E+01	8.743E+01	5.022E+01	NOT IDENT.
EU-152	-8.138E-02	1.257E-01	8.967E-02	6.412E-02	NOT IDENT.
GD-153	4.693E-02	1.053E-01	8.240E-02	5.374E-02	FAIL ABUN
EU-154	-1.273E-01	1.329E-01	9.680E-02	6.781E-02	NOT IDENT.
EU-155	1.697E-01	1.275E-01	1.155E-01	6.505E-02	FAIL ABUN
TB-160	-1.050E-01	1.586E-01	1.269E-01	8.091E-02	FAIL ABUN
HO-166M	-5.689E-03	6.882E-02	5.660E-02	3.511E-02	FAIL ABUN
TM-171	-1.635E+01	4.048E+01	3.090E+01	2.065E+01	NOT IDENT.
LU-176	-1.498E-02	2.760E-02	2.338E-02	1.408E-02	FAIL ABUN
LU-177	3.375E+00	1.611E+00	1.123E+00	8.221E-01	FAIL ABUN
LU-177M	3.368E-01	2.034E-01	1.745E-01	1.038E-01	FAIL ABUN
HF-181	-2.749E-02	4.847E-02	3.949E-02	2.473E-02	NOT IDENT.
W-181	4.852E-01	5.454E-01	4.406E-01	2.783E-01	NOT IDENT.
TA-182	1.396E-02	1.940E-01	1.631E-01	9.898E-02	NOT IDENT.
RE-183	-2.402E-02	1.252E-01	1.059E-01	6.390E-02	FAIL ABUN
RE-184	-1.686E-02	2.557E-01	2.124E-01	1.305E-01	NOT IDENT.
OS-185	-1.630E-02	4.778E-02	3.863E-02	2.438E-02	NOT IDENT.
RE-188	-2.558E-03	1.908E-01	1.630E-01	9.736E-02	NOT IDENT.
W-188	-2.831E+00	8.845E+00	6.581E+00	4.513E+00	FAIL ABUN
IR-192	-5.961E-03	3.931E-02	3.397E-02	2.006E-02	FAIL ABUN
AU-195	4.820E-01	2.940E-01	2.417E-01	1.500E-01	FAIL ABUN
TL-200	1.173E+02	5.040E+02	0.000E+00	2.572E+02	SHORT HLIF
TL-201	8.306E-01	8.135E+00	6.878E+00	4.151E+00	NOT IDENT.
TL-202	3.254E-02	7.651E-02	6.726E-02	3.904E-02	NOT IDENT.
HG-203	-8.136E-03	4.567E-02	3.971E-02	2.330E-02	FAIL ABUN
BI-207	-8.982E-03	5.693E-02	4.719E-02	2.904E-02	FAIL ABUN
TL-207	-9.174E-01	8.407E-01	5.699E-01	4.289E-01	FAIL ABUN
PO-209	1.300E+01	8.230E+00	7.943E+00	4.199E+00	NOT IDENT.
BI-210	4.143E+00	6.207E+00	5.639E+00	3.167E+00	NOT IDENT.
PB-210	4.143E+00	6.207E+00	5.639E+00	3.167E+00	NOT IDENT.
PO-210	4.143E+00	6.205E+00	5.639E+00	3.166E+00	NOT IDENT.
PB-211	-7.626E-01	1.342E+00	8.888E-01	6.846E-01	NOT IDENT.
BI-212	9.801E-01	5.356E-01	3.673E-01	2.732E-01	FAIL ABUN
PO-215	-9.174E-01	8.407E-01	5.699E-01	4.289E-01	FAIL ABUN
RN-219	3.543E-01	4.697E-01	4.107E-01	2.396E-01	NOT IDENT.
RN-220	4.569E+00	2.909E+01	2.483E+01	1.484E+01	NOT IDENT.
RA-223	-9.174E-01	8.407E-01	5.699E-01	4.289E-01	FAIL ABUN
AC-227	2.708E-03	4.221E-01	3.518E-01	2.154E-01	FAIL ABUN
TH-227	2.708E-03	4.221E-01	3.518E-01	2.154E-01	FAIL ABUN
TH-229	3.512E-01	5.709E-01	4.956E-01	2.913E-01	FAIL ABUN
PA-231	8.621E-02	1.628E+00	1.430E+00	8.306E-01	NOT IDENT.
TH-231	-9.174E-01	8.407E-01	5.699E-01	4.289E-01	FAIL ABUN
U-231	-5.881E-01	1.464E+00	1.100E+00	7.469E-01	FAIL ABUN
PA-233	-2.261E-02	6.879E-02	5.887E-02	3.509E-02	FAIL ABUN
PA-234	-1.612E-01	3.579E-01	2.906E-01	1.826E-01	FAIL ABUN
PA-234M	3.827E+00	5.198E+00	4.689E+00	2.652E+00	NOT IDENT.
NP-236	-2.825E-02	8.755E-02	7.364E-02	4.467E-02	NOT IDENT.
NP-239	-1.597E-01	2.185E-01	1.834E-01	1.115E-01	FAIL ABUN
AM-241	2.347E-01	2.330E-01	1.885E-01	1.189E-01	NOT IDENT.
CM-243	-3.740E-02	1.152E-01	9.790E-02	5.878E-02	FAIL ABUN
AM-246	-1.806E-02	1.564E-01	1.301E-01	7.979E-02	NOT IDENT.
CM-247	3.208E-02	4.380E-02	3.622E-02	2.235E-02	NOT IDENT.
CF-249	4.697E-02	4.247E-02	3.900E-02	2.167E-02	NOT IDENT.
CF-251	8.268E-02	1.426E-01	1.241E-01	7.275E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417

GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	275.5459
46.50	275.5459
46.50	275.5459
48.70	328.3401
49.72	306.2162
51.35	301.6178
52.39	280.2471
52.97	280.5229
53.15	281.5224
53.44	290.8047
54.07	310.3366
56.28	338.1150
56.28	338.1164
57.37	0.0000
57.53	324.0723
57.53	324.0730
57.60	313.7960
57.98	300.7207
57.98	300.7207
59.32	293.9768
59.32	293.9768
59.40	294.0139
59.54	294.0789
59.72	308.9447
60.01	309.0857
61.10	334.7963
61.14	368.8913
61.30	368.9832
63.00	386.2930
63.29	386.4632
63.29	386.4632
63.58	386.6342
64.28	379.6004
65.12	394.9849
65.20	395.0318
65.20	395.0318
66.05	408.9664
66.72	410.8635
66.83	410.9323
66.91	424.4313
67.20	424.6115
67.20	424.6115
67.75	418.9678
67.85	419.0293
68.90	430.9113
68.90	430.9113
69.30	410.9147
69.67	430.6419
70.82	428.3419
70.82	428.3419
70.83	428.3489
72.80	456.6711
72.87	456.7155
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74.67	431.6034
74.81	431.6870
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74.81	431.6870
74.81	431.6870
74.81	431.6870
74.81	431.6870
74.81	431.6870
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75.70	432.2135
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77.11	433.0433

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77.11	433.0433
77.11	433.0433
77.11	433.0433
77.11	433.0433
78.38	394.8671
79.62	391.7162
79.80	391.8090
79.80	391.8090
80.11	395.7764
80.18	395.8129
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80.30	395.8748
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81.00	392.4297
81.07	392.4659
81.07	392.4659
81.07	392.4659
81.07	392.4659
82.60	358.8885
83.37	422.9400
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83.78	397.6727
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83.78	397.6727
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84.90	416.6245
85.43	416.9051
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86.50	417.4712
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86.59	417.5177
86.72	417.5874
86.79	417.6223
86.94	579.7150
87.30	430.1821
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87.30	430.1821
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87.57	430.3274
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88.03	430.5752
88.36	430.7512
88.47	430.8110
89.95	685.9366
91.11	385.9070
92.29	386.4609
92.38	386.5036
92.38	386.5036
93.35	386.9568
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94.67	387.5664
94.67	387.5687
94.90	387.6755
94.90	387.6755
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94.90	387.6755
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98.44	314.5511
98.88	294.4577
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99.55	293.1281
99.86	305.7105
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100.10	305.7966
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103.76	350.5503
105.00	312.7975
105.31	313.8867
108.00	374.8376
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111.00	349.4167
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112.95	312.5633
115.19	339.0881
116.30	340.4773
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117.00	335.7604
117.66	328.0400
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121.62	305.4292
121.78	303.4816
122.06	303.5686
122.32	304.6475
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122.32	304.6475
122.32	304.6475
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127.23	339.2810
129.76	301.8906
131.20	312.3935
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133.54	337.3433
135.34	304.5388
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136.25	286.5755
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142.65	314.5839
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144.24	334.6340
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144.24	334.6340
144.24	334.6340
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145.44	341.5385
147.16	306.0664
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153.22	275.6410
154.21	285.1448
154.21	285.1448
154.21	285.1448
154.21	285.1448
155.03	293.5931
156.02	280.4440
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161.27	292.0776
162.32	299.5945
162.64	293.4545
163.35	272.8802
163.89	276.1197
165.85	278.6569
167.43	282.1483
171.28	289.3166
171.86	301.9957
172.10	302.0552
176.55	255.9476
176.60	255.9569
181.06	271.1903
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185.71	278.9471
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190.27	254.4873
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193.63	244.5101
197.04	248.3393
198.01	270.9195
198.60	299.8488
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201.83	265.2729
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205.31	236.7849

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208.81	259.7524
209.75	230.6642
209.75	230.6642
210.97	227.4212
215.65	214.8480
216.55	223.7878
218.09	239.1829
222.10	226.8318
223.80	241.2255
226.40	226.4177
227.00	214.5324
227.08	223.2569
227.20	223.2757
228.16	210.3428
228.18	210.3457
228.18	210.3457
231.56	0.0000
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236.00	199.4082
236.00	199.4082
238.63	199.7582
238.63	199.7582
238.63	199.7582
238.63	199.7582
239.00	199.8068
240.98	200.0692
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241.98	200.2011
241.98	200.2011
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252.85	175.0293
254.15	0.0000
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256.20	175.4018
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260.90	174.8091
262.80	162.3070
264.65	180.3501
268.24	145.4050
268.79	145.4546
269.46	145.5141
269.46	145.5141
269.46	145.5141
269.46	145.5141
271.23	166.7393
273.65	215.4639
276.40	155.8709
277.35	137.2146
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277.60	158.6078
278.00	158.4215
278.60	177.3866
279.20	195.4669
279.53	201.8105
280.46	200.1198
281.68	192.1472
283.67	158.9565
284.30	159.0166
285.00	145.5230
285.90	156.4539
286.10	151.0441
286.10	151.0441
287.40	156.1386
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290.67	163.2393
290.80	163.2502
291.72	154.2638
293.26	0.0000
293.70	152.9281
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295.21	153.0596

295.21	153.0596
295.96	181.9336
296.50	181.9897
297.23	182.0654
298.57	182.2046
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300.09	170.2057
300.09	170.2057
300.09	170.2057
300.09	170.2057
300.12	170.2080
301.29	153.5939
302.84	153.7295
303.76	169.0383
303.91	169.0519
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304.40	159.9588
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306.84	167.5013
308.46	150.2466
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316.51	160.1195
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319.02	121.6376
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323.87	164.7690
323.87	164.7690
323.87	164.7690
323.87	164.7690
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328.77	129.6931
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334.30	150.2067
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338.28	134.0736
338.28	134.0736
338.28	134.0736
338.32	134.0754
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338.32	134.0754
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340.57	113.4150
344.27	152.5508
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351.92	150.9650
351.92	150.9650
351.92	150.9650
355.39	0.0000
356.01	134.6794
364.48	124.5605
366.43	113.3481
367.43	120.9641
367.94	0.0000
369.80	122.0524
374.96	110.9800
383.85	103.8401
387.95	93.5450
388.63	96.4395
391.69	122.3984
391.69	122.3984
392.90	110.0305
398.62	117.0437
400.65	110.4334
401.10	109.4968
401.81	104.6221
402.60	100.2362
404.84	139.5147
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411.60	106.1704
413.65	72.4567
414.70	88.6007
415.30	102.2068

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417.63	0.0000
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423.70	94.1393
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427.89	106.9573
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433.93	117.9691
439.47	93.8250
439.56	93.8285
439.89	103.6179
443.98	106.7407
444.90	111.6816
445.03	111.6885
445.03	111.6885
445.03	111.6885
445.03	111.6885
453.90	110.1502
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468.07	95.6448
473.00	112.0372
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475.35	96.2671
476.78	97.3169
477.59	83.4432
477.96	88.4231
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484.57	93.6454
487.03	90.7490
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497.08	72.0949
507.63	0.0000
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511.00	75.5168
511.85	75.5429
511.85	75.5429
513.99	75.6061
513.99	75.6061
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520.65	84.2265
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529.87	0.0000
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543.00	81.5547
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552.65	92.0830
555.20	77.8332
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563.90	86.3051
568.70	69.9889
569.32	76.1824
569.50	78.2470
569.67	78.2507
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574.64	83.9931
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579.30	0.0000
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591.81	75.7660
592.07	74.7352
593.00	74.7598
595.88	74.8354
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602.71	74.6691
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604.41	85.1399
604.70	85.1479
609.31	83.5449

609.31	83.5449
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614.37	69.7445
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621.84	73.4197
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633.10	64.2272
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635.90	69.5578
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646.12	70.8554
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657.75	69.0070
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661.65	64.8438
664.57	0.0000
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666.33	67.4277
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677.61	69.4561
685.20	63.1989
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696.49	73.1033
697.00	75.2654
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698.33	81.7501
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699.00	76.3891
702.63	75.3987
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713.82	69.1781
717.42	72.5026
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721.93	0.0000
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722.78	74.0673
722.78	74.0673
722.89	74.0706
722.95	74.0723
723.30	74.0806
724.18	74.1006
727.18	48.8430
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735.90	63.1217
739.58	61.0121
742.81	42.5325
744.21	61.0982
747.13	60.0609
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752.31	42.6543
753.82	45.9570
755.35	47.0722
756.15	62.4133
756.87	62.4272
763.93	88.8983
765.79	58.2004
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766.84	59.3169
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778.57	56.9494
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783.80	60.7162
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798.80	61.7727
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810.29	55.6189
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817.79	46.4478
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819.60	46.4711
826.30	52.1457
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831.60	49.4255
831.96	49.4309
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846.75	43.0782
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867.32	47.7154
867.82	47.4705
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873.19	41.5024
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880.27	52.9227
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881.50	49.1584
883.24	50.1264
884.67	52.0381
889.25	50.2072
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898.02	39.8792
899.00	49.3869
903.28	63.5695
911.07	29.3994
911.07	29.3994
911.07	29.3994
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925.00	42.0727
925.24	42.0754
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935.52	47.9401
937.48	66.1896
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946.00	59.6046
949.00	44.2565
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966.15	59.6313
968.20	111.0365
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969.11	82.1916
969.11	82.1916
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980.50	34.9087
983.50	38.8167
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996.32	58.4082
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1001.68	42.8882
1004.76	62.4297
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1024.50	0.0000
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1036.00	49.1394
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1038.76	0.0000
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1046.59	39.4108
1048.07	48.2942

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1050.47	40.4328
1062.04	37.6763
1063.62	44.5148
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1077.35	40.6864
1078.86	44.6704
1085.78	51.7017
1099.22	58.8416
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1112.84	25.7247
1115.52	32.6032
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1120.29	47.0975
1120.29	47.0975
1120.29	47.0975
1120.51	47.0994
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1124.00	0.0000
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1147.95	0.0000
1167.94	49.6181
1173.22	54.7449
1175.09	41.5822
1177.93	44.6517
1189.05	44.7591
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1205.75	0.0000
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1221.42	40.9701
1230.97	66.7086
1235.34	51.3611
1236.41	0.0000
1238.25	55.5029
1246.25	43.2407
1260.41	0.0000
1271.85	37.2583
1274.45	44.5257
1274.54	44.5275
1291.56	31.1719
1298.22	0.0000
1312.09	37.5601
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1325.50	24.0603
1332.49	34.5697
1333.61	33.5286
1360.21	23.1709
1362.66	0.0000
1365.15	30.5718
1368.21	27.4261
1368.53	0.0000
1376.25	26.4119
1384.27	19.0459
1394.10	19.0811
1395.20	28.6282
1407.95	23.3822
1434.06	25.6328
1436.60	23.5075
1457.56	0.0000
1460.81	14.7199
1489.15	23.7349
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1596.49	27.3261
1620.62	14.1922
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1691.02	10.5300
1691.02	10.5300
1706.46	0.0000
1750.46	0.0000
1764.49	8.4756
1764.49	8.4756
1764.49	8.4756
1764.49	8.4756
1770.23	8.4833
1771.40	23.2726
1791.20	0.0000
1808.65	11.7045

1836.01	9.7949

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960002

Total Uranium Activity	1.8999E+01	ug/g
Total Uranium Counting Unc.	9.1123E+00	ug/g
Total Uranium Tpu	4.6491E-06	ug/g
Total Uranium Mda	4.4439E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G245960002
ANALYST	: MXR1	DETECTOR	: GAM23
SAMPLE DATE	: 28-JAN-2010 12:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 12-FEB-2010 14:45:14.66	SAMPLE ALQT	: 121.120 GRAM

GROSS GAMMA ACTIVITY (pCi/GRAM)	: 8.793E+00
GROSS GAMMA ERROR (pCi/GRAM)	: 1.334E+00
GROSS GAMMA MDA (pCi/GRAM)	: 3.376E+00
GROSS GAMMA DLC (pCi/GRAM)	: 1.636E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:48:04.79

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*******************************************************************************
*                            GEL Laboratories LLC                             *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960003.CNF;1
Sample date      : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:47:29
Sample ID        : G245960003           Sample quantity  : 1.30300E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:02.18  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 948717               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.32*	102	581	0.83	126.89	123	9	1.42E-02	44.9	
2	3	74.87	535	540	1.15	149.97	143	17	7.42E-02	8.6	1.25E+00
3	3	77.17	819	457	1.02	154.57	143	17	1.14E-01	5.4	
4	2	87.28*	295	532	1.16	174.76	171	24	4.10E-02	13.9	1.19E+00
5	2	90.05	177	421	1.04	180.31	171	24	2.46E-02	19.6	
6	2	92.84*	316	508	1.29	185.87	171	24	4.40E-02	15.0	
7	0	185.97*	387	603	1.48	371.95	366	13	5.37E-02	14.5	
8	0	209.79	191	565	1.20	419.55	413	12	2.66E-02	26.0	
9	3	238.71*	1854	282	1.25	477.34	470	20	2.57E-01	2.9	1.46E+00
10	3	241.76	458	317	1.89	483.44	470	20	6.36E-02	11.3	
11	0	269.96*	132	288	1.28	539.80	536	9	1.83E-02	25.3	
12	0	295.30*	549	303	1.37	590.42	585	10	7.62E-02	7.4	
13	0	300.07*	71	241	1.34	599.95	596	8	9.91E-03	40.4	
14	0	327.82	95	227	0.72	655.40	651	9	1.33E-02	30.2	
15	0	338.43*	385	336	1.43	676.61	671	14	5.35E-02	11.5	
16	0	351.92*	1094	289	1.34	703.57	697	15	1.52E-01	4.6	
17	0	462.73	128	217	1.13	925.02	918	14	1.78E-02	26.0	
18	0	510.88*	208	280	2.06	1021.27	1011	19	2.89E-02	22.8	
19	0	583.26*	584	162	1.65	1165.94	1160	15	8.11E-02	6.6	
20	0	609.38*	793	201	1.74	1218.14	1211	17	1.10E-01	5.6	
21	0	727.49*	179	163	1.83	1454.24	1446	18	2.49E-02	18.6	
22	0	768.24	43	138	1.83	1535.71	1532	11	5.90E-03	55.6	
23	0	795.66	108	113	2.04	1590.51	1582	18	1.50E-02	25.0	
24	0	860.49	110	94	1.99	1720.13	1713	16	1.53E-02	21.7	
25	0	911.27*	437	121	2.16	1821.65	1815	17	6.07E-02	7.7	
26	5	964.87	32	71	1.37	1928.83	1926	20	4.38E-03	43.4	1.76E+00
27	5	969.04*	274	126	2.27	1937.17	1926	20	3.80E-02	10.9	
28	0	1120.29*	144	84	2.76	2239.61	2233	12	2.00E-02	16.2	
29	0	1377.27	88	15	2.82	2753.55	2745	16	1.22E-02	14.8	
30	0	1460.60*	1447	53	2.59	2920.22	2908	26	2.01E-01	3.0	
31	0	1729.72	63	17	2.79	3458.60	3449	17	8.75E-03	19.6	
32	0	1764.55*	142	27	2.86	3528.29	3517	22	1.98E-02	13.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:48:07

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:47:29
Sample ID : G245960003 Sample quantity : 130.30 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.18 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.046E+01	2.243E+00	4.166E-01	3.816E-02	49.121
CD-109	+	88.03	*	3.126E+00	9.179E-01	1.121E+00	1.064E-01	2.789
SN-126	+	64.28		7.066E-01	6.427E-01	6.830E-01	9.920E-02	1.034
	+	86.94		1.277E+00	6.384E-01	4.624E-01	1.920E-01	2.762
	+	87.57	*	3.072E-01	9.021E-02	1.106E-01	1.044E-02	2.778
TL-208		277.35		4.536E-01	3.751E-01	6.177E-01	1.019E-01	0.734
	+	510.84		6.451E-01	3.057E-01	1.863E-01	2.428E-02	3.463
	+	583.14	*	5.086E-01	8.663E-02	5.123E-02	5.555E-03	9.928
	+	860.37		8.737E-01	3.918E-01	3.815E-01	4.446E-02	2.290
BI-211		72.87		4.155E+00	2.577E+00	4.399E+00	3.521E-01	0.944
	+	351.07	*	4.508E+00	6.674E-01	2.660E-01	3.103E-02	16.949
PB-212	+	74.81		2.331E+00	4.926E-01	4.541E-01	5.635E-02	5.133
	+	77.11		2.025E+00	2.782E-01	2.586E-01	2.162E-02	7.833
	+	87.30		1.421E+00	4.408E-01	5.128E-01	7.041E-02	2.771
	+	238.63	*	1.785E+00	2.574E-01	7.740E-02	1.023E-02	23.057
	+	300.09		1.019E+00	8.358E-01	9.990E-01	1.457E-01	1.020
PO-212	+	74.81		2.331E+00	4.926E-01	4.541E-01	5.635E-02	5.133
	+	77.11		2.025E+00	2.782E-01	2.586E-01	2.162E-02	7.833
	+	87.30		1.421E+00	4.408E-01	5.128E-01	7.041E-02	2.771
		115.19		2.376E+00	3.445E+00	5.614E+00	4.650E-01	0.423
	+	238.63	*	1.785E+00	2.574E-01	7.740E-02	1.023E-02	23.057
	+	300.09		1.019E+00	8.358E-01	9.990E-01	1.457E-01	1.020
BI-214	+	609.31	*	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
	+	1120.29		1.173E+00	4.009E-01	3.688E-01	4.075E-02	3.180
	+	1764.49		1.512E+00	4.234E-01	2.599E-01	2.165E-02	5.819
PB-214	+	74.81		4.017E+00	8.173E-01	7.825E-01	8.625E-02	5.133
	+	77.11		3.472E+00	5.454E-01	4.433E-01	5.015E-02	7.833
	+	87.30		2.434E+00	7.390E-01	8.784E-01	1.069E-01	2.771
	+	241.98		2.645E+00	7.003E-01	4.654E-01	6.400E-02	5.683
	+	295.21		1.379E+00	2.904E-01	1.974E-01	2.940E-02	6.986
	+	351.92	*	1.568E+00	2.462E-01	9.270E-02	1.182E-02	16.919
PO-214	+	74.81		4.017E+00	8.173E-01	7.825E-01	8.625E-02	5.133
	+	77.11		3.472E+00	5.454E-01	4.433E-01	5.015E-02	7.833
	+	87.30		2.434E+00	7.390E-01	8.784E-01	1.069E-01	2.771

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.645E+00	7.003E-01	4.654E-01	6.400E-02	5.683
	+	295.21		1.379E+00	2.904E-01	1.974E-01	2.940E-02	6.986
	+	351.92	*	1.568E+00	2.462E-01	9.270E-02	1.182E-02	16.919
PO-216	+	74.81		2.331E+00	4.926E-01	4.541E-01	5.635E-02	5.133
	+	77.11		2.025E+00	2.782E-01	2.586E-01	2.162E-02	7.833
	+	87.30		1.421E+00	4.408E-01	5.128E-01	7.041E-02	2.771
	+	238.63	*	1.785E+00	2.574E-01	7.740E-02	1.023E-02	23.057
	+	300.09		1.019E+00	8.358E-01	9.990E-01	1.457E-01	1.020
PO-218	+	74.81		4.017E+00	8.173E-01	7.825E-01	8.625E-02	5.133
	+	77.11		3.472E+00	5.454E-01	4.433E-01	5.015E-02	7.833
	+	87.30		2.434E+00	7.390E-01	8.784E-01	1.069E-01	2.771
	+	241.98		2.645E+00	7.003E-01	4.654E-01	6.400E-02	5.683
	+	295.21		1.379E+00	2.904E-01	1.974E-01	2.940E-02	6.986
	+	351.92	*	1.568E+00	2.462E-01	9.270E-02	1.182E-02	16.919
RA-224	+	240.98	*	5.015E+00	1.298E+00	8.800E-01	1.102E-01	5.700
RA-226	+	609.31	*	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
	+	1120.29		1.173E+00	4.009E-01	3.688E-01	4.075E-02	3.180
	+	1764.49		1.512E+00	4.234E-01	2.599E-01	2.165E-02	5.819
AC-228	+	338.32		1.761E+00	8.441E-01	3.372E-01	1.419E-01	5.223
	+	911.07	*	1.629E+00	3.322E-01	1.797E-01	2.381E-02	9.067
	+	969.11		1.792E+00	5.825E-01	3.221E-01	7.778E-02	5.565
RA-228	+	338.32		1.761E+00	8.441E-01	3.372E-01	1.419E-01	5.223
	+	911.07	*	1.629E+00	3.322E-01	1.797E-01	2.381E-02	9.067
	+	969.11		1.792E+00	5.825E-01	3.221E-01	7.778E-02	5.565
TH-228	+	74.81		2.367E+00	4.493E-01	4.610E-01	3.798E-02	5.133
	+	77.11		2.056E+00	2.824E-01	2.625E-01	2.195E-02	7.833
	+	87.30		1.442E+00	4.236E-01	5.206E-01	4.899E-02	2.771
	+	238.63	*	1.812E+00	2.613E-01	7.858E-02	1.038E-02	23.057
	+	300.09		1.035E+00	1.041E+00	1.014E+00	6.100E-01	1.020
TH-230	+	609.31	*	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
	+	1120.29		1.173E+00	4.009E-01	3.688E-01	4.075E-02	3.180
	+	1764.49		1.512E+00	4.234E-01	2.599E-01	2.165E-02	5.819
TH-232	+	338.32		1.761E+00	4.556E-01	3.372E-01	4.010E-02	5.223
	+	911.07	*	1.629E+00	3.322E-01	1.797E-01	2.381E-02	9.067
	+	969.11		1.792E+00	5.825E-01	3.221E-01	7.778E-02	5.565
TH-234	+	63.29	*	1.785E+00	1.633E+00	1.684E+00	2.931E-01	1.060
	+	92.38		2.142E+00	7.518E-01	7.294E-01	1.336E-01	2.937
U-234	+	609.31	*	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
	+	1120.29		1.173E+00	4.009E-01	3.688E-01	4.075E-02	3.180
	+	1764.49		1.512E+00	4.234E-01	2.599E-01	2.165E-02	5.819
NP-237	+	86.50	*	9.021E-01	3.238E-01	3.584E-01	8.115E-02	2.517
		95.87		-6.288E-01	9.333E-01	1.278E+00	3.161E-01	-0.492
U-238	+	63.29	*	1.785E+00	1.633E+00	1.684E+00	2.931E-01	1.060
	+	92.38		2.142E+00	6.703E-01	7.294E-01	6.646E-02	2.937
AM-243	+	74.67	*	3.779E-01	7.163E-02	7.383E-02	6.018E-03	5.119
	+	86.72		3.383E+01	9.934E+00	1.341E+01	1.253E+00	2.522
		117.66		-1.961E+00	3.590E+00	5.580E+00	4.609E-01	-0.352
		142.18		1.107E+00	1.566E+01	2.646E+01	2.337E+00	0.042
ANH-511	+	511.00	*	1.393E-01	6.500E-02	4.025E-02	4.033E-03	3.462

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-7.084E-02	2.797E-01	4.451E-01	4.646E-02	-0.159
NA-22		1274.54	*	-3.324E-02	3.568E-02	5.456E-02	4.702E-03	-0.609
NA-24		1368.53	*	2.833E-01	3.568E-02	Half-Life too short		
AL-26		1129.67		6.219E-01	1.394E+00	2.293E+00	1.996E-01	0.271
		1808.65	*	-1.518E-02	2.380E-02	3.535E-02	2.891E-03	-0.430
TI-44		67.85		-1.309E-02	4.280E-02	6.236E-02	4.760E-03	-0.210
	+	78.38	*	3.737E-01	5.134E-02	6.819E-02	5.782E-03	5.481
SC-46		889.25	*	-3.399E-02	3.253E-02	4.957E-02	5.548E-03	-0.686
	+	1120.51		2.008E-01	6.735E-02	1.079E-01	9.543E-03	1.861
V-48		944.10		-4.121E-01	7.411E-01	1.171E+00	1.270E-01	-0.352
		983.50	*	-2.241E-02	6.068E-02	9.697E-02	1.017E-02	-0.231
		1312.09		1.081E-02	7.009E-02	1.170E-01	1.031E-02	0.092
CR-51		320.08	*	4.080E-02	3.288E-01	5.530E-01	7.160E-02	0.074
MN-52		744.21		-1.018E-01	2.021E-01	3.163E-01	3.437E-02	-0.322
		848.13		-1.103E+00	5.696E+00	9.370E+00	1.043E+00	-0.118
		935.52		3.617E-01	2.213E-01	3.971E-01	4.336E-02	0.911
		1246.25		-7.291E+00	6.126E+00	9.273E+00	7.839E-01	-0.786
		1333.61		5.059E-01	3.473E+00	5.808E+00	5.180E-01	0.087
		1434.06	*	7.697E-02	1.801E-01	3.080E-01	2.753E-02	0.250
MN-54		834.83	*	-3.476E-05	3.294E-02	5.496E-02	6.106E-03	-0.001
CO-56		846.75	*	-2.273E-02	3.464E-02	5.522E-02	6.147E-03	-0.412
		977.42		-4.663E-01	2.972E+00	4.097E+00	4.321E-01	-0.114
		1037.82		-1.253E-01	2.591E-01	4.073E-01	4.200E-02	-0.308
		1175.09		1.778E-01	1.772E+00	2.976E+00	2.396E-01	0.060
		1238.25		1.156E-01	7.414E-02	1.333E-01	1.155E-02	0.868
		1360.21		-2.482E-02	7.300E-01	1.196E+00	1.068E-01	-0.021
		1771.40		-1.990E-01	2.579E-01	3.075E-01	2.555E-02	-0.647
CO-57		122.06	*	-3.545E-03	2.288E-02	3.603E-02	2.971E-03	-0.098
		136.48		1.892E-02	1.871E-01	3.173E-01	2.944E-02	0.060
CO-58		810.76	*	-2.963E-02	3.236E-02	5.063E-02	5.606E-03	-0.585
FE-59		142.65		1.669E+00	2.475E+00	4.141E+00	3.664E-01	0.403
		192.34		-7.742E-02	9.546E-01	1.453E+00	2.158E-01	-0.053
		1099.22	*	1.112E-02	8.212E-02	1.346E-01	1.319E-02	0.083
		1291.56		6.216E-02	1.038E-01	1.789E-01	1.764E-02	0.347
CO-60		1173.22		1.117E-02	3.586E-02	6.106E-02	4.910E-03	0.183
		1332.49	*	3.240E-03	2.739E-02	4.567E-02	4.073E-03	0.071
ZN-65		1115.52	*	8.251E-02	8.912E-02	1.338E-01	1.193E-02	0.617
GE-68		1077.35	*	-3.808E-01	1.066E+00	1.688E+00	1.592E-01	-0.226
AS-73		53.44	*	4.043E-02	6.594E-01	1.071E+00	8.092E-02	0.038
AS-74		595.88	*	-3.616E-02	8.245E-02	1.333E-01	1.382E-02	-0.271
		634.78		1.115E-02	2.957E-01	4.884E-01	5.119E-02	0.023
SE-75		66.05		-1.777E-01	4.415E+00	6.439E+00	6.143E-01	-0.028
		96.73		-5.752E-01	7.619E-01	1.047E+00	1.442E-01	-0.549
		121.11		-7.319E-02	1.252E-01	1.934E-01	2.115E-02	-0.378
		136.00		7.170E-03	3.526E-02	6.001E-02	5.207E-03	0.119
		198.60		5.090E-01	1.787E+00	2.892E+00	3.380E-01	0.176
		264.65	*	2.736E-02	4.524E-02	6.566E-02	8.837E-03	0.417
		279.53		5.089E-02	1.059E-01	1.724E-01	2.448E-02	0.295
		303.91		-1.023E+00	2.103E+00	2.979E+00	4.539E-01	-0.343

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		-1.392E-01	2.257E-01	3.581E-01	4.191E-02	-0.389
BR-77	+	87.88		6.834E+02	2.007E+02	2.959E+02	2.804E+01	2.310
		200.40		-8.237E+01	1.581E+02	2.548E+02	2.802E+01	-0.323
	+	239.00		2.901E+02	3.976E+01	3.498E+01	4.353E+00	8.291
		249.79		7.181E+01	5.943E+01	9.995E+01	1.285E+01	0.718
		281.68		-5.515E+01	8.811E+01	1.364E+02	1.900E+01	-0.404
		297.23		3.629E+02	1.028E+02	1.196E+02	1.608E+01	3.035
		303.76		-8.813E+01	1.812E+02	2.568E+02	3.397E+01	-0.343
		439.47		8.414E+01	1.265E+02	2.128E+02	2.048E+01	0.395
		484.57		8.637E+01	2.044E+02	3.375E+02	3.336E+01	0.256
		520.65	*	-9.131E+00	9.002E+00	1.382E+01	1.391E+00	-0.661
		574.64		1.651E+01	1.901E+02	3.109E+02	3.199E+01	0.053
		578.91		6.931E+01	8.648E+01	1.309E+02	1.349E+01	0.529
		585.48		1.938E+03	3.082E+02	4.636E+02	4.788E+01	4.181
		755.35		9.081E+01	1.463E+02	2.460E+02	2.682E+01	0.369
		817.79		2.704E+01	1.054E+02	1.792E+02	1.984E+01	0.151
SR-82		698.33		-7.459E+00	2.977E+01	4.790E+01	5.124E+00	-0.156
		776.49	*	-4.438E-01	3.884E-01	5.227E-01	5.733E-02	-0.849
		1395.20		-1.046E+01	9.034E+00	1.294E+01	1.157E+00	-0.808
RB-83		520.41	*	-6.206E-02	5.871E-02	8.985E-02	9.042E-03	-0.691
		529.64		-4.022E-02	8.744E-02	1.426E-01	1.441E-02	-0.282
		552.65		-7.749E-02	1.641E-01	2.662E-01	2.716E-02	-0.291
RB-84		881.50	*	8.729E-03	6.238E-02	1.044E-01	1.168E-02	0.084
KR-85		513.99	*	3.411E+01	8.369E+00	1.362E+01	1.367E+00	2.504
SR-85		513.99	*	1.750E-01	4.293E-02	6.986E-02	7.010E-03	2.504
RB-86		1076.63	*	-2.684E-01	6.821E-01	1.077E+00	1.017E-01	-0.249
Y-88		898.02		2.622E-03	3.464E-02	5.770E-02	6.483E-03	0.045
		1836.01	*	-1.010E-02	2.652E-02	4.108E-02	3.321E-03	-0.246
ZR-88		392.90	*	-1.711E-02	2.799E-02	4.460E-02	4.152E-03	-0.384
Y-91		1204.90	*	3.895E+00	1.502E+01	2.541E+01	2.089E+00	0.153
NB-94		702.63	*	7.404E-03	2.954E-02	4.890E-02	5.240E-03	0.151
		871.10		-3.161E-02	3.039E-02	4.561E-02	5.095E-03	-0.693
NB-95		765.79	*	6.348E-02	4.527E-02	6.909E-02	7.555E-03	0.919
NB-95M		235.69	*	2.272E-01	1.320E-01	1.987E-01	2.626E-02	1.143
ZR-95		724.18		1.638E-01	1.014E-01	1.567E-01	1.787E-02	1.045
		756.15	*	7.139E-02	6.235E-02	1.074E-01	1.247E-02	0.665
NB-97		657.90	*	-2.883E-02	6.235E-02	Half-Life too short		
		1024.50		2.684E+00	6.235E-02	Half-Life too short		
ZR-97		254.15		-5.215E+00	6.235E-02	Half-Life too short		
		355.39		4.807E+00	6.235E-02	Half-Life too short		
		507.63	*	5.812E+00	6.235E-02	Half-Life too short		
		602.52		4.144E+00	6.235E-02	Half-Life too short		
		1021.30		3.678E+00	6.235E-02	Half-Life too short		
		1147.95		-2.153E+00	6.235E-02	Half-Life too short		
		1362.66		-4.080E+00	6.235E-02	Half-Life too short		
		1750.46		-3.379E+00	6.235E-02	Half-Life too short		
MO-99		140.51		-2.099E+01	2.529E+01	3.933E+01	1.091E+01	-0.534
		181.06		1.127E+00	1.794E+01	2.619E+01	5.013E+00	0.043
		366.43		4.445E+01	7.427E+01	1.261E+02	1.338E+01	0.352

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	2.324E+00	9.731E+00	1.605E+01	2.657E+00	0.145
		778.00		-4.013E+01	3.250E+01	4.787E+01	5.253E+00	-0.838
TC-99M		140.51	*	-3.382E+10	3.250E+01	Half-Life too short		
RH-101		127.23		4.979E-03	3.158E-02	5.019E-02	4.195E-03	0.099
		198.01	*	1.064E-02	3.262E-02	5.288E-02	5.769E-03	0.201
		325.23		-2.504E-02	2.201E-01	3.175E-01	3.946E-02	-0.079
RH-102		418.52		-1.076E-01	2.516E-01	4.020E-01	3.815E-02	-0.268
		475.06	*	2.369E-03	2.505E-02	4.072E-02	4.004E-03	0.058
		631.29		-3.211E-02	4.538E-02	7.132E-02	7.468E-03	-0.450
		697.49		-1.720E-02	6.647E-02	1.069E-01	1.143E-02	-0.161
	+	766.84		1.136E-01	1.269E-01	1.762E-01	1.928E-02	0.644
		1046.59		8.599E-02	1.033E-01	1.775E-01	1.741E-02	0.485
		1112.84		3.279E-02	2.144E-01	3.005E-01	2.690E-02	0.109
RU-103		497.08	*	-8.998E-03	3.294E-02	5.205E-02	7.812E-03	-0.173
	+	610.33		1.399E+01	2.920E+00	2.531E+00	4.474E-01	5.527
RH-106	+	511.85		6.960E-01	3.247E-01	3.893E-01	3.902E-02	1.788
		621.84	*	1.274E-01	2.797E-01	4.726E-01	6.901E-02	0.270
		1050.47		8.009E-01	2.096E+00	3.507E+00	3.423E-01	0.228
RU-106	+	511.85		6.960E-01	3.247E-01	3.893E-01	3.902E-02	1.788
		621.84	*	1.274E-01	2.794E-01	4.726E-01	4.936E-02	0.270
		1050.47		8.009E-01	2.096E+00	3.507E+00	3.423E-01	0.228
AG-108M		433.93	*	3.018E-03	2.877E-02	4.716E-02	4.668E-03	0.064
		614.37		3.775E-02	3.793E-02	5.785E-02	6.192E-03	0.653
		722.95		3.349E-02	4.141E-02	6.156E-02	6.811E-03	0.544
AG-110M		657.75	*	-1.020E-02	3.131E-02	5.044E-02	5.421E-03	-0.202
		677.61		6.370E-02	2.467E-01	4.108E-01	4.442E-02	0.155
		706.67		4.390E-02	1.850E-01	3.059E-01	3.342E-02	0.143
		763.93		1.658E-03	1.668E-01	2.311E-01	2.571E-02	0.007
		884.67		-2.196E-03	4.275E-02	7.070E-02	8.062E-03	-0.031
		937.48		-1.411E-02	9.792E-02	1.601E-01	1.785E-02	-0.088
		1384.27		7.792E-02	1.438E-01	2.162E-01	1.983E-02	0.360
IN-111		171.28		4.573E-01	9.371E-01	1.583E+00	1.580E-01	0.289
		245.39	*	-6.344E-01	1.045E+00	1.416E+00	1.796E-01	-0.448
IN-113M		391.69	*	-4.112E-03	4.053E-02	6.634E-02	6.335E-03	-0.062
SN-113		391.69	*	-4.112E-03	4.053E-02	6.634E-02	6.335E-03	-0.062
IN-114M		190.27	*	2.747E-02	1.898E-01	2.769E-01	2.944E-02	0.099
CD-115		260.90		-5.899E+01	1.253E+02	1.971E+02	2.619E+01	-0.299
		492.35		-1.418E+01	3.054E+01	4.772E+01	4.736E+00	-0.297
		527.90	*	5.526E+00	8.978E+00	1.552E+01	1.567E+00	0.356
SN-117M		156.02		-8.027E-03	2.050E+00	3.434E+00	3.219E-01	-0.002
		158.56	*	3.104E-02	5.047E-02	8.599E-02	8.155E-03	0.361
SB-122		563.90	*	-1.039E+00	1.781E+00	2.867E+00	2.939E-01	-0.362
		692.80		4.829E+00	3.717E+01	6.123E+01	6.538E+00	0.079
I-123		159.00	*	3.023E+00	3.717E+01	Half-Life too short		
		528.96		-5.368E+01	3.717E+01	Half-Life too short		
TE-123M		159.00	*	1.418E-02	2.623E-02	4.460E-02	4.259E-03	0.318
I-124		602.71	*	2.750E-01	6.860E-01	1.006E+00	1.045E-01	0.273
		722.78		2.737E+00	4.308E+00	6.329E+00	6.830E-01	0.432
		1325.50		3.040E+00	3.026E+01	4.677E+01	4.154E+00	0.065

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1376.25		9.726E+01	3.000E+01	5.242E+01	4.685E+00	1.855
		1509.49		1.630E+01	1.529E+01	2.705E+01	2.404E+00	0.603
		1691.02		4.583E-01	2.870E+00	4.856E+00	4.152E-01	0.094
SB-124		602.71		1.588E-02	3.962E-02	5.809E-02	6.034E-03	0.273
		645.85		1.567E-01	4.213E-01	7.083E-01	7.747E-02	0.221
		709.31		1.233E+00	2.393E+00	4.019E+00	4.317E-01	0.307
		713.82		-8.199E-01	1.378E+00	2.151E+00	2.937E-01	-0.381
		722.78		2.291E-01	3.607E-01	5.299E-01	5.797E-02	0.432
	+	968.20		1.846E+01	4.469E+00	6.469E+00	6.878E-01	2.853
		1045.16		9.352E-01	2.240E+00	3.756E+00	3.690E-01	0.249
		1325.50		2.718E-01	2.706E+00	4.182E+00	3.714E-01	0.065
		1368.21		5.943E-01	1.605E+00	2.357E+00	3.224E-01	0.252
		1436.60		-1.507E-01	3.057E+00	4.972E+00	4.443E-01	-0.030
		1691.02	*	9.050E-03	5.668E-02	9.589E-02	8.529E-03	0.094
SB-125		427.89	*	-2.049E-02	8.571E-02	1.382E-01	1.341E-02	-0.148
	+	463.38		7.848E-01	4.162E-01	4.851E-01	5.030E-02	1.618
		600.56		1.125E-01	1.686E-01	2.760E-01	3.012E-02	0.408
		635.90		1.423E-01	2.287E-01	3.819E-01	4.225E-02	0.373
TE-125M		109.28	*	8.593E-01	8.373E+00	1.343E+01	1.360E+00	0.064
I-126		388.63		1.041E-01	1.795E-01	3.032E-01	2.871E-02	0.343
		666.33	*	-3.982E-02	1.605E-01	2.594E-01	2.741E-02	-0.153
		753.82		-5.220E-01	1.299E+00	2.050E+00	2.234E-01	-0.255
SB-126		223.80		-9.384E-01	3.754E+00	6.056E+00	7.186E-01	-0.155
		278.60		3.394E+00	2.449E+00	4.067E+00	5.685E-01	0.835
	+	296.50		1.376E+01	2.768E+00	3.372E+00	4.543E-01	4.082
		414.70		1.428E-02	6.746E-02	1.115E-01	1.056E-02	0.128
		415.30		1.424E+00	5.541E+00	9.181E+00	8.694E-01	0.155
		555.20		-3.472E+00	3.265E+00	5.074E+00	5.183E-01	-0.684
		573.80		-5.294E-02	9.185E-01	1.523E+00	1.567E-01	-0.035
		593.00		-3.631E-01	8.218E-01	1.297E+00	1.343E-01	-0.280
		656.30		-1.611E+00	3.064E+00	4.876E+00	5.136E-01	-0.331
		666.33		-1.664E-02	6.706E-02	1.084E-01	1.146E-02	-0.153
		675.00		5.822E-01	1.595E+00	2.674E+00	2.835E-01	0.218
		695.00		-1.337E-02	6.584E-02	1.062E-01	1.135E-02	-0.126
		697.00		5.590E-03	2.314E-01	3.786E-01	4.049E-02	0.015
		720.50	*	7.378E-02	1.367E-01	2.001E-01	2.157E-02	0.369
		856.80		4.005E-01	4.518E-01	6.933E-01	7.730E-02	0.578
		989.30		-8.661E-01	1.083E+00	1.669E+00	1.740E-01	-0.519
		1034.80		2.414E+00	7.317E+00	1.225E+01	1.218E+00	0.197
		1213.00		2.206E+00	3.683E+00	6.358E+00	5.257E-01	0.347
SB-127		61.10		-1.255E+01	4.918E+01	7.226E+01	7.301E+00	-0.174
		252.40		-1.688E+00	4.054E+00	6.315E+00	2.724E+00	-0.267
		290.80		-1.150E+01	2.092E+01	2.963E+01	4.561E+00	-0.388
		411.60		-5.604E+00	1.122E+01	1.788E+01	2.896E+00	-0.313
		444.90		-5.202E+00	8.600E+00	1.347E+01	1.789E+00	-0.386
		473.00		1.184E-01	1.448E+00	2.353E+00	3.225E-01	0.050
		543.00		-6.514E-01	1.435E+01	2.393E+01	3.681E+00	-0.027
		603.60		-6.795E+00	1.211E+01	1.645E+01	2.269E+00	-0.413
		685.20	*	6.454E-02	1.114E+00	1.829E+00	2.377E-01	0.035

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		-2.825E+00	1.338E+01	2.156E+01	3.676E+00	-0.131
		722.20		1.997E+01	2.874E+01	4.245E+01	5.484E+00	0.471
		783.80		5.780E+00	3.364E+00	5.829E+00	8.261E-01	0.992
XE-127		57.60		4.272E+00	4.772E+00	8.182E+00	5.877E-01	0.522
		145.22		-3.011E-02	6.267E-01	1.024E+00	9.160E-02	-0.029
		172.10		-6.752E-03	1.110E-01	1.842E-01	1.844E-02	-0.037
		202.84	*	-2.291E-02	4.803E-02	7.140E-02	7.915E-03	-0.321
		374.96		6.038E-02	1.693E-01	2.841E-01	2.893E-02	0.212
I-131		80.18		-2.437E+00	4.226E+00	5.997E+00	5.220E-01	-0.406
		284.30		-1.022E+00	1.426E+00	2.190E+00	3.096E-01	-0.467
		364.48	*	-4.245E-02	1.007E-01	1.631E-01	1.807E-02	-0.260
		636.97		1.459E+00	1.323E+00	2.259E+00	2.459E-01	0.646
		722.89		5.214E+00	6.971E+00	1.032E+01	1.119E+00	0.505
TE-132		49.72		6.412E+00	1.502E+01	2.560E+01	2.659E+00	0.250
		111.76		4.273E+00	2.850E+01	4.483E+01	4.770E+00	0.095
		116.30		2.645E+01	2.652E+01	4.352E+01	4.610E+00	0.608
		228.16	*	4.005E-01	6.496E-01	1.076E+00	1.917E-01	0.372
BA-133		53.15		2.837E-01	2.858E+00	4.651E+00	3.529E-01	0.061
		79.62		6.095E-01	1.153E+00	1.716E+00	2.610E-01	0.355
		81.00		-1.062E-01	9.290E-02	1.263E-01	2.013E-02	-0.841
		276.40		3.221E-01	3.820E-01	6.051E-01	1.095E-01	0.532
		302.84		1.105E-02	1.439E-01	2.115E-01	3.527E-02	0.052
		356.01	*	9.995E-03	4.059E-02	5.940E-02	8.876E-03	0.168
		383.85		-9.649E-02	2.608E-01	4.213E-01	5.637E-02	-0.229
I-133	+	510.53		1.465E+00	2.608E-01	Half-Life too short		
		529.87	*	-2.290E-03	2.608E-01	Half-Life too short		
		706.58		1.051E-01	2.608E-01	Half-Life too short		
		856.28		3.256E-01	2.608E-01	Half-Life too short		
		875.33		8.224E-02	2.608E-01	Half-Life too short		
		1236.41		8.400E-01	2.608E-01	Half-Life too short		
		1298.22		-8.823E-02	2.608E-01	Half-Life too short		
CS-134		475.35		-8.307E-02	1.662E+00	2.679E+00	2.635E-01	-0.031
		563.23		9.228E-04	3.031E-01	5.050E-01	5.210E-02	0.002
		569.32		9.761E-02	1.706E-01	2.919E-01	3.027E-02	0.334
		604.70		-1.409E-02	3.550E-02	4.900E-02	5.102E-03	-0.288
	+	795.84	*	1.318E-01	6.742E-02	7.614E-02	8.427E-03	1.731
		801.93		-4.899E-02	4.248E-01	5.654E-01	6.260E-02	-0.087
		1038.57		-2.503E+00	3.235E+00	4.957E+00	4.908E-01	-0.505
		1167.94		-2.153E-03	2.019E+00	3.370E+00	2.739E-01	-0.001
		1365.15		-7.418E-01	1.049E+00	1.503E+00	1.400E-01	-0.494
CS-135		268.24	*	1.303E-01	1.734E-01	2.473E-01	3.577E-02	0.527
I-135		288.45		-1.859E+09	1.734E-01	Half-Life too short		
		417.63		5.401E+09	1.734E-01	Half-Life too short		
		546.56		-5.329E+09	1.734E-01	Half-Life too short		
		836.80		1.546E+10	1.734E-01	Half-Life too short		
		1038.76		-1.684E+10	1.734E-01	Half-Life too short		
		1124.00		1.121E+11	1.734E-01	Half-Life too short		
		1131.51		3.194E+09	1.734E-01	Half-Life too short		
		1260.41	*	8.251E+07	1.734E-01	Half-Life too short		

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		1457.56		8.549E+11	1.734E-01	Half-Life too short		
		1678.03		1.904E+09	1.734E-01	Half-Life too short		
		1706.46		1.964E+10	1.734E-01	Half-Life too short		
		1791.20		1.013E+10	1.734E-01	Half-Life too short		
CS-136		66.91		-3.000E-01	7.246E-01	1.037E+00	1.542E-01	-0.289
	+	86.29		4.018E+00	1.240E+00	1.751E+00	2.332E-01	2.294
		153.22		2.075E-01	6.131E-01	1.038E+00	1.060E-01	0.200
		163.89		2.157E-01	9.966E-01	1.675E+00	1.783E-01	0.129
		176.55		6.247E-02	3.481E-01	5.812E-01	6.151E-02	0.107
		273.65		-7.886E-01	5.444E-01	6.826E-01	9.656E-02	-1.155
		340.57		5.046E-01	1.635E-01	2.496E-01	2.990E-02	2.022
		818.51		-1.438E-02	5.859E-02	9.628E-02	1.067E-02	-0.149
		1048.07	*	1.005E-01	9.937E-02	1.721E-01	1.740E-02	0.584
		1235.34		6.417E-01	4.833E-01	8.547E-01	9.988E-02	0.751
BA-137M		661.65	*	3.546E-02	3.275E-02	5.654E-02	5.962E-03	0.627
CS-137		661.65	*	3.748E-02	3.462E-02	5.977E-02	6.311E-03	0.627
CE-139		165.85	*	2.647E-04	2.796E-02	4.664E-02	4.574E-03	0.006
BA-140		162.64		-6.733E-03	6.998E-01	1.168E+00	1.182E-01	-0.006
		304.84		-7.405E-01	1.305E+00	1.817E+00	5.405E-01	-0.408
		423.70		5.113E-01	1.697E+00	2.802E+00	9.153E-01	0.182
		537.32	*	2.402E-03	2.210E-01	3.700E-01	1.242E-01	0.006
LA-140	+	328.77		5.432E-01	3.348E-01	4.947E-01	6.249E-02	1.098
		432.53		-5.465E-01	1.908E+00	3.035E+00	3.024E-01	-0.180
		487.03		1.411E-01	1.203E-01	2.056E-01	2.131E-02	0.686
		751.79		-2.777E-01	1.492E+00	2.389E+00	2.780E-01	-0.116
		815.85		1.003E-01	2.559E-01	4.385E-01	5.199E-02	0.229
		867.82		-5.446E-01	1.360E+00	1.854E+00	2.136E-01	-0.294
		919.63		-2.653E-01	2.541E+00	3.547E+00	4.501E-01	-0.075
		925.24		5.009E-02	9.072E-01	1.505E+00	1.720E-01	0.033
		1596.49	*	-1.155E-01	7.721E-02	1.078E-01	9.450E-03	-1.071
CE-141		145.44	*	1.030E-03	5.478E-02	9.226E-02	8.399E-03	0.011
CE-143		57.37		5.576E-04	5.478E-02	Half-Life too short		
		231.56		-1.710E-03	5.478E-02	Half-Life too short		
		293.26	*	9.813E-04	5.478E-02	Half-Life too short		
	+	350.59		3.649E-02	5.478E-02	Half-Life too short		
		490.36		-2.435E-03	5.478E-02	Half-Life too short		
		664.57		4.538E-04	5.478E-02	Half-Life too short		
		721.93		7.609E-04	5.478E-02	Half-Life too short		
CE-144		80.11		-1.038E+00	1.941E+00	2.760E+00	2.386E-01	-0.376
		133.54	*	-4.527E-02	1.825E-01	3.064E-01	4.756E-02	-0.148
PM-144		476.78		-1.216E-02	5.888E-02	9.400E-02	9.924E-03	-0.129
		618.01		-1.257E-02	3.185E-02	4.568E-02	4.857E-03	-0.275
		696.49	*	2.399E-03	2.967E-02	4.870E-02	5.208E-03	0.049
		778.57		-2.788E+00	2.162E+00	3.167E+00	3.476E-01	-0.880
PR-144		696.49	*	1.626E-01	2.010E+00	3.300E+00	3.528E-01	0.049
		1489.15		-1.491E+01	1.144E+01	1.600E+01	1.425E+00	-0.932
PM-146		453.90	*	1.077E-02	4.090E-02	6.552E-02	7.614E-03	0.164
		633.02		-5.338E-01	1.180E+00	1.863E+00	7.050E-01	-0.287
		735.90		2.567E-02	1.451E-01	2.050E-01	6.017E-02	0.125

Sample ID : G245960003 Acquisition date : 12-FEB-2010 15:47:29

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		747.13		5.108E-02	7.552E-02	1.274E-01	1.979E-02	0.401
ND-147	+	91.11		6.191E-01	2.501E-01	4.494E-01	4.440E-02	1.378
		319.41		-2.104E+00	3.007E+00	4.863E+00	6.156E-01	-0.433
		439.89		2.567E+00	5.056E+00	8.447E+00	8.134E-01	0.304
		531.02	*	-2.948E-01	4.741E-01	7.632E-01	1.210E-01	-0.386
PM-149		285.90	*	8.697E+00	8.470E+01	1.359E+02	2.570E+01	0.064
EU-152		121.78		-1.782E-02	6.622E-02	1.038E-01	9.962E-03	-0.172
		244.69		1.247E-01	3.211E-01	4.643E-01	5.878E-02	0.269
		344.27	*	7.880E-02	1.124E-01	1.497E-01	1.800E-02	0.526
		443.98		-2.720E-01	8.230E-01	1.313E+00	1.268E-01	-0.207
		778.89		-2.572E-01	2.450E-01	3.663E-01	4.020E-02	-0.702
		867.32		-2.389E-01	8.007E-01	1.104E+00	1.232E-01	-0.216
	+	964.01		2.377E-01	2.081E-01	4.957E-01	5.289E-02	0.480
		1085.78		-1.616E-01	3.301E-01	5.160E-01	4.808E-02	-0.313
		1112.02		-7.513E-02	2.966E-01	4.134E-01	3.704E-02	-0.182
		1407.95		6.463E-02	1.779E-01	2.999E-01	2.681E-02	0.216
GD-153		69.67		5.219E-01	1.524E+00	2.265E+00	1.758E-01	0.230
		83.37		1.603E+01	1.375E+01	2.087E+01	1.873E+00	0.768
		97.43	*	-2.441E-02	7.821E-02	1.105E-01	9.716E-03	-0.221
		103.18		-8.908E-02	9.424E-02	1.452E-01	1.241E-02	-0.613
EU-154		123.07		1.518E-02	4.664E-02	7.484E-02	8.301E-03	0.203
		247.94		-1.340E-01	3.460E-01	5.044E-01	7.497E-02	-0.266
		591.81		-5.358E-01	6.170E-01	8.514E-01	1.107E-01	-0.629
		723.30		2.314E-01	1.747E-01	2.682E-01	3.093E-02	0.863
		756.87		7.619E-01	6.740E-01	1.157E+00	1.587E-01	0.658
		873.19		-1.259E-01	2.631E-01	4.227E-01	5.984E-02	-0.298
		996.32		-2.737E-01	3.122E-01	4.723E-01	8.818E-02	-0.580
		1004.76		3.357E-02	1.790E-01	2.973E-01	3.838E-02	0.113
		1274.45	*	-9.144E-02	9.999E-02	1.528E-01	1.727E-02	-0.599
EU-155		48.70		-2.027E+00	1.917E+00	3.084E+00	2.511E-01	-0.657
		60.01		-1.316E+00	4.342E+00	6.375E+00	4.527E-01	-0.206
	+	86.54		3.700E-01	1.087E-01	1.632E-01	1.535E-02	2.267
		105.31	*	4.267E-02	9.513E-02	1.550E-01	1.330E-02	0.275
TB-160	+	86.79		9.887E-01	2.903E-01	4.345E-01	4.064E-02	2.275
		197.04		1.906E-01	5.594E-01	9.077E-01	9.871E-02	0.210
		215.65		-1.113E-02	7.278E-01	1.100E+00	1.271E-01	-0.010
	+	298.57		1.483E-01	1.214E-01	1.842E-01	2.469E-02	0.805
		879.36	*	4.085E-02	1.306E-01	2.207E-01	2.468E-02	0.185
		962.29		1.002E+00	5.089E-01	8.242E-01	8.808E-02	1.216
	+	966.15		1.633E-01	1.429E-01	4.785E-01	5.097E-02	0.341
		1177.93		-1.567E-01	2.985E-01	4.801E-01	3.874E-02	-0.326
		1271.85		-1.096E-01	5.628E-01	9.172E-01	7.883E-02	-0.120
HO-166M		80.57		-1.709E-01	2.475E-01	3.491E-01	3.033E-02	-0.490
		184.41		9.498E-02	4.127E-02	6.497E-02	6.774E-03	1.462
		280.46		-7.048E-02	8.436E-02	1.291E-01	1.803E-02	-0.546
		410.95		-3.813E-03	2.217E-01	3.629E-01	3.425E-02	-0.011
		711.68	*	1.658E-02	5.083E-02	8.453E-02	9.088E-03	0.196
		752.31		-1.101E-01	2.431E-01	3.823E-01	4.164E-02	-0.288
		810.29		-4.647E-02	4.878E-02	7.609E-02	8.412E-03	-0.611

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		-6.768E+00	2.372E+01	3.933E+01	3.068E+00	-0.172
		52.39		-1.523E+00	1.258E+01	2.031E+01	1.559E+00	-0.075
		59.40		1.730E+01	2.269E+01	3.499E+01	2.474E+00	0.494
		66.72	*	-1.304E+01	2.620E+01	3.739E+01	2.825E+00	-0.349
LU-176	+	88.36		7.286E-01	2.140E-01	3.152E-01	2.981E-02	2.312
		201.83		-1.406E-02	2.737E-02	4.409E-02	4.871E-03	-0.319
		306.84	*	7.762E-04	2.201E-02	3.701E-02	4.855E-03	0.021
		401.10		-3.144E+00	5.827E+00	9.292E+00	8.707E-01	-0.338
LU-177		112.95		-1.134E+00	1.612E+00	2.453E+00	2.039E-01	-0.462
	+	208.36	*	3.357E+00	1.784E+00	1.939E+00	2.189E-01	1.732
LU-177M		52.97		1.137E-01	1.297E+00	2.111E+00	1.606E-01	0.054
		54.07		-1.226E-01	6.781E-01	1.091E+00	8.169E-02	-0.112
		61.30		-7.589E-02	1.268E+00	1.881E+00	1.353E-01	-0.040
		121.62		-9.534E-02	3.394E-01	5.318E-01	4.381E-02	-0.179
		147.16		-1.008E+00	5.837E-01	9.130E-01	8.232E-02	-1.105
		171.86		-4.382E-04	4.480E-01	7.451E-01	7.451E-02	-0.001
		218.09		-5.337E-01	7.909E-01	1.254E+00	1.461E-01	-0.426
	+	268.79		1.900E+00	9.941E-01	1.325E+00	1.802E-01	1.434
		319.02		-2.964E-01	2.367E-01	3.699E-01	4.688E-02	-0.801
		367.43		1.153E-01	7.969E-01	1.327E+00	1.401E-01	0.087
		413.65	*	-5.113E-02	1.589E-01	2.559E-01	2.420E-02	-0.200
HF-181		56.28		-4.901E-01	7.386E-01	1.200E+00	8.744E-02	-0.408
		57.53		3.257E-01	4.007E-01	6.854E-01	4.927E-02	0.475
		65.20		-1.926E-01	8.659E-01	1.254E+00	9.345E-02	-0.154
		133.02		-6.133E-02	5.870E-02	9.568E-02	8.156E-03	-0.641
		136.25		5.429E-02	4.105E-01	6.969E-01	6.012E-02	0.078
		345.85		1.265E-01	2.417E-01	2.887E-01	3.339E-02	0.438
		482.03	*	-3.929E-02	3.879E-02	5.868E-02	5.792E-03	-0.670
W-181		56.28		-1.910E-01	2.890E-01	4.698E-01	3.422E-02	-0.407
		57.53		1.272E-01	1.569E-01	2.684E-01	1.929E-02	0.474
		65.20	*	-7.482E-02	3.364E-01	4.870E-01	3.630E-02	-0.154
TA-182		67.75		-2.861E-02	1.023E-01	1.492E-01	1.138E-02	-0.192
		100.10		1.213E-01	1.670E-01	2.629E-01	2.278E-02	0.461
		152.43		2.825E-01	3.116E-01	5.359E-01	4.944E-02	0.527
		222.10		5.835E-02	3.227E-01	5.297E-01	6.251E-02	0.110
		1001.68		1.092E-01	1.788E+00	2.846E+00	2.933E-01	0.038
	+	1121.28		5.547E-01	1.860E-01	2.965E-01	2.618E-02	1.871
		1189.05		1.582E-01	2.614E-01	4.514E-01	3.671E-02	0.350
		1221.42	*	-9.960E-02	1.581E-01	2.515E-01	2.091E-02	-0.396
		1230.97		-6.307E-01	4.043E-01	5.989E-01	5.012E-02	-1.053
RE-183		57.98		2.039E-01	1.574E-01	2.727E-01	1.951E-02	0.748
		59.32		7.344E-02	9.347E-02	1.443E-01	1.021E-02	0.509
		67.20		-1.028E-01	1.876E-01	2.672E-01	2.027E-02	-0.385
		162.32	*	1.617E-02	1.013E-01	1.701E-01	1.641E-02	0.095
	+	208.81		3.007E+00	1.597E+00	1.740E+00	1.967E-01	1.728
		291.72		-8.555E-01	9.356E-01	1.290E+00	1.758E-01	-0.663
RE-184		57.98		7.511E-01	5.797E-01	1.005E+00	7.189E-02	0.748
		59.32		2.703E-01	3.441E-01	5.311E-01	3.757E-02	0.509
		67.20		-3.786E-01	6.907E-01	9.839E-01	7.466E-02	-0.385

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		-9.350E-02	3.300E-01	5.461E-01	5.243E-02	-0.171
		216.55		-2.654E-02	2.407E-01	3.916E-01	4.539E-02	-0.068
		252.85	*	-1.137E-01	2.139E-01	3.362E-01	4.362E-02	-0.338
		318.01		-3.906E-01	4.098E-01	6.532E-01	8.302E-02	-0.598
		792.07		5.839E-01	1.043E+00	1.508E+00	1.660E-01	0.387
		903.28		-4.660E-01	9.370E-01	1.308E+00	1.461E-01	-0.356
		920.93		-2.048E-01	4.129E-01	5.733E-01	6.326E-02	-0.357
OS-185		59.72		-4.910E-02	2.598E-01	3.837E-01	2.717E-02	-0.128
		61.14		-3.310E-02	1.389E-01	2.043E-01	1.468E-02	-0.162
		69.30		-3.966E-02	2.757E-01	4.016E-01	3.107E-02	-0.099
		592.07		-1.698E+00	2.393E+00	3.489E+00	3.612E-01	-0.487
		646.12	*	1.883E-02	3.567E-02	6.048E-02	6.356E-03	0.311
		717.42		-2.771E-01	7.627E-01	1.183E+00	1.274E-01	-0.234
		874.81		2.405E-01	5.192E-01	8.863E-01	9.905E-02	0.271
		880.27		3.528E-01	7.178E-01	1.225E+00	1.370E-01	0.288
RE-188		155.03	*	9.152E-02	1.598E-01	2.722E-01	2.541E-02	0.336
		477.96		-5.315E-01	2.696E+00	4.305E+00	4.241E-01	-0.123
		633.10		-1.112E+00	2.361E+00	3.775E+00	3.955E-01	-0.295
W-188	+	63.58		7.177E+01	6.467E+01	7.581E+01	5.570E+00	0.947
		227.08		6.435E-01	1.189E+01	1.940E+01	2.326E+00	0.033
		290.67	*	-3.883E+00	7.191E+00	1.020E+01	1.393E+00	-0.381
IR-192	+	295.96		1.052E+00	2.118E-01	2.595E-01	3.510E-02	4.055
		308.46		8.789E-02	8.619E-02	1.493E-01	1.955E-02	0.589
		316.51	*	1.986E-02	3.113E-02	5.333E-02	6.815E-03	0.372
		468.07		-1.037E-02	6.580E-02	9.070E-02	9.383E-03	-0.114
		604.41		-1.950E-01	4.720E-01	6.498E-01	9.263E-02	-0.300
		612.46		6.067E+00	1.129E+00	1.713E+00	1.970E-01	3.541
AU-195		65.12		-3.802E-02	1.560E-01	2.256E-01	1.681E-02	-0.169
		66.83		-3.896E-02	8.670E-02	1.240E-01	9.382E-03	-0.314
	+	75.70		1.223E+00	2.318E-01	3.882E-01	3.198E-02	3.151
		98.88	*	1.978E-01	2.243E-01	3.346E-01	2.918E-02	0.591
		129.76		5.727E+00	2.652E+00	4.704E+00	3.964E-01	1.218
TL-200		367.94	*	7.846E-05	2.652E+00	Half-Life too short		
		579.30		5.440E-03	2.652E+00	Half-Life too short		
		828.27		-9.060E-04	2.652E+00	Half-Life too short		
		1205.75		3.588E-04	2.652E+00	Half-Life too short		
TL-201		68.90		-9.397E-01	4.438E+00	6.448E+00	4.969E-01	-0.146
		70.82		1.223E+00	2.483E+00	3.708E+00	2.909E-01	0.330
		80.30		-2.834E+00	4.627E+00	6.554E+00	5.677E-01	-0.432
		135.34		1.462E+01	2.253E+01	3.884E+01	3.339E+00	0.376
		167.43	*	-4.626E-02	6.528E+00	1.088E+01	1.072E+00	-0.004
TL-202		68.90		-8.392E-02	3.964E-01	5.759E-01	4.438E-02	-0.146
		70.82		1.090E-01	2.212E-01	3.302E-01	2.591E-02	0.330
		80.30		-2.524E-01	4.123E-01	5.839E-01	5.058E-02	-0.432
		439.56	*	4.257E-02	6.043E-02	1.019E-01	9.804E-03	0.418
HG-203		70.83		4.749E-01	9.581E-01	1.429E+00	1.876E-01	0.332
		72.87		8.269E-01	5.196E-01	8.755E-01	1.121E-01	0.944
		82.60		1.337E-01	1.129E+00	1.506E+00	2.096E-01	0.089
		279.20	*	3.195E-02	4.025E-02	6.611E-02	9.357E-03	0.483

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		2.048E-01	1.490E-01	2.533E-01	2.026E-02	0.809
	+	74.97		6.784E-01	1.286E-01	1.906E-01	1.559E-02	3.559
		84.90		2.701E-01	1.782E-01	2.725E-01	2.491E-02	0.991
		569.67		2.862E-02	2.662E-02	4.650E-02	4.776E-03	0.615
		1063.62	*	9.740E-03	4.606E-02	7.617E-02	7.313E-03	0.128
		1770.23		3.941E-01	5.400E-01	8.359E-01	6.949E-02	0.471
TL-207		81.07		-2.336E-01	2.026E-01	2.787E-01	2.436E-02	-0.838
		83.78		1.266E-01	1.184E-01	1.789E-01	1.614E-02	0.708
		94.90		-4.206E-02	2.139E-01	3.430E-01	3.066E-02	-0.123
		122.32		3.629E-03	1.591E+00	2.522E+00	2.244E-01	0.001
		144.24		4.889E-01	6.187E-01	1.037E+00	1.026E-01	0.472
		154.21		-3.199E-02	3.691E-01	6.171E-01	6.233E-02	-0.052
	+	269.46		4.448E-01	2.328E-01	3.161E-01	4.341E-02	1.407
		323.87	*	5.570E-01	6.369E-01	9.630E-01	1.914E-01	0.578
	+	338.28		7.354E+00	2.009E+00	2.185E+00	3.232E-01	3.365
		445.03		-1.121E+00	1.992E+00	3.129E+00	4.021E-01	-0.358
PO-209		260.50		-2.690E+00	9.061E+00	1.438E+01	1.909E+00	-0.187
		262.80		-1.598E-01	2.461E+01	3.956E+01	5.286E+00	-0.004
		896.60	*	2.788E+00	6.224E+00	1.061E+01	1.189E+00	0.263
BI-210		46.50	*	1.132E+00	2.840E+00	4.743E+00	4.407E-01	0.239
PB-210		46.50	*	1.132E+00	2.840E+00	4.743E+00	4.407E-01	0.239
PO-210		46.50	*	1.132E+00	2.840E+00	4.743E+00	3.988E-01	0.239
PB-211		404.84	*	-9.260E-01	1.006E+00	1.270E+00	7.971E-01	-0.729
		427.08		3.434E-01	1.919E+00	3.140E+00	1.956E+00	0.109
		831.96		-3.058E-01	1.044E+00	1.681E+00	1.060E+00	-0.182
BI-212	+	727.18	*	1.308E+00	5.122E-01	5.787E-01	6.912E-02	2.261
		785.46		1.800E+00	1.671E+00	2.742E+00	3.014E-01	0.656
		1620.62		1.005E+00	1.223E+00	2.177E+00	1.898E-01	0.462
PO-215		81.07		-2.336E-01	2.026E-01	2.787E-01	2.436E-02	-0.838
		83.78		1.266E-01	1.184E-01	1.789E-01	1.614E-02	0.708
		94.90		-4.206E-02	2.139E-01	3.430E-01	3.066E-02	-0.123
		122.32		3.629E-03	1.591E+00	2.522E+00	2.244E-01	0.001
		144.24		4.889E-01	6.187E-01	1.037E+00	1.026E-01	0.472
		154.21		-3.199E-02	3.691E-01	6.171E-01	6.233E-02	-0.052
	+	269.46		4.448E-01	2.328E-01	3.161E-01	4.341E-02	1.407
		323.87	*	5.570E-01	6.369E-01	9.630E-01	1.914E-01	0.578
	+	338.28		7.354E+00	2.009E+00	2.185E+00	3.232E-01	3.365
		445.03		-1.121E+00	1.992E+00	3.129E+00	4.021E-01	-0.358
RN-219	+	271.23		5.707E-01	3.003E-01	4.240E-01	6.282E-02	1.346
		401.81	*	-3.798E-02	3.486E-01	5.688E-01	8.800E-02	-0.067
RN-220		549.76	*	2.885E+01	2.202E+01	3.900E+01	3.975E+00	0.740
RA-223		81.07		-2.336E-01	2.026E-01	2.787E-01	2.436E-02	-0.838
		83.78		1.266E-01	1.184E-01	1.789E-01	1.614E-02	0.708
		94.90		-4.206E-02	2.139E-01	3.430E-01	3.066E-02	-0.123
		122.32		3.629E-03	1.591E+00	2.522E+00	2.244E-01	0.001
		144.24		4.889E-01	6.187E-01	1.037E+00	1.026E-01	0.472
		154.21		-3.199E-02	3.691E-01	6.171E-01	6.233E-02	-0.052
	+	269.46		4.448E-01	2.328E-01	3.161E-01	4.341E-02	1.407
		323.87	*	5.570E-01	6.369E-01	9.630E-01	1.914E-01	0.578

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		7.354E+00	2.009E+00	2.185E+00	3.232E-01	3.365
		445.03		-1.121E+00	1.992E+00	3.129E+00	4.021E-01	-0.358
AC-227		79.80		5.196E-01	1.454E+00	2.149E+00	4.621E-01	0.242
		236.00		1.077E+00	3.070E-01	4.368E-01	6.590E-02	2.466
		256.20	*	2.987E-01	3.557E-01	5.871E-01	1.071E-01	0.509
		286.10		3.455E-01	1.396E+00	2.253E+00	3.839E-01	0.153
	+	299.80		1.889E+00	1.572E+00	2.335E+00	4.728E-01	0.809
		304.40		-3.835E-01	1.848E+00	2.668E+00	5.595E-01	-0.144
		334.20		-6.296E-01	2.703E+00	3.360E+00	7.113E-01	-0.187
TH-227		79.80		5.196E-01	1.454E+00	2.149E+00	4.680E-01	0.242
	+	94.00		8.277E+00	3.074E+00	3.427E+00	7.516E-01	2.415
		236.00		1.077E+00	3.018E-01	4.368E-01	6.183E-02	2.466
		256.20	*	2.987E-01	3.568E-01	5.871E-01	1.208E-01	0.509
		286.10		3.455E-01	1.438E+00	2.253E+00	2.274E+00	0.153
	+	299.80		1.889E+00	1.572E+00	2.335E+00	4.728E-01	0.809
		304.40		-3.835E-01	1.848E+00	2.668E+00	5.595E-01	-0.144
		334.20		-6.296E-01	2.703E+00	3.360E+00	7.113E-01	-0.187
TH-229		85.43		2.224E-01	1.828E-01	2.765E-01	2.543E-02	0.805
	+	88.47		4.194E-01	1.232E-01	1.813E-01	1.712E-02	2.314
		100.00		1.031E-01	1.747E-01	2.736E-01	2.372E-02	0.377
		193.63	*	-1.773E-01	4.789E-01	7.786E-01	8.371E-02	-0.228
	+	210.97		2.354E+00	1.250E+00	1.313E+00	1.495E-01	1.793
PA-231		283.67	*	-5.269E-01	1.451E+00	2.274E+00	4.247E-01	-0.232
	+	301.29		7.554E-01	6.215E-01	9.223E-01	1.466E-01	0.819
TH-231		81.07		-2.336E-01	2.026E-01	2.787E-01	2.436E-02	-0.838
		83.78		1.266E-01	1.184E-01	1.789E-01	1.614E-02	0.708
		94.90		-4.206E-02	2.139E-01	3.430E-01	3.066E-02	-0.123
		122.32		3.629E-03	1.591E+00	2.522E+00	2.244E-01	0.001
		144.24		4.889E-01	6.187E-01	1.037E+00	1.026E-01	0.472
		154.21		-3.199E-02	3.691E-01	6.171E-01	6.233E-02	-0.052
	+	269.46		4.448E-01	2.328E-01	3.161E-01	4.341E-02	1.407
		323.87	*	5.570E-01	6.369E-01	9.630E-01	1.914E-01	0.578
	+	338.28		7.354E+00	2.009E+00	2.185E+00	3.232E-01	3.365
		445.03		-1.121E+00	1.992E+00	3.129E+00	4.021E-01	-0.358
U-231		84.21		5.893E+00	5.093E+00	7.718E+00	6.997E-01	0.763
	+	92.29		8.230E+00	2.575E+00	3.636E+00	3.315E-01	2.264
		95.87	*	-7.174E-01	1.052E+00	1.458E+00	1.295E-01	-0.492
		108.00		-1.501E+00	1.872E+00	2.895E+00	2.434E-01	-0.519
PA-233	+	75.28		1.980E+01	4.516E+00	5.805E+00	8.775E-01	3.410
	+	86.59		6.014E+00	2.335E+00	2.655E+00	7.184E-01	2.265
	+	300.12		5.265E-01	4.354E-01	6.509E-01	1.174E-01	0.809
		311.98	*	-5.278E-03	5.940E-02	9.922E-02	1.300E-02	-0.053
		340.50		2.609E+00	9.896E-01	1.225E+00	3.082E-01	2.130
		398.62		1.113E-01	1.810E+00	2.981E+00	8.013E-01	0.037
		415.76		4.628E-01	1.453E+00	2.409E+00	5.278E-01	0.192
PA-234	+	63.00		2.081E+00	1.894E+00	2.234E+00	3.310E-01	0.931
		94.67		1.139E-01	1.577E-01	2.592E-01	3.276E-02	0.439
		98.44		2.913E-02	9.367E-02	1.344E-01	7.498E-02	0.217
		99.86		2.810E-01	4.429E-01	6.950E-01	6.029E-02	0.404

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-6.070E-02	1.708E-01	2.687E-01	3.196E-02	-0.226
		131.20		-1.306E-01	9.769E-02	1.577E-01	1.336E-02	-0.828
		152.70		2.394E-01	3.020E-01	5.144E-01	8.933E-02	0.465
	+	186.00		7.323E+00	3.153E+00	2.510E+00	7.976E-01	2.918
		226.40		-5.512E-02	3.754E-01	6.076E-01	9.474E-02	-0.091
		227.20		1.330E-01	3.971E-01	6.543E-01	7.847E-02	0.203
		248.90		5.636E-01	7.516E-01	1.195E+00	2.910E-01	0.472
		293.70		6.725E+00	1.584E+00	1.572E+00	3.179E-01	4.278
		369.80		4.269E-01	7.459E-01	1.256E+00	2.835E-01	0.340
		568.70		-1.076E-01	8.590E-01	1.420E+00	1.458E-01	-0.076
		569.50		2.316E-01	2.347E-01	4.088E-01	4.199E-02	0.567
		574.00		-2.267E-01	1.327E+00	2.186E+00	2.249E-01	-0.104
		699.00		-2.392E-01	6.273E-01	9.984E-01	2.007E-01	-0.240
		706.10		5.044E-01	9.362E-01	1.530E+00	6.893E-01	0.330
		733.00		5.885E-02	3.534E-01	4.995E-01	1.156E-01	0.118
		742.81		-8.161E-01	1.264E+00	1.755E+00	1.185E+00	-0.465
	+	796.30		2.562E+00	1.465E+00	1.495E+00	4.173E-01	1.713
		805.60		7.611E-01	8.916E-01	1.440E+00	4.523E-01	0.529
		819.60		-4.966E-01	1.009E+00	1.600E+00	6.184E-01	-0.310
		826.30		9.055E-02	6.533E-01	1.099E+00	4.977E-01	0.082
		831.60		-4.530E-01	5.685E-01	8.470E-01	2.596E-01	-0.535
		876.40		4.360E-01	8.790E-01	1.299E+00	1.339E+00	0.336
		880.51		1.109E-01	2.583E-01	4.395E-01	4.915E-02	0.252
		883.24		1.622E-01	2.775E-01	4.399E-01	2.973E-01	0.369
		899.00		-2.783E-01	7.154E-01	1.137E+00	5.034E-01	-0.245
		925.00		2.132E-01	9.377E-01	1.575E+00	1.732E-01	0.135
		926.50		-8.409E-02	1.481E-01	2.321E-01	6.075E-02	-0.362
		946.00	*	-3.375E-02	2.416E-01	3.942E-01	7.835E-02	-0.086
		949.00		-2.226E-01	3.653E-01	5.742E-01	6.204E-02	-0.388
		980.50		3.293E-02	6.185E-01	1.020E+00	1.073E-01	0.032
		1394.10		-1.103E+00	1.208E+00	1.405E+00	9.154E-01	-0.785
PA-234M		766.42		2.158E+01	1.616E+01	1.874E+01	9.591E+00	1.151
		1001.03	*	-5.049E-01	4.043E+00	6.347E+00	7.274E-01	-0.080
U-235	+	89.95		2.460E+00	1.229E+00	1.601E+00	4.972E-01	1.537
	+	93.35		2.575E+00	1.059E+00	1.135E+00	3.197E-01	2.268
		105.00		2.528E-01	9.305E-01	1.502E+00	4.478E-01	0.168
		143.76	*	1.004E-01	1.920E-01	3.188E-01	5.624E-02	0.315
		163.35		-4.854E-02	4.394E-01	7.307E-01	1.431E-01	-0.066
	+	185.71		2.712E-01	8.375E-02	9.293E-02	9.731E-03	2.919
		205.31		-1.535E-01	5.585E-01	7.836E-01	1.596E-01	-0.196
NP-236		94.67		8.944E-02	1.194E-01	1.969E-01	1.763E-02	0.454
		98.44		2.196E-02	6.976E-02	1.016E-01	8.878E-03	0.216
		111.00		-4.591E-02	1.291E-01	2.032E-01	1.696E-02	-0.226
		160.31	*	-3.142E-02	7.445E-02	1.226E-01	1.172E-02	-0.256
NP-239		99.55		1.515E-01	1.563E-01	2.338E-01	2.032E-02	0.648
		117.00	*	1.291E-01	1.794E-01	2.925E-01	2.418E-02	0.441
	+	209.75		2.371E+00	1.260E+00	1.380E+00	1.565E-01	1.718
		228.18		1.310E-01	2.100E-01	3.489E-01	4.198E-02	0.375
		277.60		2.492E-01	1.796E-01	2.982E-01	4.157E-02	0.836

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-2.618E-01	1.407E+00	1.899E+00	2.290E-01	-0.138
AM-241		59.54	*	9.490E-02	1.316E-01	2.025E-01	1.583E-02	0.469
CM-243		99.55		1.559E-01	1.608E-01	2.406E-01	2.091E-02	0.648
		103.76	*	-2.392E-02	8.596E-02	1.364E-01	1.163E-02	-0.175
		117.00		1.328E-01	1.845E-01	3.010E-01	2.488E-02	0.441
	+	209.75		2.337E+00	1.242E+00	1.361E+00	1.543E-01	1.718
		228.18		1.323E-01	2.122E-01	3.526E-01	4.242E-02	0.375
		277.60		2.512E-01	1.811E-01	3.006E-01	4.191E-02	0.836
AM-246		798.80		-3.086E-02	1.412E-01	1.902E-01	2.097E-02	-0.162
		1036.00		1.270E-01	2.419E-01	4.104E-01	4.075E-02	0.309
		1062.04		1.937E-01	1.955E-01	3.396E-01	3.267E-02	0.571
		1078.86	*	6.451E-02	1.186E-01	2.005E-01	1.886E-02	0.322
CM-247		278.00		1.238E+00	7.451E-01	1.240E+00	1.731E-01	0.998
		287.40		8.050E-01	1.114E+00	1.830E+00	2.518E-01	0.440
		402.60	*	3.635E-04	3.153E-02	5.177E-02	4.856E-03	0.007
CF-249		252.85		-4.266E-01	8.025E-01	1.261E+00	1.637E-01	-0.338
		333.44		2.965E-02	2.192E-01	2.534E-01	3.066E-02	0.117
		387.95	*	8.542E-03	3.486E-02	5.806E-02	5.518E-03	0.147
CF-251		176.60	*	2.650E-02	1.200E-01	2.006E-01	2.037E-02	0.132
		227.00		2.257E-02	3.568E-01	5.822E-01	6.979E-02	0.039
		285.00		-6.516E-01	1.622E+00	2.537E+00	3.509E-01	-0.257

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960003		
Acquisition date	: 12-FEB-2010 15:47:29	Detector SN#	:
Detector ID	: GAM22	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:02.18	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960003	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.3030E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

Standard Weight	: 0.00000		
CALIB. DATE/TIME	: 2-DEC-2009 16:47:28	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.046E+01	2.198E+00	4.169E-01	0.000E+00
CD-109	3.126E+00	8.995E-01	1.174E+00	0.000E+00
SN-126	3.072E-01	8.841E-02	1.158E-01	0.000E+00
TL-208	5.086E-01	8.490E-02	5.206E-02	0.000E+00
BI-211	4.508E+00	6.541E-01	2.725E-01	0.000E+00
PB-212	1.785E+00	2.522E-01	7.980E-02	0.000E+00
PO-212	1.785E+00	2.522E-01	7.980E-02	0.000E+00
BI-214	1.295E+00	2.040E-01	1.010E-01	0.000E+00
PB-214	1.568E+00	2.413E-01	9.497E-02	0.000E+00
PO-214	1.568E+00	2.413E-01	9.497E-02	0.000E+00
PO-216	1.785E+00	2.522E-01	7.980E-02	0.000E+00
PO-218	1.568E+00	2.413E-01	9.497E-02	0.000E+00
RA-224	5.015E+00	1.272E+00	9.070E-01	0.000E+00
RA-226	1.295E+00	2.040E-01	1.010E-01	0.000E+00
AC-228	1.629E+00	3.255E-01	1.813E-01	0.000E+00
RA-228	1.629E+00	3.255E-01	1.813E-01	0.000E+00
TH-228	1.812E+00	2.561E-01	8.101E-02	0.000E+00
TH-230	1.295E+00	2.040E-01	1.010E-01	0.000E+00
TH-232	1.629E+00	3.255E-01	1.813E-01	0.000E+00
TH-234	1.785E+00	1.600E+00	1.772E+00	0.000E+00
U-234	1.295E+00	2.040E-01	1.010E-01	0.000E+00
NP-237	9.021E-01	3.173E-01	3.754E-01	0.000E+00
U-238	1.785E+00	1.600E+00	1.772E+00	0.000E+00
AM-243	3.779E-01	7.019E-02	7.750E-02	0.000E+00
ANH-511	1.393E-01	6.370E-02	4.099E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	
BE-7	-7.084E-02		2.741E-01	4.538E-01	0.000E+00 NOT IDENT.
NA-22	-3.324E-02		3.497E-02	5.473E-02	0.000E+00 NOT IDENT.

NA-24	0.000E+00	6.829E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.518E-02	2.332E-02	3.525E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.031E-02	7.153E-02	0.000E+00	FAIL ABUN
SC-46	-3.399E-02	3.188E-02	5.002E-02	0.000E+00	FAIL ABUN
V-48	-2.241E-02	5.946E-02	9.768E-02	0.000E+00	NOT IDENT.
CR-51	4.080E-02	3.222E-01	5.674E-01	0.000E+00	NOT IDENT.
MN-52	7.697E-02	1.765E-01	3.084E-01	0.000E+00	NOT IDENT.
MN-54	-3.476E-05	3.228E-02	5.552E-02	0.000E+00	NOT IDENT.
CO-56	-2.273E-02	3.395E-02	5.577E-02	0.000E+00	NOT IDENT.
CO-57	-3.545E-03	2.242E-02	3.754E-02	0.000E+00	NOT IDENT.
CO-58	-2.963E-02	3.172E-02	5.117E-02	0.000E+00	NOT IDENT.
FE-59	1.112E-02	8.048E-02	1.354E-01	0.000E+00	NOT IDENT.
CO-60	3.240E-03	2.684E-02	4.578E-02	0.000E+00	NOT IDENT.
ZN-65	8.251E-02	8.734E-02	1.345E-01	0.000E+00	NOT IDENT.
GE-68	-3.808E-01	1.045E+00	1.698E+00	0.000E+00	NOT IDENT.
AS-73	4.043E-02	6.462E-01	1.130E+00	0.000E+00	NOT IDENT.
AS-74	-3.616E-02	8.081E-02	1.355E-01	0.000E+00	NOT IDENT.
SE-75	2.736E-02	4.434E-02	6.758E-02	0.000E+00	NOT IDENT.
BR-77	-9.131E+00	8.822E+00	1.407E+01	0.000E+00	FAIL ABUN
SR-82	-4.438E-01	3.806E-01	5.287E-01	0.000E+00	NOT IDENT.
RB-83	-6.206E-02	5.754E-02	9.147E-02	0.000E+00	NOT IDENT.
RB-84	8.729E-03	6.113E-02	1.054E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	8.202E+00	1.387E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.207E-02	7.114E-02	0.000E+00	NOT IDENT.
RB-86	-2.684E-01	6.685E-01	1.084E+00	0.000E+00	NOT IDENT.
Y-88	-1.010E-02	2.599E-02	4.095E-02	0.000E+00	NOT IDENT.
ZR-88	-1.711E-02	2.743E-02	4.561E-02	0.000E+00	NOT IDENT.
Y-91	3.895E+00	1.472E+01	2.551E+01	0.000E+00	NOT IDENT.
NB-94	7.404E-03	2.894E-02	4.954E-02	0.000E+00	NOT IDENT.
NB-95	6.348E-02	4.436E-02	6.989E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.294E-01	2.049E-01	0.000E+00	NOT IDENT.
ZR-95	7.139E-02	6.110E-02	1.087E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.911E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.938E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.324E+00	9.537E+00	1.624E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.006E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.064E-02	3.197E-02	5.467E-02	0.000E+00	NOT IDENT.
RH-102	2.369E-03	2.455E-02	4.151E-02	0.000E+00	FAIL ABUN
RU-103	-8.998E-03	3.228E-02	5.303E-02	0.000E+00	FAIL ABUN
RH-106	1.274E-01	2.741E-01	4.797E-01	0.000E+00	FAIL ABUN
RU-106	1.274E-01	2.738E-01	4.797E-01	0.000E+00	FAIL ABUN
AG-108M	3.018E-03	2.820E-02	4.815E-02	0.000E+00	NOT IDENT.
AG-110M	-1.020E-02	3.068E-02	5.116E-02	0.000E+00	NOT IDENT.
IN-111	-6.344E-01	1.024E+00	1.459E+00	0.000E+00	NOT IDENT.
IN-113M	-4.112E-03	3.972E-02	6.784E-02	0.000E+00	NOT IDENT.
SN-113	-4.112E-03	3.972E-02	6.784E-02	0.000E+00	NOT IDENT.
IN-114M	2.747E-02	1.860E-01	2.865E-01	0.000E+00	NOT IDENT.
CD-115	5.526E+00	8.799E+00	1.579E+01	0.000E+00	NOT IDENT.
SN-117M	3.104E-02	4.946E-02	8.922E-02	0.000E+00	NOT IDENT.
SB-122	-1.039E+00	1.745E+00	2.915E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.481E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.418E-02	2.571E-02	4.627E-02	0.000E+00	NOT IDENT.
I-124	2.750E-01	6.722E-01	1.021E+00	0.000E+00	FAIL ABUN
SB-124	9.050E-03	5.555E-02	9.572E-02	0.000E+00	FAIL ABUN
SB-125	-2.049E-02	8.400E-02	1.411E-01	0.000E+00	FAIL ABUN
TE-125M	8.593E-01	8.205E+00	1.402E+01	0.000E+00	NOT IDENT.
I-126	-3.982E-02	1.573E-01	2.630E-01	0.000E+00	NOT IDENT.
SB-126	7.378E-02	1.340E-01	2.026E-01	0.000E+00	FAIL ABUN
SB-127	6.454E-02	1.091E+00	1.854E+00	0.000E+00	NOT IDENT.
XE-127	-2.291E-02	4.707E-02	7.380E-02	0.000E+00	NOT IDENT.
I-131	-4.245E-02	9.868E-02	1.670E-01	0.000E+00	NOT IDENT.
TE-132	4.005E-01	6.366E-01	1.110E+00	0.000E+00	NOT IDENT.
BA-133	9.995E-03	3.978E-02	6.084E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.049E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.607E-02	7.697E-02	0.000E+00	FAIL ABUN
CS-135	1.303E-01	1.699E-01	2.544E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.897E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.005E-01	9.738E-02	1.732E-01	0.000E+00	FAIL ABUN
BA-137M	3.546E-02	3.210E-02	5.733E-02	0.000E+00	NOT IDENT.
CS-137	3.748E-02	3.393E-02	6.061E-02	0.000E+00	NOT IDENT.
CE-139	2.647E-04	2.740E-02	4.836E-02	0.000E+00	NOT IDENT.
BA-140	2.402E-03	2.166E-01	3.765E-01	0.000E+00	NOT IDENT.
LA-140	-1.155E-01	7.566E-02	1.077E-01	0.000E+00	FAIL ABUN
CE-141	1.030E-03	5.368E-02	9.586E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.859E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-4.527E-02	1.789E-01	3.187E-01	0.000E+00	NOT IDENT.
PM-144	2.399E-03	2.907E-02	4.934E-02	0.000E+00	NOT IDENT.
PR-144	1.626E-01	1.970E+00	3.344E+00	0.000E+00	NOT IDENT.

PM-146	1.077E-02	4.008E-02	6.685E-02	0.000E+00	NOT IDENT.
ND-147	-2.948E-01	4.646E-01	7.767E-01	0.000E+00	FAIL ABUN
PM-149	8.697E+00	8.301E+01	1.397E+02	0.000E+00	NOT IDENT.
EU-152	7.880E-02	1.102E-01	1.535E-01	0.000E+00	FAIL ABUN
GD-153	-2.441E-02	7.665E-02	1.155E-01	0.000E+00	NOT IDENT.
EU-154	-9.144E-02	9.799E-02	1.532E-01	0.000E+00	NOT IDENT.
EU-155	4.267E-02	9.323E-02	1.618E-01	0.000E+00	FAIL ABUN
TB-160	4.085E-02	1.280E-01	2.228E-01	0.000E+00	FAIL ABUN
HO-166M	1.658E-02	4.981E-02	8.562E-02	0.000E+00	NOT IDENT.
TM-171	-1.304E+01	2.567E+01	3.932E+01	0.000E+00	NOT IDENT.
LU-176	7.762E-04	2.157E-02	3.800E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.748E+00	2.003E+00	0.000E+00	FAIL ABUN
LU-177M	-5.113E-02	1.558E-01	2.615E-01	0.000E+00	FAIL ABUN
HF-181	-3.929E-02	3.802E-02	5.981E-02	0.000E+00	NOT IDENT.
W-181	-7.482E-02	3.296E-01	5.123E-01	0.000E+00	NOT IDENT.
TA-182	-9.960E-02	1.549E-01	2.524E-01	0.000E+00	FAIL ABUN
RE-183	1.617E-02	9.931E-02	1.765E-01	0.000E+00	FAIL ABUN
RE-184	-1.137E-01	2.096E-01	3.463E-01	0.000E+00	NOT IDENT.
OS-185	1.883E-02	3.496E-02	6.135E-02	0.000E+00	NOT IDENT.
RE-188	9.152E-02	1.566E-01	2.825E-01	0.000E+00	NOT IDENT.
W-188	-3.883E+00	7.047E+00	1.048E+01	0.000E+00	FAIL ABUN
IR-192	1.986E-02	3.051E-02	5.473E-02	0.000E+00	FAIL ABUN
AU-195	1.978E-01	2.198E-01	3.497E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.046E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-4.626E-02	6.397E+00	1.127E+01	0.000E+00	NOT IDENT.
TL-202	4.257E-02	5.922E-02	1.040E-01	0.000E+00	NOT IDENT.
HG-203	3.195E-02	3.945E-02	6.798E-02	0.000E+00	NOT IDENT.
BI-207	9.740E-03	4.514E-02	7.664E-02	0.000E+00	FAIL ABUN
TL-207	5.570E-01	6.242E-01	9.879E-01	0.000E+00	FAIL ABUN
PO-209	2.788E+00	6.099E+00	1.071E+01	0.000E+00	NOT IDENT.
BI-210	1.132E+00	2.783E+00	5.015E+00	0.000E+00	NOT IDENT.
PB-210	1.132E+00	2.783E+00	5.015E+00	0.000E+00	NOT IDENT.
PO-210	1.132E+00	2.783E+00	5.015E+00	0.000E+00	NOT IDENT.
PB-211	-9.260E-01	9.859E-01	1.298E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.019E-01	5.859E-01	0.000E+00	FAIL ABUN
PO-215	5.570E-01	6.242E-01	9.879E-01	0.000E+00	FAIL ABUN
RN-219	-3.798E-02	3.416E-01	5.815E-01	0.000E+00	FAIL ABUN
RN-220	2.885E+01	2.158E+01	3.967E+01	0.000E+00	NOT IDENT.
RA-223	5.570E-01	6.242E-01	9.879E-01	0.000E+00	FAIL ABUN
AC-227	2.987E-01	3.486E-01	6.045E-01	0.000E+00	FAIL ABUN
TH-227	2.987E-01	3.497E-01	6.045E-01	0.000E+00	FAIL ABUN
TH-229	-1.773E-01	4.693E-01	8.053E-01	0.000E+00	FAIL ABUN
PA-231	-5.269E-01	1.422E+00	2.338E+00	0.000E+00	FAIL ABUN
TH-231	5.570E-01	6.242E-01	9.879E-01	0.000E+00	FAIL ABUN
U-231	-7.174E-01	1.031E+00	1.525E+00	0.000E+00	FAIL ABUN
PA-233	-5.278E-03	5.821E-02	1.019E-01	0.000E+00	FAIL ABUN
PA-234	-3.375E-02	2.368E-01	3.974E-01	0.000E+00	FAIL ABUN
PA-234M	-5.049E-01	3.962E+00	6.392E+00	0.000E+00	NOT IDENT.
U-235	1.004E-01	1.882E-01	3.313E-01	0.000E+00	FAIL ABUN
NP-236	-3.142E-02	7.296E-02	1.272E-01	0.000E+00	NOT IDENT.
NP-239	1.291E-01	1.758E-01	3.050E-01	0.000E+00	FAIL ABUN
AM-241	9.490E-02	1.289E-01	2.133E-01	0.000E+00	NOT IDENT.
CM-243	-2.392E-02	8.424E-02	1.424E-01	0.000E+00	FAIL ABUN
AM-246	6.451E-02	1.162E-01	2.017E-01	0.000E+00	NOT IDENT.
CM-247	3.635E-04	3.090E-02	5.292E-02	0.000E+00	NOT IDENT.
CF-249	8.542E-03	3.417E-02	5.939E-02	0.000E+00	NOT IDENT.
CF-251	2.650E-02	1.176E-01	2.078E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:48:05.95

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*********************************************************************************
*                            GEL Laboratories LLC                                 *
*                              2040 Savage Road                                   *
*                            Charleston, SC 29414                                 *
*********************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960003.CNF;1
Sample date      : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:47:29
Sample ID        : G245960003           Sample quantity  : 1.30300E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:02.18  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 948717               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*********************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1447	10.67*	1.909E+00	2.046E+01	2.046E+01	10.96
CD-109	88.03	295	3.72*	7.485E+00	3.056E+00	3.126E+00	29.37
SN-126	64.28	102	9.60	4.339E+00	7.066E-01	7.066E-01	90.96
	86.94	295	8.90	7.485E+00	1.277E+00	1.277E+00	49.98
	87.57	295	37.00*	7.485E+00	3.072E-01	3.072E-01	29.37
TL-208	277.35	------	6.80	6.182E+00	------ Line Not Found		------
	510.84	208	21.60	4.298E+00	6.451E-01	6.451E-01	47.39
	583.14	584	84.20*	3.930E+00	5.086E-01	5.086E-01	17.03
	860.37	110	12.46	2.923E+00	8.737E-01	8.737E-01	44.84
BI-211	72.87	------	1.27	5.897E+00	------ Line Not Found		------
	351.07	1094	12.94*	5.401E+00	4.508E+00	4.508E+00	14.80
PB-212	74.81	535	10.70	6.174E+00	2.331E+00	2.331E+00	21.13
	77.11	819	18.00	6.469E+00	2.025E+00	2.025E+00	13.74
	87.30	295	8.00	7.485E+00	1.421E+00	1.421E+00	31.02
	238.63	1854	44.60*	6.709E+00	1.785E+00	1.785E+00	14.42
	300.09	71	3.41	5.916E+00	1.019E+00	1.019E+00	82.02
PO-212	74.81	535	10.70	6.174E+00	2.331E+00	2.331E+00	21.13
	77.11	819	18.00	6.469E+00	2.025E+00	2.025E+00	13.74
	87.30	295	8.00	7.485E+00	1.421E+00	1.421E+00	31.02
	115.19	------	0.60	8.535E+00	------ Line Not Found		------
	238.63	1854	44.60*	6.709E+00	1.785E+00	1.785E+00	14.42
	300.09	71	3.41	5.916E+00	1.019E+00	1.019E+00	82.02
BI-214	609.31	793	46.30*	3.811E+00	1.295E+00	1.295E+00	16.08
	1120.29	144	15.10	2.346E+00	1.173E+00	1.173E+00	34.18
	1764.49	142	15.80	1.716E+00	1.512E+00	1.512E+00	28.00
PB-214	74.81	535	6.21	6.174E+00	4.017E+00	4.017E+00	20.35
	77.11	819	10.50	6.469E+00	3.472E+00	3.472E+00	15.71
	87.30	295	4.67	7.485E+00	2.434E+00	2.434E+00	30.36
	241.98	458	7.49	6.663E+00	2.645E+00	2.645E+00	26.48
	295.21	549	19.20	5.969E+00	1.379E+00	1.379E+00	21.06
	351.92	1094	37.20*	5.401E+00	1.568E+00	1.568E+00	15.70
PO-214	74.81	535	6.21	6.174E+00	4.017E+00	4.017E+00	20.35

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	819	10.50	6.469E+00	3.472E+00	3.472E+00	15.71
	87.30	295	4.67	7.485E+00	2.434E+00	2.434E+00	30.36
	241.98	458	7.49	6.663E+00	2.645E+00	2.645E+00	26.48
	295.21	549	19.20	5.969E+00	1.379E+00	1.379E+00	21.06
	351.92	1094	37.20*	5.401E+00	1.568E+00	1.568E+00	15.70
PO-216	74.81	535	10.70	6.174E+00	2.331E+00	2.331E+00	21.13
	77.11	819	18.00	6.469E+00	2.025E+00	2.025E+00	13.74
	87.30	295	8.00	7.485E+00	1.421E+00	1.421E+00	31.02
	238.63	1854	44.60*	6.709E+00	1.785E+00	1.785E+00	14.42
	300.09	71	3.41	5.916E+00	1.019E+00	1.019E+00	82.02
PO-218	74.81	535	6.21	6.174E+00	4.017E+00	4.017E+00	20.35
	77.11	819	10.50	6.469E+00	3.472E+00	3.472E+00	15.71
	87.30	295	4.67	7.485E+00	2.434E+00	2.434E+00	30.36
	241.98	458	7.49	6.663E+00	2.645E+00	2.645E+00	26.48
	295.21	549	19.20	5.969E+00	1.379E+00	1.379E+00	21.06
	351.92	1094	37.20*	5.401E+00	1.568E+00	1.568E+00	15.70
RA-224	240.98	458	3.95*	6.663E+00	5.015E+00	5.015E+00	25.87
RA-226	609.31	793	46.30*	3.811E+00	1.295E+00	1.295E+00	16.08
	1120.29	144	15.10	2.346E+00	1.173E+00	1.173E+00	34.18
	1764.49	142	15.80	1.716E+00	1.512E+00	1.512E+00	28.00
AC-228	338.32	385	11.40	5.525E+00	1.761E+00	1.761E+00	47.93
	911.07	437	27.70*	2.788E+00	1.629E+00	1.629E+00	20.39
	969.11	274	16.60	2.649E+00	1.792E+00	1.792E+00	32.50
RA-228	338.32	385	11.40	5.525E+00	1.761E+00	1.761E+00	47.93
	911.07	437	27.70*	2.788E+00	1.629E+00	1.629E+00	20.39
	969.11	274	16.60	2.649E+00	1.792E+00	1.792E+00	32.50
TH-228	74.81	535	10.70	6.174E+00	2.331E+00	2.367E+00	18.99
	77.11	819	18.00	6.469E+00	2.025E+00	2.056E+00	13.74
	87.30	295	8.00	7.485E+00	1.421E+00	1.442E+00	29.37
	238.63	1854	44.60*	6.709E+00	1.785E+00	1.812E+00	14.42
	300.09	71	3.41	5.916E+00	1.019E+00	1.035E+00	100.66
TH-230	609.31	793	46.30*	3.811E+00	1.295E+00	1.295E+00	16.08
	1120.29	144	15.10	2.346E+00	1.173E+00	1.173E+00	34.18
	1764.49	142	15.80	1.716E+00	1.512E+00	1.512E+00	28.00
TH-232	338.32	385	11.40	5.525E+00	1.761E+00	1.761E+00	25.87
	911.07	437	27.70*	2.788E+00	1.629E+00	1.629E+00	20.39
	969.11	274	16.60	2.649E+00	1.792E+00	1.792E+00	32.50
TH-234	63.29	102	3.80*	4.339E+00	1.785E+00	1.785E+00	91.47
	92.38	316	5.41	7.868E+00	2.142E+00	2.142E+00	35.10
U-234	609.31	793	46.30*	3.811E+00	1.295E+00	1.295E+00	16.08
	1120.29	144	15.10	2.346E+00	1.173E+00	1.173E+00	34.18
	1764.49	142	15.80	1.716E+00	1.512E+00	1.512E+00	28.00
NP-237	86.50	295	12.60*	7.485E+00	9.021E-01	9.021E-01	35.89
	95.87	------	2.60	8.032E+00	------ Line Not Found		------
U-238	63.29	102	3.80*	4.339E+00	1.785E+00	1.785E+00	91.47
	92.38	316	5.41	7.868E+00	2.142E+00	2.142E+00	31.29
AM-243	74.67	535	66.00*	6.174E+00	3.779E-01	3.779E-01	18.95
	86.72	295	0.34	7.485E+00	3.383E+01	3.383E+01	29.37
	117.66	------	0.55	8.550E+00	------ Line Not Found		------

Sample ID : G245960003 Acquisition date : 12-FEB-2010 15:47:29

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	8.387E+00	------	Line Not Found	------
ANH-511	511.00	208	100.00*	4.298E+00	1.393E-01	1.393E-01	46.65

Flag: "*" = Keyline

Sample ID : G245960003 Acquisition date : 12-FEB-2010 15:47:29

Total number of lines in spectrum 32
Number of unidentified lines 1
Number of lines tentatively identified by NID 31 96.88%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.046E+01	2.046E+01	0.224E+01	10.96	
CD-109	464.00D	1.02	3.056E+00	3.126E+00	0.918E+00	29.37	
SN-126	1.00E+05Y	1.00	3.072E-01	3.072E-01	0.902E-01	29.37	
TL-208	1.41E+10Y	1.00	5.086E-01	5.086E-01	0.866E-01	17.03	
BI-211	7.04E+08Y	1.00	4.508E+00	4.508E+00	0.667E+00	14.80	
PB-212	1.41E+10Y	1.00	1.785E+00	1.785E+00	0.257E+00	14.42	
PO-212	1.41E+10Y	1.00	1.785E+00	1.785E+00	0.257E+00	14.42	
BI-214	1600.00Y	1.00	1.295E+00	1.295E+00	0.208E+00	16.08	
PB-214	1600.00Y	1.00	1.568E+00	1.568E+00	0.246E+00	15.70	
PO-214	1600.00Y	1.00	1.568E+00	1.568E+00	0.246E+00	15.70	
PO-216	1.41E+10Y	1.00	1.785E+00	1.785E+00	0.257E+00	14.42	
PO-218	1600.00Y	1.00	1.568E+00	1.568E+00	0.246E+00	15.70	
RA-224	1.41E+10Y	1.00	5.015E+00	5.015E+00	1.298E+00	25.87	
RA-226	1600.00Y	1.00	1.295E+00	1.295E+00	0.208E+00	16.08	
AC-228	1.41E+10Y	1.00	1.629E+00	1.629E+00	0.332E+00	20.39	
RA-228	1.41E+10Y	1.00	1.629E+00	1.629E+00	0.332E+00	20.39	
TH-228	1.91Y	1.02	1.785E+00	1.812E+00	0.261E+00	14.42	
TH-230	4.47E+09Y	1.00	1.295E+00	1.295E+00	0.208E+00	16.08	
TH-232	1.41E+10Y	1.00	1.629E+00	1.629E+00	0.332E+00	20.39	
TH-234	4.47E+09Y	1.00	1.785E+00	1.785E+00	1.633E+00	91.47	
U-234	4.47E+09Y	1.00	1.295E+00	1.295E+00	0.208E+00	16.08	
NP-237	2.14E+06Y	1.00	9.021E-01	9.021E-01	3.238E-01	35.89	
U-238	4.47E+09Y	1.00	1.785E+00	1.785E+00	1.633E+00	91.47	
AM-243	7380.00Y	1.00	3.779E-01	3.779E-01	0.716E-01	18.95	
ANH-511	1.00E+09Y	1.00	1.393E-01	1.393E-01	0.650E-01	46.65	
	Total Activity :		6.076E+01	6.086E+01			

Grand Total Activity : 6.076E+01 6.086E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	90.05	177	421	1.04	180.31	171	24	2.46E-02	39.2	7.69E+00	T
0	185.97	387	603	1.48	371.95	366	13	5.37E-02	29.0	7.61E+00	T
0	209.79	191	565	1.20	419.55	413	12	2.66E-02	51.9	7.18E+00	T
0	269.96	132	288	1.28	539.80	536	9	1.83E-02	50.5	6.27E+00	T
0	327.82	95	227	0.72	655.40	651	9	1.33E-02	60.3	5.63E+00	T
0	462.73	128	217	1.13	925.02	918	14	1.78E-02	52.0	4.58E+00	T
0	727.49	179	163	1.83	1454.24	1446	18	2.49E-02	37.3	3.34E+00	T
0	768.24	43	138	1.83	1535.71	1532	11	5.90E-03	****	3.20E+00	T
0	795.66	108	113	2.04	1590.51	1582	18	1.50E-02	49.9	3.11E+00	T
5	964.87	32	71	1.37	1928.83	1926	20	4.38E-03	86.9	2.66E+00	T
0	1377.27	88	15	2.82	2753.55	2745	16	1.22E-02	29.5	1.99E+00	T
0	1729.72	63	17	2.79	3458.60	3449	17	8.75E-03	39.2	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:48:10.50

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960003.CNF;1		
Acquisition date	: 12-FEB-2010 15:47:29	Detector SN#	:
Detector ID	: GAM22	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:02.18	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960003	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.30300E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 2-DEC-2009 16:47:28.08	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.046E+01	2.243E+00	4.166E-01	3.816E-02	49.121
CD-109	3.126E+00	9.179E-01	1.121E+00	1.064E-01	2.789
SN-126	3.072E-01	9.021E-02	1.106E-01	1.044E-02	2.778
TL-208	5.086E-01	8.663E-02	5.123E-02	5.555E-03	9.928
BI-211	4.508E+00	6.674E-01	2.660E-01	3.103E-02	16.949
PB-212	1.785E+00	2.574E-01	7.740E-02	1.023E-02	23.057
PO-212	1.785E+00	2.574E-01	7.740E-02	1.023E-02	23.057
BI-214	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
PB-214	1.568E+00	2.462E-01	9.270E-02	1.182E-02	16.919
PO-214	1.568E+00	2.462E-01	9.270E-02	1.182E-02	16.919
PO-216	1.785E+00	2.574E-01	7.740E-02	1.023E-02	23.057
PO-218	1.568E+00	2.462E-01	9.270E-02	1.182E-02	16.919
RA-224	5.015E+00	1.298E+00	8.800E-01	1.102E-01	5.700
RA-226	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
AC-228	1.629E+00	3.322E-01	1.797E-01	2.381E-02	9.067
RA-228	1.629E+00	3.322E-01	1.797E-01	2.381E-02	9.067
TH-228	1.812E+00	2.613E-01	7.858E-02	1.038E-02	23.057
TH-230	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.629E+00	3.322E-01	1.797E-01	2.381E-02	9.067
TH-234	1.785E+00	1.633E+00	1.684E+00	2.931E-01	1.060
U-234	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
NP-237	9.021E-01	3.238E-01	3.584E-01	8.115E-02	2.517
U-238	1.785E+00	1.633E+00	1.684E+00	2.931E-01	1.060
AM-243	3.779E-01	7.163E-02	7.383E-02	6.018E-03	5.119
ANH-511	1.393E-01	6.500E-02	4.025E-02	4.033E-03	3.462

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-7.084E-02		2.797E-01	4.451E-01	4.646E-02	-0.159
NA-22	-3.324E-02		3.568E-02	5.456E-02	4.702E-03	-0.609
NA-24	2.833E-01		3.484E-01	Half-Life too short		
AL-26	-1.518E-02		2.380E-02	3.535E-02	2.891E-03	-0.430
TI-44	3.737E-01	+	5.134E-02	6.819E-02	5.782E-03	5.481
SC-46	-3.399E-02		3.253E-02	4.957E-02	5.548E-03	-0.686
V-48	-2.241E-02		6.068E-02	9.697E-02	1.017E-02	-0.231
CR-51	4.080E-02		3.288E-01	5.530E-01	7.160E-02	0.074
MN-52	7.697E-02		1.801E-01	3.080E-01	2.753E-02	0.250
MN-54	-3.476E-05		3.294E-02	5.496E-02	6.106E-03	-0.001
CO-56	-2.273E-02		3.464E-02	5.522E-02	6.147E-03	-0.412
CO-57	-3.545E-03		2.288E-02	3.603E-02	2.971E-03	-0.098
CO-58	-2.963E-02		3.236E-02	5.063E-02	5.606E-03	-0.585
FE-59	1.112E-02		8.212E-02	1.346E-01	1.319E-02	0.083
CO-60	3.240E-03		2.739E-02	4.567E-02	4.073E-03	0.071
ZN-65	8.251E-02		8.912E-02	1.338E-01	1.193E-02	0.617
GE-68	-3.808E-01		1.066E+00	1.688E+00	1.592E-01	-0.226
AS-73	4.043E-02		6.594E-01	1.071E+00	8.092E-02	0.038
AS-74	-3.616E-02		8.245E-02	1.333E-01	1.382E-02	-0.271
SE-75	2.736E-02		4.524E-02	6.566E-02	8.837E-03	0.417
BR-77	-9.131E+00		9.002E+00	1.382E+01	1.391E+00	-0.661
SR-82	-4.438E-01		3.884E-01	5.227E-01	5.733E-02	-0.849
RB-83	-6.206E-02		5.871E-02	8.985E-02	9.042E-03	-0.691
RB-84	8.729E-03		6.238E-02	1.044E-01	1.168E-02	0.084
KR-85	3.411E+01		8.369E+00	1.362E+01	1.367E+00	2.504
SR-85	1.750E-01		4.293E-02	6.986E-02	7.010E-03	2.504
RB-86	-2.684E-01		6.821E-01	1.077E+00	1.017E-01	-0.249
Y-88	-1.010E-02		2.652E-02	4.108E-02	3.321E-03	-0.246
ZR-88	-1.711E-02		2.799E-02	4.460E-02	4.152E-03	-0.384
Y-91	3.895E+00		1.502E+01	2.541E+01	2.089E+00	0.153
NB-94	7.404E-03		2.954E-02	4.890E-02	5.240E-03	0.151
NB-95	6.348E-02		4.527E-02	6.909E-02	7.555E-03	0.919
NB-95M	2.272E-01		1.320E-01	1.987E-01	2.626E-02	1.143
ZR-95	7.139E-02		6.235E-02	1.074E-01	1.247E-02	0.665
NB-97	-2.883E-02		4.546E-02	Half-Life too short		
ZR-97	5.812E+00		9.887E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	2.324E+00		9.731E+00	1.605E+01	2.657E+00	0.145
TC-99M	-3.382E+10		2.044E+10	Half-Life too short		
RH-101	1.064E-02		3.262E-02	5.288E-02	5.769E-03	0.201
RH-102	2.369E-03		2.505E-02	4.072E-02	4.004E-03	0.058
RU-103	-8.998E-03		3.294E-02	5.205E-02	7.812E-03	-0.173
RH-106	1.274E-01		2.797E-01	4.726E-01	6.901E-02	0.270
RU-106	1.274E-01		2.794E-01	4.726E-01	4.936E-02	0.270
AG-108M	3.018E-03		2.877E-02	4.716E-02	4.668E-03	0.064
AG-110M	-1.020E-02		3.131E-02	5.044E-02	5.421E-03	-0.202
IN-111	-6.344E-01		1.045E+00	1.416E+00	1.796E-01	-0.448
IN-113M	-4.112E-03		4.053E-02	6.634E-02	6.335E-03	-0.062
SN-113	-4.112E-03		4.053E-02	6.634E-02	6.335E-03	-0.062
IN-114M	2.747E-02		1.898E-01	2.769E-01	2.944E-02	0.099
CD-115	5.526E+00		8.978E+00	1.552E+01	1.567E+00	0.356
SN-117M	3.104E-02		5.047E-02	8.599E-02	8.155E-03	0.361
SB-122	-1.039E+00		1.781E+00	2.867E+00	2.939E-01	-0.362
I-123	3.023E+00		2.796E+00	Half-Life too short		
TE-123M	1.418E-02		2.623E-02	4.460E-02	4.259E-03	0.318
I-124	2.750E-01		6.860E-01	1.006E+00	1.045E-01	0.273
SB-124	9.050E-03		5.668E-02	9.589E-02	8.529E-03	0.094
SB-125	-2.049E-02		8.571E-02	1.382E-01	1.341E-02	-0.148
TE-125M	8.593E-01		8.373E+00	1.343E+01	1.360E+00	0.064
I-126	-3.982E-02		1.605E-01	2.594E-01	2.741E-02	-0.153
SB-126	7.378E-02		1.367E-01	2.001E-01	2.157E-02	0.369
SB-127	6.454E-02		1.114E+00	1.829E+00	2.377E-01	0.035
XE-127	-2.291E-02		4.803E-02	7.140E-02	7.915E-03	-0.321
I-131	-4.245E-02		1.007E-01	1.631E-01	1.807E-02	-0.260
TE-132	4.005E-01		6.496E-01	1.076E+00	1.917E-01	0.372
BA-133	9.995E-03		4.059E-02	5.940E-02	8.876E-03	0.168
I-133	-2.290E-03		2.576E-03	Half-Life too short		
CS-134	1.318E-01	+	6.742E-02	7.614E-02	8.427E-03	1.731
CS-135	1.303E-01		1.734E-01	2.473E-01	3.577E-02	0.527
I-135	8.251E+07		2.498E+09	Half-Life too short		
CS-136	1.005E-01		9.937E-02	1.721E-01	1.740E-02	0.584
BA-137M	3.546E-02		3.275E-02	5.654E-02	5.962E-03	0.627
CS-137	3.748E-02		3.462E-02	5.977E-02	6.311E-03	0.627
CE-139	2.647E-04		2.796E-02	4.664E-02	4.574E-03	0.006
BA-140	2.402E-03		2.210E-01	3.700E-01	1.242E-01	0.006
LA-140	-1.155E-01		7.721E-02	1.078E-01	9.450E-03	-1.071
CE-141	1.030E-03		5.478E-02	9.226E-02	8.399E-03	0.011
CE-143	9.813E-04		1.459E-04	Half-Life too short		
CE-144	-4.527E-02		1.825E-01	3.064E-01	4.756E-02	-0.148
PM-144	2.399E-03		2.967E-02	4.870E-02	5.208E-03	0.049
PR-144	1.626E-01		2.010E+00	3.300E+00	3.528E-01	0.049
PM-146	1.077E-02		4.090E-02	6.552E-02	7.614E-03	0.164
ND-147	-2.948E-01		4.741E-01	7.632E-01	1.210E-01	-0.386
PM-149	8.697E+00		8.470E+01	1.359E+02	2.570E+01	0.064
EU-152	7.880E-02		1.124E-01	1.497E-01	1.800E-02	0.526

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-2.441E-02		7.821E-02	1.105E-01	9.716E-03	-0.221
EU-154	-9.144E-02		9.999E-02	1.528E-01	1.727E-02	-0.599
EU-155	4.267E-02		9.513E-02	1.550E-01	1.330E-02	0.275
TB-160	4.085E-02		1.306E-01	2.207E-01	2.468E-02	0.185
HO-166M	1.658E-02		5.083E-02	8.453E-02	9.088E-03	0.196
TM-171	-1.304E+01		2.620E+01	3.739E+01	2.825E+00	-0.349
LU-176	7.762E-04		2.201E-02	3.701E-02	4.855E-03	0.021
LU-177	3.357E+00	+	1.784E+00	1.939E+00	2.189E-01	1.732
LU-177M	-5.113E-02		1.589E-01	2.559E-01	2.420E-02	-0.200
HF-181	-3.929E-02		3.879E-02	5.868E-02	5.792E-03	-0.670
W-181	-7.482E-02		3.364E-01	4.870E-01	3.630E-02	-0.154
TA-182	-9.960E-02		1.581E-01	2.515E-01	2.091E-02	-0.396
RE-183	1.617E-02		1.013E-01	1.701E-01	1.641E-02	0.095
RE-184	-1.137E-01		2.139E-01	3.362E-01	4.362E-02	-0.338
OS-185	1.883E-02		3.567E-02	6.048E-02	6.356E-03	0.311
RE-188	9.152E-02		1.598E-01	2.722E-01	2.541E-02	0.336
W-188	-3.883E+00		7.191E+00	1.020E+01	1.393E+00	-0.381
IR-192	1.986E-02		3.113E-02	5.333E-02	6.815E-03	0.372
AU-195	1.978E-01		2.243E-01	3.346E-01	2.918E-02	0.591
TL-200	7.846E-05		2.064E-04	Half-Life too short		
TL-201	-4.626E-02		6.528E+00	1.088E+01	1.072E+00	-0.004
TL-202	4.257E-02		6.043E-02	1.019E-01	9.804E-03	0.418
HG-203	3.195E-02		4.025E-02	6.611E-02	9.357E-03	0.483
BI-207	9.740E-03		4.606E-02	7.617E-02	7.313E-03	0.128
TL-207	5.570E-01		6.369E-01	9.630E-01	1.914E-01	0.578
PO-209	2.788E+00		6.224E+00	1.061E+01	1.189E+00	0.263
BI-210	1.132E+00		2.840E+00	4.743E+00	4.407E-01	0.239
PB-210	1.132E+00		2.840E+00	4.743E+00	4.407E-01	0.239
PO-210	1.132E+00		2.840E+00	4.743E+00	3.988E-01	0.239
PB-211	-9.260E-01		1.006E+00	1.270E+00	7.971E-01	-0.729
BI-212	1.308E+00	+	5.122E-01	5.787E-01	6.912E-02	2.261
PO-215	5.570E-01		6.369E-01	9.630E-01	1.914E-01	0.578
RN-219	-3.798E-02		3.486E-01	5.688E-01	8.800E-02	-0.067
RN-220	2.885E+01		2.202E+01	3.900E+01	3.975E+00	0.740
RA-223	5.570E-01		6.369E-01	9.630E-01	1.914E-01	0.578
AC-227	2.987E-01		3.557E-01	5.871E-01	1.071E-01	0.509
TH-227	2.987E-01		3.568E-01	5.871E-01	1.208E-01	0.509
TH-229	-1.773E-01		4.789E-01	7.786E-01	8.371E-02	-0.228
PA-231	-5.269E-01		1.451E+00	2.274E+00	4.247E-01	-0.232
TH-231	5.570E-01		6.369E-01	9.630E-01	1.914E-01	0.578
U-231	-7.174E-01		1.052E+00	1.458E+00	1.295E-01	-0.492
PA-233	-5.278E-03		5.940E-02	9.922E-02	1.300E-02	-0.053
PA-234	-3.375E-02		2.416E-01	3.942E-01	7.835E-02	-0.086
PA-234M	-5.049E-01		4.043E+00	6.347E+00	7.274E-01	-0.080
U-235	1.004E-01		1.920E-01	3.188E-01	5.624E-02	0.315
NP-236	-3.142E-02		7.445E-02	1.226E-01	1.172E-02	-0.256
NP-239	1.291E-01		1.794E-01	2.925E-01	2.418E-02	0.441
AM-241	9.490E-02		1.316E-01	2.025E-01	1.583E-02	0.469

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-2.392E-02		8.596E-02	1.364E-01	1.163E-02	-0.175
AM-246	6.451E-02		1.186E-01	2.005E-01	1.886E-02	0.322
CM-247	3.635E-04		3.153E-02	5.177E-02	4.856E-03	0.007
CF-249	8.542E-03		3.486E-02	5.806E-02	5.518E-03	0.147
CF-251	2.650E-02		1.200E-01	2.006E-01	2.037E-02	0.132

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960003		
Acquisition date	: 12-FEB-2010 15:47:29	Detector SN#	:
Detector ID	: GAM22	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:02.18	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960003	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.3030E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

CALIB. DATE/TIME	: 2-DEC-2009 16:47:28	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.046E+01	2.198E+00	2.086E-01	1.122E+00
CD-109	3.126E+00	8.995E-01	5.871E-01	4.589E-01
SN-126	3.072E-01	8.841E-02	5.794E-02	4.511E-02
TL-208	5.086E-01	8.490E-02	2.604E-02	4.331E-02
BI-211	4.508E+00	6.541E-01	1.363E-01	3.337E-01
PB-212	1.785E+00	2.522E-01	3.992E-02	1.287E-01
PO-212	1.785E+00	2.522E-01	3.992E-02	1.287E-01
BI-214	1.295E+00	2.040E-01	5.052E-02	1.041E-01
PB-214	1.568E+00	2.413E-01	4.751E-02	1.231E-01
PO-214	1.568E+00	2.413E-01	4.751E-02	1.231E-01
PO-216	1.785E+00	2.522E-01	3.992E-02	1.287E-01
PO-218	1.568E+00	2.413E-01	4.751E-02	1.231E-01
RA-224	5.015E+00	1.272E+00	4.538E-01	6.489E-01
RA-226	1.295E+00	2.040E-01	5.052E-02	1.041E-01
AC-228	1.629E+00	3.255E-01	9.068E-02	1.661E-01
RA-228	1.629E+00	3.255E-01	9.068E-02	1.661E-01
TH-228	1.812E+00	2.561E-01	4.053E-02	1.307E-01
TH-230	1.295E+00	2.040E-01	5.052E-02	1.041E-01
TH-232	1.629E+00	3.255E-01	9.068E-02	1.661E-01
TH-234	1.785E+00	1.600E+00	8.866E-01	8.164E-01
U-234	1.295E+00	2.040E-01	5.052E-02	1.041E-01
NP-237	9.021E-01	3.173E-01	1.878E-01	1.619E-01
U-238	1.785E+00	1.600E+00	8.866E-01	8.164E-01
AM-243	3.779E-01	7.019E-02	3.877E-02	3.581E-02
ANH-511	1.393E-01	6.370E-02	2.051E-02	3.250E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-7.084E-02	2.741E-01	2.270E-01	1.398E-01	NOT IDENT.
NA-22	-3.324E-02	3.497E-02	2.738E-02	1.784E-02	NOT IDENT.

NA-24	2.833E+05	6.829E+05	0.000E+00	3.484E+05 SHORT HLIF
AL-26	-1.518E-02	2.332E-02	1.763E-02	1.190E-02 NOT IDENT.
TI-44	3.737E-01	5.031E-02	3.579E-02	2.567E-02 FAIL ABUN
SC-46	-3.399E-02	3.188E-02	2.502E-02	1.626E-02 FAIL ABUN
V-48	-2.241E-02	5.946E-02	4.887E-02	3.034E-02 NOT IDENT.
CR-51	4.080E-02	3.222E-01	2.839E-01	1.644E-01 NOT IDENT.
MN-52	7.697E-02	1.765E-01	1.543E-01	9.005E-02 NOT IDENT.
MN-54	-3.476E-05	3.228E-02	2.778E-02	1.647E-02 NOT IDENT.
CO-56	-2.273E-02	3.395E-02	2.790E-02	1.732E-02 NOT IDENT.
CO-57	-3.545E-03	2.242E-02	1.878E-02	1.144E-02 NOT IDENT.
CO-58	-2.963E-02	3.172E-02	2.560E-02	1.618E-02 NOT IDENT.
FE-59	1.112E-02	8.048E-02	6.773E-02	4.106E-02 NOT IDENT.
CO-60	3.240E-03	2.684E-02	2.290E-02	1.369E-02 NOT IDENT.
ZN-65	8.251E-02	8.734E-02	6.729E-02	4.456E-02 NOT IDENT.
GE-68	-3.808E-01	1.045E+00	8.497E-01	5.330E-01 NOT IDENT.
AS-73	4.043E-02	6.462E-01	5.653E-01	3.297E-01 NOT IDENT.
AS-74	-3.616E-02	8.081E-02	6.777E-02	4.123E-02 NOT IDENT.
SE-75	2.736E-02	4.434E-02	3.381E-02	2.262E-02 NOT IDENT.
BR-77	-9.131E+00	8.822E+00	7.040E+00	4.501E+00 FAIL ABUN
SR-82	-4.438E-01	3.806E-01	2.645E-01	1.942E-01 NOT IDENT.
RB-83	-6.206E-02	5.754E-02	4.576E-02	2.935E-02 NOT IDENT.
RB-84	8.729E-03	6.113E-02	5.274E-02	3.119E-02 NOT IDENT.
KR-85	3.411E+01	8.202E+00	6.938E+00	4.185E+00 NOT IDENT.
SR-85	1.750E-01	4.207E-02	3.559E-02	2.146E-02 NOT IDENT.
RB-86	-2.684E-01	6.685E-01	5.422E-01	3.411E-01 NOT IDENT.
Y-88	-1.010E-02	2.599E-02	2.049E-02	1.326E-02 NOT IDENT.
ZR-88	-1.711E-02	2.743E-02	2.282E-02	1.399E-02 NOT IDENT.
Y-91	3.895E+00	1.472E+01	1.276E+01	7.509E+00 NOT IDENT.
NB-94	7.404E-03	2.894E-02	2.478E-02	1.477E-02 NOT IDENT.
NB-95	6.348E-02	4.436E-02	3.497E-02	2.264E-02 NOT IDENT.
NB-95M	2.272E-01	1.294E-01	1.025E-01	6.600E-02 NOT IDENT.
ZR-95	7.139E-02	6.110E-02	5.437E-02	3.117E-02 NOT IDENT.
NB-97	-2.883E+04	8.911E+04	0.000E+00	4.546E+04 SHORT HLIF
ZR-97	5.812E+06	1.938E+06	0.000E+00	9.887E+05 SHORT HLIF
MO-99	2.324E+00	9.537E+00	8.127E+00	4.866E+00 NOT IDENT.
TC-99M	-3.382E+16	4.006E+16	0.000E+00	0.000E+00 SHORT HLIF
RH-101	1.064E-02	3.197E-02	2.735E-02	1.631E-02 NOT IDENT.
RH-102	2.369E-03	2.455E-02	2.077E-02	1.253E-02 FAIL ABUN
RU-103	-8.998E-03	3.228E-02	2.653E-02	1.647E-02 FAIL ABUN
RH-106	1.274E-01	2.741E-01	2.400E-01	1.398E-01 FAIL ABUN
RU-106	1.274E-01	2.738E-01	2.400E-01	1.397E-01 FAIL ABUN
AG-108M	3.018E-03	2.820E-02	2.409E-02	1.439E-02 NOT IDENT.
AG-110M	-1.020E-02	3.068E-02	2.559E-02	1.565E-02 NOT IDENT.
IN-111	-6.344E-01	1.024E+00	7.298E-01	5.227E-01 NOT IDENT.
IN-113M	-4.112E-03	3.972E-02	3.394E-02	2.026E-02 NOT IDENT.
SN-113	-4.112E-03	3.972E-02	3.394E-02	2.026E-02 NOT IDENT.
IN-114M	2.747E-02	1.860E-01	1.433E-01	9.488E-02 NOT IDENT.
CD-115	5.526E+00	8.799E+00	7.902E+00	4.489E+00 NOT IDENT.
SN-117M	3.104E-02	4.946E-02	4.464E-02	2.524E-02 NOT IDENT.
SB-122	-1.039E+00	1.745E+00	1.459E+00	8.904E-01 NOT IDENT.
I-123	3.023E+06	5.481E+06	0.000E+00	2.796E+06 SHORT HLIF
TE-123M	1.418E-02	2.571E-02	2.315E-02	1.312E-02 NOT IDENT.
I-124	2.750E-01	6.722E-01	5.110E-01	3.430E-01 FAIL ABUN
SB-124	9.050E-03	5.555E-02	4.789E-02	2.834E-02 FAIL ABUN
SB-125	-2.049E-02	8.400E-02	7.060E-02	4.286E-02 FAIL ABUN
TE-125M	8.593E-01	8.205E+00	7.014E+00	4.186E+00 NOT IDENT.
I-126	-3.982E-02	1.573E-01	1.316E-01	8.023E-02 NOT IDENT.
SB-126	7.378E-02	1.340E-01	1.014E-01	6.836E-02 FAIL ABUN
SB-127	6.454E-02	1.091E+00	9.274E-01	5.568E-01 NOT IDENT.
XE-127	-2.291E-02	4.707E-02	3.692E-02	2.401E-02 NOT IDENT.
I-131	-4.245E-02	9.868E-02	8.353E-02	5.034E-02 NOT IDENT.
TE-132	4.005E-01	6.366E-01	5.552E-01	3.248E-01 NOT IDENT.
BA-133	9.995E-03	3.978E-02	3.044E-02	2.030E-02 NOT IDENT.
I-133	-2.290E+03	5.049E+03	0.000E+00	2.576E+03 SHORT HLIF
CS-134	1.318E-01	6.607E-02	3.851E-02	3.371E-02 FAIL ABUN
CS-135	1.303E-01	1.699E-01	1.273E-01	8.668E-02 NOT IDENT.
I-135	8.251E+13	4.897E+15	0.000E+00	2.498E+15 SHORT HLIF
CS-136	1.005E-01	9.738E-02	8.664E-02	4.968E-02 FAIL ABUN
BA-137M	3.546E-02	3.210E-02	2.868E-02	1.638E-02 NOT IDENT.
CS-137	3.748E-02	3.393E-02	3.032E-02	1.731E-02 NOT IDENT.
CE-139	2.647E-04	2.740E-02	2.419E-02	1.398E-02 NOT IDENT.
BA-140	2.402E-03	2.166E-01	1.884E-01	1.105E-01 NOT IDENT.
LA-140	-1.155E-01	7.566E-02	5.390E-02	3.860E-02 FAIL ABUN
CE-141	1.030E-03	5.368E-02	4.796E-02	2.739E-02 NOT IDENT.
CE-143	9.813E+02	2.859E+02	0.000E+00	1.459E+02 SHORT HLIF
CE-144	-4.527E-02	1.789E-01	1.595E-01	9.126E-02 NOT IDENT.
PM-144	2.399E-03	2.907E-02	2.469E-02	1.483E-02 NOT IDENT.
PR-144	1.626E-01	1.970E+00	1.673E+00	1.005E+00 NOT IDENT.

PM-146	1.077E-02	4.008E-02	3.344E-02	2.045E-02 NOT IDENT.
ND-147	-2.948E-01	4.646E-01	3.886E-01	2.371E-01 FAIL ABUN
PM-149	8.697E+00	8.301E+01	6.987E+01	4.235E+01 NOT IDENT.
EU-152	7.880E-02	1.102E-01	7.678E-02	5.621E-02 FAIL ABUN
GD-153	-2.441E-02	7.665E-02	5.780E-02	3.911E-02 NOT IDENT.
EU-154	-9.144E-02	9.799E-02	7.666E-02	5.000E-02 NOT IDENT.
EU-155	4.267E-02	9.323E-02	8.096E-02	4.757E-02 FAIL ABUN
TB-160	4.085E-02	1.280E-01	1.115E-01	6.529E-02 FAIL ABUN
HO-166M	1.658E-02	4.981E-02	4.283E-02	2.542E-02 NOT IDENT.
TM-171	-1.304E+01	2.567E+01	1.967E+01	1.310E+01 NOT IDENT.
LU-176	7.762E-04	2.157E-02	1.901E-02	1.101E-02 FAIL ABUN
LU-177	3.357E+00	1.748E+00	1.002E+00	8.919E-01 FAIL ABUN
LU-177M	-5.113E-02	1.558E-01	1.308E-01	7.947E-02 FAIL ABUN
HF-181	-3.929E-02	3.802E-02	2.992E-02	1.940E-02 NOT IDENT.
W-181	-7.482E-02	3.296E-01	2.563E-01	1.682E-01 NOT IDENT.
TA-182	-9.960E-02	1.549E-01	1.263E-01	7.905E-02 FAIL ABUN
RE-183	1.617E-02	9.931E-02	8.828E-02	5.067E-02 FAIL ABUN
RE-184	-1.137E-01	2.096E-01	1.732E-01	1.070E-01 NOT IDENT.
OS-185	1.883E-02	3.496E-02	3.069E-02	1.783E-02 NOT IDENT.
RE-188	9.152E-02	1.566E-01	1.414E-01	7.990E-02 NOT IDENT.
W-188	-3.883E+00	7.047E+00	5.245E+00	3.596E+00 FAIL ABUN
IR-192	1.986E-02	3.051E-02	2.738E-02	1.557E-02 FAIL ABUN
AU-195	1.978E-01	2.198E-01	1.749E-01	1.122E-01 FAIL ABUN
TL-200	7.846E+01	4.046E+02	0.000E+00	2.064E+02 SHORT HLIF
TL-201	-4.626E-02	6.397E+00	5.641E+00	3.264E+00 NOT IDENT.
TL-202	4.257E-02	5.922E-02	5.202E-02	3.021E-02 NOT IDENT.
HG-203	3.195E-02	3.945E-02	3.401E-02	2.013E-02 NOT IDENT.
BI-207	9.740E-03	4.514E-02	3.834E-02	2.303E-02 FAIL ABUN
TL-207	5.570E-01	6.242E-01	4.943E-01	3.185E-01 FAIL ABUN
PO-209	2.788E+00	6.099E+00	5.356E+00	3.112E+00 NOT IDENT.
BI-210	1.132E+00	2.783E+00	2.509E+00	1.420E+00 NOT IDENT.
PB-210	1.132E+00	2.783E+00	2.509E+00	1.420E+00 NOT IDENT.
PO-210	1.132E+00	2.783E+00	2.509E+00	1.420E+00 NOT IDENT.
PB-211	-9.260E-01	9.859E-01	6.494E-01	5.030E-01 NOT IDENT.
BI-212	1.308E+00	5.019E-01	2.931E-01	2.561E-01 FAIL ABUN
PO-215	5.570E-01	6.242E-01	4.943E-01	3.185E-01 FAIL ABUN
RN-219	-3.798E-02	3.416E-01	2.909E-01	1.743E-01 FAIL ABUN
RN-220	2.885E+01	2.158E+01	1.985E+01	1.101E+01 NOT IDENT.
RA-223	5.570E-01	6.242E-01	4.943E-01	3.185E-01 FAIL ABUN
AC-227	2.987E-01	3.486E-01	3.024E-01	1.778E-01 FAIL ABUN
TH-227	2.987E-01	3.497E-01	3.024E-01	1.784E-01 FAIL ABUN
TH-229	-1.773E-01	4.693E-01	4.029E-01	2.394E-01 FAIL ABUN
PA-231	-5.269E-01	1.422E+00	1.170E+00	7.256E-01 FAIL ABUN
TH-231	5.570E-01	6.242E-01	4.943E-01	3.185E-01 FAIL ABUN
U-231	-7.174E-01	1.031E+00	7.630E-01	5.259E-01 FAIL ABUN
PA-233	-5.278E-03	5.821E-02	5.096E-02	2.970E-02 FAIL ABUN
PA-234	-3.375E-02	2.368E-01	1.988E-01	1.208E-01 FAIL ABUN
PA-234M	-5.049E-01	3.962E+00	3.198E+00	2.021E+00 NOT IDENT.
U-235	1.004E-01	1.882E-01	1.657E-01	9.602E-02 FAIL ABUN
NP-236	-3.142E-02	7.296E-02	6.365E-02	3.722E-02 NOT IDENT.
NP-239	1.291E-01	1.758E-01	1.526E-01	8.968E-02 FAIL ABUN
AM-241	9.490E-02	1.289E-01	1.067E-01	6.578E-02 NOT IDENT.
CM-243	-2.392E-02	8.424E-02	7.126E-02	4.298E-02 FAIL ABUN
AM-246	6.451E-02	1.162E-01	1.009E-01	5.930E-02 NOT IDENT.
CM-247	3.635E-04	3.090E-02	2.648E-02	1.576E-02 NOT IDENT.
CF-249	8.542E-03	3.417E-02	2.971E-02	1.743E-02 NOT IDENT.
CF-251	2.650E-02	1.176E-01	1.039E-01	5.999E-02 NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417

GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	312.4978
46.50	312.4978
46.50	312.4978
48.70	354.0563
49.72	301.6201
51.35	325.9946
52.39	305.2221
52.97	303.2025
53.15	301.5772
53.44	301.0218
54.07	310.2452
56.28	364.0680
56.28	364.0719
57.37	0.0000
57.53	337.5045
57.53	337.5072
57.60	336.6531
57.98	331.4744
57.98	331.4744
59.32	346.6324
59.32	346.6324
59.40	346.7423
59.54	346.9352
59.72	401.7000
60.01	402.1614
61.10	396.6731
61.14	396.7345
61.30	396.9815
63.00	428.1644
63.29	428.6377
63.29	428.6377
63.58	429.1086
64.28	487.6728
65.12	452.5890
65.20	451.2588
65.20	451.2588
66.05	445.3295
66.72	468.5230
66.83	468.7123
66.91	468.8506
67.20	487.0567
67.20	487.0567
67.75	501.3358
67.85	501.5181
68.90	487.0752
68.90	487.0752
69.30	496.6910
69.67	475.0100
70.82	467.9597
70.82	467.9597
70.83	467.9765
72.80	496.7649
72.87	496.8858
72.87	496.8858
74.67	499.9246
74.81	500.1588
74.81	500.1588
74.81	500.1588
74.81	500.1588
74.81	500.1588
74.81	500.1588
74.81	500.1588
74.97	500.4282
75.28	500.9468
75.70	501.6467
77.11	503.9857
77.11	503.9857

77.11	503.9857
77.11	503.9857
77.11	503.9857
77.11	503.9857
77.11	503.9857
78.38	470.8034
79.62	448.0515
79.80	448.3090
79.80	448.3090
80.11	505.8110
80.18	505.9236
80.30	506.1163
80.30	506.1163
80.57	506.5492
81.00	542.8085
81.07	542.9290
81.07	542.9290
81.07	542.9290
81.07	542.9290
82.60	497.3560
83.37	465.8234
83.78	483.5756
83.78	483.5756
83.78	483.5756
83.78	483.5756
84.21	477.9686
84.90	471.1507
85.43	529.9198
86.29	625.6099
86.50	626.0046
86.54	626.0806
86.59	626.1747
86.72	626.4207
86.79	524.7473
86.94	524.9863
87.30	525.5508
87.30	525.5508
87.30	525.5508
87.30	525.5508
87.30	525.5508
87.30	525.5508
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87.30	525.5508
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87.88	526.4587
88.03	526.6927
88.36	527.2064
88.47	527.3794
89.95	529.6733
91.11	531.4611
92.29	533.2667
92.38	533.4041
92.38	533.4041
93.35	534.8765
94.00	535.8607
94.67	536.8652
94.67	536.8729
94.90	537.2188
94.90	537.2188
94.90	537.2188
94.90	537.2188
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95.87	442.7896
96.73	438.9877
97.43	421.9783
98.44	410.1229
98.44	410.1248
98.88	382.9149
99.55	378.7134
99.55	378.7134
99.86	396.0193
100.00	396.1692
100.10	385.8173
103.18	421.9453
103.76	396.1761
105.00	373.1671
105.31	372.3613
108.00	424.9995
109.28	395.1207

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111.00	424.8444
111.76	415.5368
112.95	469.6934
115.19	421.2927
116.30	390.6236
117.00	386.7265
117.00	386.7265
117.66	421.5100
121.11	390.4791
121.62	367.9443
121.78	368.0794
122.06	367.1661
122.32	367.3851
122.32	367.3851
122.32	367.3851
122.32	367.3851
123.07	354.1755
127.23	455.3423
129.76	394.3686
131.20	496.9381
133.02	448.4795
133.54	422.4153
135.34	382.2601
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136.25	411.5005
136.48	411.7014
140.51	457.4134
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143.76	385.3767
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144.24	372.1677
144.24	372.1677
144.24	372.1677
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145.44	403.0254
147.16	462.7043
152.43	410.4519
152.70	414.3494
153.22	435.0422
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154.21	448.7988
154.21	448.7988
154.21	448.7988
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156.02	414.2130
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162.32	414.4290
162.64	425.9333
163.35	430.2451
163.89	418.4437
165.85	427.4870
167.43	411.6722
171.28	384.9608
171.86	403.4753
172.10	403.6463
176.55	412.5499
176.60	412.5858
181.06	406.2311
184.41	422.5476
185.71	402.3626
186.00	402.5575
190.27	390.4183
192.34	402.7798
193.63	417.4636
197.04	404.8078
198.01	399.4458
198.60	403.8011
200.40	432.9339
201.83	431.8911
202.84	422.8602
205.31	401.3575

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208.81	369.6617
209.75	370.1824
209.75	370.1824
210.97	351.1450
215.65	347.8494
216.55	352.4037
218.09	378.8618
222.10	355.2382
223.80	361.2749
226.40	360.5256
227.00	352.5112
227.08	352.5500
227.20	337.0073
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228.18	333.3032
228.18	333.3032
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236.00	350.3906
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238.63	299.0185
238.63	299.0185
238.63	299.0185
239.00	299.1675
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241.98	300.3636
241.98	300.3636
241.98	300.3636
244.69	272.6836
245.39	284.8765
247.94	285.2600
248.90	250.9341
249.79	241.2666
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252.85	305.7368
254.15	0.0000
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256.20	275.6952
260.50	309.8053
260.90	316.4874
262.80	286.7132
264.65	256.9952
268.24	295.0049
268.79	288.1772
269.46	265.5514
269.46	265.5514
269.46	265.5514
269.46	265.5514
271.23	322.5196
273.65	422.4453
276.40	323.0101
277.35	309.5837
277.60	300.7936
277.60	300.7936
278.00	287.6127
278.60	294.4858
279.20	309.1528
279.53	309.2716
280.46	346.3633
281.68	320.0942
283.67	292.8910
284.30	299.8193
285.00	279.9110
285.90	261.1508
286.10	255.6059
286.10	255.6059
287.40	240.2700
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290.80	275.0250
291.72	297.8822
293.26	0.0000
293.70	230.6984
295.21	285.4688
295.21	285.4688

295.21	285.4688
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296.50	317.6489
297.23	317.9095
298.57	318.3881
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299.80	230.7677
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300.09	226.2889
300.09	226.2889
300.09	226.2889
300.12	226.2950
301.29	252.4414
302.84	268.1107
303.76	274.4824
303.91	274.5264
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304.40	259.4167
304.84	276.3351
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308.46	233.5950
311.98	277.8739
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318.01	282.4617
319.02	288.3431
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320.08	244.8995
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323.87	207.2361
323.87	207.2361
323.87	207.2361
325.23	251.2186
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334.20	271.6615
334.30	266.4921
338.28	251.4362
338.28	251.4362
338.28	251.4362
338.28	251.4362
338.32	251.4492
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338.32	251.4492
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340.57	272.6203
344.27	221.9251
345.85	216.6974
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351.07	193.1484
351.92	193.3079
351.92	193.3079
351.92	193.3079
355.39	0.0000
356.01	191.5011
364.48	216.0950
366.43	194.0639
367.43	208.8877
367.94	0.0000
369.80	194.6760
374.96	192.6647
383.85	211.0837
387.95	202.9118
388.63	197.0646
391.69	225.5476
391.69	225.5476
392.90	234.7820
398.62	198.8169
400.65	220.2939
401.10	214.3442
401.81	194.3382
402.60	195.4801
404.84	233.2136
410.95	224.2940
411.60	234.5727
413.65	220.7403
414.70	202.6122
415.30	195.5836

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418.52	202.2442
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433.93	183.1168
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439.56	166.2871
439.89	168.4112
443.98	179.3948
444.90	188.9210
445.03	188.9408
445.03	188.9408
445.03	188.9408
445.03	188.9408
453.90	189.2197
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468.07	171.8241
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475.06	162.4092
475.35	169.9274
476.78	173.3194
477.59	172.3537
477.96	173.4737
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484.57	161.4185
487.03	141.2280
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497.08	143.3582
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510.53	0.0000
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511.00	166.7361
511.85	166.8354
511.85	166.8354
513.99	135.5763
513.99	135.5763
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529.87	0.0000
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546.56	0.0000
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552.65	154.2572
555.20	159.2283
563.23	157.2258
563.90	171.5103
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569.32	154.9946
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574.00	174.5373
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592.07	169.7910
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602.71	169.8055
603.60	193.2173
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609.31	171.6064

609.31	171.6064
609.31	171.6064
609.31	171.6064
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618.01	167.6115
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621.84	143.4366
631.29	143.2536
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634.78	130.6787
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666.33	160.2907
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677.61	114.6369
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695.00	143.3895
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696.49	144.5313
697.00	145.5968
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698.33	155.9614
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699.00	159.0964
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713.82	137.6027
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722.78	128.3052
722.78	128.3052
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723.30	121.2104
724.18	140.8813
727.18	132.3201
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742.81	129.1935
744.21	128.2325
747.13	104.2126
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752.31	141.4290
753.82	139.4229
755.35	119.4464
756.15	111.0349
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763.93	140.1345
765.79	136.6202
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766.84	138.5134
776.49	163.7979
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778.57	165.7471
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783.80	110.4245
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810.29	126.5774
810.76	125.6750
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817.79	94.3352
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826.30	99.4009
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831.96	128.8078
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846.75	134.4201
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867.82	112.0504
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880.27	119.1562
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881.50	116.3367
883.24	107.7656
884.67	111.6852
889.25	115.7687
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903.28	113.2385
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911.07	107.3680
911.07	107.3680
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926.50	108.8088
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937.48	118.1731
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949.00	105.8748
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964.01	81.8857
966.15	101.1389
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969.11	111.7363
969.11	111.7363
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980.50	98.2170
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989.30	111.6368
996.32	112.9570
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1001.68	92.9819
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1036.00	80.9094
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1038.76	0.0000
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1046.59	97.6871
1048.07	98.7723

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1050.47	107.0977
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1063.62	102.4529
1076.63	106.0662
1077.35	104.0144
1078.86	86.3811
1085.78	99.1185
1099.22	110.0903
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1112.84	94.0344
1115.52	97.8158
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1120.29	95.0757
1120.29	95.0757
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1129.67	86.7503
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1147.95	0.0000
1167.94	102.4436
1173.22	96.0359
1175.09	97.0403
1177.93	115.9957
1189.05	106.9651
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1205.75	0.0000
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1230.97	153.5742
1235.34	106.6945
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1238.25	92.3643
1246.25	125.3979
1260.41	0.0000
1271.85	81.6929
1274.45	96.3594
1274.54	96.3625
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1298.22	0.0000
1312.09	78.7866
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1325.50	57.3557
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1333.61	43.6187
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1362.66	0.0000
1365.15	55.5090
1368.21	46.2998
1368.53	0.0000
1376.25	59.2395
1384.27	42.9414
1394.10	64.5977
1395.20	64.6172
1407.95	72.9646
1434.06	37.7769
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1457.56	0.0000
1460.81	40.1212
1489.15	70.5048
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1596.49	67.3310
1620.62	46.7563
1678.03	0.0000
1691.02	24.2778
1691.02	24.2778
1706.46	0.0000
1750.46	0.0000
1764.49	27.6742
1764.49	27.6742
1764.49	27.6742
1764.49	27.6742
1770.23	37.4104
1771.40	44.5483
1791.20	0.0000
1808.65	28.9583

1836.01 27.1304

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960003

Total Uranium Activity	5.3568E+00	ug/g
Total Uranium Counting Unc.	4.7612E+00	ug/g
Total Uranium Tpu	2.4292E-06	ug/g
Total Uranium Mda	2.6389E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G245960003
ANALYST	: MXR1	DETECTOR	: GAM22
SAMPLE DATE	: 28-JAN-2010 12:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 12-FEB-2010 15:47:29.94	SAMPLE ALQT	: 130.300 GRAM

GROSS GAMMA ACTIVITY (pCi/GRAM)	: 8.651E+00
GROSS GAMMA ERROR (pCi/GRAM)	: 1.088E+00
GROSS GAMMA MDA (pCi/GRAM)	: 2.217E+00
GROSS GAMMA DLC (pCi/GRAM)	: 1.076E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:48:57.14

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960004.CNF;1
Sample date      : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:47:53
Sample ID        : G245960004           Sample quantity  : 1.21720E+02 GRAM
Detector name    : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.94  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 948717               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.65*	141	310	0.84	92.86	89	7	1.95E-02	24.0	
2	0	63.53*	214	698	0.86	126.61	122	10	2.98E-02	24.8	
3	3	74.86	811	443	0.81	149.27	143	15	1.13E-01	5.2	9.76E-01
4	3	77.11*	1201	420	0.81	153.77	143	15	1.67E-01	3.9	
5	4	84.12*	163	421	1.19	167.79	164	19	2.26E-02	22.2	1.77E+00
6	4	87.24*	453	381	1.20	174.04	164	19	6.29E-02	8.7	
7	4	89.85	308	335	1.21	179.25	164	19	4.27E-02	11.9	
8	0	92.91*	295	415	1.34	185.37	182	7	4.10E-02	13.8	
9	0	128.83	179	365	1.20	257.20	252	10	2.49E-02	21.3	
10	0	186.07*	289	334	1.26	371.68	367	12	4.01E-02	14.5	
11	0	209.33	136	188	0.81	418.20	415	8	1.89E-02	19.4	
12	0	238.63*	1467	231	1.06	476.78	473	7	2.04E-01	3.2	
13	0	241.73	248	230	1.68	483.00	481	7	3.44E-02	12.6	
14	0	270.20	115	204	0.93	539.93	535	10	1.59E-02	25.1	
15	0	277.89	66	153	0.98	555.29	552	8	9.23E-03	34.7	
16	0	295.21*	457	141	1.12	589.95	586	10	6.35E-02	6.8	
17	0	300.04	122	155	1.27	599.59	596	9	1.70E-02	20.4	
18	0	328.29	80	178	1.08	656.10	651	11	1.11E-02	34.2	
19	0	338.21*	268	196	1.14	675.94	671	12	3.73E-02	12.2	
20	0	351.90*	688	173	1.04	703.30	697	11	9.56E-02	5.3	
21	0	408.88	47	127	1.59	817.27	813	10	6.59E-03	46.8	
22	0	463.02	71	76	1.50	925.54	921	8	9.89E-03	24.3	
23	0	510.40*	162	127	1.59	1020.30	1013	15	2.25E-02	19.1	
24	0	583.06*	407	108	1.32	1165.61	1158	16	5.66E-02	7.7	
25	0	609.20*	451	108	1.52	1217.90	1211	12	6.26E-02	6.7	
26	0	661.64*	8	81	1.06	1322.77	1318	11	1.04E-03	258.1	
27	0	727.29	106	65	1.41	1454.08	1449	11	1.48E-02	17.7	
28	0	768.78	39	85	0.95	1537.05	1532	12	5.39E-03	49.9	
29	0	795.04	74	49	1.76	1589.56	1583	15	1.02E-02	23.7	
30	0	860.77	47	49	1.52	1721.03	1715	14	6.53E-03	34.8	
31	0	910.96*	251	72	1.45	1821.41	1814	15	3.49E-02	9.8	
32	4	964.37	58	39	1.83	1928.22	1923	31	7.99E-03	25.2	1.61E+00
33	4	968.66*	179	46	2.14	1936.81	1923	31	2.48E-02	11.1	
34	0	1120.05	139	40	2.18	2239.60	2231	16	1.94E-02	13.2	
35	0	1238.23	47	44	4.20	2475.96	2468	16	6.48E-03	35.0	
36	0	1377.88	40	17	1.93	2755.29	2747	15	5.58E-03	28.1	
37	0	1460.47*	796	0	2.08	2920.46	2913	16	1.11E-01	3.6	
38	0	1729.13	29	2	1.68	3457.83	3452	10	4.01E-03	21.1	

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1763.99*	74	0	1.67	3527.56	3520	14	1.03E-02	12.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:49:00

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:47:53
Sample ID : G245960004 Sample quantity : 121.72 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.94 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.076E+01	2.312E+00	5.432E-01	4.626E-02	38.221
CD-109	+	88.03	*	4.082E+00	8.361E-01	7.480E-01	8.038E-02	5.457
SN-126	+	64.28		7.038E-01	3.666E-01	2.798E-01	4.458E-02	2.515
	+	86.94		1.668E+00	7.562E-01	3.042E-01	1.273E-01	5.483
	+	87.57	*	4.012E-01	8.218E-02	7.337E-02	7.867E-03	5.468
BA-137M	+	661.65	*	1.154E-02	5.959E-02	6.478E-02	7.176E-03	0.178
CS-137	+	661.65	*	1.220E-02	6.299E-02	6.848E-02	7.595E-03	0.178
HG-203		70.83		-1.301E-01	5.455E-01	7.826E-01	1.138E-01	-0.166
		72.87		2.829E-01	3.098E-01	5.004E-01	7.110E-02	0.565
		82.60		1.793E-01	6.917E-01	1.006E+00	1.507E-01	0.178
	+	279.20	*	7.027E-02	4.937E-02	5.874E-02	6.667E-03	1.196
TL-208	+	277.35		6.372E-01	4.510E-01	5.666E-01	8.048E-02	1.125
	+	510.84		8.229E-01	3.328E-01	2.151E-01	2.849E-02	3.826
	+	583.14	*	5.978E-01	1.139E-01	5.891E-02	6.641E-03	10.147
	+	860.37		6.592E-01	4.639E-01	4.677E-01	4.889E-02	1.410
BI-210	+	46.50	*	1.167E+00	5.737E-01	5.417E-01	5.586E-02	2.153
PB-210	+	46.50	*	1.167E+00	5.737E-01	5.417E-01	5.586E-02	2.153
PO-210	+	46.50	*	1.167E+00	5.718E-01	5.417E-01	5.160E-02	2.153
BI-211		72.87		1.421E+00	1.550E+00	2.514E+00	2.538E-01	0.565
	+	351.07	*	4.222E+00	6.333E-01	2.959E-01	3.118E-02	14.268
PB-212	+	74.81		2.411E+00	4.175E-01	2.815E-01	3.886E-02	8.563
	+	77.11		2.131E+00	2.755E-01	1.687E-01	1.729E-02	12.634
	+	87.30		1.855E+00	4.229E-01	3.389E-01	4.966E-02	5.475
	+	238.63	*	1.900E+00	2.476E-01	1.191E-01	1.356E-02	15.957
	+	300.09		2.488E+00	1.061E+00	1.092E+00	1.360E-01	2.279
PO-212	+	74.81		2.411E+00	4.175E-01	2.815E-01	3.886E-02	8.563
	+	77.11		2.131E+00	2.755E-01	1.687E-01	1.729E-02	12.634
	+	87.30		1.855E+00	4.229E-01	3.389E-01	4.966E-02	5.475
		115.19		7.116E-01	2.541E+00	4.352E+00	5.397E-01	0.164
	+	238.63	*	1.900E+00	2.476E-01	1.191E-01	1.356E-02	15.957
	+	300.09		2.488E+00	1.061E+00	1.092E+00	1.360E-01	2.279
BI-214	+	609.31	*	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
	+	1120.29		2.037E+00	5.816E-01	4.240E-01	4.602E-02	4.803
	+	1764.49		1.540E+00	3.962E-01	2.820E-01	2.324E-02	5.459

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-214	+	74.81		4.154E+00	6.794E-01	4.850E-01	6.099E-02	8.563
	+	77.11		3.654E+00	5.483E-01	2.892E-01	3.693E-02	12.634
	+	87.30		3.178E+00	6.957E-01	5.806E-01	7.661E-02	5.475
	+	241.98		1.929E+00	5.372E-01	4.750E-01	5.665E-02	4.060
	+	295.21		1.632E+00	3.029E-01	1.888E-01	2.394E-02	8.646
	+	351.92	*	1.469E+00	2.333E-01	1.032E-01	1.212E-02	14.233
PO-214	+	74.81		4.154E+00	6.794E-01	4.850E-01	6.099E-02	8.563
	+	77.11		3.654E+00	5.483E-01	2.892E-01	3.693E-02	12.634
	+	87.30		3.178E+00	6.957E-01	5.806E-01	7.661E-02	5.475
	+	241.98		1.929E+00	5.372E-01	4.750E-01	5.665E-02	4.060
	+	295.21		1.632E+00	3.029E-01	1.888E-01	2.394E-02	8.646
	+	351.92	*	1.469E+00	2.333E-01	1.032E-01	1.212E-02	14.233
PO-216	+	74.81		2.411E+00	4.175E-01	2.815E-01	3.886E-02	8.563
	+	77.11		2.131E+00	2.755E-01	1.687E-01	1.729E-02	12.634
	+	87.30		1.855E+00	4.229E-01	3.389E-01	4.966E-02	5.475
	+	238.63	*	1.900E+00	2.476E-01	1.191E-01	1.356E-02	15.957
	+	300.09		2.488E+00	1.061E+00	1.092E+00	1.360E-01	2.279
PO-218	+	74.81		4.154E+00	6.794E-01	4.850E-01	6.099E-02	8.563
	+	77.11		3.654E+00	5.483E-01	2.892E-01	3.693E-02	12.634
	+	87.30		3.178E+00	6.957E-01	5.806E-01	7.661E-02	5.475
	+	241.98		1.929E+00	5.372E-01	4.750E-01	5.665E-02	4.060
	+	295.21		1.632E+00	3.029E-01	1.888E-01	2.394E-02	8.646
	+	351.92	*	1.469E+00	2.333E-01	1.032E-01	1.212E-02	14.233
RA-224	+	240.98	*	3.657E+00	9.978E-01	1.026E+00	1.078E-01	3.564
RA-226	+	609.31	*	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
	+	1120.29		2.037E+00	5.816E-01	4.240E-01	4.602E-02	4.803
	+	1764.49		1.540E+00	3.962E-01	2.820E-01	2.324E-02	5.459
AC-228	+	338.32		1.807E+00	8.720E-01	3.385E-01	1.411E-01	5.339
	+	911.07	*	1.668E+00	3.817E-01	2.123E-01	2.525E-02	7.858
	+	969.11		2.089E+00	6.777E-01	3.291E-01	7.768E-02	6.349
RA-228	+	338.32		1.807E+00	8.720E-01	3.385E-01	1.411E-01	5.339
	+	911.07	*	1.668E+00	3.817E-01	2.123E-01	2.525E-02	7.858
	+	969.11		2.089E+00	6.777E-01	3.291E-01	7.768E-02	6.349
TH-228	+	74.81		2.447E+00	3.580E-01	2.858E-01	2.921E-02	8.563
	+	77.11		2.164E+00	2.797E-01	1.713E-01	1.755E-02	12.634
	+	87.30		1.884E+00	3.859E-01	3.441E-01	3.685E-02	5.475
	+	238.63	*	1.929E+00	2.513E-01	1.209E-01	1.377E-02	15.957
	+	300.09		2.526E+00	1.826E+00	1.108E+00	6.614E-01	2.279
TH-230	+	609.31	*	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
	+	1120.29		2.037E+00	5.816E-01	4.240E-01	4.602E-02	4.803
	+	1764.49		1.540E+00	3.962E-01	2.820E-01	2.324E-02	5.459
TH-232	+	338.32		1.807E+00	4.781E-01	3.385E-01	3.528E-02	5.339
	+	911.07	*	1.668E+00	3.817E-01	2.123E-01	2.525E-02	7.858
	+	969.11		2.089E+00	6.777E-01	3.291E-01	7.768E-02	6.349
TH-234	+	63.29	*	1.778E+00	9.419E-01	7.058E-01	1.314E-01	2.519
	+	92.38		1.820E+00	6.124E-01	4.904E-01	9.474E-02	3.711
U-234	+	609.31	*	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
	+	1120.29		2.037E+00	5.816E-01	4.240E-01	4.602E-02	4.803
	+	1764.49		1.540E+00	3.962E-01	2.820E-01	2.324E-02	5.459

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	+	86.50	*	1.178E+00	3.425E-01	2.144E-01	4.981E-02	5.494
		95.87		-3.565E-01	6.552E-01	9.742E-01	2.498E-01	-0.366
U-238	+	63.29	*	1.778E+00	9.419E-01	7.058E-01	1.314E-01	2.519
	+	92.38		1.820E+00	5.398E-01	4.904E-01	5.383E-02	3.711
AM-243	+	74.67	*	3.908E-01	5.699E-02	4.562E-02	4.633E-03	8.567
	+	86.72		4.418E+01	9.049E+00	8.049E+00	8.596E-01	5.489
		117.66		-2.346E+00	2.798E+00	4.535E+00	5.702E-01	-0.517
		142.18		-9.619E+00	1.466E+01	2.324E+01	2.624E+00	-0.414
ANH-511	+	511.00	*	1.778E-01	7.033E-02	4.648E-02	4.784E-03	3.824

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.539E-01	3.362E-01	5.761E-01	6.099E-02	0.441
NA-22		1274.54	*	1.750E-02	4.664E-02	7.967E-02	6.533E-03	0.220
NA-24		1368.53	*	1.788E-01	4.664E-02	Half-Life too short		
AL-26		1129.67		3.415E-01	1.611E+00	2.738E+00	2.338E-01	0.125
		1808.65	*	-1.640E-02	2.403E-02	3.120E-02	2.557E-03	-0.526
TI-44		67.85		-2.548E-03	2.108E-02	3.042E-02	3.028E-03	-0.084
	+	78.38	*	3.933E-01	5.085E-02	4.652E-02	4.790E-03	8.455
SC-46		889.25	*	-5.024E-02	4.255E-02	5.999E-02	5.745E-03	-0.837
	+	1120.51		3.488E-01	9.687E-02	1.501E-01	1.291E-02	2.323
V-48		944.10		-3.766E-01	9.772E-01	1.515E+00	1.422E-01	-0.249
		983.50	*	-6.545E-03	6.787E-02	1.080E-01	1.001E-02	-0.061
		1312.09		-4.471E-02	8.324E-02	1.271E-01	1.035E-02	-0.352
CR-51		320.08	*	-3.307E-01	3.502E-01	5.544E-01	6.157E-02	-0.597
MN-52		744.21		3.725E-02	2.346E-01	3.939E-01	4.256E-02	0.095
		848.13		1.907E+00	6.434E+00	1.085E+01	1.087E+00	0.176
		935.52		5.021E-02	2.975E-01	4.891E-01	4.599E-02	0.103
		1246.25		2.567E+00	8.473E+00	1.298E+01	1.066E+00	0.198
		1333.61		4.481E+00	5.475E+00	9.671E+00	7.856E-01	0.463
		1434.06	*	1.056E-01	2.226E-01	3.893E-01	3.209E-02	0.271
MN-54		834.83	*	9.325E-03	4.499E-02	7.483E-02	7.593E-03	0.125
CO-56		846.75	*	-2.957E-03	3.685E-02	5.970E-02	5.990E-03	-0.050
		977.42		-1.236E-01	3.230E+00	4.457E+00	4.139E-01	-0.028
		1037.82		2.635E-01	3.323E-01	5.956E-01	5.652E-02	0.442
		1175.09		-1.430E+00	2.244E+00	3.469E+00	2.855E-01	-0.412
	+	1238.25		1.918E-01	1.353E-01	1.638E-01	1.389E-02	1.171
		1360.21		7.415E-02	8.646E-01	1.432E+00	1.169E-01	0.052
		1771.40		-5.536E-01	3.212E-01	3.642E-01	2.998E-02	-1.520
CO-57		122.06	*	-5.070E-03	1.804E-02	3.003E-02	3.873E-03	-0.169
		136.48		-5.610E-02	1.564E-01	2.574E-01	3.155E-02	-0.218
CO-58		810.76	*	-4.869E-02	4.342E-02	6.316E-02	6.553E-03	-0.771
FE-59		142.65		1.402E+00	2.216E+00	3.715E+00	4.180E-01	0.377
		192.34		1.899E-01	8.645E-01	1.362E+00	1.908E-01	0.139
		1099.22	*	1.653E-02	1.027E-01	1.737E-01	1.636E-02	0.095
		1291.56		9.810E-03	1.293E-01	2.142E-01	2.012E-02	0.046
CO-60		1173.22		2.362E-03	4.349E-02	7.248E-02	5.966E-03	0.033

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	-9.293E-04	4.372E-02	7.024E-02	5.704E-03	-0.013
ZN-65		1115.52	*	-5.779E-02	1.008E-01	1.317E-01	1.138E-02	-0.439
GE-68		1077.35	*	5.738E-01	1.224E+00	2.140E+00	1.894E-01	0.268
AS-73		53.44	*	1.390E-01	1.692E-01	2.808E-01	2.696E-02	0.495
AS-74		595.88	*	3.662E-02	9.327E-02	1.540E-01	1.669E-02	0.238
		634.78		1.891E-01	3.528E-01	6.166E-01	6.782E-02	0.307
SE-75		66.05		-1.308E+00	2.023E+00	2.835E+00	3.268E-01	-0.461
		96.73		-9.823E-01	5.624E-01	7.555E-01	1.164E-01	-1.300
		121.11		3.741E-02	9.797E-02	1.679E-01	2.468E-02	0.223
		136.00		1.400E-03	2.880E-02	4.835E-02	5.737E-03	0.029
		198.60		1.526E+00	1.577E+00	2.637E+00	2.768E-01	0.579
		264.65	*	2.293E-02	4.211E-02	6.615E-02	7.250E-03	0.347
		279.53		2.645E-02	1.137E-01	1.631E-01	1.861E-02	0.162
		303.91		-2.191E-01	2.086E+00	3.091E+00	4.115E-01	-0.071
		400.65		2.499E-01	2.602E-01	4.536E-01	5.247E-02	0.551
BR-77	+	87.88		8.925E+02	1.828E+02	2.421E+02	2.600E+01	3.686
		200.40		1.326E+02	1.437E+02	2.439E+02	2.363E+01	0.544
	+	239.00		3.089E+02	3.778E+01	4.101E+01	4.294E+00	7.533
		249.79		-5.185E+00	5.946E+01	9.461E+01	1.009E+01	-0.055
		281.68		4.028E+01	9.413E+01	1.372E+02	1.529E+01	0.294
		297.23		1.928E+02	7.329E+01	1.020E+02	1.124E+01	1.890
		303.76		-2.915E+01	1.793E+02	2.644E+02	2.894E+01	-0.110
		439.47		2.134E+02	1.440E+02	2.584E+02	2.488E+01	0.826
		484.57		-9.459E+00	2.145E+02	3.478E+02	3.502E+01	-0.027
		520.65	*	-5.596E+00	1.023E+01	1.570E+01	1.627E+00	-0.357
		574.64		-1.465E+02	2.268E+02	3.419E+02	3.667E+01	-0.428
		578.91		7.084E+00	1.033E+02	1.453E+02	1.562E+01	0.049
		585.48		1.093E+03	2.665E+02	4.600E+02	4.961E+01	2.376
		755.35		-1.786E+01	1.845E+02	3.012E+02	3.236E+01	-0.059
		817.79		1.788E+02	1.491E+02	2.683E+02	2.763E+01	0.666
SR-82		698.33		1.408E+01	3.531E+01	6.055E+01	6.658E+00	0.233
		776.49	*	-1.355E-01	3.783E-01	5.834E-01	6.191E-02	-0.232
		1395.20		-9.216E+00	1.176E+01	1.686E+01	1.383E+00	-0.547
RB-83		520.41	*	-3.847E-02	6.568E-02	1.003E-01	1.039E-02	-0.384
		529.64		1.532E-02	1.084E-01	1.770E-01	1.847E-02	0.087
		552.65		1.088E-01	1.994E-01	3.352E-01	3.550E-02	0.325
RB-84		881.50	*	-1.033E-02	7.815E-02	1.256E-01	1.214E-02	-0.082
KR-85		513.99	*	4.944E+00	8.219E+00	1.232E+01	1.271E+00	0.401
SR-85		513.99	*	2.536E-02	4.216E-02	6.320E-02	6.520E-03	0.401
RB-86		1076.63	*	-1.088E-01	7.839E-01	1.291E+00	1.144E-01	-0.084
Y-88		898.02		-4.856E-02	4.436E-02	6.317E-02	6.008E-03	-0.769
		1836.01	*	-2.199E-02	3.530E-02	4.977E-02	4.067E-03	-0.442
ZR-88		392.90	*	-1.441E-02	2.861E-02	4.569E-02	4.158E-03	-0.316
Y-91		1204.90	*	-1.645E+01	1.809E+01	2.756E+01	2.268E+00	-0.597
NB-94		702.63	*	-1.289E-02	3.502E-02	5.648E-02	6.203E-03	-0.228
		871.10		8.423E-03	3.292E-02	5.515E-02	5.395E-03	0.153
NB-95		765.79	*	3.733E-02	5.361E-02	8.235E-02	8.797E-03	0.453
NB-95M		235.69	*	-2.859E-02	1.190E-01	1.672E-01	1.917E-02	-0.171
ZR-95		724.18		2.496E-02	1.129E-01	1.665E-01	1.915E-02	0.150

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		756.15	*	-5.317E-02	8.098E-02	1.257E-01	1.439E-02	-0.423
NB-97		657.90	*	1.501E-02	8.098E-02	Half-Life too short		
		1024.50		4.189E+00	8.098E-02	Half-Life too short		
ZR-97		254.15		3.883E+00	8.098E-02	Half-Life too short		
		355.39		2.006E+00	8.098E-02	Half-Life too short		
		507.63	*	1.551E+00	8.098E-02	Half-Life too short		
		602.52		2.628E+00	8.098E-02	Half-Life too short		
		1021.30		-4.070E+00	8.098E-02	Half-Life too short		
		1147.95		2.430E+00	8.098E-02	Half-Life too short		
		1362.66		-7.722E+00	8.098E-02	Half-Life too short		
		1750.46		2.514E-01	8.098E-02	Half-Life too short		
MO-99		140.51		1.627E+00	2.086E+01	3.497E+01	1.003E+01	0.047
		181.06		8.396E+00	1.590E+01	2.403E+01	4.468E+00	0.349
		366.43		-2.416E+01	7.505E+01	1.222E+02	1.198E+01	-0.198
		739.58	*	-4.498E+00	1.118E+01	1.774E+01	2.933E+00	-0.254
		778.00		-1.483E+01	3.391E+01	5.342E+01	5.665E+00	-0.278
TC-99M		140.51	*	2.623E+09	3.391E+01	Half-Life too short		
RH-101		127.23		1.096E-02	2.673E-02	4.132E-02	5.171E-03	0.265
		198.01	*	-5.896E-03	2.946E-02	4.678E-02	4.508E-03	-0.126
		325.23		-4.370E-02	2.237E-01	3.266E-01	3.479E-02	-0.134
RH-102		418.52		-1.145E-01	2.712E-01	4.329E-01	4.070E-02	-0.265
		475.06	*	2.470E-02	3.019E-02	5.199E-02	5.191E-03	0.475
		631.29		-6.017E-02	5.625E-02	8.552E-02	9.395E-03	-0.704
		697.49		5.837E-03	7.739E-02	1.296E-01	1.425E-02	0.045
		766.84		1.384E-01	1.452E-01	2.267E-01	2.420E-02	0.610
		1046.59		-2.208E-02	1.055E-01	1.727E-01	1.556E-02	-0.128
		1112.84		1.698E-01	2.334E-01	3.719E-01	3.215E-02	0.457
RU-103		497.08	*	-2.456E-02	3.796E-02	5.773E-02	8.752E-03	-0.425
	+	610.33		1.352E+01	3.037E+00	3.229E+00	5.803E-01	4.186
RH-106	+	511.85		8.879E-01	3.513E-01	4.579E-01	4.716E-02	1.939
		621.84	*	4.658E-02	3.222E-01	5.478E-01	8.200E-02	0.085
		1050.47		2.123E-01	2.146E+00	3.633E+00	3.266E-01	0.058
RU-106	+	511.85		8.879E-01	3.513E-01	4.579E-01	4.716E-02	1.939
		621.84	*	4.658E-02	3.222E-01	5.478E-01	5.999E-02	0.085
		1050.47		2.123E-01	2.146E+00	3.633E+00	3.266E-01	0.058
AG-108M		433.93	*	1.001E-02	3.142E-02	5.281E-02	5.219E-03	0.189
		614.37		1.759E-02	4.566E-02	6.956E-02	7.783E-03	0.253
		722.95		-1.746E-02	4.646E-02	6.360E-02	7.107E-03	-0.275
AG-110M		657.75	*	-3.804E-04	4.052E-02	5.892E-02	6.640E-03	-0.006
		677.61		1.948E-02	3.223E-01	5.405E-01	6.075E-02	0.036
		706.67		-3.042E-02	2.259E-01	3.716E-01	4.146E-02	-0.082
		763.93		-4.571E-04	1.984E-01	2.838E-01	3.091E-02	-0.002
		884.67		5.672E-02	5.190E-02	9.308E-02	9.194E-03	0.609
		937.48		-9.830E-02	1.292E-01	1.929E-01	1.868E-02	-0.510
		1384.27		-1.507E-01	2.169E-01	2.600E-01	2.196E-02	-0.580
IN-111		171.28		5.508E-01	8.627E-01	1.462E+00	1.321E-01	0.377
		245.39	*	4.337E-01	9.938E-01	1.469E+00	1.555E-01	0.295
IN-113M		391.69	*	-1.762E-02	4.170E-02	6.705E-02	6.263E-03	-0.263
SN-113		391.69	*	-1.762E-02	4.170E-02	6.705E-02	6.263E-03	-0.263

---- Non-Identified Nuclides ----

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IN-114M		190.27	*	-9.681E-02	1.666E-01	2.329E-01	2.205E-02	-0.416
CD-115		260.90		-1.174E+02	1.244E+02	1.853E+02	2.013E+01	-0.634
		492.35		4.345E+01	3.482E+01	6.189E+01	6.275E+00	0.702
		527.90	*	4.694E+00	1.145E+01	1.908E+01	1.989E+00	0.246
SN-117M		156.02		-1.186E+00	1.875E+00	3.014E+00	3.006E-01	-0.393
		158.56	*	2.598E-03	4.510E-02	7.494E-02	7.276E-03	0.035
SB-122		563.90	*	2.241E+00	2.319E+00	3.980E+00	4.243E-01	0.563
		692.80		2.050E+01	4.320E+01	7.468E+01	8.224E+00	0.274
I-123		159.00	*	6.933E-01	4.320E+01	Half-Life too short		
		528.96		-4.530E+01	4.320E+01	Half-Life too short		
TE-123M		159.00	*	3.251E-03	2.310E-02	3.853E-02	3.741E-03	0.084
I-124		602.71	*	2.956E-01	8.054E-01	1.226E+00	1.332E-01	0.241
		722.78		-2.348E+00	4.974E+00	6.721E+00	7.330E-01	-0.349
		1325.50		1.990E+01	3.638E+01	6.352E+01	5.165E+00	0.313
		1376.25		4.482E+01	4.177E+01	6.809E+01	5.570E+00	0.658
		1509.49		2.979E+01	1.564E+01	3.210E+01	2.662E+00	0.928
		1691.02		1.899E+00	3.939E+00	7.108E+00	5.892E-01	0.267
SB-124		602.71		1.707E-02	4.651E-02	7.078E-02	7.694E-03	0.241
		645.85		-9.758E-03	5.154E-01	8.625E-01	9.869E-02	-0.011
		709.31		9.707E-01	2.950E+00	5.027E+00	5.509E-01	0.193
		713.82		-2.237E-01	1.727E+00	2.838E+00	3.916E-01	-0.079
		722.78		-1.966E-01	4.164E-01	5.627E-01	6.219E-02	-0.349
	+	968.20		2.152E+01	5.190E+00	8.302E+00	7.733E-01	2.592
		1045.16		-1.313E+00	2.340E+00	3.679E+00	3.317E-01	-0.357
		1325.50		1.780E+00	3.253E+00	5.679E+00	4.618E-01	0.313
		1368.21		3.182E-01	1.940E+00	3.095E+00	4.083E-01	0.103
		1436.60		-3.062E+00	3.861E+00	5.427E+00	4.474E-01	-0.564
		1691.02	*	3.749E-02	7.778E-02	1.403E-01	1.213E-02	0.267
SB-125		427.89	*	6.712E-02	8.807E-02	1.524E-01	1.472E-02	0.440
	+	463.38		6.998E-01	3.478E-01	5.656E-01	5.921E-02	1.237
		600.56		5.067E-02	1.941E-01	3.161E-01	3.594E-02	0.160
		635.90		-1.376E-02	2.635E-01	4.402E-01	5.087E-02	-0.031
TE-125M		109.28	*	3.835E+00	6.303E+00	1.094E+01	1.453E+00	0.350
I-126		388.63		6.209E-02	2.049E-01	3.421E-01	3.141E-02	0.182
		666.33	*	1.972E-01	2.090E-01	3.340E-01	3.698E-02	0.591
		753.82		1.212E+00	1.636E+00	2.848E+00	3.062E-01	0.426
SB-126		223.80		2.483E-01	3.819E+00	6.186E+00	6.295E-01	0.040
	+	278.60		4.223E+00	2.965E+00	4.134E+00	4.610E-01	1.022
	+	296.50		1.629E+01	2.846E+00	3.663E+00	4.038E-01	4.446
		414.70		1.174E-02	7.785E-02	1.205E-01	1.128E-02	0.097
		415.30		-1.003E+00	6.261E+00	9.854E+00	9.229E-01	-0.102
		555.20		2.600E+00	4.061E+00	6.870E+00	7.288E-01	0.379
		573.80		-2.348E-01	1.083E+00	1.702E+00	1.825E-01	-0.138
		593.00		-3.135E-01	9.152E-01	1.412E+00	1.528E-01	-0.222
		656.30		6.348E-01	3.870E+00	5.742E+00	6.352E-01	0.111
		666.33		8.243E-02	8.734E-02	1.396E-01	1.545E-02	0.591
		675.00		1.322E+00	2.017E+00	3.537E+00	3.910E-01	0.374
		695.00		1.250E-02	7.833E-02	1.321E-01	1.454E-02	0.095
		697.00		-6.924E-02	2.734E-01	4.455E-01	4.900E-02	-0.155

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		720.50	*	-7.172E-02	1.560E-01	2.310E-01	2.521E-02	-0.311
		856.80		1.539E-01	5.411E-01	7.947E-01	7.894E-02	0.194
		989.30		5.322E-01	1.185E+00	2.010E+00	1.859E-01	0.265
		1034.80		2.727E+00	9.339E+00	1.609E+01	1.458E+00	0.169
		1213.00		2.492E+00	4.983E+00	8.592E+00	7.069E-01	0.290
SB-127		61.10		-4.651E+00	2.003E+01	2.903E+01	3.525E+00	-0.160
		252.40		-2.324E+00	4.212E+00	6.316E+00	2.685E+00	-0.368
		290.80		-1.054E+01	2.114E+01	3.043E+01	4.004E+00	-0.346
		411.60		5.095E+00	1.320E+01	1.980E+01	3.193E+00	0.257
		444.90		-4.787E+00	9.302E+00	1.459E+01	1.941E+00	-0.328
		473.00		-1.939E+00	1.785E+00	2.633E+00	3.636E-01	-0.737
		543.00		-9.025E+00	1.681E+01	2.491E+01	3.892E+00	-0.362
		603.60		2.457E+00	1.360E+01	2.035E+01	2.882E+00	0.121
		685.20	*	7.947E-02	1.334E+00	2.236E+00	2.977E-01	0.036
		698.50		8.065E+00	1.561E+01	2.694E+01	4.643E+00	0.299
		722.20		-3.142E+01	3.634E+01	4.652E+01	6.057E+00	-0.675
		783.80		3.686E+00	3.894E+00	6.864E+00	9.505E-01	0.537
XE-127		57.60		1.371E+00	1.596E+00	2.640E+00	2.573E-01	0.519
		145.22		9.084E-02	5.639E-01	9.468E-01	1.043E-01	0.096
		172.10		3.836E-02	1.016E-01	1.704E-01	1.542E-02	0.225
		202.84	*	-4.544E-02	4.136E-02	6.304E-02	6.141E-03	-0.721
		374.96		4.658E-02	1.890E-01	3.193E-01	3.057E-02	0.146
I-131		80.18		4.628E-01	3.218E+00	4.087E+00	4.258E-01	0.113
		284.30		-7.772E-01	1.444E+00	2.199E+00	2.524E-01	-0.353
		364.48	*	-1.007E-02	1.059E-01	1.754E-01	1.800E-02	-0.057
		636.97		-7.906E-01	1.470E+00	2.346E+00	2.671E-01	-0.337
		722.89		-3.842E+00	7.988E+00	1.078E+01	1.180E+00	-0.356
TE-132		49.72		6.932E-01	2.901E+00	4.380E+00	5.080E-01	0.158
		111.76		-1.154E+01	2.069E+01	3.417E+01	4.732E+00	-0.338
		116.30		4.166E+00	1.979E+01	3.378E+01	4.771E+00	0.123
		228.16	*	9.059E-02	6.318E-01	1.026E+00	1.712E-01	0.088
BA-133		53.15		6.126E-01	7.160E-01	1.191E+00	1.142E-01	0.515
		79.62		1.370E-01	7.794E-01	1.132E+00	1.841E-01	0.121
		81.00		-2.021E-02	6.861E-02	8.433E-02	1.426E-02	-0.240
	+	276.40		6.297E-01	4.482E-01	6.295E-01	1.011E-01	1.000
		302.84		2.582E-02	1.431E-01	2.168E-01	3.232E-02	0.119
		356.01	*	4.993E-02	4.392E-02	7.024E-02	9.959E-03	0.711
		383.85		-1.153E-01	2.851E-01	4.598E-01	6.021E-02	-0.251
I-133	+	510.53		1.869E+00	2.851E-01	Half-Life too short		
		529.87	*	2.113E-03	2.851E-01	Half-Life too short		
		706.58		7.488E-03	2.851E-01	Half-Life too short		
		856.28		-2.127E-01	2.851E-01	Half-Life too short		
		875.33		-3.889E-02	2.851E-01	Half-Life too short		
		1236.41		5.508E-01	2.851E-01	Half-Life too short		
		1298.22		-2.525E-01	2.851E-01	Half-Life too short		
CS-134		475.35		1.657E+00	1.977E+00	3.409E+00	3.404E-01	0.486
		563.23		6.098E-01	3.949E-01	7.005E-01	7.512E-02	0.871
		569.32		1.106E-01	1.926E-01	3.239E-01	3.494E-02	0.341
		604.70		-1.968E-03	3.905E-02	5.708E-02	6.219E-03	-0.034

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	+	795.84	*	1.585E-01	7.697E-02	1.021E-01	1.075E-02	1.552
		801.93		-3.148E-01	5.431E-01	7.285E-01	7.627E-02	-0.432
		1038.57		3.051E+00	4.075E+00	7.288E+00	6.593E-01	0.419
		1167.94		8.965E-01	2.579E+00	4.417E+00	3.653E-01	0.203
		1365.15		5.163E-01	1.126E+00	1.967E+00	1.688E-01	0.262
CS-135		268.24	*	8.973E-02	1.652E-01	2.432E-01	2.936E-02	0.369
I-135		288.45		2.613E+10	1.652E-01	Half-Life too short		
		417.63		1.811E+10	1.652E-01	Half-Life too short		
		546.56		-8.621E+09	1.652E-01	Half-Life too short		
		836.80		1.605E+10	1.652E-01	Half-Life too short		
		1038.76		1.381E+10	1.652E-01	Half-Life too short		
		1124.00		-4.023E+09	1.652E-01	Half-Life too short		
		1131.51		4.847E+09	1.652E-01	Half-Life too short		
		1260.41	*	-6.294E+09	1.652E-01	Half-Life too short		
		1457.56		6.352E+11	1.652E-01	Half-Life too short		
		1678.03		-2.368E+09	1.652E-01	Half-Life too short		
		1706.46		-6.836E+09	1.652E-01	Half-Life too short		
		1791.20		3.320E+09	1.652E-01	Half-Life too short		
CS-136		66.91		-6.521E-02	3.419E-01	4.918E-01	7.970E-02	-0.133
	+	86.29		5.247E+00	1.185E+00	1.343E+00	1.920E-01	3.906
		153.22		5.495E-01	5.543E-01	9.546E-01	1.062E-01	0.576
		163.89		2.133E-01	8.851E-01	1.464E+00	1.482E-01	0.146
		176.55		-9.625E-03	3.048E-01	5.004E-01	4.817E-02	-0.019
		273.65		-3.232E-01	6.346E-01	6.443E-01	7.423E-02	-0.502
		340.57		1.905E-01	1.368E-01	2.206E-01	2.336E-02	0.863
		818.51		4.277E-02	7.946E-02	1.366E-01	1.407E-02	0.313
		1048.07	*	-2.202E-02	1.006E-01	1.645E-01	1.539E-02	-0.134
		1235.34		2.966E-01	7.104E-01	1.058E+00	1.223E-01	0.280
CE-139		165.85	*	3.387E-03	2.438E-02	4.054E-02	3.615E-03	0.084
BA-140		162.64		1.147E-01	6.217E-01	1.027E+00	1.000E-01	0.112
		304.84		1.239E-01	1.255E+00	1.889E+00	5.445E-01	0.066
		423.70		-1.019E+00	1.853E+00	2.877E+00	9.395E-01	-0.354
		537.32	*	-6.441E-02	2.716E-01	4.222E-01	1.422E-01	-0.153
LA-140	+	328.77		6.659E-01	4.614E-01	5.476E-01	6.019E-02	1.216
		432.53		-1.979E-01	1.981E+00	3.233E+00	3.212E-01	-0.061
		487.03		-5.076E-02	1.303E-01	2.047E-01	2.160E-02	-0.248
		751.79		1.564E+00	1.837E+00	3.237E+00	3.727E-01	0.483
		815.85		1.051E-01	3.542E-01	5.963E-01	6.654E-02	0.176
		867.82		-1.300E-01	1.561E+00	2.171E+00	2.219E-01	-0.060
		919.63		5.148E-01	2.864E+00	4.612E+00	5.220E-01	0.112
		925.24		-5.214E-01	1.091E+00	1.665E+00	1.652E-01	-0.313
		1596.49	*	2.007E-03	1.045E-01	1.749E-01	1.454E-02	0.011
CE-141		145.44	*	-4.009E-03	5.114E-02	8.497E-02	9.450E-03	-0.047
CE-143		57.37		-1.132E-05	5.114E-02	Half-Life too short		
		231.56		8.858E-04	5.114E-02	Half-Life too short		
		293.26	*	4.848E-04	5.114E-02	Half-Life too short		
	+	350.59		3.417E-02	5.114E-02	Half-Life too short		
		490.36		5.285E-04	5.114E-02	Half-Life too short		
		664.57		1.340E-03	5.114E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		721.93		-1.135E-03	5.114E-02	Half-Life too short		
CE-144		80.11		2.092E-01	1.474E+00	1.872E+00	1.942E-01	0.112
		133.54	*	-1.476E-01	1.631E-01	2.454E-01	4.338E-02	-0.601
PM-144		476.78		6.916E-02	7.091E-02	1.230E-01	1.317E-02	0.562
		618.01		-1.327E-02	3.311E-02	5.396E-02	6.002E-03	-0.246
		696.49	*	-9.641E-03	3.498E-02	5.689E-02	6.259E-03	-0.169
		778.57		-1.719E+00	2.338E+00	3.569E+00	3.784E-01	-0.482
PR-144		696.49	*	-6.533E-01	2.371E+00	3.855E+00	4.241E-01	-0.169
		1489.15		1.108E+00	1.179E+01	1.939E+01	1.606E+00	0.057
PM-146		453.90	*	3.436E-02	4.463E-02	7.673E-02	8.959E-03	0.448
		633.02		9.089E-01	1.377E+00	2.363E+00	8.976E-01	0.385
		735.90		5.622E-02	1.437E-01	2.450E-01	7.192E-02	0.229
		747.13		3.353E-03	9.335E-02	1.549E-01	2.396E-02	0.022
ND-147	+	91.11		9.482E-01	2.495E-01	3.119E-01	3.580E-02	3.040
		319.41		-3.491E+00	3.181E+00	4.987E+00	5.358E-01	-0.700
		439.89		5.502E+00	5.857E+00	1.021E+01	9.836E-01	0.539
		531.02	*	4.557E-01	5.752E-01	9.815E-01	1.577E-01	0.464
PM-149		285.90	*	-8.425E+01	9.139E+01	1.338E+02	2.282E+01	-0.630
EU-152		121.78		6.908E-03	5.244E-02	8.900E-02	1.226E-02	0.078
		244.69		5.086E-02	3.128E-01	4.521E-01	4.782E-02	0.112
		344.27	*	2.424E-02	9.669E-02	1.459E-01	1.566E-02	0.166
		443.98		-9.854E-01	9.404E-01	1.408E+00	1.363E-01	-0.700
		778.89		-1.904E-01	2.706E-01	4.147E-01	4.394E-02	-0.459
		867.32		2.091E-01	8.997E-01	1.315E+00	1.291E-01	0.159
	+	964.01		7.741E-01	3.964E-01	6.258E-01	5.837E-02	1.237
		1085.78		1.345E-01	4.081E-01	7.031E-01	6.191E-02	0.191
		1112.02		9.242E-02	3.564E-01	5.310E-01	4.594E-02	0.174
		1407.95		1.232E-01	1.764E-01	3.160E-01	2.596E-02	0.390
GD-153		69.67		-4.602E-01	8.291E-01	1.171E+00	1.171E-01	-0.393
	+	83.37		2.512E+01	1.148E+01	1.517E+01	1.595E+00	1.656
		97.43	*	-6.808E-02	5.314E-02	8.410E-02	9.471E-03	-0.810
		103.18		-4.320E-02	7.111E-02	1.180E-01	1.370E-02	-0.366
EU-154		123.07		-2.840E-02	3.787E-02	6.130E-02	9.078E-03	-0.463
		247.94		-1.162E-01	3.201E-01	5.000E-01	6.530E-02	-0.232
		591.81		-4.420E-01	6.065E-01	8.934E-01	1.195E-01	-0.495
		723.30		-6.960E-02	1.945E-01	2.670E-01	3.106E-02	-0.261
		756.87		-3.908E-01	8.463E-01	1.340E+00	1.820E-01	-0.292
		873.19		-9.815E-03	2.997E-01	4.867E-01	6.361E-02	-0.020
		996.32		-1.563E-01	3.819E-01	5.842E-01	1.055E-01	-0.268
		1004.76		-1.244E-01	2.288E-01	3.448E-01	4.160E-02	-0.361
		1274.45	*	7.413E-02	1.272E-01	2.216E-01	2.435E-02	0.334
EU-155		48.70		-3.435E-01	3.270E-01	4.511E-01	4.294E-02	-0.762
		60.01		-4.977E-02	1.644E+00	2.412E+00	2.374E-01	-0.021
	+	86.54		4.832E-01	9.915E-02	1.284E-01	1.380E-02	3.762
		105.31	*	7.029E-02	7.476E-02	1.312E-01	1.551E-02	0.536
TB-160	+	86.79		1.291E+00	2.645E-01	3.541E-01	3.783E-02	3.646
		197.04		-9.151E-01	5.191E-01	7.458E-01	7.170E-02	-1.227
		215.65		2.667E-01	6.369E-01	1.054E+00	1.055E-01	0.253
	+	298.57		3.622E-01	1.530E-01	1.916E-01	2.108E-02	1.890

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		879.36	*	5.247E-02	1.494E-01	2.517E-01	2.438E-02	0.208
		962.29		8.169E-01	6.471E-01	1.040E+00	9.703E-02	0.786
		966.15		1.502E+00	3.181E-01	6.068E-01	5.657E-02	2.474
		1177.93		8.323E-02	3.409E-01	5.790E-01	4.766E-02	0.144
		1271.85		-2.232E-01	7.219E-01	1.145E+00	9.377E-02	-0.195
HO-166M		80.57		6.288E-02	1.831E-01	2.357E-01	2.449E-02	0.267
		184.41		4.474E-02	3.584E-02	5.792E-02	5.406E-03	0.772
		280.46		-1.148E-02	8.856E-02	1.232E-01	1.374E-02	-0.093
		410.95		3.775E-01	2.580E-01	4.215E-01	3.927E-02	0.895
		711.68	*	7.154E-03	6.357E-02	1.066E-01	1.167E-02	0.067
		752.31		1.710E-01	2.986E-01	5.159E-01	5.551E-02	0.332
		810.29		-3.983E-02	6.323E-02	9.732E-02	1.008E-02	-0.409
TM-171		51.35		-9.019E-01	5.119E+00	8.164E+00	7.796E-01	-0.110
		52.39		7.789E-01	2.919E+00	4.749E+00	4.545E-01	0.164
		59.40		-5.388E-02	8.647E+00	1.271E+01	1.250E+00	-0.004
		66.72	*	3.183E+00	1.192E+01	1.757E+01	1.744E+00	0.181
LU-176	+	88.36		9.515E-01	1.949E-01	2.437E-01	2.623E-02	3.904
		201.83		-3.126E-02	2.525E-02	3.813E-02	3.706E-03	-0.820
		306.84	*	2.777E-03	2.167E-02	3.691E-02	4.027E-03	0.075
		401.10		4.253E-01	7.160E+00	1.189E+01	1.094E+00	0.036
LU-177		112.95		2.026E-01	1.125E+00	1.921E+00	2.352E-01	0.105
	+	208.36	*	3.120E+00	1.252E+00	1.776E+00	1.751E-01	1.757
LU-177M		52.97		2.352E-01	3.201E-01	5.300E-01	5.081E-02	0.444
		54.07		2.334E-01	1.797E-01	3.031E-01	2.915E-02	0.770
		61.30		4.778E-02	5.099E-01	7.518E-01	7.403E-02	0.064
		121.62		1.075E-01	2.687E-01	4.609E-01	5.926E-02	0.233
		147.16		2.578E-01	5.213E-01	8.862E-01	9.605E-02	0.291
		171.86		2.634E-01	4.054E-01	6.876E-01	6.222E-02	0.383
		218.09		-4.872E-01	7.561E-01	1.177E+00	1.184E-01	-0.414
	+	268.79		2.298E+00	1.182E+00	1.398E+00	1.537E-01	1.644
		319.02		-2.686E-01	2.451E-01	3.840E-01	4.127E-02	-0.700
		367.43		5.134E-02	8.034E-01	1.345E+00	1.315E-01	0.038
		413.65	*	-1.135E-01	1.953E-01	2.662E-01	2.488E-02	-0.426
HF-181		56.28		-1.102E-01	2.273E-01	3.550E-01	3.441E-02	-0.310
		57.53		2.632E-02	1.363E-01	2.196E-01	2.140E-02	0.120
		65.20		7.046E-02	3.791E-01	5.572E-01	5.515E-02	0.126
		133.02		-2.429E-02	5.507E-02	8.062E-02	9.726E-03	-0.301
		136.25		-7.192E-02	3.397E-01	5.631E-01	6.645E-02	-0.128
		345.85		-2.177E-01	1.974E-01	2.596E-01	2.667E-02	-0.839
		482.03	*	7.508E-03	4.161E-02	6.871E-02	6.904E-03	0.109
W-181		56.28		-4.315E-02	8.894E-02	1.389E-01	1.347E-02	-0.311
		57.53		1.015E-02	5.335E-02	8.597E-02	8.378E-03	0.118
		65.20	*	2.737E-02	1.473E-01	2.165E-01	2.142E-02	0.126
TA-182		67.75		-1.339E-02	5.047E-02	7.229E-02	7.192E-03	-0.185
		100.10		5.646E-03	1.221E-01	2.054E-01	2.346E-02	0.027
		152.43		2.074E-01	2.768E-01	4.738E-01	4.895E-02	0.438
		222.10		2.589E-01	3.205E-01	5.376E-01	5.452E-02	0.481
		1001.68		6.769E-01	2.251E+00	3.685E+00	3.390E-01	0.184
	+	1121.28		9.632E-01	2.675E-01	4.137E-01	3.554E-02	2.328

---- Non-Identified Nuclides ----

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		1189.05		4.982E-02	3.113E-01	5.233E-01	4.307E-02	0.095
		1221.42	*	-1.959E-01	2.028E-01	3.020E-01	2.484E-02	-0.649
		1230.97		-1.937E-01	5.939E-01	8.051E-01	6.618E-02	-0.241
RE-183		57.98		5.525E-02	5.442E-02	9.035E-02	8.823E-03	0.612
		59.32		-8.038E-03	3.574E-02	5.194E-02	5.105E-03	-0.155
		67.20		-1.369E-02	8.795E-02	1.268E-01	1.260E-02	-0.108
		162.32	*	-3.291E-02	9.251E-02	1.489E-01	1.386E-02	-0.221
	+	208.81		2.794E+00	1.121E+00	1.630E+00	1.609E-01	1.714
		291.72		-6.901E-01	8.965E-01	1.257E+00	1.391E-01	-0.549
RE-184		57.98		2.035E-01	2.005E-01	3.328E-01	3.250E-02	0.612
		59.32		-2.959E-02	1.316E-01	1.912E-01	1.879E-02	-0.155
		67.20		-5.041E-02	3.239E-01	4.668E-01	4.639E-02	-0.108
		161.27		-1.936E-01	2.914E-01	4.660E-01	4.390E-02	-0.415
		216.55		1.342E-01	2.269E-01	3.785E-01	3.796E-02	0.354
		252.85	*	-1.090E-01	2.233E-01	3.460E-01	3.710E-02	-0.315
		318.01		1.931E-01	4.200E-01	7.254E-01	7.808E-02	0.266
		792.07		6.766E-01	1.132E+00	1.735E+00	1.822E-01	0.390
		903.28		5.027E-01	1.107E+00	1.726E+00	1.633E-01	0.291
		920.93		2.643E-02	4.353E-01	7.106E-01	6.704E-02	0.037
OS-185		59.72		2.455E-02	9.610E-02	1.431E-01	1.408E-02	0.172
		61.14		4.601E-03	5.574E-02	8.215E-02	8.088E-03	0.056
		69.30		-1.056E-01	1.342E-01	2.046E-01	2.044E-02	-0.516
		592.07		-1.805E+00	2.473E+00	3.648E+00	3.947E-01	-0.495
		646.12	*	-6.949E-03	4.333E-02	7.166E-02	7.908E-03	-0.097
		717.42		-6.968E-02	9.167E-01	1.512E+00	1.652E-01	-0.046
		874.81		-1.575E-01	6.140E-01	9.736E-01	9.484E-02	-0.162
		880.27		-2.707E-01	8.844E-01	1.397E+00	1.352E-01	-0.194
RE-188		155.03	*	4.868E-02	1.426E-01	2.401E-01	2.419E-02	0.203
		477.96		1.214E+00	3.267E+00	5.462E+00	5.468E-01	0.222
		633.10		1.857E+00	2.705E+00	4.783E+00	5.257E-01	0.388
W-188	+	63.58		7.149E+01	3.615E+01	3.863E+01	3.813E+00	1.851
		227.08		1.536E-01	1.186E+01	1.914E+01	1.960E+00	0.008
		290.67	*	-4.992E-01	7.097E+00	1.059E+01	1.173E+00	-0.047
IR-192	+	295.96		1.245E+00	2.179E-01	2.988E-01	3.310E-02	4.167
		308.46		2.890E-03	8.290E-02	1.404E-01	1.534E-02	0.021
		316.51	*	3.847E-02	3.254E-02	5.797E-02	6.261E-03	0.664
		468.07		2.932E-02	6.562E-02	1.073E-01	1.122E-02	0.273
		604.41		2.541E-02	5.316E-01	7.850E-01	1.147E-01	0.032
		612.46		7.586E-01	8.398E-01	1.333E+00	1.592E-01	0.569
AU-195		65.12		1.632E-02	6.816E-02	1.004E-01	9.940E-03	0.162
		66.83		-7.683E-03	4.088E-02	5.885E-02	5.843E-03	-0.131
	+	75.70		1.265E+00	1.845E-01	2.777E-01	2.831E-02	4.555
		98.88	*	2.271E-01	1.538E-01	2.692E-01	3.054E-02	0.844
	+	129.76		8.976E+00	3.986E+00	4.351E+00	5.361E-01	2.063
TL-200		367.94	*	-1.263E-04	3.986E+00	Half-Life too short		
		579.30		9.518E-04	3.986E+00	Half-Life too short		
		828.27		3.455E-03	3.986E+00	Half-Life too short		
		1205.75		-3.477E-03	3.986E+00	Half-Life too short		
TL-201		68.90		-5.022E-01	2.113E+00	3.306E+00	3.298E-01	-0.152

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		70.82		-3.436E-01	1.415E+00	2.030E+00	2.036E-01	-0.169
		80.30		1.869E+00	3.425E+00	4.463E+00	4.632E-01	0.419
		135.34		5.760E+00	1.874E+01	3.183E+01	3.780E+00	0.181
		167.43	*	-2.639E+00	5.894E+00	9.512E+00	8.509E-01	-0.277
TL-202		68.90		-4.485E-02	1.887E-01	2.952E-01	2.945E-02	-0.152
		70.82		-3.060E-02	1.260E-01	1.808E-01	1.813E-02	-0.169
		80.30		1.665E-01	3.051E-01	3.976E-01	4.127E-02	0.419
		439.56	*	7.523E-02	7.037E-02	1.234E-01	1.189E-02	0.610
BI-207		72.80		6.488E-02	8.963E-02	1.446E-01	1.460E-02	0.449
	+	74.97		7.015E-01	1.023E-01	1.418E-01	1.442E-02	4.946
	+	84.90		3.249E-01	1.484E-01	1.967E-01	2.083E-02	1.652
		569.67		2.072E-02	3.034E-02	5.142E-02	5.500E-03	0.403
		1063.62	*	4.943E-02	5.555E-02	1.002E-01	8.941E-03	0.493
		1770.23		2.085E-02	4.679E-01	6.707E-01	5.522E-02	0.031
TL-207		81.07		-4.768E-02	1.514E-01	1.859E-01	1.936E-02	-0.256
	+	83.78		2.142E-01	9.788E-02	1.325E-01	1.396E-02	1.617
		94.90		2.107E-01	1.541E-01	2.511E-01	2.791E-02	0.839
		122.32		-1.199E+00	1.267E+00	2.027E+00	2.698E-01	-0.592
		144.24		-5.615E-02	5.763E-01	9.390E-01	1.119E-01	-0.060
		154.21		1.626E-01	3.285E-01	5.566E-01	6.064E-02	0.292
	+	269.46		5.380E-01	2.768E-01	3.424E-01	3.817E-02	1.571
		323.87	*	2.762E-01	6.615E-01	1.013E+00	1.904E-01	0.273
	+	338.28		7.547E+00	2.104E+00	2.611E+00	3.560E-01	2.891
		445.03		-6.381E-01	2.119E+00	3.389E+00	4.362E-01	-0.188
PO-209		260.50		-4.272E+00	8.911E+00	1.375E+01	1.493E+00	-0.311
		262.80		-1.555E+00	2.422E+01	3.843E+01	4.187E+00	-0.040
		896.60	*	-6.635E-01	7.152E+00	1.150E+01	1.092E+00	-0.058
PB-211		404.84	*	-9.394E-02	1.075E+00	1.546E+00	9.700E-01	-0.061
		427.08		8.299E-01	2.038E+00	3.342E+00	2.081E+00	0.248
		831.96		-4.875E-01	1.490E+00	2.322E+00	1.460E+00	-0.210
BI-212	+	727.18	*	1.356E+00	5.056E-01	7.615E-01	9.150E-02	1.780
		785.46		1.166E+00	1.954E+00	3.259E+00	3.439E-01	0.358
		1620.62		7.918E-01	1.306E+00	2.377E+00	1.975E-01	0.333
PO-215		81.07		-4.768E-02	1.514E-01	1.859E-01	1.936E-02	-0.256
	+	83.78		2.142E-01	9.788E-02	1.325E-01	1.396E-02	1.617
		94.90		2.107E-01	1.541E-01	2.511E-01	2.791E-02	0.839
		122.32		-1.199E+00	1.267E+00	2.027E+00	2.698E-01	-0.592
		144.24		-5.615E-02	5.763E-01	9.390E-01	1.119E-01	-0.060
		154.21		1.626E-01	3.285E-01	5.566E-01	6.064E-02	0.292
	+	269.46		5.380E-01	2.768E-01	3.424E-01	3.817E-02	1.571
		323.87	*	2.762E-01	6.615E-01	1.013E+00	1.904E-01	0.273
	+	338.28		7.547E+00	2.104E+00	2.611E+00	3.560E-01	2.891
		445.03		-6.381E-01	2.119E+00	3.389E+00	4.362E-01	-0.188
RN-219	+	271.23		6.902E-01	3.571E-01	4.380E-01	5.432E-02	1.576
		401.81	*	1.038E-02	4.306E-01	7.133E-01	1.096E-01	0.015
RN-220		549.76	*	-3.970E+00	2.499E+01	3.959E+01	4.186E+00	-0.100
RA-223		81.07		-4.768E-02	1.514E-01	1.859E-01	1.936E-02	-0.256
	+	83.78		2.142E-01	9.788E-02	1.325E-01	1.396E-02	1.617
		94.90		2.107E-01	1.541E-01	2.511E-01	2.791E-02	0.839

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-1.199E+00	1.267E+00	2.027E+00	2.698E-01	-0.592
		144.24		-5.615E-02	5.763E-01	9.390E-01	1.119E-01	-0.060
		154.21		1.626E-01	3.285E-01	5.566E-01	6.064E-02	0.292
	+	269.46		5.380E-01	2.768E-01	3.424E-01	3.817E-02	1.571
		323.87	*	2.762E-01	6.615E-01	1.013E+00	1.904E-01	0.273
	+	338.28		7.547E+00	2.104E+00	2.611E+00	3.560E-01	2.891
		445.03		-6.381E-01	2.119E+00	3.389E+00	4.362E-01	-0.188
AC-227		79.80		1.513E-01	1.135E+00	1.440E+00	3.206E-01	0.105
		236.00		1.007E-01	2.269E-01	3.344E-01	4.537E-02	0.301
		256.20	*	-2.456E-01	3.771E-01	5.753E-01	9.585E-02	-0.427
		286.10		-1.394E+00	1.508E+00	2.214E+00	3.311E-01	-0.630
	+	299.80		4.611E+00	2.070E+00	2.752E+00	5.166E-01	1.675
		304.40		7.910E-01	1.822E+00	2.807E+00	5.511E-01	0.282
		334.20		-7.649E-01	2.785E+00	3.370E+00	6.847E-01	-0.227
TH-227		79.80		1.513E-01	1.135E+00	1.440E+00	3.244E-01	0.105
	+	94.00		7.033E+00	2.516E+00	2.694E+00	6.158E-01	2.611
		236.00		1.007E-01	2.268E-01	3.344E-01	4.188E-02	0.301
		256.20	*	-2.456E-01	3.778E-01	5.753E-01	1.104E-01	-0.427
		286.10		-1.394E+00	2.049E+00	2.214E+00	2.228E+00	-0.630
	+	299.80		4.611E+00	2.070E+00	2.752E+00	5.166E-01	1.675
		304.40		7.910E-01	1.822E+00	2.807E+00	5.511E-01	0.282
		334.20		-7.649E-01	2.785E+00	3.370E+00	6.847E-01	-0.227
TH-229	+	85.43		3.206E-01	1.465E-01	1.930E-01	2.049E-02	1.661
	+	88.47		5.477E-01	1.122E-01	1.390E-01	1.496E-02	3.942
		100.00		1.104E-02	1.268E-01	2.137E-01	2.439E-02	0.052
		193.63	*	5.035E-01	4.460E-01	7.641E-01	7.289E-02	0.659
		210.97		7.585E-01	6.982E-01	1.082E+00	1.073E-01	0.701
PA-231		283.67	*	6.272E-01	1.433E+00	2.328E+00	3.896E-01	0.269
	+	301.29		1.844E+00	7.954E-01	1.084E+00	1.518E-01	1.702
TH-231		81.07		-4.768E-02	1.514E-01	1.859E-01	1.936E-02	-0.256
	+	83.78		2.142E-01	9.788E-02	1.325E-01	1.396E-02	1.617
		94.90		2.107E-01	1.541E-01	2.511E-01	2.791E-02	0.839
		122.32		-1.199E+00	1.267E+00	2.027E+00	2.698E-01	-0.592
		144.24		-5.615E-02	5.763E-01	9.390E-01	1.119E-01	-0.060
		154.21		1.626E-01	3.285E-01	5.566E-01	6.064E-02	0.292
	+	269.46		5.380E-01	2.768E-01	3.424E-01	3.817E-02	1.571
		323.87	*	2.762E-01	6.615E-01	1.013E+00	1.904E-01	0.273
	+	338.28		7.547E+00	2.104E+00	2.611E+00	3.560E-01	2.891
		445.03		-6.381E-01	2.119E+00	3.389E+00	4.362E-01	-0.188
U-231	+	84.21		9.286E+00	4.243E+00	5.783E+00	6.105E-01	1.606
	+	92.29		6.993E+00	2.074E+00	2.923E+00	3.206E-01	2.393
		95.87	*	-4.068E-01	7.416E-01	1.111E+00	1.242E-01	-0.366
		108.00		2.232E-01	1.433E+00	2.451E+00	2.921E-01	0.091
PA-233	+	75.28		2.047E+01	3.958E+00	4.136E+00	6.731E-01	4.950
	+	86.59		7.854E+00	2.562E+00	2.103E+00	5.793E-01	3.735
	+	300.12		1.285E+00	5.649E-01	7.689E-01	1.258E-01	1.672
		311.98	*	-2.798E-02	5.595E-02	9.147E-02	1.010E-02	-0.306
		340.50		1.128E+00	7.205E-01	1.103E+00	2.705E-01	1.023
		398.62		-1.624E-01	2.179E+00	3.590E+00	9.626E-01	-0.045

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		6.969E-01	1.570E+00	2.658E+00	5.812E-01	0.262
PA-234	+	63.00		2.072E+00	1.081E+00	1.106E+00	1.794E-01	1.875
		94.67		2.411E-01	1.167E-01	1.897E-01	2.701E-02	1.271
		98.44		5.939E-02	6.929E-02	1.058E-01	5.955E-02	0.561
		99.86		4.559E-02	3.214E-01	5.429E-01	6.193E-02	0.084
		111.00		-1.780E-01	1.288E-01	2.009E-01	2.970E-02	-0.886
		131.20		8.247E-02	8.445E-02	1.340E-01	1.636E-02	0.615
		152.70		2.836E-01	2.697E-01	4.607E-01	8.274E-02	0.616
	+	186.00		6.945E+00	2.972E+00	2.511E+00	7.893E-01	2.766
		226.40		1.021E-01	3.673E-01	6.009E-01	8.595E-02	0.170
		227.20		1.274E-01	3.924E-01	6.435E-01	6.591E-02	0.198
		248.90		4.702E-01	7.261E-01	1.196E+00	2.783E-01	0.393
		293.70		5.149E+00	1.266E+00	1.625E+00	3.027E-01	3.169
		369.80		1.083E-01	7.660E-01	1.288E+00	2.863E-01	0.084
		568.70		-5.482E-01	1.051E+00	1.605E+00	1.716E-01	-0.341
		569.50		1.689E-01	2.678E-01	4.523E-01	4.838E-02	0.373
		574.00		-4.337E-01	1.545E+00	2.412E+00	2.586E-01	-0.180
		699.00		1.568E-01	7.188E-01	1.216E+00	2.464E-01	0.129
		706.10		1.396E-01	1.111E+00	1.863E+00	8.404E-01	0.075
		733.00		-2.275E-01	4.384E-01	5.826E-01	1.349E-01	-0.390
		742.81		1.081E+00	1.490E+00	2.314E+00	1.563E+00	0.467
	+	796.30		3.079E+00	1.691E+00	1.926E+00	5.334E-01	1.599
		805.60		5.589E-01	1.145E+00	1.935E+00	6.038E-01	0.289
		819.60		1.345E-01	1.370E+00	2.265E+00	8.706E-01	0.059
		826.30		-5.170E-01	9.451E-01	1.422E+00	6.408E-01	-0.364
		831.60		-2.741E-01	7.577E-01	1.196E+00	3.627E-01	-0.229
		876.40		-6.076E-02	8.772E-01	1.415E+00	1.456E+00	-0.043
		880.51		-5.078E-02	3.182E-01	5.103E-01	4.938E-02	-0.100
		883.24		8.472E-02	3.288E-01	5.402E-01	3.639E-01	0.157
		899.00		-8.661E-01	9.445E-01	1.249E+00	5.483E-01	-0.693
		925.00		-6.337E-01	1.136E+00	1.715E+00	1.617E-01	-0.369
		926.50		-6.656E-02	1.727E-01	2.658E-01	6.796E-02	-0.250
		946.00	*	-1.361E-01	3.340E-01	5.157E-01	9.861E-02	-0.264
		949.00		-9.739E-02	4.917E-01	7.785E-01	7.294E-02	-0.125
		980.50		-1.433E-01	8.140E-01	1.095E+00	1.016E-01	-0.131
		1394.10		-6.598E-01	1.356E+00	1.940E+00	1.262E+00	-0.340
PA-234M		766.42		1.550E+01	1.669E+01	2.332E+01	1.192E+01	0.665
		1001.03	*	1.919E+00	5.143E+00	8.475E+00	8.877E-01	0.226
U-235	+	89.95		3.767E+00	1.487E+00	1.310E+00	4.134E-01	2.875
	+	93.35		2.188E+00	8.727E-01	9.442E-01	2.725E-01	2.317
		105.00		7.009E-01	7.567E-01	1.281E+00	3.957E-01	0.547
		143.76	*	8.008E-02	1.770E-01	2.941E-01	5.554E-02	0.272
		163.35		1.746E-01	3.870E-01	6.446E-01	1.247E-01	0.271
	+	185.71		2.572E-01	7.852E-02	9.340E-02	8.745E-03	2.754
		205.31		1.527E-01	4.969E-01	7.247E-01	1.423E-01	0.211
NP-236		94.67		1.855E-01	8.717E-02	1.442E-01	1.601E-02	1.287
		98.44		4.483E-02	4.616E-02	8.000E-02	9.056E-03	0.560
		111.00		-1.346E-01	9.675E-02	1.520E-01	1.841E-02	-0.886
		160.31	*	-1.219E-02	6.431E-02	1.055E-01	1.005E-02	-0.116

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.218E-01	1.061E-01	1.845E-01	2.101E-02	0.660
		117.00	*	-9.838E-03	1.355E-01	2.285E-01	2.863E-02	-0.043
	+	209.75		2.203E+00	8.841E-01	1.276E+00	1.262E-01	1.726
		228.18		2.770E-02	2.047E-01	3.324E-01	3.412E-02	0.083
	+	277.60		3.073E-01	2.158E-01	3.047E-01	3.393E-02	1.009
		334.30		-3.961E-01	1.578E+00	1.918E+00	2.013E-01	-0.207
AM-241		59.54	*	3.383E-03	5.068E-02	7.478E-02	7.769E-03	0.045
CM-243		99.55		1.253E-01	1.092E-01	1.898E-01	2.162E-02	0.660
		103.76	*	6.517E-03	6.463E-02	1.106E-01	1.288E-02	0.059
		117.00		-1.012E-02	1.394E-01	2.351E-01	2.945E-02	-0.043
	+	209.75		2.172E+00	8.715E-01	1.258E+00	1.244E-01	1.726
		228.18		2.799E-02	2.069E-01	3.359E-01	3.447E-02	0.083
	+	277.60		3.098E-01	2.176E-01	3.072E-01	3.421E-02	1.009
AM-246		798.80		-1.627E-01	1.755E-01	2.176E-01	2.275E-02	-0.748
		1036.00		7.245E-02	3.273E-01	5.599E-01	5.072E-02	0.129
		1062.04		1.337E-01	2.451E-01	4.300E-01	3.842E-02	0.311
		1078.86	*	6.579E-02	1.414E-01	2.470E-01	2.185E-02	0.266
CM-247	+	278.00		1.274E+00	8.949E-01	1.262E+00	1.406E-01	1.010
		287.40		1.244E+00	1.127E+00	1.900E+00	2.110E-01	0.655
		402.60	*	-1.467E-02	4.028E-02	6.274E-02	5.783E-03	-0.234
CF-249		252.85		-4.088E-01	8.377E-01	1.298E+00	1.392E-01	-0.315
		333.44		9.550E-02	2.222E-01	2.551E-01	2.682E-02	0.374
		387.95	*	2.379E-02	3.991E-02	6.779E-02	6.239E-03	0.351
CF-251		176.60	*	-3.839E-03	1.049E-01	1.721E-01	1.576E-02	-0.022
		227.00		3.198E-03	3.556E-01	5.738E-01	5.876E-02	0.006
		285.00		-1.049E+00	1.646E+00	2.484E+00	2.763E-01	-0.422

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960004		
Acquisition date	: 12-FEB-2010 15:47:53	Detector SN#	:
Detector ID	: GAM25	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.94	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960004	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.2172E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

Standard Weight	: 0.00000		
CALIB. DATE/TIME	: 7-OCT-2009 09:38:43	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.076E+01	2.265E+00	5.421E-01	0.000E+00
CD-109	4.082E+00	8.194E-01	7.732E-01	0.000E+00
SN-126	4.012E-01	8.053E-02	7.584E-02	0.000E+00
BA-137M	1.154E-02	5.840E-02	6.532E-02	0.000E+00
CS-137	1.220E-02	6.174E-02	6.905E-02	0.000E+00
HG-203	7.027E-02	4.838E-02	5.987E-02	0.000E+00
TL-208	5.978E-01	1.116E-01	5.949E-02	0.000E+00
BI-210	1.167E+00	5.622E-01	5.642E-01	0.000E+00
PB-210	1.167E+00	5.622E-01	5.642E-01	0.000E+00
PO-210	1.167E+00	5.604E-01	5.642E-01	0.000E+00
BI-211	4.222E+00	6.207E-01	3.007E-01	0.000E+00
PB-212	1.900E+00	2.426E-01	1.216E-01	0.000E+00
PO-212	1.900E+00	2.426E-01	1.216E-01	0.000E+00
BI-214	1.251E+00	2.218E-01	1.249E-01	0.000E+00
PB-214	1.469E+00	2.286E-01	1.049E-01	0.000E+00
PO-214	1.469E+00	2.286E-01	1.049E-01	0.000E+00
PO-216	1.900E+00	2.426E-01	1.216E-01	0.000E+00
PO-218	1.469E+00	2.286E-01	1.049E-01	0.000E+00
RA-224	3.657E+00	9.778E-01	1.047E+00	0.000E+00
RA-226	1.251E+00	2.218E-01	1.249E-01	0.000E+00
AC-228	1.668E+00	3.740E-01	2.132E-01	0.000E+00
RA-228	1.668E+00	3.740E-01	2.132E-01	0.000E+00
TH-228	1.929E+00	2.463E-01	1.235E-01	0.000E+00
TH-230	1.251E+00	2.218E-01	1.249E-01	0.000E+00
TH-232	1.668E+00	3.740E-01	2.132E-01	0.000E+00
TH-234	1.778E+00	9.230E-01	7.324E-01	0.000E+00
U-234	1.251E+00	2.218E-01	1.249E-01	0.000E+00
NP-237	1.178E+00	3.357E-01	2.217E-01	0.000E+00
U-238	1.778E+00	9.230E-01	7.324E-01	0.000E+00
AM-243	3.908E-01	5.585E-02	4.724E-02	0.000E+00
ANH-511	1.778E-01	6.893E-02	4.701E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	2.539E-01	3.295E-01	5.832E-01	0.000E+00	NOT IDENT.
NA-22	1.750E-02	4.571E-02	7.966E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.482E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.640E-02	2.355E-02	3.106E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.983E-02	4.815E-02	0.000E+00	FAIL ABUN
SC-46	-5.024E-02	4.170E-02	6.026E-02	0.000E+00	FAIL ABUN
V-48	-6.545E-03	6.651E-02	1.084E-01	0.000E+00	NOT IDENT.
CR-51	-3.307E-01	3.431E-01	5.641E-01	0.000E+00	NOT IDENT.
MN-52	1.056E-01	2.181E-01	3.887E-01	0.000E+00	NOT IDENT.
MN-54	9.325E-03	4.409E-02	7.522E-02	0.000E+00	NOT IDENT.
CO-56	-2.957E-03	3.611E-02	6.000E-02	0.000E+00	FAIL ABUN
CO-57	-5.070E-03	1.768E-02	3.092E-02	0.000E+00	NOT IDENT.
CO-58	-4.869E-02	4.255E-02	6.351E-02	0.000E+00	NOT IDENT.
FE-59	1.653E-02	1.006E-01	1.740E-01	0.000E+00	NOT IDENT.
CO-60	-9.293E-04	4.285E-02	7.019E-02	0.000E+00	NOT IDENT.
ZN-65	-5.779E-02	9.875E-02	1.319E-01	0.000E+00	NOT IDENT.
GE-68	5.738E-01	1.200E+00	2.144E+00	0.000E+00	NOT IDENT.
AS-73	1.390E-01	1.658E-01	2.920E-01	0.000E+00	NOT IDENT.
AS-74	3.662E-02	9.140E-02	1.555E-01	0.000E+00	NOT IDENT.
SE-75	2.293E-02	4.127E-02	6.746E-02	0.000E+00	NOT IDENT.
BR-77	-5.596E+00	1.003E+01	1.587E+01	0.000E+00	FAIL ABUN
SR-82	-1.355E-01	3.708E-01	5.870E-01	0.000E+00	NOT IDENT.
RB-83	-3.847E-02	6.437E-02	1.014E-01	0.000E+00	NOT IDENT.
RB-84	-1.033E-02	7.659E-02	1.262E-01	0.000E+00	NOT IDENT.
KR-85	4.944E+00	8.054E+00	1.246E+01	0.000E+00	NOT IDENT.
SR-85	2.536E-02	4.131E-02	6.392E-02	0.000E+00	NOT IDENT.
RB-86	-1.088E-01	7.682E-01	1.294E+00	0.000E+00	NOT IDENT.
Y-88	-2.199E-02	3.459E-02	4.953E-02	0.000E+00	NOT IDENT.
ZR-88	-1.441E-02	2.804E-02	4.636E-02	0.000E+00	NOT IDENT.
Y-91	-1.645E+01	1.772E+01	2.757E+01	0.000E+00	NOT IDENT.
NB-94	-1.289E-02	3.432E-02	5.691E-02	0.000E+00	NOT IDENT.
NB-95	3.733E-02	5.254E-02	8.288E-02	0.000E+00	NOT IDENT.
NB-95M	-2.859E-02	1.166E-01	1.708E-01	0.000E+00	NOT IDENT.
ZR-95	-5.317E-02	7.936E-02	1.265E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.139E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.024E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-4.498E+00	1.095E+01	1.786E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.296E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.896E-03	2.888E-02	4.788E-02	0.000E+00	NOT IDENT.
RH-102	2.470E-02	2.959E-02	5.264E-02	0.000E+00	NOT IDENT.
RU-103	-2.456E-02	3.720E-02	5.841E-02	0.000E+00	FAIL ABUN
RH-106	4.658E-02	3.158E-01	5.528E-01	0.000E+00	FAIL ABUN
RU-106	4.658E-02	3.158E-01	5.528E-01	0.000E+00	FAIL ABUN
AG-108M	1.001E-02	3.079E-02	5.353E-02	0.000E+00	NOT IDENT.
AG-110M	-3.804E-04	3.971E-02	5.941E-02	0.000E+00	NOT IDENT.
IN-111	4.337E-01	9.739E-01	1.499E+00	0.000E+00	NOT IDENT.
IN-113M	-1.762E-02	4.087E-02	6.805E-02	0.000E+00	NOT IDENT.
SN-113	-1.762E-02	4.087E-02	6.805E-02	0.000E+00	NOT IDENT.
IN-114M	-9.681E-02	1.633E-01	2.385E-01	0.000E+00	NOT IDENT.
CD-115	4.694E+00	1.122E+01	1.929E+01	0.000E+00	NOT IDENT.
SN-117M	2.598E-03	4.419E-02	7.691E-02	0.000E+00	NOT IDENT.
SB-122	2.241E+00	2.273E+00	4.021E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.828E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	3.251E-03	2.264E-02	3.954E-02	0.000E+00	NOT IDENT.
I-124	2.956E-01	7.893E-01	1.237E+00	0.000E+00	NOT IDENT.
SB-124	3.749E-02	7.622E-02	1.398E-01	0.000E+00	FAIL ABUN
SB-125	6.712E-02	8.630E-02	1.545E-01	0.000E+00	FAIL ABUN
TE-125M	3.835E+00	6.177E+00	1.128E+01	0.000E+00	NOT IDENT.
I-126	1.972E-01	2.048E-01	3.368E-01	0.000E+00	NOT IDENT.
SB-126	-7.172E-02	1.528E-01	2.326E-01	0.000E+00	FAIL ABUN
SB-127	7.947E-02	1.307E+00	2.253E+00	0.000E+00	NOT IDENT.
XE-127	-4.544E-02	4.053E-02	6.451E-02	0.000E+00	NOT IDENT.
I-131	-1.007E-02	1.037E-01	1.782E-01	0.000E+00	NOT IDENT.
TE-132	9.059E-02	6.192E-01	1.048E+00	0.000E+00	NOT IDENT.
BA-133	4.993E-02	4.304E-02	7.137E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.300E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.543E-02	1.027E-01	0.000E+00	FAIL ABUN
CS-135	8.973E-02	1.619E-01	2.480E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.035E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.202E-02	9.857E-02	1.649E-01	0.000E+00	FAIL ABUN
CE-139	3.387E-03	2.389E-02	4.158E-02	0.000E+00	NOT IDENT.
BA-140	-6.441E-02	2.662E-01	4.267E-01	0.000E+00	NOT IDENT.
LA-140	2.007E-03	1.024E-01	1.743E-01	0.000E+00	FAIL ABUN
CE-141	-4.009E-03	5.011E-02	8.730E-02	0.000E+00	NOT IDENT.

CE-143	0.000E+00	1.775E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.476E-01	1.508E-01	2.524E-01	0.000E+00	NOT IDENT.
PM-144	-9.641E-03	3.428E-02	5.732E-02	0.000E+00	NOT IDENT.
PR-144	-6.533E-01	2.323E+00	3.884E+00	0.000E+00	NOT IDENT.
PM-146	3.436E-02	4.373E-02	7.772E-02	0.000E+00	NOT IDENT.
ND-147	4.557E-01	5.637E-01	9.923E-01	0.000E+00	FAIL ABUN
PM-149	-8.425E+01	8.956E+01	1.364E+02	0.000E+00	NOT IDENT.
EU-152	2.424E-02	9.475E-02	1.483E-01	0.000E+00	FAIL ABUN
GD-153	-6.808E-02	5.208E-02	8.682E-02	0.000E+00	FAIL ABUN
EU-154	7.413E-02	1.246E-01	2.216E-01	0.000E+00	NOT IDENT.
EU-155	7.029E-02	7.327E-02	1.353E-01	0.000E+00	FAIL ABUN
TB-160	5.247E-02	1.464E-01	2.528E-01	0.000E+00	FAIL ABUN
HO-166M	7.154E-03	6.230E-02	1.074E-01	0.000E+00	NOT IDENT.
TM-171	3.183E+00	1.168E+01	1.822E+01	0.000E+00	NOT IDENT.
LU-176	2.777E-03	2.124E-02	3.757E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.227E+00	1.816E+00	0.000E+00	FAIL ABUN
LU-177M	-1.135E-01	1.914E-01	2.700E-01	0.000E+00	FAIL ABUN
HF-181	7.508E-03	4.078E-02	6.955E-02	0.000E+00	NOT IDENT.
W-181	2.737E-02	1.443E-01	2.245E-01	0.000E+00	NOT IDENT.
TA-182	-1.959E-01	1.988E-01	3.021E-01	0.000E+00	FAIL ABUN
RE-183	-3.291E-02	9.066E-02	1.528E-01	0.000E+00	FAIL ABUN
RE-184	-1.090E-01	2.188E-01	3.530E-01	0.000E+00	NOT IDENT.
OS-185	-6.949E-03	4.246E-02	7.227E-02	0.000E+00	NOT IDENT.
RE-188	4.868E-02	1.397E-01	2.465E-01	0.000E+00	NOT IDENT.
W-188	-4.992E-01	6.955E+00	1.079E+01	0.000E+00	FAIL ABUN
IR-192	3.847E-02	3.189E-02	5.899E-02	0.000E+00	FAIL ABUN
AU-195	2.271E-01	1.507E-01	2.778E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.123E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.639E+00	5.776E+00	9.755E+00	0.000E+00	NOT IDENT.
TL-202	7.523E-02	6.897E-02	1.251E-01	0.000E+00	NOT IDENT.
BI-207	4.943E-02	5.444E-02	1.004E-01	0.000E+00	FAIL ABUN
TL-207	2.762E-01	6.483E-01	1.031E+00	0.000E+00	FAIL ABUN
PO-209	-6.635E-01	7.009E+00	1.155E+01	0.000E+00	NOT IDENT.
PB-211	-9.394E-02	1.053E+00	1.568E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.955E-01	7.669E-01	0.000E+00	FAIL ABUN
PO-215	2.762E-01	6.483E-01	1.031E+00	0.000E+00	FAIL ABUN
RN-219	1.038E-02	4.220E-01	7.237E-01	0.000E+00	FAIL ABUN
RN-220	-3.970E+00	2.449E+01	4.001E+01	0.000E+00	NOT IDENT.
RA-223	2.762E-01	6.483E-01	1.031E+00	0.000E+00	FAIL ABUN
AC-227	-2.456E-01	3.695E-01	5.870E-01	0.000E+00	FAIL ABUN
TH-227	-2.456E-01	3.703E-01	5.870E-01	0.000E+00	FAIL ABUN
TH-229	5.035E-01	4.371E-01	7.822E-01	0.000E+00	FAIL ABUN
PA-231	6.272E-01	1.404E+00	2.372E+00	0.000E+00	FAIL ABUN
TH-231	2.762E-01	6.483E-01	1.031E+00	0.000E+00	FAIL ABUN
U-231	-4.068E-01	7.268E-01	1.148E+00	0.000E+00	FAIL ABUN
PA-233	-2.798E-02	5.483E-02	9.309E-02	0.000E+00	FAIL ABUN
PA-234	-1.361E-01	3.274E-01	5.176E-01	0.000E+00	FAIL ABUN
PA-234M	1.919E+00	5.040E+00	8.500E+00	0.000E+00	NOT IDENT.
U-235	8.008E-02	1.734E-01	3.022E-01	0.000E+00	FAIL ABUN
NP-236	-1.219E-02	6.303E-02	1.083E-01	0.000E+00	NOT IDENT.
NP-239	-9.838E-03	1.328E-01	2.354E-01	0.000E+00	FAIL ABUN
AM-241	3.383E-03	4.967E-02	7.765E-02	0.000E+00	NOT IDENT.
CM-243	6.517E-03	6.334E-02	1.141E-01	0.000E+00	FAIL ABUN
AM-246	6.579E-02	1.386E-01	2.475E-01	0.000E+00	NOT IDENT.
CM-247	-1.467E-02	3.948E-02	6.365E-02	0.000E+00	FAIL ABUN
CF-249	2.379E-02	3.911E-02	6.881E-02	0.000E+00	NOT IDENT.
CF-251	-3.839E-03	1.028E-01	1.764E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:48:58.26

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GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960004.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:47:53
Sample ID : G245960004 Sample quantity : 1.21720E+02 GRAM
Detector name : GAM25 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.94 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	796	10.67*	1.109E+00	2.076E+01	2.076E+01	11.14
CD-109	88.03	453	3.72*	9.404E+00	3.990E+00	4.082E+00	20.48
SN-126	64.28	214	9.60	9.779E+00	7.038E-01	7.038E-01	52.09
	86.94	453	8.90	9.404E+00	1.668E+00	1.668E+00	45.34
	87.57	453	37.00*	9.404E+00	4.012E-01	4.012E-01	20.48
BA-137M	661.65	8	89.98*	2.231E+00	1.153E-02	1.154E-02	516.31
CS-137	661.65	8	85.12*	2.231E+00	1.219E-02	1.220E-02	516.31
HG-203	70.83	------	4.75	9.750E+00	------ Line Not Found		------
	72.87	------	8.00	9.724E+00	------ Line Not Found		------
	82.60	------	3.55	9.528E+00	------ Line Not Found		------
	279.20	66	77.30*	4.731E+00	5.605E-02	7.027E-02	70.25
TL-208	277.35	66	6.80	4.731E+00	6.372E-01	6.372E-01	70.78
	510.84	162	21.60	2.810E+00	8.229E-01	8.229E-01	40.44
	583.14	407	84.20*	2.497E+00	5.978E-01	5.978E-01	19.05
	860.37	47	12.46	1.765E+00	6.592E-01	6.592E-01	70.38
BI-210	46.50	141	4.05*	9.199E+00	1.165E+00	1.167E+00	49.18
PB-210	46.50	141	4.05*	9.199E+00	1.165E+00	1.167E+00	49.18
PO-210	46.50	141	4.05*	9.199E+00	1.165E+00	1.167E+00	49.02
BI-211	72.87	------	1.27	9.724E+00	------ Line Not Found		------
	351.07	688	12.94*	3.886E+00	4.222E+00	4.222E+00	15.00
PB-212	74.81	811	10.70	9.693E+00	2.411E+00	2.411E+00	17.32
	77.11	1201	18.00	9.652E+00	2.131E+00	2.131E+00	12.93
	87.30	453	8.00	9.404E+00	1.855E+00	1.855E+00	22.80
	238.63	1467	44.60*	5.339E+00	1.900E+00	1.900E+00	13.03
	300.09	122	3.41	4.443E+00	2.488E+00	2.488E+00	42.65
PO-212	74.81	811	10.70	9.693E+00	2.411E+00	2.411E+00	17.32
	77.11	1201	18.00	9.652E+00	2.131E+00	2.131E+00	12.93
	87.30	453	8.00	9.404E+00	1.855E+00	1.855E+00	22.80
	115.19	------	0.60	8.498E+00	------ Line Not Found		------
	238.63	1467	44.60*	5.339E+00	1.900E+00	1.900E+00	13.03
	300.09	122	3.41	4.443E+00	2.488E+00	2.488E+00	42.65
BI-214	609.31	451	46.30*	2.401E+00	1.251E+00	1.251E+00	18.10

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1120.29	139	15.10	1.398E+00	2.037E+00	2.037E+00	28.55
	1764.49	74	15.80	9.415E-01	1.540E+00	1.540E+00	25.73
PB-214	74.81	811	6.21	9.693E+00	4.154E+00	4.154E+00	16.36
	77.11	1201	10.50	9.652E+00	3.654E+00	3.654E+00	15.01
	87.30	453	4.67	9.404E+00	3.178E+00	3.178E+00	21.89
	241.98	248	7.49	5.285E+00	1.928E+00	1.929E+00	27.86
	295.21	457	19.20	4.503E+00	1.632E+00	1.632E+00	18.56
	351.92	688	37.20*	3.886E+00	1.469E+00	1.469E+00	15.88
PO-214	74.81	811	6.21	9.693E+00	4.154E+00	4.154E+00	16.36
	77.11	1201	10.50	9.652E+00	3.654E+00	3.654E+00	15.01
	87.30	453	4.67	9.404E+00	3.178E+00	3.178E+00	21.89
	241.98	248	7.49	5.285E+00	1.928E+00	1.929E+00	27.86
	295.21	457	19.20	4.503E+00	1.632E+00	1.632E+00	18.56
	351.92	688	37.20*	3.886E+00	1.469E+00	1.469E+00	15.88
PO-216	74.81	811	10.70	9.693E+00	2.411E+00	2.411E+00	17.32
	77.11	1201	18.00	9.652E+00	2.131E+00	2.131E+00	12.93
	87.30	453	8.00	9.404E+00	1.855E+00	1.855E+00	22.80
	238.63	1467	44.60*	5.339E+00	1.900E+00	1.900E+00	13.03
	300.09	122	3.41	4.443E+00	2.488E+00	2.488E+00	42.65
PO-218	74.81	811	6.21	9.693E+00	4.154E+00	4.154E+00	16.36
	77.11	1201	10.50	9.652E+00	3.654E+00	3.654E+00	15.01
	87.30	453	4.67	9.404E+00	3.178E+00	3.178E+00	21.89
	241.98	248	7.49	5.285E+00	1.928E+00	1.929E+00	27.86
	295.21	457	19.20	4.503E+00	1.632E+00	1.632E+00	18.56
	351.92	688	37.20*	3.886E+00	1.469E+00	1.469E+00	15.88
RA-224	240.98	248	3.95*	5.285E+00	3.657E+00	3.657E+00	27.29
RA-226	609.31	451	46.30*	2.401E+00	1.251E+00	1.251E+00	18.10
	1120.29	139	15.10	1.398E+00	2.037E+00	2.037E+00	28.55
	1764.49	74	15.80	9.415E-01	1.540E+00	1.540E+00	25.73
AC-228	338.32	268	11.40	4.019E+00	1.807E+00	1.807E+00	48.25
	911.07	251	27.70*	1.678E+00	1.668E+00	1.668E+00	22.88
	969.11	179	16.60	1.589E+00	2.089E+00	2.089E+00	32.43
RA-228	338.32	268	11.40	4.019E+00	1.807E+00	1.807E+00	48.25
	911.07	251	27.70*	1.678E+00	1.668E+00	1.668E+00	22.88
	969.11	179	16.60	1.589E+00	2.089E+00	2.089E+00	32.43
TH-228	74.81	811	10.70	9.693E+00	2.411E+00	2.447E+00	14.63
	77.11	1201	18.00	9.652E+00	2.131E+00	2.164E+00	12.93
	87.30	453	8.00	9.404E+00	1.855E+00	1.884E+00	20.48
	238.63	1467	44.60*	5.339E+00	1.900E+00	1.929E+00	13.03
	300.09	122	3.41	4.443E+00	2.488E+00	2.526E+00	72.28
TH-230	609.31	451	46.30*	2.401E+00	1.251E+00	1.251E+00	18.10
	1120.29	139	15.10	1.398E+00	2.037E+00	2.037E+00	28.55
	1764.49	74	15.80	9.415E-01	1.540E+00	1.540E+00	25.73
TH-232	338.32	268	11.40	4.019E+00	1.807E+00	1.807E+00	26.46
	911.07	251	27.70*	1.678E+00	1.668E+00	1.668E+00	22.88
	969.11	179	16.60	1.589E+00	2.089E+00	2.089E+00	32.43
TH-234	63.29	214	3.80*	9.779E+00	1.778E+00	1.778E+00	52.97
	92.38	295	5.41	9.236E+00	1.820E+00	1.820E+00	33.65
U-234	609.31	451	46.30*	2.401E+00	1.251E+00	1.251E+00	18.10

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1120.29	139	15.10	1.398E+00	2.037E+00	2.037E+00	28.55
	1764.49	74	15.80	9.415E-01	1.540E+00	1.540E+00	25.73
NP-237	86.50	453	12.60*	9.404E+00	1.178E+00	1.178E+00	29.08
	95.87	------	2.60	9.143E+00	------ Line Not Found		------
U-238	63.29	214	3.80*	9.779E+00	1.778E+00	1.778E+00	52.97
	92.38	295	5.41	9.236E+00	1.820E+00	1.820E+00	29.66
AM-243	74.67	811	66.00*	9.693E+00	3.908E-01	3.908E-01	14.58
	86.72	453	0.34	9.404E+00	4.418E+01	4.418E+01	20.48
	117.66	------	0.55	8.415E+00	------ Line Not Found		------
	142.18	------	0.13	7.617E+00	------ Line Not Found		------
ANH-511	511.00	162	100.00*	2.810E+00	1.778E-01	1.778E-01	39.57

Flag: "*" = Keyline

Sample ID : G245960004 Acquisition date : 12-FEB-2010 15:47:53

Total number of lines in spectrum 39
Number of unidentified lines 4
Number of lines tentatively identified by NID 35 89.74%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.076E+01	2.076E+01	0.231E+01	11.14	
CD-109	464.00D	1.02	3.990E+00	4.082E+00	0.836E+00	20.48	
SN-126	1.00E+05Y	1.00	4.012E-01	4.012E-01	0.822E-01	20.48	
BA-137M	30.17Y	1.00	1.153E-02	1.154E-02	5.959E-02	516.31	
CS-137	30.17Y	1.00	1.219E-02	1.220E-02	6.299E-02	516.31	
HG-203	46.60D	1.25	5.605E-02	7.027E-02	4.937E-02	70.25	
TL-208	1.41E+10Y	1.00	5.978E-01	5.978E-01	1.139E-01	19.05	
BI-210	22.26Y	1.00	1.165E+00	1.167E+00	0.574E+00	49.18	
PB-210	22.26Y	1.00	1.165E+00	1.167E+00	0.574E+00	49.18	
PO-210	22.26Y	1.00	1.165E+00	1.167E+00	0.572E+00	49.02	
BI-211	7.04E+08Y	1.00	4.222E+00	4.222E+00	0.633E+00	15.00	
PB-212	1.41E+10Y	1.00	1.900E+00	1.900E+00	0.248E+00	13.03	
PO-212	1.41E+10Y	1.00	1.900E+00	1.900E+00	0.248E+00	13.03	
BI-214	1600.00Y	1.00	1.251E+00	1.251E+00	0.226E+00	18.10	
PB-214	1600.00Y	1.00	1.469E+00	1.469E+00	0.233E+00	15.88	
PO-214	1600.00Y	1.00	1.469E+00	1.469E+00	0.233E+00	15.88	
PO-216	1.41E+10Y	1.00	1.900E+00	1.900E+00	0.248E+00	13.03	
PO-218	1600.00Y	1.00	1.469E+00	1.469E+00	0.233E+00	15.88	
RA-224	1.41E+10Y	1.00	3.657E+00	3.657E+00	0.998E+00	27.29	
RA-226	1600.00Y	1.00	1.251E+00	1.251E+00	0.226E+00	18.10	
AC-228	1.41E+10Y	1.00	1.668E+00	1.668E+00	0.382E+00	22.88	
RA-228	1.41E+10Y	1.00	1.668E+00	1.668E+00	0.382E+00	22.88	
TH-228	1.91Y	1.02	1.900E+00	1.929E+00	0.251E+00	13.03	
TH-230	4.47E+09Y	1.00	1.251E+00	1.251E+00	0.226E+00	18.10	
TH-232	1.41E+10Y	1.00	1.668E+00	1.668E+00	0.382E+00	22.88	
TH-234	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.942E+00	52.97	
U-234	4.47E+09Y	1.00	1.251E+00	1.251E+00	0.226E+00	18.10	
NP-237	2.14E+06Y	1.00	1.178E+00	1.178E+00	0.343E+00	29.08	
U-238	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.942E+00	52.97	
AM-243	7380.00Y	1.00	3.908E-01	3.908E-01	0.570E-01	14.58	
ANH-511	1.00E+09Y	1.00	1.778E-01	1.778E-01	0.703E-01	39.57	
	Total Activity :		6.452E+01	6.466E+01			

Grand Total Activity : 6.452E+01 6.466E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	84.12	163	421	1.19	167.79	164	19	2.26E-02	44.5	9.49E+00	T
4	89.85	308	335	1.21	179.25	164	19	4.27E-02	23.7	9.33E+00	T
0	128.83	179	365	1.20	257.20	252	10	2.49E-02	42.6	8.04E+00	T
0	186.07	289	334	1.26	371.68	367	12	4.01E-02	29.0	6.41E+00	T
0	209.33	136	188	0.81	418.20	415	8	1.89E-02	38.9	5.89E+00	T
0	270.20	115	204	0.93	539.93	535	10	1.59E-02	50.2	4.84E+00	T
0	328.29	80	178	1.08	656.10	651	11	1.11E-02	68.4	4.12E+00	T
0	408.88	47	127	1.59	817.27	813	10	6.59E-03	93.6	3.41E+00	
0	463.02	71	76	1.50	925.54	921	8	9.89E-03	48.6	3.06E+00	T
0	727.29	106	65	1.41	1454.08	1449	11	1.48E-02	35.3	2.05E+00	T
0	768.78	39	85	0.95	1537.05	1532	12	5.39E-03	99.9	1.95E+00	
0	795.04	74	49	1.76	1589.56	1583	15	1.02E-02	47.4	1.89E+00	T
4	964.37	58	39	1.83	1928.22	1923	31	7.99E-03	50.3	1.60E+00	T
0	1238.23	47	44	4.20	2475.96	2468	16	6.48E-03	70.0	1.28E+00	T
0	1377.88	40	17	1.93	2755.29	2747	15	5.58E-03	56.2	1.17E+00	
0	1729.13	29	2	1.68	3457.83	3452	10	4.01E-03	42.3	9.58E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:49:04.22

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960004.CNF;1		
Acquisition date	: 12-FEB-2010 15:47:53	Detector SN#	:
Detector ID	: GAM25	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:01.94	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960004	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.21720E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 7-OCT-2009 09:38:43.34	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.076E+01	2.312E+00	5.432E-01	4.626E-02	38.221
CD-109	4.082E+00	8.361E-01	7.480E-01	8.038E-02	5.457
SN-126	4.012E-01	8.218E-02	7.337E-02	7.867E-03	5.468
BA-137M	1.154E-02	5.959E-02	6.478E-02	7.176E-03	0.178
CS-137	1.220E-02	6.299E-02	6.848E-02	7.595E-03	0.178
HG-203	7.027E-02	4.937E-02	5.874E-02	6.667E-03	1.196
TL-208	5.978E-01	1.139E-01	5.891E-02	6.641E-03	10.147
BI-210	1.167E+00	5.737E-01	5.417E-01	5.586E-02	2.153
PB-210	1.167E+00	5.737E-01	5.417E-01	5.586E-02	2.153
PO-210	1.167E+00	5.718E-01	5.417E-01	5.160E-02	2.153
BI-211	4.222E+00	6.333E-01	2.959E-01	3.118E-02	14.268
PB-212	1.900E+00	2.476E-01	1.191E-01	1.356E-02	15.957
PO-212	1.900E+00	2.476E-01	1.191E-01	1.356E-02	15.957
BI-214	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
PB-214	1.469E+00	2.333E-01	1.032E-01	1.212E-02	14.233
PO-214	1.469E+00	2.333E-01	1.032E-01	1.212E-02	14.233
PO-216	1.900E+00	2.476E-01	1.191E-01	1.356E-02	15.957
PO-218	1.469E+00	2.333E-01	1.032E-01	1.212E-02	14.233

Sample ID : G245960004 Acquisition date : 12-FEB-2010 15:47:53

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	3.657E+00	9.978E-01	1.026E+00	1.078E-01	3.564
RA-226	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
AC-228	1.668E+00	3.817E-01	2.123E-01	2.525E-02	7.858
RA-228	1.668E+00	3.817E-01	2.123E-01	2.525E-02	7.858
TH-228	1.929E+00	2.513E-01	1.209E-01	1.377E-02	15.957
TH-230	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
TH-232	1.668E+00	3.817E-01	2.123E-01	2.525E-02	7.858
TH-234	1.778E+00	9.419E-01	7.058E-01	1.314E-01	2.519
U-234	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
NP-237	1.178E+00	3.425E-01	2.144E-01	4.981E-02	5.494
U-238	1.778E+00	9.419E-01	7.058E-01	1.314E-01	2.519
AM-243	3.908E-01	5.699E-02	4.562E-02	4.633E-03	8.567
ANH-511	1.778E-01	7.033E-02	4.648E-02	4.784E-03	3.824

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.539E-01		3.362E-01	5.761E-01	6.099E-02	0.441
NA-22	1.750E-02		4.664E-02	7.967E-02	6.533E-03	0.220
NA-24	1.788E-01		4.328E-01	Half-Life too short		
AL-26	-1.640E-02		2.403E-02	3.120E-02	2.557E-03	-0.526
TI-44	3.933E-01	+	5.085E-02	4.652E-02	4.790E-03	8.455
SC-46	-5.024E-02		4.255E-02	5.999E-02	5.745E-03	-0.837
V-48	-6.545E-03		6.787E-02	1.080E-01	1.001E-02	-0.061
CR-51	-3.307E-01		3.502E-01	5.544E-01	6.157E-02	-0.597
MN-52	1.056E-01		2.226E-01	3.893E-01	3.209E-02	0.271
MN-54	9.325E-03		4.499E-02	7.483E-02	7.593E-03	0.125
CO-56	-2.957E-03		3.685E-02	5.970E-02	5.990E-03	-0.050
CO-57	-5.070E-03		1.804E-02	3.003E-02	3.873E-03	-0.169
CO-58	-4.869E-02		4.342E-02	6.316E-02	6.553E-03	-0.771
FE-59	1.653E-02		1.027E-01	1.737E-01	1.636E-02	0.095
CO-60	-9.293E-04		4.372E-02	7.024E-02	5.704E-03	-0.013
ZN-65	-5.779E-02		1.008E-01	1.317E-01	1.138E-02	-0.439
GE-68	5.738E-01		1.224E+00	2.140E+00	1.894E-01	0.268
AS-73	1.390E-01		1.692E-01	2.808E-01	2.696E-02	0.495
AS-74	3.662E-02		9.327E-02	1.540E-01	1.669E-02	0.238
SE-75	2.293E-02		4.211E-02	6.615E-02	7.250E-03	0.347
BR-77	-5.596E+00		1.023E+01	1.570E+01	1.627E+00	-0.357
SR-82	-1.355E-01		3.783E-01	5.834E-01	6.191E-02	-0.232
RB-83	-3.847E-02		6.568E-02	1.003E-01	1.039E-02	-0.384
RB-84	-1.033E-02		7.815E-02	1.256E-01	1.214E-02	-0.082
KR-85	4.944E+00		8.219E+00	1.232E+01	1.271E+00	0.401
SR-85	2.536E-02		4.216E-02	6.320E-02	6.520E-03	0.401
RB-86	-1.088E-01		7.839E-01	1.291E+00	1.144E-01	-0.084
Y-88	-2.199E-02		3.530E-02	4.977E-02	4.067E-03	-0.442
ZR-88	-1.441E-02		2.861E-02	4.569E-02	4.158E-03	-0.316
Y-91	-1.645E+01		1.809E+01	2.756E+01	2.268E+00	-0.597

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	-1.289E-02		3.502E-02	5.648E-02	6.203E-03	-0.228
NB-95	3.733E-02		5.361E-02	8.235E-02	8.797E-03	0.453
NB-95M	-2.859E-02		1.190E-01	1.672E-01	1.917E-02	-0.171
ZR-95	-5.317E-02		8.098E-02	1.257E-01	1.439E-02	-0.423
NB-97	1.501E-02		5.813E-02	Half-Life too short		
ZR-97	1.551E+00		1.033E+00	Half-Life too short		
MO-99	-4.498E+00		1.118E+01	1.774E+01	2.933E+00	-0.254
TC-99M	2.623E+09		1.682E+10	Half-Life too short		
RH-101	-5.896E-03		2.946E-02	4.678E-02	4.508E-03	-0.126
RH-102	2.470E-02		3.019E-02	5.199E-02	5.191E-03	0.475
RU-103	-2.456E-02		3.796E-02	5.773E-02	8.752E-03	-0.425
RH-106	4.658E-02		3.222E-01	5.478E-01	8.200E-02	0.085
RU-106	4.658E-02		3.222E-01	5.478E-01	5.999E-02	0.085
AG-108M	1.001E-02		3.142E-02	5.281E-02	5.219E-03	0.189
AG-110M	-3.804E-04		4.052E-02	5.892E-02	6.640E-03	-0.006
IN-111	4.337E-01		9.938E-01	1.469E+00	1.555E-01	0.295
IN-113M	-1.762E-02		4.170E-02	6.705E-02	6.263E-03	-0.263
SN-113	-1.762E-02		4.170E-02	6.705E-02	6.263E-03	-0.263
IN-114M	-9.681E-02		1.666E-01	2.329E-01	2.205E-02	-0.416
CD-115	4.694E+00		1.145E+01	1.908E+01	1.989E+00	0.246
SN-117M	2.598E-03		4.510E-02	7.494E-02	7.276E-03	0.035
SB-122	2.241E+00		2.319E+00	3.980E+00	4.243E-01	0.563
I-123	6.933E-01		2.463E+00	Half-Life too short		
TE-123M	3.251E-03		2.310E-02	3.853E-02	3.741E-03	0.084
I-124	2.956E-01		8.054E-01	1.226E+00	1.332E-01	0.241
SB-124	3.749E-02		7.778E-02	1.403E-01	1.213E-02	0.267
SB-125	6.712E-02		8.807E-02	1.524E-01	1.472E-02	0.440
TE-125M	3.835E+00		6.303E+00	1.094E+01	1.453E+00	0.350
I-126	1.972E-01		2.090E-01	3.340E-01	3.698E-02	0.591
SB-126	-7.172E-02		1.560E-01	2.310E-01	2.521E-02	-0.311
SB-127	7.947E-02		1.334E+00	2.236E+00	2.977E-01	0.036
XE-127	-4.544E-02		4.136E-02	6.304E-02	6.141E-03	-0.721
I-131	-1.007E-02		1.059E-01	1.754E-01	1.800E-02	-0.057
TE-132	9.059E-02		6.318E-01	1.026E+00	1.712E-01	0.088
BA-133	4.993E-02		4.392E-02	7.024E-02	9.959E-03	0.711
I-133	2.113E-03		3.215E-03	Half-Life too short		
CS-134	1.585E-01	+	7.697E-02	1.021E-01	1.075E-02	1.552
CS-135	8.973E-02		1.652E-01	2.432E-01	2.936E-02	0.369
I-135	-6.294E+09		3.079E+09	Half-Life too short		
CS-136	-2.202E-02		1.006E-01	1.645E-01	1.539E-02	-0.134
CE-139	3.387E-03		2.438E-02	4.054E-02	3.615E-03	0.084
BA-140	-6.441E-02		2.716E-01	4.222E-01	1.422E-01	-0.153
LA-140	2.007E-03		1.045E-01	1.749E-01	1.454E-02	0.011
CE-141	-4.009E-03		5.114E-02	8.497E-02	9.450E-03	-0.047
CE-143	4.848E-04		9.057E-05	Half-Life too short		
CE-144	-1.476E-01		1.631E-01	2.454E-01	4.338E-02	-0.601
PM-144	-9.641E-03		3.498E-02	5.689E-02	6.259E-03	-0.169
PR-144	-6.533E-01		2.371E+00	3.855E+00	4.241E-01	-0.169

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	3.436E-02		4.463E-02	7.673E-02	8.959E-03	0.448
ND-147	4.557E-01		5.752E-01	9.815E-01	1.577E-01	0.464
PM-149	-8.425E+01		9.139E+01	1.338E+02	2.282E+01	-0.630
EU-152	2.424E-02		9.669E-02	1.459E-01	1.566E-02	0.166
GD-153	-6.808E-02		5.314E-02	8.410E-02	9.471E-03	-0.810
EU-154	7.413E-02		1.272E-01	2.216E-01	2.435E-02	0.334
EU-155	7.029E-02		7.476E-02	1.312E-01	1.551E-02	0.536
TB-160	5.247E-02		1.494E-01	2.517E-01	2.438E-02	0.208
HO-166M	7.154E-03		6.357E-02	1.066E-01	1.167E-02	0.067
TM-171	3.183E+00		1.192E+01	1.757E+01	1.744E+00	0.181
LU-176	2.777E-03		2.167E-02	3.691E-02	4.027E-03	0.075
LU-177	3.120E+00	+	1.252E+00	1.776E+00	1.751E-01	1.757
LU-177M	-1.135E-01		1.953E-01	2.662E-01	2.488E-02	-0.426
HF-181	7.508E-03		4.161E-02	6.871E-02	6.904E-03	0.109
W-181	2.737E-02		1.473E-01	2.165E-01	2.142E-02	0.126
TA-182	-1.959E-01		2.028E-01	3.020E-01	2.484E-02	-0.649
RE-183	-3.291E-02		9.251E-02	1.489E-01	1.386E-02	-0.221
RE-184	-1.090E-01		2.233E-01	3.460E-01	3.710E-02	-0.315
OS-185	-6.949E-03		4.333E-02	7.166E-02	7.908E-03	-0.097
RE-188	4.868E-02		1.426E-01	2.401E-01	2.419E-02	0.203
W-188	-4.992E-01		7.097E+00	1.059E+01	1.173E+00	-0.047
IR-192	3.847E-02		3.254E-02	5.797E-02	6.261E-03	0.664
AU-195	2.271E-01		1.538E-01	2.692E-01	3.054E-02	0.844
TL-200	-1.263E-04		2.104E-04	Half-Life too short		
TL-201	-2.639E+00		5.894E+00	9.512E+00	8.509E-01	-0.277
TL-202	7.523E-02		7.037E-02	1.234E-01	1.189E-02	0.610
BI-207	4.943E-02		5.555E-02	1.002E-01	8.941E-03	0.493
TL-207	2.762E-01		6.615E-01	1.013E+00	1.904E-01	0.273
PO-209	-6.635E-01		7.152E+00	1.150E+01	1.092E+00	-0.058
PB-211	-9.394E-02		1.075E+00	1.546E+00	9.700E-01	-0.061
BI-212	1.356E+00	+	5.056E-01	7.615E-01	9.150E-02	1.780
PO-215	2.762E-01		6.615E-01	1.013E+00	1.904E-01	0.273
RN-219	1.038E-02		4.306E-01	7.133E-01	1.096E-01	0.015
RN-220	-3.970E+00		2.499E+01	3.959E+01	4.186E+00	-0.100
RA-223	2.762E-01		6.615E-01	1.013E+00	1.904E-01	0.273
AC-227	-2.456E-01		3.771E-01	5.753E-01	9.585E-02	-0.427
TH-227	-2.456E-01		3.778E-01	5.753E-01	1.104E-01	-0.427
TH-229	5.035E-01		4.460E-01	7.641E-01	7.289E-02	0.659
PA-231	6.272E-01		1.433E+00	2.328E+00	3.896E-01	0.269
TH-231	2.762E-01		6.615E-01	1.013E+00	1.904E-01	0.273
U-231	-4.068E-01		7.416E-01	1.111E+00	1.242E-01	-0.366
PA-233	-2.798E-02		5.595E-02	9.147E-02	1.010E-02	-0.306
PA-234	-1.361E-01		3.340E-01	5.157E-01	9.861E-02	-0.264
PA-234M	1.919E+00		5.143E+00	8.475E+00	8.877E-01	0.226
U-235	8.008E-02		1.770E-01	2.941E-01	5.554E-02	0.272
NP-236	-1.219E-02		6.431E-02	1.055E-01	1.005E-02	-0.116
NP-239	-9.838E-03		1.355E-01	2.285E-01	2.863E-02	-0.043
AM-241	3.383E-03		5.068E-02	7.478E-02	7.769E-03	0.045

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	6.517E-03		6.463E-02	1.106E-01	1.288E-02	0.059
AM-246	6.579E-02		1.414E-01	2.470E-01	2.185E-02	0.266
CM-247	-1.467E-02		4.028E-02	6.274E-02	5.783E-03	-0.234
CF-249	2.379E-02		3.991E-02	6.779E-02	6.239E-03	0.351
CF-251	-3.839E-03		1.049E-01	1.721E-01	1.576E-02	-0.022

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960004		
Acquisition date	: 12-FEB-2010 15:47:53	Detector SN#	:
Detector ID	: GAM25	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.94	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960004	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.2172E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

CALIB. DATE/TIME	: 7-OCT-2009 09:38:43	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.076E+01	2.265E+00	2.712E-01	1.156E+00
CD-109	4.082E+00	8.194E-01	3.868E-01	4.181E-01
SN-126	4.012E-01	8.053E-02	3.794E-02	4.109E-02
BA-137M	1.154E-02	5.840E-02	3.268E-02	2.980E-02
CS-137	1.220E-02	6.174E-02	3.454E-02	3.150E-02
HG-203	7.027E-02	4.838E-02	2.995E-02	2.469E-02
TL-208	5.978E-01	1.116E-01	2.976E-02	5.694E-02
BI-210	1.167E+00	5.622E-01	2.823E-01	2.868E-01
PB-210	1.167E+00	5.622E-01	2.823E-01	2.868E-01
PO-210	1.167E+00	5.604E-01	2.823E-01	2.859E-01
BI-211	4.222E+00	6.207E-01	1.504E-01	3.167E-01
PB-212	1.900E+00	2.426E-01	6.085E-02	1.238E-01
PO-212	1.900E+00	2.426E-01	6.085E-02	1.238E-01
BI-214	1.251E+00	2.218E-01	6.248E-02	1.132E-01
PB-214	1.469E+00	2.286E-01	5.246E-02	1.166E-01
PO-214	1.469E+00	2.286E-01	5.246E-02	1.166E-01
PO-216	1.900E+00	2.426E-01	6.085E-02	1.238E-01
PO-218	1.469E+00	2.286E-01	5.246E-02	1.166E-01
RA-224	3.657E+00	9.778E-01	5.241E-01	4.989E-01
RA-226	1.251E+00	2.218E-01	6.248E-02	1.132E-01
AC-228	1.668E+00	3.740E-01	1.066E-01	1.908E-01
RA-228	1.668E+00	3.740E-01	1.066E-01	1.908E-01
TH-228	1.929E+00	2.463E-01	6.177E-02	1.257E-01
TH-230	1.251E+00	2.218E-01	6.248E-02	1.132E-01
TH-232	1.668E+00	3.740E-01	1.066E-01	1.908E-01
TH-234	1.778E+00	9.230E-01	3.664E-01	4.709E-01
U-234	1.251E+00	2.218E-01	6.248E-02	1.132E-01
NP-237	1.178E+00	3.357E-01	1.109E-01	1.713E-01
U-238	1.778E+00	9.230E-01	3.664E-01	4.709E-01
AM-243	3.908E-01	5.585E-02	2.363E-02	2.850E-02
ANH-511	1.778E-01	6.893E-02	2.352E-02	3.517E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K-L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.539E-01	3.295E-01	2.918E-01	1.681E-01	NOT IDENT.
NA-22	1.750E-02	4.571E-02	3.985E-02	2.332E-02	NOT IDENT.
NA-24	1.788E+05	8.482E+05	0.000E+00	4.328E+05	SHORT HLIF
AL-26	-1.640E-02	2.355E-02	1.554E-02	1.201E-02	NOT IDENT.
TI-44	3.933E-01	4.983E-02	2.409E-02	2.542E-02	FAIL ABUN
SC-46	-5.024E-02	4.170E-02	3.015E-02	2.127E-02	FAIL ABUN
V-48	-6.545E-03	6.651E-02	5.421E-02	3.393E-02	NOT IDENT.
CR-51	-3.307E-01	3.431E-01	2.822E-01	1.751E-01	NOT IDENT.
MN-52	1.056E-01	2.181E-01	1.945E-01	1.113E-01	NOT IDENT.
MN-54	9.325E-03	4.409E-02	3.763E-02	2.249E-02	NOT IDENT.
CO-56	-2.957E-03	3.611E-02	3.002E-02	1.842E-02	FAIL ABUN
CO-57	-5.070E-03	1.768E-02	1.547E-02	9.022E-03	NOT IDENT.
CO-58	-4.869E-02	4.255E-02	3.177E-02	2.171E-02	NOT IDENT.
FE-59	1.653E-02	1.006E-01	8.707E-02	5.135E-02	NOT IDENT.
CO-60	-9.293E-04	4.285E-02	3.511E-02	2.186E-02	NOT IDENT.
ZN-65	-5.779E-02	9.875E-02	6.600E-02	5.038E-02	NOT IDENT.
GE-68	5.738E-01	1.200E+00	1.073E+00	6.120E-01	NOT IDENT.
AS-73	1.390E-01	1.658E-01	1.461E-01	8.459E-02	NOT IDENT.
AS-74	3.662E-02	9.140E-02	7.778E-02	4.664E-02	NOT IDENT.
SE-75	2.293E-02	4.127E-02	3.375E-02	2.105E-02	NOT IDENT.
BR-77	-5.596E+00	1.003E+01	7.941E+00	5.115E+00	FAIL ABUN
SR-82	-1.355E-01	3.708E-01	2.937E-01	1.892E-01	NOT IDENT.
RB-83	-3.847E-02	6.437E-02	5.073E-02	3.284E-02	NOT IDENT.
RB-84	-1.033E-02	7.659E-02	6.313E-02	3.908E-02	NOT IDENT.
KR-85	4.944E+00	8.054E+00	6.235E+00	4.109E+00	NOT IDENT.
SR-85	2.536E-02	4.131E-02	3.198E-02	2.108E-02	NOT IDENT.
RB-86	-1.088E-01	7.682E-01	6.473E-01	3.919E-01	NOT IDENT.
Y-88	-2.199E-02	3.459E-02	2.478E-02	1.765E-02	NOT IDENT.
ZR-88	-1.441E-02	2.804E-02	2.320E-02	1.430E-02	NOT IDENT.
Y-91	-1.645E+01	1.772E+01	1.379E+01	9.043E+00	NOT IDENT.
NB-94	-1.289E-02	3.432E-02	2.847E-02	1.751E-02	NOT IDENT.
NB-95	3.733E-02	5.254E-02	4.146E-02	2.680E-02	NOT IDENT.
NB-95M	-2.859E-02	1.166E-01	8.544E-02	5.949E-02	NOT IDENT.
ZR-95	-5.317E-02	7.936E-02	6.328E-02	4.049E-02	NOT IDENT.
NB-97	1.501E+04	1.139E+05	0.000E+00	5.813E+04	SHORT HLIF
ZR-97	1.551E+06	2.024E+06	0.000E+00	1.033E+06	SHORT HLIF
MO-99	-4.498E+00	1.095E+01	8.934E+00	5.588E+00	NOT IDENT.
TC-99M	2.623E+15	3.296E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.896E-03	2.888E-02	2.395E-02	1.473E-02	NOT IDENT.
RH-102	2.470E-02	2.959E-02	2.634E-02	1.510E-02	NOT IDENT.
RU-103	-2.456E-02	3.720E-02	2.922E-02	1.898E-02	FAIL ABUN
RH-106	4.658E-02	3.158E-01	2.766E-01	1.611E-01	FAIL ABUN
RU-106	4.658E-02	3.158E-01	2.766E-01	1.611E-01	FAIL ABUN
AG-108M	1.001E-02	3.079E-02	2.678E-02	1.571E-02	NOT IDENT.
AG-110M	-3.804E-04	3.971E-02	2.972E-02	2.026E-02	NOT IDENT.
IN-111	4.337E-01	9.739E-01	7.500E-01	4.969E-01	NOT IDENT.
IN-113M	-1.762E-02	4.087E-02	3.405E-02	2.085E-02	NOT IDENT.
SN-113	-1.762E-02	4.087E-02	3.405E-02	2.085E-02	NOT IDENT.
IN-114M	-9.681E-02	1.633E-01	1.193E-01	8.331E-02	NOT IDENT.
CD-115	4.694E+00	1.122E+01	9.652E+00	5.723E+00	NOT IDENT.
SN-117M	2.598E-03	4.419E-02	3.848E-02	2.255E-02	NOT IDENT.
SB-122	2.241E+00	2.273E+00	2.011E+00	1.160E+00	NOT IDENT.
I-123	6.933E+05	4.828E+06	0.000E+00	2.463E+06	SHORT HLIF
TE-123M	3.251E-03	2.264E-02	1.978E-02	1.155E-02	NOT IDENT.
I-124	2.956E-01	7.893E-01	6.189E-01	4.027E-01	NOT IDENT.
SB-124	3.749E-02	7.622E-02	6.995E-02	3.889E-02	FAIL ABUN
SB-125	6.712E-02	8.630E-02	7.729E-02	4.403E-02	FAIL ABUN
TE-125M	3.835E+00	6.177E+00	5.644E+00	3.152E+00	NOT IDENT.
I-126	1.972E-01	2.048E-01	1.685E-01	1.045E-01	NOT IDENT.
SB-126	-7.172E-02	1.528E-01	1.164E-01	7.798E-02	FAIL ABUN
SB-127	7.947E-02	1.307E+00	1.127E+00	6.671E-01	NOT IDENT.
XE-127	-4.544E-02	4.053E-02	3.227E-02	2.068E-02	NOT IDENT.
I-131	-1.007E-02	1.037E-01	8.915E-02	5.293E-02	NOT IDENT.
TE-132	9.059E-02	6.192E-01	5.245E-01	3.159E-01	NOT IDENT.
BA-133	4.993E-02	4.304E-02	3.570E-02	2.196E-02	FAIL ABUN
I-133	2.113E+03	6.300E+03	0.000E+00	3.215E+03	SHORT HLIF
CS-134	1.585E-01	7.543E-02	5.139E-02	3.849E-02	FAIL ABUN
CS-135	8.973E-02	1.619E-01	1.241E-01	8.261E-02	NOT IDENT.
I-135	-6.294E+15	6.035E+15	0.000E+00	3.079E+15	SHORT HLIF
CS-136	-2.202E-02	9.857E-02	8.249E-02	5.029E-02	FAIL ABUN
CE-139	3.387E-03	2.389E-02	2.080E-02	1.219E-02	NOT IDENT.
BA-140	-6.441E-02	2.662E-01	2.135E-01	1.358E-01	NOT IDENT.
LA-140	2.007E-03	1.024E-01	8.722E-02	5.223E-02	FAIL ABUN
CE-141	-4.009E-03	5.011E-02	4.367E-02	2.557E-02	NOT IDENT.

CE-143	4.848E+02	1.775E+02	0.000E+00	9.057E+01	SHORT HLIF
CE-144	-1.476E+01	1.598E-01	1.263E-01	8.154E-02	NOT IDENT.
PM-144	-9.641E+03	3.428E-02	2.868E-02	1.749E-02	NOT IDENT.
PR-144	-6.533E+01	2.323E+00	1.943E+00	1.185E+00	NOT IDENT.
PM-146	3.436E-02	4.373E-02	3.889E-02	2.231E-02	NOT IDENT.
ND-147	4.557E-01	5.637E-01	4.964E-01	2.876E-01	FAIL ABUN
PM-149	-8.425E+01	8.956E+01	6.822E+01	4.569E+01	NOT IDENT.
EU-152	2.424E-02	9.475E-02	7.418E-02	4.834E-02	FAIL ABUN
GD-153	-6.808E-02	5.208E-02	4.344E-02	2.657E-02	FAIL ABUN
EU-154	7.413E-02	1.246E-01	1.109E-01	6.358E-02	NOT IDENT.
EU-155	7.029E-02	7.327E-02	6.768E-02	3.738E-02	FAIL ABUN
TB-160	5.247E-02	1.464E-01	1.265E-01	7.471E-02	FAIL ABUN
HO-166M	7.154E-03	6.230E-02	5.371E-02	3.179E-02	NOT IDENT.
TM-171	3.183E+00	1.168E+01	9.113E+00	5.961E+00	NOT IDENT.
LU-176	2.777E-03	2.124E-02	1.880E-02	1.084E-02	FAIL ABUN
LU-177	3.120E+00	1.227E+00	9.087E-01	6.259E-01	FAIL ABUN
LU-177M	-1.135E-01	1.914E-01	1.351E-01	9.765E-02	FAIL ABUN
HF-181	7.508E-03	4.078E-02	3.480E-02	2.081E-02	NOT IDENT.
W-181	2.737E-02	1.443E-01	1.123E-01	7.364E-02	NOT IDENT.
TA-182	-1.959E-01	1.988E-01	1.512E-01	1.014E-01	FAIL ABUN
RE-183	-3.291E-02	9.066E-02	7.643E-02	4.626E-02	FAIL ABUN
RE-184	-1.090E-01	2.188E-01	1.766E-01	1.116E-01	NOT IDENT.
OS-185	-6.949E-03	4.246E-02	3.616E-02	2.166E-02	NOT IDENT.
RE-188	4.868E-02	1.397E-01	1.233E-01	7.129E-02	NOT IDENT.
W-188	-4.992E-01	6.955E+00	5.398E+00	3.548E+00	FAIL ABUN
IR-192	3.847E-02	3.189E-02	2.951E-02	1.627E-02	FAIL ABUN
AU-195	2.271E-01	1.507E-01	1.390E-01	7.690E-02	FAIL ABUN
TL-200	-1.263E+02	4.123E+02	0.000E+00	2.104E+02	SHORT HLIF
TL-201	-2.639E+00	5.776E+00	4.881E+00	2.947E+00	NOT IDENT.
TL-202	7.523E-02	6.897E-02	6.257E-02	3.519E-02	NOT IDENT.
BI-207	4.943E-02	5.444E-02	5.023E-02	2.777E-02	FAIL ABUN
TL-207	2.762E-01	6.483E-01	5.156E-01	3.307E-01	FAIL ABUN
PO-209	-6.635E-01	7.009E+00	5.780E+00	3.576E+00	NOT IDENT.
PB-211	-9.394E-02	1.053E+00	7.845E-01	5.374E-01	NOT IDENT.
BI-212	1.356E+00	4.955E-01	3.837E-01	2.528E-01	FAIL ABUN
PO-215	2.762E-01	6.483E-01	5.156E-01	3.307E-01	FAIL ABUN
RN-219	1.038E-02	4.220E-01	3.621E-01	2.153E-01	FAIL ABUN
RN-220	-3.970E+00	2.449E+01	2.002E+01	1.249E+01	NOT IDENT.
RA-223	2.762E-01	6.483E-01	5.156E-01	3.307E-01	FAIL ABUN
AC-227	-2.456E-01	3.695E-01	2.937E-01	1.885E-01	FAIL ABUN
TH-227	-2.456E-01	3.703E-01	2.937E-01	1.889E-01	FAIL ABUN
TH-229	5.035E-01	4.371E-01	3.914E-01	2.230E-01	FAIL ABUN
PA-231	6.272E-01	1.404E+00	1.187E+00	7.165E-01	FAIL ABUN
TH-231	2.762E-01	6.483E-01	5.156E-01	3.307E-01	FAIL ABUN
U-231	-4.068E-01	7.268E-01	5.742E-01	3.708E-01	FAIL ABUN
PA-233	-2.798E-02	5.483E-02	4.657E-02	2.797E-02	FAIL ABUN
PA-234	-1.361E-01	3.274E-01	2.589E-01	1.670E-01	FAIL ABUN
PA-234M	1.919E+00	5.040E+00	4.252E+00	2.571E+00	NOT IDENT.
U-235	8.008E-02	1.734E-01	1.512E-01	8.849E-02	FAIL ABUN
NP-236	-1.219E-02	6.303E-02	5.417E-02	3.216E-02	NOT IDENT.
NP-239	-9.838E-03	1.328E-01	1.178E-01	6.776E-02	FAIL ABUN
AM-241	3.383E-03	4.967E-02	3.885E-02	2.534E-02	NOT IDENT.
CM-243	6.517E-03	6.334E-02	5.708E-02	3.231E-02	FAIL ABUN
AM-246	6.579E-02	1.386E-01	1.238E-01	7.071E-02	NOT IDENT.
CM-247	-1.467E-02	3.948E-02	3.184E-02	2.014E-02	FAIL ABUN
CF-249	2.379E-02	3.911E-02	3.443E-02	1.996E-02	NOT IDENT.
CF-251	-3.839E-03	1.028E-01	8.825E-02	5.243E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	197.0932
46.50	197.0932
46.50	197.0932
48.70	228.1226
49.72	208.9774
51.35	246.0228
52.39	249.3028
52.97	249.9125
53.15	246.8104
53.44	248.2083
54.07	231.2400
56.28	281.1062
56.28	281.1100
57.37	0.0000
57.53	292.5642
57.53	292.5662
57.60	264.7210
57.98	272.9474
57.98	272.9474
59.32	338.8483
59.32	338.8483
59.40	328.4554
59.54	328.6326
59.72	318.3494
60.01	329.2274
61.10	344.1825
61.14	326.1171
61.30	326.3148
63.00	334.0958
63.29	334.4540
63.29	334.4540
63.58	334.8106
64.28	335.6696
65.12	327.8840
65.20	327.9792
65.20	327.9792
66.05	355.1169
66.72	322.0595
66.83	356.1039
66.91	356.2025
67.20	353.4820
67.20	353.4820
67.75	368.0836
67.85	360.4788
68.90	388.9727
68.90	388.9727
69.30	418.6681
69.67	420.3726
70.82	422.0233
70.82	422.0233
70.83	422.0370
72.80	411.8574
72.87	411.9532
72.87	411.9532
74.67	414.4029
74.81	414.5919
74.81	414.5919
74.81	414.5919
74.81	414.5919
74.81	414.5919
74.81	414.5919
74.81	414.5919
74.97	414.8076
75.28	415.2256
75.70	415.7928
77.11	417.6779
77.11	417.6779

77.11	417.6779
77.11	417.6779
77.11	417.6779
77.11	417.6779
77.11	417.6779
78.38	379.7077
79.62	360.2744
79.80	362.0865
79.80	362.0865
80.11	362.4344
80.18	362.5122
80.30	331.2178
80.30	331.2178
80.57	331.4938
81.00	363.4300
81.07	363.5078
81.07	363.5078
81.07	363.5078
81.07	363.5078
82.60	342.4844
83.37	312.3652
83.78	312.7520
83.78	312.7520
83.78	312.7520
83.78	312.7520
84.21	313.1543
84.90	313.7988
85.43	314.2910
86.29	315.0859
86.50	315.2793
86.54	315.3164
86.59	315.3633
86.72	315.4824
86.79	315.5449
86.94	315.6855
87.30	316.0156
87.30	316.0156
87.30	316.0156
87.30	316.0156
87.30	316.0156
87.30	316.0156
87.30	316.0156
87.57	316.2637
87.88	316.5469
88.03	316.6836
88.36	316.9844
88.47	317.0859
89.95	318.4297
91.11	174.7127
92.29	292.9847
92.38	293.0588
92.38	293.0588
93.35	285.0558
94.00	252.8587
94.67	250.7996
94.67	250.8027
94.90	253.4828
94.90	253.4828
94.90	253.4828
94.90	253.4828
95.87	288.2911
95.87	288.2911
96.73	315.5776
97.43	300.5063
98.44	229.1693
98.44	229.1693
98.88	221.7879
99.55	223.8833
99.55	223.8833
99.86	258.1436
100.00	258.2377
100.10	258.3086
103.18	268.9653
103.76	243.5471
105.00	233.0901
105.31	235.0006
108.00	247.0194
109.28	219.8771

111.00	262.8571
111.00	262.8571
111.76	247.5389
112.95	226.2371
115.19	229.2110
116.30	223.5967
117.00	225.7382
117.00	225.7382
117.66	252.7873
121.11	205.4464
121.62	200.2937
121.78	206.6558
122.06	213.9782
122.32	231.1952
122.32	231.1952
122.32	231.1952
122.32	231.1952
123.07	232.4845
127.23	227.8062
129.76	235.9121
131.20	187.1100
133.02	229.2632
133.54	236.7035
135.34	197.0701
136.00	201.9711
136.25	211.3448
136.48	217.9363
140.51	234.6946
140.51	0.0000
142.18	254.2444
142.65	215.0439
143.76	231.5159
144.24	247.7504
144.24	247.7504
144.24	247.7504
144.24	247.7504
145.22	241.6224
145.44	246.4478
147.16	220.7484
152.43	217.2461
152.70	208.7393
153.22	220.4447
154.21	225.6554
154.21	225.6554
154.21	225.6554
154.21	225.6554
155.03	228.8871
156.02	243.7606
158.56	217.8017
159.00	0.0000
159.00	211.1942
160.31	214.6131
161.27	229.5781
162.32	220.2663
162.64	199.9138
163.35	189.4275
163.89	197.4300
165.85	206.9454
167.43	224.2427
171.28	200.9949
171.86	195.2485
172.10	205.2438
176.55	200.8078
176.60	200.8242
181.06	193.2617
184.41	211.0240
185.71	199.8056
186.00	199.8978
190.27	199.2252
192.34	204.1808
193.63	185.9013
197.04	252.9678
198.01	209.9158
198.60	174.9139
200.40	183.6980
201.83	230.9022
202.84	228.1295
205.31	180.3561

208.36	212.6802
208.81	192.3283
209.75	179.9637
209.75	179.9637
210.97	161.3080
215.65	168.7709
216.55	164.7380
218.09	199.1840
222.10	182.1027
223.80	204.0088
226.40	184.2689
227.00	195.2069
227.08	195.2290
227.20	181.2361
228.16	182.5538
228.18	182.5590
228.18	182.5590
231.56	0.0000
235.69	188.2402
236.00	188.3174
236.00	188.3174
238.63	391.0970
238.63	391.0970
238.63	391.0970
238.63	391.0970
239.00	223.5919
240.98	224.1750
241.98	171.6517
241.98	171.6517
241.98	171.6517
244.69	145.7554
245.39	130.9667
247.94	154.1282
248.90	133.2227
249.79	147.8229
252.40	170.6137
252.85	177.4064
252.85	177.4064
254.15	0.0000
256.20	188.2344
256.20	188.2344
260.50	159.9522
260.90	171.3000
262.80	144.5885
264.65	134.4984
268.24	151.7954
268.79	148.4825
269.46	154.8649
269.46	154.8649
269.46	154.8649
269.46	154.8649
271.23	150.6270
273.65	175.0915
276.40	156.7145
277.35	162.0588
277.60	162.1075
277.60	162.1075
278.00	156.4310
278.60	132.9453
279.20	141.6757
279.53	143.4592
280.46	145.3440
281.68	131.6873
283.67	130.8287
284.30	154.0951
285.00	148.4219
285.90	163.6624
286.10	163.6996
286.10	163.6996
287.40	111.6211
288.45	0.0000
290.67	135.8403
290.80	148.4647
291.72	145.8133
293.26	0.0000
293.70	111.0070
295.21	129.4918
295.21	129.4918

295.21	129.4918
295.96	129.5996
296.50	109.2379
297.23	109.3268
298.57	109.4877
299.80	132.9769
299.80	132.9769
300.09	133.0182
300.09	133.0182
300.09	133.0182
300.09	133.0182
300.12	133.0228
301.29	130.3588
302.84	133.4176
303.76	134.9714
303.91	134.9923
304.40	119.4252
304.40	119.4252
304.84	126.5947
306.84	122.0553
308.46	118.6987
311.98	127.2054
316.51	114.3109
318.01	126.2106
319.02	154.3190
319.41	157.0901
320.08	149.9714
323.87	116.0938
323.87	116.0938
323.87	116.0938
323.87	116.0938
325.23	129.3346
328.77	123.9659
333.44	106.2348
334.20	131.9788
334.20	131.9788
334.30	131.9919
338.28	116.8708
338.28	116.8708
338.28	116.8708
338.28	116.8708
338.32	116.8746
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338.32	116.8746
340.50	125.4269
340.57	125.4352
344.27	105.1566
345.85	129.0514
350.59	0.0000
351.07	108.0862
351.92	108.1747
351.92	108.1747
351.92	108.1747
355.39	0.0000
356.01	89.8726
364.48	104.7451
366.43	99.2626
367.43	95.5690
367.94	0.0000
369.80	96.7254
374.96	106.7107
383.85	112.3690
387.95	99.2830
388.63	104.1652
391.69	108.3137
391.69	108.3137
392.90	107.4601
398.62	125.5061
400.65	102.3340
401.10	130.6488
401.81	124.8750
402.60	132.7689
404.84	118.9393
410.95	78.6548
411.60	96.0110
413.65	111.9411
414.70	97.3117
415.30	102.6226

415.76	89.8295
417.63	0.0000
418.52	99.9289
423.70	102.3430
427.08	87.6804
427.89	81.7560
432.53	92.0716
433.93	86.1627
439.47	73.4623
439.56	83.5319
439.89	83.5535
443.98	105.0331
444.90	90.9599
445.03	85.9157
445.03	85.9157
445.03	85.9157
445.03	85.9157
453.90	86.5110
463.38	95.1364
468.07	77.6027
473.00	110.4907
475.06	81.7026
475.35	81.7207
476.78	81.8075
477.59	83.9280
477.96	92.2430
482.03	79.0059
484.57	72.9031
487.03	79.2946
490.36	0.0000
492.35	57.6058
497.08	77.7691
507.63	0.0000
510.53	0.0000
510.84	82.7732
511.00	82.7828
511.85	82.8316
511.85	82.8316
513.99	88.4857
513.99	88.4857
520.41	75.8470
520.65	77.9947
527.90	76.2349
528.96	0.0000
529.64	77.4009
529.87	0.0000
531.02	66.7113
537.32	77.8008
543.00	72.6719
546.56	0.0000
549.76	67.5495
552.65	65.4932
555.20	65.6030
563.23	65.9436
563.90	76.9684
568.70	87.1295
569.32	62.8900
569.50	62.8987
569.67	62.9056
573.80	79.6663
574.00	79.6772
574.64	89.6740
578.91	78.1473
579.30	0.0000
583.14	74.5694
585.48	57.0672
591.81	71.6152
592.07	71.6250
593.00	68.3067
595.88	66.1841
600.56	82.1228
602.52	0.0000
602.71	85.6090
602.71	85.6090
603.60	84.1527
604.41	87.2006
604.70	87.2171
609.31	91.9815

609.31	91.9815
609.31	91.9815
609.31	91.9815
610.33	101.0916
612.46	78.5586
614.37	78.6496
618.01	82.7598
621.84	70.1854
621.84	70.1854
631.29	84.3251
633.02	55.0488
633.10	55.0518
634.78	59.6981
635.90	64.3313
636.97	66.2098
645.85	70.2462
646.12	70.2573
656.30	66.6329
657.75	69.7888
657.90	0.0000
661.65	82.0660
661.65	82.0660
664.57	0.0000
666.33	59.2157
666.33	59.2157
675.00	58.2476
677.61	69.6207
685.20	59.5178
692.80	58.8137
695.00	66.4795
696.49	73.1857
696.49	73.1857
697.00	73.2064
697.49	68.4703
698.33	68.5020
698.50	64.7013
699.00	66.6230
702.63	78.1943
706.10	73.5598
706.58	0.0000
706.67	79.3161
709.31	68.9010
711.68	68.0272
713.82	70.9811
717.42	65.3487
720.50	63.7689
721.93	0.0000
722.20	75.4666
722.78	69.0649
722.78	69.0649
722.89	69.0684
722.95	65.8576
723.30	65.8693
724.18	72.3285
727.18	53.1241
733.00	66.1996
735.90	49.4797
739.58	56.3772
742.81	43.8124
744.21	53.5861
747.13	59.5197
751.79	55.7462
752.31	61.6296
753.82	55.8032
755.35	64.6626
756.15	76.4499
756.87	74.5175
763.93	68.8738
765.79	70.5784
766.42	72.2412
766.84	78.8262
776.49	56.0981
778.00	58.4512
778.57	65.4038
778.89	65.4151
783.80	54.6415
785.46	55.6787
792.07	51.5342

795.84	54.9570
796.30	54.9691
798.80	75.0458
801.93	73.4873
805.60	62.2376
810.29	65.3936
810.76	74.4643
815.85	56.4854
817.79	46.4402
818.51	50.4956
819.60	59.6151
826.30	67.9078
828.27	0.0000
831.60	81.2813
831.96	81.2949
834.83	78.3479
836.80	0.0000
846.75	43.9900
848.13	40.9463
856.28	0.0000
856.80	47.9564
860.37	51.4636
867.32	39.5762
867.82	44.7489
871.10	40.3321
873.19	46.5787
874.81	52.8266
875.33	0.0000
876.40	50.7908
879.36	48.7809
880.27	62.2983
880.51	60.2274
881.50	58.1752
883.24	55.1001
884.67	38.4905
889.25	64.6247
896.60	42.8708
898.02	62.7759
899.00	58.6154
903.28	43.4423
911.07	47.3434
911.07	47.3434
911.07	47.3434
919.63	42.2349
920.93	40.1449
925.00	45.5048
925.24	44.4507
926.50	45.5332
935.52	60.5834
937.48	69.1418
944.10	55.4633
946.00	57.6413
949.00	55.5750
962.29	48.3530
964.01	53.7622
966.15	36.5898
968.20	36.6197
969.11	36.6330
969.11	36.6330
969.11	36.6330
977.42	37.8352
980.50	39.6852
983.50	39.0103
989.30	32.5825
996.32	50.0969
1001.03	48.0068
1001.68	48.0187
1004.76	54.6326
1021.30	0.0000
1024.50	0.0000
1034.80	46.0510
1036.00	50.6807
1037.82	42.4156
1038.57	41.5045
1038.76	0.0000
1045.16	45.3055
1046.59	39.7806
1048.07	40.7272

1050.47	37.9837
1050.47	37.9837
1062.04	45.5906
1063.62	40.9618
1076.63	44.9004
1077.35	38.3624
1078.86	39.3186
1085.78	43.1718
1099.22	55.6390
1112.02	42.2246
1112.84	32.4902
1115.52	52.0335
1120.29	38.9547
1120.29	38.9547
1120.29	38.9547
1120.29	38.9547
1120.51	38.9580
1121.28	32.5865
1124.00	0.0000
1129.67	40.0364
1131.51	0.0000
1147.95	0.0000
1167.94	47.3252
1173.22	44.5082
1175.09	54.2181
1177.93	40.7012
1189.05	48.6348
1204.90	50.8468
1205.75	0.0000
1213.00	52.9431
1221.42	65.8686
1230.97	65.9322
1235.34	59.2529
1236.41	0.0000
1238.25	47.4473
1246.25	47.5684
1260.41	0.0000
1271.85	41.9607
1274.45	35.9956
1274.54	39.9951
1291.56	38.1979
1298.22	0.0000
1312.09	38.4391
1325.50	27.4230
1325.50	27.4230
1332.49	33.5881
1333.61	24.4355
1360.21	18.4724
1362.66	0.0000
1365.15	17.4718
1368.21	25.9219
1368.53	0.0000
1376.25	30.0488
1384.27	37.2056
1394.10	31.0938
1395.20	32.1403
1407.95	17.6897
1434.06	15.7245
1436.60	27.2748
1457.56	0.0000
1460.81	20.0669
1489.15	17.0299
1509.49	7.4916
1596.49	27.2158
1620.62	14.1635
1678.03	0.0000
1691.02	10.5688
1691.02	10.5688
1706.46	0.0000
1750.46	0.0000
1764.49	8.5550
1764.49	8.5550
1764.49	8.5550
1764.49	8.5550
1770.23	8.5663
1771.40	33.2956
1791.20	0.0000
1808.65	8.8892

1836.01 13.9136

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960004

Total Uranium Activity	5.3265E+00	ug/g
Total Uranium Counting Unc.	2.7472E+00	ug/g
Total Uranium Tpu	1.4016E-06	ug/g
Total Uranium Mda	1.0923E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G245960004
ANALYST	: MXR1	DETECTOR	: GAM25
SAMPLE DATE	: 28-JAN-2010 12:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 12-FEB-2010 15:47:53.61	SAMPLE ALQT	: 121.720 GRAM

GROSS GAMMA ACTIVITY (pCi/GRAM)	: 9.562E+00
GROSS GAMMA ERROR (pCi/GRAM)	: 1.400E+00
GROSS GAMMA MDA (pCi/GRAM)	: 3.866E+00
GROSS GAMMA DLC (pCi/GRAM)	: 1.872E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:49:52.38

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960005.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:48:18
Sample ID : G245960005 Sample quantity : 1.27600E+02 GRAM
Detector name : GAM12 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.46 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.31*	94	506	0.83	126.10	122	9	1.31E-02	45.3	
2	4	74.72*	401	469	0.96	148.94	145	21	5.57E-02	9.8	1.14E+00
3	4	77.00	685	414	0.95	153.49	145	21	9.51E-02	6.1	
4	0	83.92*	94	304	1.31	167.34	165	6	1.31E-02	32.0	
5	3	87.03*	277	279	1.16	173.55	171	12	3.85E-02	11.2	1.11E+00
6	3	89.71	162	302	0.84	178.93	171	12	2.25E-02	17.9	
7	0	92.87*	306	464	1.45	185.25	182	10	4.25E-02	15.2	
8	0	128.28	145	361	1.18	256.11	252	10	2.01E-02	25.8	
9	0	185.76*	289	299	1.16	371.13	366	11	4.01E-02	13.7	
10	0	209.34	149	338	1.20	418.31	414	12	2.06E-02	26.0	
11	5	238.39*	1290	158	1.08	476.43	470	19	1.79E-01	3.2	2.56E+00
12	5	241.36	330	257	1.84	482.38	470	19	4.58E-02	13.4	
13	0	270.16	134	188	1.86	540.01	535	11	1.86E-02	21.7	
14	0	294.90*	402	125	1.15	589.51	585	8	5.59E-02	7.0	
15	0	299.54	79	198	1.60	598.78	595	10	1.10E-02	35.1	
16	0	327.54	83	132	0.79	654.80	651	9	1.15E-02	27.5	
17	0	337.86*	227	168	1.37	675.46	671	10	3.15E-02	12.7	
18	0	351.55*	733	147	1.37	702.85	697	12	1.02E-01	5.0	
19	0	408.86	36	91	1.35	817.51	814	8	5.05E-03	48.2	
20	0	462.81	112	131	1.81	925.46	919	16	1.56E-02	24.5	
21	0	510.38*	144	123	1.83	1020.63	1014	14	2.00E-02	21.0	
22	0	563.82	42	92	0.78	1127.53	1120	14	5.85E-03	51.2	
23	0	582.84*	396	112	1.35	1165.57	1158	13	5.49E-02	7.5	
24	0	608.85*	512	63	1.37	1217.63	1212	11	7.11E-02	5.5	
25	0	726.53	156	41	1.74	1453.03	1445	15	2.16E-02	12.1	
26	0	767.95	52	70	1.04	1535.90	1530	10	7.27E-03	33.2	
27	0	794.50	62	60	1.66	1589.00	1585	12	8.61E-03	28.0	
28	0	860.03	71	39	2.10	1720.07	1717	10	9.88E-03	20.7	
29	0	910.60*	257	53	1.81	1821.24	1816	15	3.57E-02	9.0	
30	0	968.28*	158	66	1.49	1936.61	1932	11	2.20E-02	13.0	
31	0	1119.67	114	56	2.26	2239.41	2229	17	1.58E-02	17.7	
32	0	1237.56	52	39	1.51	2475.18	2470	13	7.28E-03	27.5	
33	0	1377.10	25	24	1.92	2754.23	2749	9	3.48E-03	40.8	
34	0	1459.83*	786	53	1.94	2919.67	2912	19	1.09E-01	4.2	
35	0	1495.55	12	18	1.12	2991.11	2985	14	1.67E-03	79.6	
36	0	1579.68	9	15	0.58	3159.33	3147	15	1.30E-03	96.0	
37	0	1589.78	17	43	0.64	3179.53	3168	19	2.35E-03	96.0	
38	0	1619.58	19	6	1.18	3239.11	3233	11	2.57E-03	33.8	

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1763.27	75	11	1.83	3526.42	3519	15	1.04E-02	15.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:49:55

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:48:18
Sample ID : G245960005 Sample quantity : 127.60 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA12 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.46 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.904E+01	2.108E+00	5.779E-01	4.120E-02	32.956
CD-109	+	88.03	*	3.980E+00	9.391E-01	1.239E+00	9.482E-02	3.212
SB-122	+	563.90	*	3.371E+00	3.460E+00	3.397E+00	2.133E-01	0.992
		692.80		-1.753E+01	4.225E+01	6.738E+01	4.536E+00	-0.260
SN-126	+	64.28		8.979E-01	8.231E-01	7.517E-01	1.056E-01	1.195
	+	86.94		1.626E+00	7.616E-01	5.121E-01	2.107E-01	3.176
	+	87.57	*	3.912E-01	9.230E-02	1.224E-01	9.326E-03	3.197
TL-208		277.35		2.646E-01	3.579E-01	6.190E-01	6.483E-02	0.427
	+	510.84		7.022E-01	3.043E-01	2.213E-01	2.285E-02	3.173
	+	583.14	*	5.516E-01	9.181E-02	5.216E-02	3.731E-03	10.576
	+	860.37		9.357E-01	3.953E-01	4.851E-01	4.239E-02	1.929
BI-211		72.87		5.510E+00	3.355E+00	5.383E+00	3.611E-01	1.024
	+	351.07	*	4.428E+00	5.235E-01	3.010E-01	1.892E-02	14.711
BI-212	+	727.18	*	1.866E+00	4.779E-01	4.195E-01	3.632E-02	4.449
		785.46		2.793E-01	1.758E+00	2.918E+00	2.180E-01	0.096
	+	1620.62		1.883E+00	1.279E+00	1.355E+00	8.727E-02	1.390
PB-212	+	74.81		2.404E+00	5.476E-01	5.623E-01	6.499E-02	4.275
	+	77.11		2.323E+00	3.266E-01	3.191E-01	2.209E-02	7.281
	+	87.30		1.809E+00	4.637E-01	5.675E-01	7.128E-02	3.188
	+	238.63	*	1.696E+00	1.629E-01	8.865E-02	6.295E-03	19.135
	+	300.09		1.605E+00	1.134E+00	1.164E+00	9.504E-02	1.379
PO-212	+	74.81		2.404E+00	5.476E-01	5.623E-01	6.499E-02	4.275
	+	77.11		2.323E+00	3.266E-01	3.191E-01	2.209E-02	7.281
	+	87.30		1.809E+00	4.637E-01	5.675E-01	7.128E-02	3.188
		115.19		1.142E+00	3.355E+00	5.593E+00	3.548E-01	0.204
	+	238.63	*	1.696E+00	1.629E-01	8.865E-02	6.295E-03	19.135
	+	300.09		1.605E+00	1.134E+00	1.164E+00	9.504E-02	1.379
BI-214	+	609.31	*	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.669
	+	1120.29		1.558E+00	5.687E-01	4.539E-01	4.123E-02	3.433
	+	1764.49		1.405E+00	4.337E-01	2.542E-01	1.506E-02	5.528
PB-214	+	74.81		4.142E+00	9.136E-01	9.689E-01	9.743E-02	4.275
	+	77.11		3.983E+00	6.369E-01	5.470E-01	5.631E-02	7.281
	+	87.30		3.100E+00	7.693E-01	9.722E-01	1.052E-01	3.188
	+	241.98		2.603E+00	7.275E-01	5.340E-01	4.202E-02	4.875

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.432E+00	2.352E-01	1.960E-01	1.654E-02	7.306
	+	351.92	*	1.540E+00	1.991E-01	1.049E-01	8.572E-03	14.678
PO-214	+	74.81		4.142E+00	9.136E-01	9.689E-01	9.743E-02	4.275
	+	77.11		3.983E+00	6.369E-01	5.470E-01	5.631E-02	7.281
	+	87.30		3.100E+00	7.693E-01	9.722E-01	1.052E-01	3.188
	+	241.98		2.603E+00	7.275E-01	5.340E-01	4.202E-02	4.875
	+	295.21		1.432E+00	2.352E-01	1.960E-01	1.654E-02	7.306
	+	351.92	*	1.540E+00	1.991E-01	1.049E-01	8.572E-03	14.678
PO-216	+	74.81		2.404E+00	5.476E-01	5.623E-01	6.499E-02	4.275
	+	77.11		2.323E+00	3.266E-01	3.191E-01	2.209E-02	7.281
	+	87.30		1.809E+00	4.637E-01	5.675E-01	7.128E-02	3.188
	+	238.63	*	1.696E+00	1.629E-01	8.865E-02	6.295E-03	19.135
	+	300.09		1.605E+00	1.134E+00	1.164E+00	9.504E-02	1.379
PO-218	+	74.81		4.142E+00	9.136E-01	9.689E-01	9.743E-02	4.275
	+	77.11		3.983E+00	6.369E-01	5.470E-01	5.631E-02	7.281
	+	87.30		3.100E+00	7.693E-01	9.722E-01	1.052E-01	3.188
	+	241.98		2.603E+00	7.275E-01	5.340E-01	4.202E-02	4.875
	+	295.21		1.432E+00	2.352E-01	1.960E-01	1.654E-02	7.306
	+	351.92	*	1.540E+00	1.991E-01	1.049E-01	8.572E-03	14.678
RA-224	+	240.98	*	4.936E+00	1.351E+00	1.009E+00	5.566E-02	4.891
RA-226	+	609.31	*	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.669
	+	1120.29		1.558E+00	5.687E-01	4.539E-01	4.123E-02	3.433
	+	1764.49		1.405E+00	4.337E-01	2.542E-01	1.506E-02	5.528
AC-228	+	338.32		1.508E+00	7.248E-01	3.603E-01	1.468E-01	4.186
	+	911.07	*	1.600E+00	3.378E-01	2.072E-01	2.275E-02	7.720
	+	969.11		1.734E+00	6.030E-01	3.368E-01	7.767E-02	5.146
RA-228	+	338.32		1.508E+00	7.248E-01	3.603E-01	1.468E-01	4.186
	+	911.07	*	1.600E+00	3.378E-01	2.072E-01	2.275E-02	7.720
	+	969.11		1.734E+00	6.030E-01	3.368E-01	7.767E-02	5.146
TH-228	+	74.81		2.440E+00	5.078E-01	5.708E-01	3.935E-02	4.275
	+	77.11		2.359E+00	3.316E-01	3.240E-01	2.243E-02	7.281
	+	87.30		1.837E+00	4.334E-01	5.762E-01	4.379E-02	3.188
	+	238.63	*	1.722E+00	1.654E-01	9.000E-02	6.391E-03	19.135
	+	300.09		1.630E+00	1.493E+00	1.182E+00	6.964E-01	1.379
TH-230	+	609.31	*	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.668
	+	1120.29		1.558E+00	5.687E-01	4.539E-01	4.123E-02	3.433
	+	1764.49		1.405E+00	4.337E-01	2.542E-01	1.506E-02	5.528
TH-232	+	338.32		1.508E+00	3.938E-01	3.603E-01	2.041E-02	4.186
	+	911.07	*	1.600E+00	3.378E-01	2.072E-01	2.275E-02	7.720
	+	969.11		1.734E+00	6.030E-01	3.368E-01	7.767E-02	5.146
TH-234	+	63.29	*	2.268E+00	2.091E+00	1.998E+00	3.402E-01	1.135
	+	92.38		2.778E+00	9.730E-01	7.549E-01	1.320E-01	3.681
U-234	+	609.31	*	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.668
	+	1120.29		1.558E+00	5.687E-01	4.539E-01	4.123E-02	3.433
	+	1764.49		1.405E+00	4.337E-01	2.542E-01	1.506E-02	5.528
NP-237	+	86.50	*	1.149E+00	3.601E-01	3.361E-01	7.383E-02	3.418
		95.87		-1.754E-01	9.734E-01	1.431E+00	3.452E-01	-0.123
U-238	+	63.29	*	2.268E+00	2.091E+00	1.998E+00	3.402E-01	1.135
	+	92.38		2.778E+00	8.670E-01	7.549E-01	5.495E-02	3.681

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	+	74.67	*	3.897E-01	8.097E-02	9.144E-02	6.213E-03	4.262
	+	86.72		4.308E+01	1.016E+01	1.257E+01	9.499E-01	3.427
		117.66		-2.299E+00	3.586E+00	5.707E+00	3.595E-01	-0.403
		142.18		1.042E+00	1.710E+01	2.753E+01	1.558E+00	0.038
ANH-511	+	511.00	*	1.517E-01	6.449E-02	4.782E-02	2.914E-03	3.172

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-9.507E-02	3.241E-01	5.096E-01	3.507E-02	-0.187
NA-22		1274.54	*	-2.252E-02	4.829E-02	7.566E-02	4.873E-03	-0.298
NA-24		1368.53	*	-3.061E-01	4.829E-02	Half-Life too short		
AL-26		1129.67		5.727E-01	1.719E+00	2.943E+00	1.794E-01	0.195
		1808.65	*	1.292E-02	2.408E-02	4.476E-02	2.568E-03	0.289
TI-44		67.85		-6.493E-03	4.798E-02	7.182E-02	4.675E-03	-0.090
	+	78.38	*	4.287E-01	6.028E-02	7.496E-02	5.243E-03	5.719
SC-46		889.25	*	-5.407E-02	3.986E-02	5.445E-02	4.513E-03	-0.993
	+	1120.51		2.668E-01	9.577E-02	1.289E-01	8.008E-03	2.070
V-48		944.10		9.744E-01	9.228E-01	1.637E+00	1.315E-01	0.595
		983.50	*	4.152E-03	7.771E-02	1.098E-01	8.456E-03	0.038
		1312.09		1.353E-02	6.623E-02	1.117E-01	7.582E-03	0.121
CR-51		320.08	*	2.013E-01	3.727E-01	6.360E-01	4.043E-02	0.317
MN-52		744.21		2.510E-02	2.484E-01	4.120E-01	2.943E-02	0.061
		848.13		5.177E+00	7.482E+00	1.288E+01	1.026E+00	0.402
		935.52		2.012E-01	2.741E-01	4.717E-01	3.819E-02	0.427
		1246.25		-2.754E+00	6.974E+00	1.041E+01	6.416E-01	-0.264
		1333.61		-2.484E+00	4.904E+00	7.479E+00	5.223E-01	-0.332
		1434.06	*	-1.907E-01	2.389E-01	3.393E-01	2.331E-02	-0.562
MN-54		834.83	*	1.971E-02	3.953E-02	6.707E-02	5.272E-03	0.294
CO-56		846.75	*	4.073E-02	4.238E-02	7.454E-02	5.929E-03	0.546
		977.42		-9.516E-01	2.653E+00	4.070E+00	3.157E-01	-0.234
		1037.82		3.339E-01	2.807E-01	5.231E-01	4.040E-02	0.638
		1175.09		5.185E-01	2.041E+00	3.467E+00	1.911E-01	0.150
	+	1238.25		2.016E-01	1.115E-01	1.693E-01	1.090E-02	1.190
		1360.21		2.201E-02	8.819E-01	1.447E+00	1.007E-01	0.015
		1771.40		-4.280E-01	2.770E-01	3.305E-01	1.949E-02	-1.295
CO-57		122.06	*	2.456E-02	2.476E-02	4.222E-02	2.640E-03	0.582
		136.48		6.396E-02	2.027E-01	3.344E-01	2.249E-02	0.191
CO-58		810.76	*	-2.640E-02	3.860E-02	5.862E-02	4.510E-03	-0.450
FE-59		142.65		3.595E-01	2.645E+00	4.271E+00	2.413E-01	0.084
		192.34		3.668E-01	9.014E-01	1.465E+00	1.693E-01	0.250
		1099.22	*	2.805E-02	9.145E-02	1.566E-01	1.157E-02	0.179
		1291.56		-4.616E-03	1.060E-01	1.730E-01	1.393E-02	-0.027
CO-60		1173.22		4.887E-03	4.328E-02	7.245E-02	3.982E-03	0.067
		1332.49	*	-1.876E-02	3.924E-02	6.024E-02	4.208E-03	-0.311
ZN-65		1115.52	*	2.191E-02	1.059E-01	1.557E-01	9.796E-03	0.141
GE-68		1077.35	*	7.129E-01	1.256E+00	2.204E+00	1.486E-01	0.324
AS-73		53.44	*	-3.748E-01	7.758E-01	1.271E+00	8.205E-02	-0.295

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-74		595.88	*	-4.266E-02	8.466E-02	1.358E-01	8.646E-03	-0.314
		634.78		1.163E-01	3.402E-01	5.823E-01	3.752E-02	0.200
SE-75		66.05		-4.283E+00	5.027E+00	7.255E+00	6.334E-01	-0.590
		96.73		-5.294E-01	8.086E-01	1.153E+00	1.460E-01	-0.459
		121.11		2.444E-02	1.325E-01	2.189E-01	2.084E-02	0.112
		136.00		3.317E-02	3.758E-02	6.351E-02	3.750E-03	0.522
		198.60		2.663E-01	1.798E+00	2.841E+00	1.909E-01	0.094
		264.65	*	7.693E-03	4.409E-02	6.610E-02	3.747E-03	0.116
		279.53		-4.757E-02	1.055E-01	1.724E-01	1.056E-02	-0.276
		303.91		-1.107E-01	2.207E+00	3.215E+00	3.045E-01	-0.034
		400.65		-8.763E-03	2.465E-01	4.012E-01	3.585E-02	-0.022
BR-77	+	87.88		8.705E+02	2.054E+02	3.591E+02	2.745E+01	2.424
		200.40		1.456E+02	1.598E+02	2.655E+02	1.408E+01	0.548
	+	239.00		2.757E+02	2.341E+01	3.947E+01	2.174E+00	6.986
		249.79		6.287E+01	5.957E+01	1.056E+02	5.862E+00	0.596
		281.68		8.443E+00	8.755E+01	1.471E+02	8.313E+00	0.057
		297.23		1.228E+02	7.424E+01	9.533E+01	5.411E+00	1.288
		303.76		-5.549E+00	1.904E+02	2.780E+02	1.579E+01	-0.020
		439.47		3.454E+01	1.494E+02	2.461E+02	1.417E+01	0.140
		484.57		-2.053E+02	2.230E+02	3.294E+02	1.971E+01	-0.623
		520.65	*	6.858E+00	1.057E+01	1.779E+01	1.091E+00	0.385
		574.64		3.918E+01	2.297E+02	3.681E+02	2.323E+01	0.106
		578.91		-1.649E+01	9.608E+01	1.377E+02	8.705E+00	-0.120
		585.48		4.993E+02	2.178E+02	3.743E+02	2.373E+01	1.334
		755.35		1.075E+02	1.605E+02	2.753E+02	1.991E+01	0.391
		817.79		4.176E+01	1.376E+02	2.308E+02	1.784E+01	0.181
SR-82		698.33		2.649E+01	3.724E+01	6.208E+01	4.207E+00	0.427
		776.49	*	-5.148E-01	4.005E-01	5.763E-01	4.264E-02	-0.893
		1395.20		-6.729E+00	1.075E+01	1.585E+01	1.098E+00	-0.424
RB-83		520.41	*	3.731E-02	6.942E-02	1.159E-01	7.104E-03	0.322
		529.64		6.879E-03	9.797E-02	1.574E-01	9.707E-03	0.044
		552.65		8.215E-03	1.853E-01	3.128E-01	1.954E-02	0.026
RB-84		881.50	*	-8.872E-03	7.230E-02	1.158E-01	9.525E-03	-0.077
KR-85		513.99	*	9.421E+00	8.206E+00	1.274E+01	7.780E-01	0.739
SR-85		513.99	*	4.832E-02	4.209E-02	6.535E-02	3.991E-03	0.739
RB-86		1076.63	*	7.542E-02	8.249E-01	1.387E+00	9.366E-02	0.054
Y-88		898.02		-3.882E-02	4.506E-02	6.432E-02	5.403E-03	-0.604
		1836.01	*	-2.846E-02	3.615E-02	5.030E-02	2.832E-03	-0.566
ZR-88		392.90	*	-4.154E-03	3.004E-02	4.862E-02	2.667E-03	-0.085
Y-91		1204.90	*	-1.128E+00	1.935E+01	3.180E+01	1.839E+00	-0.035
NB-94		702.63	*	-3.276E-04	3.338E-02	5.510E-02	3.753E-03	-0.006
		871.10		-2.060E-02	3.591E-02	5.487E-02	4.470E-03	-0.375
NB-95		765.79	*	1.054E-01	5.428E-02	9.122E-02	6.673E-03	1.155
NB-95M		235.69	*	1.600E-01	1.327E-01	2.110E-01	1.539E-02	0.758
ZR-95		724.18		1.708E-01	1.137E-01	1.864E-01	1.469E-02	0.916
		756.15	*	3.849E-02	6.902E-02	1.172E-01	9.683E-03	0.328
NB-97		657.90	*	3.805E-02	6.902E-02	Half-Life too short		
		1024.50		5.025E-01	6.902E-02	Half-Life too short		
ZR-97		254.15		-2.446E+00	6.902E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		355.39		-3.583E+00	6.902E-02	Half-Life too short		
		507.63	*	3.315E+00	6.902E-02	Half-Life too short		
		602.52		6.131E+00	6.902E-02	Half-Life too short		
		1021.30		-8.802E-02	6.902E-02	Half-Life too short		
		1147.95		7.185E+00	6.902E-02	Half-Life too short		
		1362.66		-2.040E+00	6.902E-02	Half-Life too short		
		1750.46		3.698E+00	6.902E-02	Half-Life too short		
MO-99		140.51		-2.629E+01	2.716E+01	3.962E+01	1.067E+01	-0.664
		181.06		-1.041E+01	1.862E+01	2.539E+01	4.302E+00	-0.410
		366.43		2.875E+01	8.199E+01	1.377E+02	7.701E+00	0.209
		739.58	*	-5.653E+00	1.184E+01	1.860E+01	2.675E+00	-0.304
		778.00		-1.780E+01	3.327E+01	5.167E+01	3.830E+00	-0.344
TC-99M		140.51	*	-4.242E+10	3.327E+01	Half-Life too short		
RH-101	+	127.23		9.529E-02	4.953E-02	5.280E-02	3.204E-03	1.805
		198.01	*	4.853E-03	3.307E-02	5.226E-02	2.765E-03	0.093
		325.23		6.375E-02	2.489E-01	3.693E-01	2.098E-02	0.173
RH-102		418.52		-1.551E-02	2.803E-01	4.541E-01	2.562E-02	-0.034
		475.06	*	1.598E-02	2.851E-02	4.792E-02	2.846E-03	0.333
		631.29		-1.308E-02	5.286E-02	8.628E-02	5.555E-03	-0.152
		697.49		4.277E-02	7.860E-02	1.353E-01	9.156E-03	0.316
	+	766.84		2.310E-01	1.545E-01	2.297E-01	1.682E-02	1.005
		1046.59		-3.050E-02	1.044E-01	1.692E-01	1.199E-02	-0.180
		1112.84		-3.187E-02	2.619E-01	3.688E-01	2.328E-02	-0.086
RU-103		497.08	*	2.284E-03	3.995E-02	6.409E-02	8.175E-03	0.036
	+	610.33		1.456E+01	2.786E+00	3.095E+00	4.845E-01	4.703
RH-106	+	511.85		7.577E-01	3.222E-01	4.468E-01	2.725E-02	1.696
		621.84	*	-3.474E-02	3.021E-01	4.992E-01	6.018E-02	-0.070
		1050.47		7.234E-01	2.243E+00	3.864E+00	2.722E-01	0.187
RU-106	+	511.85		7.577E-01	3.222E-01	4.468E-01	2.724E-02	1.696
		621.84	*	-3.474E-02	3.021E-01	4.992E-01	3.205E-02	-0.070
		1050.47		7.234E-01	2.243E+00	3.864E+00	2.722E-01	0.187
AG-108M		433.93	*	-2.786E-02	3.182E-02	4.681E-02	2.917E-03	-0.595
		614.37		2.221E-03	4.084E-02	5.966E-02	4.090E-03	0.037
		722.95		-2.107E-03	4.580E-02	6.505E-02	4.805E-03	-0.032
AG-110M		657.75	*	9.339E-03	3.512E-02	5.952E-02	4.057E-03	0.157
		677.61		6.751E-02	3.191E-01	5.375E-01	3.721E-02	0.126
		706.67		1.077E-01	1.936E-01	3.348E-01	2.390E-02	0.322
		763.93		1.066E-01	1.891E-01	2.863E-01	2.172E-02	0.372
		884.67		1.221E-02	4.579E-02	7.637E-02	6.524E-03	0.160
		937.48		-1.542E-01	1.218E-01	1.697E-01	1.428E-02	-0.909
		1384.27		-2.854E-02	1.462E-01	2.191E-01	1.586E-02	-0.130
IN-111		171.28		5.712E-01	9.587E-01	1.584E+00	8.149E-02	0.361
		245.39	*	-5.728E-02	1.056E+00	1.566E+00	8.667E-02	-0.037
IN-113M		391.69	*	6.602E-03	4.242E-02	7.007E-02	4.125E-03	0.094
SN-113		391.69	*	6.602E-03	4.242E-02	7.007E-02	4.125E-03	0.094
IN-114M		190.27	*	1.452E-01	1.842E-01	2.755E-01	1.445E-02	0.527
CD-115		260.90		-7.401E+01	1.192E+02	1.935E+02	1.083E+01	-0.382
		492.35		-2.382E+01	3.563E+01	5.387E+01	3.241E+00	-0.442
		527.90	*	-9.617E-01	9.798E+00	1.550E+01	9.547E-01	-0.062

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SN-117M		156.02		1.580E+00	2.147E+00	3.584E+00	1.913E-01	0.441
		158.56	*	-4.849E-03	5.053E-02	8.111E-02	4.285E-03	-0.060
I-123		159.00	*	-3.145E+00	5.053E-02	Half-Life too short		
		528.96		-2.190E+02	5.053E-02	Half-Life too short		
TE-123M		159.00	*	-1.474E-02	2.636E-02	4.130E-02	2.213E-03	-0.357
I-124		602.71	*	4.735E-01	7.646E-01	1.180E+00	7.533E-02	0.401
		722.78		-6.444E-01	4.786E+00	6.721E+00	4.685E-01	-0.096
		1325.50		2.545E+01	3.321E+01	5.950E+01	4.115E+00	0.428
	+	1376.25		4.745E+01	3.888E+01	6.768E+01	4.701E+00	0.701
		1509.49		1.056E+01	1.514E+01	2.707E+01	1.821E+00	0.390
		1691.02		-6.175E-01	3.880E+00	6.277E+00	3.896E-01	-0.098
SB-124		602.71		2.735E-02	4.416E-02	6.817E-02	4.351E-03	0.401
		645.85		6.411E-02	5.150E-01	8.648E-01	6.172E-02	0.074
		709.31		-1.277E+00	2.627E+00	4.148E+00	2.847E-01	-0.308
		713.82		3.694E-01	1.546E+00	2.604E+00	2.831E-01	0.142
		722.78		-5.394E-02	4.006E-01	5.626E-01	4.051E-02	-0.096
	+	968.20		1.785E+01	4.856E+00	7.959E+00	6.237E-01	2.243
		1045.16		-7.363E-01	2.214E+00	3.570E+00	2.535E-01	-0.206
		1325.50		2.275E+00	2.970E+00	5.319E+00	3.679E-01	0.428
		1368.21		-7.406E-01	1.735E+00	2.582E+00	3.222E-01	-0.287
		1436.60		2.384E+00	3.419E+00	6.153E+00	4.224E-01	0.387
		1691.02	*	-1.219E-02	7.661E-02	1.239E-01	8.270E-03	-0.098
SB-125		427.89	*	-2.759E-02	8.993E-02	1.427E-01	8.481E-03	-0.193
	+	463.38		1.064E+00	5.264E-01	5.605E-01	3.830E-02	1.899
		600.56		5.641E-02	1.844E-01	3.116E-01	2.248E-02	0.181
		635.90		9.992E-02	2.618E-01	4.492E-01	3.302E-02	0.222
TE-125M		109.28	*	4.369E+00	8.495E+00	1.430E+01	1.233E+00	0.306
I-126		388.63		2.670E-02	2.022E-01	3.336E-01	1.832E-02	0.080
		666.33	*	6.107E-02	1.776E-01	3.026E-01	1.973E-02	0.202
		753.82		-1.207E+00	1.460E+00	2.174E+00	1.570E-01	-0.555
SB-126		223.80		1.696E-01	3.687E+00	6.266E+00	3.404E-01	0.027
		278.60		3.457E+00	2.338E+00	4.183E+00	2.361E-01	0.827
		296.50		1.051E+01	2.234E+00	3.413E+00	1.937E-01	3.080
		414.70		2.736E-02	7.360E-02	1.190E-01	6.688E-03	0.230
		415.30		1.380E+00	5.928E+00	9.808E+00	5.514E-01	0.141
		555.20		-2.823E+00	3.782E+00	5.796E+00	3.624E-01	-0.487
		573.80		4.397E-01	1.070E+00	1.846E+00	1.165E-01	0.238
		593.00		-1.202E+00	8.583E-01	1.258E+00	8.002E-02	-0.955
		656.30		2.321E+00	3.247E+00	5.695E+00	3.688E-01	0.408
		666.33		2.552E-02	7.421E-02	1.265E-01	8.244E-03	0.202
		675.00		-1.490E-01	1.995E+00	3.286E+00	2.165E-01	-0.045
		695.00		4.317E-02	7.806E-02	1.346E-01	9.085E-03	0.321
		697.00		1.823E-01	2.752E-01	4.775E-01	3.231E-02	0.382
		720.50	*	7.725E-02	1.419E-01	2.177E-01	1.514E-02	0.355
		856.80		6.023E-01	5.460E-01	8.731E-01	7.015E-02	0.690
		989.30		3.982E-01	1.125E+00	1.882E+00	1.440E-01	0.212
		1034.80		3.002E+00	8.351E+00	1.447E+01	1.043E+00	0.208
		1213.00		9.344E-01	4.581E+00	7.704E+00	4.511E-01	0.121
SB-127		61.10		1.730E+01	5.777E+01	8.973E+01	8.530E+00	0.193

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		252.40		-4.356E+00	4.399E+00	6.369E+00	2.644E+00	-0.684
		290.80		-1.643E+00	2.287E+01	3.341E+01	3.037E+00	-0.049
		411.60		1.279E+00	1.305E+01	1.878E+01	2.687E+00	0.068
		444.90		-6.936E-02	9.958E+00	1.611E+01	1.739E+00	-0.004
		473.00		-7.312E-01	1.709E+00	2.658E+00	2.991E-01	-0.275
		543.00		4.735E+00	1.605E+01	2.760E+01	3.618E+00	0.172
		603.60		1.364E-01	1.312E+01	1.909E+01	2.119E+00	0.007
		685.20	*	-1.434E-01	1.266E+00	2.075E+00	2.075E-01	-0.069
		698.50		1.208E+01	1.678E+01	2.788E+01	4.154E+00	0.433
		722.20		-1.085E+01	3.200E+01	4.367E+01	4.346E+00	-0.249
		783.80		4.697E+00	3.602E+00	6.489E+00	7.560E-01	0.724
XE-127		57.60		1.887E-02	5.578E+00	9.466E+00	5.982E-01	0.002
		145.22		1.066E-02	6.740E-01	1.094E+00	6.111E-02	0.010
		172.10		8.314E-02	1.116E-01	1.857E-01	9.559E-03	0.448
		202.84	*	-1.404E-02	4.648E-02	7.266E-02	3.864E-03	-0.193
		374.96		2.703E-02	1.879E-01	3.111E-01	1.729E-02	0.087
I-131		80.18		-7.145E+00	4.927E+00	6.841E+00	4.905E-01	-1.045
		284.30		-2.939E-01	1.456E+00	2.407E+00	1.521E-01	-0.122
		364.48	*	1.136E-02	1.114E-01	1.842E-01	1.159E-02	0.062
		636.97		-3.357E-01	1.504E+00	2.459E+00	1.741E-01	-0.137
		722.89		-6.006E-01	7.723E+00	1.093E+01	7.693E-01	-0.055
TE-132		49.72		5.332E+00	1.770E+01	3.056E+01	2.843E+00	0.174
		111.76		-9.924E+00	2.883E+01	4.620E+01	4.257E+00	-0.215
		116.30		-2.510E+01	2.671E+01	4.184E+01	3.829E+00	-0.600
		228.16	*	1.906E-01	6.411E-01	1.100E+00	1.566E-01	0.173
BA-133		53.15		-2.372E-01	3.307E+00	5.512E+00	3.564E-01	-0.043
		79.62		-1.855E+00	1.404E+00	1.937E+00	2.790E-01	-0.957
		81.00		-1.757E-01	1.065E-01	1.419E-01	2.147E-02	-1.238
		276.40		2.941E-01	3.631E-01	6.107E-01	7.874E-02	0.482
		302.84		7.409E-02	1.503E-01	2.281E-01	2.646E-02	0.325
		356.01	*	-3.949E-02	4.722E-02	6.254E-02	7.175E-03	-0.632
		383.85		-6.959E-02	2.895E-01	4.659E-01	4.996E-02	-0.149
I-133	+	510.53		1.595E+00	2.895E-01	Half-Life too short		
		529.87	*	6.271E-04	2.895E-01	Half-Life too short		
		706.58		2.295E-01	2.895E-01	Half-Life too short		
		856.28		4.292E-01	2.895E-01	Half-Life too short		
		875.33		1.470E-03	2.895E-01	Half-Life too short		
	+	1236.41		1.509E+00	2.895E-01	Half-Life too short		
		1298.22		-5.810E-02	2.895E-01	Half-Life too short		
CS-134		475.35		7.983E-01	1.857E+00	3.091E+00	1.836E-01	0.258
	+	563.23		5.817E-01	5.971E-01	6.204E-01	3.964E-02	0.938
		569.32		-1.279E-01	2.328E-01	3.209E-01	2.071E-02	-0.399
		604.70		-3.788E-02	3.975E-02	5.196E-02	3.333E-03	-0.729
	+	795.84	*	1.251E-01	7.076E-02	9.680E-02	7.381E-03	1.292
		801.93		-3.158E-02	4.378E-01	6.431E-01	4.924E-02	-0.049
		1038.57		1.621E-01	3.663E+00	6.156E+00	4.414E-01	0.026
		1167.94		6.768E-01	2.543E+00	4.313E+00	2.403E-01	0.157
		1365.15		7.191E-01	1.136E+00	2.020E+00	1.503E-01	0.356
CS-135		268.24	*	1.740E-01	1.637E-01	2.590E-01	1.948E-02	0.672

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-135		288.45		1.780E+10	1.637E-01	Half-Life too short		
		417.63		-4.204E+10	1.637E-01	Half-Life too short		
		546.56		-3.271E+09	1.637E-01	Half-Life too short		
		836.80		2.660E+10	1.637E-01	Half-Life too short		
		1038.76		8.292E+08	1.637E-01	Half-Life too short		
		1124.00		-3.175E+10	1.637E-01	Half-Life too short		
		1131.51		1.957E+09	1.637E-01	Half-Life too short		
		1260.41	*	3.194E+09	1.637E-01	Half-Life too short		
		1457.56		8.504E+11	1.637E-01	Half-Life too short		
		1678.03		-9.748E+09	1.637E-01	Half-Life too short		
		1706.46		-1.357E+10	1.637E-01	Half-Life too short		
		1791.20		1.006E+10	1.637E-01	Half-Life too short		
CS-136		66.91		-7.742E-01	8.265E-01	1.180E+00	1.693E-01	-0.656
	+	86.29		5.117E+00	1.302E+00	2.080E+00	2.525E-01	2.460
		153.22		6.275E-01	6.193E-01	1.046E+00	7.224E-02	0.600
		163.89		-7.557E-01	1.059E+00	1.596E+00	1.078E-01	-0.474
		176.55		-3.336E-03	3.573E-01	5.722E-01	3.413E-02	-0.006
		273.65		-7.284E-01	4.914E-01	6.434E-01	4.162E-02	-1.132
		340.57		1.715E-01	1.234E-01	1.992E-01	1.202E-02	0.861
		818.51		-1.789E-02	7.828E-02	1.250E-01	9.674E-03	-0.143
		1048.07	*	-2.578E-02	9.992E-02	1.626E-01	1.221E-02	-0.159
		1235.34		6.661E-01	6.718E-01	1.061E+00	1.076E-01	0.628
BA-137M		661.65	*	-1.185E-02	3.676E-02	5.836E-02	3.783E-03	-0.203
CS-137		661.65	*	-1.252E-02	3.886E-02	6.169E-02	4.013E-03	-0.203
CE-139		165.85	*	-3.775E-04	2.819E-02	4.532E-02	2.322E-03	-0.008
BA-140		162.64		5.663E-01	7.190E-01	1.167E+00	6.989E-02	0.485
		304.84		-3.974E-01	1.356E+00	1.931E+00	5.264E-01	-0.206
		423.70		-9.874E-01	1.913E+00	2.950E+00	9.368E-01	-0.335
		537.32	*	-1.872E-02	2.356E-01	3.947E-01	1.287E-01	-0.047
LA-140	+	328.77		6.791E-01	3.754E-01	5.222E-01	3.335E-02	1.301
		432.53		-4.020E-01	1.999E+00	3.121E+00	1.977E-01	-0.129
		487.03		9.315E-02	1.285E-01	2.189E-01	1.474E-02	0.426
		751.79		-6.797E-01	1.623E+00	2.559E+00	2.119E-01	-0.266
		815.85		9.155E-02	3.371E-01	5.562E-01	4.899E-02	0.165
		867.82		1.184E+00	1.529E+00	2.532E+00	2.178E-01	0.468
		919.63		4.499E-01	2.714E+00	4.216E+00	4.351E-01	0.107
		925.24		-3.423E-01	1.064E+00	1.654E+00	1.446E-01	-0.207
		1596.49	*	4.761E-02	1.084E-01	1.684E-01	1.097E-02	0.283
CE-141		145.44	*	-1.550E-02	6.214E-02	9.964E-02	5.801E-03	-0.156
CE-143		57.37		1.317E-05	6.214E-02	Half-Life too short		
		231.56		-1.373E-03	6.214E-02	Half-Life too short		
		293.26	*	8.500E-04	6.214E-02	Half-Life too short		
	+	350.59		3.585E-02	6.214E-02	Half-Life too short		
		490.36		-2.823E-04	6.214E-02	Half-Life too short		
		664.57		1.493E-04	6.214E-02	Half-Life too short		
		721.93		-4.814E-04	6.214E-02	Half-Life too short		
CE-144		80.11		-3.262E+00	2.261E+00	3.141E+00	2.229E-01	-1.039
		133.54	*	8.788E-02	2.133E-01	3.373E-01	4.802E-02	0.261
PM-144		476.78		-3.649E-02	6.945E-02	1.072E-01	7.573E-03	-0.340

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		618.01		5.026E-03	2.976E-02	5.034E-02	3.388E-03	0.100
		696.49	*	1.714E-02	3.498E-02	6.000E-02	4.059E-03	0.286
		778.57		3.308E-01	2.122E+00	3.530E+00	2.619E-01	0.094
PR-144		696.49	*	1.162E+00	2.370E+00	4.066E+00	2.749E-01	0.286
		1489.15		1.077E+00	1.178E+01	1.674E+01	1.134E+00	0.064
PM-146		453.90	*	7.236E-02	4.285E-02	7.704E-02	6.661E-03	0.939
		633.02		6.195E-01	1.362E+00	2.319E+00	8.564E-01	0.267
		735.90		-5.584E-02	1.557E-01	2.471E-01	6.963E-02	-0.226
		747.13		4.545E-02	9.127E-02	1.562E-01	2.061E-02	0.291
ND-147	+	91.11		7.641E-01	2.805E-01	5.156E-01	4.227E-02	1.482
		319.41		2.431E+00	3.248E+00	5.608E+00	3.189E-01	0.433
		439.89		1.142E+00	6.043E+00	9.920E+00	5.718E-01	0.115
		531.02	*	1.423E-01	5.212E-01	8.524E-01	1.167E-01	0.167
PM-149		285.90	*	-3.386E+01	9.006E+01	1.472E+02	2.078E+01	-0.230
EU-152		121.78		5.896E-02	7.272E-02	1.230E-01	9.784E-03	0.479
		244.69		1.733E-01	3.214E-01	4.963E-01	2.746E-02	0.349
		344.27	*	-2.457E-02	9.255E-02	1.447E-01	9.272E-03	-0.170
		443.98		-3.180E-01	9.857E-01	1.558E+00	9.010E-02	-0.204
		778.89		7.860E-02	2.466E-01	4.162E-01	3.088E-02	0.189
		867.32		8.250E-01	9.338E-01	1.517E+00	1.231E-01	0.544
		964.01		7.417E-01	3.351E-01	5.826E-01	4.586E-02	1.273
		1085.78		-1.654E-01	3.693E-01	5.861E-01	3.893E-02	-0.282
		1112.02		2.980E-01	3.311E-01	5.349E-01	3.381E-02	0.557
		1407.95		7.965E-03	1.821E-01	2.871E-01	1.983E-02	0.028
GD-153		69.67		1.458E-02	1.645E+00	2.627E+00	1.727E-01	0.006
	+	83.37		2.428E+01	1.563E+01	2.426E+01	1.774E+00	1.001
		97.43	*	-5.340E-02	8.588E-02	1.220E-01	8.486E-03	-0.438
		103.18		-1.095E-03	9.791E-02	1.617E-01	1.081E-02	-0.007
EU-154		123.07		6.391E-02	5.203E-02	8.561E-02	8.272E-03	0.747
		247.94		-1.307E-01	3.348E-01	5.336E-01	5.010E-02	-0.245
		591.81		5.411E-01	5.406E-01	9.747E-01	9.858E-02	0.555
		723.30		1.885E-02	1.959E-01	2.831E-01	2.285E-02	0.067
		756.87		2.558E-02	7.489E-01	1.234E+00	1.360E-01	0.021
		873.19		-6.072E-02	3.134E-01	4.986E-01	5.947E-02	-0.122
		996.32		-1.502E-02	3.494E-01	5.842E-01	1.010E-01	-0.026
		1004.76		-1.323E-01	1.882E-01	2.910E-01	3.155E-02	-0.455
		1274.45	*	-6.174E-02	1.351E-01	2.117E-01	2.063E-02	-0.292
EU-155		48.70		-2.083E+00	2.255E+00	3.643E+00	2.381E-01	-0.572
		60.01		1.693E+00	4.956E+00	7.726E+00	4.855E-01	0.219
	+	86.54		4.712E-01	1.113E-01	1.950E-01	1.490E-02	2.416
		105.31	*	1.031E-01	1.006E-01	1.729E-01	1.165E-02	0.596
TB-160	+	86.79		1.259E+00	2.971E-01	5.235E-01	3.958E-02	2.405
		197.04		-8.435E-02	5.634E-01	8.773E-01	4.636E-02	-0.096
		215.65		-1.696E-01	7.980E-01	1.102E+00	5.942E-02	-0.154
	+	298.57		2.337E-01	1.644E-01	2.045E-01	1.161E-02	1.143
		879.36	*	4.065E-03	1.431E-01	2.327E-01	1.911E-02	0.017
		962.29		4.957E-01	6.343E-01	9.743E-01	7.683E-02	0.509
		966.15		1.445E+00	3.421E-01	6.122E-01	4.808E-02	2.361
		1177.93		-1.646E-01	3.335E-01	5.235E-01	2.900E-02	-0.314

---- Non-Identified Nuclides ----

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		1271.85		-1.338E-01	7.492E-01	1.209E+00	7.740E-02	-0.111
HO-166M		80.57		-4.404E-01	2.886E-01	3.986E-01	2.841E-02	-1.105
	+	184.41		2.012E-01	5.599E-02	6.797E-02	3.543E-03	2.960
		280.46		-6.734E-02	8.447E-02	1.354E-01	7.650E-03	-0.497
		410.95		1.166E-02	2.743E-01	3.925E-01	2.196E-02	0.030
		711.68	*	-4.268E-02	5.865E-02	9.039E-02	6.221E-03	-0.472
		752.31		-9.255E-02	2.583E-01	4.098E-01	2.953E-02	-0.226
		810.29		-2.944E-02	5.952E-02	9.247E-02	7.090E-03	-0.318
TM-171		51.35		-1.296E+01	2.797E+01	4.676E+01	3.048E+00	-0.277
		52.39		-4.363E+00	1.463E+01	2.417E+01	1.569E+00	-0.181
		59.40		6.694E+00	2.683E+01	4.145E+01	2.599E+00	0.162
		66.72	*	-3.048E+01	2.993E+01	4.287E+01	2.775E+00	-0.711
LU-176	+	88.36		9.279E-01	2.189E-01	3.735E-01	2.846E-02	2.484
		201.83		-1.760E-02	2.891E-02	4.448E-02	2.363E-03	-0.396
		306.84	*	-1.619E-02	2.310E-02	3.677E-02	2.090E-03	-0.440
		401.10		1.597E+00	6.381E+00	1.059E+01	5.863E-01	0.151
LU-177		112.95		-4.349E-01	1.594E+00	2.562E+00	1.637E-01	-0.170
	+	208.36	*	3.497E+00	1.829E+00	1.961E+00	1.049E-01	1.784
LU-177M		52.97		7.721E-02	1.506E+00	2.523E+00	1.633E-01	0.031
		54.07		-1.734E-01	8.018E-01	1.329E+00	8.549E-02	-0.130
		61.30		5.907E-01	1.486E+00	2.319E+00	1.465E-01	0.255
		121.62		3.076E-01	3.729E-01	6.317E-01	3.944E-02	0.487
		147.16		4.364E-01	6.131E-01	1.025E+00	5.680E-02	0.426
		171.86		3.853E-01	4.518E-01	7.555E-01	3.888E-02	0.510
		218.09		5.909E-01	8.171E-01	1.342E+00	7.249E-02	0.440
	+	268.79		2.691E+00	1.179E+00	1.406E+00	7.901E-02	1.914
		319.02		9.473E-02	2.511E-01	4.252E-01	2.417E-02	0.223
		367.43		-2.860E-01	8.774E-01	1.409E+00	7.871E-02	-0.203
		413.65	*	5.985E-02	1.877E-01	2.759E-01	1.548E-02	0.217
HF-181		56.28		-1.384E-01	8.746E-01	1.476E+00	9.388E-02	-0.094
		57.53		2.947E-03	4.694E-01	7.968E-01	5.037E-02	0.004
		65.20		5.382E-01	9.532E-01	1.479E+00	9.502E-02	0.364
		133.02		6.589E-02	6.923E-02	1.063E-01	6.270E-03	0.620
		136.25		2.314E-01	4.430E-01	7.375E-01	4.285E-02	0.314
		345.85		3.291E-02	2.018E-01	2.963E-01	1.674E-02	0.111
		482.03	*	9.285E-03	4.080E-02	6.685E-02	3.992E-03	0.139
W-181		56.28		-5.410E-02	3.422E-01	5.775E-01	3.673E-02	-0.094
		57.53		1.170E-03	1.838E-01	3.120E-01	1.972E-02	0.004
		65.20	*	2.091E-01	3.703E-01	5.745E-01	3.691E-02	0.364
TA-182		67.75		-1.348E-02	1.147E-01	1.718E-01	1.117E-02	-0.078
		100.10		1.190E-02	1.666E-01	2.764E-01	1.884E-02	0.043
		152.43		7.097E-03	3.113E-01	5.039E-01	2.731E-02	0.014
		222.10		-2.563E-01	3.184E-01	5.085E-01	2.758E-02	-0.504
		1001.68		4.489E-01	1.986E+00	3.325E+00	2.506E-01	0.135
		1121.28		4.963E-01	1.944E-01	3.445E-01	2.137E-02	1.441
		1189.05		9.572E-02	2.889E-01	4.931E-01	2.780E-02	0.194
		1221.42	*	9.070E-02	1.989E-01	3.412E-01	2.024E-02	0.266
		1230.97		1.364E-02	5.100E-01	7.252E-01	4.365E-02	0.019
RE-183		57.98		-4.447E-02	1.834E-01	3.082E-01	1.944E-02	-0.144

---- Non-Identified Nuclides ----

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		59.32		3.277E-03	1.115E-01	1.704E-01	1.069E-02	0.019
		67.20		-1.194E-01	2.057E-01	3.013E-01	1.955E-02	-0.396
		162.32	*	8.494E-02	1.054E-01	1.713E-01	8.907E-03	0.496
	+	208.81		3.132E+00	1.638E+00	1.755E+00	9.390E-02	1.785
		291.72		-4.943E-01	9.806E-01	1.382E+00	7.837E-02	-0.358
RE-184		57.98		-1.638E-01	6.757E-01	1.135E+00	7.162E-02	-0.144
		59.32		1.206E-02	4.105E-01	6.272E-01	3.935E-02	0.019
		67.20		-4.397E-01	7.574E-01	1.110E+00	7.199E-02	-0.396
		161.27		-2.218E-02	3.272E-01	5.255E-01	2.744E-02	-0.042
		216.55		1.607E-01	2.496E-01	4.086E-01	2.204E-02	0.393
		252.85	*	-1.962E-01	2.126E-01	3.402E-01	1.893E-02	-0.577
		318.01		-5.190E-02	4.328E-01	7.127E-01	4.051E-02	-0.073
		792.07		2.648E+00	1.145E+00	2.025E+00	1.523E-01	1.308
		903.28		3.405E-01	1.040E+00	1.645E+00	1.369E-01	0.207
		920.93		5.705E-02	4.216E-01	6.912E-01	5.670E-02	0.083
OS-185		59.72		1.284E-01	2.941E-01	4.584E-01	2.877E-02	0.280
		61.14		4.884E-02	1.631E-01	2.533E-01	1.600E-02	0.193
		69.30		-2.397E-02	2.839E-01	4.723E-01	3.099E-02	-0.051
		592.07		9.167E-01	2.243E+00	3.881E+00	2.467E-01	0.236
		646.12	*	3.232E-03	4.444E-02	7.433E-02	4.803E-03	0.043
		717.42		-1.950E-01	8.853E-01	1.391E+00	9.640E-02	-0.140
		874.81		-3.247E-03	6.094E-01	9.881E-01	8.078E-02	-0.003
		880.27		3.436E-01	7.977E-01	1.347E+00	1.107E-01	0.255
RE-188		155.03	*	1.441E-01	1.647E-01	2.765E-01	1.482E-02	0.521
		477.96		-8.510E-01	3.092E+00	4.868E+00	2.898E-01	-0.175
		633.10		1.327E+00	2.723E+00	4.709E+00	3.033E-01	0.282
W-188	+	63.58		9.121E+01	8.283E+01	9.336E+01	5.955E+00	0.977
		227.08		9.738E+00	1.163E+01	2.043E+01	1.113E+00	0.477
		290.67	*	-2.272E+00	8.003E+00	1.150E+01	6.518E-01	-0.198
IR-192	+	295.96		1.092E+00	1.663E-01	2.876E-01	1.659E-02	3.797
		308.46		4.123E-02	8.803E-02	1.503E-01	8.644E-03	0.274
		316.51	*	-1.364E-02	3.300E-02	5.339E-02	3.051E-03	-0.256
		468.07		3.252E-02	7.284E-02	1.075E-01	7.287E-03	0.302
		604.41		-3.924E-01	5.289E-01	7.064E-01	8.237E-02	-0.555
		612.46		7.376E-01	7.040E-01	1.138E+00	9.153E-02	0.648
AU-195		65.12		7.658E-02	1.736E-01	2.679E-01	1.720E-02	0.286
		66.83		-1.011E-01	9.892E-02	1.416E-01	9.171E-03	-0.714
	+	75.70		1.261E+00	2.621E-01	4.823E-01	3.303E-02	2.615
		98.88	*	2.357E-01	2.244E-01	3.671E-01	2.524E-02	0.642
	+	129.76		8.400E+00	4.366E+00	4.914E+00	2.944E-01	1.710
TL-200		367.94	*	2.320E-05	4.366E+00	Half-Life too short		
		579.30		1.358E-03	4.366E+00	Half-Life too short		
		828.27		-6.198E-04	4.366E+00	Half-Life too short		
		1205.75		-1.523E-03	4.366E+00	Half-Life too short		
TL-201		68.90		2.282E+00	4.544E+00	7.711E+00	5.048E-01	0.296
		70.82		-1.324E+00	2.901E+00	4.291E+00	2.841E-01	-0.308
		80.30		-7.896E+00	5.397E+00	7.487E+00	5.324E-01	-1.055
		135.34		1.289E+00	2.550E+01	4.160E+01	2.428E+00	0.031
		167.43	*	2.386E+00	6.631E+00	1.085E+01	5.561E-01	0.220

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TL-202		68.90		2.037E-01	4.058E-01	6.885E-01	4.508E-02	0.296
		70.82		-1.179E-01	2.584E-01	3.822E-01	2.530E-02	-0.308
		80.30		-7.034E-01	4.808E-01	6.670E-01	4.742E-02	-1.055
		439.56	*	1.612E-02	7.161E-02	1.179E-01	6.788E-03	0.137
HG-203		70.83		-5.013E-01	1.119E+00	1.654E+00	2.057E-01	-0.303
		72.87		1.097E+00	6.767E-01	1.071E+00	1.290E-01	1.024
	+	82.60		1.806E+00	1.179E+00	1.711E+00	2.213E-01	1.055
		279.20	*	8.688E-03	3.932E-02	6.649E-02	3.999E-03	0.131
BI-207		72.80		2.711E-01	1.940E-01	3.090E-01	2.072E-02	0.877
	+	74.97		6.995E-01	1.453E-01	2.401E-01	1.635E-02	2.914
	+	84.90		3.140E-01	2.022E-01	3.158E-01	2.343E-02	0.994
		569.67		-1.155E-02	3.594E-02	5.079E-02	3.198E-03	-0.227
		1063.62	*	-1.077E-02	5.224E-02	8.550E-02	5.898E-03	-0.126
		1770.23		-2.266E+00	7.198E-01	5.706E-01	3.367E-02	-3.971
TL-207		81.07		-3.940E-01	2.291E-01	3.122E-01	2.235E-02	-1.262
	+	83.78		2.070E-01	1.333E-01	2.074E-01	1.522E-02	0.998
		94.90		2.127E-01	2.284E-01	3.558E-01	2.528E-02	0.598
		122.32		1.543E+00	1.706E+00	2.897E+00	2.051E-01	0.533
		144.24		1.348E-01	6.715E-01	1.087E+00	7.696E-02	0.124
		154.21		2.832E-01	3.781E-01	6.313E-01	4.211E-02	0.449
	+	269.46		6.299E-01	2.762E-01	3.462E-01	2.040E-02	1.819
		323.87	*	-3.446E-01	7.488E-01	1.046E+00	1.724E-01	-0.329
	+	338.28		6.297E+00	1.735E+00	2.468E+00	2.581E-01	2.551
		445.03		8.050E-02	2.297E+00	3.728E+00	3.826E-01	0.022
PO-209		260.50		-2.610E+00	8.642E+00	1.429E+01	7.990E-01	-0.183
		262.80		-1.301E+01	2.337E+01	3.801E+01	2.129E+00	-0.342
		896.60	*	-7.250E+00	8.356E+00	1.198E+01	1.000E+00	-0.605
BI-210		46.50	*	1.452E+00	3.219E+00	5.567E+00	4.193E-01	0.261
PB-210		46.50	*	1.452E+00	3.219E+00	5.567E+00	4.193E-01	0.261
PO-210		46.50	*	1.452E+00	3.218E+00	5.567E+00	3.570E-01	0.261
PB-211		404.84	*	6.613E-02	1.045E+00	1.499E+00	9.343E-01	0.044
		427.08		4.771E-01	1.975E+00	3.229E+00	1.996E+00	0.148
		831.96		-3.585E-01	1.264E+00	1.973E+00	1.235E+00	-0.182
PO-215		81.07		-3.940E-01	2.291E-01	3.122E-01	2.235E-02	-1.262
	+	83.78		2.070E-01	1.333E-01	2.074E-01	1.522E-02	0.998
		94.90		2.127E-01	2.284E-01	3.558E-01	2.528E-02	0.598
		122.32		1.543E+00	1.706E+00	2.897E+00	2.051E-01	0.533
		144.24		1.348E-01	6.715E-01	1.087E+00	7.696E-02	0.124
		154.21		2.832E-01	3.781E-01	6.313E-01	4.211E-02	0.449
	+	269.46		6.299E-01	2.762E-01	3.462E-01	2.040E-02	1.819
		323.87	*	-3.446E-01	7.488E-01	1.046E+00	1.724E-01	-0.329
	+	338.28		6.297E+00	1.735E+00	2.468E+00	2.581E-01	2.551
		445.03		8.050E-02	2.297E+00	3.728E+00	3.826E-01	0.022
RN-219	+	271.23		8.082E-01	3.570E-01	4.322E-01	3.449E-02	1.870
		401.81	*	1.502E-01	3.898E-01	6.520E-01	8.801E-02	0.230
RN-220		549.76	*	-1.304E+00	2.569E+01	4.309E+01	2.687E+00	-0.030
RA-223		81.07		-3.940E-01	2.291E-01	3.122E-01	2.235E-02	-1.262
	+	83.78		2.070E-01	1.333E-01	2.074E-01	1.522E-02	0.998
		94.90		2.127E-01	2.284E-01	3.558E-01	2.528E-02	0.598

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		1.543E+00	1.706E+00	2.897E+00	2.051E-01	0.533
		144.24		1.348E-01	6.715E-01	1.087E+00	7.696E-02	0.124
		154.21		2.832E-01	3.781E-01	6.313E-01	4.211E-02	0.449
	+	269.46		6.299E-01	2.762E-01	3.462E-01	2.040E-02	1.819
		323.87	*	-3.446E-01	7.488E-01	1.046E+00	1.724E-01	-0.329
	+	338.28		6.297E+00	1.735E+00	2.468E+00	2.581E-01	2.551
		445.03		8.050E-02	2.297E+00	3.728E+00	3.826E-01	0.022
AC-227		79.80		-2.456E+00	1.818E+00	2.442E+00	5.113E-01	-1.006
		236.00		8.163E-01	2.739E-01	4.517E-01	4.645E-02	1.807
		256.20	*	2.687E-01	3.520E-01	6.113E-01	8.479E-02	0.439
		286.10		-2.746E-01	1.483E+00	2.452E+00	2.817E-01	-0.112
	+	299.80		2.975E+00	2.142E+00	2.667E+00	4.332E-01	1.115
		304.40		1.045E+00	1.899E+00	2.891E+00	4.989E-01	0.362
		334.20		1.091E-01	2.505E+00	3.649E+00	6.674E-01	0.030
TH-227		79.80		-2.456E+00	1.820E+00	2.442E+00	5.182E-01	-1.006
	+	94.00		1.074E+01	3.979E+00	3.740E+00	7.945E-01	2.871
		236.00		8.163E-01	2.706E-01	4.517E-01	4.003E-02	1.807
		256.20	*	2.687E-01	3.529E-01	6.113E-01	1.029E-01	0.439
		286.10		-2.746E-01	1.508E+00	2.452E+00	2.456E+00	-0.112
	+	299.80		2.975E+00	2.142E+00	2.667E+00	4.332E-01	1.115
		304.40		1.045E+00	1.899E+00	2.891E+00	4.989E-01	0.362
		334.20		1.091E-01	2.505E+00	3.649E+00	6.674E-01	0.030
TH-229		85.43		4.491E-01	2.389E-01	3.251E-01	2.425E-02	1.381
	+	88.47		3.024E-01	1.105E-01	2.143E-01	1.630E-02	1.412
		100.00		5.376E-02	1.715E-01	2.876E-01	1.961E-02	0.187
		193.63	*	-1.867E-01	4.865E-01	7.591E-01	3.997E-02	-0.246
		210.97		1.027E+00	7.245E-01	1.227E+00	6.583E-02	0.837
PA-231		283.67	*	5.993E-02	1.481E+00	2.480E+00	3.403E-01	0.024
		301.29		8.757E-01	6.411E-01	1.018E+00	1.057E-01	0.860
TH-231		81.07		-3.940E-01	2.291E-01	3.122E-01	2.235E-02	-1.262
	+	83.78		2.070E-01	1.333E-01	2.074E-01	1.522E-02	0.998
		94.90		2.127E-01	2.284E-01	3.558E-01	2.528E-02	0.598
		122.32		1.543E+00	1.706E+00	2.897E+00	2.051E-01	0.533
		144.24		1.348E-01	6.715E-01	1.087E+00	7.696E-02	0.124
		154.21		2.832E-01	3.781E-01	6.313E-01	4.211E-02	0.449
	+	269.46		6.299E-01	2.762E-01	3.462E-01	2.040E-02	1.819
		323.87	*	-3.446E-01	7.488E-01	1.046E+00	1.724E-01	-0.329
	+	338.28		6.297E+00	1.735E+00	2.468E+00	2.581E-01	2.551
		445.03		8.050E-02	2.297E+00	3.728E+00	3.826E-01	0.022
U-231	+	84.21		8.977E+00	5.779E+00	8.997E+00	6.632E-01	0.998
	+	92.29		1.068E+01	3.331E+00	4.254E+00	3.099E-01	2.510
		95.87	*	-2.002E-01	1.110E+00	1.632E+00	1.150E-01	-0.123
		108.00		-1.597E+00	1.920E+00	3.042E+00	1.982E-01	-0.525
PA-233	+	75.28		2.041E+01	4.971E+00	7.318E+00	1.055E+00	2.789
	+	86.59		7.659E+00	2.655E+00	3.180E+00	8.426E-01	2.408
	+	300.12		8.293E-01	5.922E-01	7.493E-01	1.003E-01	1.107
		311.98	*	-2.279E-02	6.008E-02	9.749E-02	5.899E-03	-0.234
		340.50		9.414E-01	6.389E-01	9.850E-01	2.259E-01	0.956
		398.62		-1.511E+00	2.024E+00	3.062E+00	7.899E-01	-0.493

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		2.953E-01	1.546E+00	2.549E+00	5.234E-01	0.116
PA-234	+	63.00		2.644E+00	2.425E+00	2.761E+00	3.967E-01	0.958
		94.67		2.865E-01	1.710E-01	2.713E-01	3.096E-02	1.056
		98.44		7.690E-02	1.055E-01	1.483E-01	8.236E-02	0.519
		99.86		2.254E-01	4.408E-01	7.346E-01	5.016E-02	0.307
		111.00		-5.722E-02	1.738E-01	2.818E-01	2.998E-02	-0.203
		131.20		1.866E-03	1.151E-01	1.678E-01	9.983E-03	0.011
		152.70		-4.186E-02	3.049E-01	4.897E-01	7.673E-02	-0.085
	+	186.00		7.243E+00	2.964E+00	2.645E+00	8.053E-01	2.739
		226.40		3.169E-01	3.738E-01	6.542E-01	7.450E-02	0.484
		227.20		1.811E-01	3.979E-01	6.877E-01	3.748E-02	0.263
		248.90		2.080E-01	7.402E-01	1.263E+00	2.705E-01	0.165
	+	293.70		6.873E+00	1.467E+00	1.784E+00	2.861E-01	3.853
		369.80		-6.269E-02	8.004E-01	1.306E+00	2.712E-01	-0.048
		568.70		-5.302E-01	1.158E+00	1.611E+00	1.014E-01	-0.329
		569.50		-1.620E-01	3.231E-01	4.478E-01	2.819E-02	-0.362
		574.00		5.834E-01	1.530E+00	2.635E+00	1.662E-01	0.221
		699.00		2.563E-01	7.882E-01	1.277E+00	2.340E-01	0.201
		706.10		4.187E-01	9.953E-01	1.674E+00	7.412E-01	0.250
		733.00		2.378E-01	4.185E-01	6.349E-01	1.374E-01	0.375
		742.81		1.251E-01	1.382E+00	2.287E+00	1.533E+00	0.055
		796.30		1.737E+00	1.206E+00	1.846E+00	4.934E-01	0.941
		805.60		1.464E-01	9.787E-01	1.620E+00	4.922E-01	0.090
		819.60		-7.344E-01	1.365E+00	2.070E+00	7.832E-01	-0.355
		826.30		-1.309E-02	8.658E-01	1.409E+00	6.285E-01	-0.009
		831.60		-2.457E-01	6.482E-01	1.012E+00	2.999E-01	-0.243
		876.40		2.617E-01	9.112E-01	1.453E+00	1.494E+00	0.180
		880.51		1.907E-01	2.836E-01	4.897E-01	4.025E-02	0.389
		883.24		1.952E-01	3.045E-01	4.783E-01	3.213E-01	0.408
		899.00		-6.926E-01	9.405E-01	1.284E+00	5.606E-01	-0.539
		925.00		-4.917E-01	1.116E+00	1.710E+00	1.398E-01	-0.288
		926.50		-4.744E-02	1.691E-01	2.637E-01	6.626E-02	-0.180
		946.00	*	-1.783E-02	3.167E-01	5.073E-01	9.383E-02	-0.035
		949.00		5.924E-02	4.223E-01	6.909E-01	5.522E-02	0.086
		980.50		1.017E-01	6.614E-01	1.082E+00	8.363E-02	0.094
		1394.10		-3.160E-01	1.163E+00	1.790E+00	1.161E+00	-0.177
PA-234M		766.42		2.872E+01	2.036E+01	2.432E+01	1.229E+01	1.181
		1001.03	*	5.854E-02	4.565E+00	7.497E+00	6.785E-01	0.008
U-235	+	89.95		3.035E+00	1.428E+00	1.956E+00	5.978E-01	1.552
	+	93.35		3.340E+00	1.371E+00	1.307E+00	3.609E-01	2.557
		105.00		1.161E+00	1.044E+00	1.711E+00	5.018E-01	0.679
		143.76	*	7.207E-03	2.070E-01	3.327E-01	5.404E-02	0.022
		163.35		-6.159E-02	4.592E-01	7.131E-01	1.269E-01	-0.086
	+	185.71		2.682E-01	7.465E-02	9.822E-02	5.127E-03	2.731
		205.31		1.775E-01	5.599E-01	8.053E-01	1.436E-01	0.220
NP-236		94.67		2.195E-01	1.283E-01	2.060E-01	1.467E-02	1.066
		98.44		5.811E-02	7.305E-02	1.121E-01	7.732E-03	0.518
		111.00		-4.328E-02	1.314E-01	2.132E-01	1.371E-02	-0.203
		160.31	*	-1.664E-02	7.396E-02	1.179E-01	6.181E-03	-0.141

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.128E-01	1.489E-01	2.505E-01	1.714E-02	0.451
		117.00	*	-2.722E-01	1.816E-01	2.761E-01	1.742E-02	-0.986
	+	209.75		2.470E+00	1.292E+00	1.415E+00	7.578E-02	1.746
		228.18		3.350E-02	2.085E-01	3.558E-01	1.941E-02	0.094
		277.60		1.381E-01	1.748E-01	3.034E-01	1.712E-02	0.455
		334.30		1.211E-01	1.423E+00	2.079E+00	1.179E-01	0.058
AM-241		59.54	*	4.225E-02	1.559E-01	2.410E-01	1.713E-02	0.175
CM-243		99.55		1.161E-01	1.532E-01	2.577E-01	1.764E-02	0.451
		103.76	*	7.389E-02	9.060E-02	1.546E-01	1.030E-02	0.478
		117.00		-2.800E-01	1.868E-01	2.840E-01	1.792E-02	-0.986
	+	209.75		2.435E+00	1.273E+00	1.395E+00	7.471E-02	1.746
		228.18		3.385E-02	2.107E-01	3.595E-01	1.961E-02	0.094
		277.60		1.392E-01	1.762E-01	3.058E-01	1.726E-02	0.455
AM-246		798.80		-6.724E-02	1.588E-01	2.115E-01	1.602E-02	-0.318
		1036.00		2.754E-01	2.890E-01	5.258E-01	3.784E-02	0.524
		1062.04		4.418E-02	2.247E-01	3.822E-01	2.644E-02	0.116
		1078.86	*	9.851E-02	1.358E-01	2.422E-01	1.629E-02	0.407
CM-247		278.00		7.409E-01	7.222E-01	1.267E+00	7.148E-02	0.585
		287.40		-6.220E-01	1.220E+00	1.937E+00	1.097E-01	-0.321
		402.60	*	2.618E-02	3.598E-02	6.149E-02	3.410E-03	0.426
CF-249		252.85		-7.362E-01	7.976E-01	1.276E+00	7.102E-02	-0.577
		333.44		1.307E-02	1.982E-01	2.697E-01	1.530E-02	0.048
		387.95	*	2.294E-02	3.972E-02	6.735E-02	3.702E-03	0.341
CF-251		176.60	*	5.072E-04	1.230E-01	1.972E-01	1.019E-02	0.003
		227.00		3.039E-01	3.495E-01	6.146E-01	3.349E-02	0.494
		285.00		3.572E-01	1.658E+00	2.801E+00	1.585E-01	0.128

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960005		
Acquisition date	: 12-FEB-2010 15:48:18	Detector SN#	:
Detector ID	: GAM12	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.46	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960005	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.2760E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

Standard Weight	: 0.00000		
CALIB. DATE/TIME	: 10-FEB-2009 09:20:24	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.904E+01	2.066E+00	5.778E-01	0.000E+00
CD-109	3.980E+00	9.203E-01	1.292E+00	0.000E+00
SB-122	3.371E+00	3.391E+00	3.447E+00	0.000E+00
SN-126	3.912E-01	9.045E-02	1.276E-01	0.000E+00
TL-208	5.516E-01	8.997E-02	5.290E-02	0.000E+00
BI-211	4.428E+00	5.131E-01	3.076E-01	0.000E+00
BI-212	1.866E+00	4.684E-01	4.240E-01	0.000E+00
PB-212	1.696E+00	1.596E-01	9.112E-02	0.000E+00
PO-212	1.696E+00	1.596E-01	9.112E-02	0.000E+00
BI-214	1.347E+00	1.816E-01	1.170E-01	0.000E+00
PB-214	1.540E+00	1.951E-01	1.072E-01	0.000E+00
PO-214	1.540E+00	1.951E-01	1.072E-01	0.000E+00
PO-216	1.696E+00	1.596E-01	9.112E-02	0.000E+00
PO-218	1.540E+00	1.951E-01	1.072E-01	0.000E+00
RA-224	4.936E+00	1.324E+00	1.037E+00	0.000E+00
RA-226	1.347E+00	1.816E-01	1.170E-01	0.000E+00
AC-228	1.600E+00	3.310E-01	2.087E-01	0.000E+00
RA-228	1.600E+00	3.310E-01	2.087E-01	0.000E+00
TH-228	1.722E+00	1.620E-01	9.251E-02	0.000E+00
TH-230	1.347E+00	1.816E-01	1.170E-01	0.000E+00
TH-232	1.600E+00	3.310E-01	2.087E-01	0.000E+00
TH-234	2.268E+00	2.049E+00	2.094E+00	0.000E+00
U-234	1.347E+00	1.816E-01	1.170E-01	0.000E+00
NP-237	1.149E+00	3.529E-01	3.506E-01	0.000E+00
U-238	2.268E+00	2.049E+00	2.094E+00	0.000E+00
AM-243	3.897E-01	7.935E-02	9.558E-02	0.000E+00
ANH-511	1.517E-01	6.320E-02	4.859E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	-9.507E-02	3.176E-01	5.184E-01	0.000E+00	NOT IDENT.
NA-22	-2.252E-02	4.732E-02	7.582E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.686E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.292E-02	2.360E-02	4.461E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.907E-02	7.831E-02	0.000E+00	FAIL ABUN
SC-46	-5.407E-02	3.906E-02	5.487E-02	0.000E+00	FAIL ABUN
V-48	4.152E-03	7.616E-02	1.104E-01	0.000E+00	NOT IDENT.
CR-51	2.013E-01	3.653E-01	6.508E-01	0.000E+00	NOT IDENT.
MN-52	-1.907E-01	2.341E-01	3.394E-01	0.000E+00	NOT IDENT.
MN-54	1.971E-02	3.874E-02	6.765E-02	0.000E+00	NOT IDENT.
CO-56	4.073E-02	4.153E-02	7.516E-02	0.000E+00	FAIL ABUN
CO-57	2.456E-02	2.427E-02	4.382E-02	0.000E+00	NOT IDENT.
CO-58	-2.640E-02	3.783E-02	5.915E-02	0.000E+00	NOT IDENT.
FE-59	2.805E-02	8.962E-02	1.573E-01	0.000E+00	NOT IDENT.
CO-60	-1.876E-02	3.845E-02	6.033E-02	0.000E+00	NOT IDENT.
ZN-65	2.191E-02	1.038E-01	1.564E-01	0.000E+00	NOT IDENT.
GE-68	7.129E-01	1.231E+00	2.214E+00	0.000E+00	NOT IDENT.
AS-73	-3.748E-01	7.603E-01	1.335E+00	0.000E+00	NOT IDENT.
AS-74	-4.266E-02	8.296E-02	1.377E-01	0.000E+00	NOT IDENT.
SE-75	7.693E-03	4.321E-02	6.784E-02	0.000E+00	NOT IDENT.
BR-77	6.858E+00	1.036E+01	1.808E+01	0.000E+00	FAIL ABUN
SR-82	-5.148E-01	3.925E-01	5.819E-01	0.000E+00	NOT IDENT.
RB-83	3.731E-02	6.803E-02	1.177E-01	0.000E+00	NOT IDENT.
RB-84	-8.872E-03	7.085E-02	1.167E-01	0.000E+00	NOT IDENT.
KR-85	9.421E+00	8.042E+00	1.295E+01	0.000E+00	NOT IDENT.
SR-85	4.832E-02	4.125E-02	6.641E-02	0.000E+00	NOT IDENT.
RB-86	7.542E-02	8.084E-01	1.394E+00	0.000E+00	NOT IDENT.
Y-88	-2.846E-02	3.543E-02	5.012E-02	0.000E+00	NOT IDENT.
ZR-88	-4.154E-03	2.944E-02	4.960E-02	0.000E+00	NOT IDENT.
Y-91	-1.128E+00	1.897E+01	3.190E+01	0.000E+00	NOT IDENT.
NB-94	-3.276E-04	3.271E-02	5.572E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	5.320E-02	9.213E-02	0.000E+00	NOT IDENT.
NB-95M	1.600E-01	1.300E-01	2.169E-01	0.000E+00	NOT IDENT.
ZR-95	3.849E-02	6.764E-02	1.184E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.896E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.166E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-5.653E+00	1.160E+01	1.880E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.313E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.853E-03	3.241E-02	5.387E-02	0.000E+00	FAIL ABUN
RH-102	1.598E-02	2.794E-02	4.875E-02	0.000E+00	FAIL ABUN
RU-103	2.284E-03	3.915E-02	6.515E-02	0.000E+00	FAIL ABUN
RH-106	-3.474E-02	2.961E-01	5.058E-01	0.000E+00	FAIL ABUN
RU-106	-3.474E-02	2.960E-01	5.058E-01	0.000E+00	FAIL ABUN
AG-108M	-2.786E-02	3.119E-02	4.768E-02	0.000E+00	NOT IDENT.
AG-110M	9.339E-03	3.441E-02	6.025E-02	0.000E+00	NOT IDENT.
IN-111	-5.728E-02	1.035E+00	1.609E+00	0.000E+00	NOT IDENT.
IN-113M	6.602E-03	4.157E-02	7.149E-02	0.000E+00	NOT IDENT.
SN-113	6.602E-03	4.157E-02	7.149E-02	0.000E+00	NOT IDENT.
IN-114M	1.452E-01	1.805E-01	2.841E-01	0.000E+00	NOT IDENT.
CD-115	-9.617E-01	9.602E+00	1.574E+01	0.000E+00	NOT IDENT.
SN-117M	-4.849E-03	4.952E-02	8.387E-02	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.511E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.474E-02	2.583E-02	4.270E-02	0.000E+00	NOT IDENT.
I-124	4.735E-01	7.493E-01	1.197E+00	0.000E+00	FAIL ABUN
SB-124	-1.219E-02	7.508E-02	1.236E-01	0.000E+00	FAIL ABUN
SB-125	-2.759E-02	8.814E-02	1.454E-01	0.000E+00	FAIL ABUN
TE-125M	4.369E+00	8.325E+00	1.486E+01	0.000E+00	NOT IDENT.
I-126	6.107E-02	1.740E-01	3.062E-01	0.000E+00	NOT IDENT.
SB-126	7.725E-02	1.391E-01	2.201E-01	0.000E+00	NOT IDENT.
SB-127	-1.434E-01	1.241E+00	2.099E+00	0.000E+00	NOT IDENT.
XE-127	-1.404E-02	4.555E-02	7.486E-02	0.000E+00	NOT IDENT.
I-131	1.136E-02	1.091E-01	1.881E-01	0.000E+00	NOT IDENT.
TE-132	1.906E-01	6.283E-01	1.131E+00	0.000E+00	NOT IDENT.
BA-133	-3.949E-02	4.627E-02	6.390E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.700E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.934E-02	9.771E-02	0.000E+00	FAIL ABUN
CS-135	1.740E-01	1.604E-01	2.658E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.030E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.578E-02	9.792E-02	1.634E-01	0.000E+00	FAIL ABUN
BA-137M	-1.185E-02	3.602E-02	5.907E-02	0.000E+00	NOT IDENT.
CS-137	-1.252E-02	3.808E-02	6.245E-02	0.000E+00	NOT IDENT.
CE-139	-3.775E-04	2.763E-02	4.683E-02	0.000E+00	NOT IDENT.
BA-140	-1.872E-02	2.308E-01	4.008E-01	0.000E+00	NOT IDENT.
LA-140	4.761E-02	1.062E-01	1.681E-01	0.000E+00	FAIL ABUN
CE-141	-1.550E-02	6.090E-02	1.032E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.520E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	8.788E-02	2.090E-01	3.497E-01	0.000E+00	NOT IDENT.
PM-144	1.714E-02	3.428E-02	6.069E-02	0.000E+00	NOT IDENT.

PR-144	1.162E+00	2.323E+00	4.112E+00	0.000E+00	NOT IDENT.
PM-146	7.236E-02	4.200E-02	7.843E-02	0.000E+00	NOT IDENT.
ND-147	1.423E-01	5.108E-01	8.657E-01	0.000E+00	FAIL ABUN
PM-149	-3.386E+01	8.825E+01	1.509E+02	0.000E+00	NOT IDENT.
EU-152	-2.457E-02	9.069E-02	1.479E-01	0.000E+00	NOT IDENT.
GD-153	-5.340E-02	8.417E-02	1.271E-01	0.000E+00	FAIL ABUN
EU-154	-6.174E-02	1.324E-01	2.122E-01	0.000E+00	NOT IDENT.
EU-155	1.031E-01	9.860E-02	1.799E-01	0.000E+00	FAIL ABUN
TB-160	4.065E-03	1.402E-01	2.345E-01	0.000E+00	FAIL ABUN
HO-166M	-4.268E-02	5.747E-02	9.139E-02	0.000E+00	FAIL ABUN
TM-171	-3.048E+01	2.933E+01	4.489E+01	0.000E+00	NOT IDENT.
LU-176	-1.619E-02	2.264E-02	3.765E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.792E+00	2.019E+00	0.000E+00	FAIL ABUN
LU-177M	5.985E-02	1.839E-01	2.813E-01	0.000E+00	FAIL ABUN
HF-181	9.285E-03	3.998E-02	6.799E-02	0.000E+00	NOT IDENT.
W-181	2.091E-01	3.629E-01	6.017E-01	0.000E+00	NOT IDENT.
TA-182	9.070E-02	1.949E-01	3.421E-01	0.000E+00	NOT IDENT.
RE-183	8.494E-02	1.033E-01	1.771E-01	0.000E+00	FAIL ABUN
RE-184	-1.962E-01	2.083E-01	3.493E-01	0.000E+00	NOT IDENT.
OS-185	3.232E-03	4.355E-02	7.526E-02	0.000E+00	NOT IDENT.
RE-188	1.441E-01	1.614E-01	2.860E-01	0.000E+00	NOT IDENT.
W-188	-2.272E+00	7.843E+00	1.179E+01	0.000E+00	FAIL ABUN
IR-192	-1.364E-02	3.234E-02	5.465E-02	0.000E+00	FAIL ABUN
AU-195	2.357E-01	2.199E-01	3.822E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.382E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.386E+00	6.499E+00	1.121E+01	0.000E+00	NOT IDENT.
TL-202	1.612E-02	7.018E-02	1.200E-01	0.000E+00	NOT IDENT.
HG-203	8.688E-03	3.853E-02	6.819E-02	0.000E+00	FAIL ABUN
BI-207	-1.077E-02	5.120E-02	8.591E-02	0.000E+00	FAIL ABUN
TL-207	-3.446E-01	7.338E-01	1.071E+00	0.000E+00	FAIL ABUN
PO-209	-7.250E+00	8.189E+00	1.207E+01	0.000E+00	NOT IDENT.
BI-210	1.452E+00	3.155E+00	5.858E+00	0.000E+00	NOT IDENT.
PB-210	1.452E+00	3.155E+00	5.858E+00	0.000E+00	NOT IDENT.
PO-210	1.452E+00	3.154E+00	5.858E+00	0.000E+00	NOT IDENT.
PB-211	6.613E-02	1.024E+00	1.529E+00	0.000E+00	NOT IDENT.
PO-215	-3.446E-01	7.338E-01	1.071E+00	0.000E+00	FAIL ABUN
RN-219	1.502E-01	3.820E-01	6.650E-01	0.000E+00	FAIL ABUN
RN-220	-1.304E+00	2.517E+01	4.374E+01	0.000E+00	NOT IDENT.
RA-223	-3.446E-01	7.338E-01	1.071E+00	0.000E+00	FAIL ABUN
AC-227	2.687E-01	3.449E-01	6.277E-01	0.000E+00	FAIL ABUN
TH-227	2.687E-01	3.459E-01	6.277E-01	0.000E+00	FAIL ABUN
TH-229	-1.867E-01	4.768E-01	7.827E-01	0.000E+00	FAIL ABUN
PA-231	5.993E-02	1.451E+00	2.543E+00	0.000E+00	NOT IDENT.
TH-231	-3.446E-01	7.338E-01	1.071E+00	0.000E+00	FAIL ABUN
U-231	-2.002E-01	1.087E+00	1.700E+00	0.000E+00	FAIL ABUN
PA-233	-2.279E-02	5.888E-02	9.980E-02	0.000E+00	FAIL ABUN
PA-234	-1.783E-02	3.104E-01	5.107E-01	0.000E+00	FAIL ABUN
PA-234M	5.854E-02	4.473E+00	7.541E+00	0.000E+00	NOT IDENT.
U-235	7.207E-03	2.029E-01	3.445E-01	0.000E+00	FAIL ABUN
NP-236	-1.664E-02	7.248E-02	1.219E-01	0.000E+00	NOT IDENT.
NP-239	-2.722E-01	1.780E-01	2.867E-01	0.000E+00	FAIL ABUN
AM-241	4.225E-02	1.528E-01	2.528E-01	0.000E+00	NOT IDENT.
CM-243	7.389E-02	8.878E-02	1.609E-01	0.000E+00	FAIL ABUN
AM-246	9.851E-02	1.331E-01	2.433E-01	0.000E+00	NOT IDENT.
CM-247	2.618E-02	3.526E-02	6.271E-02	0.000E+00	NOT IDENT.
CF-249	2.294E-02	3.893E-02	6.873E-02	0.000E+00	NOT IDENT.
CF-251	5.072E-04	1.206E-01	2.035E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:49:53.31

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**********************************************************************
*                          GEL Laboratories LLC                      *
*                            2040 Savage Road                        *
*                          Charleston, SC 29414                      *
**********************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960005.CNF;1
Sample date      : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:48:18
Sample ID        : G245960005           Sample quantity  : 1.27600E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.46  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 948717               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	786	10.67*	1.138E+00	1.904E+01	1.904E+01	11.07
CD-109	88.03	277	3.72*	5.639E+00	3.891E+00	3.980E+00	23.59
SB-122	563.90	42	70.60*	2.576E+00	6.809E-02	3.371E+00	102.64
	692.80	------	3.70	2.165E+00	------ Line Not Found		------
SN-126	64.28	94	9.60	3.209E+00	8.979E-01	8.979E-01	91.66
	86.94	277	8.90	5.639E+00	1.626E+00	1.626E+00	46.83
	87.57	277	37.00*	5.639E+00	3.912E-01	3.912E-01	23.59
TL-208	277.35	------	6.80	4.505E+00	------ Line Not Found		------
	510.84	144	21.60	2.796E+00	7.022E-01	7.022E-01	43.33
	583.14	396	84.20*	2.506E+00	5.516E-01	5.516E-01	16.64
	860.37	71	12.46	1.795E+00	9.357E-01	9.357E-01	42.25
BI-211	72.87	------	1.27	4.387E+00	------ Line Not Found		------
	351.07	733	12.94*	3.764E+00	4.428E+00	4.428E+00	11.82
BI-212	727.18	156	11.80*	2.079E+00	1.866E+00	1.866E+00	25.61
	785.46	------	1.97	1.943E+00	------ Line Not Found		------
	1620.62	19	2.75	1.051E+00	1.883E+00	1.883E+00	67.93
PB-212	74.81	401	10.70	4.586E+00	2.404E+00	2.404E+00	22.78
	77.11	685	18.00	4.816E+00	2.323E+00	2.323E+00	14.06
	87.30	277	8.00	5.639E+00	1.809E+00	1.809E+00	25.63
	238.63	1290	44.60*	5.017E+00	1.696E+00	1.696E+00	9.60
	300.09	79	3.41	4.254E+00	1.605E+00	1.605E+00	70.62
PO-212	74.81	401	10.70	4.586E+00	2.404E+00	2.404E+00	22.78
	77.11	685	18.00	4.816E+00	2.323E+00	2.323E+00	14.06
	87.30	277	8.00	5.639E+00	1.809E+00	1.809E+00	25.63
	115.19	------	0.60	6.604E+00	------ Line Not Found		------
	238.63	1290	44.60*	5.017E+00	1.696E+00	1.696E+00	9.60
	300.09	79	3.41	4.254E+00	1.605E+00	1.605E+00	70.62
BI-214	609.31	512	46.30*	2.416E+00	1.347E+00	1.347E+00	13.76
	1120.29	114	15.10	1.423E+00	1.558E+00	1.558E+00	36.50
	1764.49	75	15.80	9.906E-01	1.405E+00	1.405E+00	30.87
PB-214	74.81	401	6.21	4.586E+00	4.142E+00	4.142E+00	22.06
	77.11	685	10.50	4.816E+00	3.983E+00	3.983E+00	15.99

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	277	4.67	5.639E+00	3.100E+00	3.100E+00	24.82
	241.98	330	7.49	4.975E+00	2.603E+00	2.603E+00	27.95
	295.21	402	19.20	4.304E+00	1.432E+00	1.432E+00	16.42
	351.92	733	37.20*	3.764E+00	1.540E+00	1.540E+00	12.92
PO-214	74.81	401	6.21	4.586E+00	4.142E+00	4.142E+00	22.06
	77.11	685	10.50	4.816E+00	3.983E+00	3.983E+00	15.99
	87.30	277	4.67	5.639E+00	3.100E+00	3.100E+00	24.82
	241.98	330	7.49	4.975E+00	2.603E+00	2.603E+00	27.95
	295.21	402	19.20	4.304E+00	1.432E+00	1.432E+00	16.42
	351.92	733	37.20*	3.764E+00	1.540E+00	1.540E+00	12.92
PO-216	74.81	401	10.70	4.586E+00	2.404E+00	2.404E+00	22.78
	77.11	685	18.00	4.816E+00	2.323E+00	2.323E+00	14.06
	87.30	277	8.00	5.639E+00	1.809E+00	1.809E+00	25.63
	238.63	1290	44.60*	5.017E+00	1.696E+00	1.696E+00	9.60
	300.09	79	3.41	4.254E+00	1.605E+00	1.605E+00	70.62
PO-218	74.81	401	6.21	4.586E+00	4.142E+00	4.142E+00	22.06
	77.11	685	10.50	4.816E+00	3.983E+00	3.983E+00	15.99
	87.30	277	4.67	5.639E+00	3.100E+00	3.100E+00	24.82
	241.98	330	7.49	4.975E+00	2.603E+00	2.603E+00	27.95
	295.21	402	19.20	4.304E+00	1.432E+00	1.432E+00	16.42
	351.92	733	37.20*	3.764E+00	1.540E+00	1.540E+00	12.92
RA-224	240.98	330	3.95*	4.975E+00	4.936E+00	4.936E+00	27.38
RA-226	609.31	512	46.30*	2.416E+00	1.347E+00	1.347E+00	13.76
	1120.29	114	15.10	1.423E+00	1.558E+00	1.558E+00	36.50
	1764.49	75	15.80	9.906E-01	1.405E+00	1.405E+00	30.87
AC-228	338.32	227	11.40	3.882E+00	1.508E+00	1.508E+00	48.07
	911.07	257	27.70*	1.707E+00	1.600E+00	1.600E+00	21.12
	969.11	158	16.60	1.617E+00	1.734E+00	1.734E+00	34.79
RA-228	338.32	227	11.40	3.882E+00	1.508E+00	1.508E+00	48.07
	911.07	257	27.70*	1.707E+00	1.600E+00	1.600E+00	21.12
	969.11	158	16.60	1.617E+00	1.734E+00	1.734E+00	34.79
TH-228	74.81	401	10.70	4.586E+00	2.404E+00	2.440E+00	20.81
	77.11	685	18.00	4.816E+00	2.323E+00	2.359E+00	14.06
	87.30	277	8.00	5.639E+00	1.809E+00	1.837E+00	23.59
	238.63	1290	44.60*	5.017E+00	1.696E+00	1.722E+00	9.60
	300.09	79	3.41	4.254E+00	1.605E+00	1.630E+00	91.61
TH-230	609.31	512	46.30*	2.416E+00	1.347E+00	1.347E+00	13.76
	1120.29	114	15.10	1.423E+00	1.558E+00	1.558E+00	36.50
	1764.49	75	15.80	9.906E-01	1.405E+00	1.405E+00	30.87
TH-232	338.32	227	11.40	3.882E+00	1.508E+00	1.508E+00	26.12
	911.07	257	27.70*	1.707E+00	1.600E+00	1.600E+00	21.12
	969.11	158	16.60	1.617E+00	1.734E+00	1.734E+00	34.79
TH-234	63.29	94	3.80*	3.209E+00	2.268E+00	2.268E+00	92.17
	92.38	306	5.41	5.982E+00	2.778E+00	2.778E+00	35.02
U-234	609.31	512	46.30*	2.416E+00	1.347E+00	1.347E+00	13.76
	1120.29	114	15.10	1.423E+00	1.558E+00	1.558E+00	36.50
	1764.49	75	15.80	9.906E-01	1.405E+00	1.405E+00	30.87
NP-237	86.50	277	12.60*	5.639E+00	1.149E+00	1.149E+00	31.34
	95.87	------	2.60	6.124E+00	------ Line Not Found		------

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-238	63.29	94	3.80*	3.209E+00	2.268E+00	2.268E+00	92.17
	92.38	306	5.41	5.982E+00	2.778E+00	2.778E+00	31.20
AM-243	74.67	401	66.00*	4.586E+00	3.897E-01	3.897E-01	20.78
	86.72	277	0.34	5.639E+00	4.308E+01	4.308E+01	23.59
	117.66	------	0.55	6.624E+00	------ Line Not Found		------
	142.18	------	0.13	6.534E+00	------ Line Not Found		------
ANH-511	511.00	144	100.00*	2.796E+00	1.517E-01	1.517E-01	42.52

Flag: "*" = Keyline

Total number of lines in spectrum 39
Number of unidentified lines 4
Number of lines tentatively identified by NID 35 89.74%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.904E+01	1.904E+01	0.211E+01	11.07	
CD-109	464.00D	1.02	3.891E+00	3.980E+00	0.939E+00	23.59	
SB-122	2.70D	49.5	6.809E-02	3.371E+00	3.460E+00	102.64	
SN-126	1.00E+05Y	1.00	3.912E-01	3.912E-01	0.923E-01	23.59	
TL-208	1.41E+10Y	1.00	5.516E-01	5.516E-01	0.918E-01	16.64	
BI-211	7.04E+08Y	1.00	4.428E+00	4.428E+00	0.524E+00	11.82	
BI-212	1.41E+10Y	1.00	1.866E+00	1.866E+00	0.478E+00	25.61	
PB-212	1.41E+10Y	1.00	1.696E+00	1.696E+00	0.163E+00	9.60	
PO-212	1.41E+10Y	1.00	1.696E+00	1.696E+00	0.163E+00	9.60	
BI-214	1600.00Y	1.00	1.347E+00	1.347E+00	0.185E+00	13.76	
PB-214	1600.00Y	1.00	1.540E+00	1.540E+00	0.199E+00	12.92	
PO-214	1600.00Y	1.00	1.540E+00	1.540E+00	0.199E+00	12.92	
PO-216	1.41E+10Y	1.00	1.696E+00	1.696E+00	0.163E+00	9.60	
PO-218	1600.00Y	1.00	1.540E+00	1.540E+00	0.199E+00	12.92	
RA-224	1.41E+10Y	1.00	4.936E+00	4.936E+00	1.351E+00	27.38	
RA-226	1600.00Y	1.00	1.347E+00	1.347E+00	0.185E+00	13.76	
AC-228	1.41E+10Y	1.00	1.600E+00	1.600E+00	0.338E+00	21.12	
RA-228	1.41E+10Y	1.00	1.600E+00	1.600E+00	0.338E+00	21.12	
TH-228	1.91Y	1.02	1.696E+00	1.722E+00	0.165E+00	9.60	
TH-230	4.47E+09Y	1.00	1.347E+00	1.347E+00	0.185E+00	13.76	
TH-232	1.41E+10Y	1.00	1.600E+00	1.600E+00	0.338E+00	21.12	
TH-234	4.47E+09Y	1.00	2.268E+00	2.268E+00	2.091E+00	92.17	
U-234	4.47E+09Y	1.00	1.347E+00	1.347E+00	0.185E+00	13.76	
NP-237	2.14E+06Y	1.00	1.149E+00	1.149E+00	0.360E+00	31.34	
U-238	4.47E+09Y	1.00	2.268E+00	2.268E+00	2.091E+00	92.17	
AM-243	7380.00Y	1.00	3.897E-01	3.897E-01	0.810E-01	20.78	
ANH-511	1.00E+09Y	1.00	1.517E-01	1.517E-01	0.645E-01	42.52	
	Total Activity :		6.300E+01	6.642E+01			

Grand Total Activity : 6.300E+01 6.642E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960005 Acquisition date : 12-FEB-2010 15:48:18

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.92	94	304	1.31	167.34	165	6	1.31E-02	64.0	5.42E+00	T
3	89.71	162	302	0.84	178.93	171	12	2.25E-02	35.8	5.81E+00	T
0	128.28	145	361	1.18	256.11	252	10	2.01E-02	51.6	6.64E+00	T
0	185.76	289	299	1.16	371.13	366	11	4.01E-02	27.3	5.86E+00	T
0	209.34	149	338	1.20	418.31	414	12	2.06E-02	52.0	5.46E+00	T
0	270.16	134	188	1.86	540.01	535	11	1.86E-02	43.4	4.59E+00	T
0	327.54	83	132	0.79	654.80	651	9	1.15E-02	54.9	3.98E+00	T
0	408.86	36	91	1.35	817.51	814	8	5.05E-03	96.4	3.34E+00	
0	462.81	112	131	1.81	925.46	919	16	1.56E-02	49.0	3.03E+00	T
0	767.95	52	70	1.04	1535.90	1530	10	7.27E-03	66.5	1.98E+00	T
0	794.50	62	60	1.66	1589.00	1585	12	8.61E-03	56.1	1.92E+00	T
0	1237.56	52	39	1.51	2475.18	2470	13	7.28E-03	54.9	1.31E+00	T
0	1377.10	25	24	1.92	2754.23	2749	9	3.48E-03	81.7	1.19E+00	T
0	1495.55	12	18	1.12	2991.11	2985	14	1.67E-03	****	1.12E+00	
0	1579.68	9	15	0.58	3159.33	3147	15	1.30E-03	****	1.07E+00	
0	1589.78	17	43	0.64	3179.53	3168	19	2.35E-03	****	1.07E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:49:57.80

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960005.CNF;1		
Acquisition date	: 12-FEB-2010 15:48:18	Detector SN#	:
Detector ID	: GAM12	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:01.46	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960005	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.27600E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 10-FEB-2009 09:20:24.5	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.904E+01	2.108E+00	5.779E-01	4.120E-02	32.956
CD-109	3.980E+00	9.391E-01	1.239E+00	9.482E-02	3.212
SB-122	3.371E+00	3.460E+00	3.397E+00	2.133E-01	0.992
SN-126	3.912E-01	9.230E-02	1.224E-01	9.326E-03	3.197
TL-208	5.516E-01	9.181E-02	5.216E-02	3.731E-03	10.576
BI-211	4.428E+00	5.235E-01	3.010E-01	1.892E-02	14.711
BI-212	1.866E+00	4.779E-01	4.195E-01	3.632E-02	4.449
PB-212	1.696E+00	1.629E-01	8.865E-02	6.295E-03	19.135
PO-212	1.696E+00	1.629E-01	8.865E-02	6.295E-03	19.135
BI-214	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.669
PB-214	1.540E+00	1.991E-01	1.049E-01	8.572E-03	14.678
PO-214	1.540E+00	1.991E-01	1.049E-01	8.572E-03	14.678
PO-216	1.696E+00	1.629E-01	8.865E-02	6.295E-03	19.135
PO-218	1.540E+00	1.991E-01	1.049E-01	8.572E-03	14.678
RA-224	4.936E+00	1.351E+00	1.009E+00	5.566E-02	4.891
RA-226	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.669
AC-228	1.600E+00	3.378E-01	2.072E-01	2.275E-02	7.720
RA-228	1.600E+00	3.378E-01	2.072E-01	2.275E-02	7.720

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.722E+00	1.654E-01	9.000E-02	6.391E-03	19.135
TH-230	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.668
TH-232	1.600E+00	3.378E-01	2.072E-01	2.275E-02	7.720
TH-234	2.268E+00	2.091E+00	1.998E+00	3.402E-01	1.135
U-234	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.668
NP-237	1.149E+00	3.601E-01	3.361E-01	7.383E-02	3.418
U-238	2.268E+00	2.091E+00	1.998E+00	3.402E-01	1.135
AM-243	3.897E-01	8.097E-02	9.144E-02	6.213E-03	4.262
ANH-511	1.517E-01	6.449E-02	4.782E-02	2.914E-03	3.172

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-9.507E-02		3.241E-01	5.096E-01	3.507E-02	-0.187
NA-22	-2.252E-02		4.829E-02	7.566E-02	4.873E-03	-0.298
NA-24	-3.061E-01		3.921E-01	Half-Life too short		
AL-26	1.292E-02		2.408E-02	4.476E-02	2.568E-03	0.289
TI-44	4.287E-01	+	6.028E-02	7.496E-02	5.243E-03	5.719
SC-46	-5.407E-02		3.986E-02	5.445E-02	4.513E-03	-0.993
V-48	4.152E-03		7.771E-02	1.098E-01	8.456E-03	0.038
CR-51	2.013E-01		3.727E-01	6.360E-01	4.043E-02	0.317
MN-52	-1.907E-01		2.389E-01	3.393E-01	2.331E-02	-0.562
MN-54	1.971E-02		3.953E-02	6.707E-02	5.272E-03	0.294
CO-56	4.073E-02		4.238E-02	7.454E-02	5.929E-03	0.546
CO-57	2.456E-02		2.476E-02	4.222E-02	2.640E-03	0.582
CO-58	-2.640E-02		3.860E-02	5.862E-02	4.510E-03	-0.450
FE-59	2.805E-02		9.145E-02	1.566E-01	1.157E-02	0.179
CO-60	-1.876E-02		3.924E-02	6.024E-02	4.208E-03	-0.311
ZN-65	2.191E-02		1.059E-01	1.557E-01	9.796E-03	0.141
GE-68	7.129E-01		1.256E+00	2.204E+00	1.486E-01	0.324
AS-73	-3.748E-01		7.758E-01	1.271E+00	8.205E-02	-0.295
AS-74	-4.266E-02		8.466E-02	1.358E-01	8.646E-03	-0.314
SE-75	7.693E-03		4.409E-02	6.610E-02	3.747E-03	0.116
BR-77	6.858E+00		1.057E+01	1.779E+01	1.091E+00	0.385
SR-82	-5.148E-01		4.005E-01	5.763E-01	4.264E-02	-0.893
RB-83	3.731E-02		6.942E-02	1.159E-01	7.104E-03	0.322
RB-84	-8.872E-03		7.230E-02	1.158E-01	9.525E-03	-0.077
KR-85	9.421E+00		8.206E+00	1.274E+01	7.780E-01	0.739
SR-85	4.832E-02		4.209E-02	6.535E-02	3.991E-03	0.739
RB-86	7.542E-02		8.249E-01	1.387E+00	9.366E-02	0.054
Y-88	-2.846E-02		3.615E-02	5.030E-02	2.832E-03	-0.566
ZR-88	-4.154E-03		3.004E-02	4.862E-02	2.667E-03	-0.085
Y-91	-1.128E+00		1.935E+01	3.180E+01	1.839E+00	-0.035
NB-94	-3.276E-04		3.338E-02	5.510E-02	3.753E-03	-0.006
NB-95	1.054E-01		5.428E-02	9.122E-02	6.673E-03	1.155
NB-95M	1.600E-01		1.327E-01	2.110E-01	1.539E-02	0.758
ZR-95	3.849E-02		6.902E-02	1.172E-01	9.683E-03	0.328

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	3.805E-02		5.049E-02	Half-Life too short		
ZR-97	3.315E+00		1.105E+00	Half-Life too short		
MO-99	-5.653E+00		1.184E+01	1.860E+01	2.675E+00	-0.304
TC-99M	-4.242E+10		2.200E+10	Half-Life too short		
RH-101	4.853E-03		3.307E-02	5.226E-02	2.765E-03	0.093
RH-102	1.598E-02		2.851E-02	4.792E-02	2.846E-03	0.333
RU-103	2.284E-03		3.995E-02	6.409E-02	8.175E-03	0.036
RH-106	-3.474E-02		3.021E-01	4.992E-01	6.018E-02	-0.070
RU-106	-3.474E-02		3.021E-01	4.992E-01	3.205E-02	-0.070
AG-108M	-2.786E-02		3.182E-02	4.681E-02	2.917E-03	-0.595
AG-110M	9.339E-03		3.512E-02	5.952E-02	4.057E-03	0.157
IN-111	-5.728E-02		1.056E+00	1.566E+00	8.667E-02	-0.037
IN-113M	6.602E-03		4.242E-02	7.007E-02	4.125E-03	0.094
SN-113	6.602E-03		4.242E-02	7.007E-02	4.125E-03	0.094
IN-114M	1.452E-01		1.842E-01	2.755E-01	1.445E-02	0.527
CD-115	-9.617E-01		9.798E+00	1.550E+01	9.547E-01	-0.062
SN-117M	-4.849E-03		5.053E-02	8.111E-02	4.285E-03	-0.060
I-123	-3.145E+00		2.812E+00	Half-Life too short		
TE-123M	-1.474E-02		2.636E-02	4.130E-02	2.213E-03	-0.357
I-124	4.735E-01		7.646E-01	1.180E+00	7.533E-02	0.401
SB-124	-1.219E-02		7.661E-02	1.239E-01	8.270E-03	-0.098
SB-125	-2.759E-02		8.993E-02	1.427E-01	8.481E-03	-0.193
TE-125M	4.369E+00		8.495E+00	1.430E+01	1.233E+00	0.306
I-126	6.107E-02		1.776E-01	3.026E-01	1.973E-02	0.202
SB-126	7.725E-02		1.419E-01	2.177E-01	1.514E-02	0.355
SB-127	-1.434E-01		1.266E+00	2.075E+00	2.075E-01	-0.069
XE-127	-1.404E-02		4.648E-02	7.266E-02	3.864E-03	-0.193
I-131	1.136E-02		1.114E-01	1.842E-01	1.159E-02	0.062
TE-132	1.906E-01		6.411E-01	1.100E+00	1.566E-01	0.173
BA-133	-3.949E-02		4.722E-02	6.254E-02	7.175E-03	-0.632
I-133	6.271E-04		2.908E-03	Half-Life too short		
CS-134	1.251E-01	+	7.076E-02	9.680E-02	7.381E-03	1.292
CS-135	1.740E-01		1.637E-01	2.590E-01	1.948E-02	0.672
I-135	3.194E+09		3.077E+09	Half-Life too short		
CS-136	-2.578E-02		9.992E-02	1.626E-01	1.221E-02	-0.159
BA-137M	-1.185E-02		3.676E-02	5.836E-02	3.783E-03	-0.203
CS-137	-1.252E-02		3.886E-02	6.169E-02	4.013E-03	-0.203
CE-139	-3.775E-04		2.819E-02	4.532E-02	2.322E-03	-0.008
BA-140	-1.872E-02		2.356E-01	3.947E-01	1.287E-01	-0.047
LA-140	4.761E-02		1.084E-01	1.684E-01	1.097E-02	0.283
CE-141	-1.550E-02		6.214E-02	9.964E-02	5.801E-03	-0.156
CE-143	8.500E-04		1.286E-04	Half-Life too short		
CE-144	8.788E-02		2.133E-01	3.373E-01	4.802E-02	0.261
PM-144	1.714E-02		3.498E-02	6.000E-02	4.059E-03	0.286
PR-144	1.162E+00		2.370E+00	4.066E+00	2.749E-01	0.286
PM-146	7.236E-02		4.285E-02	7.704E-02	6.661E-03	0.939
ND-147	1.423E-01		5.212E-01	8.524E-01	1.167E-01	0.167
PM-149	-3.386E+01		9.006E+01	1.472E+02	2.078E+01	-0.230

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-2.457E-02		9.255E-02	1.447E-01	9.272E-03	-0.170
GD-153	-5.340E-02		8.588E-02	1.220E-01	8.486E-03	-0.438
EU-154	-6.174E-02		1.351E-01	2.117E-01	2.063E-02	-0.292
EU-155	1.031E-01		1.006E-01	1.729E-01	1.165E-02	0.596
TB-160	4.065E-03		1.431E-01	2.327E-01	1.911E-02	0.017
HO-166M	-4.268E-02		5.865E-02	9.039E-02	6.221E-03	-0.472
TM-171	-3.048E+01		2.993E+01	4.287E+01	2.775E+00	-0.711
LU-176	-1.619E-02		2.310E-02	3.677E-02	2.090E-03	-0.440
LU-177	3.497E+00	+	1.829E+00	1.961E+00	1.049E-01	1.784
LU-177M	5.985E-02		1.877E-01	2.759E-01	1.548E-02	0.217
HF-181	9.285E-03		4.080E-02	6.685E-02	3.992E-03	0.139
W-181	2.091E-01		3.703E-01	5.745E-01	3.691E-02	0.364
TA-182	9.070E-02		1.989E-01	3.412E-01	2.024E-02	0.266
RE-183	8.494E-02		1.054E-01	1.713E-01	8.907E-03	0.496
RE-184	-1.962E-01		2.126E-01	3.402E-01	1.893E-02	-0.577
OS-185	3.232E-03		4.444E-02	7.433E-02	4.803E-03	0.043
RE-188	1.441E-01		1.647E-01	2.765E-01	1.482E-02	0.521
W-188	-2.272E+00		8.003E+00	1.150E+01	6.518E-01	-0.198
IR-192	-1.364E-02		3.300E-02	5.339E-02	3.051E-03	-0.256
AU-195	2.357E-01		2.244E-01	3.671E-01	2.524E-02	0.642
TL-200	2.320E-05		2.236E-04	Half-Life too short		
TL-201	2.386E+00		6.631E+00	1.085E+01	5.561E-01	0.220
TL-202	1.612E-02		7.161E-02	1.179E-01	6.788E-03	0.137
HG-203	8.688E-03		3.932E-02	6.649E-02	3.999E-03	0.131
BI-207	-1.077E-02		5.224E-02	8.550E-02	5.898E-03	-0.126
TL-207	-3.446E-01		7.488E-01	1.046E+00	1.724E-01	-0.329
PO-209	-7.250E+00		8.356E+00	1.198E+01	1.000E+00	-0.605
BI-210	1.452E+00		3.219E+00	5.567E+00	4.193E-01	0.261
PB-210	1.452E+00		3.219E+00	5.567E+00	4.193E-01	0.261
PO-210	1.452E+00		3.218E+00	5.567E+00	3.570E-01	0.261
PB-211	6.613E-02		1.045E+00	1.499E+00	9.343E-01	0.044
PO-215	-3.446E-01		7.488E-01	1.046E+00	1.724E-01	-0.329
RN-219	1.502E-01		3.898E-01	6.520E-01	8.801E-02	0.230
RN-220	-1.304E+00		2.569E+01	4.309E+01	2.687E+00	-0.030
RA-223	-3.446E-01		7.488E-01	1.046E+00	1.724E-01	-0.329
AC-227	2.687E-01		3.520E-01	6.113E-01	8.479E-02	0.439
TH-227	2.687E-01		3.529E-01	6.113E-01	1.029E-01	0.439
TH-229	-1.867E-01		4.865E-01	7.591E-01	3.997E-02	-0.246
PA-231	5.993E-02		1.481E+00	2.480E+00	3.403E-01	0.024
TH-231	-3.446E-01		7.488E-01	1.046E+00	1.724E-01	-0.329
U-231	-2.002E-01		1.110E+00	1.632E+00	1.150E-01	-0.123
PA-233	-2.279E-02		6.008E-02	9.749E-02	5.899E-03	-0.234
PA-234	-1.783E-02		3.167E-01	5.073E-01	9.383E-02	-0.035
PA-234M	5.854E-02		4.565E+00	7.497E+00	6.785E-01	0.008
U-235	7.207E-03		2.070E-01	3.327E-01	5.404E-02	0.022
NP-236	-1.664E-02		7.396E-02	1.179E-01	6.181E-03	-0.141
NP-239	-2.722E-01		1.816E-01	2.761E-01	1.742E-02	-0.986
AM-241	4.225E-02		1.559E-01	2.410E-01	1.713E-02	0.175

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	7.389E-02		9.060E-02	1.546E-01	1.030E-02	0.478
AM-246	9.851E-02		1.358E-01	2.422E-01	1.629E-02	0.407
CM-247	2.618E-02		3.598E-02	6.149E-02	3.410E-03	0.426
CF-249	2.294E-02		3.972E-02	6.735E-02	3.702E-03	0.341
CF-251	5.072E-04		1.230E-01	1.972E-01	1.019E-02	0.003

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960005              *
* Acquisition date : 12-FEB-2010 15:48:18 Detector SN#    :                   *
* Detector ID      : GAM12                Sensitivity     : 5.000            *
* Geometry         : CAN                  Energy tolerance: 1.500            *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000           *
* Elapsed real time:    0 02:00:01.46     Half life ratio : 8.000            *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID             *
* Sample ID        : G245960005           Analyst initials: MXR1              *
* Batch Number     : 948717               Sample Quantity : 1.2760E+02 GRAM   *
* Recovery         :    1.00000           Carrier Weight :    0.00000         *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                   *
* MSD DPM          :    0.000             MSD Isotope     :                   *
* LCS DPM          :    0.000             LCS Isotope     :                   *
* LCSD DPM         :    0.000             LCSD Isotope    :                   *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.904E+01	2.066E+00	2.891E-01	1.054E+00
CD-109	3.980E+00	9.203E-01	6.465E-01	4.696E-01
SB-122	3.371E+00	3.391E+00	1.725E+00	1.730E+00
SN-126	3.912E-01	9.045E-02	6.385E-02	4.615E-02
TL-208	5.516E-01	8.997E-02	2.647E-02	4.590E-02
BI-211	4.428E+00	5.131E-01	1.539E-01	2.618E-01
BI-212	1.866E+00	4.684E-01	2.121E-01	2.390E-01
PB-212	1.696E+00	1.596E-01	4.559E-02	8.144E-02
PO-212	1.696E+00	1.596E-01	4.559E-02	8.144E-02
BI-214	1.347E+00	1.816E-01	5.853E-02	9.264E-02
PB-214	1.540E+00	1.951E-01	5.365E-02	9.953E-02
PO-214	1.540E+00	1.951E-01	5.365E-02	9.953E-02
PO-216	1.696E+00	1.596E-01	4.559E-02	8.144E-02
PO-218	1.540E+00	1.951E-01	5.365E-02	9.953E-02
RA-224	4.936E+00	1.324E+00	5.188E-01	6.757E-01
RA-226	1.347E+00	1.816E-01	5.853E-02	9.264E-02
AC-228	1.600E+00	3.310E-01	1.044E-01	1.689E-01
RA-228	1.600E+00	3.310E-01	1.044E-01	1.689E-01
TH-228	1.722E+00	1.620E-01	4.628E-02	8.268E-02
TH-230	1.347E+00	1.816E-01	5.853E-02	9.264E-02
TH-232	1.600E+00	3.310E-01	1.044E-01	1.689E-01
TH-234	2.268E+00	2.049E+00	1.048E+00	1.045E+00
U-234	1.347E+00	1.816E-01	5.853E-02	9.264E-02
NP-237	1.149E+00	3.529E-01	1.754E-01	1.800E-01
U-238	2.268E+00	2.049E+00	1.048E+00	1.045E+00
AM-243	3.897E-01	7.935E-02	4.782E-02	4.049E-02
ANH-511	1.517E-01	6.320E-02	2.431E-02	3.225E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-9.507E-02	3.176E-01	2.593E-01	1.621E-01	NOT IDENT.
NA-22	-2.252E-02	4.732E-02	3.793E-02	2.414E-02	NOT IDENT.
NA-24	-3.061E+05	7.686E+05	0.000E+00	3.921E+05	SHORT HLIF
AL-26	1.292E-02	2.360E-02	2.232E-02	1.204E-02	NOT IDENT.
TI-44	4.287E-01	5.907E-02	3.918E-02	3.014E-02	FAIL ABUN
SC-46	-5.407E-02	3.906E-02	2.745E-02	1.993E-02	FAIL ABUN
V-48	4.152E-03	7.616E-02	5.525E-02	3.886E-02	NOT IDENT.
CR-51	2.013E-01	3.653E-01	3.256E-01	1.864E-01	NOT IDENT.
MN-52	-1.907E-01	2.341E-01	1.698E-01	1.194E-01	NOT IDENT.
MN-54	1.971E-02	3.874E-02	3.384E-02	1.977E-02	NOT IDENT.
CO-56	4.073E-02	4.153E-02	3.760E-02	2.119E-02	FAIL ABUN
CO-57	2.456E-02	2.427E-02	2.192E-02	1.238E-02	NOT IDENT.
CO-58	-2.640E-02	3.783E-02	2.959E-02	1.930E-02	NOT IDENT.
FE-59	2.805E-02	8.962E-02	7.869E-02	4.573E-02	NOT IDENT.
CO-60	-1.876E-02	3.845E-02	3.018E-02	1.962E-02	NOT IDENT.
ZN-65	2.191E-02	1.038E-01	7.824E-02	5.297E-02	NOT IDENT.
GE-68	7.129E-01	1.231E+00	1.108E+00	6.282E-01	NOT IDENT.
AS-73	-3.748E-01	7.603E-01	6.678E-01	3.879E-01	NOT IDENT.
AS-74	-4.266E-02	8.296E-02	6.889E-02	4.233E-02	NOT IDENT.
SE-75	7.693E-03	4.321E-02	3.394E-02	2.205E-02	NOT IDENT.
BR-77	6.858E+00	1.036E+01	9.044E+00	5.286E+00	FAIL ABUN
SR-82	-5.148E-01	3.925E-01	2.911E-01	2.003E-01	NOT IDENT.
RB-83	3.731E-02	6.803E-02	5.888E-02	3.471E-02	NOT IDENT.
RB-84	-8.872E-03	7.085E-02	5.837E-02	3.615E-02	NOT IDENT.
KR-85	9.421E+00	8.042E+00	6.477E+00	4.103E+00	NOT IDENT.
SR-85	4.832E-02	4.125E-02	3.322E-02	2.105E-02	NOT IDENT.
RB-86	7.542E-02	8.084E-01	6.974E-01	4.125E-01	NOT IDENT.
Y-88	-2.846E-02	3.543E-02	2.507E-02	1.808E-02	NOT IDENT.
ZR-88	-4.154E-03	2.944E-02	2.481E-02	1.502E-02	NOT IDENT.
Y-91	-1.128E+00	1.897E+01	1.596E+01	9.676E+00	NOT IDENT.
NB-94	-3.276E-04	3.271E-02	2.788E-02	1.669E-02	NOT IDENT.
NB-95	1.054E-01	5.320E-02	4.609E-02	2.714E-02	NOT IDENT.
NB-95M	1.600E-01	1.300E-01	1.085E-01	6.635E-02	NOT IDENT.
ZR-95	3.849E-02	6.764E-02	5.925E-02	3.451E-02	NOT IDENT.
NB-97	3.805E+04	9.896E+04	0.000E+00	5.049E+04	SHORT HLIF
ZR-97	3.315E+06	2.166E+06	0.000E+00	1.105E+06	SHORT HLIF
MO-99	-5.653E+00	1.160E+01	9.404E+00	5.919E+00	NOT IDENT.
TC-99M	-4.242E+16	4.313E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.853E-03	3.241E-02	2.695E-02	1.654E-02	FAIL ABUN
RH-102	1.598E-02	2.794E-02	2.439E-02	1.426E-02	FAIL ABUN
RU-103	2.284E-03	3.915E-02	3.260E-02	1.998E-02	FAIL ABUN
RH-106	-3.474E-02	2.961E-01	2.530E-01	1.511E-01	FAIL ABUN
RU-106	-3.474E-02	2.960E-01	2.530E-01	1.510E-01	FAIL ABUN
AG-108M	-2.786E-02	3.119E-02	2.385E-02	1.591E-02	NOT IDENT.
AG-110M	9.339E-03	3.441E-02	3.014E-02	1.756E-02	NOT IDENT.
IN-111	-5.728E-02	1.035E+00	8.048E-01	5.281E-01	NOT IDENT.
IN-113M	6.602E-03	4.157E-02	3.576E-02	2.121E-02	NOT IDENT.
SN-113	6.602E-03	4.157E-02	3.576E-02	2.121E-02	NOT IDENT.
IN-114M	1.452E-01	1.805E-01	1.421E-01	9.208E-02	NOT IDENT.
CD-115	-9.617E-01	9.602E+00	7.876E+00	4.899E+00	NOT IDENT.
SN-117M	-4.849E-03	4.952E-02	4.196E-02	2.526E-02	NOT IDENT.
I-123	-3.145E+06	5.511E+06	0.000E+00	2.812E+06	SHORT HLIF
TE-123M	-1.474E-02	2.583E-02	2.137E-02	1.318E-02	NOT IDENT.
I-124	4.735E-01	7.493E-01	5.986E-01	3.823E-01	FAIL ABUN
SB-124	-1.219E-02	7.508E-02	6.186E-02	3.830E-02	FAIL ABUN
SB-125	-2.759E-02	8.814E-02	7.272E-02	4.497E-02	FAIL ABUN
TE-125M	4.369E+00	8.325E+00	7.437E+00	4.247E+00	NOT IDENT.
I-126	6.107E-02	1.740E-01	1.532E-01	8.879E-02	NOT IDENT.
SB-126	7.725E-02	1.391E-01	1.101E-01	7.095E-02	NOT IDENT.
SB-127	-1.434E-01	1.241E+00	1.050E+00	6.330E-01	NOT IDENT.
XE-127	-1.404E-02	4.555E-02	3.745E-02	2.324E-02	NOT IDENT.
I-131	1.136E-02	1.091E-01	9.411E-02	5.568E-02	NOT IDENT.
TE-132	1.906E-01	6.283E-01	5.659E-01	3.206E-01	NOT IDENT.
BA-133	-3.949E-02	4.627E-02	3.197E-02	2.361E-02	NOT IDENT.
I-133	6.271E+02	5.700E+03	0.000E+00	2.908E+03	SHORT HLIF
CS-134	1.251E-01	6.934E-02	4.888E-02	3.538E-02	FAIL ABUN
CS-135	1.740E-01	1.604E-01	1.330E-01	8.185E-02	NOT IDENT.
I-135	3.194E+15	6.030E+15	0.000E+00	3.077E+15	SHORT HLIF
CS-136	-2.578E-02	9.792E-02	8.174E-02	4.996E-02	FAIL ABUN
BA-137M	-1.185E-02	3.602E-02	2.955E-02	1.838E-02	NOT IDENT.
CS-137	-1.252E-02	3.808E-02	3.124E-02	1.943E-02	NOT IDENT.
CE-139	-3.775E-04	2.763E-02	2.343E-02	1.410E-02	NOT IDENT.
BA-140	-1.872E-02	2.308E-01	2.005E-01	1.178E-01	NOT IDENT.
LA-140	4.761E-02	1.062E-01	8.412E-02	5.419E-02	FAIL ABUN
CE-141	-1.550E-02	6.090E-02	5.161E-02	3.107E-02	NOT IDENT.
CE-143	8.500E+02	2.520E+02	0.000E+00	1.286E+02	SHORT HLIF
CE-144	8.788E-02	2.090E-01	1.749E-01	1.067E-01	NOT IDENT.
PM-144	1.714E-02	3.428E-02	3.036E-02	1.749E-02	NOT IDENT.

PR-144	1.162E+00	2.323E+00	2.057E+00	1.185E+00	NOT IDENT.
PM-146	7.236E-02	4.200E-02	3.924E-02	2.143E-02	NOT IDENT.
ND-147	1.423E-01	5.108E-01	4.331E-01	2.606E-01	FAIL ABUN
PM-149	-3.386E+01	8.825E+01	7.549E+01	4.503E+01	NOT IDENT.
EU-152	-2.457E-02	9.069E-02	7.399E-02	4.627E-02	NOT IDENT.
GD-153	-5.340E-02	8.417E-02	6.358E-02	4.294E-02	FAIL ABUN
EU-154	-6.174E-02	1.324E-01	1.061E-01	6.753E-02	NOT IDENT.
EU-155	1.031E-01	9.860E-02	8.998E-02	5.031E-02	FAIL ABUN
TB-160	4.065E-03	1.402E-01	1.173E-01	7.155E-02	FAIL ABUN
HO-166M	-4.268E-02	5.747E-02	4.572E-02	2.932E-02	FAIL ABUN
TM-171	-3.048E+01	2.933E+01	2.246E+01	1.497E+01	NOT IDENT.
LU-176	-1.619E-02	2.264E-02	1.884E-02	1.155E-02	FAIL ABUN
LU-177	3.497E+00	1.792E+00	1.010E+00	9.145E-01	FAIL ABUN
LU-177M	5.985E-02	1.839E-01	1.407E-01	9.384E-02	FAIL ABUN
HF-181	9.285E-03	3.998E-02	3.402E-02	2.040E-02	NOT IDENT.
W-181	2.091E-01	3.629E-01	3.010E-01	1.851E-01	NOT IDENT.
TA-182	9.070E-02	1.949E-01	1.712E-01	9.946E-02	NOT IDENT.
RE-183	8.494E-02	1.033E-01	8.860E-02	5.272E-02	FAIL ABUN
RE-184	-1.962E-01	2.083E-01	1.748E-01	1.063E-01	NOT IDENT.
OS-185	3.232E-03	4.355E-02	3.765E-02	2.222E-02	NOT IDENT.
RE-188	1.441E-01	1.614E-01	1.431E-01	8.237E-02	NOT IDENT.
W-188	-2.272E+00	7.843E+00	5.897E+00	4.002E+00	FAIL ABUN
IR-192	-1.364E-02	3.234E-02	2.734E-02	1.650E-02	FAIL ABUN
AU-195	2.357E-01	2.199E-01	1.912E-01	1.122E-01	FAIL ABUN
TL-200	2.320E+01	4.382E+02	0.000E+00	2.236E+02	SHORT HLIF
TL-201	2.386E+00	6.499E+00	5.608E+00	3.316E+00	NOT IDENT.
TL-202	1.612E-02	7.018E-02	6.006E-02	3.580E-02	NOT IDENT.
HG-203	8.688E-03	3.853E-02	3.411E-02	1.966E-02	FAIL ABUN
BI-207	-1.077E-02	5.120E-02	4.298E-02	2.612E-02	FAIL ABUN
TL-207	-3.446E-01	7.338E-01	5.357E-01	3.744E-01	FAIL ABUN
PO-209	-7.250E+00	8.189E+00	6.040E+00	4.178E+00	NOT IDENT.
BI-210	1.452E+00	3.155E+00	2.931E+00	1.609E+00	NOT IDENT.
PB-210	1.452E+00	3.155E+00	2.931E+00	1.609E+00	NOT IDENT.
PO-210	1.452E+00	3.154E+00	2.931E+00	1.609E+00	NOT IDENT.
PB-211	6.613E-02	1.024E+00	7.649E-01	5.225E-01	NOT IDENT.
PO-215	-3.446E-01	7.338E-01	5.357E-01	3.744E-01	FAIL ABUN
RN-219	1.502E-01	3.820E-01	3.327E-01	1.949E-01	FAIL ABUN
RN-220	-1.304E+00	2.517E+01	2.188E+01	1.284E+01	NOT IDENT.
RA-223	-3.446E-01	7.338E-01	5.357E-01	3.744E-01	FAIL ABUN
AC-227	2.687E-01	3.449E-01	3.140E-01	1.760E-01	FAIL ABUN
TH-227	2.687E-01	3.459E-01	3.140E-01	1.765E-01	FAIL ABUN
TH-229	-1.867E-01	4.768E-01	3.916E-01	2.432E-01	FAIL ABUN
PA-231	5.993E-02	1.451E+00	1.272E+00	7.404E-01	NOT IDENT.
TH-231	-3.446E-01	7.338E-01	5.357E-01	3.744E-01	FAIL ABUN
U-231	-2.002E-01	1.087E+00	8.505E-01	5.548E-01	FAIL ABUN
PA-233	-2.279E-02	5.888E-02	4.993E-02	3.004E-02	FAIL ABUN
PA-234	-1.783E-02	3.104E-01	2.555E-01	1.584E-01	FAIL ABUN
PA-234M	5.854E-02	4.473E+00	3.773E+00	2.282E+00	NOT IDENT.
U-235	7.207E-03	2.029E-01	1.724E-01	1.035E-01	FAIL ABUN
NP-236	-1.664E-02	7.248E-02	6.097E-02	3.698E-02	NOT IDENT.
NP-239	-2.722E-01	1.780E-01	1.435E-01	9.080E-02	FAIL ABUN
AM-241	4.225E-02	1.528E-01	1.265E-01	7.795E-02	NOT IDENT.
CM-243	7.389E-02	8.878E-02	8.049E-02	4.530E-02	FAIL ABUN
AM-246	9.851E-02	1.331E-01	1.217E-01	6.792E-02	NOT IDENT.
CM-247	2.618E-02	3.526E-02	3.138E-02	1.799E-02	NOT IDENT.
CF-249	2.294E-02	3.893E-02	3.438E-02	1.986E-02	NOT IDENT.
CF-251	5.072E-04	1.206E-01	1.018E-01	6.151E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	235.3876
46.50	235.3876
46.50	235.3876
48.70	267.8705
49.72	239.6794
51.35	259.0347
52.39	246.9515
52.97	239.6227
53.15	239.7594
53.44	256.4398
54.07	254.3445
56.28	270.9425
56.28	270.9449
57.37	0.0000
57.53	271.0940
57.53	271.0956
57.60	271.1514
57.98	281.1238
57.98	281.1238
59.32	287.0939
59.32	287.0939
59.40	276.5744
59.54	276.6884
59.72	270.2115
60.01	267.7896
61.10	281.9365
61.14	281.9693
61.30	282.0987
63.00	316.4522
63.29	316.7104
63.29	316.7104
63.58	316.9691
64.28	309.9864
65.12	308.0193
65.20	297.3245
65.20	297.3245
66.05	351.9593
66.72	367.4611
66.83	367.5731
66.91	362.2474
67.20	340.8879
67.20	340.8879
67.75	334.6180
67.85	334.7103
68.90	327.9502
68.90	327.9502
69.30	357.3190
69.67	351.8598
70.82	389.2505
70.82	389.2505
70.83	389.2614
72.80	376.1459
72.87	376.2148
72.87	376.2148
74.67	408.2805
74.81	408.4250
74.81	408.4250
74.81	408.4250
74.81	408.4250
74.81	408.4250
74.81	408.4250
74.81	408.4250
74.97	408.5887
75.28	408.9060
75.70	409.3351
77.11	410.7668
77.11	410.7668

77.11	410.7668
77.11	410.7668
77.11	410.7668
77.11	410.7668
77.11	410.7668
78.38	412.0450
79.62	413.2826
79.80	413.4610
79.80	413.4610
80.11	413.7704
80.18	413.8381
80.30	413.9578
80.30	413.9578
80.57	414.2243
81.00	414.6489
81.07	414.7189
81.07	414.7189
81.07	414.7189
81.07	414.7189
82.60	253.1058
83.37	253.5603
83.78	363.7869
83.78	363.7869
83.78	363.7869
83.78	363.7869
84.21	287.9318
84.90	299.7004
85.43	300.0659
86.29	300.6547
86.50	300.7986
86.54	300.8261
86.59	300.8601
86.72	300.9490
86.79	300.9959
86.94	352.2296
87.30	352.5153
87.30	352.5153
87.30	352.5153
87.30	352.5153
87.30	352.5153
87.30	352.5153
87.30	352.5153
87.57	352.7310
87.88	352.9769
88.03	353.0961
88.36	353.3572
88.47	353.4443
89.95	354.6079
91.11	315.3772
92.29	316.1896
92.38	316.2517
92.38	316.2517
93.35	273.6990
94.00	274.0817
94.67	264.3596
94.67	264.3623
94.90	264.4922
94.90	264.4922
94.90	264.4922
94.90	264.4922
95.87	286.7610
95.87	286.7610
96.73	297.4402
97.43	299.3280
98.44	244.6249
98.44	244.6262
98.88	237.8535
99.55	241.2957
99.55	241.2957
99.86	241.4496
100.00	254.1792
100.10	263.9744
103.18	257.7857
103.76	239.4404
105.00	232.1624
105.31	234.2740
108.00	275.0943
109.28	236.0970

111.00	268.7256
111.00	268.7256
111.76	271.1077
112.95	275.7136
115.19	248.7821
116.30	282.4664
117.00	287.8620
117.00	287.8620
117.66	263.0178
121.11	255.5376
121.62	248.6661
121.78	248.7372
122.06	238.7042
122.32	238.8141
122.32	238.8141
122.32	238.8141
122.32	238.8141
123.07	223.4613
127.23	219.8661
129.76	296.4902
131.20	273.9967
133.02	231.3597
133.54	267.3039
135.34	276.4177
136.00	235.1063
136.25	248.7346
136.48	255.0737
140.51	278.7583
140.51	0.0000
142.18	256.3882
142.65	257.6308
143.76	264.4074
144.24	260.3897
144.24	260.3897
144.24	260.3897
144.24	260.3897
145.22	271.3501
145.44	286.2311
147.16	235.1094
152.43	237.0200
152.70	248.8661
153.22	222.3372
154.21	235.5158
154.21	235.5158
154.21	235.5158
154.21	235.5158
155.03	234.7348
156.02	228.6418
158.56	226.2717
159.00	0.0000
159.00	239.3550
160.31	233.3342
161.27	226.0892
162.32	203.6820
162.64	201.6078
163.35	231.1097
163.89	250.8351
165.85	234.1174
167.43	220.4567
171.28	211.7750
171.86	202.0623
172.10	202.1297
176.55	235.4215
176.60	235.4378
181.06	248.5342
184.41	221.1588
185.71	205.8713
186.00	205.9500
190.27	187.3989
192.34	211.0313
193.63	229.4633
197.04	230.4545
198.01	223.9135
198.60	221.8030
200.40	205.2008
201.83	256.9542
202.84	241.2664
205.31	218.4828

208.36	226.1977
208.81	191.1911
209.75	191.4073
209.75	191.4073
210.97	191.6859
215.65	202.0389
216.55	181.3287
218.09	185.1474
222.10	207.0654
223.80	201.3132
226.40	188.6835
227.00	181.7525
227.08	181.7698
227.20	195.0307
228.16	196.1250
228.18	200.5474
228.18	200.5474
231.56	0.0000
235.69	215.2303
236.00	206.7489
236.00	206.7489
238.63	210.0248
238.63	210.0248
238.63	210.0248
238.63	210.0248
239.00	210.1073
240.98	210.5591
241.98	210.7850
241.98	210.7850
241.98	210.7850
244.69	156.8831
245.39	165.6424
247.94	171.2483
248.90	159.9336
249.79	139.2817
252.40	187.7264
252.85	183.2783
252.85	183.2783
254.15	0.0000
256.20	152.9575
256.20	152.9575
260.50	161.8620
260.90	168.3307
262.80	155.8238
264.65	145.4618
268.24	151.8822
268.79	149.0145
269.46	141.1776
269.46	141.1776
269.46	141.1776
269.46	141.1776
271.23	155.2903
273.65	211.9933
276.40	161.3834
277.35	164.5898
277.60	168.3480
277.60	168.3480
278.00	161.9010
278.60	144.3050
279.20	172.3366
279.53	186.3678
280.46	198.6605
281.68	166.2096
283.67	163.7180
284.30	168.4973
285.00	152.6857
285.90	170.6278
286.10	165.9726
286.10	165.9726
287.40	168.0529
288.45	0.0000
290.67	168.7574
290.80	159.7375
291.72	162.8912
293.26	0.0000
293.70	163.1892
295.21	139.9650
295.21	139.9650

295.21	139.9650
295.96	128.7057
296.50	128.7679
297.23	128.8551
298.57	113.8348
299.80	151.9507
299.80	151.9507
300.09	151.9922
300.09	151.9922
300.09	151.9922
300.09	151.9922
300.12	151.9946
301.29	152.1582
302.84	137.1335
303.76	144.8727
303.91	144.8912
304.40	123.5942
304.40	123.5942
304.84	148.0671
306.84	149.0969
308.46	123.4708
311.98	141.1389
316.51	144.5938
318.01	141.8881
319.02	135.2512
319.41	130.4640
320.08	141.1768
323.87	159.8763
323.87	159.8763
323.87	159.8763
323.87	159.8763
325.23	149.1867
328.77	135.6083
333.44	140.8381
334.20	142.4941
334.20	142.4941
334.30	142.5052
338.28	135.5153
338.28	135.5153
338.28	135.5153
338.28	135.5153
338.32	135.5216
338.32	135.5216
338.32	135.5216
340.50	100.7422
340.57	100.7469
344.27	122.9348
345.85	116.9944
350.59	0.0000
351.07	115.1097
351.92	115.1893
351.92	115.1893
351.92	115.1893
355.39	0.0000
356.01	133.8976
364.48	113.3345
366.43	108.4845
367.43	120.6317
367.94	0.0000
369.80	109.7751
374.96	108.1902
383.85	115.0294
387.95	110.2791
388.63	115.4433
391.69	105.4659
391.69	105.4659
392.90	114.7839
398.62	116.2950
400.65	109.2527
401.10	103.1021
401.81	99.0293
402.60	100.1171
404.84	112.4789
410.95	112.9720
411.60	99.7280
413.65	94.8794
414.70	93.9971
415.30	95.8226

415.76	93.7711
417.63	0.0000
418.52	104.3915
423.70	112.1038
427.08	91.3635
427.89	104.0243
432.53	91.7074
433.93	101.2896
439.47	103.7900
439.56	103.7960
439.89	104.8793
443.98	109.4171
444.90	100.9810
445.03	99.9266
445.03	99.9266
445.03	99.9266
445.03	99.9266
453.90	69.5058
463.38	86.0767
468.07	82.8832
473.00	99.6002
475.06	80.2182
475.35	81.3171
476.78	104.1812
477.59	96.6335
477.96	95.5706
482.03	79.4828
484.57	93.7869
487.03	67.7174
490.36	0.0000
492.35	89.8577
497.08	78.0300
507.63	0.0000
510.53	0.0000
510.84	95.3052
511.00	95.3144
511.85	113.5484
511.85	113.5484
513.99	87.0462
513.99	87.0462
520.41	75.7861
520.65	73.5692
527.90	64.9261
528.96	0.0000
529.64	68.3532
529.87	0.0000
531.02	65.0447
537.32	73.8360
543.00	76.7864
546.56	0.0000
549.76	84.3357
552.65	74.4807
555.20	81.8635
563.23	83.1441
563.90	83.1752
568.70	90.1157
569.32	94.7306
569.50	94.7407
569.67	90.1637
573.80	85.4665
574.00	85.4755
574.64	81.5976
578.91	84.4739
579.30	0.0000
583.14	64.6560
585.48	83.2324
591.81	50.1082
592.07	59.3969
593.00	85.4234
595.88	77.1843
600.56	82.9682
602.52	0.0000
602.71	80.8840
602.71	80.8840
603.60	87.1468
604.41	102.7517
604.70	108.9962
609.31	88.9674

609.31	88.9674
609.31	88.9674
609.31	88.9674
610.33	73.3973
612.46	57.8456
614.37	71.9873
618.01	66.7913
621.84	70.6915
621.84	70.6915
631.29	72.9263
633.02	64.4572
633.10	64.4605
634.78	63.5666
635.90	64.5519
636.97	72.1833
645.85	75.3663
646.12	78.2383
656.30	61.3703
657.75	72.9292
657.90	0.0000
661.65	78.8349
661.65	78.8349
664.57	0.0000
666.33	69.3773
666.33	69.3773
675.00	72.5702
677.61	73.6287
685.20	61.2543
692.80	73.1818
695.00	68.3730
696.49	71.3532
696.49	71.3532
697.00	70.3916
697.49	72.3632
698.33	70.4355
698.50	70.4408
699.00	77.3085
702.63	74.4971
706.10	59.8890
706.58	0.0000
706.67	56.9592
709.31	69.8092
711.68	73.8226
713.82	59.1152
717.42	65.7926
720.50	46.1187
721.93	0.0000
722.20	65.9342
722.78	67.6010
722.78	67.6010
722.89	67.6043
722.95	67.6060
723.30	69.2651
724.18	65.9928
727.18	56.5004
733.00	56.3167
735.90	74.6320
739.58	70.7677
742.81	64.8794
744.21	67.9153
747.13	58.0028
751.79	62.1287
752.31	61.1415
753.82	68.2025
755.35	47.1710
756.15	50.1990
756.87	60.2578
763.93	63.8003
765.79	65.5316
766.42	65.5491
766.84	79.6828
776.49	84.0618
778.00	63.8475
778.57	51.6985
778.89	50.6921
783.80	47.7493
785.46	63.0323
792.07	40.7793

795.84	59.5624
796.30	57.8717
798.80	64.7481
801.93	61.4194
805.60	55.3619
810.29	63.6862
810.76	62.6709
815.85	51.4771
817.79	54.6084
818.51	63.8997
819.60	71.1461
826.30	62.0347
828.27	0.0000
831.60	67.3470
831.96	66.3203
834.83	64.3220
836.80	0.0000
846.75	53.1615
848.13	58.4049
856.28	0.0000
856.80	47.0929
860.37	62.8784
867.32	46.5357
867.82	48.6088
871.10	63.1406
873.19	58.9791
874.81	55.8544
875.33	0.0000
876.40	52.7246
879.36	53.8401
880.27	49.6346
880.51	45.4146
881.50	55.9981
883.24	40.1755
884.67	41.2556
889.25	65.7009
896.60	66.9452
898.02	62.7293
899.00	59.5615
903.28	47.9388
911.07	51.2836
911.07	51.2836
911.07	51.2836
919.63	40.1926
920.93	41.8203
925.00	48.3267
925.24	46.1830
926.50	48.3530
935.52	51.7465
937.48	74.4395
944.10	41.0940
946.00	55.1898
949.00	43.3330
962.29	56.2380
964.01	39.9350
966.15	63.5813
968.20	89.4413
969.11	43.6445
969.11	43.6445
969.11	43.6445
977.42	41.5838
980.50	37.2464
983.50	38.3821
989.30	34.0644
996.32	48.6502
1001.03	45.9707
1001.68	42.3024
1004.76	47.8708
1021.30	0.0000
1024.50	0.0000
1034.80	40.9206
1036.00	37.2152
1037.82	29.7904
1038.57	44.6953
1038.76	0.0000
1045.16	43.8617
1046.59	44.8145
1048.07	45.7720

1050.47	44.8730
1050.47	44.8730
1062.04	46.9198
1063.62	52.5775
1076.63	53.7437
1077.35	45.2676
1078.86	38.6844
1085.78	47.2819
1099.22	48.4351
1112.02	35.9633
1112.84	55.5939
1115.52	57.2754
1120.29	50.8053
1120.29	50.8053
1120.29	50.8053
1120.29	50.8053
1120.51	50.8096
1121.28	54.1015
1124.00	0.0000
1129.67	50.8175
1131.51	0.0000
1147.95	0.0000
1167.94	53.3551
1173.22	49.5536
1175.09	42.7772
1177.93	51.5702
1189.05	45.8831
1204.90	61.7926
1205.75	0.0000
1213.00	54.0735
1221.42	56.1766
1230.97	52.5201
1235.34	54.2835
1236.41	0.0000
1238.25	42.4438
1246.25	47.6465
1260.41	0.0000
1271.85	49.9919
1274.45	58.0330
1274.54	58.0354
1291.56	30.1599
1298.22	0.0000
1312.09	23.2536
1325.50	24.3535
1325.50	24.3535
1332.49	36.5991
1333.61	34.5755
1360.21	22.5317
1362.66	0.0000
1365.15	19.4847
1368.21	29.1115
1368.53	0.0000
1376.25	19.5420
1384.27	22.2627
1394.10	26.8665
1395.20	29.9747
1407.95	22.8146
1434.06	30.2744
1436.60	15.6689
1457.56	0.0000
1460.81	26.2736
1489.15	14.5145
1509.49	17.0176
1596.49	22.7987
1620.62	8.1876
1678.03	0.0000
1691.02	16.1593
1691.02	16.1593
1706.46	0.0000
1750.46	0.0000
1764.49	8.4497
1764.49	8.4497
1764.49	8.4497
1764.49	8.4497
1770.23	59.9436
1771.40	29.9794
1791.20	0.0000
1808.65	5.8477

1836.01 18.6223

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960005

Total Uranium Activity	6.7520E+00	ug/g
Total Uranium Counting Unc.	6.0965E+00	ug/g
Total Uranium Tpu	3.1105E-06	ug/g
Total Uranium Mda	3.1174E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G245960005
ANALYST	: MXR1	DETECTOR	: GAM12
SAMPLE DATE	: 28-JAN-2010 12:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 12-FEB-2010 15:48:18.45	SAMPLE ALQT	: 127.600 GRAM

GROSS GAMMA ACTIVITY (pCi/GRAM)	: 9.146E+00
GROSS GAMMA ERROR (pCi/GRAM)	: 1.428E+00
GROSS GAMMA MDA (pCi/GRAM)	: 4.141E+00
GROSS GAMMA DLC (pCi/GRAM)	: 2.003E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:50:42.20

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960006.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:48:42
Sample ID : G245960006 Sample quantity : 1.17770E+02 GRAM
Detector name : GAM17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:09.59 0.1%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.66*	167	330	0.88	92.94	89	8	2.32E-02	21.6	
2	0	63.30*	681	618	1.05	126.24	121	10	9.45E-02	8.0	
3	2	74.80*	511	447	1.08	149.25	144	17	7.10E-02	7.9	2.69E+00
4	2	77.16*	845	399	0.93	153.98	144	17	1.17E-01	5.3	
5	3	83.91*	110	495	1.21	167.48	164	15	1.53E-02	36.9	7.15E+00
6	3	87.17	161	445	0.80	173.99	164	15	2.23E-02	20.5	
7	4	90.02	198	171	0.87	179.70	178	16	2.75E-02	10.7	2.20E+00
8	4	92.75*	1028	342	1.22	185.17	178	16	1.43E-01	4.5	
9	0	98.96	138	383	1.68	197.58	193	10	1.91E-02	28.0	
10	0	129.41	121	353	0.92	258.50	254	10	1.67E-02	30.7	
11	0	144.08*	101	399	1.43	287.86	281	12	1.40E-02	41.3	
12	0	185.83*	463	184	1.18	371.38	368	9	6.43E-02	7.3	
13	0	209.26	89	236	1.32	418.26	413	10	1.24E-02	33.9	
14	1	238.60*	952	116	1.07	476.98	472	16	1.32E-01	3.8	2.46E+00
15	1	241.67	222	134	1.24	483.12	472	16	3.08E-02	11.4	
16	0	270.20	40	186	1.45	540.19	536	10	5.56E-03	65.5	
17	0	295.10*	299	153	1.14	590.02	585	9	4.15E-02	9.6	
18	0	327.44	86	121	1.18	654.73	650	11	1.19E-02	27.0	
19	0	338.44*	189	156	1.14	676.74	670	12	2.62E-02	15.3	
20	0	351.75*	496	127	1.29	703.36	697	13	6.89E-02	6.6	
21	0	462.95	48	67	0.85	925.87	922	8	6.69E-03	32.9	
22	0	510.54*	148	102	2.04	1021.11	1013	17	2.05E-02	19.7	
23	0	582.98*	273	45	1.14	1166.06	1161	12	3.79E-02	8.1	
24	0	608.98*	332	68	1.47	1218.09	1212	12	4.61E-02	7.6	
25	0	661.47*	149	74	1.22	1323.12	1319	11	2.07E-02	14.3	
26	0	726.85	80	56	1.71	1453.98	1449	13	1.11E-02	22.2	
27	0	795.23	35	47	0.88	1590.81	1584	12	4.92E-03	42.4	
28	0	860.18	48	35	1.02	1720.80	1715	12	6.60E-03	29.1	
29	0	910.58*	158	36	1.66	1821.67	1816	13	2.20E-02	11.4	
30	0	963.90	38	34	1.59	1928.38	1923	9	5.31E-03	31.8	
31	0	968.21*	98	32	1.38	1937.00	1932	11	1.37E-02	15.5	
32	0	1119.59	76	46	1.00	2239.98	2232	13	1.06E-02	21.6	
33	0	1459.77*	519	12	2.03	2920.90	2913	16	7.21E-02	4.7	
34	0	1587.78	9	12	0.94	3177.16	3172	8	1.32E-03	70.8	
35	0	1763.30*	55	7	2.26	3528.54	3521	14	7.62E-03	17.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:50:44

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:48:42
Sample ID : G245960006 Sample quantity : 117.77 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:09.59 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.993E+01	2.571E+00	5.110E-01	4.537E-02	39.007
CD-109	+	88.03	*	2.108E+00	8.894E-01	1.299E+00	1.268E-01	1.622
SN-126	+	64.28		3.335E+00	7.538E-01	4.342E-01	6.931E-02	7.680
	+	86.94		8.613E-01	5.034E-01	5.291E-01	2.202E-01	1.628
	+	87.57	*	2.072E-01	8.741E-02	1.275E-01	1.244E-02	1.625
BA-137M	+	661.65	*	3.290E-01	9.812E-02	7.190E-02	6.057E-03	4.576
CS-137	+	661.65	*	3.478E-01	1.037E-01	7.600E-02	6.415E-03	4.576
CE-141	+	145.44	*	1.648E-01	1.372E-01	9.979E-02	1.018E-02	1.651
TL-208		277.35		2.907E-01	4.314E-01	7.553E-01	9.616E-02	0.385
	+	510.84		1.058E+00	4.367E-01	2.710E-01	3.310E-02	3.904
	+	583.14	*	5.699E-01	1.067E-01	6.893E-02	6.520E-03	8.267
	+	860.37		9.751E-01	5.744E-01	6.069E-01	5.710E-02	1.607
BI-210	+	46.50	*	2.081E+00	9.261E-01	9.011E-01	9.775E-02	2.309
PB-210	+	46.50	*	2.081E+00	9.261E-01	9.011E-01	9.775E-02	2.309
PO-210	+	46.50	*	2.081E+00	9.224E-01	9.011E-01	9.104E-02	2.309
BI-211		72.87		2.389E+00	2.376E+00	3.745E+00	3.661E-01	0.638
	+	351.07	*	4.200E+00	6.804E-01	3.905E-01	3.645E-02	10.753
PB-212	+	74.81		2.241E+00	4.646E-01	3.905E-01	5.277E-02	5.739
	+	77.11		2.206E+00	3.162E-01	2.332E-01	2.273E-02	9.463
	+	87.30		9.582E-01	4.155E-01	5.893E-01	8.233E-02	1.626
	+	238.63	*	1.692E+00	2.136E-01	9.696E-02	9.775E-03	17.455
		300.09		8.390E-01	9.685E-01	1.602E+00	1.745E-01	0.524
PO-212	+	74.81		2.241E+00	4.646E-01	3.905E-01	5.277E-02	5.739
	+	77.11		2.206E+00	3.162E-01	2.332E-01	2.273E-02	9.463
	+	87.30		9.582E-01	4.155E-01	5.893E-01	8.233E-02	1.626
		115.19		-1.950E+00	3.847E+00	6.227E+00	7.011E-01	-0.313
	+	238.63	*	1.692E+00	2.136E-01	9.696E-02	9.775E-03	17.455
		300.09		8.390E-01	9.685E-01	1.602E+00	1.745E-01	0.524
BI-214	+	609.31	*	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
	+	1120.29		1.644E+00	7.310E-01	6.230E-01	6.660E-02	2.639
	+	1764.49		1.649E+00	5.917E-01	4.889E-01	4.134E-02	3.372
PB-214	+	74.81		3.861E+00	7.696E-01	6.728E-01	8.245E-02	5.739
	+	77.11		3.783E+00	6.139E-01	3.997E-01	4.946E-02	9.463
	+	87.30		1.641E+00	7.040E-01	1.010E+00	1.255E-01	1.626

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.371E+00	5.973E-01	5.845E-01	6.223E-02	4.057
	+	295.21		1.464E+00	3.245E-01	2.494E-01	2.770E-02	5.870
	+	351.92	*	1.461E+00	2.487E-01	1.362E-01	1.455E-02	10.727
PO-214	+	74.81		3.861E+00	7.696E-01	6.728E-01	8.245E-02	5.739
	+	77.11		3.783E+00	6.139E-01	3.997E-01	4.946E-02	9.463
	+	87.30		1.641E+00	7.040E-01	1.010E+00	1.255E-01	1.626
	+	241.98		2.371E+00	5.973E-01	5.845E-01	6.223E-02	4.057
	+	295.21		1.464E+00	3.245E-01	2.494E-01	2.770E-02	5.870
	+	351.92	*	1.461E+00	2.487E-01	1.362E-01	1.455E-02	10.727
PO-216	+	74.81		2.241E+00	4.646E-01	3.905E-01	5.277E-02	5.739
	+	77.11		2.206E+00	3.162E-01	2.332E-01	2.273E-02	9.463
	+	87.30		9.582E-01	4.155E-01	5.893E-01	8.233E-02	1.626
	+	238.63	*	1.692E+00	2.136E-01	9.696E-02	9.775E-03	17.455
		300.09		8.390E-01	9.685E-01	1.602E+00	1.745E-01	0.524
PO-218	+	74.81		3.861E+00	7.696E-01	6.728E-01	8.245E-02	5.739
	+	77.11		3.783E+00	6.139E-01	3.997E-01	4.946E-02	9.463
	+	87.30		1.641E+00	7.040E-01	1.010E+00	1.255E-01	1.626
	+	241.98		2.371E+00	5.973E-01	5.845E-01	6.223E-02	4.057
	+	295.21		1.464E+00	3.245E-01	2.494E-01	2.770E-02	5.870
	+	351.92	*	1.461E+00	2.487E-01	1.362E-01	1.455E-02	10.727
RA-224	+	240.98	*	4.496E+00	1.104E+00	1.104E+00	9.987E-02	4.072
RA-226	+	609.31	*	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
	+	1120.29		1.644E+00	7.310E-01	6.230E-01	6.660E-02	2.639
	+	1764.49		1.649E+00	5.917E-01	4.889E-01	4.134E-02	3.372
AC-228	+	338.32		1.755E+00	9.017E-01	4.505E-01	1.862E-01	3.895
	+	911.07	*	1.540E+00	3.924E-01	2.538E-01	2.878E-02	6.067
	+	969.11		1.694E+00	6.569E-01	4.135E-01	9.668E-02	4.098
RA-228	+	338.32		1.755E+00	9.017E-01	4.505E-01	1.862E-01	3.895
	+	911.07	*	1.540E+00	3.924E-01	2.538E-01	2.878E-02	6.067
	+	969.11		1.694E+00	6.569E-01	4.135E-01	9.668E-02	4.098
TH-228	+	74.81		2.275E+00	4.218E-01	3.964E-01	3.895E-02	5.739
	+	77.11		2.240E+00	3.210E-01	2.367E-01	2.308E-02	9.463
	+	87.30		9.728E-01	4.104E-01	5.983E-01	5.837E-02	1.626
	+	238.63	*	1.718E+00	2.169E-01	9.843E-02	9.923E-03	17.455
		300.09		8.517E-01	1.102E+00	1.627E+00	9.657E-01	0.524
TH-230	+	609.31	*	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
	+	1120.29		1.644E+00	7.310E-01	6.230E-01	6.660E-02	2.639
	+	1764.49		1.649E+00	5.917E-01	4.888E-01	4.134E-02	3.372
TH-232	+	338.32		1.755E+00	5.583E-01	4.505E-01	4.059E-02	3.895
	+	911.07	*	1.540E+00	3.924E-01	2.538E-01	2.878E-02	6.067
	+	969.11		1.694E+00	6.569E-01	4.135E-01	9.668E-02	4.098
TH-234	+	63.29	*	8.425E+00	2.070E+00	1.127E+00	2.103E-01	7.476
	+	92.38		9.185E+00	1.911E+00	7.165E-01	1.344E-01	12.819
U-234	+	609.31	*	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
	+	1120.29		1.644E+00	7.310E-01	6.230E-01	6.660E-02	2.639
	+	1764.49		1.649E+00	5.917E-01	4.888E-01	4.134E-02	3.372
U-235	+	89.95		3.525E+00	1.335E+00	1.470E+00	4.590E-01	2.398
	+	93.35		1.104E+01	3.297E+00	8.642E-01	2.462E-01	12.777
		105.00		1.686E+00	1.186E+00	1.895E+00	5.776E-01	0.890

Sample ID : G245960006 Acquisition date : 12-FEB-2010 15:48:42

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	143.76	*	5.492E-01	4.648E-01	3.614E-01	6.625E-02	1.520
		163.35		-5.030E-02	5.107E-01	8.275E-01	1.577E-01	-0.061
	+	185.71		5.684E-01	9.619E-02	7.682E-02	6.578E-03	7.399
		205.31		-1.885E-01	6.883E-01	9.633E-01	1.844E-01	-0.196
NP-237	+	86.50	*	6.084E-01	2.857E-01	3.733E-01	8.519E-02	1.630
		95.87		1.129E+00	1.128E+00	1.425E+00	3.593E-01	0.792
U-238	+	63.29	*	8.425E+00	2.070E+00	1.127E+00	2.103E-01	7.476
	+	92.38		9.185E+00	1.234E+00	7.165E-01	7.141E-02	12.819
AM-243	+	74.67	*	3.633E-01	6.723E-02	6.329E-02	6.179E-03	5.741
	+	86.72		2.281E+01	9.626E+00	1.401E+01	1.366E+00	1.629
		117.66		-1.720E+00	3.852E+00	6.236E+00	7.120E-01	-0.276
		142.18		2.049E+01	1.947E+01	3.332E+01	3.436E+00	0.615
ANH-511	+	511.00	*	2.285E-01	9.239E-02	5.855E-02	5.229E-03	3.903

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.625E-01	4.247E-01	7.171E-01	6.823E-02	0.227
NA-22		1274.54	*	-2.995E-02	5.476E-02	8.208E-02	6.915E-03	-0.365
NA-24		1368.53	*	-4.117E-03	5.476E-02	Half-Life too short		
AL-26		1129.67		-6.483E-01	2.106E+00	3.276E+00	2.738E-01	-0.198
		1808.65	*	-7.166E-03	3.222E-02	4.883E-02	4.093E-03	-0.147
TI-44		67.85		-4.284E-03	2.870E-02	4.626E-02	4.556E-03	-0.093
	+	78.38	*	4.072E-01	5.835E-02	6.876E-02	6.700E-03	5.921
SC-46		889.25	*	5.391E-03	5.174E-02	8.663E-02	7.584E-03	0.062
	+	1120.51		2.815E-01	1.238E-01	1.817E-01	1.525E-02	1.550
V-48		944.10		2.371E-01	1.248E+00	2.098E+00	1.836E-01	0.113
		983.50	*	3.793E-02	8.917E-02	1.540E-01	1.343E-02	0.246
		1312.09		-4.844E-02	1.090E-01	1.721E-01	1.461E-02	-0.281
CR-51		320.08	*	2.605E-01	4.357E-01	7.590E-01	7.248E-02	0.343
MN-52		744.21		1.054E-01	3.262E-01	5.630E-01	4.894E-02	0.187
		848.13		4.119E+00	9.036E+00	1.571E+01	1.381E+00	0.262
		935.52		3.572E-01	3.813E-01	6.829E-01	5.977E-02	0.523
		1246.25		-3.507E+00	8.482E+00	1.281E+01	1.070E+00	-0.274
		1333.61		2.912E+00	6.228E+00	1.112E+01	9.478E-01	0.262
		1434.06	*	-6.087E-02	3.373E-01	5.462E-01	4.709E-02	-0.111
MN-54		834.83	*	-1.719E-02	5.085E-02	8.172E-02	7.186E-03	-0.210
CO-56		846.75	*	9.005E-03	5.215E-02	8.820E-02	7.753E-03	0.102
		977.42		-1.573E+00	3.641E+00	5.637E+00	4.920E-01	-0.279
		1037.82		-5.574E-02	4.335E-01	6.979E-01	6.347E-02	-0.080
		1175.09		5.442E-01	3.376E+00	5.555E+00	4.541E-01	0.098
		1238.25		1.469E-01	1.201E-01	2.169E-01	1.864E-02	0.677
		1360.21		-7.369E-01	1.108E+00	1.622E+00	1.388E-01	-0.454
		1771.40		1.519E-03	3.193E-01	5.226E-01	4.414E-02	0.003
CO-57		122.06	*	-4.294E-03	2.639E-02	4.329E-02	5.072E-03	-0.099
		136.48		1.136E-01	2.274E-01	3.821E-01	4.302E-02	0.297
CO-58		810.76	*	-1.944E-02	4.736E-02	7.515E-02	6.618E-03	-0.259
FE-59	+	142.65		7.089E+00	5.902E+00	5.448E+00	5.599E-01	1.301

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		192.34		-8.309E-01	1.098E+00	1.689E+00	2.269E-01	-0.492
		1099.22	*	-4.084E-02	1.211E-01	1.886E-01	1.731E-02	-0.217
		1291.56		-1.017E-01	1.804E-01	2.666E-01	2.568E-02	-0.381
CO-60		1173.22		1.092E-02	6.204E-02	1.024E-01	8.367E-03	0.107
		1332.49	*	2.478E-02	5.064E-02	9.039E-02	7.704E-03	0.274
ZN-65		1115.52	*	3.748E-02	1.347E-01	1.979E-01	1.666E-02	0.189
GE-68		1077.35	*	1.845E+00	1.684E+00	3.079E+00	2.628E-01	0.599
AS-73		53.44	*	2.266E-01	2.680E-01	4.626E-01	4.628E-02	0.490
AS-74		595.88	*	1.955E-02	1.178E-01	1.931E-01	1.701E-02	0.101
		634.78		1.824E-02	4.879E-01	7.862E-01	6.772E-02	0.023
SE-75		66.05		-8.588E-01	2.900E+00	4.367E+00	5.023E-01	-0.197
		96.73		6.610E-01	9.078E-01	1.150E+00	1.686E-01	0.575
		121.11		5.450E-02	1.384E-01	2.330E-01	3.188E-02	0.234
		136.00		1.521E-02	4.321E-02	7.219E-02	7.807E-03	0.211
		198.60		-1.731E-01	2.101E+00	3.321E+00	3.200E-01	-0.052
		264.65	*	-1.617E-02	4.983E-02	7.277E-02	6.686E-03	-0.222
		279.53		-6.285E-02	1.261E-01	2.078E-01	1.971E-02	-0.302
		303.91		-1.795E+00	2.409E+00	3.865E+00	4.597E-01	-0.464
		400.65		8.486E-02	3.116E-01	5.269E-01	5.800E-02	0.161
BR-77	+	87.88		4.610E+02	1.945E+02	3.229E+02	3.151E+01	1.428
		200.40		-8.900E+01	1.898E+02	2.974E+02	2.592E+01	-0.299
	+	239.00		2.751E+02	3.246E+01	4.535E+01	4.096E+00	6.067
		249.79		-7.872E+00	7.696E+01	1.214E+02	1.104E+01	-0.065
		281.68		7.898E+01	1.035E+02	1.825E+02	1.676E+01	0.433
		297.23		1.821E+01	8.275E+01	1.253E+02	1.150E+01	0.145
		303.76		-1.403E+02	2.082E+02	3.365E+02	3.085E+01	-0.417
		439.47		1.116E+02	1.738E+02	3.010E+02	2.623E+01	0.371
		484.57		1.761E+02	3.036E+02	5.200E+02	4.620E+01	0.339
		520.65	*	-6.212E+00	1.369E+01	2.136E+01	1.910E+00	-0.291
		574.64		-4.400E+00	2.723E+02	4.397E+02	3.904E+01	-0.010
		578.91		6.227E+01	1.147E+02	1.745E+02	1.547E+01	0.357
		585.48		3.981E+02	2.545E+02	4.220E+02	3.733E+01	0.943
		755.35		-1.292E+01	2.135E+02	3.556E+02	3.099E+01	-0.036
		817.79		3.894E+01	1.720E+02	2.934E+02	2.578E+01	0.133
SR-82		698.33		-9.676E+00	4.263E+01	7.035E+01	6.025E+00	-0.138
		776.49	*	-9.704E-02	5.019E-01	8.233E-01	7.205E-02	-0.118
		1395.20		-1.250E+00	1.508E+01	2.487E+01	2.137E+00	-0.050
RB-83		520.41	*	-4.430E-02	8.914E-02	1.384E-01	1.237E-02	-0.320
		529.64		8.421E-03	1.392E-01	2.277E-01	2.036E-02	0.037
		552.65		6.416E-02	2.572E-01	4.268E-01	3.809E-02	0.150
RB-84		881.50	*	5.517E-02	8.897E-02	1.574E-01	1.380E-02	0.350
KR-85		513.99	*	8.181E-01	1.028E+01	1.482E+01	1.324E+00	0.055
SR-85		513.99	*	4.197E-03	5.274E-02	7.599E-02	6.789E-03	0.055
RB-86		1076.63	*	4.581E-01	1.090E+00	1.863E+00	1.591E-01	0.246
Y-88		898.02		-2.161E-04	5.672E-02	9.330E-02	8.195E-03	-0.002
		1836.01	*	2.897E-03	4.526E-02	7.493E-02	6.248E-03	0.039
ZR-88		392.90	*	-2.674E-02	3.857E-02	6.076E-02	5.119E-03	-0.440
Y-91		1204.90	*	-1.648E+01	2.680E+01	4.014E+01	3.313E+00	-0.410
NB-94		702.63	*	-6.123E-04	4.207E-02	7.077E-02	6.070E-03	-0.009

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		871.10		-8.423E-03	4.415E-02	7.159E-02	6.282E-03	-0.118
NB-95		765.79	*	1.005E-01	6.064E-02	1.137E-01	9.927E-03	0.884
NB-95M		235.69	*	2.901E-02	1.400E-01	2.021E-01	2.063E-02	0.144
ZR-95		724.18		1.582E-01	1.440E-01	2.368E-01	2.222E-02	0.668
		756.15	*	-4.174E-03	8.961E-02	1.495E-01	1.432E-02	-0.028
NB-97		657.90	*	-8.707E-02	8.961E-02	Half-Life too short		
		1024.50		-3.032E+00	8.961E-02	Half-Life too short		
ZR-97		254.15		1.918E+00	8.961E-02	Half-Life too short		
		355.39		6.993E-01	8.961E-02	Half-Life too short		
		507.63	*	3.552E+00	8.961E-02	Half-Life too short		
		602.52		4.093E+00	8.961E-02	Half-Life too short		
		1021.30		-2.815E+00	8.961E-02	Half-Life too short		
		1147.95		-1.581E-01	8.961E-02	Half-Life too short		
		1362.66		-5.164E+00	8.961E-02	Half-Life too short		
		1750.46		-3.813E-01	8.961E-02	Half-Life too short		
MO-99		140.51		2.586E+00	3.052E+01	4.463E+01	1.264E+01	0.058
		181.06		-1.633E+00	2.023E+01	3.104E+01	5.662E+00	-0.053
		366.43		-2.952E+00	1.026E+02	1.709E+02	1.496E+01	-0.017
		739.58	*	-1.262E+01	1.677E+01	2.604E+01	3.963E+00	-0.485
		778.00		-5.023E+01	4.509E+01	6.620E+01	5.795E+00	-0.759
TC-99M		140.51	*	4.176E+09	4.509E+01	Half-Life too short		
RH-101		127.23		1.165E-03	3.961E-02	5.860E-02	6.665E-03	0.020
		198.01	*	7.915E-03	3.838E-02	6.163E-02	5.358E-03	0.128
		325.23		2.250E-01	2.764E-01	4.384E-01	3.985E-02	0.513
RH-102		418.52		-3.773E-02	3.502E-01	5.744E-01	4.939E-02	-0.066
		475.06	*	-1.944E-02	3.867E-02	6.075E-02	5.381E-03	-0.320
		631.29		4.838E-04	7.564E-02	1.216E-01	1.050E-02	0.004
		697.49		1.622E-02	9.749E-02	1.667E-01	1.427E-02	0.097
		766.84		2.255E-01	1.564E-01	2.889E-01	2.524E-02	0.781
		1046.59		-3.421E-02	1.624E-01	2.587E-01	2.229E-02	-0.132
		1112.84		1.153E-01	3.147E-01	4.715E-01	3.970E-02	0.245
RU-103		497.08	*	1.048E-02	5.076E-02	8.447E-02	1.211E-02	0.124
	+	610.33		1.423E+01	3.218E+00	3.773E+00	6.320E-01	3.771
RH-106	+	511.85		1.141E+00	4.615E-01	5.710E-01	5.100E-02	1.999
		621.84	*	1.563E-01	4.182E-01	6.970E-01	9.341E-02	0.224
		1050.47		2.962E+00	3.341E+00	5.962E+00	5.131E-01	0.497
RU-106	+	511.85		1.141E+00	4.615E-01	5.710E-01	5.100E-02	1.999
		621.84	*	1.563E-01	4.179E-01	6.970E-01	6.055E-02	0.224
		1050.47		2.962E+00	3.341E+00	5.962E+00	5.131E-01	0.497
AG-108M		433.93	*	1.569E-02	3.998E-02	6.799E-02	6.137E-03	0.231
		614.37		1.953E-03	5.503E-02	7.770E-02	7.040E-03	0.025
		722.95		4.390E-03	5.976E-02	8.836E-02	7.931E-03	0.050
AG-110M		657.75	*	-2.751E-02	5.440E-02	7.017E-02	6.115E-03	-0.392
		677.61		-2.602E-01	3.947E-01	5.805E-01	5.071E-02	-0.448
		706.67		1.118E-01	2.719E-01	4.739E-01	4.185E-02	0.236
		763.93		-1.094E-01	2.365E-01	3.800E-01	3.409E-02	-0.288
		884.67		-2.649E-02	6.716E-02	1.062E-01	9.596E-03	-0.249
		937.48		-3.274E-01	1.725E-01	2.207E-01	1.999E-02	-1.483
		1384.27		-1.284E-01	1.866E-01	2.723E-01	2.404E-02	-0.472

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-111		171.28		-1.152E+00	1.134E+00	1.733E+00	1.455E-01	-0.665
		245.39	*	-1.520E-01	1.361E+00	1.905E+00	1.728E-01	-0.080
IN-113M		391.69	*	-5.169E-03	5.465E-02	9.018E-02	7.835E-03	-0.057
SN-113		391.69	*	-5.169E-03	5.465E-02	9.018E-02	7.835E-03	-0.057
IN-114M		190.27	*	4.126E-02	2.239E-01	3.268E-01	2.814E-02	0.126
CD-115		260.90		-5.606E-01	1.502E+02	2.379E+02	2.174E+01	-0.002
		492.35		-3.413E+01	4.720E+01	7.208E+01	6.416E+00	-0.474
		527.90	*	6.025E-01	1.411E+01	2.305E+01	2.061E+00	0.026
SN-117M		156.02		-3.316E-01	2.571E+00	4.171E+00	3.840E-01	-0.079
		158.56	*	1.881E-02	5.846E-02	9.697E-02	8.716E-03	0.194
SB-122		563.90	*	2.411E-01	2.889E+00	4.715E+00	4.198E-01	0.051
		692.80		1.882E+01	5.778E+01	1.001E+02	8.554E+00	0.188
I-123		159.00	*	1.790E+00	5.778E+01	Half-Life too short		
		528.96		2.798E+02	5.778E+01	Half-Life too short		
TE-123M		159.00	*	8.386E-03	3.030E-02	5.014E-02	4.513E-03	0.167
I-124		602.71	*	2.223E-01	1.029E+00	1.488E+00	1.306E-01	0.149
		722.78		2.776E+00	6.019E+00	9.359E+00	8.085E-01	0.297
		1325.50		3.086E+00	4.342E+01	7.351E+01	6.257E+00	0.042
		1376.25		5.647E+01	4.171E+01	8.099E+01	6.945E+00	0.697
		1509.49		6.254E+00	2.208E+01	3.820E+01	3.304E+00	0.164
		1691.02		2.834E+00	5.908E+00	1.055E+01	9.026E-01	0.269
SB-124		602.71		1.284E-02	5.942E-02	8.590E-02	7.545E-03	0.149
		645.85		5.919E-02	6.201E-01	1.005E+00	9.105E-02	0.059
		709.31		1.421E+00	3.815E+00	6.425E+00	5.524E-01	0.221
		713.82		-4.344E-01	2.086E+00	3.441E+00	4.140E-01	-0.126
		722.78		2.324E-01	5.038E-01	7.835E-01	6.914E-02	0.297
	+	968.20		1.745E+01	5.609E+00	9.433E+00	8.241E-01	1.850
		1045.16		-1.910E+00	3.504E+00	5.347E+00	4.609E-01	-0.357
		1325.50		2.759E-01	3.882E+00	6.572E+00	5.594E-01	0.042
		1368.21		-3.341E-01	2.042E+00	3.318E+00	4.460E-01	-0.101
		1436.60		-6.981E-01	5.406E+00	8.826E+00	7.611E-01	-0.079
		1691.02	*	5.596E-02	1.167E-01	2.083E-01	1.854E-02	0.269
SB-125		427.89	*	9.833E-02	1.124E-01	1.975E-01	1.742E-02	0.498
	+	463.38		6.641E-01	4.411E-01	6.811E-01	6.457E-02	0.975
		600.56		-6.242E-02	2.392E-01	3.761E-01	3.541E-02	-0.166
		635.90		-3.682E-02	3.776E-01	6.003E-01	5.584E-02	-0.061
TE-125M		109.28	*	7.867E+00	9.762E+00	1.669E+01	2.051E+00	0.471
I-126		388.63		3.561E-02	2.573E-01	4.317E-01	3.653E-02	0.082
		666.33	*	-4.359E-02	2.660E-01	3.615E-01	3.052E-02	-0.121
		753.82		2.172E-01	1.869E+00	3.167E+00	2.759E-01	0.069
SB-126		223.80		-1.981E+00	4.550E+00	7.075E+00	6.315E-01	-0.280
		278.60		7.878E-02	2.836E+00	4.818E+00	4.422E-01	0.016
	+	296.50		1.461E+01	3.107E+00	4.377E+00	4.018E-01	3.338
		414.70		9.031E-02	9.281E-02	1.639E-01	1.406E-02	0.551
		415.30		7.124E+00	7.797E+00	1.372E+01	1.177E+00	0.519
		555.20		3.227E+00	5.056E+00	8.679E+00	7.742E-01	0.372
		573.80		-3.871E-01	1.356E+00	2.133E+00	1.895E-01	-0.181
		593.00		-3.477E-01	1.146E+00	1.788E+00	1.577E-01	-0.194
		656.30		-2.679E+00	4.897E+00	6.232E+00	5.276E-01	-0.430

---- Non-Identified Nuclides ----

Nuclide		Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.33		-1.822E-02	1.112E-01	1.511E-01	1.276E-02	-0.121
		675.00		1.989E+00	2.454E+00	4.266E+00	3.617E-01	0.466
		695.00		1.063E-02	1.036E-01	1.762E-01	1.507E-02	0.060
		697.00		2.081E-01	3.404E-01	6.036E-01	5.166E-02	0.345
		720.50	*	5.568E-02	2.055E-01	3.248E-01	2.804E-02	0.171
		856.80		4.542E-02	7.228E-01	1.051E+00	9.237E-02	0.043
		989.30		-3.451E-01	1.594E+00	2.543E+00	2.216E-01	-0.136
		1034.80		-7.903E+00	1.220E+01	1.831E+01	1.583E+00	-0.432
		1213.00		-5.351E+00	7.038E+00	1.039E+01	8.594E-01	-0.515
SB-127		61.10		1.493E+00	3.068E+01	4.714E+01	5.792E+00	0.032
		252.40		2.549E-01	4.811E+00	7.667E+00	3.231E+00	0.033
		290.80		-3.272E+00	2.769E+01	4.099E+01	4.760E+00	-0.080
		411.60		2.272E+00	1.536E+01	2.569E+01	4.033E+00	0.088
		444.90		4.092E+00	1.208E+01	2.042E+01	2.579E+00	0.200
		473.00		-1.373E+00	2.176E+00	3.366E+00	4.387E-01	-0.408
		543.00		-9.460E-01	2.061E+01	3.332E+01	4.863E+00	-0.028
		603.60		-5.601E-01	1.812E+01	2.540E+01	3.208E+00	-0.022
		685.20	*	-8.523E-01	1.884E+00	2.854E+00	3.230E-01	-0.299
		698.50		-8.635E+00	1.938E+01	3.125E+01	4.937E+00	-0.276
		722.20		3.383E+01	4.084E+01	6.624E+01	7.410E+00	0.511
		783.80		-4.384E-01	4.905E+00	8.127E+00	1.018E+00	-0.054
XE-127		57.60		-3.868E-01	2.571E+00	4.362E+00	4.381E-01	-0.089
	+	145.22		1.816E+00	1.512E+00	1.363E+00	1.374E-01	1.333
		172.10		-2.174E-02	1.286E-01	2.068E-01	1.739E-02	-0.105
		202.84	*	1.105E-02	5.381E-02	8.757E-02	7.655E-03	0.126
		374.96		-1.990E-01	2.413E-01	3.770E-01	3.261E-02	-0.528
I-131		80.18		2.134E+00	4.770E+00	5.940E+00	5.815E-01	0.359
		284.30		-1.626E+00	1.757E+00	2.806E+00	2.695E-01	-0.580
		364.48	*	1.218E-02	1.425E-01	2.393E-01	2.209E-02	0.051
		636.97		-7.808E-02	2.177E+00	3.482E+00	3.162E-01	-0.022
		722.89		4.117E+00	9.639E+00	1.493E+01	1.298E+00	0.276
TE-132		49.72		3.252E-01	4.644E+00	7.207E+00	8.659E-01	0.045
		111.76		-1.013E+01	3.260E+01	5.338E+01	6.872E+00	-0.190
		116.30		3.679E+00	2.885E+01	4.807E+01	6.308E+00	0.077
		228.16	*	1.160E-01	7.899E-01	1.273E+00	2.026E-01	0.091
BA-133		53.15		2.231E-01	1.127E+00	1.910E+00	1.911E-01	0.117
		79.62		9.404E-01	1.330E+00	1.678E+00	2.666E-01	0.560
		81.00		1.542E-02	1.009E-01	1.231E-01	2.032E-02	0.125
		276.40		3.721E-01	4.409E-01	7.543E-01	1.115E-01	0.493
		302.84		-6.593E-02	1.661E-01	2.735E-01	3.733E-02	-0.241
		356.01	*	-8.692E-03	5.529E-02	8.007E-02	1.070E-02	-0.109
		383.85		-1.407E-01	3.686E-01	5.957E-01	7.472E-02	-0.236
I-133	+	510.53		2.404E+00	3.686E-01	Half-Life too short		
		529.87	*	4.006E-04	3.686E-01	Half-Life too short		
		706.58		2.235E-01	3.686E-01	Half-Life too short		
		856.28		-8.290E-02	3.686E-01	Half-Life too short		
		875.33		3.361E-02	3.686E-01	Half-Life too short		
		1236.41		8.517E-01	3.686E-01	Half-Life too short		
		1298.22		1.617E-01	3.686E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134		475.35		5.439E-01	2.425E+00	4.051E+00	3.588E-01	0.134
		563.23		3.557E-01	4.799E-01	8.266E-01	7.427E-02	0.430
		569.32		2.503E-01	2.710E-01	4.719E-01	4.250E-02	0.531
		604.70		1.157E-02	5.228E-02	7.555E-02	6.644E-03	0.153
	+	795.84	*	1.109E-01	9.462E-02	1.179E-01	1.042E-02	0.940
		801.93		-7.818E-01	5.319E-01	7.020E-01	6.197E-02	-1.114
		1038.57		-3.144E-01	5.515E+00	8.957E+00	7.733E-01	-0.035
		1167.94		-3.035E+00	3.615E+00	5.256E+00	4.307E-01	-0.577
		1365.15		5.170E-01	1.310E+00	2.343E+00	2.099E-01	0.221
CS-135		268.24	*	9.409E-02	1.983E-01	2.905E-01	3.031E-02	0.324
I-135		288.45		1.337E+09	1.983E-01	Half-Life too short		
		417.63		-1.491E+10	1.983E-01	Half-Life too short		
		546.56		1.149E+10	1.983E-01	Half-Life too short		
		836.80		7.146E+09	1.983E-01	Half-Life too short		
		1038.76		-4.084E+08	1.983E-01	Half-Life too short		
		1124.00		6.179E+10	1.983E-01	Half-Life too short		
		1131.51		6.185E+09	1.983E-01	Half-Life too short		
		1260.41	*	-3.808E+09	1.983E-01	Half-Life too short		
		1457.56		7.746E+11	1.983E-01	Half-Life too short		
		1678.03		3.910E+09	1.983E-01	Half-Life too short		
		1706.46		-2.475E+10	1.983E-01	Half-Life too short		
		1791.20		1.063E+10	1.983E-01	Half-Life too short		
CS-136		66.91		1.314E-01	4.891E-01	7.552E-01	1.221E-01	0.174
	+	86.29		2.710E+00	1.172E+00	1.918E+00	2.616E-01	1.412
		153.22		5.292E-01	7.491E-01	1.262E+00	1.310E-01	0.419
		163.89		6.151E-01	1.169E+00	1.954E+00	1.868E-01	0.315
		176.55		4.449E-02	4.066E-01	6.635E-01	5.949E-02	0.067
		273.65		-5.405E-01	6.298E-01	8.117E-01	7.880E-02	-0.666
		340.57		1.284E-01	1.701E-01	2.662E-01	2.458E-02	0.482
		818.51		-1.434E-02	9.662E-02	1.584E-01	1.393E-02	-0.091
		1048.07	*	-1.636E-02	1.569E-01	2.532E-01	2.274E-02	-0.065
		1235.34		-7.803E-02	8.992E-01	1.360E+00	1.583E-01	-0.057
CE-139		165.85	*	-2.340E-02	3.505E-02	5.505E-02	4.590E-03	-0.425
BA-140		162.64		1.397E-02	8.073E-01	1.317E+00	1.202E-01	0.011
		304.84		-9.591E-01	1.430E+00	2.266E+00	6.389E-01	-0.423
		423.70		-2.471E+00	2.512E+00	3.545E+00	1.149E+00	-0.697
		537.32	*	-2.041E-01	3.158E-01	4.668E-01	1.551E-01	-0.437
LA-140	+	328.77		9.835E-01	5.396E-01	6.459E-01	6.157E-02	1.523
		432.53		9.693E-01	2.516E+00	4.277E+00	3.890E-01	0.227
		487.03		-1.295E-02	1.805E-01	2.937E-01	2.763E-02	-0.044
		751.79		-8.618E-01	2.126E+00	3.412E+00	3.283E-01	-0.253
		815.85		1.514E-01	3.975E-01	6.897E-01	6.734E-02	0.219
		867.82		3.283E-01	1.853E+00	3.055E+00	2.818E-01	0.107
		919.63		-3.644E-01	3.618E+00	5.901E+00	6.345E-01	-0.062
		925.24		-4.520E-01	1.526E+00	2.430E+00	2.257E-01	-0.186
		1596.49	*	-1.034E-01	1.213E-01	1.679E-01	1.449E-02	-0.616
CE-143		57.37		-1.396E-04	1.213E-01	Half-Life too short		
		231.56		-3.021E-03	1.213E-01	Half-Life too short		
		293.26	*	6.487E-04	1.213E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	350.59		3.400E-02	1.213E-01	Half-Life too short		
		490.36		-3.483E-05	1.213E-01	Half-Life too short		
		664.57		1.126E-03	1.213E-01	Half-Life too short		
		721.93		1.599E-03	1.213E-01	Half-Life too short		
CE-144		80.11		1.033E+00	2.187E+00	2.729E+00	2.658E-01	0.379
		133.54	*	-5.955E-02	2.471E-01	3.580E-01	6.072E-02	-0.166
PM-144		476.78		1.004E-01	8.654E-02	1.541E-01	1.487E-02	0.651
		618.01		2.688E-02	4.113E-02	7.037E-02	6.294E-03	0.382
		696.49	*	1.726E-02	4.414E-02	7.689E-02	6.582E-03	0.224
		778.57		-1.327E+00	2.964E+00	4.726E+00	4.138E-01	-0.281
PR-144		696.49	*	1.169E+00	2.991E+00	5.210E+00	4.459E-01	0.224
		1489.15		2.794E+00	1.314E+01	2.276E+01	1.968E+00	0.123
PM-146		453.90	*	2.672E-02	5.754E-02	9.788E-02	1.062E-02	0.273
		633.02		-1.353E+00	2.008E+00	2.900E+00	1.084E+00	-0.467
		735.90		8.954E-02	1.906E-01	3.315E-01	9.488E-02	0.270
		747.13		-6.704E-02	1.220E-01	1.931E-01	2.721E-02	-0.347
ND-147	+	91.11		8.874E-01	2.116E-01	5.871E-01	6.182E-02	1.512
		319.41		6.293E-01	3.800E+00	6.461E+00	5.892E-01	0.097
		439.89		3.607E+00	7.079E+00	1.214E+01	1.058E+00	0.297
		531.02	*	-5.268E-02	7.376E-01	1.192E+00	1.805E-01	-0.044
PM-149		285.90	*	-2.332E+01	1.088E+02	1.820E+02	2.886E+01	-0.128
EU-152		121.78		8.075E-03	7.556E-02	1.256E-01	1.593E-02	0.064
		244.69		-2.570E-02	4.136E-01	5.816E-01	5.272E-02	-0.044
		344.27	*	-5.035E-04	1.200E-01	1.944E-01	1.839E-02	-0.003
		443.98		-4.310E-01	1.213E+00	1.940E+00	1.695E-01	-0.222
		778.89		-6.356E-02	3.265E-01	5.345E-01	4.679E-02	-0.119
		867.32		3.767E-01	1.115E+00	1.822E+00	1.600E-01	0.207
	+	964.01		7.567E-01	4.860E-01	8.283E-01	7.239E-02	0.914
		1085.78		1.044E-01	4.854E-01	8.132E-01	6.920E-02	0.128
		1112.02		-6.272E-03	4.525E-01	6.335E-01	5.336E-02	-0.010
		1407.95		1.745E-01	2.213E-01	4.133E-01	3.556E-02	0.422
GD-153		69.67		1.323E-01	1.147E+00	1.758E+00	1.726E-01	0.075
	+	83.37		2.478E+01	1.842E+01	2.340E+01	2.280E+00	1.059
		97.43	*	1.327E-01	9.747E-02	1.291E-01	1.320E-02	1.027
		103.18		-1.380E-01	1.185E-01	1.637E-01	1.725E-02	-0.843
EU-154		123.07		9.088E-03	5.428E-02	9.040E-02	1.248E-02	0.101
		247.94		8.398E-03	4.123E-01	6.564E-01	7.762E-02	0.013
		591.81		-5.948E-01	7.529E-01	1.103E+00	1.304E-01	-0.539
		723.30		2.608E-02	2.506E-01	3.720E-01	3.551E-02	0.070
		756.87		3.032E-01	9.930E-01	1.712E+00	2.062E-01	0.177
		873.19		-2.225E-01	3.949E-01	6.106E-01	7.543E-02	-0.364
		996.32		-5.094E-01	5.778E-01	8.473E-01	1.509E-01	-0.601
		1004.76		-1.869E-01	3.229E-01	4.952E-01	5.792E-02	-0.377
		1274.45	*	-2.444E-02	1.446E-01	2.306E-01	2.572E-02	-0.106
EU-155		48.70		9.040E-02	5.003E-01	7.817E-01	7.853E-02	0.116
		60.01		4.084E-01	2.551E+00	3.924E+00	3.948E-01	0.104
	+	86.54		2.495E-01	1.053E-01	1.803E-01	1.772E-02	1.384
		105.31	*	1.511E-01	1.095E-01	1.907E-01	2.048E-02	0.792
TB-160	+	86.79		6.668E-01	2.813E-01	4.802E-01	4.684E-02	1.389

---- Non-Identified Nuclides ----

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		197.04		-2.450E-01	6.705E-01	1.044E+00	9.067E-02	-0.235
		215.65		-2.211E-01	8.163E-01	1.286E+00	1.140E-01	-0.172
		298.57		4.689E-02	1.513E-01	2.310E-01	2.120E-02	0.203
		879.36	*	-9.832E-02	1.880E-01	2.928E-01	2.567E-02	-0.336
		962.29		1.035E+00	9.213E-01	1.498E+00	1.309E-01	0.691
		966.15		1.238E+00	5.071E-01	7.247E-01	6.332E-02	1.708
		1177.93		3.834E-01	5.366E-01	9.316E-01	7.622E-02	0.411
		1271.85		3.053E-01	8.603E-01	1.455E+00	1.224E-01	0.210
HO-166M		80.57		8.283E-02	2.783E-01	3.430E-01	3.341E-02	0.241
	+	184.41		4.263E-01	7.214E-02	9.245E-02	7.903E-03	4.611
		280.46		7.343E-03	9.848E-02	1.677E-01	1.540E-02	0.044
		410.95		6.946E-02	3.043E-01	5.121E-01	4.379E-02	0.136
		711.68	*	-5.490E-02	7.986E-02	1.256E-01	1.081E-02	-0.437
		752.31		-1.847E-01	3.417E-01	5.402E-01	4.704E-02	-0.342
		810.29		-5.449E-02	7.389E-02	1.126E-01	9.891E-03	-0.484
TM-171		51.35		-7.569E+00	7.823E+00	1.284E+01	1.285E+00	-0.589
		52.39		-1.248E+00	4.632E+00	7.717E+00	7.721E-01	-0.162
		59.40		-9.240E-01	1.356E+01	2.067E+01	2.083E+00	-0.045
		66.72	*	3.837E+00	1.753E+01	2.703E+01	2.668E+00	0.142
LU-176	+	88.36		4.914E-01	2.073E-01	3.392E-01	3.317E-02	1.449
		201.83		-1.193E-02	3.379E-02	5.332E-02	4.656E-03	-0.224
		306.84	*	-1.340E-02	2.717E-02	4.430E-02	4.059E-03	-0.302
		401.10		-4.225E-01	8.249E+00	1.363E+01	1.157E+00	-0.031
LU-177		112.95		1.927E+00	1.782E+00	3.067E+00	3.410E-01	0.628
	+	208.36	*	2.809E+00	1.921E+00	2.244E+00	1.974E-01	1.251
LU-177M		52.97		8.899E-02	5.037E-01	8.530E-01	8.533E-02	0.104
		54.07		2.320E-01	2.909E-01	5.015E-01	5.018E-02	0.463
		61.30		4.307E-02	8.170E-01	1.255E+00	1.257E-01	0.034
		121.62		7.193E-02	3.889E-01	6.486E-01	7.576E-02	0.111
		147.16		-3.297E-02	7.691E-01	1.123E+00	1.115E-01	-0.029
		171.86		-4.068E-01	5.374E-01	8.351E-01	7.018E-02	-0.487
		218.09		-7.379E-01	9.542E-01	1.451E+00	1.289E-01	-0.509
	+	268.79		1.100E+00	1.445E+00	1.583E+00	1.451E-01	0.695
		319.02		3.850E-02	2.882E-01	4.893E-01	4.462E-02	0.079
		367.43		-1.089E-01	1.090E+00	1.805E+00	1.578E-01	-0.060
		413.65	*	-1.178E-01	2.288E-01	3.645E-01	3.123E-02	-0.323
HF-181		56.28		-1.186E-01	3.704E-01	6.252E-01	6.267E-02	-0.190
		57.53		-4.240E-02	2.152E-01	3.645E-01	3.661E-02	-0.116
		65.20		3.888E-01	5.657E-01	8.888E-01	8.802E-02	0.437
		133.02		2.605E-02	7.647E-02	1.151E-01	1.263E-02	0.226
		136.25		1.714E-01	5.043E-01	8.420E-01	9.050E-02	0.204
		345.85		2.309E-02	2.600E-01	3.866E-01	3.461E-02	0.060
		482.03	*	-1.341E-02	5.588E-02	8.970E-02	7.963E-03	-0.150
W-181		56.28		-4.623E-02	1.450E-01	2.447E-01	2.453E-02	-0.189
		57.53		-1.672E-02	8.424E-02	1.427E-01	1.433E-02	-0.117
		65.20	*	1.510E-01	2.197E-01	3.453E-01	3.419E-02	0.437
TA-182		67.75		6.287E-03	7.187E-02	1.101E-01	1.084E-02	0.057
	+	100.10		5.254E-01	2.991E-01	3.066E-01	3.178E-02	1.714
		152.43		-3.505E-02	3.747E-01	6.098E-01	5.797E-02	-0.057

---- Non-Identified Nuclides ----

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		222.10		5.906E-02	3.884E-01	6.275E-01	5.593E-02	0.094
		1001.68		4.200E+00	3.180E+00	5.821E+00	5.064E-01	0.722
		1121.28		6.117E-01	2.755E-01	4.797E-01	4.024E-02	1.275
		1189.05		4.770E-01	4.278E-01	7.730E-01	6.348E-02	0.617
		1221.42	*	2.252E-02	2.978E-01	4.840E-01	4.014E-02	0.047
		1230.97		5.930E-02	6.557E-01	1.067E+00	8.877E-02	0.056
RE-183		57.98		1.646E-02	8.983E-02	1.465E-01	1.473E-02	0.112
		59.32		-3.331E-03	5.562E-02	8.479E-02	8.543E-03	-0.039
		67.20		2.611E-02	1.281E-01	1.972E-01	1.945E-02	0.132
		162.32	*	-4.284E-02	1.188E-01	1.897E-01	1.642E-02	-0.226
	+	208.81		2.515E+00	1.720E+00	2.016E+00	1.774E-01	1.248
		291.72		-1.488E-03	1.209E+00	1.807E+00	1.659E-01	-0.001
RE-184		57.98		6.063E-02	3.309E-01	5.398E-01	5.425E-02	0.112
		59.32		-1.226E-02	2.047E-01	3.121E-01	3.145E-02	-0.039
		67.20		9.618E-02	4.717E-01	7.264E-01	7.162E-02	0.132
		161.27		-2.478E-01	3.784E-01	5.939E-01	5.197E-02	-0.417
		216.55		-5.988E-02	2.892E-01	4.574E-01	4.056E-02	-0.131
		252.85	*	-1.682E-01	2.683E-01	4.063E-01	3.700E-02	-0.414
		318.01		-1.447E-01	5.116E-01	8.452E-01	7.711E-02	-0.171
		792.07		1.388E-01	1.659E+00	2.434E+00	2.134E-01	0.057
		903.28		-2.317E-01	1.366E+00	2.081E+00	1.820E-01	-0.111
		920.93		3.761E-01	6.070E-01	1.069E+00	9.352E-02	0.352
OS-185		59.72		-6.885E-03	1.518E-01	2.314E-01	2.331E-02	-0.030
		61.14		5.512E-03	8.683E-02	1.335E-01	1.337E-02	0.041
		69.30		1.853E-02	1.922E-01	3.124E-01	3.068E-02	0.059
		592.07		-2.572E+00	3.089E+00	4.512E+00	3.981E-01	-0.570
		646.12	*	-1.912E-03	5.333E-02	8.516E-02	7.271E-03	-0.022
		717.42		-2.922E-01	1.176E+00	1.932E+00	1.666E-01	-0.151
		874.81		3.072E-01	7.329E-01	1.272E+00	1.116E-01	0.241
		880.27		1.910E-02	1.022E+00	1.697E+00	1.487E-01	0.011
RE-188		155.03	*	1.547E-01	1.930E-01	3.266E-01	3.034E-02	0.474
		477.96		2.110E+00	3.983E+00	6.802E+00	6.031E-01	0.310
		633.10		-2.651E+00	3.944E+00	5.891E+00	5.080E-01	-0.450
W-188	+	63.58		3.388E+02	6.379E+01	7.423E+01	7.383E+00	4.564
		227.08		-2.367E+00	1.450E+01	2.294E+01	2.053E+00	-0.103
		290.67	*	-9.830E-01	9.529E+00	1.412E+01	1.297E+00	-0.070
IR-192	+	295.96		1.117E+00	2.378E-01	3.582E-01	3.309E-02	3.118
		308.46		7.756E-02	1.062E-01	1.870E-01	1.720E-02	0.415
		316.51	*	-1.021E-02	3.813E-02	6.303E-02	5.767E-03	-0.162
		468.07		-4.907E-03	8.864E-02	1.339E-01	1.264E-02	-0.037
		604.41		1.160E-01	7.041E-01	1.011E+00	1.326E-01	0.115
		612.46		3.352E-01	9.163E-01	1.356E+00	1.356E-01	0.247
AU-195		65.12		1.387E-01	1.045E-01	1.673E-01	1.657E-02	0.829
		66.83		1.333E-02	5.839E-02	9.005E-02	8.886E-03	0.148
	+	75.70		1.176E+00	2.176E-01	3.656E-01	3.567E-02	3.216
	+	98.88	*	6.568E-01	3.739E-01	4.109E-01	4.232E-02	1.598
	+	129.76		8.537E+00	5.326E+00	5.805E+00	6.503E-01	1.471
TL-200		367.94	*	-1.637E-04	5.326E+00	Half-Life too short		
		579.30		2.722E-03	5.326E+00	Half-Life too short		

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		828.27		-3.594E-03	5.326E+00	Half-Life too short		
		1205.75		-8.775E-04	5.326E+00	Half-Life too short		
TL-201		68.90		2.836E-02	2.960E+00	5.016E+00	4.930E-01	0.006
		70.82		5.848E-01	1.954E+00	3.013E+00	2.953E-01	0.194
		80.30		2.088E+00	5.231E+00	6.492E+00	6.323E-01	0.322
		135.34		6.067E+00	2.769E+01	4.601E+01	4.976E+00	0.132
		167.43	*	9.185E+00	8.070E+00	1.381E+01	1.154E+00	0.665
TL-202		68.90		2.533E-03	2.643E-01	4.479E-01	4.403E-02	0.006
		70.82		5.208E-02	1.740E-01	2.683E-01	2.630E-02	0.194
		80.30		1.859E-01	4.659E-01	5.783E-01	5.633E-02	0.322
		439.56	*	5.287E-02	8.327E-02	1.441E-01	1.256E-02	0.367
HG-203		70.83		2.273E-01	7.533E-01	1.161E+00	1.670E-01	0.196
		72.87		4.755E-01	4.752E-01	7.453E-01	1.042E-01	0.638
	+	82.60		1.843E+00	1.384E+00	1.604E+00	2.321E-01	1.149
		279.20	*	-1.874E-02	4.743E-02	7.865E-02	7.402E-03	-0.238
BI-207		72.80		1.245E-01	1.379E-01	2.167E-01	2.119E-02	0.574
	+	74.97		6.522E-01	1.207E-01	1.808E-01	1.764E-02	3.608
	+	84.90		3.204E-01	2.382E-01	3.067E-01	2.990E-02	1.045
		569.67		1.353E-02	4.322E-02	7.181E-02	6.385E-03	0.188
		1063.62	*	6.848E-02	6.926E-02	1.257E-01	1.078E-02	0.545
		1770.23		-1.083E+00	8.647E-01	1.074E+00	9.071E-02	-1.009
TL-207		81.07		3.361E-02	2.229E-01	2.718E-01	2.647E-02	0.124
	+	83.78		2.113E-01	1.571E-01	2.037E-01	1.985E-02	1.037
		94.90		3.328E-01	3.042E-01	3.913E-01	3.949E-02	0.851
		122.32		-1.361E-01	1.834E+00	3.021E+00	3.677E-01	-0.045
	+	144.24		1.780E+00	1.484E+00	1.474E+00	1.627E-01	1.207
		154.21		5.723E-01	4.455E-01	7.664E-01	7.783E-02	0.747
	+	269.46		2.575E-01	3.383E-01	3.873E-01	3.614E-02	0.665
		323.87	*	-2.612E-01	8.527E-01	1.227E+00	2.201E-01	-0.213
	+	338.28		7.327E+00	2.419E+00	3.138E+00	3.950E-01	2.335
		445.03		9.764E-01	2.795E+00	4.730E+00	5.759E-01	0.206
PO-209		260.50		-4.098E-01	1.099E+01	1.737E+01	1.587E+00	-0.024
		262.80		-2.008E+01	2.981E+01	4.472E+01	4.089E+00	-0.449
		896.60	*	-5.354E-01	1.036E+01	1.705E+01	1.490E+00	-0.031
PB-211		404.84	*	-6.358E-01	1.175E+00	1.752E+00	1.098E+00	-0.363
		427.08		2.047E+00	2.778E+00	4.341E+00	2.698E+00	0.471
		831.96		8.626E-01	1.677E+00	2.785E+00	1.746E+00	0.310
BI-212	+	727.18	*	1.478E+00	6.719E-01	9.282E-01	9.313E-02	1.593
		785.46		-1.059E-01	2.430E+00	4.044E+00	3.544E-01	-0.026
		1620.62		4.104E-01	1.593E+00	2.758E+00	2.376E-01	0.149
PO-215		81.07		3.361E-02	2.229E-01	2.718E-01	2.647E-02	0.124
	+	83.78		2.113E-01	1.571E-01	2.037E-01	1.985E-02	1.037
		94.90		3.328E-01	3.042E-01	3.913E-01	3.949E-02	0.851
		122.32		-1.361E-01	1.834E+00	3.021E+00	3.677E-01	-0.045
	+	144.24		1.780E+00	1.484E+00	1.474E+00	1.627E-01	1.207
		154.21		5.723E-01	4.455E-01	7.664E-01	7.783E-02	0.747
	+	269.46		2.575E-01	3.383E-01	3.873E-01	3.614E-02	0.665
		323.87	*	-2.612E-01	8.527E-01	1.227E+00	2.201E-01	-0.213
	+	338.28		7.327E+00	2.419E+00	3.138E+00	3.950E-01	2.335

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		9.764E-01	2.795E+00	4.730E+00	5.759E-01	0.206
RN-219	+	271.23		3.304E-01	4.344E-01	5.056E-01	5.447E-02	0.653
		401.81	*	-2.764E-01	4.968E-01	7.865E-01	1.176E-01	-0.351
RN-220		549.76	*	-4.825E+00	3.485E+01	5.584E+01	4.985E+00	-0.086
RA-223		81.07		3.361E-02	2.229E-01	2.718E-01	2.647E-02	0.124
	+	83.78		2.113E-01	1.571E-01	2.037E-01	1.985E-02	1.037
		94.90		3.328E-01	3.042E-01	3.913E-01	3.949E-02	0.851
		122.32		-1.361E-01	1.834E+00	3.021E+00	3.677E-01	-0.045
	+	144.24		1.780E+00	1.484E+00	1.474E+00	1.627E-01	1.207
		154.21		5.723E-01	4.455E-01	7.664E-01	7.783E-02	0.747
	+	269.46		2.575E-01	3.383E-01	3.873E-01	3.614E-02	0.665
		323.87	*	-2.612E-01	8.527E-01	1.227E+00	2.201E-01	-0.213
	+	338.28		7.327E+00	2.419E+00	3.138E+00	3.950E-01	2.335
		445.03		9.764E-01	2.795E+00	4.730E+00	5.759E-01	0.206
AC-227		79.80		1.038E+00	1.692E+00	2.116E+00	4.650E-01	0.491
		236.00		1.810E-01	2.660E-01	3.975E-01	4.978E-02	0.455
		256.20	*	-2.634E-01	4.438E-01	6.715E-01	1.050E-01	-0.392
		286.10		2.635E-02	1.807E+00	3.063E+00	4.159E-01	0.009
		299.80		1.488E+00	1.824E+00	2.990E+00	5.312E-01	0.498
		304.40		-9.063E-01	2.066E+00	3.379E+00	6.318E-01	-0.268
		334.20		-1.101E+00	2.968E+00	4.228E+00	8.288E-01	-0.260
TH-227		79.80		1.038E+00	1.692E+00	2.116E+00	4.706E-01	0.491
	+	94.00		3.549E+01	8.551E+00	4.997E+00	1.118E+00	7.102
		236.00		1.810E-01	2.658E-01	3.975E-01	4.526E-02	0.455
		256.20	*	-2.634E-01	4.445E-01	6.715E-01	1.229E-01	-0.392
		286.10		2.635E-02	1.807E+00	3.063E+00	3.076E+00	0.009
		299.80		1.488E+00	1.824E+00	2.990E+00	5.312E-01	0.498
		304.40		-9.063E-01	2.066E+00	3.379E+00	6.318E-01	-0.268
		334.20		-1.101E+00	2.968E+00	4.228E+00	8.288E-01	-0.260
TH-229		85.43		1.349E-01	1.970E-01	3.027E-01	2.951E-02	0.446
	+	88.47		2.829E-01	1.193E-01	1.938E-01	1.896E-02	1.459
	+	100.00		5.450E-01	3.103E-01	3.230E-01	3.346E-02	1.688
		193.63	*	3.222E-01	5.804E-01	9.637E-01	8.335E-02	0.334
		210.97		8.455E-01	9.219E-01	1.406E+00	1.240E-01	0.601
PA-231		283.67	*	-9.245E-01	1.773E+00	2.904E+00	4.504E-01	-0.318
		301.29		8.719E-01	6.705E-01	1.197E+00	1.513E-01	0.728
TH-231		81.07		3.361E-02	2.229E-01	2.718E-01	2.647E-02	0.124
	+	83.78		2.113E-01	1.571E-01	2.037E-01	1.985E-02	1.037
		94.90		3.328E-01	3.042E-01	3.913E-01	3.949E-02	0.851
		122.32		-1.361E-01	1.834E+00	3.021E+00	3.677E-01	-0.045
	+	144.24		1.780E+00	1.484E+00	1.474E+00	1.627E-01	1.207
		154.21		5.723E-01	4.455E-01	7.664E-01	7.783E-02	0.747
	+	269.46		2.575E-01	3.383E-01	3.873E-01	3.614E-02	0.665
		323.87	*	-2.612E-01	8.527E-01	1.227E+00	2.201E-01	-0.213
	+	338.28		7.327E+00	2.419E+00	3.138E+00	3.950E-01	2.335
		445.03		9.764E-01	2.795E+00	4.730E+00	5.759E-01	0.206
U-231	+	84.21		9.160E+00	6.811E+00	8.874E+00	8.647E-01	1.032
	+	92.29		3.529E+01	4.741E+00	5.829E+00	5.807E-01	6.055
		95.87	*	1.289E+00	1.253E+00	1.626E+00	1.650E-01	0.792

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-4.700E-01	2.166E+00	3.569E+00	3.860E-01	-0.132
PA-233	+	75.28		1.903E+01	4.271E+00	5.449E+00	8.727E-01	3.492
	+	86.59		4.056E+00	1.997E+00	2.930E+00	7.970E-01	1.384
		300.12		4.300E-01	5.023E-01	8.273E-01	1.258E-01	0.520
		311.98	*	-2.620E-02	7.003E-02	1.150E-01	1.078E-02	-0.228
		340.50		8.233E-01	8.555E-01	1.328E+00	3.183E-01	0.620
		398.62		-1.281E-01	2.621E+00	4.335E+00	1.152E+00	-0.030
		415.76		9.948E-01	2.067E+00	3.522E+00	7.586E-01	0.282
PA-234	+	63.00		9.821E+00	2.241E+00	2.166E+00	3.528E-01	4.534
		94.67		5.440E-01	2.357E-01	3.135E-01	4.220E-02	1.735
	+	98.44		2.661E-01	2.108E-01	1.669E-01	9.360E-02	1.594
	+	99.86		1.379E+00	7.851E-01	8.331E-01	8.625E-02	1.655
		111.00		-1.337E-01	1.991E-01	3.198E-01	4.440E-02	-0.418
		131.20		4.302E-02	1.244E-01	1.873E-01	2.079E-02	0.230
		152.70		-8.562E-02	3.664E-01	5.917E-01	1.035E-01	-0.145
	+	186.00		1.535E+01	5.286E+00	3.877E+00	1.209E+00	3.959
		226.40		-3.157E-01	4.639E-01	7.069E-01	9.485E-02	-0.447
		227.20		7.286E-02	4.819E-01	7.775E-01	6.960E-02	0.094
		248.90		7.444E-01	9.311E-01	1.536E+00	3.472E-01	0.485
	+	293.70		7.028E+00	1.829E+00	2.060E+00	3.624E-01	3.411
		369.80		1.443E-01	1.015E+00	1.709E+00	3.728E-01	0.084
		568.70		1.539E+00	1.334E+00	2.366E+00	2.104E-01	0.650
		569.50		2.521E-01	3.780E-01	6.457E-01	5.741E-02	0.390
		574.00		-1.509E-01	1.928E+00	3.095E+00	2.749E-01	-0.049
		699.00		-2.466E-01	8.827E-01	1.447E+00	2.757E-01	-0.170
		706.10		3.234E-01	1.364E+00	2.331E+00	1.039E+00	0.139
		733.00		-2.431E-01	5.437E-01	7.393E-01	1.642E-01	-0.329
		742.81		1.049E+00	2.010E+00	3.313E+00	2.227E+00	0.317
	+	796.30		2.155E+00	1.920E+00	2.190E+00	5.936E-01	0.984
		805.60		1.396E+00	1.323E+00	2.322E+00	7.127E-01	0.601
		819.60		-7.748E-01	1.646E+00	2.557E+00	9.732E-01	-0.303
		826.30		-1.009E+00	1.186E+00	1.640E+00	7.344E-01	-0.615
		831.60		6.227E-01	8.439E-01	1.472E+00	4.399E-01	0.423
		876.40		6.930E-01	1.303E+00	1.932E+00	1.987E+00	0.359
		880.51		3.506E-02	3.680E-01	6.161E-01	5.400E-02	0.057
		883.24		2.984E-02	3.814E-01	6.362E-01	4.278E-01	0.047
		899.00		-5.388E-01	1.177E+00	1.798E+00	7.864E-01	-0.300
		925.00		-1.921E-01	1.572E+00	2.557E+00	2.238E-01	-0.075
		926.50		-1.487E-01	2.353E-01	3.538E-01	8.959E-02	-0.420
		946.00	*	1.874E-01	4.057E-01	7.001E-01	1.318E-01	0.268
		949.00		-3.424E-01	6.120E-01	9.415E-01	8.236E-02	-0.364
		980.50		4.419E-01	9.397E-01	1.629E+00	1.422E-01	0.271
		1394.10		-4.776E-01	1.603E+00	2.500E+00	1.627E+00	-0.191
PA-234M		766.42		2.078E+01	1.940E+01	2.996E+01	1.521E+01	0.694
		1001.03	*	1.167E+01	7.191E+00	1.341E+01	1.346E+00	0.870
NP-236		94.67		4.192E-01	1.753E-01	2.385E-01	2.404E-02	1.758
	+	98.44		2.011E-01	1.145E-01	1.262E-01	1.297E-02	1.594
		111.00		-1.011E-01	1.503E-01	2.419E-01	2.660E-02	-0.418
		160.31	*	-4.793E-02	8.501E-02	1.342E-01	1.186E-02	-0.357

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		4.597E-01	2.617E-01	2.836E-01	2.932E-02	1.621
		117.00	*	4.639E-02	1.936E-01	3.242E-01	3.688E-02	0.143
	+	209.75		1.983E+00	1.357E+00	1.582E+00	1.393E-01	1.254
		228.18		3.990E-02	2.562E-01	4.133E-01	3.703E-02	0.097
		277.60		1.434E-01	2.081E-01	3.651E-01	3.351E-02	0.393
		334.30		-7.269E-01	1.672E+00	2.372E+00	2.144E-01	-0.306
AM-241		59.54	*	-6.541E-03	7.924E-02	1.207E-01	1.281E-02	-0.054
CM-243	+	99.55		4.731E-01	2.693E-01	2.919E-01	3.017E-02	1.621
		103.76	*	-3.304E-03	1.072E-01	1.598E-01	1.689E-02	-0.021
		117.00		4.773E-02	1.992E-01	3.335E-01	3.794E-02	0.143
	+	209.75		1.955E+00	1.337E+00	1.559E+00	1.373E-01	1.254
		228.18		4.032E-02	2.588E-01	4.176E-01	3.741E-02	0.097
		277.60		1.445E-01	2.098E-01	3.681E-01	3.379E-02	0.393
AM-246		798.80		1.223E-01	1.735E-01	2.804E-01	2.461E-02	0.436
		1036.00		-1.357E-01	4.087E-01	6.409E-01	5.537E-02	-0.212
		1062.04		-1.439E-01	3.254E-01	5.027E-01	4.312E-02	-0.286
		1078.86	*	1.860E-01	1.893E-01	3.430E-01	2.926E-02	0.542
CM-247		278.00		6.085E-01	8.490E-01	1.493E+00	1.370E-01	0.408
		287.40		1.145E+00	1.425E+00	2.515E+00	2.310E-01	0.455
		402.60	*	-1.071E-02	4.352E-02	7.080E-02	6.015E-03	-0.151
CF-249		252.85		-6.312E-01	1.006E+00	1.524E+00	1.388E-01	-0.414
		333.44		-1.007E-02	2.625E-01	3.270E-01	2.957E-02	-0.031
		387.95	*	2.932E-02	5.032E-02	8.686E-02	7.359E-03	0.338
CF-251		176.60	*	2.003E-02	1.402E-01	2.291E-01	1.938E-02	0.087
		227.00		-8.402E-02	4.341E-01	6.855E-01	6.135E-02	-0.123
		285.00		-1.129E+00	2.048E+00	3.356E+00	3.082E-01	-0.336

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960006		
Acquisition date	: 12-FEB-2010 15:48:42	Detector SN#	:
Detector ID	: GAM17	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:09.59	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960006	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.1777E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

Standard Weight	: 0.00000		
CALIB. DATE/TIME	: 6-JAN-2010 11:41:36	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.993E+01	2.520E+00	5.094E-01	0.000E+00
CD-109	2.108E+00	8.716E-01	1.335E+00	0.000E+00
SN-126	2.072E-01	8.566E-02	1.310E-01	0.000E+00
BA-137M	3.290E-01	9.616E-02	7.230E-02	0.000E+00
CS-137	3.478E-01	1.017E-01	7.642E-02	0.000E+00
CE-141	1.648E-01	1.345E-01	1.020E-01	0.000E+00
TL-208	5.699E-01	1.046E-01	6.941E-02	0.000E+00
BI-210	2.081E+00	9.076E-01	9.319E-01	0.000E+00
PB-210	2.081E+00	9.076E-01	9.319E-01	0.000E+00
PO-210	2.081E+00	9.040E-01	9.319E-01	0.000E+00
BI-211	4.200E+00	6.668E-01	3.954E-01	0.000E+00
PB-212	1.692E+00	2.094E-01	9.857E-02	0.000E+00
PO-212	1.692E+00	2.094E-01	9.857E-02	0.000E+00
BI-214	1.317E+00	2.360E-01	1.484E-01	0.000E+00
PB-214	1.461E+00	2.437E-01	1.379E-01	0.000E+00
PO-214	1.461E+00	2.437E-01	1.379E-01	0.000E+00
PO-216	1.692E+00	2.094E-01	9.857E-02	0.000E+00
PO-218	1.461E+00	2.437E-01	1.379E-01	0.000E+00
RA-224	4.496E+00	1.082E+00	1.123E+00	0.000E+00
RA-226	1.317E+00	2.360E-01	1.484E-01	0.000E+00
AC-228	1.540E+00	3.845E-01	2.543E-01	0.000E+00
RA-228	1.540E+00	3.845E-01	2.543E-01	0.000E+00
TH-228	1.718E+00	2.125E-01	1.001E-01	0.000E+00
TH-230	1.317E+00	2.360E-01	1.484E-01	0.000E+00
TH-232	1.540E+00	3.845E-01	2.543E-01	0.000E+00
TH-234	8.425E+00	2.029E+00	1.162E+00	0.000E+00
U-234	1.317E+00	2.360E-01	1.484E-01	0.000E+00
U-235	5.492E-01	4.555E-01	3.694E-01	0.000E+00
NP-237	6.084E-01	2.800E-01	3.835E-01	0.000E+00
U-238	8.425E+00	2.029E+00	1.162E+00	0.000E+00
AM-243	3.633E-01	6.588E-02	6.513E-02	0.000E+00
ANH-511	2.285E-01	9.054E-02	5.904E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K(L. Act error) Ided	MDA (pCi/GRAM)		
BE-7	1.625E-01	4.162E-01	7.236E-01	0.000E+00	NOT IDENT.
NA-22	-2.995E-02	5.367E-02	8.195E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.564E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-7.166E-03	3.158E-02	4.856E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.718E-02	7.073E-02	0.000E+00	FAIL ABUN
SC-46	5.391E-03	5.070E-02	8.683E-02	0.000E+00	FAIL ABUN
V-48	3.793E-02	8.738E-02	1.542E-01	0.000E+00	NOT IDENT.
CR-51	2.605E-01	4.270E-01	7.692E-01	0.000E+00	NOT IDENT.
MN-52	-6.087E-02	3.305E-01	5.446E-01	0.000E+00	NOT IDENT.
MN-54	-1.719E-02	4.983E-02	8.197E-02	0.000E+00	NOT IDENT.
CO-56	9.005E-03	5.111E-02	8.845E-02	0.000E+00	NOT IDENT.
CO-57	-4.294E-03	2.587E-02	4.432E-02	0.000E+00	NOT IDENT.
CO-58	-1.944E-02	4.641E-02	7.540E-02	0.000E+00	NOT IDENT.
FE-59	-4.084E-02	1.187E-01	1.886E-01	0.000E+00	FAIL ABUN
CO-60	2.478E-02	4.963E-02	9.020E-02	0.000E+00	NOT IDENT.
ZN-65	3.748E-02	1.320E-01	1.979E-01	0.000E+00	NOT IDENT.
GE-68	1.845E+00	1.650E+00	3.080E+00	0.000E+00	NOT IDENT.
AS-73	2.266E-01	2.626E-01	4.777E-01	0.000E+00	NOT IDENT.
AS-74	1.955E-02	1.154E-01	1.944E-01	0.000E+00	NOT IDENT.
SE-75	-1.617E-02	4.883E-02	7.390E-02	0.000E+00	NOT IDENT.
BR-77	-6.212E+00	1.342E+01	2.154E+01	0.000E+00	FAIL ABUN
SR-82	-9.704E-02	4.919E-01	8.265E-01	0.000E+00	NOT IDENT.
RB-83	-4.430E-02	8.736E-02	1.396E-01	0.000E+00	NOT IDENT.
RB-84	5.517E-02	8.719E-02	1.578E-01	0.000E+00	NOT IDENT.
KR-85	8.181E-01	1.008E+01	1.494E+01	0.000E+00	NOT IDENT.
SR-85	4.197E-03	5.169E-02	7.662E-02	0.000E+00	NOT IDENT.
RB-86	4.581E-01	1.069E+00	1.864E+00	0.000E+00	NOT IDENT.
Y-88	2.897E-03	4.435E-02	7.450E-02	0.000E+00	NOT IDENT.
ZR-88	-2.674E-02	3.780E-02	6.144E-02	0.000E+00	NOT IDENT.
Y-91	-1.648E+01	2.626E+01	4.010E+01	0.000E+00	NOT IDENT.
NB-94	-6.123E-04	4.123E-02	7.112E-02	0.000E+00	NOT IDENT.
NB-95	1.005E-01	5.942E-02	1.141E-01	0.000E+00	NOT IDENT.
NB-95M	2.901E-02	1.372E-01	2.055E-01	0.000E+00	NOT IDENT.
ZR-95	-4.174E-03	8.782E-02	1.501E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.568E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.583E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.262E+01	1.644E+01	2.615E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.830E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	7.915E-03	3.761E-02	6.277E-02	0.000E+00	NOT IDENT.
RH-102	-1.944E-02	3.790E-02	6.130E-02	0.000E+00	NOT IDENT.
RU-103	1.048E-02	4.975E-02	8.520E-02	0.000E+00	FAIL ABUN
RH-106	1.563E-01	4.099E-01	7.013E-01	0.000E+00	FAIL ABUN
RU-106	1.563E-01	4.096E-01	7.013E-01	0.000E+00	FAIL ABUN
AG-108M	1.569E-02	3.918E-02	6.868E-02	0.000E+00	NOT IDENT.
AG-110M	-2.751E-02	5.331E-02	7.056E-02	0.000E+00	NOT IDENT.
IN-111	-1.520E-01	1.334E+00	1.937E+00	0.000E+00	NOT IDENT.
IN-113M	-5.169E-03	5.356E-02	9.119E-02	0.000E+00	NOT IDENT.
SN-113	-5.169E-03	5.356E-02	9.119E-02	0.000E+00	NOT IDENT.
IN-114M	4.126E-02	2.194E-01	3.330E-01	0.000E+00	NOT IDENT.
CD-115	6.025E-01	1.382E+01	2.324E+01	0.000E+00	NOT IDENT.
SN-117M	1.881E-02	5.729E-02	9.901E-02	0.000E+00	NOT IDENT.
SB-122	2.411E-01	2.832E+00	4.749E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.337E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	8.386E-03	2.969E-02	5.119E-02	0.000E+00	NOT IDENT.
I-124	2.223E-01	1.008E+00	1.497E+00	0.000E+00	NOT IDENT.
SB-124	5.596E-02	1.143E-01	2.073E-01	0.000E+00	FAIL ABUN
SB-125	9.833E-02	1.102E-01	1.996E-01	0.000E+00	FAIL ABUN
TE-125M	7.867E+00	9.566E+00	1.710E+01	0.000E+00	NOT IDENT.
I-126	-4.359E-02	2.607E-01	3.635E-01	0.000E+00	NOT IDENT.
SB-126	5.568E-02	2.014E-01	3.263E-01	0.000E+00	FAIL ABUN
SB-127	-8.523E-01	1.846E+00	2.869E+00	0.000E+00	NOT IDENT.
XE-127	1.105E-02	5.273E-02	8.917E-02	0.000E+00	FAIL ABUN
I-131	1.218E-02	1.397E-01	2.421E-01	0.000E+00	NOT IDENT.
TE-132	1.160E-01	7.741E-01	1.295E+00	0.000E+00	NOT IDENT.
BA-133	-8.692E-03	5.418E-02	8.105E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.067E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.109E-01	9.273E-02	1.183E-01	0.000E+00	FAIL ABUN
CS-135	9.409E-02	1.943E-01	2.949E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.953E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.636E-02	1.537E-01	2.534E-01	0.000E+00	FAIL ABUN
CE-139	-2.340E-02	3.435E-02	5.618E-02	0.000E+00	NOT IDENT.
BA-140	-2.041E-01	3.095E-01	4.705E-01	0.000E+00	NOT IDENT.
LA-140	-1.034E-01	1.188E-01	1.672E-01	0.000E+00	FAIL ABUN

CE-143	0.000E+00	2.422E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.956E-02	2.422E-01	3.662E-01	0.000E+00	NOT IDENT.
PM-144	1.726E-02	4.326E-02	7.727E-02	0.000E+00	NOT IDENT.
PR-144	1.169E+00	2.931E+00	5.236E+00	0.000E+00	NOT IDENT.
PM-146	2.672E-02	5.639E-02	9.882E-02	0.000E+00	NOT IDENT.
ND-147	-5.268E-02	7.229E-01	1.202E+00	0.000E+00	FAIL ABUN
PM-149	-2.332E+01	1.066E+02	1.846E+02	0.000E+00	NOT IDENT.
EU-152	-5.035E-04	1.176E-01	1.969E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	9.552E-02	1.325E-01	0.000E+00	FAIL ABUN
EU-154	-2.444E-02	1.417E-01	2.302E-01	0.000E+00	NOT IDENT.
EU-155	1.511E-01	1.073E-01	1.955E-01	0.000E+00	FAIL ABUN
TB-160	-9.832E-02	1.843E-01	2.935E-01	0.000E+00	FAIL ABUN
HO-166M	-5.490E-02	7.826E-02	1.262E-01	0.000E+00	FAIL ABUN
TM-171	3.837E+00	1.718E+01	2.785E+01	0.000E+00	NOT IDENT.
LU-176	-1.340E-02	2.662E-02	4.492E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.883E+00	2.285E+00	0.000E+00	FAIL ABUN
LU-177M	-1.178E-01	2.243E-01	3.684E-01	0.000E+00	FAIL ABUN
HF-181	-1.341E-02	5.476E-02	9.051E-02	0.000E+00	NOT IDENT.
W-181	1.510E-01	2.153E-01	3.558E-01	0.000E+00	NOT IDENT.
TA-182	2.252E-02	2.919E-01	4.834E-01	0.000E+00	FAIL ABUN
RE-183	-4.284E-02	1.164E-01	1.936E-01	0.000E+00	FAIL ABUN
RE-184	-1.682E-01	2.629E-01	4.128E-01	0.000E+00	NOT IDENT.
OS-185	-1.912E-03	5.227E-02	8.565E-02	0.000E+00	NOT IDENT.
RE-188	1.547E-01	1.892E-01	3.336E-01	0.000E+00	NOT IDENT.
W-188	-9.830E-01	9.338E+00	1.433E+01	0.000E+00	FAIL ABUN
IR-192	-1.021E-02	3.737E-02	6.389E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.664E-01	4.216E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.444E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	9.185E+00	7.908E+00	1.410E+01	0.000E+00	NOT IDENT.
TL-202	5.287E-02	8.161E-02	1.456E-01	0.000E+00	NOT IDENT.
HG-203	-1.874E-02	4.648E-02	7.982E-02	0.000E+00	FAIL ABUN
BI-207	6.848E-02	6.788E-02	1.258E-01	0.000E+00	FAIL ABUN
TL-207	-2.612E-01	8.356E-01	1.243E+00	0.000E+00	FAIL ABUN
PO-209	-5.354E-01	1.016E+01	1.708E+01	0.000E+00	NOT IDENT.
PB-211	-6.358E-01	1.152E+00	1.771E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.584E-01	9.324E-01	0.000E+00	FAIL ABUN
PO-215	-2.612E-01	8.356E-01	1.243E+00	0.000E+00	FAIL ABUN
RN-219	-2.764E-01	4.869E-01	7.952E-01	0.000E+00	FAIL ABUN
RN-220	-4.825E+00	3.415E+01	5.626E+01	0.000E+00	NOT IDENT.
RA-223	-2.612E-01	8.356E-01	1.243E+00	0.000E+00	FAIL ABUN
AC-227	-2.634E-01	4.349E-01	6.821E-01	0.000E+00	NOT IDENT.
TH-227	-2.634E-01	4.356E-01	6.821E-01	0.000E+00	FAIL ABUN
TH-229	3.222E-01	5.688E-01	9.819E-01	0.000E+00	FAIL ABUN
PA-231	-9.245E-01	1.737E+00	2.946E+00	0.000E+00	NOT IDENT.
TH-231	-2.612E-01	8.356E-01	1.243E+00	0.000E+00	FAIL ABUN
U-231	1.289E+00	1.228E+00	1.669E+00	0.000E+00	FAIL ABUN
PA-233	-2.620E-02	6.863E-02	1.166E-01	0.000E+00	FAIL ABUN
PA-234	1.874E-01	3.976E-01	7.013E-01	0.000E+00	FAIL ABUN
PA-234M	1.167E+01	7.047E+00	1.342E+01	0.000E+00	NOT IDENT.
NP-236	-4.793E-02	8.331E-02	1.370E-01	0.000E+00	FAIL ABUN
NP-239	4.639E-02	1.897E-01	3.321E-01	0.000E+00	FAIL ABUN
AM-241	-6.541E-03	7.766E-02	1.245E-01	0.000E+00	NOT IDENT.
CM-243	-3.304E-03	1.050E-01	1.639E-01	0.000E+00	FAIL ABUN
AM-246	1.860E-01	1.855E-01	3.431E-01	0.000E+00	NOT IDENT.
CM-247	-1.071E-02	4.265E-02	7.158E-02	0.000E+00	NOT IDENT.
CF-249	2.932E-02	4.932E-02	8.785E-02	0.000E+00	NOT IDENT.
CF-251	2.003E-02	1.374E-01	2.337E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:50:43.11

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960006.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:48:42
Sample ID : G245960006 Sample quantity : 1.17770E+02 GRAM
Detector name : GAM17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:09.59 0.1%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	519	10.67*	7.782E-01	1.993E+01	1.993E+01	12.90
CD-109	88.03	161	3.72*	6.676E+00	2.061E+00	2.108E+00	42.19
SN-126	64.28	681	9.60	6.777E+00	3.335E+00	3.335E+00	22.60
	86.94	161	8.90	6.676E+00	8.613E-01	8.613E-01	58.45
	87.57	161	37.00*	6.676E+00	2.072E-01	2.072E-01	42.19
BA-137M	661.65	149	89.98*	1.604E+00	3.287E-01	3.290E-01	29.83
CS-137	661.65	149	85.12*	1.604E+00	3.474E-01	3.478E-01	29.83
CE-141	145.44	101	48.40*	5.586E+00	1.191E-01	1.648E-01	83.27
TL-208	277.35	------	6.80	3.568E+00	------ Line Not Found		------
	510.84	148	21.60	2.058E+00	1.058E+00	1.058E+00	41.28
	583.14	273	84.20*	1.812E+00	5.699E-01	5.699E-01	18.73
	860.37	48	12.46	1.247E+00	9.751E-01	9.751E-01	58.91
BI-210	46.50	167	4.05*	6.320E+00	2.078E+00	2.081E+00	44.51
PB-210	46.50	167	4.05*	6.320E+00	2.078E+00	2.081E+00	44.51
PO-210	46.50	167	4.05*	6.320E+00	2.078E+00	2.081E+00	44.33
BI-211	72.87	------	1.27	6.803E+00	------ Line Not Found		------
	351.07	496	12.94*	2.909E+00	4.200E+00	4.200E+00	16.20
PB-212	74.81	511	10.70	6.795E+00	2.241E+00	2.241E+00	20.73
	77.11	845	18.00	6.781E+00	2.206E+00	2.206E+00	14.33
	87.30	161	8.00	6.676E+00	9.582E-01	9.582E-01	43.36
	238.63	952	44.60*	4.022E+00	1.692E+00	1.692E+00	12.62
	300.09	------	3.41	3.340E+00	------ Line Not Found		------
PO-212	74.81	511	10.70	6.795E+00	2.241E+00	2.241E+00	20.73
	77.11	845	18.00	6.781E+00	2.206E+00	2.206E+00	14.33
	87.30	161	8.00	6.676E+00	9.582E-01	9.582E-01	43.36
	115.19	------	0.60	6.177E+00	------ Line Not Found		------
	238.63	952	44.60*	4.022E+00	1.692E+00	1.692E+00	12.62
	300.09	------	3.41	3.340E+00	------ Line Not Found		------
BI-214	609.31	332	46.30*	1.737E+00	1.317E+00	1.317E+00	18.29
	1120.29	76	15.10	9.774E-01	1.644E+00	1.644E+00	44.47
	1764.49	55	15.80	6.717E-01	1.649E+00	1.649E+00	35.89
PB-214	74.81	511	6.21	6.795E+00	3.861E+00	3.861E+00	19.93

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	845	10.50	6.781E+00	3.783E+00	3.783E+00	16.23
	87.30	161	4.67	6.676E+00	1.641E+00	1.641E+00	42.89
	241.98	222	7.49	3.983E+00	2.371E+00	2.371E+00	25.19
	295.21	299	19.20	3.388E+00	1.464E+00	1.464E+00	22.17
	351.92	496	37.20*	2.909E+00	1.461E+00	1.461E+00	17.02
PO-214	74.81	511	6.21	6.795E+00	3.861E+00	3.861E+00	19.93
	77.11	845	10.50	6.781E+00	3.783E+00	3.783E+00	16.23
	87.30	161	4.67	6.676E+00	1.641E+00	1.641E+00	42.89
	241.98	222	7.49	3.983E+00	2.371E+00	2.371E+00	25.19
	295.21	299	19.20	3.388E+00	1.464E+00	1.464E+00	22.17
	351.92	496	37.20*	2.909E+00	1.461E+00	1.461E+00	17.02
PO-216	74.81	511	10.70	6.795E+00	2.241E+00	2.241E+00	20.73
	77.11	845	18.00	6.781E+00	2.206E+00	2.206E+00	14.33
	87.30	161	8.00	6.676E+00	9.582E-01	9.582E-01	43.36
	238.63	952	44.60*	4.022E+00	1.692E+00	1.692E+00	12.62
	300.09	------	3.41	3.340E+00	------ Line Not Found		------
PO-218	74.81	511	6.21	6.795E+00	3.861E+00	3.861E+00	19.93
	77.11	845	10.50	6.781E+00	3.783E+00	3.783E+00	16.23
	87.30	161	4.67	6.676E+00	1.641E+00	1.641E+00	42.89
	241.98	222	7.49	3.983E+00	2.371E+00	2.371E+00	25.19
	295.21	299	19.20	3.388E+00	1.464E+00	1.464E+00	22.17
	351.92	496	37.20*	2.909E+00	1.461E+00	1.461E+00	17.02
RA-224	240.98	222	3.95*	3.983E+00	4.496E+00	4.496E+00	24.56
RA-226	609.31	332	46.30*	1.737E+00	1.317E+00	1.317E+00	18.29
	1120.29	76	15.10	9.774E-01	1.644E+00	1.644E+00	44.47
	1764.49	55	15.80	6.717E-01	1.649E+00	1.649E+00	35.89
AC-228	338.32	189	11.40	3.010E+00	1.755E+00	1.755E+00	51.39
	911.07	158	27.70*	1.182E+00	1.540E+00	1.540E+00	25.49
	969.11	98	16.60	1.116E+00	1.694E+00	1.694E+00	38.77
RA-228	338.32	189	11.40	3.010E+00	1.755E+00	1.755E+00	51.39
	911.07	158	27.70*	1.182E+00	1.540E+00	1.540E+00	25.49
	969.11	98	16.60	1.116E+00	1.694E+00	1.694E+00	38.77
TH-228	74.81	511	10.70	6.795E+00	2.241E+00	2.275E+00	18.54
	77.11	845	18.00	6.781E+00	2.206E+00	2.240E+00	14.33
	87.30	161	8.00	6.676E+00	9.582E-01	9.728E-01	42.19
	238.63	952	44.60*	4.022E+00	1.692E+00	1.718E+00	12.62
	300.09	------	3.41	3.340E+00	------ Line Not Found		------
TH-230	609.31	332	46.30*	1.737E+00	1.317E+00	1.317E+00	18.29
	1120.29	76	15.10	9.774E-01	1.644E+00	1.644E+00	44.47
	1764.49	55	15.80	6.717E-01	1.649E+00	1.649E+00	35.89
TH-232	338.32	189	11.40	3.010E+00	1.755E+00	1.755E+00	31.82
	911.07	158	27.70*	1.182E+00	1.540E+00	1.540E+00	25.49
	969.11	98	16.60	1.116E+00	1.694E+00	1.694E+00	38.77
TH-234	63.29	681	3.80*	6.777E+00	8.425E+00	8.425E+00	24.57
	92.38	1028	5.41	6.594E+00	9.185E+00	9.185E+00	20.81
U-234	609.31	332	46.30*	1.737E+00	1.317E+00	1.317E+00	18.29
	1120.29	76	15.10	9.774E-01	1.644E+00	1.644E+00	44.47
	1764.49	55	15.80	6.717E-01	1.649E+00	1.649E+00	35.89
U-235	89.95	198	2.70	6.636E+00	3.525E+00	3.525E+00	37.86

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	93.35	1028	4.50	6.594E+00	1.104E+01	1.104E+01	29.86
	105.00	------	2.10	6.378E+00	------ Line Not Found		------
	143.76	101	10.50*	5.586E+00	5.492E-01	5.492E-01	84.64
	163.35	------	4.70	5.210E+00	------ Line Not Found		------
	185.71	463	54.00	4.808E+00	5.684E-01	5.684E-01	16.92
	205.31	------	4.70	4.493E+00	------ Line Not Found		------
NP-237	86.50	161	12.60*	6.676E+00	6.084E-01	6.084E-01	46.97
	95.87	------	2.60	6.543E+00	------ Line Not Found		------
U-238	63.29	681	3.80*	6.777E+00	8.425E+00	8.425E+00	24.57
	92.38	1028	5.41	6.594E+00	9.185E+00	9.185E+00	13.43
AM-243	74.67	511	66.00*	6.795E+00	3.633E-01	3.633E-01	18.50
	86.72	161	0.34	6.676E+00	2.281E+01	2.281E+01	42.19
	117.66	------	0.55	6.127E+00	------ Line Not Found		------
	142.18	------	0.13	5.624E+00	------ Line Not Found		------
ANH-511	511.00	148	100.00*	2.058E+00	2.285E-01	2.285E-01	40.43

Flag: "*" = Keyline

Sample ID : G245960006 Acquisition date : 12-FEB-2010 15:48:42

Total number of lines in spectrum 35
Number of unidentified lines 1
Number of lines tentatively identified by NID 34 97.14%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.993E+01	1.993E+01	0.257E+01	12.90	
CD-109	464.00D	1.02	2.061E+00	2.108E+00	0.889E+00	42.19	
SN-126	1.00E+05Y	1.00	2.072E-01	2.072E-01	0.874E-01	42.19	
BA-137M	30.17Y	1.00	3.287E-01	3.290E-01	0.981E-01	29.83	
CS-137	30.17Y	1.00	3.474E-01	3.478E-01	1.037E-01	29.83	
CE-141	32.50D	1.38	1.191E-01	1.648E-01	1.372E-01	83.27	
TL-208	1.41E+10Y	1.00	5.699E-01	5.699E-01	1.067E-01	18.73	
BI-210	22.26Y	1.00	2.078E+00	2.081E+00	0.926E+00	44.51	
PB-210	22.26Y	1.00	2.078E+00	2.081E+00	0.926E+00	44.51	
PO-210	22.26Y	1.00	2.078E+00	2.081E+00	0.922E+00	44.33	
BI-211	7.04E+08Y	1.00	4.200E+00	4.200E+00	0.680E+00	16.20	
PB-212	1.41E+10Y	1.00	1.692E+00	1.692E+00	0.214E+00	12.62	
PO-212	1.41E+10Y	1.00	1.692E+00	1.692E+00	0.214E+00	12.62	
BI-214	1600.00Y	1.00	1.317E+00	1.317E+00	0.241E+00	18.29	
PB-214	1600.00Y	1.00	1.461E+00	1.461E+00	0.249E+00	17.02	
PO-214	1600.00Y	1.00	1.461E+00	1.461E+00	0.249E+00	17.02	
PO-216	1.41E+10Y	1.00	1.692E+00	1.692E+00	0.214E+00	12.62	
PO-218	1600.00Y	1.00	1.461E+00	1.461E+00	0.249E+00	17.02	
RA-224	1.41E+10Y	1.00	4.496E+00	4.496E+00	1.104E+00	24.56	
RA-226	1600.00Y	1.00	1.317E+00	1.317E+00	0.241E+00	18.29	
AC-228	1.41E+10Y	1.00	1.540E+00	1.540E+00	0.392E+00	25.49	
RA-228	1.41E+10Y	1.00	1.540E+00	1.540E+00	0.392E+00	25.49	
TH-228	1.91Y	1.02	1.692E+00	1.718E+00	0.217E+00	12.62	
TH-230	4.47E+09Y	1.00	1.317E+00	1.317E+00	0.241E+00	18.29	
TH-232	1.41E+10Y	1.00	1.540E+00	1.540E+00	0.392E+00	25.49	
TH-234	4.47E+09Y	1.00	8.425E+00	8.425E+00	2.070E+00	24.57	
U-234	4.47E+09Y	1.00	1.317E+00	1.317E+00	0.241E+00	18.29	
U-235	7.04E+08Y	1.00	5.492E-01	5.492E-01	4.648E-01	84.64	
NP-237	2.14E+06Y	1.00	6.084E-01	6.084E-01	2.857E-01	46.97	
U-238	4.47E+09Y	1.00	8.425E+00	8.425E+00	2.070E+00	24.57	
AM-243	7380.00Y	1.00	3.633E-01	3.633E-01	0.672E-01	18.50	
ANH-511	1.00E+09Y	1.00	2.285E-01	2.285E-01	0.924E-01	40.43	
	Total Activity :		7.813E+01	7.826E+01			

Grand Total Activity : 7.813E+01 7.826E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960006 Acquisition date : 12-FEB-2010 15:48:42

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	83.91	110	495	1.21	167.48	164	15	1.53E-02	73.7	6.72E+00	T
0	98.96	138	383	1.68	197.58	193	10	1.91E-02	56.0	6.49E+00	T
0	129.41	121	353	0.92	258.50	254	10	1.67E-02	61.4	5.89E+00	T
0	209.26	89	236	1.32	418.26	413	10	1.24E-02	67.8	4.43E+00	T
0	270.20	40	186	1.45	540.19	536	10	5.56E-03	****	3.65E+00	T
0	327.44	86	121	1.18	654.73	650	11	1.19E-02	54.0	3.10E+00	T
0	462.95	48	67	0.85	925.87	922	8	6.69E-03	65.7	2.26E+00	T
0	726.85	80	56	1.71	1453.98	1449	13	1.11E-02	44.3	1.46E+00	T
0	795.23	35	47	0.88	1590.81	1584	12	4.92E-03	84.9	1.34E+00	T
0	963.90	38	34	1.59	1928.38	1923	9	5.31E-03	63.6	1.12E+00	T
0	1587.78	9	12	0.94	3177.16	3172	8	1.32E-03	****	7.28E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:50:47.82

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960006.CNF;1		
Acquisition date	: 12-FEB-2010 15:48:42	Detector SN#	:
Detector ID	: GAM17	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:09.59	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960006	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.17770E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 6-JAN-2010 11:41:36.18	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.993E+01	2.571E+00	5.110E-01	4.537E-02	39.007
CD-109	2.108E+00	8.894E-01	1.299E+00	1.268E-01	1.622
SN-126	2.072E-01	8.741E-02	1.275E-01	1.244E-02	1.625
BA-137M	3.290E-01	9.812E-02	7.190E-02	6.057E-03	4.576
CS-137	3.478E-01	1.037E-01	7.600E-02	6.415E-03	4.576
CE-141	1.648E-01	1.372E-01	9.979E-02	1.018E-02	1.651
TL-208	5.699E-01	1.067E-01	6.893E-02	6.520E-03	8.267
BI-210	2.081E+00	9.261E-01	9.011E-01	9.775E-02	2.309
PB-210	2.081E+00	9.261E-01	9.011E-01	9.775E-02	2.309
PO-210	2.081E+00	9.224E-01	9.011E-01	9.104E-02	2.309
BI-211	4.200E+00	6.804E-01	3.905E-01	3.645E-02	10.753
PB-212	1.692E+00	2.136E-01	9.696E-02	9.775E-03	17.455
PO-212	1.692E+00	2.136E-01	9.696E-02	9.775E-03	17.455
BI-214	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
PB-214	1.461E+00	2.487E-01	1.362E-01	1.455E-02	10.727
PO-214	1.461E+00	2.487E-01	1.362E-01	1.455E-02	10.727
PO-216	1.692E+00	2.136E-01	9.696E-02	9.775E-03	17.455
PO-218	1.461E+00	2.487E-01	1.362E-01	1.455E-02	10.727

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	4.496E+00	1.104E+00	1.104E+00	9.987E-02	4.072
RA-226	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
AC-228	1.540E+00	3.924E-01	2.538E-01	2.878E-02	6.067
RA-228	1.540E+00	3.924E-01	2.538E-01	2.878E-02	6.067
TH-228	1.718E+00	2.169E-01	9.843E-02	9.923E-03	17.455
TH-230	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
TH-232	1.540E+00	3.924E-01	2.538E-01	2.878E-02	6.067
TH-234	8.425E+00	2.070E+00	1.127E+00	2.103E-01	7.476
U-234	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
U-235	5.492E-01	4.648E-01	3.614E-01	6.625E-02	1.520
NP-237	6.084E-01	2.857E-01	3.733E-01	8.519E-02	1.630
U-238	8.425E+00	2.070E+00	1.127E+00	2.103E-01	7.476
AM-243	3.633E-01	6.723E-02	6.329E-02	6.179E-03	5.741
ANH-511	2.285E-01	9.239E-02	5.855E-02	5.229E-03	3.903

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.625E-01		4.247E-01	7.171E-01	6.823E-02	0.227
NA-22	-2.995E-02		5.476E-02	8.208E-02	6.915E-03	-0.365
NA-24	-4.117E-03		4.369E-01	Half-Life too short		
AL-26	-7.166E-03		3.222E-02	4.883E-02	4.093E-03	-0.147
TI-44	4.072E-01	+	5.835E-02	6.876E-02	6.700E-03	5.921
SC-46	5.391E-03		5.174E-02	8.663E-02	7.584E-03	0.062
V-48	3.793E-02		8.917E-02	1.540E-01	1.343E-02	0.246
CR-51	2.605E-01		4.357E-01	7.590E-01	7.248E-02	0.343
MN-52	-6.087E-02		3.373E-01	5.462E-01	4.709E-02	-0.111
MN-54	-1.719E-02		5.085E-02	8.172E-02	7.186E-03	-0.210
CO-56	9.005E-03		5.215E-02	8.820E-02	7.753E-03	0.102
CO-57	-4.294E-03		2.639E-02	4.329E-02	5.072E-03	-0.099
CO-58	-1.944E-02		4.736E-02	7.515E-02	6.618E-03	-0.259
FE-59	-4.084E-02		1.211E-01	1.886E-01	1.731E-02	-0.217
CO-60	2.478E-02		5.064E-02	9.039E-02	7.704E-03	0.274
ZN-65	3.748E-02		1.347E-01	1.979E-01	1.666E-02	0.189
GE-68	1.845E+00		1.684E+00	3.079E+00	2.628E-01	0.599
AS-73	2.266E-01		2.680E-01	4.626E-01	4.628E-02	0.490
AS-74	1.955E-02		1.178E-01	1.931E-01	1.701E-02	0.101
SE-75	-1.617E-02		4.983E-02	7.277E-02	6.686E-03	-0.222
BR-77	-6.212E+00		1.369E+01	2.136E+01	1.910E+00	-0.291
SR-82	-9.704E-02		5.019E-01	8.233E-01	7.205E-02	-0.118
RB-83	-4.430E-02		8.914E-02	1.384E-01	1.237E-02	-0.320
RB-84	5.517E-02		8.897E-02	1.574E-01	1.380E-02	0.350
KR-85	8.181E-01		1.028E+01	1.482E+01	1.324E+00	0.055
SR-85	4.197E-03		5.274E-02	7.599E-02	6.789E-03	0.055
RB-86	4.581E-01		1.090E+00	1.863E+00	1.591E-01	0.246
Y-88	2.897E-03		4.526E-02	7.493E-02	6.248E-03	0.039
ZR-88	-2.674E-02		3.857E-02	6.076E-02	5.119E-03	-0.440

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-1.648E+01		2.680E+01	4.014E+01	3.313E+00	-0.410
NB-94	-6.123E-04		4.207E-02	7.077E-02	6.070E-03	-0.009
NB-95	1.005E-01		6.064E-02	1.137E-01	9.927E-03	0.884
NB-95M	2.901E-02		1.400E-01	2.021E-01	2.063E-02	0.144
ZR-95	-4.174E-03		8.961E-02	1.495E-01	1.432E-02	-0.028
NB-97	-8.707E-02		8.000E-02	Half-Life too short		
ZR-97	3.552E+00		1.318E+00	Half-Life too short		
MO-99	-1.262E+01		1.677E+01	2.604E+01	3.963E+00	-0.485
TC-99M	4.176E+09		2.464E+10	Half-Life too short		
RH-101	7.915E-03		3.838E-02	6.163E-02	5.358E-03	0.128
RH-102	-1.944E-02		3.867E-02	6.075E-02	5.381E-03	-0.320
RU-103	1.048E-02		5.076E-02	8.447E-02	1.211E-02	0.124
RH-106	1.563E-01		4.182E-01	6.970E-01	9.341E-02	0.224
RU-106	1.563E-01		4.179E-01	6.970E-01	6.055E-02	0.224
AG-108M	1.569E-02		3.998E-02	6.799E-02	6.137E-03	0.231
AG-110M	-2.751E-02		5.440E-02	7.017E-02	6.115E-03	-0.392
IN-111	-1.520E-01		1.361E+00	1.905E+00	1.728E-01	-0.080
IN-113M	-5.169E-03		5.465E-02	9.018E-02	7.835E-03	-0.057
SN-113	-5.169E-03		5.465E-02	9.018E-02	7.835E-03	-0.057
IN-114M	4.126E-02		2.239E-01	3.268E-01	2.814E-02	0.126
CD-115	6.025E-01		1.411E+01	2.305E+01	2.061E+00	0.026
SN-117M	1.881E-02		5.846E-02	9.697E-02	8.716E-03	0.194
SB-122	2.411E-01		2.889E+00	4.715E+00	4.198E-01	0.051
I-123	1.790E+00		3.233E+00	Half-Life too short		
TE-123M	8.386E-03		3.030E-02	5.014E-02	4.513E-03	0.167
I-124	2.223E-01		1.029E+00	1.488E+00	1.306E-01	0.149
SB-124	5.596E-02		1.167E-01	2.083E-01	1.854E-02	0.269
SB-125	9.833E-02		1.124E-01	1.975E-01	1.742E-02	0.498
TE-125M	7.867E+00		9.762E+00	1.669E+01	2.051E+00	0.471
I-126	-4.359E-02		2.660E-01	3.615E-01	3.052E-02	-0.121
SB-126	5.568E-02		2.055E-01	3.248E-01	2.804E-02	0.171
SB-127	-8.523E-01		1.884E+00	2.854E+00	3.230E-01	-0.299
XE-127	1.105E-02		5.381E-02	8.757E-02	7.655E-03	0.126
I-131	1.218E-02		1.425E-01	2.393E-01	2.209E-02	0.051
TE-132	1.160E-01		7.899E-01	1.273E+00	2.026E-01	0.091
BA-133	-8.692E-03		5.529E-02	8.007E-02	1.070E-02	-0.109
I-133	4.006E-04		4.116E-03	Half-Life too short		
CS-134	1.109E-01	+	9.462E-02	1.179E-01	1.042E-02	0.940
CS-135	9.409E-02		1.983E-01	2.905E-01	3.031E-02	0.324
I-135	-3.808E+09		4.568E+09	Half-Life too short		
CS-136	-1.636E-02		1.569E-01	2.532E-01	2.274E-02	-0.065
CE-139	-2.340E-02		3.505E-02	5.505E-02	4.590E-03	-0.425
BA-140	-2.041E-01		3.158E-01	4.668E-01	1.551E-01	-0.437
LA-140	-1.034E-01		1.213E-01	1.679E-01	1.449E-02	-0.616
CE-143	6.487E-04		1.236E-04	Half-Life too short		
CE-144	-5.955E-02		2.471E-01	3.580E-01	6.072E-02	-0.166
PM-144	1.726E-02		4.414E-02	7.689E-02	6.582E-03	0.224
PR-144	1.169E+00		2.991E+00	5.210E+00	4.459E-01	0.224

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	2.672E-02		5.754E-02	9.788E-02	1.062E-02	0.273
ND-147	-5.268E-02		7.376E-01	1.192E+00	1.805E-01	-0.044
PM-149	-2.332E+01		1.088E+02	1.820E+02	2.886E+01	-0.128
EU-152	-5.035E-04		1.200E-01	1.944E-01	1.839E-02	-0.003
GD-153	1.327E-01		9.747E-02	1.291E-01	1.320E-02	1.027
EU-154	-2.444E-02		1.446E-01	2.306E-01	2.572E-02	-0.106
EU-155	1.511E-01		1.095E-01	1.907E-01	2.048E-02	0.792
TB-160	-9.832E-02		1.880E-01	2.928E-01	2.567E-02	-0.336
HO-166M	-5.490E-02		7.986E-02	1.256E-01	1.081E-02	-0.437
TM-171	3.837E+00		1.753E+01	2.703E+01	2.668E+00	0.142
LU-176	-1.340E-02		2.717E-02	4.430E-02	4.059E-03	-0.302
LU-177	2.809E+00	+	1.921E+00	2.244E+00	1.974E-01	1.251
LU-177M	-1.178E-01		2.288E-01	3.645E-01	3.123E-02	-0.323
HF-181	-1.341E-02		5.588E-02	8.970E-02	7.963E-03	-0.150
W-181	1.510E-01		2.197E-01	3.453E-01	3.419E-02	0.437
TA-182	2.252E-02		2.978E-01	4.840E-01	4.014E-02	0.047
RE-183	-4.284E-02		1.188E-01	1.897E-01	1.642E-02	-0.226
RE-184	-1.682E-01		2.683E-01	4.063E-01	3.700E-02	-0.414
OS-185	-1.912E-03		5.333E-02	8.516E-02	7.271E-03	-0.022
RE-188	1.547E-01		1.930E-01	3.266E-01	3.034E-02	0.474
W-188	-9.830E-01		9.529E+00	1.412E+01	1.297E+00	-0.070
IR-192	-1.021E-02		3.813E-02	6.303E-02	5.767E-03	-0.162
AU-195	6.568E-01	+	3.739E-01	4.109E-01	4.232E-02	1.598
TL-200	-1.637E-04		2.778E-04	Half-Life too short		
TL-201	9.185E+00		8.070E+00	1.381E+01	1.154E+00	0.665
TL-202	5.287E-02		8.327E-02	1.441E-01	1.256E-02	0.367
HG-203	-1.874E-02		4.743E-02	7.865E-02	7.402E-03	-0.238
BI-207	6.848E-02		6.926E-02	1.257E-01	1.078E-02	0.545
TL-207	-2.612E-01		8.527E-01	1.227E+00	2.201E-01	-0.213
PO-209	-5.354E-01		1.036E+01	1.705E+01	1.490E+00	-0.031
PB-211	-6.358E-01		1.175E+00	1.752E+00	1.098E+00	-0.363
BI-212	1.478E+00	+	6.719E-01	9.282E-01	9.313E-02	1.593
PO-215	-2.612E-01		8.527E-01	1.227E+00	2.201E-01	-0.213
RN-219	-2.764E-01		4.968E-01	7.865E-01	1.176E-01	-0.351
RN-220	-4.825E+00		3.485E+01	5.584E+01	4.985E+00	-0.086
RA-223	-2.612E-01		8.527E-01	1.227E+00	2.201E-01	-0.213
AC-227	-2.634E-01		4.438E-01	6.715E-01	1.050E-01	-0.392
TH-227	-2.634E-01		4.445E-01	6.715E-01	1.229E-01	-0.392
TH-229	3.222E-01		5.804E-01	9.637E-01	8.335E-02	0.334
PA-231	-9.245E-01		1.773E+00	2.904E+00	4.504E-01	-0.318
TH-231	-2.612E-01		8.527E-01	1.227E+00	2.201E-01	-0.213
U-231	1.289E+00		1.253E+00	1.626E+00	1.650E-01	0.792
PA-233	-2.620E-02		7.003E-02	1.150E-01	1.078E-02	-0.228
PA-234	1.874E-01		4.057E-01	7.001E-01	1.318E-01	0.268
PA-234M	1.167E+01		7.191E+00	1.341E+01	1.346E+00	0.870
NP-236	-4.793E-02		8.501E-02	1.342E-01	1.186E-02	-0.357
NP-239	4.639E-02		1.936E-01	3.242E-01	3.688E-02	0.143
AM-241	-6.541E-03		7.924E-02	1.207E-01	1.281E-02	-0.054

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.304E-03		1.072E-01	1.598E-01	1.689E-02	-0.021
AM-246	1.860E-01		1.893E-01	3.430E-01	2.926E-02	0.542
CM-247	-1.071E-02		4.352E-02	7.080E-02	6.015E-03	-0.151
CF-249	2.932E-02		5.032E-02	8.686E-02	7.359E-03	0.338
CF-251	2.003E-02		1.402E-01	2.291E-01	1.938E-02	0.087

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960006		
Acquisition date	: 12-FEB-2010 15:48:42	Detector SN#	:
Detector ID	: GAM17	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:09.59	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960006	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.1777E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

CALIB. DATE/TIME	: 6-JAN-2010 11:41:36	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.993E+01	2.520E+00	2.549E-01	1.286E+00
CD-109	2.108E+00	8.716E-01	6.678E-01	4.447E-01
SN-126	2.072E-01	8.566E-02	6.554E-02	4.371E-02
BA-137M	3.290E-01	9.616E-02	3.617E-02	4.906E-02
CS-137	3.478E-01	1.017E-01	3.823E-02	5.187E-02
CE-141	1.648E-01	1.345E-01	5.102E-02	6.860E-02
TL-208	5.699E-01	1.046E-01	3.473E-02	5.336E-02
BI-210	2.081E+00	9.076E-01	4.662E-01	4.631E-01
PB-210	2.081E+00	9.076E-01	4.662E-01	4.631E-01
PO-210	2.081E+00	9.040E-01	4.662E-01	4.612E-01
BI-211	4.200E+00	6.668E-01	1.978E-01	3.402E-01
PB-212	1.692E+00	2.094E-01	4.931E-02	1.068E-01
PO-212	1.692E+00	2.094E-01	4.931E-02	1.068E-01
BI-214	1.317E+00	2.360E-01	7.426E-02	1.204E-01
PB-214	1.461E+00	2.437E-01	6.898E-02	1.243E-01
PO-214	1.461E+00	2.437E-01	6.898E-02	1.243E-01
PO-216	1.692E+00	2.094E-01	4.931E-02	1.068E-01
PO-218	1.461E+00	2.437E-01	6.898E-02	1.243E-01
RA-224	4.496E+00	1.082E+00	5.616E-01	5.521E-01
RA-226	1.317E+00	2.360E-01	7.426E-02	1.204E-01
AC-228	1.540E+00	3.845E-01	1.272E-01	1.962E-01
RA-228	1.540E+00	3.845E-01	1.272E-01	1.962E-01
TH-228	1.718E+00	2.125E-01	5.006E-02	1.084E-01
TH-230	1.317E+00	2.360E-01	7.426E-02	1.204E-01
TH-232	1.540E+00	3.845E-01	1.272E-01	1.962E-01
TH-234	8.425E+00	2.029E+00	5.812E-01	1.035E+00
U-234	1.317E+00	2.360E-01	7.426E-02	1.204E-01
U-235	5.492E-01	4.555E-01	1.848E-01	2.324E-01
NP-237	6.084E-01	2.800E-01	1.919E-01	1.429E-01
U-238	8.425E+00	2.029E+00	5.812E-01	1.035E+00
AM-243	3.633E-01	6.588E-02	3.258E-02	3.361E-02
ANH-511	2.285E-01	9.054E-02	2.954E-02	4.619E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.625E-01	4.162E-01	3.620E-01	2.124E-01	NOT IDENT.
NA-22	-2.995E-02	5.367E-02	4.100E-02	2.738E-02	NOT IDENT.
NA-24	-4.117E+03	8.564E+05	0.000E+00	4.369E+05	SHORT HLIF
AL-26	-7.166E-03	3.158E-02	2.430E-02	1.611E-02	NOT IDENT.
TI-44	4.072E-01	5.718E-02	3.538E-02	2.917E-02	FAIL ABUN
SC-46	5.391E-03	5.070E-02	4.344E-02	2.587E-02	FAIL ABUN
V-48	3.793E-02	8.738E-02	7.713E-02	4.458E-02	NOT IDENT.
CR-51	2.605E-01	4.270E-01	3.848E-01	2.179E-01	NOT IDENT.
MN-52	-6.087E-02	3.305E-01	2.725E-01	1.686E-01	NOT IDENT.
MN-54	-1.719E-02	4.983E-02	4.101E-02	2.542E-02	NOT IDENT.
CO-56	9.005E-03	5.111E-02	4.425E-02	2.607E-02	NOT IDENT.
CO-57	-4.294E-03	2.587E-02	2.217E-02	1.320E-02	NOT IDENT.
CO-58	-1.944E-02	4.641E-02	3.772E-02	2.368E-02	NOT IDENT.
FE-59	-4.084E-02	1.187E-01	9.435E-02	6.056E-02	FAIL ABUN
CO-60	2.478E-02	4.963E-02	4.513E-02	2.532E-02	NOT IDENT.
ZN-65	3.748E-02	1.320E-01	9.898E-02	6.735E-02	NOT IDENT.
GE-68	1.845E+00	1.650E+00	1.541E+00	8.419E-01	NOT IDENT.
AS-73	2.266E-01	2.626E-01	2.390E-01	1.340E-01	NOT IDENT.
AS-74	1.955E-02	1.154E-01	9.725E-02	5.889E-02	NOT IDENT.
SE-75	-1.617E-02	4.883E-02	3.697E-02	2.491E-02	NOT IDENT.
BR-77	-6.212E+00	1.342E+01	1.078E+01	6.847E+00	FAIL ABUN
SR-82	-9.704E-02	4.919E-01	4.135E-01	2.510E-01	NOT IDENT.
RB-83	-4.430E-02	8.736E-02	6.982E-02	4.457E-02	NOT IDENT.
RB-84	5.517E-02	8.719E-02	7.894E-02	4.449E-02	NOT IDENT.
KR-85	8.181E-01	1.008E+01	7.473E+00	5.141E+00	NOT IDENT.
SR-85	4.197E-03	5.169E-02	3.833E-02	2.637E-02	NOT IDENT.
RB-86	4.581E-01	1.069E+00	9.324E-01	5.452E-01	NOT IDENT.
Y-88	2.897E-03	4.435E-02	3.727E-02	2.263E-02	NOT IDENT.
ZR-88	-2.674E-02	3.780E-02	3.074E-02	1.929E-02	NOT IDENT.
Y-91	-1.648E+01	2.626E+01	2.006E+01	1.340E+01	NOT IDENT.
NB-94	-6.123E-04	4.123E-02	3.558E-02	2.103E-02	NOT IDENT.
NB-95	1.005E-01	5.942E-02	5.708E-02	3.032E-02	NOT IDENT.
NB-95M	2.901E-02	1.372E-01	1.028E-01	6.998E-02	NOT IDENT.
ZR-95	-4.174E-03	8.782E-02	7.508E-02	4.481E-02	NOT IDENT.
NB-97	-8.707E+04	1.568E+05	0.000E+00	8.000E+04	SHORT HLIF
ZR-97	3.552E+06	2.583E+06	0.000E+00	1.318E+06	SHORT HLIF
MO-99	-1.262E+01	1.644E+01	1.308E+01	8.386E+00	NOT IDENT.
TC-99M	4.176E+15	4.830E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	7.915E-03	3.761E-02	3.141E-02	1.919E-02	NOT IDENT.
RH-102	-1.944E-02	3.790E-02	3.067E-02	1.934E-02	NOT IDENT.
RU-103	1.048E-02	4.975E-02	4.262E-02	2.538E-02	FAIL ABUN
RH-106	1.563E-01	4.099E-01	3.509E-01	2.091E-01	FAIL ABUN
RU-106	1.563E-01	4.096E-01	3.509E-01	2.090E-01	FAIL ABUN
AG-108M	1.569E-02	3.918E-02	3.436E-02	1.999E-02	NOT IDENT.
AG-110M	-2.751E-02	5.331E-02	3.530E-02	2.720E-02	NOT IDENT.
IN-111	-1.520E-01	1.334E+00	9.688E-01	6.807E-01	NOT IDENT.
IN-113M	-5.169E-03	5.356E-02	4.562E-02	2.733E-02	NOT IDENT.
SN-113	-5.169E-03	5.356E-02	4.562E-02	2.733E-02	NOT IDENT.
IN-114M	4.126E-02	2.194E-01	1.666E-01	1.119E-01	NOT IDENT.
CD-115	6.025E-01	1.382E+01	1.162E+01	7.053E+00	NOT IDENT.
SN-117M	1.881E-02	5.729E-02	4.953E-02	2.923E-02	NOT IDENT.
SB-122	2.411E-01	2.832E+00	2.376E+00	1.445E+00	NOT IDENT.
I-123	1.790E+06	6.337E+06	0.000E+00	3.233E+06	SHORT HLIF
TE-123M	8.386E-03	2.969E-02	2.561E-02	1.515E-02	NOT IDENT.
I-124	2.223E-01	1.008E+00	7.491E-01	5.145E-01	NOT IDENT.
SB-124	5.596E-02	1.143E-01	1.037E-01	5.833E-02	FAIL ABUN
SB-125	9.833E-02	1.102E-01	9.985E-02	5.620E-02	FAIL ABUN
TE-125M	7.867E+00	9.566E+00	8.557E+00	4.881E+00	NOT IDENT.
I-126	-4.359E-02	2.607E-01	1.818E-01	1.330E-01	NOT IDENT.
SB-126	5.568E-02	2.014E-01	1.633E-01	1.028E-01	FAIL ABUN
SB-127	-8.523E-01	1.846E+00	1.435E+00	9.419E-01	NOT IDENT.
XE-127	1.105E-02	5.273E-02	4.461E-02	2.690E-02	FAIL ABUN
I-131	1.218E-02	1.397E-01	1.211E-01	7.126E-02	NOT IDENT.
TE-132	1.160E-01	7.741E-01	6.480E-01	3.950E-01	NOT IDENT.
BA-133	-8.692E-03	5.418E-02	4.055E-02	2.764E-02	NOT IDENT.
I-133	4.006E+02	8.067E+03	0.000E+00	4.116E+03	SHORT HLIF
CS-134	1.109E-01	9.273E-02	5.920E-02	4.731E-02	FAIL ABUN
CS-135	9.409E-02	1.943E-01	1.476E-01	9.914E-02	NOT IDENT.
I-135	-3.808E+15	8.953E+15	0.000E+00	4.568E+15	SHORT HLIF
CS-136	-1.636E-02	1.537E-01	1.268E-01	7.844E-02	FAIL ABUN
CE-139	-2.340E-02	3.435E-02	2.811E-02	1.752E-02	NOT IDENT.
BA-140	-2.041E-01	3.095E-01	2.354E-01	1.579E-01	NOT IDENT.
LA-140	-1.034E-01	1.188E-01	8.364E-02	6.063E-02	FAIL ABUN

CE-143	6.487E+02	2.422E+02	0.000E+00	1.236E+02	SHORT HLIF
CE-144	-5.955E-02	2.422E-01	1.832E-01	1.236E-01	NOT IDENT.
PM-144	1.726E-02	4.326E-02	3.866E-02	2.207E-02	NOT IDENT.
PR-144	1.169E+00	2.931E+00	2.620E+00	1.496E+00	NOT IDENT.
PM-146	2.672E-02	5.639E-02	4.944E-02	2.877E-02	NOT IDENT.
ND-147	-5.268E-02	7.229E-01	6.012E-01	3.688E-01	FAIL ABUN
PM-149	-2.332E+01	1.066E+02	9.236E+01	5.440E+01	NOT IDENT.
EU-152	-5.035E-04	1.176E-01	9.849E-02	6.001E-02	FAIL ABUN
GD-153	1.327E-01	9.552E-02	6.629E-02	4.874E-02	FAIL ABUN
EU-154	-2.444E-02	1.417E-01	1.152E-01	7.230E-02	NOT IDENT.
EU-155	1.511E-01	1.073E-01	9.781E-02	5.473E-02	FAIL ABUN
TB-160	-9.832E-02	1.843E-01	1.469E-01	9.402E-02	FAIL ABUN
HO-166M	-5.490E-02	7.826E-02	6.313E-02	3.993E-02	FAIL ABUN
TM-171	3.837E+00	1.718E+01	1.393E+01	8.765E+00	NOT IDENT.
LU-176	-1.340E-02	2.662E-02	2.247E-02	1.358E-02	FAIL ABUN
LU-177	2.809E+00	1.883E+00	1.143E+00	9.606E-01	FAIL ABUN
LU-177M	-1.178E-01	2.243E-01	1.843E-01	1.144E-01	FAIL ABUN
HF-181	-1.341E-02	5.476E-02	4.528E-02	2.794E-02	NOT IDENT.
W-181	1.510E-01	2.153E-01	1.780E-01	1.099E-01	NOT IDENT.
TA-182	2.252E-02	2.919E-01	2.418E-01	1.489E-01	FAIL ABUN
RE-183	-4.284E-02	1.164E-01	9.688E-02	5.938E-02	FAIL ABUN
RE-184	-1.682E-01	2.629E-01	2.065E-01	1.341E-01	NOT IDENT.
OS-185	-1.912E-03	5.227E-02	4.285E-02	2.667E-02	NOT IDENT.
RE-188	1.547E-01	1.892E-01	1.669E-01	9.652E-02	NOT IDENT.
W-188	-9.830E-01	9.338E+00	7.167E+00	4.765E+00	FAIL ABUN
IR-192	-1.021E-02	3.737E-02	3.196E-02	1.906E-02	FAIL ABUN
AU-195	6.568E-01	3.664E-01	2.109E-01	1.869E-01	FAIL ABUN
TL-200	-1.637E+02	5.444E+02	0.000E+00	2.778E+02	SHORT HLIF
TL-201	9.185E+00	7.908E+00	7.053E+00	4.035E+00	NOT IDENT.
TL-202	5.287E-02	8.161E-02	7.282E-02	4.164E-02	NOT IDENT.
HG-203	-1.874E-02	4.648E-02	3.994E-02	2.371E-02	FAIL ABUN
BI-207	6.848E-02	6.788E-02	6.292E-02	3.463E-02	FAIL ABUN
TL-207	-2.612E-01	8.356E-01	6.220E-01	4.263E-01	FAIL ABUN
PO-209	-5.354E-01	1.016E+01	8.547E+00	5.181E+00	NOT IDENT.
PB-211	-6.358E-01	1.152E+00	8.862E-01	5.877E-01	NOT IDENT.
BI-212	1.478E+00	6.584E-01	4.665E-01	3.359E-01	FAIL ABUN
PO-215	-2.612E-01	8.356E-01	6.220E-01	4.263E-01	FAIL ABUN
RN-219	-2.764E-01	4.869E-01	3.978E-01	2.484E-01	FAIL ABUN
RN-220	-4.825E+00	3.415E+01	2.815E+01	1.743E+01	NOT IDENT.
RA-223	-2.612E-01	8.356E-01	6.220E-01	4.263E-01	FAIL ABUN
AC-227	-2.634E-01	4.349E-01	3.413E-01	2.219E-01	NOT IDENT.
TH-227	-2.634E-01	4.356E-01	3.413E-01	2.222E-01	FAIL ABUN
TH-229	3.222E-01	5.688E-01	4.912E-01	2.902E-01	FAIL ABUN
PA-231	-9.245E-01	1.737E+00	1.474E+00	8.863E-01	NOT IDENT.
TH-231	-2.612E-01	8.356E-01	6.220E-01	4.263E-01	FAIL ABUN
U-231	1.289E+00	1.228E+00	8.352E-01	6.264E-01	FAIL ABUN
PA-233	-2.620E-02	6.863E-02	5.832E-02	3.501E-02	FAIL ABUN
PA-234	1.874E-01	3.976E-01	3.508E-01	2.029E-01	FAIL ABUN
PA-234M	1.167E+01	7.047E+00	6.716E+00	3.596E+00	NOT IDENT.
NP-236	-4.793E-02	8.331E-02	6.855E-02	4.250E-02	FAIL ABUN
NP-239	4.639E-02	1.897E-01	1.661E-01	9.680E-02	FAIL ABUN
AM-241	-6.541E-03	7.766E-02	6.226E-02	3.962E-02	NOT IDENT.
CM-243	-3.304E-03	1.050E-01	8.200E-02	5.358E-02	FAIL ABUN
AM-246	1.860E-01	1.855E-01	1.717E-01	9.463E-02	NOT IDENT.
CM-247	-1.071E-02	4.265E-02	3.581E-02	2.176E-02	NOT IDENT.
CF-249	2.932E-02	4.932E-02	4.395E-02	2.516E-02	NOT IDENT.
CF-251	2.003E-02	1.374E-01	1.169E-01	7.008E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417

GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	240.9364
46.50	240.9364
46.50	240.9364
48.70	231.2122
49.72	259.6280
51.35	304.7407
52.39	306.4824
52.97	305.2835
53.15	305.4355
53.44	290.3977
54.07	301.9598
56.28	372.2263
56.28	372.2285
57.37	0.0000
57.53	381.1933
57.53	381.1955
57.60	381.2633
57.98	359.9840
57.98	359.9840
59.32	381.6846
59.32	381.6846
59.40	381.7634
59.54	381.9018
59.72	382.0785
60.01	368.1056
61.10	387.3270
61.14	387.3657
61.30	410.9300
63.00	383.0838
63.29	383.3590
63.29	383.3590
63.58	383.6343
64.28	364.2069
65.12	359.7039
65.20	359.7734
65.20	359.7734
66.05	367.0922
66.72	359.7747
66.83	362.5069
66.91	362.5761
67.20	376.0216
67.20	376.0216
67.75	375.1898
67.85	389.0234
68.90	392.1042
68.90	392.1042
69.30	389.2902
69.67	387.5051
70.82	389.8649
70.82	389.8649
70.83	389.8738
72.80	411.6779
72.87	411.7413
72.87	411.7413
74.67	366.8746
74.81	366.9872
74.81	366.9872
74.81	366.9872
74.81	366.9872
74.81	366.9872
74.81	366.9872
74.81	366.9872
74.81	366.9872
74.97	367.1186
75.28	367.3688
75.70	367.7108
77.11	368.8453
77.11	368.8453

77.11	368.8453
77.11	368.8453
77.11	368.8453
77.11	368.8453
77.11	368.8453
78.38	369.8588
79.62	328.3299
79.80	328.4555
79.80	328.4555
80.11	334.1041
80.18	334.1548
80.30	334.2392
80.30	334.2392
80.57	328.9909
81.00	329.2900
81.07	329.3380
81.07	329.3380
81.07	329.3380
81.07	329.3380
82.60	330.3923
83.37	447.1476
83.78	447.5294
83.78	447.5294
83.78	447.5294
83.78	447.5294
84.21	447.9236
84.90	448.5547
85.43	449.0387
86.29	449.8221
86.50	450.0117
86.54	450.0466
86.59	450.0940
86.72	450.2113
86.79	450.2711
86.94	450.4084
87.30	450.7352
87.30	450.7352
87.30	450.7352
87.30	450.7352
87.30	450.7352
87.30	450.7352
87.30	450.7352
87.57	450.9772
87.88	451.2566
88.03	451.3913
88.36	314.9368
88.47	315.0064
89.95	315.9266
91.11	297.1986
92.29	297.8778
92.38	297.9301
92.38	297.9301
93.35	298.4852
94.00	298.8542
94.67	299.2314
94.67	299.2346
94.90	299.3652
94.90	299.3652
94.90	299.3652
94.90	299.3652
95.87	207.4159
95.87	207.4159
96.73	207.7513
97.43	208.0211
98.44	207.0014
98.44	207.0014
98.88	207.1696
99.55	207.4242
99.55	207.4242
99.86	207.5419
100.00	207.5947
100.10	201.9840
103.18	285.4871
103.76	253.0802
105.00	222.2886
105.31	222.4100
108.00	273.1131
109.28	243.0911

111.00	285.0797
111.00	285.0797
111.76	283.5246
112.95	243.6461
115.19	266.7896
116.30	227.5738
117.00	212.3233
117.00	212.3233
117.66	222.2584
121.11	196.1715
121.62	206.0998
121.78	206.1524
122.06	216.9956
122.32	217.0848
122.32	217.0848
122.32	217.0848
122.32	217.0848
123.07	212.4483
127.23	248.3227
129.76	220.6000
131.20	211.1691
133.02	199.8182
133.54	223.8510
135.34	212.4800
136.00	215.6836
136.25	215.7627
136.48	206.8421
140.51	188.4594
140.51	0.0000
142.18	204.5302
142.65	204.6665
143.76	204.9907
144.24	205.1290
144.24	205.1290
144.24	205.1290
144.24	205.1290
145.22	188.2119
145.44	171.5674
147.16	200.8984
152.43	216.6711
152.70	225.9526
153.22	207.6958
154.21	187.4845
154.21	187.4845
154.21	187.4845
154.21	187.4845
155.03	198.9731
156.02	219.7776
158.56	178.2725
159.00	0.0000
159.00	179.4074
160.31	195.2100
161.27	195.4542
162.32	195.7234
162.64	185.4441
163.35	190.8000
163.89	180.5562
165.85	231.9877
167.43	179.2926
171.28	206.3546
171.86	200.2135
172.10	176.1570
176.55	179.2381
176.60	179.2502
181.06	193.3677
184.41	185.2042
185.71	181.2251
186.00	181.2873
190.27	172.0137
192.34	203.0446
193.63	173.2211
197.04	193.3358
198.01	171.9233
198.60	178.5284
200.40	191.9012
201.83	199.8087
202.84	178.2906
205.31	191.3131

208.36	169.5297
208.81	169.6133
209.75	147.8787
209.75	147.8787
210.97	148.0737
215.65	155.4293
216.55	152.2683
218.09	167.9880
222.10	149.8274
223.80	158.9839
226.40	168.3282
227.00	155.0459
227.08	155.0586
227.20	145.0373
228.16	148.5291
228.18	148.5318
228.18	148.5318
231.56	0.0000
235.69	129.9657
236.00	130.0068
236.00	130.0068
238.63	137.6806
238.63	137.6806
238.63	137.6806
238.63	137.6806
239.00	137.7303
240.98	137.9984
241.98	138.1324
241.98	138.1324
241.98	138.1324
244.69	136.2268
245.39	136.3184
247.94	128.6814
248.90	110.5627
249.79	130.0498
252.40	115.5052
252.85	137.2925
252.85	137.2925
254.15	0.0000
256.20	137.7246
256.20	137.7246
260.50	122.1441
260.90	119.8840
262.80	123.5577
264.65	109.6549
268.24	114.8877
268.79	104.4946
269.46	109.7847
269.46	109.7847
269.46	109.7847
269.46	109.7847
271.23	115.1959
273.65	160.9242
276.40	128.2522
277.35	130.7410
277.60	130.7706
277.60	130.7706
278.00	125.5483
278.60	139.6685
279.20	147.6537
279.53	147.6947
280.46	135.4973
281.68	115.3846
283.67	136.7579
284.30	145.6615
285.00	139.5663
285.90	134.3707
286.10	131.7414
286.10	131.7414
287.40	113.3008
288.45	0.0000
290.67	129.2396
290.80	129.2529
291.72	129.3551
293.26	0.0000
293.70	128.1489
295.21	119.7574
295.21	119.7574

295.21	119.7574
295.96	139.8055
296.50	162.7033
297.23	182.7969
298.57	132.9632
299.80	125.2258
299.80	125.2258
300.09	121.6791
300.09	121.6791
300.09	121.6791
300.09	121.6791
300.12	121.6812
301.29	111.0524
302.84	130.0256
303.76	131.0226
303.91	131.0382
304.40	115.8276
304.40	115.8276
304.84	118.5635
306.84	109.7620
308.46	91.8881
311.98	103.8959
316.51	102.4614
318.01	108.9386
319.02	98.1238
319.41	102.6976
320.08	100.9325
323.87	110.9032
323.87	110.9032
323.87	110.9032
323.87	110.9032
325.23	90.5706
328.77	111.3281
333.44	110.2588
334.20	111.7938
334.20	111.7938
334.30	111.8031
338.28	108.8227
338.28	108.8227
338.28	108.8227
338.28	108.8227
338.32	108.8263
338.32	108.8263
338.32	108.8263
340.50	110.8539
340.57	110.8594
344.27	105.8751
345.85	103.8806
350.59	0.0000
351.07	98.6973
351.92	98.7588
351.92	98.7588
351.92	98.7588
355.39	0.0000
356.01	91.2051
364.48	96.8438
366.43	93.2128
367.43	94.2215
367.94	0.0000
369.80	88.7174
374.96	105.1448
383.85	98.1719
387.95	89.8462
388.63	95.6253
391.69	92.9504
391.69	92.9504
392.90	104.5359
398.62	94.3483
400.65	84.8364
401.10	91.6123
401.81	93.5854
402.60	85.9118
404.84	91.8399
410.95	89.2977
411.60	90.3066
413.65	104.0416
414.70	72.0025
415.30	73.9775

415.76	79.8416
417.63	0.0000
418.52	82.9105
423.70	89.0588
427.08	65.7119
427.89	66.7269
432.53	70.8596
433.93	70.9222
439.47	64.2492
439.56	64.2522
439.89	67.2322
443.98	83.2617
444.90	69.4243
445.03	69.4296
445.03	69.4296
445.03	69.4296
445.03	69.4296
453.90	77.7846
463.38	72.2109
468.07	72.4131
473.00	81.7020
475.06	84.8293
475.35	69.6938
476.78	58.6319
477.59	72.8185
477.96	67.7760
482.03	78.0762
484.57	67.0212
487.03	74.2342
490.36	0.0000
492.35	77.5203
497.08	62.3869
507.63	0.0000
510.53	0.0000
510.84	65.9604
511.00	65.9663
511.85	65.9976
511.85	65.9976
513.99	75.9859
513.99	75.9859
520.41	70.4529
520.65	70.4612
527.90	62.4170
528.96	0.0000
529.64	65.5994
529.87	0.0000
531.02	65.6474
537.32	59.5953
543.00	56.6285
546.56	0.0000
549.76	66.3011
552.65	57.9692
555.20	50.6587
563.23	57.2267
563.90	69.9679
568.70	52.0730
569.32	58.4677
569.50	62.7253
569.67	69.1101
573.80	63.9276
574.00	60.7365
574.64	59.6914
578.91	44.4374
579.30	0.0000
583.14	50.3119
585.48	49.7276
591.81	56.9789
592.07	58.0605
593.00	53.7842
595.88	54.9377
600.56	68.0199
602.52	0.0000
602.71	63.9840
602.71	63.9840
603.60	69.2012
604.41	67.4978
604.70	67.5073
609.31	63.9713

609.31	63.9713
609.31	63.9713
609.31	63.9713
610.33	50.3337
612.46	45.1737
614.37	53.9094
618.01	46.8174
621.84	50.1749
621.84	50.1749
631.29	58.0674
633.02	66.8863
633.10	66.8900
634.78	55.9680
635.90	59.2916
636.97	59.3212
645.85	44.1223
646.12	46.3336
656.30	53.1987
657.75	60.3317
657.90	0.0000
661.65	48.8837
661.65	48.8837
664.57	0.0000
666.33	51.6591
666.33	51.6591
675.00	35.7646
677.61	52.5896
685.20	57.2567
692.80	53.1663
695.00	57.7281
696.49	50.5436
696.49	50.5436
697.00	46.9447
697.49	52.3713
698.33	55.1010
698.50	58.7190
699.00	54.2124
702.63	52.4875
706.10	52.5667
706.58	0.0000
706.67	50.7664
709.31	51.7300
711.68	60.8676
713.82	51.8302
717.42	54.6416
720.50	49.5013
721.93	0.0000
722.20	38.0219
722.78	42.5947
722.78	42.5947
722.89	42.5970
722.95	50.2036
723.30	50.2117
724.18	48.7083
727.18	47.5503
733.00	50.4158
735.90	41.2987
739.58	65.2590
742.81	47.8588
744.21	48.8076
747.13	55.3198
751.79	47.1115
752.31	48.9694
753.82	44.3766
755.35	46.2537
756.15	45.3441
756.87	43.5060
763.93	68.6939
765.79	44.5910
766.42	52.0365
766.84	50.1860
776.49	49.4468
778.00	56.9448
778.57	49.4869
778.89	42.9565
783.80	52.3961
785.46	54.3028
792.07	59.4492

795.84	36.0358
796.30	26.6400
798.80	26.6656
801.93	51.3022
805.60	30.1953
810.29	45.3750
810.76	39.7103
815.85	33.1560
817.79	36.9729
818.51	41.7248
819.60	45.5367
826.30	51.3580
828.27	0.0000
831.60	37.1662
831.96	39.0771
834.83	53.4311
836.80	0.0000
846.75	40.2507
848.13	37.3947
856.28	0.0000
856.80	43.2861
860.37	40.4527
867.32	33.7960
867.82	36.4847
871.10	38.6768
873.19	43.5443
874.81	30.9828
875.33	0.0000
876.40	31.9696
879.36	44.6108
880.27	37.8346
880.51	36.8672
881.50	30.0865
883.24	37.8746
884.67	43.7234
889.25	36.9823
896.60	42.9333
898.02	37.0973
899.00	41.9932
903.28	39.1221
911.07	31.3828
911.07	31.3828
911.07	31.3828
919.63	36.3939
920.93	32.4739
925.00	38.4325
925.24	40.4064
926.50	42.3964
935.52	39.5605
937.48	70.2668
944.10	38.6839
946.00	33.7460
949.00	44.7089
962.29	43.2445
964.01	39.9414
966.15	39.9697
968.20	24.9976
969.11	26.6725
969.11	26.6725
969.11	26.6725
977.42	34.1004
980.50	29.1154
983.50	28.1388
989.30	33.2264
996.32	58.5310
1001.03	34.3636
1001.68	38.4147
1004.76	52.6195
1021.30	0.0000
1024.50	0.0000
1034.80	41.8849
1036.00	38.8350
1037.82	38.8572
1038.57	39.8893
1038.76	0.0000
1045.16	44.0708
1046.59	41.0137
1048.07	42.0590

1050.47	32.8516
1050.47	32.8516
1062.04	43.2715
1063.62	25.7690
1076.63	33.1156
1077.35	25.8777
1078.86	25.8887
1085.78	26.9813
1099.22	37.5082
1112.02	31.3770
1112.84	27.8971
1115.52	34.8991
1120.29	38.4427
1120.29	38.4427
1120.29	38.4427
1120.29	38.4427
1120.51	38.4445
1121.28	41.9492
1124.00	0.0000
1129.67	33.6422
1131.51	0.0000
1147.95	0.0000
1167.94	51.0211
1173.22	38.3238
1175.09	45.7988
1177.93	39.4408
1189.05	31.0093
1204.90	50.4768
1205.75	0.0000
1213.00	58.1265
1221.42	51.7852
1230.97	44.3493
1235.34	46.5672
1236.41	0.0000
1238.25	34.6828
1246.25	30.4131
1260.41	0.0000
1271.85	21.8721
1274.45	21.8867
1274.54	27.3596
1291.56	37.3751
1298.22	0.0000
1312.09	31.3119
1325.50	21.2546
1325.50	21.2546
1332.49	19.4406
1333.61	17.5945
1360.21	18.6450
1362.66	0.0000
1365.15	11.2007
1368.21	16.8135
1368.53	0.0000
1376.25	14.9753
1384.27	19.6943
1394.10	21.6215
1395.20	21.6280
1407.95	12.2621
1434.06	21.8320
1436.60	21.8451
1457.56	0.0000
1460.81	8.1878
1489.15	9.6159
1509.49	17.3892
1596.49	21.6706
1620.62	10.8921
1678.03	0.0000
1691.02	11.0555
1691.02	11.0555
1706.46	0.0000
1750.46	0.0000
1764.49	12.2427
1764.49	12.2427
1764.49	12.2427
1764.49	12.2427
1770.23	26.5565
1771.40	10.2165
1791.20	0.0000
1808.65	6.1750

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960006

Total Uranium Activity	2.5319E+01	ug/g
Total Uranium Counting Unc.	6.0401E+00	ug/g
Total Uranium Tpu	3.0817E-06	ug/g
Total Uranium Mda	1.7311E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G245960006
ANALYST	: MXR1	DETECTOR	: GAM17
SAMPLE DATE	: 28-JAN-2010 12:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 12-FEB-2010 15:48:42.48	SAMPLE ALQT	: 117.770 GRAM

GROSS GAMMA ACTIVITY (pCi/GRAM)	: 9.960E+00
GROSS GAMMA ERROR (pCi/GRAM)	: 1.428E+00
GROSS GAMMA MDA (pCi/GRAM)	: 4.870E+00
GROSS GAMMA DLC (pCi/GRAM)	: 2.363E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:51:34.06

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960007.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:49:09
Sample ID : G245960007 Sample quantity : 1.36210E+02 GRAM
Detector name : GAM18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.63 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.26*	98	442	1.36	125.64	122	8	1.36E-02	39.4	
2	2	75.08	447	463	1.13	149.27	143	15	6.21E-02	9.4	8.18E-01
3	2	77.30	676	398	1.00	153.72	143	15	9.38E-02	6.1	
4	3	87.46	221	463	1.06	174.03	169	22	3.07E-02	16.1	2.24E+00
5	3	90.18	110	413	1.00	179.47	169	22	1.53E-02	30.3	
6	3	93.00*	170	410	1.11	185.11	169	22	2.36E-02	23.6	
7	0	185.96*	225	356	1.31	370.97	367	9	3.13E-02	17.1	
8	0	208.96*	165	440	1.05	416.93	412	11	2.29E-02	26.0	
9	3	238.75*	1727	255	1.21	476.51	472	19	2.40E-01	2.9	1.12E+00
10	3	241.70	408	353	1.77	482.41	472	19	5.66E-02	12.8	
11	0	270.97	82	269	1.29	540.92	536	9	1.14E-02	37.8	
12	0	278.16	84	228	1.69	555.30	551	9	1.17E-02	34.4	
13	2	295.27*	608	194	1.65	589.50	584	20	8.44E-02	6.0	2.59E+00
14	2	300.00	133	199	1.68	598.95	584	20	1.84E-02	21.5	
15	0	327.92	112	213	1.39	654.77	650	11	1.56E-02	26.9	
16	0	338.49*	376	288	1.23	675.92	670	13	5.23E-02	10.7	
17	0	351.96*	930	234	1.27	702.86	696	14	1.29E-01	4.9	
18	0	409.41	57	154	0.68	817.72	814	9	7.95E-03	41.5	
19	0	463.63	136	180	1.78	926.11	919	16	1.89E-02	23.8	
20	0	510.90*	169	194	2.05	1020.64	1013	17	2.35E-02	23.7	
21	0	583.13*	577	148	1.54	1165.05	1158	16	8.02E-02	6.4	
22	0	609.22*	741	160	1.59	1217.22	1209	16	1.03E-01	5.4	
23	0	727.25*	140	124	1.83	1453.22	1444	15	1.94E-02	19.8	
24	0	769.53	141	118	5.91	1537.77	1529	19	1.95E-02	20.4	
25	0	794.28*	59	88	1.72	1587.26	1580	13	8.18E-03	36.3	
26	0	862.20	35	150	1.47	1723.06	1715	16	4.89E-03	80.8	
27	0	910.86*	437	98	1.85	1820.36	1813	15	6.08E-02	7.0	
28	3	964.30	71	76	1.79	1927.22	1923	21	9.87E-03	24.3	1.74E+00
29	3	968.72*	221	79	1.90	1936.07	1923	21	3.07E-02	10.5	
30	0	1120.01*	223	48	1.77	2238.59	2230	19	3.10E-02	10.2	
31	0	1237.63	51	81	1.58	2473.79	2466	13	7.05E-03	39.2	
32	0	1377.33	46	32	1.76	2753.17	2748	11	6.32E-03	29.2	
33	0	1460.03*	1409	28	2.43	2918.54	2906	22	1.96E-01	2.8	
34	0	1589.30	33	42	1.48	3177.07	3171	16	4.62E-03	52.0	
35	0	1763.63*	155	15	2.08	3525.70	3517	19	2.15E-02	10.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:51:36

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:49:09
Sample ID : G245960007 Sample quantity : 136.21 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.63 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.922E+01	1.825E+00	3.456E-01	2.622E-02	55.627
CD-109	+	88.03	*	2.588E+00	8.683E-01	1.069E+00	9.880E-02	2.421
SN-126	+	64.28		9.125E-01	7.311E-01	8.099E-01	1.197E-01	1.127
	+	86.94		1.057E+00	5.557E-01	4.434E-01	1.839E-01	2.384
	+	87.57	*	2.543E-01	8.534E-02	1.057E-01	9.740E-03	2.406
HG-203		70.83		-1.871E-02	1.062E+00	1.577E+00	2.101E-01	-0.012
		72.87		4.993E-01	6.093E-01	9.310E-01	1.207E-01	0.536
		82.60		-7.318E-01	1.093E+00	1.550E+00	2.151E-01	-0.472
	+	279.20	*	6.006E-02	4.146E-02	4.708E-02	2.855E-03	1.276
TL-208	+	277.35		5.446E-01	3.788E-01	4.875E-01	5.120E-02	1.117
	+	510.84		5.018E-01	2.439E-01	1.607E-01	1.709E-02	3.122
	+	583.14	*	4.802E-01	7.222E-02	4.393E-02	3.444E-03	10.932
		860.37		3.655E-01	2.836E-01	4.402E-01	4.924E-02	0.830
BI-211		72.87		2.509E+00	3.051E+00	4.678E+00	3.862E-01	0.536
	+	351.07	*	3.635E+00	4.252E-01	2.267E-01	1.455E-02	16.033
PB-212	+	74.81		2.327E+00	5.273E-01	4.963E-01	6.221E-02	4.687
	+	77.11		1.967E+00	2.928E-01	2.777E-01	2.354E-02	7.083
	+	87.30		1.176E+00	4.118E-01	4.908E-01	6.666E-02	2.397
	+	238.63	*	1.571E+00	1.445E-01	6.970E-02	4.980E-03	22.542
	+	300.09		1.793E+00	7.846E-01	8.708E-01	7.150E-02	2.059
PO-212	+	74.81		2.327E+00	5.273E-01	4.963E-01	6.221E-02	4.687
	+	77.11		1.967E+00	2.928E-01	2.777E-01	2.354E-02	7.083
	+	87.30		1.176E+00	4.118E-01	4.908E-01	6.666E-02	2.397
		115.19		1.279E+00	3.126E+00	5.114E+00	3.221E-01	0.250
	+	238.63	*	1.571E+00	1.445E-01	6.970E-02	4.980E-03	22.542
	+	300.09		1.793E+00	7.846E-01	8.708E-01	7.150E-02	2.059
BI-214	+	609.31	*	1.156E+00	1.625E-01	8.136E-02	7.267E-03	14.213
	+	1120.29		1.744E+00	3.936E-01	3.100E-01	2.968E-02	5.624
	+	1764.49		1.594E+00	3.426E-01	2.392E-01	1.454E-02	6.667
PB-214	+	74.81		4.009E+00	8.794E-01	8.552E-01	9.547E-02	4.687
	+	77.11		3.372E+00	5.638E-01	4.760E-01	5.425E-02	7.083
	+	87.30		2.015E+00	6.937E-01	8.408E-01	1.009E-01	2.397
	+	241.98		2.223E+00	5.952E-01	4.190E-01	3.313E-02	5.305
	+	295.21		1.445E+00	2.126E-01	1.528E-01	1.297E-02	9.454

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.265E+00	1.620E-01	7.902E-02	6.537E-03	16.003
PO-214	+	74.81		4.009E+00	8.794E-01	8.552E-01	9.547E-02	4.687
	+	77.11		3.372E+00	5.638E-01	4.760E-01	5.425E-02	7.083
	+	87.30		2.015E+00	6.937E-01	8.408E-01	1.009E-01	2.397
	+	241.98		2.223E+00	5.952E-01	4.190E-01	3.313E-02	5.305
	+	295.21		1.445E+00	2.126E-01	1.528E-01	1.297E-02	9.454
	+	351.92	*	1.265E+00	1.620E-01	7.902E-02	6.537E-03	16.003
PO-216	+	74.81		2.327E+00	5.273E-01	4.963E-01	6.221E-02	4.687
	+	77.11		1.967E+00	2.928E-01	2.777E-01	2.354E-02	7.083
	+	87.30		1.176E+00	4.118E-01	4.908E-01	6.666E-02	2.397
	+	238.63	*	1.571E+00	1.445E-01	6.970E-02	4.980E-03	22.542
	+	300.09		1.793E+00	7.846E-01	8.708E-01	7.150E-02	2.059
PO-218	+	74.81		4.009E+00	8.794E-01	8.552E-01	9.547E-02	4.687
	+	77.11		3.372E+00	5.638E-01	4.760E-01	5.425E-02	7.083
	+	87.30		2.015E+00	6.937E-01	8.408E-01	1.009E-01	2.397
	+	241.98		2.223E+00	5.952E-01	4.190E-01	3.313E-02	5.305
	+	295.21		1.445E+00	2.126E-01	1.528E-01	1.297E-02	9.454
	+	351.92	*	1.265E+00	1.620E-01	7.902E-02	6.537E-03	16.003
RA-224	+	240.98	*	4.214E+00	1.104E+00	7.923E-01	4.413E-02	5.320
RA-226	+	609.31	*	1.156E+00	1.625E-01	8.136E-02	7.267E-03	14.213
	+	1120.29		1.744E+00	3.936E-01	3.100E-01	2.968E-02	5.624
	+	1764.49		1.594E+00	3.426E-01	2.392E-01	1.454E-02	6.667
AC-228	+	338.32		1.631E+00	7.515E-01	2.750E-01	1.121E-01	5.929
	+	911.07	*	1.566E+00	3.018E-01	1.455E-01	1.928E-02	10.759
	+	969.11		1.389E+00	4.426E-01	2.570E-01	6.154E-02	5.403
RA-228	+	338.32		1.631E+00	7.515E-01	2.750E-01	1.121E-01	5.929
	+	911.07	*	1.566E+00	3.018E-01	1.455E-01	1.928E-02	10.759
	+	969.11		1.389E+00	4.426E-01	2.570E-01	6.154E-02	5.403
TH-228	+	74.81		2.362E+00	4.884E-01	5.039E-01	4.246E-02	4.687
	+	77.11		1.997E+00	2.972E-01	2.819E-01	2.389E-02	7.083
	+	87.30		1.194E+00	4.007E-01	4.983E-01	4.580E-02	2.397
	+	238.63	*	1.595E+00	1.467E-01	7.076E-02	5.055E-03	22.542
	+	300.09		1.820E+00	1.328E+00	8.840E-01	5.210E-01	2.059
TH-230	+	609.31	*	1.156E+00	1.625E-01	8.135E-02	7.267E-03	14.213
	+	1120.29		1.744E+00	3.936E-01	3.100E-01	2.968E-02	5.624
	+	1764.49		1.594E+00	3.426E-01	2.392E-01	1.454E-02	6.667
TH-232	+	338.32		1.631E+00	3.630E-01	2.750E-01	1.591E-02	5.929
	+	911.07	*	1.566E+00	3.018E-01	1.455E-01	1.928E-02	10.759
	+	969.11		1.389E+00	4.426E-01	2.570E-01	6.154E-02	5.403
TH-234	+	63.29	*	2.305E+00	1.860E+00	1.955E+00	3.446E-01	1.179
	+	92.38		1.241E+00	6.272E-01	6.815E-01	1.228E-01	1.821
U-234	+	609.31	*	1.156E+00	1.625E-01	8.135E-02	7.267E-03	14.213
	+	1120.29		1.744E+00	3.936E-01	3.100E-01	2.968E-02	5.624
	+	1764.49		1.594E+00	3.426E-01	2.392E-01	1.454E-02	6.667
NP-237	+	86.50	*	7.468E-01	2.942E-01	3.153E-01	7.113E-02	2.369
		95.87		-2.927E-01	8.391E-01	1.193E+00	2.913E-01	-0.245
U-238	+	63.29	*	2.305E+00	1.860E+00	1.955E+00	3.446E-01	1.179
	+	92.38		1.241E+00	5.954E-01	6.815E-01	5.792E-02	1.821
AM-243	+	74.67	*	3.772E-01	7.788E-02	8.079E-02	6.741E-03	4.669

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	86.72		2.801E+01	9.397E+00	1.178E+01	1.077E+00	2.377
		117.66		-4.643E-01	3.272E+00	5.232E+00	3.218E-01	-0.089
		142.18		-6.302E+00	1.494E+01	2.308E+01	1.271E+00	-0.273
ANH-511	+	511.00	*	1.084E-01	5.191E-02	3.473E-02	2.293E-03	3.121

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	7.958E-02	2.333E-01	3.925E-01	2.844E-02	0.203
NA-22		1274.54	*	-8.665E-03	3.128E-02	5.013E-02	3.411E-03	-0.173
NA-24		1368.53	*	-2.138E-01	3.128E-02	Half-Life too short		
AL-26		1129.67		-2.262E-01	1.332E+00	1.926E+00	1.286E-01	-0.117
		1808.65	*	1.503E-02	2.176E-02	3.926E-02	2.292E-03	0.383
TI-44		67.85		8.987E-03	4.635E-02	7.371E-02	5.928E-03	0.122
	+	78.38	*	3.630E-01	5.403E-02	7.454E-02	6.373E-03	4.869
SC-46		889.25	*	-9.180E-03	2.943E-02	4.691E-02	5.232E-03	-0.196
	+	1120.51		2.986E-01	6.443E-02	9.785E-02	6.760E-03	3.051
V-48		944.10		1.811E-01	6.684E-01	1.109E+00	1.174E-01	0.163
		983.50	*	2.674E-02	4.889E-02	8.280E-02	8.190E-03	0.323
		1312.09		8.480E-03	6.132E-02	1.016E-01	7.402E-03	0.083
CR-51		320.08	*	-1.456E-02	2.885E-01	4.634E-01	2.984E-02	-0.031
MN-52		744.21		-7.404E-03	1.690E-01	2.798E-01	2.468E-02	-0.026
		848.13		2.712E-01	4.874E+00	8.035E+00	8.406E-01	0.034
		935.52		7.337E-02	1.957E-01	3.269E-01	3.506E-02	0.224
		1246.25		-4.861E+00	5.742E+00	8.413E+00	5.410E-01	-0.578
		1333.61		-3.296E+00	4.171E+00	6.201E+00	4.684E-01	-0.531
		1434.06	*	-2.992E-02	1.633E-01	2.591E-01	1.909E-02	-0.115
MN-54		834.83	*	-1.147E-02	2.872E-02	4.590E-02	4.702E-03	-0.250
CO-56		846.75	*	-5.206E-03	2.869E-02	4.645E-02	4.849E-03	-0.112
		977.42		-4.786E-01	2.084E+00	3.035E+00	3.035E-01	-0.158
		1037.82		3.094E-02	2.303E-01	3.892E-01	3.606E-02	0.079
		1175.09		-5.289E-01	1.543E+00	2.484E+00	1.379E-01	-0.213
	+	1238.25		1.111E-01	8.741E-02	1.226E-01	8.171E-03	0.906
		1360.21		2.388E-01	6.994E-01	1.182E+00	8.886E-02	0.202
		1771.40		-6.804E-02	1.987E-01	2.559E-01	1.546E-02	-0.266
CO-57		122.06	*	-3.137E-03	2.161E-02	3.446E-02	2.041E-03	-0.091
		136.48		-6.499E-02	1.711E-01	2.678E-01	1.753E-02	-0.243
CO-58		810.76	*	-1.839E-02	2.776E-02	4.332E-02	4.276E-03	-0.425
FE-59		142.65		-1.841E+00	2.326E+00	3.534E+00	1.944E-01	-0.521
		192.34		5.338E-01	7.407E-01	1.268E+00	1.470E-01	0.421
		1099.22	*	-8.606E-02	6.103E-02	8.848E-02	7.283E-03	-0.973
		1291.56		-2.685E-02	9.317E-02	1.490E-01	1.252E-02	-0.180
CO-60		1173.22		-8.260E-03	3.070E-02	4.972E-02	2.748E-03	-0.166
		1332.49	*	-1.518E-02	3.114E-02	4.860E-02	3.672E-03	-0.312
ZN-65		1115.52	*	3.949E-02	7.066E-02	1.067E-01	7.515E-03	0.370
GE-68		1077.35	*	-7.527E-02	9.188E-01	1.523E+00	1.210E-01	-0.049
AS-73		53.44	*	-4.743E-02	9.694E-01	1.627E+00	1.290E-01	-0.029
AS-74		595.88	*	3.754E-02	7.325E-02	1.218E-01	8.753E-03	0.308

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		634.78		9.753E-02	2.755E-01	4.538E-01	3.378E-02	0.215
SE-75		66.05		-5.877E+00	5.200E+00	7.284E+00	7.214E-01	-0.807
		96.73		-1.114E+00	7.317E-01	9.524E-01	1.256E-01	-1.169
		121.11		-1.970E-02	1.169E-01	1.863E-01	1.739E-02	-0.106
		136.00		1.117E-02	3.161E-02	5.112E-02	2.911E-03	0.219
		198.60		6.220E-01	1.407E+00	2.342E+00	1.589E-01	0.266
		264.65	*	-3.760E-03	3.447E-02	5.411E-02	3.095E-03	-0.069
	+	279.53		1.605E-01	1.108E-01	1.453E-01	8.980E-03	1.104
		303.91		2.946E-01	1.719E+00	2.461E+00	2.341E-01	0.120
		400.65		5.672E-02	1.938E-01	3.289E-01	2.996E-02	0.172
BR-77	+	87.88		5.660E+02	1.899E+02	2.988E+02	2.761E+01	1.894
		200.40		-6.936E+01	1.272E+02	2.077E+02	1.119E+01	-0.334
	+	239.00		2.554E+02	2.051E+01	3.170E+01	1.763E+00	8.058
		249.79		-1.632E+01	5.058E+01	8.179E+01	4.584E+00	-0.200
		281.68		6.590E+01	7.302E+01	1.106E+02	6.311E+00	0.596
		297.23		3.194E+02	5.537E+01	1.009E+02	5.794E+00	3.165
		303.76		2.342E+01	1.482E+02	2.119E+02	1.219E+01	0.111
		439.47		3.364E+01	1.043E+02	1.764E+02	1.076E+01	0.191
		484.57		-8.842E+01	1.657E+02	2.636E+02	1.692E+01	-0.335
		520.65	*	5.302E+00	7.207E+00	1.237E+01	8.251E-01	0.429
		574.64		3.938E+01	1.719E+02	2.755E+02	1.940E+01	0.143
		578.91		2.470E+00	7.620E+01	1.070E+02	7.567E+00	0.023
		585.48		1.462E+03	2.237E+02	3.908E+02	2.780E+01	3.742
		755.35		1.967E+01	1.148E+02	1.927E+02	1.732E+01	0.102
		817.79		-4.950E+01	9.712E+01	1.535E+02	1.530E+01	-0.323
SR-82		698.33		-1.987E+01	2.501E+01	3.961E+01	3.225E+00	-0.502
		776.49	*	3.805E-02	2.870E-01	4.144E-01	3.860E-02	0.092
		1395.20		3.537E-01	7.987E+00	1.306E+01	9.735E-01	0.027
RB-83		520.41	*	2.548E-02	4.643E-02	7.882E-02	5.257E-03	0.323
		529.64		5.224E-02	7.357E-02	1.258E-01	8.471E-03	0.415
		552.65		-3.428E-02	1.532E-01	2.460E-01	1.696E-02	-0.139
RB-84		881.50	*	1.700E-02	5.237E-02	8.770E-02	9.666E-03	0.194
KR-85		513.99	*	1.752E+01	6.266E+00	1.056E+01	6.997E-01	1.659
SR-85		513.99	*	8.986E-02	3.214E-02	5.418E-02	3.589E-03	1.659
RB-86		1076.63	*	2.211E-02	5.921E-01	9.904E-01	7.885E-02	0.022
Y-88		898.02		-4.141E-03	2.976E-02	4.805E-02	5.447E-03	-0.086
		1836.01	*	-4.869E-03	2.501E-02	3.976E-02	2.265E-03	-0.122
ZR-88		392.90	*	-1.815E-02	2.201E-02	3.519E-02	2.024E-03	-0.516
Y-91		1204.90	*	-7.281E-01	1.276E+01	2.097E+01	1.240E+00	-0.035
NB-94		702.63	*	5.339E-04	2.470E-02	4.129E-02	3.387E-03	0.013
		871.10		2.328E-02	2.769E-02	4.600E-02	4.989E-03	0.506
NB-95		765.79	*	6.176E-02	3.586E-02	5.862E-02	5.363E-03	1.053
NB-95M		235.69	*	1.008E-01	1.058E-01	1.608E-01	1.180E-02	0.627
ZR-95		724.18		1.499E-01	8.673E-02	1.397E-01	1.296E-02	1.073
		756.15	*	1.391E-02	4.876E-02	8.249E-02	8.117E-03	0.169
NB-97		657.90	*	-7.728E-02	4.876E-02	Half-Life too short		
		1024.50		2.354E-01	4.876E-02	Half-Life too short		
ZR-97		254.15		2.772E+00	4.876E-02	Half-Life too short		
		355.39		-4.758E-01	4.876E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		507.63	*	3.154E+00	4.876E-02	Half-Life too short		
		602.52		-2.531E+00	4.876E-02	Half-Life too short		
		1021.30		-1.302E+00	4.876E-02	Half-Life too short		
		1147.95		-2.673E+00	4.876E-02	Half-Life too short		
		1362.66		-4.456E+00	4.876E-02	Half-Life too short		
		1750.46		-3.636E+00	4.876E-02	Half-Life too short		
MO-99		140.51		-9.150E+00	2.299E+01	3.547E+01	9.537E+00	-0.258
		181.06		7.665E+00	1.441E+01	2.186E+01	3.711E+00	0.351
		366.43		-1.765E+01	6.037E+01	1.001E+02	5.784E+00	-0.176
		739.58	*	-1.688E+00	8.085E+00	1.323E+01	2.018E+00	-0.128
		778.00		-2.718E+01	2.861E+01	3.627E+01	3.387E+00	-0.749
TC-99M		140.51	*	-1.479E+10	2.861E+01	Half-Life too short		
RH-101		127.23		-1.502E-02	2.731E-02	4.269E-02	2.466E-03	-0.352
		198.01	*	2.848E-02	2.560E-02	4.361E-02	2.344E-03	0.653
		325.23		8.131E-02	1.902E-01	2.754E-01	1.592E-02	0.295
RH-102		418.52		-1.389E-02	2.101E-01	3.491E-01	2.074E-02	-0.040
		475.06	*	-2.188E-02	2.162E-02	3.340E-02	2.121E-03	-0.655
		631.29		4.831E-03	4.313E-02	6.994E-02	5.191E-03	0.069
		697.49		-2.346E-02	5.644E-02	9.179E-02	7.462E-03	-0.256
		766.84		1.771E-01	9.496E-02	1.555E-01	1.424E-02	1.140
		1046.59		1.969E-02	8.164E-02	1.390E-01	1.199E-02	0.142
		1112.84		-1.515E-01	1.821E-01	2.326E-01	1.651E-02	-0.651
RU-103		497.08	*	2.722E-02	2.744E-02	4.766E-02	6.189E-03	0.571
	+	610.33		1.250E+01	2.419E+00	2.309E+00	3.703E-01	5.411
RH-106	+	511.85		5.414E-01	2.593E-01	3.360E-01	2.221E-02	1.611
		621.84	*	8.304E-02	2.423E-01	3.993E-01	5.024E-02	0.208
		1050.47		-4.567E-06	1.619E+00	2.706E+00	2.312E-01	0.000
RU-106	+	511.85		5.414E-01	2.593E-01	3.360E-01	2.221E-02	1.611
		621.84	*	8.304E-02	2.422E-01	3.993E-01	2.939E-02	0.208
		1050.47		-4.567E-06	1.619E+00	2.706E+00	2.312E-01	0.000
AG-108M		433.93	*	-5.919E-03	2.343E-02	3.838E-02	2.507E-03	-0.154
		614.37		8.508E-03	3.075E-02	4.398E-02	3.389E-03	0.193
		722.95		2.332E-02	3.557E-02	5.392E-02	4.768E-03	0.432
AG-110M		657.75	*	-2.608E-02	2.501E-02	3.903E-02	3.078E-03	-0.668
		677.61		-1.677E-02	2.161E-01	3.599E-01	2.920E-02	-0.047
		706.67		2.419E-02	1.525E-01	2.570E-01	2.187E-02	0.094
		763.93		5.047E-02	1.241E-01	1.843E-01	1.723E-02	0.274
		884.67		-8.016E-03	3.817E-02	6.142E-02	6.936E-03	-0.131
		937.48		-8.087E-02	8.619E-02	1.291E-01	1.414E-02	-0.626
		1384.27		3.840E-02	1.255E-01	1.829E-01	1.418E-02	0.210
IN-111		171.28		-2.403E-01	7.635E-01	1.272E+00	6.690E-02	-0.189
		245.39	*	1.658E-01	8.878E-01	1.296E+00	7.241E-02	0.128
IN-113M		391.69	*	-8.830E-03	3.202E-02	5.287E-02	3.243E-03	-0.167
SN-113		391.69	*	-8.830E-03	3.202E-02	5.287E-02	3.243E-03	-0.167
IN-114M		190.27	*	1.047E-01	1.604E-01	2.443E-01	1.304E-02	0.428
CD-115		260.90		-1.475E+01	1.018E+02	1.654E+02	9.338E+00	-0.089
		492.35		-1.252E+01	2.513E+01	3.993E+01	2.585E+00	-0.314
		527.90	*	-2.456E+00	7.719E+00	1.235E+01	8.299E-01	-0.199
SN-117M		156.02		-1.242E-01	1.744E+00	2.950E+00	1.576E-01	-0.042

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	-2.675E-02	4.137E-02	6.837E-02	3.634E-03	-0.391
SB-122		563.90	*	-1.891E-01	1.575E+00	2.542E+00	1.771E-01	-0.074
		692.80		1.522E+01	3.204E+01	5.507E+01	4.440E+00	0.276
I-123		159.00	*	5.441E-01	3.204E+01	Half-Life too short		
		528.96		1.547E+02	3.204E+01	Half-Life too short		
TE-123M		159.00	*	2.548E-03	2.107E-02	3.585E-02	1.934E-03	0.071
I-124		602.71	*	-3.316E-01	6.420E-01	8.528E-01	6.166E-02	-0.389
		722.78		2.094E+00	3.720E+00	5.599E+00	4.759E-01	0.374
		1325.50		4.221E+00	2.624E+01	4.357E+01	3.251E+00	0.097
	+	1376.25		4.875E+01	2.867E+01	4.907E+01	3.675E+00	0.993
		1509.49		1.171E+01	1.104E+01	2.040E+01	1.461E+00	0.574
		1691.02		-1.773E+00	2.759E+00	4.123E+00	2.659E-01	-0.430
SB-124		602.71		-1.915E-02	3.707E-02	4.924E-02	3.562E-03	-0.389
		645.85		1.243E-01	3.625E-01	5.969E-01	4.839E-02	0.208
		709.31		9.615E-01	2.032E+00	3.486E+00	2.893E-01	0.276
		713.82		-5.815E-01	1.209E+00	1.949E+00	2.311E-01	-0.298
		722.78		1.753E-01	3.114E-01	4.687E-01	4.072E-02	0.374
	+	968.20		1.430E+01	3.341E+00	5.423E+00	5.515E-01	2.637
		1045.16		5.132E-01	1.806E+00	3.082E+00	2.669E-01	0.166
		1325.50		3.774E-01	2.346E+00	3.895E+00	2.907E-01	0.097
		1368.21		-4.301E-01	1.385E+00	2.088E+00	2.671E-01	-0.206
		1436.60		1.060E-01	2.700E+00	4.402E+00	3.241E-01	0.024
		1691.02	*	-3.501E-02	5.448E-02	8.140E-02	5.616E-03	-0.430
SB-125		427.89	*	-1.667E-02	6.758E-02	1.109E-01	6.931E-03	-0.150
	+	463.38		7.974E-01	3.842E-01	4.125E-01	2.957E-02	1.933
		600.56		2.319E-02	1.568E-01	2.394E-01	1.907E-02	0.097
		635.90		1.241E-01	2.063E-01	3.452E-01	2.847E-02	0.360
TE-125M		109.28	*	-1.316E+00	7.787E+00	1.250E+01	1.099E+00	-0.105
I-126		388.63		1.533E-01	1.457E-01	2.571E-01	1.478E-02	0.596
		666.33	*	4.257E-02	1.346E-01	2.299E-01	1.767E-02	0.185
		753.82		-1.765E-01	1.028E+00	1.684E+00	1.510E-01	-0.105
SB-126		223.80		1.751E+00	3.132E+00	5.300E+00	2.913E-01	0.330
	+	278.60		3.609E+00	2.490E+00	3.417E+00	1.947E-01	1.056
	+	296.50		1.442E+01	1.921E+00	2.923E+00	1.678E-01	4.932
		414.70		-2.374E-02	6.345E-02	8.928E-02	5.280E-03	-0.266
		415.30		-1.518E+00	5.038E+00	7.483E+00	4.429E-01	-0.203
		555.20		3.645E-01	3.035E+00	4.979E+00	3.440E-01	0.073
		573.80		8.326E-02	8.267E-01	1.350E+00	9.501E-02	0.062
		593.00		-5.635E-01	7.166E-01	1.097E+00	7.858E-02	-0.514
		656.30		-1.245E+00	2.395E+00	3.885E+00	2.948E-01	-0.320
		666.33		1.779E-02	5.626E-02	9.606E-02	7.385E-03	0.185
		675.00		1.165E+00	1.436E+00	2.521E+00	1.969E-01	0.462
		695.00		3.787E-02	5.560E-02	9.666E-02	7.824E-03	0.392
		697.00		-2.680E-02	1.963E-01	3.252E-01	2.641E-02	-0.082
		720.50	*	5.725E-02	1.223E-01	1.829E-01	1.548E-02	0.313
		856.80		1.412E-01	4.439E-01	6.433E-01	6.823E-02	0.219
		989.30		-2.915E-01	8.838E-01	1.387E+00	1.357E-01	-0.210
		1034.80		-6.570E-01	6.713E+00	1.073E+01	9.522E-01	-0.061
		1213.00		-3.311E+00	3.307E+00	5.028E+00	3.023E-01	-0.659

---- Non-Identified Nuclides ----

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SB-127		61.10		3.481E+01	5.862E+01	9.043E+01	9.486E+00	0.385
		252.40		-6.540E-01	3.427E+00	5.557E+00	2.308E+00	-0.118
		290.80		1.078E+00	1.761E+01	2.511E+01	2.292E+00	0.043
		411.60		8.754E-01	1.047E+01	1.529E+01	2.206E+00	0.057
		444.90		-7.814E-01	6.672E+00	1.099E+01	1.207E+00	-0.071
		473.00		-1.020E-01	1.226E+00	2.013E+00	2.309E-01	-0.051
		543.00		-4.531E+00	1.270E+01	2.022E+01	2.711E+00	-0.224
		603.60		-7.648E+00	1.114E+01	1.452E+01	1.686E+00	-0.527
		685.20	*	7.448E-01	9.682E-01	1.694E+00	1.846E-01	0.440
		698.50		-9.525E+00	1.125E+01	1.762E+01	2.743E+00	-0.541
		722.20		7.724E+00	2.570E+01	3.785E+01	4.191E+00	0.204
		783.80		4.476E+00	2.700E+00	4.838E+00	6.289E-01	0.925
XE-127		57.60		2.195E+00	6.270E+00	1.064E+01	8.203E-01	0.206
		145.22		7.496E-01	5.645E-01	9.426E-01	5.153E-02	0.795
		172.10		-5.362E-02	9.027E-02	1.486E-01	7.823E-03	-0.361
		202.84	*	6.111E-03	3.734E-02	6.059E-02	3.271E-03	0.101
		374.96		-7.633E-02	1.433E-01	2.342E-01	1.351E-02	-0.326
I-131		80.18		2.635E+00	4.331E+00	6.554E+00	5.714E-01	0.402
		284.30		-9.944E-01	1.144E+00	1.701E+00	1.084E-01	-0.585
		364.48	*	9.580E-03	7.904E-02	1.341E-01	8.654E-03	0.071
		636.97		3.130E-01	1.172E+00	1.920E+00	1.538E-01	0.163
		722.89		3.738E+00	6.000E+00	9.073E+00	7.763E-01	0.412
TE-132		49.72		4.067E+00	2.456E+01	4.171E+01	4.260E+00	0.098
		111.76		-1.177E+01	2.609E+01	4.132E+01	3.839E+00	-0.285
		116.30		-1.266E+01	2.458E+01	3.871E+01	3.518E+00	-0.327
		228.16	*	1.800E-02	5.356E-01	8.866E-01	1.264E-01	0.020
BA-133		53.15		1.264E+00	4.150E+00	7.060E+00	5.602E-01	0.179
		79.62		2.648E-01	1.256E+00	1.868E+00	2.844E-01	0.142
		81.00		1.600E-02	9.358E-02	1.388E-01	2.211E-02	0.115
		276.40		3.038E-01	3.688E-01	5.147E-01	6.648E-02	0.590
		302.84		3.859E-02	1.203E-01	1.739E-01	2.023E-02	0.222
		356.01	*	5.672E-03	3.539E-02	4.990E-02	5.764E-03	0.114
		383.85		-9.621E-02	2.166E-01	3.547E-01	3.847E-02	-0.271
I-133	+	510.53		1.140E+00	2.166E-01	Half-Life too short		
		529.87	*	3.869E-03	2.166E-01	Half-Life too short		
		706.58		4.387E-02	2.166E-01	Half-Life too short		
		856.28		1.653E-01	2.166E-01	Half-Life too short		
		875.33		-3.273E-02	2.166E-01	Half-Life too short		
	+	1236.41		8.320E-01	2.166E-01	Half-Life too short		
		1298.22		-3.094E-02	2.166E-01	Half-Life too short		
CS-134		475.35		-1.241E+00	1.404E+00	2.188E+00	1.390E-01	-0.567
		563.23		-8.449E-04	2.669E-01	4.340E-01	3.066E-02	-0.002
		569.32		-2.207E-02	1.572E-01	2.486E-01	1.777E-02	-0.089
		604.70		-2.180E-02	3.151E-02	4.111E-02	2.989E-03	-0.530
		795.84	*	6.397E-02	4.136E-02	6.519E-02	6.305E-03	0.981
		801.93		-3.309E-01	3.172E-01	4.547E-01	4.436E-02	-0.728
		1038.57		2.484E-01	2.826E+00	4.761E+00	4.189E-01	0.052
		1167.94		-6.607E-03	1.809E+00	2.994E+00	1.698E-01	-0.002
		1365.15		-1.845E-01	8.889E-01	1.417E+00	1.127E-01	-0.130

---- Non-Identified Nuclides ----

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CS-135		268.24	*	1.284E-01	1.354E-01	2.049E-01	1.548E-02	0.627
I-135		288.45		1.651E+10	1.354E-01	Half-Life too short		
		417.63		1.768E+10	1.354E-01	Half-Life too short		
		546.56		4.791E+09	1.354E-01	Half-Life too short		
		836.80		3.246E+10	1.354E-01	Half-Life too short		
		1038.76		1.549E+09	1.354E-01	Half-Life too short		
		1124.00		6.245E+10	1.354E-01	Half-Life too short		
		1131.51		-1.379E+09	1.354E-01	Half-Life too short		
		1260.41	*	-1.111E+08	1.354E-01	Half-Life too short		
		1457.56		8.534E+11	1.354E-01	Half-Life too short		
		1678.03		-6.451E+08	1.354E-01	Half-Life too short		
		1706.46		-1.189E+10	1.354E-01	Half-Life too short		
		1791.20		7.248E+09	1.354E-01	Half-Life too short		
CS-136		66.91		-6.142E-02	8.120E-01	1.205E+00	1.819E-01	-0.051
	+	86.29		3.326E+00	1.160E+00	1.791E+00	2.361E-01	1.857
		153.22		4.844E-01	5.142E-01	8.991E-01	6.189E-02	0.539
		163.89		-4.755E-01	8.243E-01	1.344E+00	9.180E-02	-0.354
		176.55		9.625E-02	2.759E-01	4.703E-01	2.850E-02	0.205
		273.65		3.896E-01	5.130E-01	5.733E-01	3.735E-02	0.680
		340.57		5.716E-01	1.288E-01	2.190E-01	1.347E-02	2.610
		818.51		-1.495E-02	5.392E-02	8.690E-02	8.677E-03	-0.172
		1048.07	*	-2.187E-02	7.784E-02	1.274E-01	1.142E-02	-0.172
		1235.34		5.399E-01	4.996E-01	7.708E-01	7.924E-02	0.701
BA-137M		661.65	*	6.594E-03	2.585E-02	4.403E-02	3.356E-03	0.150
CS-137		661.65	*	6.971E-03	2.732E-02	4.654E-02	3.557E-03	0.150
CE-139		165.85	*	1.033E-02	2.263E-02	3.886E-02	2.040E-03	0.266
BA-140		162.64		-3.249E-01	5.769E-01	9.417E-01	5.708E-02	-0.345
		304.84		5.861E-01	1.061E+00	1.544E+00	4.213E-01	0.380
		423.70		-2.130E-01	1.394E+00	2.300E+00	7.317E-01	-0.093
		537.32	*	-1.059E-01	1.888E-01	2.912E-01	9.527E-02	-0.364
LA-140	+	328.77		6.039E-01	3.271E-01	4.175E-01	2.705E-02	1.446
		432.53		-5.798E-01	1.499E+00	2.437E+00	1.616E-01	-0.238
		487.03		4.172E-02	9.564E-02	1.618E-01	1.154E-02	0.258
		751.79		-1.195E+00	1.258E+00	1.940E+00	1.906E-01	-0.616
		815.85		-1.723E-01	2.243E-01	3.455E-01	3.734E-02	-0.499
		867.82		-5.111E-01	1.307E+00	1.759E+00	1.963E-01	-0.291
		919.63		1.014E-01	2.122E+00	3.307E+00	4.178E-01	0.031
		925.24		-4.862E-01	8.313E-01	1.285E+00	1.455E-01	-0.378
		1596.49	*	-2.214E-02	7.027E-02	9.352E-02	6.416E-03	-0.237
CE-141		145.44	*	6.719E-02	5.121E-02	8.543E-02	4.877E-03	0.786
CE-143		57.37		3.944E-04	5.121E-02	Half-Life too short		
		231.56		7.021E-04	5.121E-02	Half-Life too short		
		293.26	*	6.844E-04	5.121E-02	Half-Life too short		
	+	350.59		2.944E-02	5.121E-02	Half-Life too short		
		490.36		-1.716E-03	5.121E-02	Half-Life too short		
		664.57		1.039E-03	5.121E-02	Half-Life too short		
		721.93		2.659E-04	5.121E-02	Half-Life too short		
CE-144		80.11		1.205E+00	1.987E+00	3.008E+00	2.604E-01	0.401
		133.54	*	-3.562E-05	1.648E-01	2.628E-01	3.716E-02	0.000

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-144		476.78		-1.298E-02	4.989E-02	8.101E-02	6.011E-03	-0.160
		618.01		-1.287E-03	2.417E-02	3.775E-02	2.874E-03	-0.034
		696.49	*	5.729E-03	2.518E-02	4.265E-02	3.462E-03	0.134
		778.57		-1.244E+00	1.797E+00	2.471E+00	2.310E-01	-0.504
PR-144		696.49	*	3.882E-01	1.707E+00	2.890E+00	2.345E-01	0.134
		1489.15		-7.599E+00	9.394E+00	1.366E+01	9.871E-01	-0.556
PM-146		453.90	*	1.838E-02	3.365E-02	5.732E-02	5.099E-03	0.321
		633.02		-2.588E-01	1.110E+00	1.751E+00	6.498E-01	-0.148
		735.90		8.996E-02	1.040E-01	1.780E-01	5.096E-02	0.505
		747.13		2.816E-02	6.537E-02	1.115E-01	1.582E-02	0.253
ND-147	+	91.11		4.216E-01	2.590E-01	4.080E-01	3.837E-02	1.033
		319.41		-1.199E+00	2.653E+00	4.170E+00	2.409E-01	-0.287
		439.89		7.821E-01	4.131E+00	6.935E+00	4.231E-01	0.113
		531.02	*	5.099E-01	4.009E-01	6.991E-01	9.754E-02	0.729
PM-149		285.90	*	-5.839E+01	6.846E+01	1.054E+02	1.490E+01	-0.554
EU-152		121.78		-1.193E-02	6.292E-02	1.002E-01	7.719E-03	-0.119
		244.69		3.412E-01	2.733E-01	4.238E-01	2.367E-02	0.805
		344.27	*	3.016E-02	8.863E-02	1.185E-01	7.732E-03	0.255
		443.98		-4.486E-01	6.546E-01	1.039E+00	6.365E-02	-0.432
		778.89		-2.038E-01	2.023E-01	2.797E-01	2.615E-02	-0.728
		867.32		-5.643E-01	7.956E-01	1.032E+00	1.112E-01	-0.547
	+	964.01		5.141E-01	2.553E-01	4.552E-01	4.663E-02	1.129
		1085.78		-4.139E-02	2.814E-01	4.637E-01	3.593E-02	-0.089
		1112.02		-2.165E-02	2.489E-01	3.505E-01	2.495E-02	-0.062
		1407.95		1.160E-01	1.568E-01	2.713E-01	2.015E-02	0.427
GD-153		69.67		9.229E-01	1.696E+00	2.582E+00	2.096E-01	0.357
		83.37		-5.803E+00	1.478E+01	2.117E+01	1.881E+00	-0.274
		97.43	*	-7.599E-02	7.385E-02	1.009E-01	7.887E-03	-0.753
		103.18		-1.064E-01	8.840E-02	1.356E-01	9.781E-03	-0.785
EU-154		123.07		2.076E-03	4.369E-02	7.020E-02	6.640E-03	0.030
		247.94		-2.098E-02	3.024E-01	4.337E-01	4.085E-02	-0.048
		591.81		-6.351E-01	5.111E-01	6.935E-01	7.376E-02	-0.916
		723.30		1.237E-01	1.524E-01	2.333E-01	2.199E-02	0.530
		756.87		2.566E-01	5.307E-01	9.087E-01	1.114E-01	0.282
		873.19		1.725E-01	2.320E-01	3.980E-01	5.543E-02	0.433
		996.32		-8.153E-02	2.728E-01	4.295E-01	7.855E-02	-0.190
		1004.76		-6.713E-02	1.640E-01	2.559E-01	3.147E-02	-0.262
		1274.45	*	-4.197E-02	8.848E-02	1.392E-01	1.390E-02	-0.302
EU-155		48.70		-1.284E+00	3.170E+00	5.270E+00	3.998E-01	-0.244
		60.01		-1.605E+00	5.304E+00	7.833E+00	5.977E-01	-0.205
	+	86.54		3.063E-01	1.028E-01	1.669E-01	1.537E-02	1.835
		105.31	*	8.870E-02	9.035E-02	1.518E-01	1.085E-02	0.584
TB-160	+	86.79		8.185E-01	2.746E-01	4.476E-01	4.095E-02	1.829
		197.04		2.424E-01	4.236E-01	7.226E-01	3.881E-02	0.335
		215.65		3.361E-01	6.037E-01	9.916E-01	5.413E-02	0.339
	+	298.57		2.610E-01	1.132E-01	1.557E-01	8.943E-03	1.676
		879.36	*	-7.074E-02	1.080E-01	1.674E-01	1.839E-02	-0.423
		962.29		1.115E+00	4.848E-01	7.944E-01	8.161E-02	1.404
		966.15		1.364E+00	2.495E-01	4.338E-01	4.427E-02	3.143

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1177.93		-9.242E-02	2.489E-01	3.996E-01	2.231E-02	-0.231
		1271.85		-1.751E-01	5.106E-01	8.136E-01	5.498E-02	-0.215
HO-166M		80.57		1.951E-01	2.547E-01	3.877E-01	3.368E-02	0.503
		184.41		1.062E-01	3.054E-02	5.148E-02	2.735E-03	2.062
		280.46		9.762E-02	6.917E-02	1.078E-01	6.151E-03	0.905
		410.95		2.646E-01	2.103E-01	3.317E-01	1.953E-02	0.798
		711.68	*	6.272E-03	4.406E-02	7.413E-02	6.179E-03	0.085
		752.31		-1.635E-01	1.968E-01	3.065E-01	2.740E-02	-0.534
		810.29		-1.382E-02	4.180E-02	6.714E-02	6.610E-03	-0.206
TM-171		51.35		-2.504E+01	3.763E+01	6.171E+01	4.891E+00	-0.406
		52.39		3.116E+00	1.855E+01	3.143E+01	2.497E+00	0.099
		59.40		-2.741E+01	2.976E+01	4.245E+01	3.223E+00	-0.646
		66.72	*	-1.828E+01	3.002E+01	4.338E+01	3.468E+00	-0.421
LU-176	+	88.36		6.032E-01	2.024E-01	3.179E-01	2.919E-02	1.897
		201.83		-1.951E-02	2.243E-02	3.611E-02	1.947E-03	-0.540
		306.84	*	9.892E-04	1.836E-02	2.976E-02	1.713E-03	0.033
		401.10		1.904E+00	5.019E+00	8.554E+00	4.972E-01	0.223
LU-177		112.95		1.120E+00	1.414E+00	2.348E+00	1.513E-01	0.477
	+	208.36	*	2.737E+00	1.433E+00	1.664E+00	9.025E-02	1.645
LU-177M		52.97		9.808E-01	1.872E+00	3.210E+00	2.549E-01	0.306
		54.07		3.835E-02	9.712E-01	1.635E+00	1.293E-01	0.023
		61.30		9.865E-01	1.501E+00	2.324E+00	1.795E-01	0.425
		121.62		-6.495E-02	3.226E-01	5.134E-01	3.046E-02	-0.126
		147.16		-1.973E-01	5.487E-01	8.558E-01	4.657E-02	-0.231
		171.86		2.918E-02	3.588E-01	6.067E-01	3.193E-02	0.048
		218.09		-5.530E-01	6.707E-01	1.074E+00	5.875E-02	-0.515
		268.79		1.147E+00	7.003E-01	1.097E+00	6.221E-02	1.045
		319.02		-8.976E-02	2.032E-01	3.196E-01	1.845E-02	-0.281
		367.43		-1.160E-01	6.354E-01	1.060E+00	6.120E-02	-0.109
		413.65	*	2.187E-02	1.403E-01	2.061E-01	1.217E-02	0.106
HF-181		56.28		2.872E-01	1.024E+00	1.736E+00	1.352E-01	0.165
		57.53		1.774E-01	5.295E-01	8.985E-01	6.928E-02	0.197
		65.20		-7.127E-01	1.013E+00	1.458E+00	1.156E-01	-0.489
		133.02		-1.415E-02	5.394E-02	8.507E-02	4.812E-03	-0.166
		136.25		-1.706E-01	3.793E-01	5.921E-01	3.316E-02	-0.288
		345.85		3.650E-02	1.732E-01	2.289E-01	1.324E-02	0.159
		482.03	*	-6.437E-03	3.103E-02	5.049E-02	3.232E-03	-0.127
W-181		56.28		1.134E-01	4.006E-01	6.792E-01	5.291E-02	0.167
		57.53		6.950E-02	2.074E-01	3.518E-01	2.713E-02	0.198
		65.20	*	-2.769E-01	3.934E-01	5.662E-01	4.491E-02	-0.489
TA-182		67.75		4.914E-02	1.099E-01	1.764E-01	1.418E-02	0.279
		100.10		2.712E-01	1.455E-01	2.518E-01	1.893E-02	1.077
		152.43		-1.244E-01	2.883E-01	4.471E-01	2.405E-02	-0.278
		222.10		1.994E-01	2.701E-01	4.603E-01	2.526E-02	0.433
		1001.68		5.360E-01	1.579E+00	2.585E+00	2.468E-01	0.207
	+	1121.28		8.246E-01	1.779E-01	2.695E-01	1.857E-02	3.060
		1189.05		6.410E-02	2.227E-01	3.758E-01	2.149E-02	0.171
		1221.42	*	-6.447E-03	1.434E-01	2.357E-01	1.442E-02	-0.027
		1230.97		-7.509E-02	3.776E-01	5.189E-01	3.236E-02	-0.145

---- Non-Identified Nuclides ----

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RE-183		57.98		6.737E-02	2.005E-01	3.401E-01	2.613E-02	0.198
		59.32		-1.126E-01	1.226E-01	1.750E-01	1.329E-02	-0.643
		67.20		-1.575E-02	2.111E-01	3.132E-01	2.510E-02	-0.050
		162.32	*	-6.102E-02	8.433E-02	1.368E-01	7.221E-03	-0.446
	+	208.81		2.451E+00	1.283E+00	1.496E+00	8.120E-02	1.638
		291.72		1.143E-02	8.033E-01	1.141E+00	6.537E-02	0.010
RE-184		57.98		2.482E-01	7.385E-01	1.253E+00	9.626E-02	0.198
		59.32		-4.143E-01	4.514E-01	6.440E-01	4.893E-02	-0.643
		67.20		-5.800E-02	7.775E-01	1.153E+00	9.245E-02	-0.050
		161.27		-6.286E-02	2.625E-01	4.403E-01	2.329E-02	-0.143
		216.55		4.501E-02	2.041E-01	3.417E-01	1.867E-02	0.132
		252.85	*	-2.955E-02	1.829E-01	2.979E-01	1.673E-02	-0.099
		318.01		-1.030E-04	3.469E-01	5.589E-01	3.226E-02	0.000
		792.07		9.448E-01	8.619E-01	1.342E+00	1.282E-01	0.704
		903.28		-3.583E-01	8.521E-01	1.132E+00	1.270E-01	-0.317
		920.93		-2.804E-03	3.228E-01	5.254E-01	5.758E-02	-0.005
OS-185		59.72		-1.823E-01	3.198E-01	4.653E-01	3.539E-02	-0.392
		61.14		9.999E-02	1.653E-01	2.554E-01	1.971E-02	0.391
		69.30		1.053E-01	3.054E-01	4.613E-01	3.737E-02	0.228
		592.07		-2.521E+00	1.998E+00	2.836E+00	2.031E-01	-0.889
		646.12	*	2.741E-03	3.112E-02	5.031E-02	3.784E-03	0.054
		717.42		-3.210E-01	6.995E-01	1.074E+00	9.042E-02	-0.299
		874.81		-1.521E-01	4.596E-01	7.335E-01	8.001E-02	-0.207
		880.27		-1.349E-01	5.901E-01	9.483E-01	1.043E-01	-0.142
RE-188		155.03	*	9.242E-02	1.348E-01	2.339E-01	1.252E-02	0.395
		477.96		1.677E+00	2.219E+00	3.821E+00	2.434E-01	0.439
		633.10		-2.993E-01	2.220E+00	3.540E+00	2.632E-01	-0.085
W-188	+	63.58		9.269E+01	7.336E+01	8.934E+01	7.020E+00	1.037
		227.08		-1.449E+01	1.009E+01	1.562E+01	8.610E-01	-0.928
		290.67	*	2.664E-01	6.050E+00	8.615E+00	4.934E-01	0.031
IR-192	+	295.96		1.102E+00	1.472E-01	2.297E-01	1.339E-02	4.799
		308.46		-5.752E-02	7.388E-02	1.142E-01	6.655E-03	-0.504
		316.51	*	-2.668E-03	2.674E-02	4.288E-02	2.487E-03	-0.062
		468.07		-5.018E-03	5.541E-02	7.876E-02	5.613E-03	-0.064
		604.41		-1.723E-01	4.201E-01	5.624E-01	6.834E-02	-0.306
		612.46		2.077E+00	6.982E-01	1.154E+00	1.012E-01	1.800
AU-195		65.12		-1.199E-01	1.827E-01	2.636E-01	2.090E-02	-0.455
		66.83		-1.329E-02	9.727E-02	1.439E-01	1.151E-02	-0.092
	+	75.70		1.221E+00	2.521E-01	4.087E-01	3.432E-02	2.987
		98.88	*	2.608E-01	1.840E-01	3.145E-01	2.406E-02	0.829
		129.76		3.711E+00	2.405E+00	4.062E+00	2.324E-01	0.914
TL-200		367.94	*	-1.542E-04	2.405E+00	Half-Life too short		
		579.30		5.549E-04	2.405E+00	Half-Life too short		
		828.27		-1.875E-03	2.405E+00	Half-Life too short		
		1205.75		1.524E-03	2.405E+00	Half-Life too short		
TL-201		68.90		2.282E+00	4.644E+00	7.495E+00	6.060E-01	0.304
		70.82		-5.559E-02	2.758E+00	4.093E+00	3.342E-01	-0.014
		80.30		3.200E+00	4.746E+00	7.201E+00	6.243E-01	0.444
		135.34		-9.149E+00	2.099E+01	3.280E+01	1.842E+00	-0.279

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		167.43	*	5.104E+00	5.383E+00	9.389E+00	4.929E-01	0.544
TL-202		68.90		2.038E-01	4.147E-01	6.693E-01	5.411E-02	0.304
		70.82		-4.950E-03	2.456E-01	3.645E-01	2.976E-02	-0.014
		80.30		2.851E-01	4.228E-01	6.414E-01	5.561E-02	0.444
		439.56	*	1.396E-02	4.988E-02	8.415E-02	5.130E-03	0.166
BI-207		72.80		1.162E-01	1.772E-01	2.700E-01	2.229E-02	0.430
	+	74.97		6.771E-01	1.398E-01	2.075E-01	1.734E-02	3.264
		84.90		2.039E-01	1.859E-01	2.828E-01	2.545E-02	0.721
		569.67		-2.881E-03	2.454E-02	3.888E-02	2.724E-03	-0.074
		1063.62	*	-2.992E-02	3.966E-02	6.058E-02	5.001E-03	-0.494
		1770.23		-9.718E-02	3.988E-01	5.267E-01	3.186E-02	-0.185
TL-207		81.07		2.899E-02	2.062E-01	3.054E-01	2.664E-02	0.095
		83.78		-4.575E-02	1.262E-01	1.811E-01	1.614E-02	-0.253
		94.90		5.276E-01	2.052E-01	3.307E-01	2.691E-02	1.596
		122.32		-7.058E-02	1.499E+00	2.400E+00	1.630E-01	-0.029
		144.24		2.002E-01	5.729E-01	9.131E-01	6.372E-02	0.219
		154.21		3.940E-01	3.081E-01	5.437E-01	3.618E-02	0.725
		269.46		3.261E-01	1.684E-01	2.668E-01	1.585E-02	1.222
		323.87	*	-2.177E-02	5.776E-01	8.090E-01	1.335E-01	-0.027
	+	338.28		6.809E+00	1.630E+00	2.018E+00	2.124E-01	3.374
		445.03		-1.199E-01	1.540E+00	2.543E+00	2.660E-01	-0.047
PO-209		260.50		-1.067E+00	7.442E+00	1.210E+01	6.829E-01	-0.088
		262.80		4.277E+00	2.025E+01	3.345E+01	1.890E+00	0.128
		896.60	*	-2.293E+00	5.470E+00	8.625E+00	9.729E-01	-0.266
BI-210		46.50	*	-1.461E-01	4.905E+00	8.091E+00	6.260E-01	-0.018
PB-210		46.50	*	-1.461E-01	4.905E+00	8.091E+00	6.260E-01	-0.018
PO-210		46.50	*	-1.461E-01	4.905E+00	8.091E+00	5.382E-01	-0.018
PB-211		404.84	*	1.695E-01	8.169E-01	1.195E+00	7.453E-01	0.142
		427.08		-1.622E-01	1.460E+00	2.408E+00	1.489E+00	-0.067
		831.96		-4.846E-01	9.312E-01	1.388E+00	8.732E-01	-0.349
BI-212	+	727.18	*	9.771E-01	3.983E-01	5.018E-01	4.997E-02	1.947
		785.46		2.151E+00	1.370E+00	2.348E+00	2.220E-01	0.916
		1620.62		1.107E+00	1.017E+00	1.870E+00	1.264E-01	0.592
PO-215		81.07		2.899E-02	2.062E-01	3.054E-01	2.664E-02	0.095
		83.78		-4.575E-02	1.262E-01	1.811E-01	1.614E-02	-0.253
		94.90		5.276E-01	2.052E-01	3.307E-01	2.691E-02	1.596
		122.32		-7.058E-02	1.499E+00	2.400E+00	1.630E-01	-0.029
		144.24		2.002E-01	5.729E-01	9.131E-01	6.372E-02	0.219
		154.21		3.940E-01	3.081E-01	5.437E-01	3.618E-02	0.725
		269.46		3.261E-01	1.684E-01	2.668E-01	1.585E-02	1.222
		323.87	*	-2.177E-02	5.776E-01	8.090E-01	1.335E-01	-0.027
	+	338.28		6.809E+00	1.630E+00	2.018E+00	2.124E-01	3.374
		445.03		-1.199E-01	1.540E+00	2.543E+00	2.660E-01	-0.047
RN-219	+	271.23		3.365E-01	2.560E-01	3.459E-01	2.773E-02	0.973
		401.81	*	1.648E-01	3.118E-01	5.339E-01	7.268E-02	0.309
RN-220		549.76	*	2.351E+00	1.990E+01	3.268E+01	2.246E+00	0.072
RA-223		81.07		2.899E-02	2.062E-01	3.054E-01	2.664E-02	0.095
		83.78		-4.575E-02	1.262E-01	1.811E-01	1.614E-02	-0.253
		94.90		5.276E-01	2.052E-01	3.307E-01	2.691E-02	1.596

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-7.058E-02	1.499E+00	2.400E+00	1.630E-01	-0.029
		144.24		2.002E-01	5.729E-01	9.131E-01	6.372E-02	0.219
		154.21		3.940E-01	3.081E-01	5.437E-01	3.618E-02	0.725
		269.46		3.261E-01	1.684E-01	2.668E-01	1.585E-02	1.222
		323.87	*	-2.177E-02	5.776E-01	8.090E-01	1.335E-01	-0.027
	+	338.28		6.809E+00	1.630E+00	2.018E+00	2.124E-01	3.374
		445.03		-1.199E-01	1.540E+00	2.543E+00	2.660E-01	-0.047
AC-227		79.80		9.186E-01	1.552E+00	2.332E+00	5.016E-01	0.394
		236.00		4.907E-01	2.209E-01	3.459E-01	3.568E-02	1.419
		256.20	*	-2.121E-02	3.052E-01	4.987E-01	6.927E-02	-0.043
		286.10		-8.873E-01	1.133E+00	1.756E+00	2.023E-01	-0.505
	+	299.80		3.323E+00	1.527E+00	1.983E+00	3.225E-01	1.676
		304.40		6.026E-01	1.532E+00	2.224E+00	3.843E-01	0.271
		334.20		-4.490E-02	2.331E+00	2.728E+00	5.000E-01	-0.016
TH-227		79.80		9.186E-01	1.552E+00	2.332E+00	5.080E-01	0.394
	+	94.00		4.796E+00	2.493E+00	3.178E+00	6.876E-01	1.509
		236.00		4.907E-01	2.194E-01	3.459E-01	3.078E-02	1.419
		256.20	*	-2.121E-02	3.052E-01	4.987E-01	8.398E-02	-0.043
		286.10		-8.873E-01	1.436E+00	1.756E+00	1.759E+00	-0.505
	+	299.80		3.323E+00	1.527E+00	1.983E+00	3.225E-01	1.676
		304.40		6.026E-01	1.532E+00	2.224E+00	3.843E-01	0.271
		334.20		-4.490E-02	2.331E+00	2.728E+00	5.000E-01	-0.016
TH-229		85.43		2.453E-01	1.835E-01	2.811E-01	2.541E-02	0.873
	+	88.47		3.472E-01	1.165E-01	1.826E-01	1.673E-02	1.902
		100.00		2.952E-01	1.517E-01	2.631E-01	1.981E-02	1.122
		193.63	*	-1.463E-01	3.914E-01	6.450E-01	3.454E-02	-0.227
		210.97		8.886E-01	7.259E-01	1.108E+00	6.022E-02	0.802
PA-231		283.67	*	9.771E-01	1.170E+00	1.843E+00	2.532E-01	0.530
	+	301.29		1.329E+00	5.879E-01	7.777E-01	8.107E-02	1.709
TH-231		81.07		2.899E-02	2.062E-01	3.054E-01	2.664E-02	0.095
		83.78		-4.575E-02	1.262E-01	1.811E-01	1.614E-02	-0.253
		94.90		5.276E-01	2.052E-01	3.307E-01	2.691E-02	1.596
		122.32		-7.058E-02	1.499E+00	2.400E+00	1.630E-01	-0.029
		144.24		2.002E-01	5.729E-01	9.131E-01	6.372E-02	0.219
		154.21		3.940E-01	3.081E-01	5.437E-01	3.618E-02	0.725
		269.46		3.261E-01	1.684E-01	2.668E-01	1.585E-02	1.222
		323.87	*	-2.177E-02	5.776E-01	8.090E-01	1.335E-01	-0.027
	+	338.28		6.809E+00	1.630E+00	2.018E+00	2.124E-01	3.374
		445.03		-1.199E-01	1.540E+00	2.543E+00	2.660E-01	-0.047
U-231		84.21		8.851E-01	5.411E+00	7.951E+00	7.112E-01	0.111
	+	92.29		4.770E+00	2.288E+00	3.273E+00	2.787E-01	1.457
		95.87	*	-3.340E-01	9.544E-01	1.361E+00	1.090E-01	-0.245
		108.00		-1.130E+00	1.753E+00	2.757E+00	1.875E-01	-0.410
PA-233	+	75.28		1.976E+01	4.789E+00	6.129E+00	9.323E-01	3.224
	+	86.59		4.979E+00	2.095E+00	2.719E+00	7.338E-01	1.831
	+	300.12		9.263E-01	4.171E-01	5.538E-01	7.428E-02	1.673
		311.98	*	1.565E-02	4.928E-02	8.086E-02	4.954E-03	0.194
		340.50		2.997E+00	9.182E-01	1.085E+00	2.492E-01	2.761
		398.62		-7.138E-01	1.583E+00	2.570E+00	6.643E-01	-0.278

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		9.290E-03	1.268E+00	1.998E+00	4.120E-01	0.005
PA-234	+	63.00		2.687E+00	2.155E+00	2.674E+00	4.030E-01	1.005
		94.67		4.873E-01	1.586E-01	2.486E-01	3.006E-02	1.960
		98.44		6.188E-02	8.568E-02	1.260E-01	7.012E-02	0.491
		99.86		7.942E-01	3.866E-01	6.721E-01	5.070E-02	1.182
		111.00		-9.118E-02	1.583E-01	2.492E-01	2.673E-02	-0.366
		131.20		-1.827E-03	8.889E-02	1.418E-01	8.072E-03	-0.013
		152.70		-4.895E-02	2.765E-01	4.333E-01	6.785E-02	-0.113
	+	186.00		4.063E+00	1.864E+00	2.043E+00	6.225E-01	1.988
		226.40		-4.684E-01	3.179E-01	4.856E-01	5.543E-02	-0.965
		227.20		-3.452E-01	3.358E-01	5.304E-01	2.923E-02	-0.651
		248.90		-2.996E-01	6.675E-01	9.836E-01	2.108E-01	-0.305
		293.70		5.289E+00	1.115E+00	1.366E+00	2.194E-01	3.871
		369.80		2.327E-01	6.042E-01	1.034E+00	2.153E-01	0.225
		568.70		-8.306E-02	7.952E-01	1.261E+00	8.826E-02	-0.066
		569.50		-2.346E-02	2.179E-01	3.454E-01	2.420E-02	-0.068
		574.00		2.819E-01	1.177E+00	1.938E+00	1.364E-01	0.145
		699.00		-3.106E-01	5.213E-01	8.323E-01	1.571E-01	-0.373
		706.10		9.591E-02	7.672E-01	1.288E+00	5.734E-01	0.074
		733.00		1.449E-02	2.945E-01	4.238E-01	9.412E-02	0.034
		742.81		-8.579E-01	1.123E+00	1.498E+00	1.007E+00	-0.573
		796.30		1.224E+00	8.454E-01	1.241E+00	3.399E-01	0.986
		805.60		9.486E-01	7.644E-01	1.274E+00	3.948E-01	0.745
		819.60		2.553E-02	8.905E-01	1.469E+00	5.637E-01	0.017
		826.30		6.580E-02	6.059E-01	1.004E+00	4.522E-01	0.066
		831.60		-1.341E-01	4.515E-01	7.231E-01	2.194E-01	-0.185
		876.40		-5.061E-01	8.244E-01	9.813E-01	1.011E+00	-0.516
		880.51		5.482E-03	2.112E-01	3.463E-01	3.810E-02	0.016
		883.24		1.662E-01	2.411E-01	3.692E-01	2.495E-01	0.450
		899.00		3.882E-01	6.123E-01	1.010E+00	4.475E-01	0.384
		925.00		-2.841E-01	8.610E-01	1.363E+00	1.485E-01	-0.208
		926.50		-9.128E-02	1.329E-01	2.008E-01	5.246E-02	-0.455
		946.00	*	4.179E-02	2.226E-01	3.668E-01	7.236E-02	0.114
		949.00		-1.044E-01	3.322E-01	5.257E-01	5.521E-02	-0.199
		980.50		-1.693E-01	5.048E-01	7.922E-01	7.879E-02	-0.214
		1394.10		2.722E-01	8.534E-01	1.408E+00	9.145E-01	0.193
PA-234M		766.42		2.095E+01	1.432E+01	1.628E+01	8.277E+00	1.287
		1001.03	*	2.227E+00	3.579E+00	5.973E+00	6.443E-01	0.373
U-235	+	89.95		1.675E+00	1.141E+00	1.584E+00	4.899E-01	1.058
	+	93.35		1.492E+00	8.190E-01	1.030E+00	2.877E-01	1.449
		105.00		1.230E+00	9.459E-01	1.496E+00	4.402E-01	0.822
		143.76	*	-1.717E-01	1.849E-01	2.762E-01	4.473E-02	-0.621
		163.35		-2.073E-01	3.601E-01	5.843E-01	1.041E-01	-0.355
	+	185.71		1.505E-01	5.222E-02	7.568E-02	4.025E-03	1.988
		205.31		5.189E-02	4.578E-01	6.689E-01	1.195E-01	0.078
NP-236		94.67		3.719E-01	1.158E-01	1.888E-01	1.543E-02	1.970
		98.44		4.673E-02	5.941E-02	9.524E-02	7.335E-03	0.491
		111.00		-6.897E-02	1.196E-01	1.885E-01	1.240E-02	-0.366
		160.31	*	2.075E-02	5.810E-02	9.968E-02	5.281E-03	0.208

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.800E-01	1.284E-01	2.240E-01	1.698E-02	1.250
		117.00	*	-1.159E-01	1.661E-01	2.593E-01	1.605E-02	-0.447
	+	209.75		1.933E+00	1.012E+00	1.176E+00	6.386E-02	1.644
		228.18		9.392E-03	1.738E-01	2.879E-01	1.588E-02	0.033
	+	277.60		2.626E-01	1.812E-01	2.509E-01	1.429E-02	1.047
		334.30		-5.451E-02	1.320E+00	1.541E+00	8.912E-02	-0.035
AM-241		59.54	*	-1.597E-01	1.724E-01	2.457E-01	2.038E-02	-0.650
CM-243		99.55		2.881E-01	1.321E-01	2.305E-01	1.747E-02	1.250
		103.76	*	1.936E-02	8.079E-02	1.323E-01	9.467E-03	0.146
		117.00		-1.193E-01	1.708E-01	2.668E-01	1.651E-02	-0.447
	+	209.75		1.905E+00	9.972E-01	1.159E+00	6.295E-02	1.644
		228.18		9.490E-03	1.756E-01	2.909E-01	1.605E-02	0.033
	+	277.60		2.648E-01	1.827E-01	2.530E-01	1.441E-02	1.047
AM-246		798.80		-8.998E-02	1.152E-01	1.488E-01	1.438E-02	-0.605
		1036.00		8.817E-02	2.232E-01	3.839E-01	3.399E-02	0.230
		1062.04		-4.778E-02	1.692E-01	2.687E-01	2.227E-02	-0.178
		1078.86	*	4.266E-02	1.031E-01	1.772E-01	1.402E-02	0.241
CM-247	+	278.00		1.089E+00	7.516E-01	1.037E+00	5.906E-02	1.051
		287.40		-3.396E-01	9.052E-01	1.441E+00	8.244E-02	-0.236
		402.60	*	1.876E-02	2.905E-02	4.892E-02	2.849E-03	0.384
CF-249		252.85		-1.109E-01	6.863E-01	1.118E+00	6.278E-02	-0.099
		333.44		2.035E-02	1.999E-01	2.030E-01	1.174E-02	0.100
		387.95	*	1.410E-02	2.893E-02	4.972E-02	2.858E-03	0.284
CF-251		176.60	*	3.172E-02	9.487E-02	1.616E-01	8.535E-03	0.196
		227.00		-4.470E-01	3.021E-01	4.668E-01	2.573E-02	-0.958
		285.00		-1.723E+00	1.301E+00	1.959E+00	1.120E-01	-0.880

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960007		
Acquisition date	: 12-FEB-2010 15:49:09	Detector SN#	:
Detector ID	: GAM18	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.63	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960007	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.3621E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

Standard Weight	: 0.00000		
CALIB. DATE/TIME	: 23-APR-2009 11:59:23	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.922E+01	1.788E+00	3.465E-01	0.000E+00
CD-109	2.588E+00	8.509E-01	1.129E+00	0.000E+00
SN-126	2.543E-01	8.363E-02	1.117E-01	0.000E+00
HG-203	6.006E-02	4.063E-02	4.871E-02	0.000E+00
TL-208	4.802E-01	7.078E-02	4.483E-02	0.000E+00
BI-211	3.635E+00	4.167E-01	2.336E-01	0.000E+00
PB-212	1.571E+00	1.416E-01	7.232E-02	0.000E+00
PO-212	1.571E+00	1.416E-01	7.232E-02	0.000E+00
BI-214	1.156E+00	1.593E-01	8.295E-02	0.000E+00
PB-214	1.265E+00	1.587E-01	8.140E-02	0.000E+00
PO-214	1.265E+00	1.587E-01	8.140E-02	0.000E+00
PO-216	1.571E+00	1.416E-01	7.232E-02	0.000E+00
PO-218	1.265E+00	1.587E-01	8.140E-02	0.000E+00
RA-224	4.214E+00	1.082E+00	8.219E-01	0.000E+00
RA-226	1.156E+00	1.593E-01	8.295E-02	0.000E+00
AC-228	1.566E+00	2.958E-01	1.472E-01	0.000E+00
RA-228	1.566E+00	2.958E-01	1.472E-01	0.000E+00
TH-228	1.595E+00	1.438E-01	7.342E-02	0.000E+00
TH-230	1.156E+00	1.593E-01	8.295E-02	0.000E+00
TH-232	1.566E+00	2.958E-01	1.472E-01	0.000E+00
TH-234	2.305E+00	1.823E+00	2.077E+00	0.000E+00
U-234	1.156E+00	1.593E-01	8.295E-02	0.000E+00
NP-237	7.468E-01	2.883E-01	3.331E-01	0.000E+00
U-238	2.305E+00	1.823E+00	2.077E+00	0.000E+00
AM-243	3.772E-01	7.632E-02	8.558E-02	0.000E+00
ANH-511	1.084E-01	5.087E-02	3.553E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	7.958E-02	2.286E-01	4.021E-01	0.000E+00 NOT IDENT.

NA-22	-8.665E-03	3.065E-02	5.039E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.182E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.503E-02	2.133E-02	3.920E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.295E-02	7.890E-02	0.000E+00	FAIL ABUN
SC-46	-9.180E-03	2.885E-02	4.749E-02	0.000E+00	FAIL ABUN
V-48	2.674E-02	4.792E-02	8.366E-02	0.000E+00	NOT IDENT.
CR-51	-1.456E-02	2.828E-01	4.783E-01	0.000E+00	NOT IDENT.
MN-52	-2.992E-02	1.601E-01	2.599E-01	0.000E+00	NOT IDENT.
MN-54	-1.147E-02	2.814E-02	4.652E-02	0.000E+00	NOT IDENT.
CO-56	-5.206E-03	2.812E-02	4.706E-02	0.000E+00	FAIL ABUN
CO-57	-3.137E-03	2.118E-02	3.619E-02	0.000E+00	NOT IDENT.
CO-58	-1.839E-02	2.720E-02	4.393E-02	0.000E+00	NOT IDENT.
FE-59	-8.606E-02	5.981E-02	8.920E-02	0.000E+00	NOT IDENT.
CO-60	-1.518E-02	3.052E-02	4.881E-02	0.000E+00	NOT IDENT.
ZN-65	3.949E-02	6.925E-02	1.075E-01	0.000E+00	NOT IDENT.
GE-68	-7.527E-02	9.005E-01	1.537E+00	0.000E+00	NOT IDENT.
AS-73	-4.743E-02	9.500E-01	1.734E+00	0.000E+00	NOT IDENT.
AS-74	3.754E-02	7.179E-02	1.243E-01	0.000E+00	NOT IDENT.
SE-75	-3.760E-03	3.378E-02	5.604E-02	0.000E+00	FAIL ABUN
BR-77	5.302E+00	7.063E+00	1.265E+01	0.000E+00	FAIL ABUN
SR-82	3.805E-02	2.813E-01	4.206E-01	0.000E+00	NOT IDENT.
RB-83	2.548E-02	4.550E-02	8.061E-02	0.000E+00	NOT IDENT.
RB-84	1.700E-02	5.132E-02	8.879E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.141E+00	1.080E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.150E-02	5.542E-02	0.000E+00	NOT IDENT.
RB-86	2.211E-02	5.802E-01	9.989E-01	0.000E+00	NOT IDENT.
Y-88	-4.869E-03	2.451E-02	3.969E-02	0.000E+00	NOT IDENT.
ZR-88	-1.815E-02	2.157E-02	3.618E-02	0.000E+00	NOT IDENT.
Y-91	-7.281E-01	1.251E+01	2.111E+01	0.000E+00	NOT IDENT.
NB-94	5.339E-04	2.421E-02	4.199E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	3.514E-02	5.952E-02	0.000E+00	NOT IDENT.
NB-95M	1.008E-01	1.037E-01	1.669E-01	0.000E+00	NOT IDENT.
ZR-95	1.391E-02	4.779E-02	8.376E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.114E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.703E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.688E+00	7.923E+00	1.344E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.643E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.848E-02	2.509E-02	4.540E-02	0.000E+00	NOT IDENT.
RH-102	-2.188E-02	2.119E-02	3.422E-02	0.000E+00	NOT IDENT.
RU-103	2.722E-02	2.689E-02	4.879E-02	0.000E+00	FAIL ABUN
RH-106	8.304E-02	2.375E-01	4.070E-01	0.000E+00	FAIL ABUN
RU-106	8.304E-02	2.373E-01	4.070E-01	0.000E+00	FAIL ABUN
AG-108M	-5.919E-03	2.296E-02	3.938E-02	0.000E+00	NOT IDENT.
AG-110M	-2.608E-02	2.451E-02	3.974E-02	0.000E+00	NOT IDENT.
IN-111	1.658E-01	8.700E-01	1.344E+00	0.000E+00	NOT IDENT.
IN-113M	-8.830E-03	3.138E-02	5.436E-02	0.000E+00	NOT IDENT.
SN-113	-8.830E-03	3.138E-02	5.436E-02	0.000E+00	NOT IDENT.
IN-114M	1.047E-01	1.572E-01	2.545E-01	0.000E+00	NOT IDENT.
CD-115	-2.456E+00	7.565E+00	1.262E+01	0.000E+00	NOT IDENT.
SN-117M	-2.675E-02	4.054E-02	7.146E-02	0.000E+00	NOT IDENT.
SB-122	-1.891E-01	1.544E+00	2.596E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.408E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.548E-03	2.065E-02	3.747E-02	0.000E+00	NOT IDENT.
I-124	-3.316E-01	6.292E-01	8.697E-01	0.000E+00	FAIL ABUN
SB-124	-3.501E-02	5.339E-02	8.138E-02	0.000E+00	FAIL ABUN
SB-125	-1.667E-02	6.623E-02	1.138E-01	0.000E+00	FAIL ABUN
TE-125M	-1.316E+00	7.631E+00	1.315E+01	0.000E+00	NOT IDENT.
I-126	4.257E-02	1.319E-01	2.340E-01	0.000E+00	NOT IDENT.
SB-126	5.725E-02	1.198E-01	1.859E-01	0.000E+00	FAIL ABUN
SB-127	7.448E-01	9.488E-01	1.723E+00	0.000E+00	NOT IDENT.
XE-127	6.111E-03	3.659E-02	6.306E-02	0.000E+00	NOT IDENT.
I-131	9.580E-03	7.746E-02	1.380E-01	0.000E+00	NOT IDENT.
TE-132	1.800E-02	5.249E-01	9.207E-01	0.000E+00	NOT IDENT.
BA-133	5.672E-03	3.468E-02	5.140E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.286E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.397E-02	4.053E-02	6.613E-02	0.000E+00	NOT IDENT.
CS-135	1.284E-01	1.327E-01	2.121E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.540E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.187E-02	7.628E-02	1.285E-01	0.000E+00	FAIL ABUN
BA-137M	6.594E-03	2.533E-02	4.482E-02	0.000E+00	NOT IDENT.
CS-137	6.971E-03	2.678E-02	4.738E-02	0.000E+00	NOT IDENT.
CE-139	1.033E-02	2.218E-02	4.059E-02	0.000E+00	NOT IDENT.
BA-140	-1.059E-01	1.850E-01	2.977E-01	0.000E+00	NOT IDENT.
LA-140	-2.214E-02	6.886E-02	9.360E-02	0.000E+00	FAIL ABUN
CE-141	6.719E-02	5.018E-02	8.944E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.982E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.562E-05	1.615E-01	2.755E-01	0.000E+00	NOT IDENT.
PM-144	5.729E-03	2.468E-02	4.337E-02	0.000E+00	NOT IDENT.

PR-144	3.882E-01	1.672E+00	2.939E+00	0.000E+00	NOT IDENT.
PM-146	1.838E-02	3.298E-02	5.877E-02	0.000E+00	NOT IDENT.
ND-147	5.099E-01	3.928E-01	7.147E-01	0.000E+00	FAIL ABUN
PM-149	-5.839E+01	6.709E+01	1.090E+02	0.000E+00	NOT IDENT.
EU-152	3.016E-02	8.686E-02	1.221E-01	0.000E+00	FAIL ABUN
GD-153	-7.599E-02	7.237E-02	1.064E-01	0.000E+00	NOT IDENT.
EU-154	-4.197E-02	8.671E-02	1.399E-01	0.000E+00	NOT IDENT.
EU-155	8.870E-02	8.855E-02	1.598E-01	0.000E+00	FAIL ABUN
TB-160	-7.074E-02	1.058E-01	1.695E-01	0.000E+00	FAIL ABUN
HO-166M	6.272E-03	4.318E-02	7.536E-02	0.000E+00	NOT IDENT.
TM-171	-1.828E+01	2.942E+01	4.604E+01	0.000E+00	NOT IDENT.
LU-176	9.892E-04	1.799E-02	3.073E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.404E+00	1.731E+00	0.000E+00	FAIL ABUN
LU-177M	2.187E-02	1.375E-01	2.117E-01	0.000E+00	NOT IDENT.
HF-181	-6.437E-03	3.041E-02	5.171E-02	0.000E+00	NOT IDENT.
W-181	-2.769E-01	3.855E-01	6.013E-01	0.000E+00	NOT IDENT.
TA-182	-6.447E-03	1.406E-01	2.372E-01	0.000E+00	FAIL ABUN
RE-183	-6.102E-02	8.265E-02	1.429E-01	0.000E+00	FAIL ABUN
RE-184	-2.955E-02	1.793E-01	3.088E-01	0.000E+00	NOT IDENT.
OS-185	2.741E-03	3.050E-02	5.124E-02	0.000E+00	NOT IDENT.
RE-188	9.242E-02	1.321E-01	2.446E-01	0.000E+00	NOT IDENT.
W-188	2.664E-01	5.929E+00	8.906E+00	0.000E+00	FAIL ABUN
IR-192	-2.668E-03	2.621E-02	4.426E-02	0.000E+00	FAIL ABUN
AU-195	2.608E-01	1.803E-01	3.315E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.249E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	5.104E+00	5.275E+00	9.804E+00	0.000E+00	NOT IDENT.
TL-202	1.396E-02	4.888E-02	8.633E-02	0.000E+00	NOT IDENT.
BI-207	-2.992E-02	3.887E-02	6.111E-02	0.000E+00	FAIL ABUN
TL-207	-2.177E-02	5.661E-01	8.347E-01	0.000E+00	FAIL ABUN
PO-209	-2.293E+00	5.361E+00	8.730E+00	0.000E+00	NOT IDENT.
BI-210	-1.461E-01	4.807E+00	8.642E+00	0.000E+00	NOT IDENT.
PB-210	-1.461E-01	4.807E+00	8.642E+00	0.000E+00	NOT IDENT.
PO-210	-1.461E-01	4.807E+00	8.642E+00	0.000E+00	NOT IDENT.
PB-211	1.695E-01	8.005E-01	1.228E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.903E-01	5.099E-01	0.000E+00	FAIL ABUN
PO-215	-2.177E-02	5.661E-01	8.347E-01	0.000E+00	FAIL ABUN
RN-219	1.648E-01	3.056E-01	5.487E-01	0.000E+00	FAIL ABUN
RN-220	2.351E+00	1.951E+01	3.339E+01	0.000E+00	NOT IDENT.
RA-223	-2.177E-02	5.661E-01	8.347E-01	0.000E+00	FAIL ABUN
AC-227	-2.121E-02	2.991E-01	5.167E-01	0.000E+00	FAIL ABUN
TH-227	-2.121E-02	2.991E-01	5.167E-01	0.000E+00	FAIL ABUN
TH-229	-1.463E-01	3.836E-01	6.718E-01	0.000E+00	FAIL ABUN
PA-231	9.771E-01	1.147E+00	1.906E+00	0.000E+00	FAIL ABUN
TH-231	-2.177E-02	5.661E-01	8.347E-01	0.000E+00	FAIL ABUN
U-231	-3.340E-01	9.353E-01	1.435E+00	0.000E+00	FAIL ABUN
PA-233	1.565E-02	4.830E-02	8.349E-02	0.000E+00	FAIL ABUN
PA-234	4.179E-02	2.181E-01	3.709E-01	0.000E+00	FAIL ABUN
PA-234M	2.227E+00	3.507E+00	6.032E+00	0.000E+00	NOT IDENT.
U-235	-1.717E-01	1.812E-01	2.892E-01	0.000E+00	FAIL ABUN
NP-236	2.075E-02	5.694E-02	1.042E-01	0.000E+00	NOT IDENT.
NP-239	-1.159E-01	1.627E-01	2.726E-01	0.000E+00	FAIL ABUN
AM-241	-1.597E-01	1.690E-01	2.614E-01	0.000E+00	NOT IDENT.
CM-243	1.936E-02	7.917E-02	1.393E-01	0.000E+00	FAIL ABUN
AM-246	4.266E-02	1.011E-01	1.787E-01	0.000E+00	NOT IDENT.
CM-247	1.876E-02	2.847E-02	5.027E-02	0.000E+00	FAIL ABUN
CF-249	1.410E-02	2.836E-02	5.113E-02	0.000E+00	NOT IDENT.
CF-251	3.172E-02	9.297E-02	1.686E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:51:35.07

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960007.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:49:09
Sample ID : G245960007 Sample quantity : 1.36210E+02 GRAM
Detector name : GAM18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.63 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1409	10.67*	1.893E+00	1.922E+01	1.922E+01	9.49
CD-109	88.03	221	3.72*	6.463E+00	2.530E+00	2.588E+00	33.55
SN-126	64.28	98	9.60	3.075E+00	9.125E-01	9.125E-01	80.12
	86.94	221	8.90	6.463E+00	1.057E+00	1.057E+00	52.55
	87.57	221	37.00*	6.463E+00	2.543E-01	2.543E-01	33.55
HG-203	70.83	------	4.75	4.309E+00	------ Line Not Found		------
	72.87	------	8.00	4.622E+00	------ Line Not Found		------
	82.60	------	3.55	5.935E+00	------ Line Not Found		------
	279.20	84	77.30*	6.248E+00	4.791E-02	6.006E-02	69.04
TL-208	277.35	84	6.80	6.248E+00	5.446E-01	5.446E-01	69.57
	510.84	169	21.60	4.309E+00	5.018E-01	5.018E-01	48.61
	583.14	577	84.20*	3.934E+00	4.802E-01	4.802E-01	15.04
	860.37	------	12.46	2.915E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	4.622E+00	------ Line Not Found		------
	351.07	930	12.94*	5.451E+00	3.635E+00	3.635E+00	11.70
PB-212	74.81	447	10.70	4.948E+00	2.327E+00	2.327E+00	22.66
	77.11	676	18.00	5.260E+00	1.967E+00	1.967E+00	14.89
	87.30	221	8.00	6.463E+00	1.176E+00	1.176E+00	35.01
	238.63	1727	44.60*	6.792E+00	1.571E+00	1.571E+00	9.20
	300.09	133	3.41	5.986E+00	1.793E+00	1.793E+00	43.76
PO-212	74.81	447	10.70	4.948E+00	2.327E+00	2.327E+00	22.66
	77.11	676	18.00	5.260E+00	1.967E+00	1.967E+00	14.89
	87.30	221	8.00	6.463E+00	1.176E+00	1.176E+00	35.01
	115.19	------	0.60	8.058E+00	------ Line Not Found		------
	238.63	1727	44.60*	6.792E+00	1.571E+00	1.571E+00	9.20
	300.09	133	3.41	5.986E+00	1.793E+00	1.793E+00	43.76
BI-214	609.31	741	46.30*	3.812E+00	1.156E+00	1.156E+00	14.05
	1120.29	223	15.10	2.334E+00	1.744E+00	1.744E+00	22.57
	1764.49	155	15.80	1.695E+00	1.594E+00	1.594E+00	21.49
PB-214	74.81	447	6.21	4.948E+00	4.009E+00	4.009E+00	21.94
	77.11	676	10.50	5.260E+00	3.372E+00	3.372E+00	16.72
	87.30	221	4.67	6.463E+00	2.015E+00	2.015E+00	34.43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	408	7.49	6.748E+00	2.223E+00	2.223E+00	26.78
	295.21	608	19.20	6.040E+00	1.445E+00	1.445E+00	14.71
	351.92	930	37.20*	5.451E+00	1.265E+00	1.265E+00	12.81
PO-214	74.81	447	6.21	4.948E+00	4.009E+00	4.009E+00	21.94
	77.11	676	10.50	5.260E+00	3.372E+00	3.372E+00	16.72
	87.30	221	4.67	6.463E+00	2.015E+00	2.015E+00	34.43
	241.98	408	7.49	6.748E+00	2.223E+00	2.223E+00	26.78
	295.21	608	19.20	6.040E+00	1.445E+00	1.445E+00	14.71
	351.92	930	37.20*	5.451E+00	1.265E+00	1.265E+00	12.81
PO-216	74.81	447	10.70	4.948E+00	2.327E+00	2.327E+00	22.66
	77.11	676	18.00	5.260E+00	1.967E+00	1.967E+00	14.89
	87.30	221	8.00	6.463E+00	1.176E+00	1.176E+00	35.01
	238.63	1727	44.60*	6.792E+00	1.571E+00	1.571E+00	9.20
	300.09	133	3.41	5.986E+00	1.793E+00	1.793E+00	43.76
PO-218	74.81	447	6.21	4.948E+00	4.009E+00	4.009E+00	21.94
	77.11	676	10.50	5.260E+00	3.372E+00	3.372E+00	16.72
	87.30	221	4.67	6.463E+00	2.015E+00	2.015E+00	34.43
	241.98	408	7.49	6.748E+00	2.223E+00	2.223E+00	26.78
	295.21	608	19.20	6.040E+00	1.445E+00	1.445E+00	14.71
	351.92	930	37.20*	5.451E+00	1.265E+00	1.265E+00	12.81
RA-224	240.98	408	3.95*	6.748E+00	4.214E+00	4.214E+00	26.19
RA-226	609.31	741	46.30*	3.812E+00	1.156E+00	1.156E+00	14.05
	1120.29	223	15.10	2.334E+00	1.744E+00	1.744E+00	22.57
	1764.49	155	15.80	1.695E+00	1.594E+00	1.594E+00	21.49
AC-228	338.32	376	11.40	5.579E+00	1.631E+00	1.631E+00	46.08
	911.07	437	27.70*	2.780E+00	1.566E+00	1.566E+00	19.28
	969.11	221	16.60	2.639E+00	1.389E+00	1.389E+00	31.87
RA-228	338.32	376	11.40	5.579E+00	1.631E+00	1.631E+00	46.08
	911.07	437	27.70*	2.780E+00	1.566E+00	1.566E+00	19.28
	969.11	221	16.60	2.639E+00	1.389E+00	1.389E+00	31.87
TH-228	74.81	447	10.70	4.948E+00	2.327E+00	2.362E+00	20.68
	77.11	676	18.00	5.260E+00	1.967E+00	1.997E+00	14.89
	87.30	221	8.00	6.463E+00	1.176E+00	1.194E+00	33.55
	238.63	1727	44.60*	6.792E+00	1.571E+00	1.595E+00	9.20
	300.09	133	3.41	5.986E+00	1.793E+00	1.820E+00	72.94
TH-230	609.31	741	46.30*	3.812E+00	1.156E+00	1.156E+00	14.05
	1120.29	223	15.10	2.334E+00	1.744E+00	1.744E+00	22.57
	1764.49	155	15.80	1.695E+00	1.594E+00	1.594E+00	21.49
TH-232	338.32	376	11.40	5.579E+00	1.631E+00	1.631E+00	22.26
	911.07	437	27.70*	2.780E+00	1.566E+00	1.566E+00	19.28
	969.11	221	16.60	2.639E+00	1.389E+00	1.389E+00	31.87
TH-234	63.29	98	3.80*	3.075E+00	2.305E+00	2.305E+00	80.70
	92.38	170	5.41	6.963E+00	1.241E+00	1.241E+00	50.54
U-234	609.31	741	46.30*	3.812E+00	1.156E+00	1.156E+00	14.05
	1120.29	223	15.10	2.334E+00	1.744E+00	1.744E+00	22.57
	1764.49	155	15.80	1.695E+00	1.594E+00	1.594E+00	21.49
NP-237	86.50	221	12.60*	6.463E+00	7.468E-01	7.468E-01	39.39
	95.87	------	2.60	7.180E+00	------ Line Not Found		------
U-238	63.29	98	3.80*	3.075E+00	2.305E+00	2.305E+00	80.70

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	92.38	170	5.41	6.963E+00	1.241E+00	1.241E+00	47.97
AM-243	74.67	447	66.00*	4.948E+00	3.772E-01	3.772E-01	20.65
	86.72	221	0.34	6.463E+00	2.801E+01	2.801E+01	33.55
	117.66	------	0.55	8.112E+00	------ Line Not Found		------
	142.18	------	0.13	8.232E+00	------ Line Not Found		------
ANH-511	511.00	169	100.00*	4.309E+00	1.084E-01	1.084E-01	47.89

Flag: "*" = Keyline

Sample ID : G245960007 Acquisition date : 12-FEB-2010 15:49:09

Total number of lines in spectrum 35
Number of unidentified lines 5
Number of lines tentatively identified by NID 30 85.71%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.922E+01	1.922E+01	0.182E+01	9.49	
CD-109	464.00D	1.02	2.530E+00	2.588E+00	0.868E+00	33.55	
SN-126	1.00E+05Y	1.00	2.543E-01	2.543E-01	0.853E-01	33.55	
HG-203	46.60D	1.25	4.791E-02	6.006E-02	4.146E-02	69.04	
TL-208	1.41E+10Y	1.00	4.802E-01	4.802E-01	0.722E-01	15.04	
BI-211	7.04E+08Y	1.00	3.635E+00	3.635E+00	0.425E+00	11.70	
PB-212	1.41E+10Y	1.00	1.571E+00	1.571E+00	0.145E+00	9.20	
PO-212	1.41E+10Y	1.00	1.571E+00	1.571E+00	0.145E+00	9.20	
BI-214	1600.00Y	1.00	1.156E+00	1.156E+00	0.163E+00	14.05	
PB-214	1600.00Y	1.00	1.265E+00	1.265E+00	0.162E+00	12.81	
PO-214	1600.00Y	1.00	1.265E+00	1.265E+00	0.162E+00	12.81	
PO-216	1.41E+10Y	1.00	1.571E+00	1.571E+00	0.145E+00	9.20	
PO-218	1600.00Y	1.00	1.265E+00	1.265E+00	0.162E+00	12.81	
RA-224	1.41E+10Y	1.00	4.214E+00	4.214E+00	1.104E+00	26.19	
RA-226	1600.00Y	1.00	1.156E+00	1.156E+00	0.163E+00	14.05	
AC-228	1.41E+10Y	1.00	1.566E+00	1.566E+00	0.302E+00	19.28	
RA-228	1.41E+10Y	1.00	1.566E+00	1.566E+00	0.302E+00	19.28	
TH-228	1.91Y	1.02	1.571E+00	1.595E+00	0.147E+00	9.20	
TH-230	4.47E+09Y	1.00	1.156E+00	1.156E+00	0.163E+00	14.05	
TH-232	1.41E+10Y	1.00	1.566E+00	1.566E+00	0.302E+00	19.28	
TH-234	4.47E+09Y	1.00	2.305E+00	2.305E+00	1.860E+00	80.70	
U-234	4.47E+09Y	1.00	1.156E+00	1.156E+00	0.163E+00	14.05	
NP-237	2.14E+06Y	1.00	7.468E-01	7.468E-01	2.942E-01	39.39	
U-238	4.47E+09Y	1.00	2.305E+00	2.305E+00	1.860E+00	80.70	
AM-243	7380.00Y	1.00	3.772E-01	3.772E-01	0.779E-01	20.65	
ANH-511	1.00E+09Y	1.00	1.084E-01	1.084E-01	0.519E-01	47.89	
	Total Activity :		5.563E+01	5.572E+01			

Grand Total Activity : 5.563E+01 5.572E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960007 Acquisition date : 12-FEB-2010 15:49:09

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	90.18	110	413	1.00	179.47	169	22	1.53E-02	60.7	6.72E+00	T
0	185.96	225	356	1.31	370.97	367	9	3.13E-02	34.3	7.65E+00	T
0	208.96	165	440	1.05	416.93	412	11	2.29E-02	52.1	7.26E+00	T
0	270.97	82	269	1.29	540.92	536	9	1.14E-02	75.6	6.34E+00	T
0	327.92	112	213	1.39	654.77	650	11	1.56E-02	53.8	5.68E+00	T
0	409.41	57	154	0.68	817.72	814	9	7.95E-03	83.1	4.97E+00	
0	463.63	136	180	1.78	926.11	919	16	1.89E-02	47.6	4.59E+00	T
0	727.25	140	124	1.83	1453.22	1444	15	1.94E-02	39.5	3.34E+00	T
0	769.53	141	118	5.91	1537.77	1529	19	1.95E-02	40.8	3.19E+00	
0	794.28	59	88	1.72	1587.26	1580	13	8.18E-03	72.5	3.11E+00	
0	862.20	35	150	1.47	1723.06	1715	16	4.89E-03	****	2.91E+00	
3	964.30	71	76	1.79	1927.22	1923	21	9.87E-03	48.6	2.65E+00	T
0	1237.63	51	81	1.58	2473.79	2466	13	7.05E-03	78.4	2.15E+00	T
0	1377.33	46	32	1.76	2753.17	2748	11	6.32E-03	58.3	1.98E+00	T
0	1589.30	33	42	1.48	3177.07	3171	16	4.62E-03	****	1.79E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:51:39.58

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960007.CNF;1		
Acquisition date	: 12-FEB-2010 15:49:09	Detector SN#	:
Detector ID	: GAM18	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:01.63	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960007	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.36210E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 23-APR-2009 11:59:23.2	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.922E+01	1.825E+00	3.456E-01	2.622E-02	55.627
CD-109	2.588E+00	8.683E-01	1.069E+00	9.880E-02	2.421
SN-126	2.543E-01	8.534E-02	1.057E-01	9.740E-03	2.406
HG-203	6.006E-02	4.146E-02	4.708E-02	2.855E-03	1.276
TL-208	4.802E-01	7.222E-02	4.393E-02	3.444E-03	10.932
BI-211	3.635E+00	4.252E-01	2.267E-01	1.455E-02	16.033
PB-212	1.571E+00	1.445E-01	6.970E-02	4.980E-03	22.542
PO-212	1.571E+00	1.445E-01	6.970E-02	4.980E-03	22.542
BI-214	1.156E+00	1.625E-01	8.136E-02	7.267E-03	14.213
PB-214	1.265E+00	1.620E-01	7.902E-02	6.537E-03	16.003
PO-214	1.265E+00	1.620E-01	7.902E-02	6.537E-03	16.003
PO-216	1.571E+00	1.445E-01	6.970E-02	4.980E-03	22.542
PO-218	1.265E+00	1.620E-01	7.902E-02	6.537E-03	16.003
RA-224	4.214E+00	1.104E+00	7.923E-01	4.413E-02	5.320
RA-226	1.156E+00	1.625E-01	8.136E-02	7.267E-03	14.213
AC-228	1.566E+00	3.018E-01	1.455E-01	1.928E-02	10.759
RA-228	1.566E+00	3.018E-01	1.455E-01	1.928E-02	10.759
TH-228	1.595E+00	1.467E-01	7.076E-02	5.055E-03	22.542

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.156E+00	1.625E-01	8.135E-02	7.267E-03	14.213
TH-232	1.566E+00	3.018E-01	1.455E-01	1.928E-02	10.759
TH-234	2.305E+00	1.860E+00	1.955E+00	3.446E-01	1.179
U-234	1.156E+00	1.625E-01	8.135E-02	7.267E-03	14.213
NP-237	7.468E-01	2.942E-01	3.153E-01	7.113E-02	2.369
U-238	2.305E+00	1.860E+00	1.955E+00	3.446E-01	1.179
AM-243	3.772E-01	7.788E-02	8.079E-02	6.741E-03	4.669
ANH-511	1.084E-01	5.191E-02	3.473E-02	2.293E-03	3.121

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	7.958E-02		2.333E-01	3.925E-01	2.844E-02	0.203
NA-22	-8.665E-03		3.128E-02	5.013E-02	3.411E-03	-0.173
NA-24	-2.138E-01		3.154E-01	Half-Life too short		
AL-26	1.503E-02		2.176E-02	3.926E-02	2.292E-03	0.383
TI-44	3.630E-01	+	5.403E-02	7.454E-02	6.373E-03	4.869
SC-46	-9.180E-03		2.943E-02	4.691E-02	5.232E-03	-0.196
V-48	2.674E-02		4.889E-02	8.280E-02	8.190E-03	0.323
CR-51	-1.456E-02		2.885E-01	4.634E-01	2.984E-02	-0.031
MN-52	-2.992E-02		1.633E-01	2.591E-01	1.909E-02	-0.115
MN-54	-1.147E-02		2.872E-02	4.590E-02	4.702E-03	-0.250
CO-56	-5.206E-03		2.869E-02	4.645E-02	4.849E-03	-0.112
CO-57	-3.137E-03		2.161E-02	3.446E-02	2.041E-03	-0.091
CO-58	-1.839E-02		2.776E-02	4.332E-02	4.276E-03	-0.425
FE-59	-8.606E-02		6.103E-02	8.848E-02	7.283E-03	-0.973
CO-60	-1.518E-02		3.114E-02	4.860E-02	3.672E-03	-0.312
ZN-65	3.949E-02		7.066E-02	1.067E-01	7.515E-03	0.370
GE-68	-7.527E-02		9.188E-01	1.523E+00	1.210E-01	-0.049
AS-73	-4.743E-02		9.694E-01	1.627E+00	1.290E-01	-0.029
AS-74	3.754E-02		7.325E-02	1.218E-01	8.753E-03	0.308
SE-75	-3.760E-03		3.447E-02	5.411E-02	3.095E-03	-0.069
BR-77	5.302E+00		7.207E+00	1.237E+01	8.251E-01	0.429
SR-82	3.805E-02		2.870E-01	4.144E-01	3.860E-02	0.092
RB-83	2.548E-02		4.643E-02	7.882E-02	5.257E-03	0.323
RB-84	1.700E-02		5.237E-02	8.770E-02	9.666E-03	0.194
KR-85	1.752E+01		6.266E+00	1.056E+01	6.997E-01	1.659
SR-85	8.986E-02		3.214E-02	5.418E-02	3.589E-03	1.659
RB-86	2.211E-02		5.921E-01	9.904E-01	7.885E-02	0.022
Y-88	-4.869E-03		2.501E-02	3.976E-02	2.265E-03	-0.122
ZR-88	-1.815E-02		2.201E-02	3.519E-02	2.024E-03	-0.516
Y-91	-7.281E-01		1.276E+01	2.097E+01	1.240E+00	-0.035
NB-94	5.339E-04		2.470E-02	4.129E-02	3.387E-03	0.013
NB-95	6.176E-02		3.586E-02	5.862E-02	5.363E-03	1.053
NB-95M	1.008E-01		1.058E-01	1.608E-01	1.180E-02	0.627
ZR-95	1.391E-02		4.876E-02	8.249E-02	8.117E-03	0.169
NB-97	-7.728E-02		3.630E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	3.154E+00		8.689E-01	Half-Life too short		
MO-99	-1.688E+00		8.085E+00	1.323E+01	2.018E+00	-0.128
TC-99M	-1.479E+10		1.858E+10	Half-Life too short		
RH-101	2.848E-02		2.560E-02	4.361E-02	2.344E-03	0.653
RH-102	-2.188E-02		2.162E-02	3.340E-02	2.121E-03	-0.655
RU-103	2.722E-02		2.744E-02	4.766E-02	6.189E-03	0.571
RH-106	8.304E-02		2.423E-01	3.993E-01	5.024E-02	0.208
RU-106	8.304E-02		2.422E-01	3.993E-01	2.939E-02	0.208
AG-108M	-5.919E-03		2.343E-02	3.838E-02	2.507E-03	-0.154
AG-110M	-2.608E-02		2.501E-02	3.903E-02	3.078E-03	-0.668
IN-111	1.658E-01		8.878E-01	1.296E+00	7.241E-02	0.128
IN-113M	-8.830E-03		3.202E-02	5.287E-02	3.243E-03	-0.167
SN-113	-8.830E-03		3.202E-02	5.287E-02	3.243E-03	-0.167
IN-114M	1.047E-01		1.604E-01	2.443E-01	1.304E-02	0.428
CD-115	-2.456E+00		7.719E+00	1.235E+01	8.299E-01	-0.199
SN-117M	-2.675E-02		4.137E-02	6.837E-02	3.634E-03	-0.391
SB-122	-1.891E-01		1.575E+00	2.542E+00	1.771E-01	-0.074
I-123	5.441E-01		2.249E+00	Half-Life too short		
TE-123M	2.548E-03		2.107E-02	3.585E-02	1.934E-03	0.071
I-124	-3.316E-01		6.420E-01	8.528E-01	6.166E-02	-0.389
SB-124	-3.501E-02		5.448E-02	8.140E-02	5.616E-03	-0.430
SB-125	-1.667E-02		6.758E-02	1.109E-01	6.931E-03	-0.150
TE-125M	-1.316E+00		7.787E+00	1.250E+01	1.099E+00	-0.105
I-126	4.257E-02		1.346E-01	2.299E-01	1.767E-02	0.185
SB-126	5.725E-02		1.223E-01	1.829E-01	1.548E-02	0.313
SB-127	7.448E-01		9.682E-01	1.694E+00	1.846E-01	0.440
XE-127	6.111E-03		3.734E-02	6.059E-02	3.271E-03	0.101
I-131	9.580E-03		7.904E-02	1.341E-01	8.654E-03	0.071
TE-132	1.800E-02		5.356E-01	8.866E-01	1.264E-01	0.020
BA-133	5.672E-03		3.539E-02	4.990E-02	5.764E-03	0.114
I-133	3.869E-03		2.187E-03	Half-Life too short		
CS-134	6.397E-02		4.136E-02	6.519E-02	6.305E-03	0.981
CS-135	1.284E-01		1.354E-01	2.049E-01	1.548E-02	0.627
I-135	-1.111E+08		2.317E+09	Half-Life too short		
CS-136	-2.187E-02		7.784E-02	1.274E-01	1.142E-02	-0.172
BA-137M	6.594E-03		2.585E-02	4.403E-02	3.356E-03	0.150
CS-137	6.971E-03		2.732E-02	4.654E-02	3.557E-03	0.150
CE-139	1.033E-02		2.263E-02	3.886E-02	2.040E-03	0.266
BA-140	-1.059E-01		1.888E-01	2.912E-01	9.527E-02	-0.364
LA-140	-2.214E-02		7.027E-02	9.352E-02	6.416E-03	-0.237
CE-141	6.719E-02		5.121E-02	8.543E-02	4.877E-03	0.786
CE-143	6.844E-04		1.011E-04	Half-Life too short		
CE-144	-3.562E-05		1.648E-01	2.628E-01	3.716E-02	0.000
PM-144	5.729E-03		2.518E-02	4.265E-02	3.462E-03	0.134
PR-144	3.882E-01		1.707E+00	2.890E+00	2.345E-01	0.134
PM-146	1.838E-02		3.365E-02	5.732E-02	5.099E-03	0.321
ND-147	5.099E-01		4.009E-01	6.991E-01	9.754E-02	0.729
PM-149	-5.839E+01		6.846E+01	1.054E+02	1.490E+01	-0.554

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	3.016E-02		8.863E-02	1.185E-01	7.732E-03	0.255
GD-153	-7.599E-02		7.385E-02	1.009E-01	7.887E-03	-0.753
EU-154	-4.197E-02		8.848E-02	1.392E-01	1.390E-02	-0.302
EU-155	8.870E-02		9.035E-02	1.518E-01	1.085E-02	0.584
TB-160	-7.074E-02		1.080E-01	1.674E-01	1.839E-02	-0.423
HO-166M	6.272E-03		4.406E-02	7.413E-02	6.179E-03	0.085
TM-171	-1.828E+01		3.002E+01	4.338E+01	3.468E+00	-0.421
LU-176	9.892E-04		1.836E-02	2.976E-02	1.713E-03	0.033
LU-177	2.737E+00	+	1.433E+00	1.664E+00	9.025E-02	1.645
LU-177M	2.187E-02		1.403E-01	2.061E-01	1.217E-02	0.106
HF-181	-6.437E-03		3.103E-02	5.049E-02	3.232E-03	-0.127
W-181	-2.769E-01		3.934E-01	5.662E-01	4.491E-02	-0.489
TA-182	-6.447E-03		1.434E-01	2.357E-01	1.442E-02	-0.027
RE-183	-6.102E-02		8.433E-02	1.368E-01	7.221E-03	-0.446
RE-184	-2.955E-02		1.829E-01	2.979E-01	1.673E-02	-0.099
OS-185	2.741E-03		3.112E-02	5.031E-02	3.784E-03	0.054
RE-188	9.242E-02		1.348E-01	2.339E-01	1.252E-02	0.395
W-188	2.664E-01		6.050E+00	8.615E+00	4.934E-01	0.031
IR-192	-2.668E-03		2.674E-02	4.288E-02	2.487E-03	-0.062
AU-195	2.608E-01		1.840E-01	3.145E-01	2.406E-02	0.829
TL-200	-1.542E-04		1.658E-04	Half-Life too short		
TL-201	5.104E+00		5.383E+00	9.389E+00	4.929E-01	0.544
TL-202	1.396E-02		4.988E-02	8.415E-02	5.130E-03	0.166
BI-207	-2.992E-02		3.966E-02	6.058E-02	5.001E-03	-0.494
TL-207	-2.177E-02		5.776E-01	8.090E-01	1.335E-01	-0.027
PO-209	-2.293E+00		5.470E+00	8.625E+00	9.729E-01	-0.266
BI-210	-1.461E-01		4.905E+00	8.091E+00	6.260E-01	-0.018
PB-210	-1.461E-01		4.905E+00	8.091E+00	6.260E-01	-0.018
PO-210	-1.461E-01		4.905E+00	8.091E+00	5.382E-01	-0.018
PB-211	1.695E-01		8.169E-01	1.195E+00	7.453E-01	0.142
BI-212	9.771E-01	+	3.983E-01	5.018E-01	4.997E-02	1.947
PO-215	-2.177E-02		5.776E-01	8.090E-01	1.335E-01	-0.027
RN-219	1.648E-01		3.118E-01	5.339E-01	7.268E-02	0.309
RN-220	2.351E+00		1.990E+01	3.268E+01	2.246E+00	0.072
RA-223	-2.177E-02		5.776E-01	8.090E-01	1.335E-01	-0.027
AC-227	-2.121E-02		3.052E-01	4.987E-01	6.927E-02	-0.043
TH-227	-2.121E-02		3.052E-01	4.987E-01	8.398E-02	-0.043
TH-229	-1.463E-01		3.914E-01	6.450E-01	3.454E-02	-0.227
PA-231	9.771E-01		1.170E+00	1.843E+00	2.532E-01	0.530
TH-231	-2.177E-02		5.776E-01	8.090E-01	1.335E-01	-0.027
U-231	-3.340E-01		9.544E-01	1.361E+00	1.090E-01	-0.245
PA-233	1.565E-02		4.928E-02	8.086E-02	4.954E-03	0.194
PA-234	4.179E-02		2.226E-01	3.668E-01	7.236E-02	0.114
PA-234M	2.227E+00		3.579E+00	5.973E+00	6.443E-01	0.373
U-235	-1.717E-01		1.849E-01	2.762E-01	4.473E-02	-0.621
NP-236	2.075E-02		5.810E-02	9.968E-02	5.281E-03	0.208
NP-239	-1.159E-01		1.661E-01	2.593E-01	1.605E-02	-0.447
AM-241	-1.597E-01		1.724E-01	2.457E-01	2.038E-02	-0.650

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.936E-02		8.079E-02	1.323E-01	9.467E-03	0.146
AM-246	4.266E-02		1.031E-01	1.772E-01	1.402E-02	0.241
CM-247	1.876E-02		2.905E-02	4.892E-02	2.849E-03	0.384
CF-249	1.410E-02		2.893E-02	4.972E-02	2.858E-03	0.284
CF-251	3.172E-02		9.487E-02	1.616E-01	8.535E-03	0.196

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960007		
Acquisition date	: 12-FEB-2010 15:49:09	Detector SN#	:
Detector ID	: GAM18	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.63	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960007	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.3621E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

CALIB. DATE/TIME	: 23-APR-2009 11:59:23	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.922E+01	1.788E+00	1.733E-01	9.123E-01
CD-109	2.588E+00	8.509E-01	5.648E-01	4.341E-01
SN-126	2.543E-01	8.363E-02	5.587E-02	4.267E-02
HG-203	6.006E-02	4.063E-02	2.437E-02	2.073E-02
TL-208	4.802E-01	7.078E-02	2.243E-02	3.611E-02
BI-211	3.635E+00	4.167E-01	1.169E-01	2.126E-01
PB-212	1.571E+00	1.416E-01	3.618E-02	7.225E-02
PO-212	1.571E+00	1.416E-01	3.618E-02	7.225E-02
BI-214	1.156E+00	1.593E-01	4.150E-02	8.126E-02
PB-214	1.265E+00	1.587E-01	4.073E-02	8.098E-02
PO-214	1.265E+00	1.587E-01	4.073E-02	8.098E-02
PO-216	1.571E+00	1.416E-01	3.618E-02	7.225E-02
PO-218	1.265E+00	1.587E-01	4.073E-02	8.098E-02
RA-224	4.214E+00	1.082E+00	4.112E-01	5.518E-01
RA-226	1.156E+00	1.593E-01	4.150E-02	8.126E-02
AC-228	1.566E+00	2.958E-01	7.367E-02	1.509E-01
RA-228	1.566E+00	2.958E-01	7.367E-02	1.509E-01
TH-228	1.595E+00	1.438E-01	3.673E-02	7.335E-02
TH-230	1.156E+00	1.593E-01	4.150E-02	8.125E-02
TH-232	1.566E+00	2.958E-01	7.367E-02	1.509E-01
TH-234	2.305E+00	1.823E+00	1.039E+00	9.302E-01
U-234	1.156E+00	1.593E-01	4.150E-02	8.125E-02
NP-237	7.468E-01	2.883E-01	1.667E-01	1.471E-01
U-238	2.305E+00	1.823E+00	1.039E+00	9.302E-01
AM-243	3.772E-01	7.632E-02	4.282E-02	3.894E-02
ANH-511	1.084E-01	5.087E-02	1.777E-02	2.595E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	7.958E-02	2.286E-01	2.012E-01	1.166E-01 NOT IDENT.

NA-22	-8.665E-03	3.065E-02	2.521E-02	1.564E-02	NOT IDENT.
NA-24	-2.138E+05	6.182E+05	0.000E+00	3.154E+05	SHORT HLIF
AL-26	1.503E-02	2.133E-02	1.961E-02	1.088E-02	NOT IDENT.
TI-44	3.630E-01	5.295E-02	3.947E-02	2.702E-02	FAIL ABUN
SC-46	-9.180E-03	2.885E-02	2.376E-02	1.472E-02	FAIL ABUN
V-48	2.674E-02	4.792E-02	4.185E-02	2.445E-02	NOT IDENT.
CR-51	-1.456E-02	2.828E-01	2.393E-01	1.443E-01	NOT IDENT.
MN-52	-2.992E-02	1.601E-01	1.300E-01	8.167E-02	NOT IDENT.
MN-54	-1.147E-02	2.814E-02	2.327E-02	1.436E-02	NOT IDENT.
CO-56	-5.206E-03	2.812E-02	2.355E-02	1.434E-02	FAIL ABUN
CO-57	-3.137E-03	2.118E-02	1.811E-02	1.080E-02	NOT IDENT.
CO-58	-1.839E-02	2.720E-02	2.198E-02	1.388E-02	NOT IDENT.
FE-59	-8.606E-02	5.981E-02	4.463E-02	3.052E-02	NOT IDENT.
CO-60	-1.518E-02	3.052E-02	2.442E-02	1.557E-02	NOT IDENT.
ZN-65	3.949E-02	6.925E-02	5.380E-02	3.533E-02	NOT IDENT.
GE-68	-7.527E-02	9.005E-01	7.687E-01	4.594E-01	NOT IDENT.
AS-73	-4.743E-02	9.500E-01	8.676E-01	4.847E-01	NOT IDENT.
AS-74	3.754E-02	7.179E-02	6.217E-02	3.663E-02	NOT IDENT.
SE-75	-3.760E-03	3.378E-02	2.804E-02	1.724E-02	FAIL ABUN
BR-77	5.302E+00	7.063E+00	6.328E+00	3.603E+00	FAIL ABUN
SR-82	3.805E-02	2.813E-01	2.104E-01	1.435E-01	NOT IDENT.
RB-83	2.548E-02	4.550E-02	4.033E-02	2.321E-02	NOT IDENT.
RB-84	1.700E-02	5.132E-02	4.442E-02	2.618E-02	NOT IDENT.
KR-85	1.752E+01	6.141E+00	5.405E+00	3.133E+00	NOT IDENT.
SR-85	8.986E-02	3.150E-02	2.773E-02	1.607E-02	NOT IDENT.
RB-86	2.211E-02	5.802E-01	4.998E-01	2.960E-01	NOT IDENT.
Y-88	-4.869E-03	2.451E-02	1.986E-02	1.251E-02	NOT IDENT.
ZR-88	-1.815E-02	2.157E-02	1.810E-02	1.101E-02	NOT IDENT.
Y-91	-7.281E-01	1.251E+01	1.056E+01	6.381E+00	NOT IDENT.
NB-94	5.339E-04	2.421E-02	2.101E-02	1.235E-02	NOT IDENT.
NB-95	6.176E-02	3.514E-02	2.978E-02	1.793E-02	NOT IDENT.
NB-95M	1.008E-01	1.037E-01	8.350E-02	5.289E-02	NOT IDENT.
ZR-95	1.391E-02	4.779E-02	4.191E-02	2.438E-02	NOT IDENT.
NB-97	-7.728E+04	7.114E+04	0.000E+00	3.630E+04	SHORT HLIF
ZR-97	3.154E+06	1.703E+06	0.000E+00	8.689E+05	SHORT HLIF
MO-99	-1.688E+00	7.923E+00	6.722E+00	4.043E+00	NOT IDENT.
TC-99M	-1.479E+16	3.643E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.848E-02	2.509E-02	2.272E-02	1.280E-02	NOT IDENT.
RH-102	-2.188E-02	2.119E-02	1.712E-02	1.081E-02	NOT IDENT.
RU-103	2.722E-02	2.689E-02	2.441E-02	1.372E-02	FAIL ABUN
RH-106	8.304E-02	2.375E-01	2.036E-01	1.212E-01	FAIL ABUN
RU-106	8.304E-02	2.373E-01	2.036E-01	1.211E-01	FAIL ABUN
AG-108M	-5.919E-03	2.296E-02	1.970E-02	1.172E-02	NOT IDENT.
AG-110M	-2.608E-02	2.451E-02	1.988E-02	1.251E-02	NOT IDENT.
IN-111	1.658E-01	8.700E-01	6.723E-01	4.439E-01	NOT IDENT.
IN-113M	-8.830E-03	3.138E-02	2.719E-02	1.601E-02	NOT IDENT.
SN-113	-8.830E-03	3.138E-02	2.719E-02	1.601E-02	NOT IDENT.
IN-114M	1.047E-01	1.572E-01	1.273E-01	8.018E-02	NOT IDENT.
CD-115	-2.456E+00	7.565E+00	6.316E+00	3.860E+00	NOT IDENT.
SN-117M	-2.675E-02	4.054E-02	3.575E-02	2.068E-02	NOT IDENT.
SB-122	-1.891E-01	1.544E+00	1.299E+00	7.877E-01	NOT IDENT.
I-123	5.441E+05	4.408E+06	0.000E+00	2.249E+06	SHORT HLIF
TE-123M	2.548E-03	2.065E-02	1.875E-02	1.053E-02	NOT IDENT.
I-124	-3.316E-01	6.292E-01	4.351E-01	3.210E-01	FAIL ABUN
SB-124	-3.501E-02	5.339E-02	4.072E-02	2.724E-02	FAIL ABUN
SB-125	-1.667E-02	6.623E-02	5.696E-02	3.379E-02	FAIL ABUN
TE-125M	-1.316E+00	7.631E+00	6.579E+00	3.894E+00	NOT IDENT.
I-126	4.257E-02	1.319E-01	1.171E-01	6.731E-02	NOT IDENT.
SB-126	5.725E-02	1.198E-01	9.300E-02	6.113E-02	FAIL ABUN
SB-127	7.448E-01	9.488E-01	8.622E-01	4.841E-01	NOT IDENT.
XE-127	6.111E-03	3.659E-02	3.155E-02	1.867E-02	NOT IDENT.
I-131	9.580E-03	7.746E-02	6.905E-02	3.952E-02	NOT IDENT.
TE-132	1.800E-02	5.249E-01	4.606E-01	2.678E-01	NOT IDENT.
BA-133	5.672E-03	3.468E-02	2.571E-02	1.770E-02	NOT IDENT.
I-133	3.869E+03	4.286E+03	0.000E+00	2.187E+03	SHORT HLIF
CS-134	6.397E-02	4.053E-02	3.309E-02	2.068E-02	NOT IDENT.
CS-135	1.284E-01	1.327E-01	1.061E-01	6.769E-02	NOT IDENT.
I-135	-1.111E+14	4.540E+15	0.000E+00	2.317E+15	SHORT HLIF
CS-136	-2.187E-02	7.628E-02	6.430E-02	3.892E-02	FAIL ABUN
BA-137M	6.594E-03	2.533E-02	2.242E-02	1.292E-02	NOT IDENT.
CS-137	6.971E-03	2.678E-02	2.370E-02	1.366E-02	NOT IDENT.
CE-139	1.033E-02	2.218E-02	2.031E-02	1.132E-02	NOT IDENT.
BA-140	-1.059E-01	1.850E-01	1.489E-01	9.439E-02	NOT IDENT.
LA-140	-2.214E-02	6.886E-02	4.683E-02	3.513E-02	FAIL ABUN
CE-141	6.719E-02	5.018E-02	4.475E-02	2.560E-02	NOT IDENT.
CE-143	6.844E+02	1.982E+02	0.000E+00	1.011E+02	SHORT HLIF
CE-144	-3.562E-05	1.615E-01	1.378E-01	8.238E-02	NOT IDENT.
PM-144	5.729E-03	2.468E-02	2.170E-02	1.259E-02	NOT IDENT.

PR-144	3.882E-01	1.672E+00	1.470E+00	8.533E-01 NOT IDENT.
PM-146	1.838E-02	3.298E-02	2.940E-02	1.683E-02 NOT IDENT.
ND-147	5.099E-01	3.928E-01	3.576E-01	2.004E-01 FAIL ABUN
PM-149	-5.839E+01	6.709E+01	5.452E+01	3.423E+01 NOT IDENT.
EU-152	3.016E-02	8.686E-02	6.109E-02	4.432E-02 FAIL ABUN
GD-153	-7.599E-02	7.237E-02	5.322E-02	3.692E-02 NOT IDENT.
EU-154	-4.197E-02	8.671E-02	7.000E-02	4.424E-02 NOT IDENT.
EU-155	8.870E-02	8.855E-02	7.994E-02	4.518E-02 FAIL ABUN
TB-160	-7.074E-02	1.058E-01	8.480E-02	5.399E-02 FAIL ABUN
HO-166M	6.272E-03	4.318E-02	3.770E-02	2.203E-02 NOT IDENT.
TM-171	-1.828E+01	2.942E+01	2.304E+01	1.501E+01 NOT IDENT.
LU-176	9.892E-04	1.799E-02	1.538E-02	9.180E-03 FAIL ABUN
LU-177	2.737E+00	1.404E+00	8.658E-01	7.163E-01 FAIL ABUN
LU-177M	2.187E-02	1.375E-01	1.059E-01	7.015E-02 NOT IDENT.
HF-181	-6.437E-03	3.041E-02	2.587E-02	1.552E-02 NOT IDENT.
W-181	-2.769E-01	3.855E-01	3.008E-01	1.967E-01 NOT IDENT.
TA-182	-6.447E-03	1.406E-01	1.187E-01	7.172E-02 FAIL ABUN
RE-183	-6.102E-02	8.265E-02	7.151E-02	4.217E-02 FAIL ABUN
RE-184	-2.955E-02	1.793E-01	1.545E-01	9.147E-02 NOT IDENT.
OS-185	2.741E-03	3.050E-02	2.564E-02	1.556E-02 NOT IDENT.
RE-188	9.242E-02	1.321E-01	1.224E-01	6.741E-02 NOT IDENT.
W-188	2.664E-01	5.929E+00	4.456E+00	3.025E+00 FAIL ABUN
IR-192	-2.668E-03	2.621E-02	2.214E-02	1.337E-02 FAIL ABUN
AU-195	2.608E-01	1.803E-01	1.659E-01	9.198E-02 FAIL ABUN
TL-200	-1.542E+02	3.249E+02	0.000E+00	1.658E+02 SHORT HLIF
TL-201	5.104E+00	5.275E+00	4.905E+00	2.691E+00 NOT IDENT.
TL-202	1.396E-02	4.888E-02	4.319E-02	2.494E-02 NOT IDENT.
BI-207	-2.992E-02	3.887E-02	3.057E-02	1.983E-02 FAIL ABUN
TL-207	-2.177E-02	5.661E-01	4.176E-01	2.888E-01 FAIL ABUN
PO-209	-2.293E+00	5.361E+00	4.367E+00	2.735E+00 NOT IDENT.
BI-210	-1.461E-01	4.807E+00	4.324E+00	2.452E+00 NOT IDENT.
PB-210	-1.461E-01	4.807E+00	4.324E+00	2.452E+00 NOT IDENT.
PO-210	-1.461E-01	4.807E+00	4.324E+00	2.452E+00 NOT IDENT.
PB-211	1.695E-01	8.005E-01	6.145E-01	4.084E-01 NOT IDENT.
BI-212	9.771E-01	3.903E-01	2.551E-01	1.992E-01 FAIL ABUN
PO-215	-2.177E-02	5.661E-01	4.176E-01	2.888E-01 FAIL ABUN
RN-219	1.648E-01	3.056E-01	2.745E-01	1.559E-01 FAIL ABUN
RN-220	2.351E+00	1.951E+01	1.670E+01	9.952E+00 NOT IDENT.
RA-223	-2.177E-02	5.661E-01	4.176E-01	2.888E-01 FAIL ABUN
AC-227	-2.121E-02	2.991E-01	2.585E-01	1.526E-01 FAIL ABUN
TH-227	-2.121E-02	2.991E-01	2.585E-01	1.526E-01 FAIL ABUN
TH-229	-1.463E-01	3.836E-01	3.361E-01	1.957E-01 FAIL ABUN
PA-231	9.771E-01	1.147E+00	9.535E-01	5.850E-01 FAIL ABUN
TH-231	-2.177E-02	5.661E-01	4.176E-01	2.888E-01 FAIL ABUN
U-231	-3.340E-01	9.353E-01	7.181E-01	4.772E-01 FAIL ABUN
PA-233	1.565E-02	4.830E-02	4.177E-02	2.464E-02 FAIL ABUN
PA-234	4.179E-02	2.181E-01	1.855E-01	1.113E-01 FAIL ABUN
PA-234M	2.227E+00	3.507E+00	3.018E+00	1.789E+00 NOT IDENT.
U-235	-1.717E-01	1.812E-01	1.447E-01	9.244E-02 FAIL ABUN
NP-236	2.075E-02	5.694E-02	5.212E-02	2.905E-02 NOT IDENT.
NP-239	-1.159E-01	1.627E-01	1.364E-01	8.303E-02 FAIL ABUN
AM-241	-1.597E-01	1.690E-01	1.308E-01	8.622E-02 NOT IDENT.
CM-243	1.936E-02	7.917E-02	6.969E-02	4.040E-02 FAIL ABUN
AM-246	4.266E-02	1.011E-01	8.942E-02	5.157E-02 NOT IDENT.
CM-247	1.876E-02	2.847E-02	2.515E-02	1.453E-02 FAIL ABUN
CF-249	1.410E-02	2.836E-02	2.558E-02	1.447E-02 NOT IDENT.
CF-251	3.172E-02	9.297E-02	8.436E-02	4.743E-02 NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417

GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	290.6219
46.50	290.6219
46.50	290.6219
48.70	312.0388
49.72	290.8762
51.35	319.8582
52.39	289.3972
52.97	277.3114
53.15	287.5097
53.44	306.0441
54.07	297.6428
56.28	297.3270
56.28	297.3303
57.37	0.0000
57.53	291.2838
57.53	291.2854
57.60	289.5069
57.98	281.5666
57.98	281.5666
59.32	337.8163
59.32	337.8163
59.40	337.9114
59.54	338.0775
59.72	318.7202
60.01	309.2486
61.10	279.5196
61.14	279.5583
61.30	279.7124
63.00	318.5667
63.29	318.8778
63.29	318.8778
63.58	319.1881
64.28	387.6147
65.12	382.9990
65.20	383.1001
65.20	383.1001
66.05	402.7351
66.72	386.4359
66.83	360.8042
66.91	360.8965
67.20	377.0031
67.20	377.0031
67.75	364.1708
67.85	378.0789
68.90	377.0380
68.90	377.0380
69.30	389.6370
69.67	384.3151
70.82	404.5428
70.82	404.5428
70.83	404.5555
72.80	405.5531
72.87	405.6401
72.87	405.6401
74.67	413.7142
74.81	413.8874
74.81	413.8874
74.81	413.8874
74.81	413.8874
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74.81	413.8874
74.97	414.0842
75.28	414.4672
75.70	414.9836
77.11	416.7047
77.11	416.7047

77.11	416.7047
77.11	416.7047
77.11	416.7047
77.11	416.7047
77.11	416.7047
78.38	421.2093
79.62	412.2920
79.80	376.7629
79.80	376.7629
80.11	377.0949
80.18	377.1702
80.30	375.8063
80.30	375.8063
80.57	376.0947
81.00	407.9296
81.07	408.0108
81.07	408.0108
81.07	408.0108
81.07	408.0108
82.60	457.7885
83.37	455.7530
83.78	463.8023
83.78	463.8023
83.78	463.8023
83.78	463.8023
84.21	446.2583
84.90	410.8472
85.43	409.9260
86.29	389.1475
86.50	389.3668
86.54	389.4079
86.59	389.4608
86.72	389.5959
86.79	389.6664
86.94	389.8250
87.30	390.2010
87.30	390.2010
87.30	390.2010
87.30	390.2010
87.30	390.2010
87.30	390.2010
87.30	390.2010
87.30	390.2010
87.57	390.4810
87.88	390.8022
88.03	390.9588
88.36	391.2996
88.47	391.4131
89.95	392.9366
91.11	394.1213
92.29	395.3198
92.38	395.4118
92.38	395.4118
93.35	396.3889
94.00	397.0430
94.67	269.6143
94.67	269.6182
94.90	269.7736
94.90	269.7736
94.90	269.7736
94.90	269.7736
95.87	321.7161
95.87	321.7161
96.73	373.8043
97.43	355.7247
98.44	295.2939
98.44	295.2939
98.88	275.5693
99.55	253.0163
99.55	253.0163
99.86	260.5300
100.00	260.6187
100.10	260.6833
103.18	356.4637
103.76	316.8198
105.00	284.9054
105.31	303.1302
108.00	357.2665
109.28	337.9841

111.00	362.9140
111.00	362.9140
111.76	375.3586
112.95	337.5264
115.19	352.1875
116.30	376.9324
117.00	368.7967
117.00	368.7967
117.66	344.2621
121.11	339.0988
121.62	338.3617
121.78	338.4745
122.06	335.3731
122.32	335.5530
122.32	335.5530
122.32	335.5530
122.32	335.5530
123.07	326.1588
127.23	372.2770
129.76	314.9687
131.20	348.3501
133.02	331.6079
133.54	310.5618
135.34	331.9702
136.00	300.7328
136.25	338.2030
136.48	329.2991
140.51	352.3400
140.51	0.0000
142.18	352.2932
142.65	370.9171
143.76	385.4409
144.24	326.0753
144.24	326.0753
144.24	326.0753
144.24	326.0753
145.22	296.7535
145.44	296.8743
147.16	360.1279
152.43	369.3464
152.70	360.1951
153.22	317.6472
154.21	305.0469
154.21	305.0469
154.21	305.0469
154.21	305.0469
155.03	329.1836
156.02	332.3852
158.56	325.0042
159.00	0.0000
159.00	296.0796
160.31	281.6782
161.27	304.3146
162.32	319.0716
162.64	313.9059
163.35	308.9357
163.89	316.3425
165.85	301.2771
167.43	287.7176
171.28	305.7497
171.86	288.8818
172.10	313.3754
176.55	287.3972
176.60	287.4189
181.06	285.7516
184.41	279.8511
185.71	317.2956
186.00	317.4347
190.27	307.5764
192.34	299.9441
193.63	320.1101
197.04	289.8054
198.01	261.0938
198.60	283.8738
200.40	324.1849
201.83	343.7272
202.84	306.9304
205.31	303.6548

208.36	302.0826
208.81	302.2688
209.75	302.6582
209.75	302.6582
210.97	335.1058
215.65	287.0754
216.55	284.2553
218.09	320.5662
222.10	272.7611
223.80	271.4200
226.40	323.0932
227.00	327.2507
227.08	327.2839
227.20	309.7469
228.16	276.8659
228.18	276.8724
228.18	276.8724
231.56	0.0000
235.69	278.1324
236.00	309.8580
236.00	309.8580
238.63	271.6169
238.63	271.6169
238.63	271.6169
238.63	271.6169
239.00	271.7402
240.98	272.4029
241.98	272.7374
241.98	272.7374
241.98	272.7374
244.69	212.5191
245.39	227.0925
247.94	222.9786
248.90	239.5625
249.79	238.1428
252.40	249.9697
252.85	253.1275
252.85	253.1275
254.15	0.0000
256.20	260.2009
256.20	260.2009
260.50	240.1340
260.90	237.1917
262.80	220.3671
264.65	225.5055
268.24	218.4467
268.79	216.9395
269.46	222.0348
269.46	222.0348
269.46	222.0348
269.46	222.0348
271.23	250.4920
273.65	206.5521
276.40	252.7606
277.35	262.1504
277.60	262.2198
277.60	262.2198
278.00	241.7887
278.60	220.9729
279.20	199.5029
279.53	199.5732
280.46	171.4764
281.68	171.7027
283.67	167.0605
284.30	214.9365
285.00	227.9460
285.90	213.5127
286.10	213.5563
286.10	213.5563
287.40	205.4686
288.45	0.0000
290.67	195.2402
290.80	195.2686
291.72	217.3631
293.26	0.0000
293.70	202.6172
295.21	191.3127
295.21	191.3127

295.21	191.3127
295.96	191.4619
296.50	191.5696
297.23	191.7132
298.57	191.9811
299.80	192.2241
299.80	192.2241
300.09	192.2821
300.09	192.2821
300.09	192.2821
300.09	192.2821
300.12	192.2876
301.29	187.1987
302.84	190.9059
303.76	182.5557
303.91	182.5818
304.40	175.8443
304.40	175.8443
304.84	174.2168
306.84	186.1202
308.46	214.2822
311.98	190.3096
316.51	198.7260
318.01	195.7758
319.02	211.1270
319.41	217.7060
320.08	198.3384
323.87	198.4201
323.87	198.4201
323.87	198.4201
323.87	198.4201
325.23	186.4794
328.77	195.8578
333.44	184.4344
334.20	190.4244
334.20	190.4244
334.30	190.4429
338.28	186.3755
338.28	186.3755
338.28	186.3755
338.28	186.3755
338.32	186.3833
338.32	186.3833
338.32	186.3833
340.50	176.8164
340.57	176.8286
344.27	166.3445
345.85	164.3636
350.59	0.0000
351.07	156.2204
351.92	156.3422
351.92	156.3422
351.92	156.3422
355.39	0.0000
356.01	152.4335
364.48	145.4523
366.43	162.8965
367.43	158.5104
367.94	0.0000
369.80	150.6685
374.96	175.0453
383.85	169.9417
387.95	155.7783
388.63	139.2658
391.69	165.5094
391.69	165.5094
392.90	173.0800
398.62	182.2642
400.65	171.3859
401.10	166.7921
401.81	165.9548
402.60	168.9626
404.84	174.4622
410.95	153.4021
411.60	169.1433
413.65	142.7503
414.70	164.8486
415.30	162.9082

415.76	154.3811
417.63	0.0000
418.52	156.8408
423.70	155.5798
427.08	143.6214
427.89	156.0843
432.53	151.8632
433.93	145.3333
439.47	136.3422
439.56	136.3508
439.89	133.5041
443.98	136.8033
444.90	125.3281
445.03	124.3767
445.03	124.3767
445.03	124.3767
445.03	124.3767
453.90	149.4563
463.38	149.5112
468.07	140.5374
473.00	135.7831
475.06	156.6728
475.35	152.7635
476.78	144.0378
477.59	128.3258
477.96	119.4727
482.03	136.6473
484.57	135.8962
487.03	112.2813
490.36	0.0000
492.35	121.6679
497.08	94.0470
507.63	0.0000
510.53	0.0000
510.84	136.3217
511.00	136.3357
511.85	136.4131
511.85	136.4131
513.99	116.3673
513.99	116.3673
520.41	97.5516
520.65	97.5680
527.90	118.4497
528.96	0.0000
529.64	101.2043
529.87	0.0000
531.02	93.1084
537.32	125.3330
543.00	136.0928
546.56	0.0000
549.76	128.3896
552.65	136.9178
555.20	126.7448
563.23	127.3732
563.90	133.6906
568.70	138.2745
569.32	139.3740
569.50	139.3870
569.67	139.4032
573.80	140.8014
574.00	136.6143
574.64	137.8363
578.91	133.5041
579.30	0.0000
583.14	128.9102
585.48	109.3376
591.81	146.0333
592.07	145.1716
593.00	139.2259
595.88	118.1706
600.56	138.7725
602.52	0.0000
602.71	153.1980
602.71	153.1980
603.60	156.8395
604.41	144.4329
604.70	153.3730
609.31	125.5265

609.31	125.5265
609.31	125.5265
609.31	125.5265
610.33	118.0862
612.46	118.2285
614.37	104.0111
618.01	115.0078
621.84	113.4543
621.84	113.4543
631.29	122.7468
633.02	130.4736
633.10	127.2175
634.78	113.1889
635.90	105.6343
636.97	108.9673
645.85	97.4524
646.12	102.9433
656.30	120.2113
657.75	129.4881
657.90	0.0000
661.65	115.0360
661.65	115.0360
664.57	0.0000
666.33	119.9337
666.33	119.9337
675.00	97.3138
677.61	104.8708
685.20	92.2425
692.80	109.4399
695.00	103.0086
696.49	116.2071
696.49	116.2071
697.00	121.8618
697.49	128.4570
698.33	134.1382
698.50	134.1498
699.00	128.5546
702.63	121.2708
706.10	116.7747
706.58	0.0000
706.67	114.9260
709.31	107.5314
711.68	108.6033
713.82	120.0650
717.42	120.4715
720.50	105.6953
721.93	0.0000
722.20	115.5483
722.78	110.6992
722.78	110.6992
722.89	110.7040
722.95	110.7063
723.30	113.9844
724.18	115.6623
727.18	79.9412
733.00	91.6230
735.90	77.4157
739.58	94.7884
742.81	109.3219
744.21	96.9191
747.13	92.2520
751.79	117.4975
752.31	111.7472
753.82	97.3670
755.35	88.7563
756.15	87.8249
756.87	84.9582
763.93	84.6893
765.79	83.1020
766.42	81.4639
766.84	91.4563
776.49	78.5076
778.00	106.9777
778.57	100.9458
778.89	106.6507
783.80	79.1922
785.46	75.1438
792.07	95.8973

795.84	84.2651
796.30	79.2256
798.80	104.6293
801.93	104.1025
805.60	72.0836
810.29	92.0256
810.76	96.0054
815.85	91.2625
817.79	94.3216
818.51	92.3643
819.60	87.4414
826.30	90.6908
828.27	0.0000
831.60	97.8943
831.96	103.9048
834.83	119.0387
836.80	0.0000
846.75	92.5072
848.13	85.5205
856.28	0.0000
856.80	110.7969
860.37	107.4988
867.32	118.2482
867.82	109.5776
871.10	82.9065
873.19	84.4033
874.81	101.7598
875.33	0.0000
876.40	102.8453
879.36	102.9727
880.27	93.8324
880.51	88.7417
881.50	83.6766
883.24	76.5884
884.67	96.0482
889.25	92.1368
896.60	90.3615
898.02	83.2231
899.00	69.8940
903.28	91.7853
911.07	76.4360
911.07	76.4360
911.07	76.4360
919.63	79.6016
920.93	77.7771
925.00	85.1748
925.24	88.2996
926.50	93.5413
935.52	88.6610
937.48	106.4762
944.10	80.5890
946.00	80.6485
949.00	89.1331
962.29	74.0837
964.01	72.3256
966.15	77.0605
968.20	77.1199
969.11	77.1481
969.11	77.1481
969.11	77.1481
977.42	65.0244
980.50	73.2381
983.50	62.6947
989.30	74.5473
996.32	86.4893
1001.03	72.7370
1001.68	77.0332
1004.76	94.2609
1021.30	0.0000
1024.50	0.0000
1034.80	82.3086
1036.00	79.8691
1037.82	82.7080
1038.57	80.8707
1038.76	0.0000
1045.16	79.2013
1046.59	75.5137
1048.07	83.9481

1050.47	76.5518
1050.47	76.5518
1062.04	78.7412
1063.62	89.1023
1076.63	85.7441
1077.35	84.8207
1078.86	75.4381
1085.78	78.4551
1099.22	86.4170
1112.02	75.1108
1112.84	88.4897
1115.52	73.5303
1120.29	72.6920
1120.29	72.6920
1120.29	72.6920
1120.29	72.6920
1120.51	72.6973
1121.28	72.7158
1124.00	0.0000
1129.67	80.5986
1131.51	0.0000
1147.95	0.0000
1167.94	87.4543
1173.22	81.7646
1175.09	83.7624
1177.93	84.8153
1189.05	86.0971
1204.90	82.5996
1205.75	0.0000
1213.00	103.5168
1221.42	98.8456
1230.97	90.2192
1235.34	93.8177
1236.41	0.0000
1238.25	86.9446
1246.25	104.5935
1260.41	0.0000
1271.85	73.2877
1274.45	76.3578
1274.54	72.3415
1291.56	74.7304
1298.22	0.0000
1312.09	64.0107
1325.50	57.1211
1325.50	57.1211
1332.49	69.5036
1333.61	63.3904
1360.21	41.2109
1362.66	0.0000
1365.15	47.4600
1368.21	53.0073
1368.53	0.0000
1376.25	43.4692
1384.27	36.3062
1394.10	38.4866
1395.20	43.7007
1407.95	55.3402
1434.06	37.8595
1436.60	38.9383
1457.56	0.0000
1460.81	29.6592
1489.15	48.0259
1509.49	29.1032
1596.49	35.8294
1620.62	30.8936
1678.03	0.0000
1691.02	29.4543
1691.02	29.4543
1706.46	0.0000
1750.46	0.0000
1764.49	24.9634
1764.49	24.9634
1764.49	24.9634
1764.49	24.9634
1770.23	26.6618
1771.40	26.6691
1791.20	0.0000
1808.65	17.1432

1836.01 24.3479

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960007

Total Uranium Activity	6.7786E+00	ug/g
Total Uranium Counting Unc.	5.4246E+00	ug/g
Total Uranium Tpu	2.7677E-06	ug/g
Total Uranium Mda	3.0920E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G245960007
ANALYST	: MXR1	DETECTOR	: GAM18
SAMPLE DATE	: 28-JAN-2010 12:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 12-FEB-2010 15:49:09.14	SAMPLE ALQT	: 136.210 GRAM

GROSS GAMMA ACTIVITY (pCi/GRAM)	: 7.998E+00
GROSS GAMMA ERROR (pCi/GRAM)	: 1.132E+00
GROSS GAMMA MDA (pCi/GRAM)	: 2.217E+00
GROSS GAMMA DLC (pCi/GRAM)	: 1.074E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:54:13.79

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960008.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:53:44
Sample ID : G245960008 Sample quantity : 1.23380E+02 GRAM
Detector name : GAM01 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.12 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.99*	107	458	1.07	126.70	122	10	1.48E-02	39.8	
2	2	74.81	369	421	1.30	150.33	145	16	5.13E-02	11.0	5.56E-01
3	2	77.11	527	355	1.15	154.94	145	16	7.32E-02	7.8	
4	3	87.37	193	322	1.37	175.44	172	21	2.67E-02	15.7	1.58E+00
5	3	89.97	179	438	1.42	180.63	172	21	2.48E-02	22.8	
6	3	92.80*	389	340	1.40	186.30	172	21	5.41E-02	10.6	
7	0	186.26*	309	365	1.48	373.12	368	12	4.30E-02	14.1	
8	0	209.37	42	286	1.22	419.30	417	9	5.77E-03	75.6	
9	3	239.01*	1047	178	1.29	478.55	472	18	1.45E-01	3.9	5.65E-01
10	3	242.05	271	197	1.71	484.64	472	18	3.76E-02	12.9	
11	0	270.57	103	214	1.62	541.64	536	12	1.43E-02	29.9	
12	1	295.64	336	124	1.20	591.75	587	20	4.67E-02	7.7	1.68E+00
13	1	300.69	61	154	1.47	601.84	587	20	8.52E-03	38.4	
14	0	338.94	240	217	1.52	678.29	670	17	3.34E-02	15.4	
15	0	352.18*	558	201	1.34	704.77	699	14	7.75E-02	7.0	
16	0	463.35*	83	98	1.91	926.97	921	12	1.16E-02	26.7	
17	0	511.09*	108	126	2.15	1022.38	1013	17	1.49E-02	29.1	
18	0	583.36*	336	97	1.68	1166.85	1159	15	4.66E-02	8.6	
19	0	609.62*	379	81	1.43	1219.33	1214	13	5.26E-02	7.4	
20	1	661.85	145	43	1.74	1323.71	1316	24	2.02E-02	12.2	9.51E-01
21	1	665.65	44	41	1.75	1331.32	1316	24	6.08E-03	33.4	
22	0	727.52	87	104	1.75	1454.98	1446	19	1.21E-02	30.0	
23	0	911.40*	208	46	1.79	1822.50	1815	13	2.89E-02	9.7	
24	2	964.56	42	45	2.11	1928.73	1921	27	5.83E-03	34.2	1.54E+00
25	2	969.24*	106	23	1.67	1938.08	1921	27	1.47E-02	13.7	
26	0	1120.67*	95	46	2.02	2240.74	2232	19	1.32E-02	20.6	
27	0	1238.10*	57	45	1.61	2475.43	2466	15	7.92E-03	29.2	
28	0	1460.94*	730	12	2.22	2920.76	2912	16	1.01E-01	3.9	
29	0	1588.11	23	0	3.35	3174.91	3169	12	3.19E-03	20.9	
30	0	1661.27	20	3	2.35	3321.12	3316	11	2.79E-03	27.5	
31	0	1764.90*	77	11	1.05	3528.20	3522	14	1.07E-02	15.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:54:16

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:53:44
Sample ID : G245960008 Sample quantity : 123.38 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.12 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.202E+01	2.599E+00	5.543E-01	4.928E-02	39.722
CD-109	+	88.03	*	3.099E+00	1.014E+00	1.406E+00	1.330E-01	2.205
SN-126	+	64.28		1.236E+00	1.000E+00	9.695E-01	1.427E-01	1.275
	+	86.94		1.266E+00	6.587E-01	6.410E-01	2.661E-01	1.976
	+	87.57	*	3.046E-01	9.962E-02	1.389E-01	1.308E-02	2.193
BA-137M	+	661.65	*	2.559E-01	6.571E-02	6.379E-02	5.225E-03	4.011
CS-137	+	661.65	*	2.705E-01	6.948E-02	6.743E-02	5.535E-03	4.011
TL-208		277.35		4.749E-01	4.596E-01	7.682E-01	9.763E-02	0.618
	+	510.84		6.332E-01	3.758E-01	2.556E-01	3.038E-02	2.477
	+	583.14	*	5.658E-01	1.096E-01	6.022E-02	5.469E-03	9.396
		860.37		5.937E-01	3.512E-01	6.527E-01	6.255E-02	0.910
BI-211		72.87		3.882E+00	3.955E+00	5.943E+00	4.874E-01	0.653
	+	351.07	*	4.065E+00	6.772E-01	3.788E-01	3.445E-02	10.730
PB-212	+	74.81		2.529E+00	6.405E-01	5.888E-01	7.370E-02	4.296
	+	77.11		2.034E+00	3.608E-01	3.323E-01	2.820E-02	6.122
	+	87.30		1.409E+00	4.818E-01	6.443E-01	8.839E-02	2.187
	+	238.63	*	1.644E+00	2.103E-01	1.045E-01	1.058E-02	15.737
	+	300.09		1.500E+00	1.162E+00	1.472E+00	1.591E-01	1.019
PO-212	+	74.81		2.529E+00	6.405E-01	5.888E-01	7.370E-02	4.296
	+	77.11		2.034E+00	3.608E-01	3.323E-01	2.820E-02	6.122
	+	87.30		1.409E+00	4.818E-01	6.443E-01	8.839E-02	2.187
		115.19		-3.466E-01	4.148E+00	6.568E+00	5.707E-01	-0.053
	+	238.63	*	1.644E+00	2.103E-01	1.045E-01	1.058E-02	15.737
	+	300.09		1.500E+00	1.162E+00	1.472E+00	1.591E-01	1.019
BI-214	+	609.31	*	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
	+	1120.29		1.601E+00	6.826E-01	4.632E-01	4.956E-02	3.456
	+	1764.49		1.799E+00	5.701E-01	3.535E-01	2.964E-02	5.088
PB-214	+	74.81		4.358E+00	1.075E+00	1.015E+00	1.131E-01	4.296
	+	77.11		3.487E+00	6.732E-01	5.696E-01	6.496E-02	6.122
	+	87.30		2.414E+00	8.109E-01	1.104E+00	1.341E-01	2.187
	+	241.98		2.554E+00	7.119E-01	6.294E-01	6.723E-02	4.058
	+	295.21		1.441E+00	2.732E-01	2.577E-01	2.845E-02	5.594
	+	351.92	*	1.414E+00	2.469E-01	1.365E-01	1.431E-02	10.356
PO-214	+	74.81		4.358E+00	1.075E+00	1.015E+00	1.131E-01	4.296

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.487E+00	6.732E-01	5.696E-01	6.496E-02	6.122
	+	87.30		2.414E+00	8.109E-01	1.104E+00	1.341E-01	2.187
	+	241.98		2.554E+00	7.119E-01	6.294E-01	6.723E-02	4.058
	+	295.21		1.441E+00	2.732E-01	2.577E-01	2.845E-02	5.594
	+	351.92	*	1.414E+00	2.469E-01	1.365E-01	1.431E-02	10.356
PO-216	+	74.81		2.529E+00	6.405E-01	5.888E-01	7.370E-02	4.296
	+	77.11		2.034E+00	3.608E-01	3.323E-01	2.820E-02	6.122
	+	87.30		1.409E+00	4.818E-01	6.443E-01	8.839E-02	2.187
	+	238.63	*	1.644E+00	2.103E-01	1.045E-01	1.058E-02	15.737
	+	300.09		1.500E+00	1.162E+00	1.472E+00	1.591E-01	1.019
PO-218	+	74.81		4.358E+00	1.075E+00	1.015E+00	1.131E-01	4.296
	+	77.11		3.487E+00	6.732E-01	5.696E-01	6.496E-02	6.122
	+	87.30		2.414E+00	8.109E-01	1.104E+00	1.341E-01	2.187
	+	241.98		2.554E+00	7.119E-01	6.294E-01	6.723E-02	4.058
	+	295.21		1.441E+00	2.732E-01	2.577E-01	2.845E-02	5.594
	+	351.92	*	1.414E+00	2.469E-01	1.365E-01	1.431E-02	10.356
RA-224	+	240.98	*	4.843E+00	1.322E+00	1.189E+00	1.081E-01	4.072
RA-226	+	609.31	*	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
	+	1120.29		1.601E+00	6.826E-01	4.632E-01	4.956E-02	3.456
	+	1764.49		1.799E+00	5.701E-01	3.535E-01	2.964E-02	5.088
AC-228	+	338.32		1.930E+00	9.952E-01	4.046E-01	1.671E-01	4.770
	+	911.07	*	1.585E+00	3.590E-01	2.269E-01	2.627E-02	6.986
	+	969.11		1.419E+00	5.115E-01	3.887E-01	9.120E-02	3.651
RA-228	+	338.32		1.930E+00	9.952E-01	4.046E-01	1.671E-01	4.770
	+	911.07	*	1.585E+00	3.590E-01	2.269E-01	2.627E-02	6.986
	+	969.11		1.419E+00	5.115E-01	3.887E-01	9.120E-02	3.651
TH-228	+	74.81		2.568E+00	6.050E-01	5.978E-01	5.022E-02	4.296
	+	77.11		2.065E+00	3.663E-01	3.373E-01	2.863E-02	6.122
	+	87.30		1.430E+00	4.678E-01	6.541E-01	6.143E-02	2.187
	+	238.63	*	1.669E+00	2.135E-01	1.061E-01	1.074E-02	15.737
	+	300.09		1.523E+00	1.477E+00	1.494E+00	8.867E-01	1.019
TH-230	+	609.31	*	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
	+	1120.29		1.601E+00	6.826E-01	4.632E-01	4.956E-02	3.456
	+	1764.49		1.799E+00	5.701E-01	3.535E-01	2.964E-02	5.088
TH-232	+	338.32		1.930E+00	6.197E-01	4.046E-01	3.562E-02	4.770
	+	911.07	*	1.585E+00	3.590E-01	2.269E-01	2.627E-02	6.986
	+	969.11		1.419E+00	5.115E-01	3.887E-01	9.120E-02	3.651
TH-234	+	63.29	*	3.124E+00	2.545E+00	2.372E+00	4.169E-01	1.317
	+	92.38		3.980E+00	1.114E+00	9.062E-01	1.661E-01	4.392
U-234	+	609.31	*	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
	+	1120.29		1.601E+00	6.826E-01	4.632E-01	4.956E-02	3.456
	+	1764.49		1.799E+00	5.701E-01	3.535E-01	2.964E-02	5.088
NP-237	+	86.50	*	8.945E-01	3.459E-01	4.491E-01	1.017E-01	1.992
		95.87		-1.129E+00	1.278E+00	1.683E+00	4.167E-01	-0.671
U-238	+	63.29	*	3.124E+00	2.545E+00	2.372E+00	4.169E-01	1.317
	+	92.38		3.980E+00	9.171E-01	9.062E-01	8.275E-02	4.392
AM-243	+	74.67	*	4.101E-01	9.650E-02	9.579E-02	7.966E-03	4.281
	+	86.72		3.354E+01	1.097E+01	1.702E+01	1.589E+00	1.970
		117.66		-3.235E+00	4.484E+00	6.866E+00	5.986E-01	-0.471

Sample ID : G245960008 Acquisition date : 12-FEB-2010 15:53:44

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		1.570E+01	1.815E+01	3.173E+01	2.714E+00	0.495
ANH-511	+	511.00	*	1.368E-01	8.037E-02	5.522E-02	4.680E-03	2.477

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	4.121E-01	3.814E-01	6.605E-01	6.009E-02	0.624
NA-22		1274.54	*	-1.132E-02	5.064E-02	8.247E-02	6.925E-03	-0.137
NA-24		1368.53	*	-1.438E-01	5.064E-02	Half-Life too short		
AL-26		1129.67		-1.392E+00	1.996E+00	2.551E+00	2.131E-01	-0.546
		1808.65	*	3.759E-03	3.362E-02	5.612E-02	4.650E-03	0.067
TI-44		67.85		2.799E-02	6.111E-02	9.015E-02	7.148E-03	0.311
	+	78.38	*	3.754E-01	6.659E-02	8.718E-02	7.482E-03	4.306
SC-46		889.25	*	4.070E-02	4.740E-02	8.370E-02	7.567E-03	0.486
	+	1120.51		2.741E-01	1.155E-01	1.489E-01	1.251E-02	1.841
V-48		944.10		-9.334E-01	1.014E+00	1.465E+00	1.320E-01	-0.637
		983.50	*	1.809E-02	8.411E-02	1.397E-01	1.247E-02	0.129
		1312.09		-5.555E-02	9.755E-02	1.515E-01	1.284E-02	-0.367
CR-51		320.08	*	-3.748E-01	4.431E-01	6.860E-01	6.452E-02	-0.546
MN-52		744.21		-2.082E-01	2.691E-01	4.105E-01	3.521E-02	-0.507
		848.13		3.303E+00	7.163E+00	1.232E+01	1.101E+00	0.268
		935.52		3.529E-01	3.348E-01	5.943E-01	5.360E-02	0.594
		1246.25		-3.826E-01	7.723E+00	1.257E+01	1.044E+00	-0.030
		1333.61		7.007E+00	5.177E+00	1.009E+01	8.604E-01	0.694
		1434.06	*	8.964E-02	2.787E-01	4.824E-01	4.164E-02	0.186
MN-54		834.83	*	-2.059E-04	4.200E-02	6.890E-02	6.133E-03	-0.003
CO-56		846.75	*	-2.091E-02	4.283E-02	6.643E-02	5.935E-03	-0.315
		977.42		-1.206E+00	4.043E+00	5.502E+00	4.920E-01	-0.219
		1037.82		1.095E-01	3.522E-01	5.899E-01	5.439E-02	0.186
		1175.09		5.246E-01	2.331E+00	4.004E+00	3.243E-01	0.131
	+	1238.25		2.716E-01	1.601E-01	2.078E-01	1.777E-02	1.307
		1360.21		-4.943E-01	9.833E-01	1.498E+00	1.282E-01	-0.330
		1771.40		1.604E-02	3.221E-01	4.564E-01	3.821E-02	0.035
CO-57		122.06	*	-1.451E-02	2.872E-02	4.436E-02	3.905E-03	-0.327
		136.48		1.050E-01	2.184E-01	3.775E-01	3.488E-02	0.278
CO-58		810.76	*	4.453E-03	4.284E-02	7.120E-02	6.299E-03	0.063
FE-59		142.65		1.554E+00	2.967E+00	5.048E+00	4.317E-01	0.308
		192.34		1.334E-01	1.136E+00	1.778E+00	2.402E-01	0.075
		1099.22	*	-2.801E-03	9.942E-02	1.596E-01	1.471E-02	-0.018
		1291.56		5.740E-03	1.349E-01	2.261E-01	2.174E-02	0.025
CO-60		1173.22		1.526E-02	4.614E-02	8.011E-02	6.484E-03	0.190
		1332.49	*	2.391E-02	4.347E-02	7.731E-02	6.590E-03	0.309
ZN-65		1115.52	*	9.548E-02	1.020E-01	1.638E-01	1.382E-02	0.583
GE-68		1077.35	*	1.199E+00	1.251E+00	2.256E+00	1.942E-01	0.531
AS-73		53.44	*	-3.856E-01	1.096E+00	1.756E+00	1.421E-01	-0.220
AS-74		595.88	*	4.583E-03	9.595E-02	1.614E-01	1.360E-02	0.028
		634.78		-4.883E-02	3.443E-01	5.666E-01	4.707E-02	-0.086
SE-75		66.05		-2.176E+00	6.489E+00	9.198E+00	9.019E-01	-0.237

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		96.73		-4.461E-01	1.013E+00	1.402E+00	1.937E-01	-0.318
		121.11		-7.840E-02	1.574E-01	2.433E-01	2.760E-02	-0.322
		136.00		4.314E-02	4.138E-02	7.283E-02	6.303E-03	0.592
		198.60		1.450E+00	2.139E+00	3.611E+00	3.513E-01	0.401
		264.65	*	-2.419E-02	5.438E-02	7.604E-02	6.985E-03	-0.318
		279.53		4.888E-02	1.282E-01	2.154E-01	2.036E-02	0.227
		303.91		-1.163E+00	2.790E+00	3.877E+00	4.580E-01	-0.300
		400.65		1.914E-02	3.171E-01	5.157E-01	5.526E-02	0.037
BR-77	+	87.88		6.785E+02	2.219E+02	3.872E+02	3.659E+01	1.753
		200.40		-6.959E-01	1.922E+02	3.215E+02	2.836E+01	-0.002
	+	239.00		2.676E+02	3.206E+01	4.234E+01	3.844E+00	6.319
		249.79		-8.167E+01	7.695E+01	1.197E+02	1.092E+01	-0.682
		281.68		-6.760E+01	1.050E+02	1.666E+02	1.523E+01	-0.406
		297.23		3.788E+02	8.650E+01	1.545E+02	1.406E+01	2.452
		303.76		-1.058E+02	2.404E+02	3.335E+02	3.024E+01	-0.317
		439.47		-1.807E+00	1.630E+02	2.624E+02	2.176E+01	-0.007
		484.57		3.434E+00	2.640E+02	4.236E+02	3.571E+01	0.008
		520.65	*	2.205E+00	1.325E+01	2.142E+01	1.817E+00	0.103
		574.64		-7.118E+01	2.397E+02	3.818E+02	3.232E+01	-0.186
		578.91		7.368E+01	9.620E+01	1.534E+02	1.297E+01	0.480
		585.48		1.751E+03	3.359E+02	6.075E+02	5.132E+01	2.881
		755.35		2.067E+02	1.827E+02	3.317E+02	2.861E+01	0.623
		817.79		-1.404E+01	1.486E+02	2.419E+02	2.140E+01	-0.058
SR-82		698.33		-1.118E+01	3.662E+01	5.908E+01	4.947E+00	-0.189
		776.49	*	-1.120E-01	4.247E-01	6.821E-01	5.939E-02	-0.164
		1395.20		9.470E-01	1.337E+01	2.239E+01	1.926E+00	0.042
RB-83		520.41	*	2.049E-02	8.690E-02	1.413E-01	1.199E-02	0.145
		529.64		-7.622E-02	1.131E-01	1.801E-01	1.529E-02	-0.423
		552.65		-1.023E-01	2.176E-01	3.520E-01	2.988E-02	-0.290
RB-84		881.50	*	-6.326E-03	7.388E-02	1.196E-01	1.079E-02	-0.053
KR-85		513.99	*	1.925E+01	1.036E+01	1.678E+01	1.423E+00	1.147
SR-85		513.99	*	9.877E-02	5.315E-02	8.607E-02	7.298E-03	1.147
RB-86		1076.63	*	5.642E-01	7.960E-01	1.398E+00	1.204E-01	0.404
Y-88		898.02		-1.292E-02	4.881E-02	7.750E-02	7.051E-03	-0.167
		1836.01	*	-1.215E-02	4.181E-02	6.367E-02	5.237E-03	-0.191
ZR-88		392.90	*	-1.164E-02	3.650E-02	5.783E-02	4.656E-03	-0.201
Y-91		1204.90	*	6.605E+00	2.081E+01	3.592E+01	2.943E+00	0.184
NB-94		702.63	*	2.412E-02	3.860E-02	6.720E-02	5.641E-03	0.359
		871.10		2.015E-03	3.402E-02	5.608E-02	5.046E-03	0.036
NB-95		765.79	*	-2.107E-02	4.679E-02	7.397E-02	6.410E-03	-0.285
NB-95M		235.69	*	7.759E-02	1.504E-01	2.269E-01	2.327E-02	0.342
ZR-95		724.18		6.508E-02	1.209E-01	1.847E-01	1.708E-02	0.352
		756.15	*	4.829E-02	7.753E-02	1.353E-01	1.285E-02	0.357
NB-97		657.90	*	9.576E-03	7.753E-02	Half-Life too short		
		1024.50		-1.850E+00	7.753E-02	Half-Life too short		
ZR-97		254.15		5.810E+00	7.753E-02	Half-Life too short		
		355.39		2.980E+00	7.753E-02	Half-Life too short		
		507.63	*	2.600E+00	7.753E-02	Half-Life too short		
		602.52		-9.596E-01	7.753E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1021.30		3.695E+00	7.753E-02	Half-Life too short		
		1147.95		-1.709E+00	7.753E-02	Half-Life too short		
		1362.66		-2.686E-01	7.753E-02	Half-Life too short		
		1750.46		-5.201E+00	7.753E-02	Half-Life too short		
MO-99		140.51		-2.113E+01	2.837E+01	4.564E+01	1.263E+01	-0.463
		181.06		5.502E+00	2.136E+01	3.208E+01	5.870E+00	0.172
		366.43		-7.248E+00	9.970E+01	1.614E+02	1.365E+01	-0.045
		739.58	*	7.199E+00	1.367E+01	2.358E+01	3.572E+00	0.305
		778.00		-2.978E+01	3.998E+01	6.105E+01	5.319E+00	-0.488
TC-99M		140.51	*	-3.442E+10	3.998E+01	Half-Life too short		
RH-101		127.23		-2.239E-04	3.834E-02	6.070E-02	5.280E-03	-0.004
		198.01	*	2.205E-02	3.900E-02	6.561E-02	5.773E-03	0.336
		325.23		-1.680E-01	2.672E-01	4.205E-01	3.753E-02	-0.400
RH-102		418.52		8.298E-02	3.448E-01	5.666E-01	4.643E-02	0.146
		475.06	*	-3.771E-03	3.414E-02	5.427E-02	4.563E-03	-0.069
		631.29		-2.081E-02	5.722E-02	9.230E-02	7.680E-03	-0.225
		697.49		-2.154E-02	8.294E-02	1.344E-01	1.125E-02	-0.160
		766.84		1.532E-01	1.182E-01	2.154E-01	1.867E-02	0.711
		1046.59		-6.108E-02	1.340E-01	2.050E-01	1.790E-02	-0.298
		1112.84		-5.449E-02	2.798E-01	3.746E-01	3.162E-02	-0.145
RU-103		497.08	*	2.578E-02	4.761E-02	7.940E-02	1.117E-02	0.325
	+	610.33		1.303E+01	2.887E+00	3.424E+00	5.673E-01	3.806
RH-106	+	511.85		6.832E-01	4.015E-01	5.122E-01	4.341E-02	1.334
		621.84	*	-1.680E-01	3.704E-01	5.950E-01	7.847E-02	-0.282
		1050.47		-6.309E-01	2.820E+00	4.446E+00	3.877E-01	-0.142
RU-106	+	511.85		6.832E-01	4.015E-01	5.122E-01	4.341E-02	1.334
		621.84	*	-1.680E-01	3.700E-01	5.950E-01	4.970E-02	-0.282
		1050.47		-6.309E-01	2.820E+00	4.446E+00	3.877E-01	-0.142
AG-108M		433.93	*	6.575E-03	3.863E-02	6.309E-02	5.440E-03	0.104
		614.37		-1.317E-02	4.744E-02	6.666E-02	5.816E-03	-0.198
		722.95		2.343E-02	5.334E-02	8.073E-02	7.129E-03	0.290
AG-110M		657.75	*	-1.035E-03	4.598E-02	6.636E-02	5.627E-03	-0.016
		677.61		2.055E-01	3.585E-01	6.233E-01	5.314E-02	0.330
		706.67		-1.013E-01	2.379E-01	3.798E-01	3.288E-02	-0.267
		763.93		-6.513E-02	1.836E-01	2.930E-01	2.608E-02	-0.222
		884.67		-4.328E-02	5.362E-02	7.907E-02	7.349E-03	-0.547
		937.48		1.028E-02	1.432E-01	2.348E-01	2.187E-02	0.044
		1384.27		-7.911E-02	2.020E-01	3.181E-01	2.810E-02	-0.249
IN-111		171.28		4.683E-02	1.143E+00	1.928E+00	1.651E-01	0.024
		245.39	*	3.379E-01	1.312E+00	1.948E+00	1.774E-01	0.173
IN-113M		391.69	*	-2.931E-02	5.315E-02	8.276E-02	6.893E-03	-0.354
SN-113		391.69	*	-2.931E-02	5.315E-02	8.276E-02	6.893E-03	-0.354
IN-114M		190.27	*	-2.876E-02	2.260E-01	3.313E-01	2.892E-02	-0.087
CD-115		260.90		1.478E+02	1.520E+02	2.631E+02	2.406E+01	0.562
		492.35		-1.222E+01	4.555E+01	7.132E+01	6.025E+00	-0.171
		527.90	*	4.781E+00	1.189E+01	2.065E+01	1.753E+00	0.232
SN-117M		156.02		-1.281E+00	2.492E+00	4.119E+00	3.508E-01	-0.311
		158.56	*	-2.648E-02	6.112E-02	1.013E-01	8.628E-03	-0.261
SB-122		563.90	*	2.263E+00	2.292E+00	4.122E+00	3.495E-01	0.549

---- Non-Identified Nuclides ----

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		692.80		1.462E+01	4.787E+01	8.158E+01	6.810E+00	0.179
I-123		159.00	*	-5.337E+00	4.787E+01	Half-Life too short		
		528.96		-4.103E+02	4.787E+01	Half-Life too short		
TE-123M		159.00	*	-2.490E-02	3.189E-02	5.203E-02	4.457E-03	-0.479
I-124		602.71	*	-1.137E-01	7.401E-01	1.153E+00	9.693E-02	-0.099
		722.78		2.102E+00	5.584E+00	8.394E+00	7.124E-01	0.250
		1325.50		-3.743E+01	3.832E+01	5.480E+01	4.663E+00	-0.683
		1376.25		3.041E+01	4.084E+01	7.306E+01	6.269E+00	0.416
		1509.49		1.582E+01	1.805E+01	3.348E+01	2.899E+00	0.473
		1691.02		-1.233E-01	4.723E+00	7.688E+00	6.550E-01	-0.016
SB-124		602.71		-6.561E-03	4.271E-02	6.653E-02	5.595E-03	-0.099
		645.85		-1.036E-01	5.997E-01	9.858E-01	8.676E-02	-0.105
		709.31		-2.245E+00	3.178E+00	4.930E+00	4.154E-01	-0.455
		713.82		8.620E-01	1.904E+00	3.273E+00	3.899E-01	0.263
		722.78		1.758E-01	4.672E-01	7.023E-01	6.093E-02	0.250
	+	968.20		1.462E+01	4.209E+00	7.786E+00	6.978E-01	1.877
		1045.16		-1.987E+00	3.013E+00	4.543E+00	3.971E-01	-0.437
		1325.50		-3.344E+00	3.424E+00	4.897E+00	4.167E-01	-0.683
		1368.21		-2.751E-01	1.901E+00	3.089E+00	4.154E-01	-0.089
		1436.60		-1.069E+00	4.437E+00	7.082E+00	6.115E-01	-0.151
		1691.02	*	-2.434E-03	9.320E-02	1.517E-01	1.345E-02	-0.016
SB-125		427.89	*	-5.819E-02	1.118E-01	1.733E-01	1.458E-02	-0.336
	+	463.38		9.559E-01	5.176E-01	6.580E-01	5.968E-02	1.453
		600.56		-7.566E-02	1.850E-01	2.987E-01	2.708E-02	-0.253
		635.90		-1.268E-01	2.808E-01	4.485E-01	4.047E-02	-0.283
TE-125M		109.28	*	3.818E+00	1.072E+01	1.733E+01	1.796E+00	0.220
I-126		388.63		7.354E-02	2.491E-01	4.119E-01	3.336E-02	0.179
	+	666.33	*	3.911E-01	2.635E-01	3.879E-01	3.187E-02	1.008
		753.82		1.795E+00	1.613E+00	2.924E+00	2.520E-01	0.614
SB-126		223.80		9.374E-01	4.465E+00	7.509E+00	6.755E-01	0.125
		278.60		2.977E+00	2.890E+00	4.997E+00	4.570E-01	0.596
	+	296.50		1.439E+01	2.574E+00	4.306E+00	3.918E-01	3.341
		414.70		-8.041E-02	9.381E-02	1.420E-01	1.161E-02	-0.566
		415.30		-5.610E+00	8.244E+00	1.186E+01	9.700E-01	-0.473
		555.20		2.395E+00	4.410E+00	7.715E+00	6.546E-01	0.310
		573.80		-2.330E-01	1.156E+00	1.910E+00	1.617E-01	-0.122
		593.00		1.523E-01	9.809E-01	1.665E+00	1.404E-01	0.091
		656.30		-1.180E+00	4.301E+00	6.009E+00	4.937E-01	-0.196
	+	666.33		1.635E-01	1.101E-01	1.621E-01	1.332E-02	1.008
		675.00		1.027E-01	2.335E+00	3.896E+00	3.218E-01	0.026
		695.00		3.913E-02	8.279E-02	1.431E-01	1.196E-02	0.274
		697.00		-1.028E-01	2.934E-01	4.716E-01	3.946E-02	-0.218
		720.50	*	-1.128E-01	1.963E-01	2.613E-01	2.215E-02	-0.432
		856.80		-4.225E-01	5.577E-01	8.424E-01	7.549E-02	-0.502
		989.30		-6.512E-02	1.371E+00	2.213E+00	1.972E-01	-0.029
		1034.80		-3.412E+00	9.757E+00	1.510E+01	1.325E+00	-0.226
		1213.00		-7.836E-01	4.830E+00	7.952E+00	6.535E-01	-0.099
SB-127		61.10		4.259E+00	7.323E+01	1.064E+02	1.108E+01	0.040
		252.40		1.854E+00	5.107E+00	8.519E+00	3.590E+00	0.218

---- Non-Identified Nuclides ----

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		290.80		9.383E+00	2.634E+01	3.911E+01	4.523E+00	0.240
		411.60		4.944E+00	1.510E+01	2.493E+01	3.861E+00	0.198
		444.90		4.874E+00	1.096E+01	1.825E+01	2.251E+00	0.267
		473.00		-1.303E+00	1.939E+00	2.920E+00	3.718E-01	-0.446
		543.00		1.319E+01	1.881E+01	3.315E+01	4.750E+00	0.398
		603.60		-1.216E+00	1.375E+01	1.981E+01	2.451E+00	-0.061
		685.20	*	-1.140E-01	1.409E+00	2.322E+00	2.592E-01	-0.049
		698.50		-5.643E+00	1.638E+01	2.630E+01	4.128E+00	-0.215
		722.20		-5.541E+00	4.073E+01	5.757E+01	6.372E+00	-0.096
		783.80		1.522E+00	4.132E+00	7.030E+00	8.793E-01	0.217
XE-127		57.60		4.672E+00	7.905E+00	1.257E+01	9.655E-01	0.372
		145.22		3.801E-01	7.756E-01	1.318E+00	1.125E-01	0.288
		172.10		-5.400E-02	1.332E-01	2.202E-01	1.887E-02	-0.245
		202.84	*	-6.723E-02	5.531E-02	8.718E-02	7.708E-03	-0.771
		374.96		1.316E-01	2.263E-01	3.821E-01	3.182E-02	0.344
I-131		80.18		-7.624E-01	5.455E+00	7.759E+00	6.812E-01	-0.098
		284.30		-9.946E-01	1.673E+00	2.656E+00	2.539E-01	-0.375
		364.48	*	3.754E-02	1.322E-01	2.193E-01	1.965E-02	0.171
		636.97		-4.391E-01	1.596E+00	2.593E+00	2.281E-01	-0.169
		722.89		3.666E+00	8.994E+00	1.357E+01	1.159E+00	0.270
TE-132		49.72		1.433E+01	2.631E+01	4.387E+01	4.719E+00	0.327
		111.76		-3.797E+01	3.620E+01	5.350E+01	5.834E+00	-0.710
		116.30		9.432E+00	3.241E+01	5.217E+01	5.703E+00	0.181
		228.16	*	9.474E-02	7.980E-01	1.335E+00	2.129E-01	0.071
BA-133		53.15		-2.923E+00	4.719E+00	7.467E+00	6.067E-01	-0.392
		79.62		1.061E+00	1.525E+00	2.258E+00	3.446E-01	0.470
		81.00		-1.711E-01	1.250E-01	1.615E-01	2.579E-02	-1.059
		276.40		5.201E-01	4.931E-01	7.588E-01	1.121E-01	0.685
		302.84		1.091E-01	1.892E-01	2.841E-01	3.860E-02	0.384
		356.01	*	-4.032E-03	5.869E-02	8.320E-02	1.097E-02	-0.048
		383.85		-1.718E-01	3.721E-01	5.844E-01	7.193E-02	-0.294
I-133	+	510.53		1.443E+00	3.721E-01	Half-Life too short		
		529.87	*	-5.189E-03	3.721E-01	Half-Life too short		
		706.58		-1.767E-01	3.721E-01	Half-Life too short		
		856.28		-4.387E-01	3.721E-01	Half-Life too short		
		875.33		-4.229E-02	3.721E-01	Half-Life too short		
		1236.41		1.624E+00	3.721E-01	Half-Life too short		
		1298.22		-2.603E-01	3.721E-01	Half-Life too short		
CS-134		475.35		-6.478E-01	2.260E+00	3.539E+00	2.976E-01	-0.183
		563.23		3.077E-01	3.922E-01	6.966E-01	5.965E-02	0.442
		569.32		9.217E-02	2.233E-01	3.862E-01	3.318E-02	0.239
		604.70		7.365E-03	3.883E-02	5.782E-02	4.872E-03	0.127
		795.84	*	4.373E-02	6.205E-02	1.064E-01	9.402E-03	0.411
		801.93		-1.140E-01	4.717E-01	7.618E-01	6.738E-02	-0.150
		1038.57		2.255E+00	4.429E+00	7.570E+00	6.634E-01	0.298
		1167.94		-2.899E+00	2.778E+00	4.139E+00	3.364E-01	-0.700
		1365.15		-1.939E-01	1.273E+00	2.065E+00	1.851E-01	-0.094
CS-135		268.24	*	-7.149E-03	1.843E-01	2.666E-01	2.779E-02	-0.027
I-135		288.45		1.628E+10	1.843E-01	Half-Life too short		

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		417.63		3.011E+09	1.843E-01	Half-Life too short		
		546.56		3.228E+09	1.843E-01	Half-Life too short		
		836.80		1.241E+10	1.843E-01	Half-Life too short		
		1038.76		1.887E+10	1.843E-01	Half-Life too short		
		1124.00		6.124E+10	1.843E-01	Half-Life too short		
		1131.51		-2.066E+09	1.843E-01	Half-Life too short		
		1260.41	*	2.435E+09	1.843E-01	Half-Life too short		
		1457.56		3.583E+11	1.843E-01	Half-Life too short		
		1678.03		-3.145E+09	1.843E-01	Half-Life too short		
		1706.46		-2.472E+10	1.843E-01	Half-Life too short		
		1791.20		-2.583E+09	1.843E-01	Half-Life too short		
CS-136		66.91		-6.156E-01	1.056E+00	1.471E+00	2.212E-01	-0.418
	+	86.29		3.985E+00	1.357E+00	2.219E+00	2.953E-01	1.796
		153.22		-4.153E-02	7.238E-01	1.221E+00	1.165E-01	-0.034
		163.89		2.816E-01	1.224E+00	2.082E+00	1.991E-01	0.135
		176.55		4.251E-02	4.075E-01	6.883E-01	6.267E-02	0.062
		273.65		-5.079E-01	6.226E-01	8.469E-01	8.204E-02	-0.600
		340.57		5.820E-01	1.762E-01	3.179E-01	2.869E-02	1.831
		818.51		-4.563E-02	8.609E-02	1.337E-01	1.184E-02	-0.341
		1048.07	*	-1.887E-03	1.259E-01	2.033E-01	1.848E-02	-0.009
		1235.34		3.855E-01	8.321E-01	1.264E+00	1.467E-01	0.305
CE-139		165.85	*	1.105E-02	3.410E-02	5.819E-02	4.956E-03	0.190
BA-140		162.64		3.886E-01	8.584E-01	1.472E+00	1.328E-01	0.264
		304.84		4.522E-01	1.667E+00	2.446E+00	6.889E-01	0.185
		423.70		1.168E+00	2.244E+00	3.711E+00	1.199E+00	0.315
		537.32	*	-9.381E-03	2.722E-01	4.572E-01	1.514E-01	-0.021
LA-140		328.77		3.324E-01	3.565E-01	6.113E-01	5.724E-02	0.544
		432.53		2.250E-02	2.434E+00	3.927E+00	3.416E-01	0.006
		487.03		4.834E-02	1.624E-01	2.665E-01	2.393E-02	0.181
		751.79		-3.133E+00	2.040E+00	2.835E+00	2.703E-01	-1.105
		815.85		5.650E-02	3.449E-01	5.768E-01	5.660E-02	0.098
		867.82		-9.931E-01	1.346E+00	1.988E+00	1.874E-01	-0.500
		919.63		5.230E-01	3.099E+00	5.149E+00	5.658E-01	0.102
		925.24		-1.109E+00	1.374E+00	2.038E+00	1.946E-01	-0.544
		1596.49	*	-1.918E-02	9.637E-02	1.490E-01	1.285E-02	-0.129
CE-141		145.44	*	6.958E-02	6.824E-02	1.196E-01	1.040E-02	0.582
CE-143		57.37		6.856E-04	6.824E-02	Half-Life too short		
		231.56		-1.955E-03	6.824E-02	Half-Life too short		
		293.26	*	3.025E-04	6.824E-02	Half-Life too short		
		350.59		2.494E-02	6.824E-02	Half-Life too short		
		490.36		3.191E-03	6.824E-02	Half-Life too short		
	+	664.57		2.852E-03	6.824E-02	Half-Life too short		
		721.93		-3.775E-04	6.824E-02	Half-Life too short		
CE-144		80.11		-3.317E-01	2.503E+00	3.561E+00	3.106E-01	-0.093
		133.54	*	9.825E-03	2.380E-01	3.769E-01	5.867E-02	0.026
PM-144		476.78		1.302E-01	7.908E-02	1.416E-01	1.309E-02	0.919
		618.01		5.264E-03	3.726E-02	6.140E-02	5.287E-03	0.086
		696.49	*	-7.839E-03	3.690E-02	6.007E-02	5.026E-03	-0.130
		778.57		-1.315E+00	2.583E+00	4.042E+00	3.523E-01	-0.325

---- Non-Identified Nuclides ----

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PR-144		696.49	*	-5.312E-01	2.501E+00	4.070E+00	3.405E-01	-0.130
		1489.15		-7.648E+00	1.322E+01	1.957E+01	1.694E+00	-0.391
PM-146		453.90	*	2.506E-02	5.063E-02	8.448E-02	8.874E-03	0.297
		633.02		-8.382E-01	1.395E+00	2.131E+00	7.949E-01	-0.393
		735.90		8.309E-02	1.873E-01	2.937E-01	8.394E-02	0.283
		747.13		6.130E-02	1.010E-01	1.757E-01	2.464E-02	0.349
ND-147	+	91.11		9.480E-01	4.422E-01	6.405E-01	6.331E-02	1.480
		319.41		-1.700E+00	3.920E+00	6.249E+00	5.606E-01	-0.272
		439.89		4.703E-01	6.447E+00	1.045E+01	8.666E-01	0.045
		531.02	*	-3.492E-01	5.890E-01	9.404E-01	1.399E-01	-0.371
PM-149		285.90	*	-4.737E+01	1.034E+02	1.652E+02	2.616E+01	-0.287
EU-152		121.78		-2.621E-02	8.395E-02	1.311E-01	1.320E-02	-0.200
		244.69		3.417E-01	4.166E-01	6.401E-01	5.826E-02	0.534
		344.27	*	-9.665E-03	1.261E-01	1.789E-01	1.654E-02	-0.054
		443.98		-7.967E-02	1.061E+00	1.698E+00	1.411E-01	-0.047
		778.89		-1.533E-01	2.980E-01	4.660E-01	4.061E-02	-0.329
		867.32		-1.040E+00	8.446E-01	1.157E+00	1.040E-01	-0.899
	+	964.01		6.490E-01	4.475E-01	6.581E-01	5.903E-02	0.986
		1085.78		-8.918E-02	4.297E-01	6.746E-01	5.784E-02	-0.132
		1112.02		-1.612E-01	3.936E-01	5.362E-01	4.529E-02	-0.301
		1407.95		1.736E-01	2.251E-01	4.080E-01	3.514E-02	0.426
GD-153		69.67		-5.710E-01	2.224E+00	3.151E+00	2.527E-01	-0.181
		83.37		1.581E+01	1.828E+01	2.696E+01	2.427E+00	0.587
		97.43	*	3.141E-02	1.040E-01	1.492E-01	1.325E-02	0.210
		103.18		-1.805E-02	1.185E-01	1.878E-01	1.638E-02	-0.096
EU-154		123.07		-2.845E-02	5.944E-02	9.190E-02	1.055E-02	-0.310
		247.94		2.126E-01	4.136E-01	6.814E-01	8.075E-02	0.312
		591.81		3.138E-01	6.625E-01	1.152E+00	1.328E-01	0.273
		723.30		2.154E-01	2.155E-01	3.466E-01	3.262E-02	0.621
		756.87		3.034E-02	8.640E-01	1.432E+00	1.716E-01	0.021
		873.19		3.165E-02	3.159E-01	5.229E-01	6.545E-02	0.061
		996.32		-2.980E-01	4.324E-01	6.411E-01	1.148E-01	-0.465
		1004.76		-3.133E-01	2.521E-01	3.442E-01	4.071E-02	-0.910
		1274.45	*	1.339E-03	1.384E-01	2.313E-01	2.576E-02	0.006
EU-155		48.70		-3.888E-01	3.366E+00	5.467E+00	4.679E-01	-0.071
		60.01		2.032E+00	6.248E+00	9.221E+00	6.970E-01	0.220
	+	86.54		3.669E-01	1.201E-01	2.042E-01	1.918E-02	1.797
		105.31	*	1.827E-02	1.217E-01	1.954E-01	1.719E-02	0.093
TB-160	+	86.79		9.804E-01	3.206E-01	5.466E-01	5.104E-02	1.794
		197.04		-1.059E-01	6.417E-01	1.067E+00	9.380E-02	-0.099
		215.65		3.220E-02	9.452E-01	1.466E+00	1.310E-01	0.022
		298.57		-3.810E-02	1.277E-01	2.063E-01	1.876E-02	-0.185
		879.36	*	4.833E-02	1.519E-01	2.570E-01	2.318E-02	0.188
		962.29		5.864E-01	6.981E-01	1.089E+00	9.770E-02	0.539
		966.15		7.279E-01	2.664E-01	5.117E-01	4.588E-02	1.423
		1177.93		-2.510E-01	3.842E-01	5.990E-01	4.857E-02	-0.419
		1271.85		2.577E-01	7.967E-01	1.377E+00	1.154E-01	0.187
HO-166M		80.57		-1.576E-01	3.264E-01	4.550E-01	3.985E-02	-0.346
		184.41		1.445E-01	4.696E-02	7.745E-02	6.721E-03	1.866

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		280.46		-7.283E-02	9.949E-02	1.571E-01	1.436E-02	-0.464
		410.95		2.303E-01	3.023E-01	5.124E-01	4.179E-02	0.449
		711.68	*	4.103E-02	6.880E-02	1.197E-01	1.010E-02	0.343
		752.31		-3.286E-01	3.103E-01	4.574E-01	3.939E-02	-0.718
		810.29		1.068E-02	6.418E-02	1.073E-01	9.472E-03	0.100
TM-171		51.35		-2.375E+01	4.100E+01	6.505E+01	5.414E+00	-0.365
		52.39		-1.514E+01	2.047E+01	3.218E+01	2.641E+00	-0.471
		59.40		-3.776E+00	3.471E+01	4.998E+01	3.767E+00	-0.076
		66.72	*	-2.964E+01	3.859E+01	5.337E+01	4.204E+00	-0.555
LU-176	+	88.36		7.225E-01	2.363E-01	4.187E-01	3.949E-02	1.726
		201.83		-4.982E-02	3.384E-02	5.255E-02	4.642E-03	-0.948
		306.84	*	-7.081E-03	2.935E-02	4.579E-02	4.144E-03	-0.155
		401.10		2.962E+00	8.228E+00	1.364E+01	1.105E+00	0.217
LU-177		112.95		-8.082E-01	1.936E+00	2.965E+00	2.571E-01	-0.273
	+	208.36	*	1.158E+00	1.752E+00	2.218E+00	1.971E-01	0.522
LU-177M		52.97		-1.680E+00	2.128E+00	3.338E+00	2.719E-01	-0.503
		54.07		5.341E-01	1.105E+00	1.834E+00	1.472E-01	0.291
		61.30		5.176E-01	1.888E+00	2.774E+00	2.116E-01	0.187
		121.62		-2.660E-02	4.273E-01	6.758E-01	5.936E-02	-0.039
		147.16		-5.351E-01	7.238E-01	1.188E+00	1.014E-01	-0.450
		171.86		-1.527E-01	5.390E-01	8.965E-01	7.678E-02	-0.170
		218.09		3.470E-01	9.721E-01	1.646E+00	1.475E-01	0.211
		268.79		8.543E-01	9.666E-01	1.491E+00	1.365E-01	0.573
		319.02		-9.468E-02	3.014E-01	4.841E-01	4.344E-02	-0.196
		367.43		-1.828E-01	1.050E+00	1.688E+00	1.425E-01	-0.108
		413.65	*	-2.136E-01	2.203E-01	3.308E-01	2.703E-02	-0.646
HF-181		56.28		2.455E-01	1.214E+00	1.991E+00	1.553E-01	0.123
		57.53		4.004E-01	6.659E-01	1.060E+00	8.143E-02	0.378
		65.20		4.301E-01	1.252E+00	1.839E+00	1.436E-01	0.234
		133.02		-5.889E-02	7.785E-02	1.184E-01	1.021E-02	-0.497
		136.25		3.261E-01	4.835E-01	8.413E-01	7.229E-02	0.388
		345.85		3.162E-01	2.733E-01	3.761E-01	3.280E-02	0.841
		482.03	*	-5.398E-02	5.062E-02	7.335E-02	6.180E-03	-0.736
W-181		56.28		9.557E-02	4.750E-01	7.790E-01	6.076E-02	0.123
		57.53		1.569E-01	2.607E-01	4.149E-01	3.189E-02	0.378
		65.20	*	1.671E-01	4.864E-01	7.144E-01	5.577E-02	0.234
TA-182		67.75		4.779E-03	1.488E-01	2.149E-01	1.703E-02	0.022
		100.10		4.867E-02	2.106E-01	3.397E-01	2.987E-02	0.143
		152.43		1.794E-01	3.697E-01	6.364E-01	5.422E-02	0.282
		222.10		-3.225E-01	3.841E-01	6.121E-01	5.500E-02	-0.527
		1001.68		1.308E+00	2.542E+00	4.279E+00	3.800E-01	0.306
	+	1121.28		7.571E-01	3.189E-01	4.013E-01	3.370E-02	1.886
		1189.05		1.209E-01	3.401E-01	5.897E-01	4.803E-02	0.205
		1221.42	*	6.091E-02	2.256E-01	3.868E-01	3.188E-02	0.157
		1230.97		-9.411E-02	6.295E-01	8.901E-01	7.361E-02	-0.106
RE-183		57.98		1.096E-01	2.733E-01	4.051E-01	3.098E-02	0.271
		59.32		-1.641E-02	1.429E-01	2.057E-01	1.552E-02	-0.080
		67.20		-1.745E-01	2.731E-01	3.806E-01	3.006E-02	-0.459
		162.32	*	3.761E-02	1.243E-01	2.121E-01	1.806E-02	0.177

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	+	208.81		1.036E+00	1.569E+00	2.004E+00	1.782E-01	0.517
		291.72		-1.145E+00	1.234E+00	1.643E+00	1.498E-01	-0.697
RE-184		57.98		4.038E-01	1.007E+00	1.492E+00	1.141E-01	0.271
		59.32		-6.039E-02	5.261E-01	7.572E-01	5.711E-02	-0.080
		67.20		-6.426E-01	1.006E+00	1.402E+00	1.107E-01	-0.459
		161.27		1.249E-01	4.033E-01	6.886E-01	5.862E-02	0.181
		216.55		4.353E-02	3.128E-01	5.248E-01	4.696E-02	0.083
		252.85	*	1.747E-01	2.676E-01	4.573E-01	4.174E-02	0.382
		318.01		1.368E-01	5.311E-01	8.836E-01	7.935E-02	0.155
		792.07		-1.411E+00	1.251E+00	1.845E+00	1.617E-01	-0.765
		903.28		2.648E-01	1.254E+00	1.977E+00	1.790E-01	0.134
		920.93		4.451E-01	5.184E-01	9.187E-01	8.303E-02	0.484
OS-185		59.72		3.777E-02	3.788E-01	5.520E-01	4.163E-02	0.068
		61.14		2.103E-02	2.069E-01	3.012E-01	2.295E-02	0.070
		69.30		-7.735E-02	3.966E-01	5.637E-01	4.510E-02	-0.137
		592.07		1.329E+00	2.688E+00	4.684E+00	3.950E-01	0.284
		646.12	*	1.332E-03	4.985E-02	8.328E-02	6.881E-03	0.016
		717.42		-5.937E-01	1.072E+00	1.689E+00	1.430E-01	-0.351
		874.81		-8.916E-02	6.436E-01	1.037E+00	9.340E-02	-0.086
		880.27		1.771E-01	8.367E-01	1.401E+00	1.263E-01	0.126
RE-188		155.03	*	-3.028E-02	1.879E-01	3.155E-01	2.687E-02	-0.096
		477.96		4.345E+00	3.569E+00	6.249E+00	5.259E-01	0.695
		633.10		-2.397E+00	2.815E+00	4.294E+00	3.570E-01	-0.558
W-188	+	63.58		1.256E+02	1.004E+02	1.138E+02	8.798E+00	1.104
		227.08		8.904E+00	1.429E+01	2.445E+01	2.205E+00	0.364
		290.67	*	2.913E+00	9.030E+00	1.338E+01	1.220E+00	0.218
IR-192	+	295.96		1.100E+00	1.971E-01	3.292E-01	3.016E-02	3.340
		308.46		-2.631E-02	1.067E-01	1.723E-01	1.565E-02	-0.153
		316.51	*	1.146E-03	4.139E-02	6.796E-02	6.123E-03	0.017
		468.07		1.398E-02	7.795E-02	1.116E-01	1.008E-02	0.125
		604.41		6.071E-02	5.286E-01	7.801E-01	1.005E-01	0.078
		612.46		2.609E+00	1.023E+00	1.782E+00	1.727E-01	1.464
AU-195		65.12		9.208E-02	2.260E-01	3.329E-01	2.598E-02	0.277
		66.83		-7.740E-02	1.262E-01	1.761E-01	1.388E-02	-0.440
	+	75.70		1.327E+00	3.124E-01	5.229E-01	4.385E-02	2.538
		98.88	*	3.251E-01	2.831E-01	4.470E-01	3.947E-02	0.727
		129.76		3.478E+00	3.398E+00	5.599E+00	4.850E-01	0.621
TL-200		367.94	*	-2.129E-04	3.398E+00	Half-Life too short		
		579.30		2.829E-03	3.398E+00	Half-Life too short		
		828.27		-2.999E-03	3.398E+00	Half-Life too short		
		1205.75		2.112E-03	3.398E+00	Half-Life too short		
TL-201		68.90		1.820E-01	6.017E+00	9.214E+00	7.354E-01	0.020
		70.82		-5.572E-01	3.529E+00	5.020E+00	4.058E-01	-0.111
		80.30		-3.006E+00	6.101E+00	8.501E+00	7.426E-01	-0.354
		135.34		2.994E+01	2.904E+01	4.798E+01	4.127E+00	0.624
		167.43	*	-8.944E-01	8.077E+00	1.355E+01	1.155E+00	-0.066
TL-202		68.90		1.624E-02	5.370E-01	8.223E-01	6.563E-02	0.020
		70.82		-4.959E-02	3.141E-01	4.468E-01	3.611E-02	-0.111
		80.30		-2.676E-01	5.432E-01	7.568E-01	6.611E-02	-0.354

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		439.56	*	-2.958E-03	7.792E-02	1.252E-01	1.038E-02	-0.024
HG-203		70.83		-2.197E-01	1.358E+00	1.932E+00	2.564E-01	-0.114
		72.87		7.726E-01	7.911E-01	1.183E+00	1.530E-01	0.653
		82.60		1.173E-01	1.357E+00	1.952E+00	2.721E-01	0.060
		279.20	*	3.616E-02	4.803E-02	8.210E-02	7.698E-03	0.440
BI-207		72.80		1.630E-01	2.287E-01	3.401E-01	2.788E-02	0.479
	+	74.97		7.361E-01	1.732E-01	2.604E-01	2.171E-02	2.827
		84.90		2.965E-01	2.344E-01	3.509E-01	3.211E-02	0.845
		569.67		2.266E-02	3.430E-02	6.033E-02	5.111E-03	0.376
		1063.62	*	1.169E-02	6.097E-02	1.006E-01	8.719E-03	0.116
		1770.23		2.578E-01	6.328E-01	9.861E-01	8.257E-02	0.261
TL-207		81.07		-3.799E-01	2.711E-01	3.559E-01	3.132E-02	-1.067
		83.78		1.703E-01	1.554E-01	2.313E-01	2.092E-02	0.736
		94.90		4.539E-01	3.013E-01	4.589E-01	4.126E-02	0.989
		122.32		-9.602E-01	1.978E+00	3.059E+00	2.878E-01	-0.314
		144.24		-2.120E-01	7.685E-01	1.270E+00	1.216E-01	-0.167
		154.21		-1.519E-01	4.321E-01	7.197E-01	6.755E-02	-0.211
	+	269.46		5.835E-01	3.536E-01	3.853E-01	3.590E-02	1.515
		323.87	*	-2.826E-01	7.967E-01	1.275E+00	2.277E-01	-0.222
	+	338.28		8.059E+00	2.683E+00	2.835E+00	3.527E-01	2.843
		445.03		1.133E+00	2.532E+00	4.219E+00	5.008E-01	0.268
PO-209		260.50		1.179E+01	1.097E+01	1.908E+01	1.744E+00	0.618
		262.80		-2.271E+01	2.942E+01	4.640E+01	4.244E+00	-0.489
		896.60	*	-4.893E+00	8.800E+00	1.351E+01	1.223E+00	-0.362
BI-210		46.50	*	5.986E-01	5.011E+00	8.072E+00	7.620E-01	0.074
PB-210		46.50	*	5.986E-01	5.011E+00	8.072E+00	7.620E-01	0.074
PO-210		46.50	*	5.986E-01	5.011E+00	8.072E+00	6.920E-01	0.074
PB-211		404.84	*	-3.180E-01	1.166E+00	1.824E+00	1.142E+00	-0.174
		427.08		-1.341E+00	2.610E+00	3.830E+00	2.378E+00	-0.350
		831.96		-1.374E+00	1.627E+00	2.033E+00	1.275E+00	-0.676
BI-212	+	727.18	*	1.273E+00	7.740E-01	7.843E-01	7.772E-02	1.623
		785.46		1.446E+00	1.983E+00	3.476E+00	3.038E-01	0.416
		1620.62		8.929E-01	1.632E+00	2.895E+00	2.492E-01	0.308
PO-215		81.07		-3.799E-01	2.711E-01	3.559E-01	3.132E-02	-1.067
		83.78		1.703E-01	1.554E-01	2.313E-01	2.092E-02	0.736
		94.90		4.539E-01	3.013E-01	4.589E-01	4.126E-02	0.989
		122.32		-9.602E-01	1.978E+00	3.059E+00	2.878E-01	-0.314
		144.24		-2.120E-01	7.685E-01	1.270E+00	1.216E-01	-0.167
		154.21		-1.519E-01	4.321E-01	7.197E-01	6.755E-02	-0.211
	+	269.46		5.835E-01	3.536E-01	3.853E-01	3.590E-02	1.515
		323.87	*	-2.826E-01	7.967E-01	1.275E+00	2.277E-01	-0.222
	+	338.28		8.059E+00	2.683E+00	2.835E+00	3.527E-01	2.843
		445.03		1.133E+00	2.532E+00	4.219E+00	5.008E-01	0.268
RN-219	+	271.23		7.487E-01	4.555E-01	5.331E-01	5.736E-02	1.404
		401.81	*	3.208E-01	5.134E-01	8.619E-01	1.270E-01	0.372
RN-220		549.76	*	-7.175E+00	2.872E+01	4.735E+01	4.019E+00	-0.152
RA-223		81.07		-3.799E-01	2.711E-01	3.559E-01	3.132E-02	-1.067
		83.78		1.703E-01	1.554E-01	2.313E-01	2.092E-02	0.736
		94.90		4.539E-01	3.013E-01	4.589E-01	4.126E-02	0.989

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-9.602E-01	1.978E+00	3.059E+00	2.878E-01	-0.314
		144.24		-2.120E-01	7.685E-01	1.270E+00	1.216E-01	-0.167
		154.21		-1.519E-01	4.321E-01	7.197E-01	6.755E-02	-0.211
	+	269.46		5.835E-01	3.536E-01	3.853E-01	3.590E-02	1.515
		323.87	*	-2.826E-01	7.967E-01	1.275E+00	2.277E-01	-0.222
	+	338.28		8.059E+00	2.683E+00	2.835E+00	3.527E-01	2.843
		445.03		1.133E+00	2.532E+00	4.219E+00	5.008E-01	0.268
AC-227		79.80		2.472E-01	1.958E+00	2.825E+00	6.083E-01	0.087
		236.00		1.557E-01	2.835E-01	4.278E-01	5.374E-02	0.364
		256.20	*	-2.744E-01	4.577E-01	7.315E-01	1.144E-01	-0.375
		286.10		-4.020E-01	1.686E+00	2.736E+00	3.705E-01	-0.147
	+	299.80		2.780E+00	2.189E+00	2.841E+00	5.035E-01	0.978
		304.40		2.372E-01	2.432E+00	3.530E+00	6.583E-01	0.067
		334.20		-1.849E+00	2.991E+00	4.016E+00	7.836E-01	-0.460
TH-227		79.80		2.472E-01	1.958E+00	2.825E+00	6.161E-01	0.087
	+	94.00		1.538E+01	4.693E+00	4.802E+00	1.054E+00	3.203
		236.00		1.557E-01	2.834E-01	4.278E-01	4.889E-02	0.364
		256.20	*	-2.744E-01	4.584E-01	7.315E-01	1.340E-01	-0.375
		286.10		-4.020E-01	1.733E+00	2.736E+00	2.748E+00	-0.147
	+	299.80		2.780E+00	2.189E+00	2.841E+00	5.035E-01	0.978
		304.40		2.372E-01	2.432E+00	3.530E+00	6.583E-01	0.067
		334.20		-1.849E+00	2.991E+00	4.016E+00	7.836E-01	-0.460
TH-229		85.43		3.590E-01	2.401E-01	3.615E-01	3.327E-02	0.993
	+	88.47		4.159E-01	1.360E-01	2.411E-01	2.272E-02	1.725
		100.00		1.663E-01	2.152E-01	3.546E-01	3.119E-02	0.469
		193.63	*	3.423E-01	5.739E-01	9.844E-01	8.624E-02	0.348
		210.97		5.847E-01	1.005E+00	1.524E+00	1.358E-01	0.384
PA-231		283.67	*	-4.875E-01	1.692E+00	2.738E+00	4.239E-01	-0.178
	+	301.29		1.112E+00	8.646E-01	1.121E+00	1.409E-01	0.992
TH-231		81.07		-3.799E-01	2.711E-01	3.559E-01	3.132E-02	-1.067
		83.78		1.703E-01	1.554E-01	2.313E-01	2.092E-02	0.736
		94.90		4.539E-01	3.013E-01	4.589E-01	4.126E-02	0.989
		122.32		-9.602E-01	1.978E+00	3.059E+00	2.878E-01	-0.314
		144.24		-2.120E-01	7.685E-01	1.270E+00	1.216E-01	-0.167
		154.21		-1.519E-01	4.321E-01	7.197E-01	6.755E-02	-0.211
	+	269.46		5.835E-01	3.536E-01	3.853E-01	3.590E-02	1.515
		323.87	*	-2.826E-01	7.967E-01	1.275E+00	2.277E-01	-0.222
	+	338.28		8.059E+00	2.683E+00	2.835E+00	3.527E-01	2.843
		445.03		1.133E+00	2.532E+00	4.219E+00	5.008E-01	0.268
U-231		84.21		7.469E+00	6.735E+00	1.003E+01	9.109E-01	0.745
	+	92.29		1.530E+01	3.526E+00	5.207E+00	4.758E-01	2.939
		95.87	*	-1.289E+00	1.428E+00	1.922E+00	1.719E-01	-0.671
		108.00		1.218E+00	2.366E+00	3.853E+00	3.340E-01	0.316
PA-233	+	75.28		2.148E+01	5.744E+00	7.902E+00	1.201E+00	2.718
	+	86.59		5.963E+00	2.469E+00	3.320E+00	8.982E-01	1.796
	+	300.12		7.749E-01	6.061E-01	7.956E-01	1.205E-01	0.974
		311.98	*	5.870E-03	7.220E-02	1.190E-01	1.102E-02	0.049
		340.50		2.970E+00	1.085E+00	1.560E+00	3.727E-01	1.904
		398.62		9.781E-02	2.522E+00	4.096E+00	1.084E+00	0.024

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-5.753E-01	2.152E+00	3.193E+00	6.827E-01	-0.180
PA-234	+	63.00		3.641E+00	2.948E+00	3.348E+00	5.026E-01	1.088
		94.67		6.661E-01	2.300E-01	3.522E-01	4.463E-02	1.891
		98.44		1.336E-01	1.418E-01	1.807E-01	1.009E-01	0.740
		99.86		4.018E-01	5.586E-01	9.057E-01	7.970E-02	0.444
		111.00		-4.620E-02	2.093E-01	3.295E-01	3.994E-02	-0.140
		131.20		-1.272E-01	1.291E-01	1.942E-01	1.679E-02	-0.655
		152.70		8.978E-02	3.576E-01	6.099E-01	1.037E-01	0.147
	+	186.00		9.125E+00	3.840E+00	3.348E+00	1.046E+00	2.725
		226.40		2.614E-01	4.581E-01	7.805E-01	1.051E-01	0.335
		227.20		2.979E-01	4.825E-01	8.251E-01	7.440E-02	0.361
		248.90		-6.143E-01	9.335E-01	1.476E+00	3.338E-01	-0.416
		293.70		3.594E+00	1.150E+00	1.704E+00	2.991E-01	2.109
		369.80		2.547E-01	9.636E-01	1.594E+00	3.458E-01	0.160
		568.70		-5.429E-01	1.129E+00	1.824E+00	1.545E-01	-0.298
		569.50		2.140E-01	3.054E-01	5.386E-01	4.563E-02	0.397
		574.00		-9.454E-01	1.669E+00	2.673E+00	2.262E-01	-0.354
		699.00		-5.822E-01	7.859E-01	1.204E+00	2.284E-01	-0.484
		706.10		2.103E-01	1.219E+00	2.044E+00	9.106E-01	0.103
		733.00		-6.356E-01	5.223E-01	5.949E-01	1.318E-01	-1.068
		742.81		-1.285E+00	1.803E+00	2.417E+00	1.625E+00	-0.532
		796.30		1.333E+00	1.220E+00	2.090E+00	5.665E-01	0.638
		805.60		-4.452E-01	1.080E+00	1.685E+00	5.174E-01	-0.264
		819.60		1.779E-01	1.395E+00	2.319E+00	8.832E-01	0.077
		826.30		1.137E-01	9.457E-01	1.570E+00	7.030E-01	0.072
		831.60		-4.913E-01	7.031E-01	1.044E+00	3.124E-01	-0.471
		876.40		4.957E-01	1.042E+00	1.575E+00	1.620E+00	0.315
		880.51		1.942E-01	2.905E-01	5.102E-01	4.602E-02	0.381
		883.24		-2.185E-01	3.493E-01	4.774E-01	3.212E-01	-0.458
		899.00		-3.995E-01	1.006E+00	1.550E+00	6.790E-01	-0.258
		925.00		-1.081E+00	1.430E+00	2.137E+00	1.930E-01	-0.506
		926.50		-9.841E-02	2.043E-01	3.128E-01	7.951E-02	-0.315
		946.00	*	5.551E-02	3.326E-01	5.513E-01	1.044E-01	0.101
		949.00		8.624E-02	4.973E-01	8.248E-01	7.422E-02	0.105
		980.50		4.107E-01	8.500E-01	1.452E+00	1.297E-01	0.283
		1394.10		6.183E-02	1.356E+00	2.263E+00	1.473E+00	0.027
PA-234M		766.42		1.098E+01	1.349E+01	2.185E+01	1.109E+01	0.503
		1001.03	*	5.428E+00	5.565E+00	9.751E+00	9.939E-01	0.557
U-235	+	89.95		3.765E+00	2.076E+00	2.239E+00	6.953E-01	1.682
	+	93.35		4.785E+00	1.686E+00	1.588E+00	4.473E-01	3.013
		105.00		1.327E-01	1.183E+00	1.895E+00	5.659E-01	0.070
		143.76	*	-8.610E-02	2.397E-01	3.944E-01	6.890E-02	-0.218
		163.35		9.774E-02	5.387E-01	9.145E-01	1.740E-01	0.107
	+	185.71		3.379E-01	9.975E-02	1.233E-01	1.071E-02	2.742
		205.31		5.060E-01	6.730E-01	1.024E+00	1.965E-01	0.494
NP-236		94.67		5.089E-01	1.687E-01	2.675E-01	2.408E-02	1.902
		98.44		1.010E-01	9.157E-02	1.366E-01	1.208E-02	0.740
		111.00		-3.494E-02	1.583E-01	2.492E-01	2.160E-02	-0.140
		160.31	*	1.248E-02	8.915E-02	1.513E-01	1.288E-02	0.082

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.008E-01	1.882E-01	3.088E-01	2.720E-02	0.650
		117.00	*	3.627E-03	2.210E-01	3.514E-01	3.060E-02	0.010
	+	209.75		8.171E-01	1.237E+00	1.570E+00	1.397E-01	0.520
		228.18		3.195E-02	2.585E-01	4.327E-01	3.904E-02	0.074
		277.60		2.022E-01	2.145E-01	3.692E-01	3.377E-02	0.548
		334.30		-1.181E+00	1.679E+00	2.247E+00	1.987E-01	-0.526
AM-241		59.54	*	1.190E-02	1.997E-01	2.904E-01	2.393E-02	0.041
CM-243		99.55		2.066E-01	1.936E-01	3.178E-01	2.799E-02	0.650
		103.76	*	-4.600E-02	1.085E-01	1.696E-01	1.477E-02	-0.271
		117.00		3.731E-03	2.274E-01	3.615E-01	3.148E-02	0.010
	+	209.75		8.055E-01	1.219E+00	1.548E+00	1.377E-01	0.520
		228.18		3.229E-02	2.612E-01	4.372E-01	3.945E-02	0.074
		277.60		2.038E-01	2.162E-01	3.722E-01	3.404E-02	0.548
AM-246		798.80		-1.230E-01	1.815E-01	2.809E-01	2.468E-02	-0.438
		1036.00		-1.636E-01	3.374E-01	5.131E-01	4.502E-02	-0.319
		1062.04		-5.678E-02	2.683E-01	4.228E-01	3.668E-02	-0.134
		1078.86	*	5.056E-02	1.512E-01	2.539E-01	2.185E-02	0.199
CM-247		278.00		6.327E-01	8.830E-01	1.506E+00	1.378E-01	0.420
		287.40		3.680E-01	1.367E+00	2.285E+00	2.086E-01	0.161
		402.60	*	2.988E-02	4.478E-02	7.565E-02	6.135E-03	0.395
CF-249		252.85		6.554E-01	1.004E+00	1.716E+00	1.566E-01	0.382
		333.44		-8.420E-02	2.201E-01	3.045E-01	2.695E-02	-0.277
		387.95	*	4.416E-02	4.864E-02	8.337E-02	6.762E-03	0.530
CF-251		176.60	*	1.398E-02	1.402E-01	2.367E-01	2.037E-02	0.059
		227.00		2.542E-01	4.310E-01	7.361E-01	6.637E-02	0.345
		285.00		-3.434E-01	1.933E+00	3.151E+00	2.878E-01	-0.109

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960008         *
* Acquisition date : 12-FEB-2010 15:53:44 Detector SN#     :                  *
* Detector ID       : GAM01               Sensitivity      : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000           *
* Elapsed real time:    0 02:00:01.12     Half life ratio :  8.000           *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID            *
* Sample ID         : G245960008           Analyst initials: MXR1             *
* Batch Number      : 948717               Sample Quantity : 1.2338E+02 GRAM  *
* Recovery          :    1.00000           Carrier Weight :    0.00000        *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
* Standard Weight   :   0.00000                                               *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope       :                  *
* MSD DPM           :    0.000            MSD Isotope      :                  *
* LCS DPM           :    0.000            LCS Isotope      :                  *
* LCSD DPM          :    0.000            LCSD Isotope     :                  *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.202E+01	2.547E+00	5.536E-01	0.000E+00
CD-109	3.099E+00	9.933E-01	1.457E+00	0.000E+00
SN-126	3.046E-01	9.763E-02	1.439E-01	0.000E+00
BA-137M	2.559E-01	6.440E-02	6.438E-02	0.000E+00
CS-137	2.705E-01	6.809E-02	6.806E-02	0.000E+00
TL-208	5.658E-01	1.074E-01	6.088E-02	0.000E+00
BI-211	4.065E+00	6.637E-01	3.856E-01	0.000E+00
PB-212	1.644E+00	2.061E-01	1.069E-01	0.000E+00
PO-212	1.644E+00	2.061E-01	1.069E-01	0.000E+00
BI-214	1.206E+00	2.092E-01	1.190E-01	0.000E+00
PB-214	1.414E+00	2.419E-01	1.390E-01	0.000E+00
PO-214	1.414E+00	2.419E-01	1.390E-01	0.000E+00
PO-216	1.644E+00	2.061E-01	1.069E-01	0.000E+00
PO-218	1.414E+00	2.419E-01	1.390E-01	0.000E+00
RA-224	4.843E+00	1.296E+00	1.217E+00	0.000E+00
RA-226	1.206E+00	2.092E-01	1.190E-01	0.000E+00
AC-228	1.585E+00	3.518E-01	2.281E-01	0.000E+00
RA-228	1.585E+00	3.518E-01	2.281E-01	0.000E+00
TH-228	1.669E+00	2.093E-01	1.085E-01	0.000E+00
TH-230	1.206E+00	2.092E-01	1.190E-01	0.000E+00
TH-232	1.585E+00	3.518E-01	2.281E-01	0.000E+00
TH-234	3.124E+00	2.494E+00	2.468E+00	0.000E+00
U-234	1.206E+00	2.092E-01	1.190E-01	0.000E+00
NP-237	8.945E-01	3.390E-01	4.655E-01	0.000E+00
U-238	3.124E+00	2.494E+00	2.468E+00	0.000E+00
AM-243	4.101E-01	9.457E-02	9.947E-02	0.000E+00
ANH-511	1.368E-01	7.876E-02	5.593E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	4.121E-01	3.738E-01	6.696E-01	0.000E+00	NOT IDENT.
NA-22	-1.132E-02	4.963E-02	8.251E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.575E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	3.759E-03	3.295E-02	5.588E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.525E-02	9.047E-02	0.000E+00	FAIL ABUN
SC-46	4.070E-02	4.645E-02	8.415E-02	0.000E+00	FAIL ABUN
V-48	1.809E-02	8.243E-02	1.403E-01	0.000E+00	NOT IDENT.
CR-51	-3.748E-01	4.342E-01	6.991E-01	0.000E+00	NOT IDENT.
MN-52	8.964E-02	2.731E-01	4.818E-01	0.000E+00	NOT IDENT.
MN-54	-2.059E-04	4.116E-02	6.933E-02	0.000E+00	NOT IDENT.
CO-56	-2.091E-02	4.198E-02	6.683E-02	0.000E+00	FAIL ABUN
CO-57	-1.451E-02	2.814E-02	4.578E-02	0.000E+00	NOT IDENT.
CO-58	4.453E-03	4.199E-02	7.167E-02	0.000E+00	NOT IDENT.
FE-59	-2.801E-03	9.743E-02	1.600E-01	0.000E+00	NOT IDENT.
CO-60	2.391E-02	4.260E-02	7.730E-02	0.000E+00	NOT IDENT.
ZN-65	9.548E-02	9.993E-02	1.641E-01	0.000E+00	NOT IDENT.
GE-68	1.199E+00	1.226E+00	2.262E+00	0.000E+00	NOT IDENT.
AS-73	-3.856E-01	1.074E+00	1.831E+00	0.000E+00	NOT IDENT.
AS-74	4.583E-03	9.403E-02	1.631E-01	0.000E+00	NOT IDENT.
SE-75	-2.419E-02	5.329E-02	7.769E-02	0.000E+00	NOT IDENT.
BR-77	2.205E+00	1.298E+01	2.169E+01	0.000E+00	FAIL ABUN
SR-82	-1.120E-01	4.162E-01	6.870E-01	0.000E+00	NOT IDENT.
RB-83	2.049E-02	8.516E-02	1.431E-01	0.000E+00	NOT IDENT.
RB-84	-6.326E-03	7.240E-02	1.203E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	1.015E+01	1.699E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.208E-02	8.717E-02	0.000E+00	NOT IDENT.
RB-86	5.642E-01	7.801E-01	1.402E+00	0.000E+00	NOT IDENT.
Y-88	-1.215E-02	4.097E-02	6.339E-02	0.000E+00	NOT IDENT.
ZR-88	-1.164E-02	3.577E-02	5.877E-02	0.000E+00	NOT IDENT.
Y-91	6.605E+00	2.040E+01	3.597E+01	0.000E+00	NOT IDENT.
NB-94	2.412E-02	3.783E-02	6.778E-02	0.000E+00	NOT IDENT.
NB-95	-2.107E-02	4.585E-02	7.452E-02	0.000E+00	NOT IDENT.
NB-95M	7.759E-02	1.474E-01	2.321E-01	0.000E+00	NOT IDENT.
ZR-95	4.829E-02	7.598E-02	1.363E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.323E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.015E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	7.199E+00	1.339E+01	2.376E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.540E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.205E-02	3.822E-02	6.728E-02	0.000E+00	NOT IDENT.
RH-102	-3.771E-03	3.346E-02	5.502E-02	0.000E+00	NOT IDENT.
RU-103	2.578E-02	4.666E-02	8.045E-02	0.000E+00	FAIL ABUN
RH-106	-1.680E-01	3.630E-01	6.011E-01	0.000E+00	FAIL ABUN
RU-106	-1.680E-01	3.626E-01	6.011E-01	0.000E+00	FAIL ABUN
AG-108M	6.575E-03	3.786E-02	6.404E-02	0.000E+00	NOT IDENT.
AG-110M	-1.035E-03	4.506E-02	6.699E-02	0.000E+00	NOT IDENT.
IN-111	3.379E-01	1.286E+00	1.993E+00	0.000E+00	NOT IDENT.
IN-113M	-2.931E-02	5.209E-02	8.412E-02	0.000E+00	NOT IDENT.
SN-113	-2.931E-02	5.209E-02	8.412E-02	0.000E+00	NOT IDENT.
IN-114M	-2.876E-02	2.215E-01	3.399E-01	0.000E+00	NOT IDENT.
CD-115	4.781E+00	1.165E+01	2.091E+01	0.000E+00	NOT IDENT.
SN-117M	-2.648E-02	5.990E-02	1.042E-01	0.000E+00	NOT IDENT.
SB-122	2.263E+00	2.246E+00	4.169E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.698E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.490E-02	3.125E-02	5.350E-02	0.000E+00	NOT IDENT.
I-124	-1.137E-01	7.253E-01	1.165E+00	0.000E+00	NOT IDENT.
SB-124	-2.434E-03	9.134E-02	1.512E-01	0.000E+00	FAIL ABUN
SB-125	-5.819E-02	1.096E-01	1.759E-01	0.000E+00	FAIL ABUN
TE-125M	3.818E+00	1.050E+01	1.791E+01	0.000E+00	NOT IDENT.
I-126	3.911E-01	2.582E-01	3.915E-01	0.000E+00	FAIL ABUN
SB-126	-1.128E-01	1.924E-01	2.634E-01	0.000E+00	FAIL ABUN
SB-127	-1.140E-01	1.380E+00	2.343E+00	0.000E+00	NOT IDENT.
XE-127	-6.723E-02	5.421E-02	8.938E-02	0.000E+00	NOT IDENT.
I-131	3.754E-02	1.296E-01	2.231E-01	0.000E+00	NOT IDENT.
TE-132	9.474E-02	7.820E-01	1.367E+00	0.000E+00	NOT IDENT.
BA-133	-4.032E-03	5.752E-02	8.467E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.554E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.373E-02	6.081E-02	1.071E-01	0.000E+00	NOT IDENT.
CS-135	-7.149E-03	1.806E-01	2.723E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.449E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.887E-03	1.234E-01	2.039E-01	0.000E+00	FAIL ABUN
CE-139	1.105E-02	3.342E-02	5.981E-02	0.000E+00	NOT IDENT.
BA-140	-9.381E-03	2.667E-01	4.628E-01	0.000E+00	NOT IDENT.
LA-140	-1.918E-02	9.444E-02	1.486E-01	0.000E+00	NOT IDENT.
CE-141	6.958E-02	6.688E-02	1.231E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.891E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	9.825E-03	2.332E-01	3.885E-01	0.000E+00	NOT IDENT.
PM-144	-7.839E-03	3.616E-02	6.059E-02	0.000E+00	NOT IDENT.
PR-144	-5.312E-01	2.451E+00	4.106E+00	0.000E+00	NOT IDENT.

PM-146	2.506E-02	4.962E-02	8.570E-02	0.000E+00	NOT IDENT.
ND-147	-3.492E-01	5.772E-01	9.520E-01	0.000E+00	FAIL ABUN
PM-149	-4.737E+01	1.013E+02	1.686E+02	0.000E+00	NOT IDENT.
EU-152	-9.665E-03	1.235E-01	1.822E-01	0.000E+00	FAIL ABUN
GD-153	3.141E-02	1.020E-01	1.544E-01	0.000E+00	NOT IDENT.
EU-154	1.339E-03	1.356E-01	2.314E-01	0.000E+00	NOT IDENT.
EU-155	1.827E-02	1.193E-01	2.020E-01	0.000E+00	FAIL ABUN
TB-160	4.833E-02	1.489E-01	2.585E-01	0.000E+00	FAIL ABUN
HO-166M	4.103E-02	6.742E-02	1.207E-01	0.000E+00	NOT IDENT.
TM-171	-2.964E+01	3.782E+01	5.550E+01	0.000E+00	NOT IDENT.
LU-176	-7.081E-03	2.876E-02	4.669E-02	0.000E+00	FAIL ABUN
LU-177	1.158E+00	1.717E+00	2.273E+00	0.000E+00	FAIL ABUN
LU-177M	-2.136E-01	2.159E-01	3.360E-01	0.000E+00	NOT IDENT.
HF-181	-5.398E-02	4.960E-02	7.435E-02	0.000E+00	NOT IDENT.
W-181	1.671E-01	4.767E-01	7.431E-01	0.000E+00	NOT IDENT.
TA-182	6.091E-02	2.211E-01	3.872E-01	0.000E+00	FAIL ABUN
RE-183	3.761E-02	1.218E-01	2.181E-01	0.000E+00	FAIL ABUN
RE-184	1.747E-01	2.623E-01	4.675E-01	0.000E+00	NOT IDENT.
OS-185	1.332E-03	4.885E-02	8.409E-02	0.000E+00	NOT IDENT.
RE-188	-3.028E-02	1.841E-01	3.245E-01	0.000E+00	NOT IDENT.
W-188	2.913E+00	8.849E+00	1.365E+01	0.000E+00	FAIL ABUN
IR-192	1.146E-03	4.056E-02	6.927E-02	0.000E+00	FAIL ABUN
AU-195	3.251E-01	2.775E-01	4.625E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.362E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-8.944E-01	7.915E+00	1.393E+01	0.000E+00	NOT IDENT.
TL-202	-2.958E-03	7.636E-02	1.270E-01	0.000E+00	NOT IDENT.
HG-203	3.616E-02	4.707E-02	8.382E-02	0.000E+00	NOT IDENT.
BI-207	1.169E-02	5.975E-02	1.009E-01	0.000E+00	FAIL ABUN
TL-207	-2.826E-01	7.807E-01	1.299E+00	0.000E+00	FAIL ABUN
PO-209	-4.893E+00	8.624E+00	1.358E+01	0.000E+00	NOT IDENT.
BI-210	5.986E-01	4.911E+00	8.432E+00	0.000E+00	NOT IDENT.
PB-210	5.986E-01	4.911E+00	8.432E+00	0.000E+00	NOT IDENT.
PO-210	5.986E-01	4.911E+00	8.432E+00	0.000E+00	NOT IDENT.
PB-211	-3.180E-01	1.142E+00	1.853E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.585E-01	7.906E-01	0.000E+00	FAIL ABUN
PO-215	-2.826E-01	7.807E-01	1.299E+00	0.000E+00	FAIL ABUN
RN-219	3.208E-01	5.032E-01	8.758E-01	0.000E+00	FAIL ABUN
RN-220	-7.175E+00	2.814E+01	4.791E+01	0.000E+00	NOT IDENT.
RA-223	-2.826E-01	7.807E-01	1.299E+00	0.000E+00	FAIL ABUN
AC-227	-2.744E-01	4.485E-01	7.476E-01	0.000E+00	FAIL ABUN
TH-227	-2.744E-01	4.493E-01	7.476E-01	0.000E+00	FAIL ABUN
TH-229	3.423E-01	5.624E-01	1.010E+00	0.000E+00	FAIL ABUN
PA-231	-4.875E-01	1.658E+00	2.794E+00	0.000E+00	FAIL ABUN
TH-231	-2.826E-01	7.807E-01	1.299E+00	0.000E+00	FAIL ABUN
U-231	-1.289E+00	1.400E+00	1.989E+00	0.000E+00	FAIL ABUN
PA-233	5.870E-03	7.076E-02	1.214E-01	0.000E+00	FAIL ABUN
PA-234	5.551E-02	3.259E-01	5.538E-01	0.000E+00	FAIL ABUN
PA-234M	5.428E+00	5.454E+00	9.788E+00	0.000E+00	NOT IDENT.
U-235	-8.610E-02	2.349E-01	4.061E-01	0.000E+00	FAIL ABUN
NP-236	1.248E-02	8.737E-02	1.556E-01	0.000E+00	NOT IDENT.
NP-239	3.627E-03	2.166E-01	3.628E-01	0.000E+00	FAIL ABUN
AM-241	1.190E-02	1.957E-01	3.024E-01	0.000E+00	NOT IDENT.
CM-243	-4.600E-02	1.063E-01	1.753E-01	0.000E+00	FAIL ABUN
AM-246	5.056E-02	1.482E-01	2.546E-01	0.000E+00	NOT IDENT.
CM-247	2.988E-02	4.389E-02	7.686E-02	0.000E+00	NOT IDENT.
CF-249	4.416E-02	4.767E-02	8.474E-02	0.000E+00	NOT IDENT.
CF-251	1.398E-02	1.374E-01	2.431E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:54:14.75

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960008.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:53:44
Sample ID : G245960008 Sample quantity : 1.23380E+02 GRAM
Detector name : GAM01 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.12 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	730	10.67*	9.456E-01	2.202E+01	2.202E+01	11.80
CD-109	88.03	193	3.72*	5.198E+00	3.030E+00	3.099E+00	32.70
SN-126	64.28	107	9.60	2.737E+00	1.236E+00	1.236E+00	80.90
	86.94	193	8.90	5.198E+00	1.266E+00	1.266E+00	52.02
	87.57	193	37.00*	5.198E+00	3.046E-01	3.046E-01	32.70
BA-137M	661.65	145	89.98*	1.924E+00	2.556E-01	2.559E-01	25.68
CS-137	661.65	145	85.12*	1.924E+00	2.702E-01	2.705E-01	25.69
TL-208	277.35	------	6.80	3.885E+00	------ Line Not Found		------
	510.84	108	21.60	2.392E+00	6.332E-01	6.332E-01	59.35
	583.14	336	84.20*	2.143E+00	5.658E-01	5.658E-01	19.37
	860.37	------	12.46	1.522E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.944E+00	------ Line Not Found		------
	351.07	558	12.94*	3.226E+00	4.065E+00	4.065E+00	16.66
PB-212	74.81	369	10.70	4.150E+00	2.529E+00	2.529E+00	25.32
	77.11	527	18.00	4.381E+00	2.034E+00	2.034E+00	17.74
	87.30	193	8.00	5.198E+00	1.409E+00	1.409E+00	34.20
	238.63	1047	44.60*	4.345E+00	1.644E+00	1.644E+00	12.79
	300.09	61	3.41	3.650E+00	1.500E+00	1.500E+00	77.49
PO-212	74.81	369	10.70	4.150E+00	2.529E+00	2.529E+00	25.32
	77.11	527	18.00	4.381E+00	2.034E+00	2.034E+00	17.74
	87.30	193	8.00	5.198E+00	1.409E+00	1.409E+00	34.20
	115.19	------	0.60	6.043E+00	------ Line Not Found		------
	238.63	1047	44.60*	4.345E+00	1.644E+00	1.644E+00	12.79
	300.09	61	3.41	3.650E+00	1.500E+00	1.500E+00	77.49
BI-214	609.31	379	46.30*	2.064E+00	1.206E+00	1.206E+00	17.71
	1120.29	95	15.10	1.193E+00	1.601E+00	1.601E+00	42.64
	1764.49	77	15.80	8.256E-01	1.799E+00	1.799E+00	31.69
PB-214	74.81	369	6.21	4.150E+00	4.358E+00	4.358E+00	24.67
	77.11	527	10.50	4.381E+00	3.487E+00	3.487E+00	19.30
	87.30	193	4.67	5.198E+00	2.413E+00	2.414E+00	33.60
	241.98	271	7.49	4.305E+00	2.554E+00	2.554E+00	27.87
	295.21	336	19.20	3.699E+00	1.441E+00	1.441E+00	18.95

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	558	37.20*	3.226E+00	1.414E+00	1.414E+00	17.46
PO-214	74.81	369	6.21	4.150E+00	4.358E+00	4.358E+00	24.67
	77.11	527	10.50	4.381E+00	3.487E+00	3.487E+00	19.30
	87.30	193	4.67	5.198E+00	2.413E+00	2.414E+00	33.60
	241.98	271	7.49	4.305E+00	2.554E+00	2.554E+00	27.87
	295.21	336	19.20	3.699E+00	1.441E+00	1.441E+00	18.95
	351.92	558	37.20*	3.226E+00	1.414E+00	1.414E+00	17.46
PO-216	74.81	369	10.70	4.150E+00	2.529E+00	2.529E+00	25.32
	77.11	527	18.00	4.381E+00	2.034E+00	2.034E+00	17.74
	87.30	193	8.00	5.198E+00	1.409E+00	1.409E+00	34.20
	238.63	1047	44.60*	4.345E+00	1.644E+00	1.644E+00	12.79
	300.09	61	3.41	3.650E+00	1.500E+00	1.500E+00	77.49
PO-218	74.81	369	6.21	4.150E+00	4.358E+00	4.358E+00	24.67
	77.11	527	10.50	4.381E+00	3.487E+00	3.487E+00	19.30
	87.30	193	4.67	5.198E+00	2.413E+00	2.414E+00	33.60
	241.98	271	7.49	4.305E+00	2.554E+00	2.554E+00	27.87
	295.21	336	19.20	3.699E+00	1.441E+00	1.441E+00	18.95
	351.92	558	37.20*	3.226E+00	1.414E+00	1.414E+00	17.46
RA-224	240.98	271	3.95*	4.305E+00	4.843E+00	4.843E+00	27.30
RA-226	609.31	379	46.30*	2.064E+00	1.206E+00	1.206E+00	17.71
	1120.29	95	15.10	1.193E+00	1.601E+00	1.601E+00	42.64
	1764.49	77	15.80	8.256E-01	1.799E+00	1.799E+00	31.69
AC-228	338.32	240	11.40	3.325E+00	1.930E+00	1.930E+00	51.57
	911.07	208	27.70*	1.444E+00	1.585E+00	1.585E+00	22.65
	969.11	106	16.60	1.364E+00	1.419E+00	1.419E+00	36.05
RA-228	338.32	240	11.40	3.325E+00	1.930E+00	1.930E+00	51.57
	911.07	208	27.70*	1.444E+00	1.585E+00	1.585E+00	22.65
	969.11	106	16.60	1.364E+00	1.419E+00	1.419E+00	36.05
TH-228	74.81	369	10.70	4.150E+00	2.529E+00	2.568E+00	23.56
	77.11	527	18.00	4.381E+00	2.034E+00	2.065E+00	17.74
	87.30	193	8.00	5.198E+00	1.409E+00	1.430E+00	32.70
	238.63	1047	44.60*	4.345E+00	1.644E+00	1.669E+00	12.79
	300.09	61	3.41	3.650E+00	1.500E+00	1.523E+00	97.01
TH-230	609.31	379	46.30*	2.064E+00	1.206E+00	1.206E+00	17.71
	1120.29	95	15.10	1.193E+00	1.601E+00	1.601E+00	42.64
	1764.49	77	15.80	8.256E-01	1.799E+00	1.799E+00	31.69
TH-232	338.32	240	11.40	3.325E+00	1.930E+00	1.930E+00	32.11
	911.07	208	27.70*	1.444E+00	1.585E+00	1.585E+00	22.65
	969.11	106	16.60	1.364E+00	1.419E+00	1.419E+00	36.05
TH-234	63.29	107	3.80*	2.737E+00	3.124E+00	3.124E+00	81.48
	92.38	389	5.41	5.501E+00	3.980E+00	3.980E+00	27.99
U-234	609.31	379	46.30*	2.064E+00	1.206E+00	1.206E+00	17.71
	1120.29	95	15.10	1.193E+00	1.601E+00	1.601E+00	42.64
	1764.49	77	15.80	8.256E-01	1.799E+00	1.799E+00	31.69
NP-237	86.50	193	12.60*	5.198E+00	8.945E-01	8.945E-01	38.67
	95.87	------	2.60	5.636E+00	------ Line Not Found		------
U-238	63.29	107	3.80*	2.737E+00	3.124E+00	3.124E+00	81.48
	92.38	389	5.41	5.501E+00	3.980E+00	3.980E+00	23.04
AM-243	74.67	369	66.00*	4.150E+00	4.101E-01	4.101E-01	23.53

Sample ID : G245960008 Acquisition date : 12-FEB-2010 15:53:44

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	86.72	193	0.34	5.198E+00	3.354E+01	3.354E+01	32.70
	117.66	------	0.55	6.054E+00	------ Line Not Found		------
	142.18	------	0.13	5.887E+00	------ Line Not Found		------
ANH-511	511.00	108	100.00*	2.392E+00	1.368E-01	1.368E-01	58.76

Flag: "*" = Keyline

Sample ID : G245960008 Acquisition date : 12-FEB-2010 15:53:44

Total number of lines in spectrum 31
Number of unidentified lines 2
Number of lines tentatively identified by NID 29 93.55%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.202E+01	2.202E+01	0.260E+01	11.80	
CD-109	464.00D	1.02	3.030E+00	3.099E+00	1.014E+00	32.70	
SN-126	1.00E+05Y	1.00	3.046E-01	3.046E-01	0.996E-01	32.70	
BA-137M	30.17Y	1.00	2.556E-01	2.559E-01	0.657E-01	25.68	
CS-137	30.17Y	1.00	2.702E-01	2.705E-01	0.695E-01	25.69	
TL-208	1.41E+10Y	1.00	5.658E-01	5.658E-01	1.096E-01	19.37	
BI-211	7.04E+08Y	1.00	4.065E+00	4.065E+00	0.677E+00	16.66	
PB-212	1.41E+10Y	1.00	1.644E+00	1.644E+00	0.210E+00	12.79	
PO-212	1.41E+10Y	1.00	1.644E+00	1.644E+00	0.210E+00	12.79	
BI-214	1600.00Y	1.00	1.206E+00	1.206E+00	0.214E+00	17.71	
PB-214	1600.00Y	1.00	1.414E+00	1.414E+00	0.247E+00	17.46	
PO-214	1600.00Y	1.00	1.414E+00	1.414E+00	0.247E+00	17.46	
PO-216	1.41E+10Y	1.00	1.644E+00	1.644E+00	0.210E+00	12.79	
PO-218	1600.00Y	1.00	1.414E+00	1.414E+00	0.247E+00	17.46	
RA-224	1.41E+10Y	1.00	4.843E+00	4.843E+00	1.322E+00	27.30	
RA-226	1600.00Y	1.00	1.206E+00	1.206E+00	0.214E+00	17.71	
AC-228	1.41E+10Y	1.00	1.585E+00	1.585E+00	0.359E+00	22.65	
RA-228	1.41E+10Y	1.00	1.585E+00	1.585E+00	0.359E+00	22.65	
TH-228	1.91Y	1.02	1.644E+00	1.669E+00	0.214E+00	12.79	
TH-230	4.47E+09Y	1.00	1.206E+00	1.206E+00	0.214E+00	17.71	
TH-232	1.41E+10Y	1.00	1.585E+00	1.585E+00	0.359E+00	22.65	
TH-234	4.47E+09Y	1.00	3.124E+00	3.124E+00	2.545E+00	81.48	
U-234	4.47E+09Y	1.00	1.206E+00	1.206E+00	0.214E+00	17.71	
NP-237	2.14E+06Y	1.00	8.945E-01	8.945E-01	3.459E-01	38.67	
U-238	4.47E+09Y	1.00	3.124E+00	3.124E+00	2.545E+00	81.48	
AM-243	7380.00Y	1.00	4.101E-01	4.101E-01	0.965E-01	23.53	
ANH-511	1.00E+09Y	1.00	1.368E-01	1.368E-01	0.804E-01	58.76	
	Total Activity :		6.344E+01	6.353E+01			

Grand Total Activity : 6.344E+01 6.353E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960008 Acquisition date : 12-FEB-2010 15:53:44

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	89.97	179	438	1.42	180.63	172	21	2.48E-02	45.6	5.35E+00	T
0	186.26	309	365	1.48	373.12	368	12	4.30E-02	28.2	5.16E+00	T
0	209.37	42	286	1.22	419.30	417	9	5.77E-03	****	4.78E+00	T
0	270.57	103	214	1.62	541.64	536	12	1.43E-02	59.9	3.96E+00	T
0	463.35	83	98	1.91	926.97	921	12	1.16E-02	53.4	2.59E+00	T
1	665.65	44	41	1.75	1331.32	1316	24	6.08E-03	66.9	1.91E+00	T
0	727.52	87	104	1.75	1454.98	1446	19	1.21E-02	60.0	1.77E+00	T
2	964.56	42	45	2.11	1928.73	1921	27	5.83E-03	68.4	1.37E+00	T
0	1238.10	57	45	1.61	2475.43	2466	15	7.92E-03	58.3	1.09E+00	T
0	1588.11	23	0	3.35	3174.91	3169	12	3.19E-03	41.7	8.86E-01	
0	1661.27	20	3	2.35	3321.12	3316	11	2.79E-03	55.0	8.59E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:54:20.75

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960008.CNF;1		
Acquisition date	: 12-FEB-2010 15:53:44	Detector SN#	:
Detector ID	: GAM01	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:01.12	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960008	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.23380E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 12-JAN-2010 15:15:52.7	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.202E+01	2.599E+00	5.543E-01	4.928E-02	39.722
CD-109	3.099E+00	1.014E+00	1.406E+00	1.330E-01	2.205
SN-126	3.046E-01	9.962E-02	1.389E-01	1.308E-02	2.193
BA-137M	2.559E-01	6.571E-02	6.379E-02	5.225E-03	4.011
CS-137	2.705E-01	6.948E-02	6.743E-02	5.535E-03	4.011
TL-208	5.658E-01	1.096E-01	6.022E-02	5.469E-03	9.396
BI-211	4.065E+00	6.772E-01	3.788E-01	3.445E-02	10.730
PB-212	1.644E+00	2.103E-01	1.045E-01	1.058E-02	15.737
PO-212	1.644E+00	2.103E-01	1.045E-01	1.058E-02	15.737
BI-214	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
PB-214	1.414E+00	2.469E-01	1.365E-01	1.431E-02	10.356
PO-214	1.414E+00	2.469E-01	1.365E-01	1.431E-02	10.356
PO-216	1.644E+00	2.103E-01	1.045E-01	1.058E-02	15.737
PO-218	1.414E+00	2.469E-01	1.365E-01	1.431E-02	10.356
RA-224	4.843E+00	1.322E+00	1.189E+00	1.081E-01	4.072
RA-226	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
AC-228	1.585E+00	3.590E-01	2.269E-01	2.627E-02	6.986
RA-228	1.585E+00	3.590E-01	2.269E-01	2.627E-02	6.986

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.669E+00	2.135E-01	1.061E-01	1.074E-02	15.737
TH-230	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
TH-232	1.585E+00	3.590E-01	2.269E-01	2.627E-02	6.986
TH-234	3.124E+00	2.545E+00	2.372E+00	4.169E-01	1.317
U-234	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
NP-237	8.945E-01	3.459E-01	4.491E-01	1.017E-01	1.992
U-238	3.124E+00	2.545E+00	2.372E+00	4.169E-01	1.317
AM-243	4.101E-01	9.650E-02	9.579E-02	7.966E-03	4.281
ANH-511	1.368E-01	8.037E-02	5.522E-02	4.680E-03	2.477

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.121E-01		3.814E-01	6.605E-01	6.009E-02	0.624
NA-22	-1.132E-02		5.064E-02	8.247E-02	6.925E-03	-0.137
NA-24	-1.438E-01		4.375E-01	Half-Life too short		
AL-26	3.759E-03		3.362E-02	5.612E-02	4.650E-03	0.067
TI-44	3.754E-01	+	6.659E-02	8.718E-02	7.482E-03	4.306
SC-46	4.070E-02		4.740E-02	8.370E-02	7.567E-03	0.486
V-48	1.809E-02		8.411E-02	1.397E-01	1.247E-02	0.129
CR-51	-3.748E-01		4.431E-01	6.860E-01	6.452E-02	-0.546
MN-52	8.964E-02		2.787E-01	4.824E-01	4.164E-02	0.186
MN-54	-2.059E-04		4.200E-02	6.890E-02	6.133E-03	-0.003
CO-56	-2.091E-02		4.283E-02	6.643E-02	5.935E-03	-0.315
CO-57	-1.451E-02		2.872E-02	4.436E-02	3.905E-03	-0.327
CO-58	4.453E-03		4.284E-02	7.120E-02	6.299E-03	0.063
FE-59	-2.801E-03		9.942E-02	1.596E-01	1.471E-02	-0.018
CO-60	2.391E-02		4.347E-02	7.731E-02	6.590E-03	0.309
ZN-65	9.548E-02		1.020E-01	1.638E-01	1.382E-02	0.583
GE-68	1.199E+00		1.251E+00	2.256E+00	1.942E-01	0.531
AS-73	-3.856E-01		1.096E+00	1.756E+00	1.421E-01	-0.220
AS-74	4.583E-03		9.595E-02	1.614E-01	1.360E-02	0.028
SE-75	-2.419E-02		5.438E-02	7.604E-02	6.985E-03	-0.318
BR-77	2.205E+00		1.325E+01	2.142E+01	1.817E+00	0.103
SR-82	-1.120E-01		4.247E-01	6.821E-01	5.939E-02	-0.164
RB-83	2.049E-02		8.690E-02	1.413E-01	1.199E-02	0.145
RB-84	-6.326E-03		7.388E-02	1.196E-01	1.079E-02	-0.053
KR-85	1.925E+01		1.036E+01	1.678E+01	1.423E+00	1.147
SR-85	9.877E-02		5.315E-02	8.607E-02	7.298E-03	1.147
RB-86	5.642E-01		7.960E-01	1.398E+00	1.204E-01	0.404
Y-88	-1.215E-02		4.181E-02	6.367E-02	5.237E-03	-0.191
ZR-88	-1.164E-02		3.650E-02	5.783E-02	4.656E-03	-0.201
Y-91	6.605E+00		2.081E+01	3.592E+01	2.943E+00	0.184
NB-94	2.412E-02		3.860E-02	6.720E-02	5.641E-03	0.359
NB-95	-2.107E-02		4.679E-02	7.397E-02	6.410E-03	-0.285
NB-95M	7.759E-02		1.504E-01	2.269E-01	2.327E-02	0.342
ZR-95	4.829E-02		7.753E-02	1.353E-01	1.285E-02	0.357

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	9.576E-03		6.750E-02	Half-Life too short		
ZR-97	2.600E+00		1.028E+00	Half-Life too short		
MO-99	7.199E+00		1.367E+01	2.358E+01	3.572E+00	0.305
TC-99M	-3.442E+10		2.316E+10	Half-Life too short		
RH-101	2.205E-02		3.900E-02	6.561E-02	5.773E-03	0.336
RH-102	-3.771E-03		3.414E-02	5.427E-02	4.563E-03	-0.069
RU-103	2.578E-02		4.761E-02	7.940E-02	1.117E-02	0.325
RH-106	-1.680E-01		3.704E-01	5.950E-01	7.847E-02	-0.282
RU-106	-1.680E-01		3.700E-01	5.950E-01	4.970E-02	-0.282
AG-108M	6.575E-03		3.863E-02	6.309E-02	5.440E-03	0.104
AG-110M	-1.035E-03		4.598E-02	6.636E-02	5.627E-03	-0.016
IN-111	3.379E-01		1.312E+00	1.948E+00	1.774E-01	0.173
IN-113M	-2.931E-02		5.315E-02	8.276E-02	6.893E-03	-0.354
SN-113	-2.931E-02		5.315E-02	8.276E-02	6.893E-03	-0.354
IN-114M	-2.876E-02		2.260E-01	3.313E-01	2.892E-02	-0.087
CD-115	4.781E+00		1.189E+01	2.065E+01	1.753E+00	0.232
SN-117M	-2.648E-02		6.112E-02	1.013E-01	8.628E-03	-0.261
SB-122	2.263E+00		2.292E+00	4.122E+00	3.495E-01	0.549
I-123	-5.337E+00		3.417E+00	Half-Life too short		
TE-123M	-2.490E-02		3.189E-02	5.203E-02	4.457E-03	-0.479
I-124	-1.137E-01		7.401E-01	1.153E+00	9.693E-02	-0.099
SB-124	-2.434E-03		9.320E-02	1.517E-01	1.345E-02	-0.016
SB-125	-5.819E-02		1.118E-01	1.733E-01	1.458E-02	-0.336
TE-125M	3.818E+00		1.072E+01	1.733E+01	1.796E+00	0.220
I-126	3.911E-01	+	2.635E-01	3.879E-01	3.187E-02	1.008
SB-126	-1.128E-01		1.963E-01	2.613E-01	2.215E-02	-0.432
SB-127	-1.140E-01		1.409E+00	2.322E+00	2.592E-01	-0.049
XE-127	-6.723E-02		5.531E-02	8.718E-02	7.708E-03	-0.771
I-131	3.754E-02		1.322E-01	2.193E-01	1.965E-02	0.171
TE-132	9.474E-02		7.980E-01	1.335E+00	2.129E-01	0.071
BA-133	-4.032E-03		5.869E-02	8.320E-02	1.097E-02	-0.048
I-133	-5.189E-03		3.344E-03	Half-Life too short		
CS-134	4.373E-02		6.205E-02	1.064E-01	9.402E-03	0.411
CS-135	-7.149E-03		1.843E-01	2.666E-01	2.779E-02	-0.027
I-135	2.435E+09		3.290E+09	Half-Life too short		
CS-136	-1.887E-03		1.259E-01	2.033E-01	1.848E-02	-0.009
CE-139	1.105E-02		3.410E-02	5.819E-02	4.956E-03	0.190
BA-140	-9.381E-03		2.722E-01	4.572E-01	1.514E-01	-0.021
LA-140	-1.918E-02		9.637E-02	1.490E-01	1.285E-02	-0.129
CE-141	6.958E-02		6.824E-02	1.196E-01	1.040E-02	0.582
CE-143	3.025E-04		9.646E-05	Half-Life too short		
CE-144	9.825E-03		2.380E-01	3.769E-01	5.867E-02	0.026
PM-144	-7.839E-03		3.690E-02	6.007E-02	5.026E-03	-0.130
PR-144	-5.312E-01		2.501E+00	4.070E+00	3.405E-01	-0.130
PM-146	2.506E-02		5.063E-02	8.448E-02	8.874E-03	0.297
ND-147	-3.492E-01		5.890E-01	9.404E-01	1.399E-01	-0.371
PM-149	-4.737E+01		1.034E+02	1.652E+02	2.616E+01	-0.287
EU-152	-9.665E-03		1.261E-01	1.789E-01	1.654E-02	-0.054

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	3.141E-02		1.040E-01	1.492E-01	1.325E-02	0.210
EU-154	1.339E-03		1.384E-01	2.313E-01	2.576E-02	0.006
EU-155	1.827E-02		1.217E-01	1.954E-01	1.719E-02	0.093
TB-160	4.833E-02		1.519E-01	2.570E-01	2.318E-02	0.188
HO-166M	4.103E-02		6.880E-02	1.197E-01	1.010E-02	0.343
TM-171	-2.964E+01		3.859E+01	5.337E+01	4.204E+00	-0.555
LU-176	-7.081E-03		2.935E-02	4.579E-02	4.144E-03	-0.155
LU-177	1.158E+00	+	1.752E+00	2.218E+00	1.971E-01	0.522
LU-177M	-2.136E-01		2.203E-01	3.308E-01	2.703E-02	-0.646
HF-181	-5.398E-02		5.062E-02	7.335E-02	6.180E-03	-0.736
W-181	1.671E-01		4.864E-01	7.144E-01	5.577E-02	0.234
TA-182	6.091E-02		2.256E-01	3.868E-01	3.188E-02	0.157
RE-183	3.761E-02		1.243E-01	2.121E-01	1.806E-02	0.177
RE-184	1.747E-01		2.676E-01	4.573E-01	4.174E-02	0.382
OS-185	1.332E-03		4.985E-02	8.328E-02	6.881E-03	0.016
RE-188	-3.028E-02		1.879E-01	3.155E-01	2.687E-02	-0.096
W-188	2.913E+00		9.030E+00	1.338E+01	1.220E+00	0.218
IR-192	1.146E-03		4.139E-02	6.796E-02	6.123E-03	0.017
AU-195	3.251E-01		2.831E-01	4.470E-01	3.947E-02	0.727
TL-200	-2.129E-04		2.736E-04	Half-Life too short		
TL-201	-8.944E-01		8.077E+00	1.355E+01	1.155E+00	-0.066
TL-202	-2.958E-03		7.792E-02	1.252E-01	1.038E-02	-0.024
HG-203	3.616E-02		4.803E-02	8.210E-02	7.698E-03	0.440
BI-207	1.169E-02		6.097E-02	1.006E-01	8.719E-03	0.116
TL-207	-2.826E-01		7.967E-01	1.275E+00	2.277E-01	-0.222
PO-209	-4.893E+00		8.800E+00	1.351E+01	1.223E+00	-0.362
BI-210	5.986E-01		5.011E+00	8.072E+00	7.620E-01	0.074
PB-210	5.986E-01		5.011E+00	8.072E+00	7.620E-01	0.074
PO-210	5.986E-01		5.011E+00	8.072E+00	6.920E-01	0.074
PB-211	-3.180E-01		1.166E+00	1.824E+00	1.142E+00	-0.174
BI-212	1.273E+00	+	7.740E-01	7.843E-01	7.772E-02	1.623
PO-215	-2.826E-01		7.967E-01	1.275E+00	2.277E-01	-0.222
RN-219	3.208E-01		5.134E-01	8.619E-01	1.270E-01	0.372
RN-220	-7.175E+00		2.872E+01	4.735E+01	4.019E+00	-0.152
RA-223	-2.826E-01		7.967E-01	1.275E+00	2.277E-01	-0.222
AC-227	-2.744E-01		4.577E-01	7.315E-01	1.144E-01	-0.375
TH-227	-2.744E-01		4.584E-01	7.315E-01	1.340E-01	-0.375
TH-229	3.423E-01		5.739E-01	9.844E-01	8.624E-02	0.348
PA-231	-4.875E-01		1.692E+00	2.738E+00	4.239E-01	-0.178
TH-231	-2.826E-01		7.967E-01	1.275E+00	2.277E-01	-0.222
U-231	-1.289E+00		1.428E+00	1.922E+00	1.719E-01	-0.671
PA-233	5.870E-03		7.220E-02	1.190E-01	1.102E-02	0.049
PA-234	5.551E-02		3.326E-01	5.513E-01	1.044E-01	0.101
PA-234M	5.428E+00		5.565E+00	9.751E+00	9.939E-01	0.557
U-235	-8.610E-02		2.397E-01	3.944E-01	6.890E-02	-0.218
NP-236	1.248E-02		8.915E-02	1.513E-01	1.288E-02	0.082
NP-239	3.627E-03		2.210E-01	3.514E-01	3.060E-02	0.010
AM-241	1.190E-02		1.997E-01	2.904E-01	2.393E-02	0.041

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-4.600E-02		1.085E-01	1.696E-01	1.477E-02	-0.271
AM-246	5.056E-02		1.512E-01	2.539E-01	2.185E-02	0.199
CM-247	2.988E-02		4.478E-02	7.565E-02	6.135E-03	0.395
CF-249	4.416E-02		4.864E-02	8.337E-02	6.762E-03	0.530
CF-251	1.398E-02		1.402E-01	2.367E-01	2.037E-02	0.059

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960008		
Acquisition date	: 12-FEB-2010 15:53:44	Detector SN#	:
Detector ID	: GAM01	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.12	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960008	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.2338E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

CALIB. DATE/TIME	: 12-JAN-2010 15:15:52	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.202E+01	2.547E+00	2.769E-01	1.300E+00
CD-109	3.099E+00	9.933E-01	7.288E-01	5.068E-01
SN-126	3.046E-01	9.763E-02	7.201E-02	4.981E-02
BA-137M	2.559E-01	6.440E-02	3.221E-02	3.286E-02
CS-137	2.705E-01	6.809E-02	3.405E-02	3.474E-02
TL-208	5.658E-01	1.074E-01	3.046E-02	5.478E-02
BI-211	4.065E+00	6.637E-01	1.929E-01	3.386E-01
PB-212	1.644E+00	2.061E-01	5.347E-02	1.052E-01
PO-212	1.644E+00	2.061E-01	5.347E-02	1.052E-01
BI-214	1.206E+00	2.092E-01	5.954E-02	1.068E-01
PB-214	1.414E+00	2.419E-01	6.953E-02	1.234E-01
PO-214	1.414E+00	2.419E-01	6.953E-02	1.234E-01
PO-216	1.644E+00	2.061E-01	5.347E-02	1.052E-01
PO-218	1.414E+00	2.419E-01	6.953E-02	1.234E-01
RA-224	4.843E+00	1.296E+00	6.086E-01	6.611E-01
RA-226	1.206E+00	2.092E-01	5.954E-02	1.068E-01
AC-228	1.585E+00	3.518E-01	1.141E-01	1.795E-01
RA-228	1.585E+00	3.518E-01	1.141E-01	1.795E-01
TH-228	1.669E+00	2.093E-01	5.429E-02	1.068E-01
TH-230	1.206E+00	2.092E-01	5.954E-02	1.068E-01
TH-232	1.585E+00	3.518E-01	1.141E-01	1.795E-01
TH-234	3.124E+00	2.494E+00	1.235E+00	1.272E+00
U-234	1.206E+00	2.092E-01	5.954E-02	1.068E-01
NP-237	8.945E-01	3.390E-01	2.329E-01	1.730E-01
U-238	3.124E+00	2.494E+00	1.235E+00	1.272E+00
AM-243	4.101E-01	9.457E-02	4.976E-02	4.825E-02
ANH-511	1.368E-01	7.876E-02	2.798E-02	4.018E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	4.121E-01	3.738E-01	3.350E-01	1.907E-01	NOT IDENT.
NA-22	-1.132E-02	4.963E-02	4.128E-02	2.532E-02	NOT IDENT.
NA-24	-1.438E+05	8.575E+05	0.000E+00	4.375E+05	SHORT HLIF
AL-26	3.759E-03	3.295E-02	2.796E-02	1.681E-02	NOT IDENT.
TI-44	3.754E-01	6.525E-02	4.526E-02	3.329E-02	FAIL ABUN
SC-46	4.070E-02	4.645E-02	4.210E-02	2.370E-02	FAIL ABUN
V-48	1.809E-02	8.243E-02	7.018E-02	4.205E-02	NOT IDENT.
CR-51	-3.748E-01	4.342E-01	3.497E-01	2.215E-01	NOT IDENT.
MN-52	8.964E-02	2.731E-01	2.411E-01	1.393E-01	NOT IDENT.
MN-54	-2.059E-04	4.116E-02	3.468E-02	2.100E-02	NOT IDENT.
CO-56	-2.091E-02	4.198E-02	3.343E-02	2.142E-02	FAIL ABUN
CO-57	-1.451E-02	2.814E-02	2.290E-02	1.436E-02	NOT IDENT.
CO-58	4.453E-03	4.199E-02	3.586E-02	2.142E-02	NOT IDENT.
FE-59	-2.801E-03	9.743E-02	8.007E-02	4.971E-02	NOT IDENT.
CO-60	2.391E-02	4.260E-02	3.867E-02	2.173E-02	NOT IDENT.
ZN-65	9.548E-02	9.993E-02	8.212E-02	5.098E-02	NOT IDENT.
GE-68	1.199E+00	1.226E+00	1.132E+00	6.255E-01	NOT IDENT.
AS-73	-3.856E-01	1.074E+00	9.162E-01	5.478E-01	NOT IDENT.
AS-74	4.583E-03	9.403E-02	8.160E-02	4.798E-02	NOT IDENT.
SE-75	-2.419E-02	5.329E-02	3.887E-02	2.719E-02	NOT IDENT.
BR-77	2.205E+00	1.298E+01	1.085E+01	6.623E+00	FAIL ABUN
SR-82	-1.120E-01	4.162E-01	3.437E-01	2.123E-01	NOT IDENT.
RB-83	2.049E-02	8.516E-02	7.157E-02	4.345E-02	NOT IDENT.
RB-84	-6.326E-03	7.240E-02	6.018E-02	3.694E-02	NOT IDENT.
KR-85	1.925E+01	1.015E+01	8.502E+00	5.180E+00	NOT IDENT.
SR-85	9.877E-02	5.208E-02	4.361E-02	2.657E-02	NOT IDENT.
RB-86	5.642E-01	7.801E-01	7.014E-01	3.980E-01	NOT IDENT.
Y-88	-1.215E-02	4.097E-02	3.171E-02	2.090E-02	NOT IDENT.
ZR-88	-1.164E-02	3.577E-02	2.940E-02	1.825E-02	NOT IDENT.
Y-91	6.605E+00	2.040E+01	1.799E+01	1.041E+01	NOT IDENT.
NB-94	2.412E-02	3.783E-02	3.391E-02	1.930E-02	NOT IDENT.
NB-95	-2.107E-02	4.585E-02	3.728E-02	2.339E-02	NOT IDENT.
NB-95M	7.759E-02	1.474E-01	1.161E-01	7.519E-02	NOT IDENT.
ZR-95	4.829E-02	7.598E-02	6.819E-02	3.877E-02	NOT IDENT.
NB-97	9.576E+03	1.323E+05	0.000E+00	6.750E+04	SHORT HLIF
ZR-97	2.600E+06	2.015E+06	0.000E+00	1.028E+06	SHORT HLIF
MO-99	7.199E+00	1.339E+01	1.189E+01	6.833E+00	NOT IDENT.
TC-99M	-3.442E+16	4.540E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.205E-02	3.822E-02	3.366E-02	1.950E-02	NOT IDENT.
RH-102	-3.771E-03	3.346E-02	2.753E-02	1.707E-02	NOT IDENT.
RU-103	2.578E-02	4.666E-02	4.025E-02	2.380E-02	FAIL ABUN
RH-106	-1.680E-01	3.630E-01	3.007E-01	1.852E-01	FAIL ABUN
RU-106	-1.680E-01	3.626E-01	3.007E-01	1.850E-01	FAIL ABUN
AG-108M	6.575E-03	3.786E-02	3.204E-02	1.932E-02	NOT IDENT.
AG-110M	-1.035E-03	4.506E-02	3.351E-02	2.299E-02	NOT IDENT.
IN-111	3.379E-01	1.286E+00	9.969E-01	6.560E-01	NOT IDENT.
IN-113M	-2.931E-02	5.209E-02	4.208E-02	2.658E-02	NOT IDENT.
SN-113	-2.931E-02	5.209E-02	4.208E-02	2.658E-02	NOT IDENT.
IN-114M	-2.876E-02	2.215E-01	1.700E-01	1.130E-01	NOT IDENT.
CD-115	4.781E+00	1.165E+01	1.046E+01	5.945E+00	NOT IDENT.
SN-117M	-2.648E-02	5.990E-02	5.214E-02	3.056E-02	NOT IDENT.
SB-122	2.263E+00	2.246E+00	2.086E+00	1.146E+00	NOT IDENT.
I-123	-5.337E+06	6.698E+06	0.000E+00	3.417E+06	SHORT HLIF
TE-123M	-2.490E-02	3.125E-02	2.677E-02	1.594E-02	NOT IDENT.
I-124	-1.137E-01	7.253E-01	5.828E-01	3.700E-01	NOT IDENT.
SB-124	-2.434E-03	9.134E-02	7.564E-02	4.660E-02	FAIL ABUN
SB-125	-5.819E-02	1.096E-01	8.801E-02	5.591E-02	FAIL ABUN
TE-125M	3.818E+00	1.050E+01	8.959E+00	5.358E+00	NOT IDENT.
I-126	3.911E-01	2.582E-01	1.959E-01	1.317E-01	FAIL ABUN
SB-126	-1.128E-01	1.924E-01	1.318E-01	9.817E-02	FAIL ABUN
SB-127	-1.140E-01	1.380E+00	1.172E+00	7.043E-01	NOT IDENT.
XE-127	-6.723E-02	5.421E-02	4.471E-02	2.766E-02	NOT IDENT.
I-131	3.754E-02	1.296E-01	1.116E-01	6.610E-02	NOT IDENT.
TE-132	9.474E-02	7.820E-01	6.837E-01	3.990E-01	NOT IDENT.
BA-133	-4.032E-03	5.752E-02	4.236E-02	2.934E-02	NOT IDENT.
I-133	-5.189E+03	6.554E+03	0.000E+00	3.344E+03	SHORT HLIF
CS-134	4.373E-02	6.081E-02	5.359E-02	3.103E-02	NOT IDENT.
CS-135	-7.149E-03	1.806E-01	1.362E-01	9.215E-02	NOT IDENT.
I-135	2.435E+15	6.449E+15	0.000E+00	3.290E+15	SHORT HLIF
CS-136	-1.887E-03	1.234E-01	1.020E-01	6.297E-02	FAIL ABUN
CE-139	1.105E-02	3.342E-02	2.992E-02	1.705E-02	NOT IDENT.
BA-140	-9.381E-03	2.667E-01	2.315E-01	1.361E-01	NOT IDENT.
LA-140	-1.918E-02	9.444E-02	7.433E-02	4.818E-02	NOT IDENT.
CE-141	6.958E-02	6.688E-02	6.161E-02	3.412E-02	NOT IDENT.
CE-143	3.025E+02	1.891E+02	0.000E+00	9.646E+01	SHORT HLIF
CE-144	9.825E-03	2.332E-01	1.943E-01	1.190E-01	NOT IDENT.
PM-144	-7.839E-03	3.616E-02	3.031E-02	1.845E-02	NOT IDENT.
PR-144	-5.312E-01	2.451E+00	2.054E+00	1.250E+00	NOT IDENT.

PM-146	2.506E-02	4.962E-02	4.287E-02	2.532E-02	NOT IDENT.
ND-147	-3.492E-01	5.772E-01	4.763E-01	2.945E-01	FAIL ABUN
PM-149	-4.737E+01	1.013E+02	8.436E+01	5.168E+01	NOT IDENT.
EU-152	-9.665E-03	1.235E-01	9.114E-02	6.303E-02	FAIL ABUN
GD-153	3.141E-02	1.020E-01	7.726E-02	5.202E-02	NOT IDENT.
EU-154	1.339E-03	1.356E-01	1.158E-01	6.920E-02	NOT IDENT.
EU-155	1.827E-02	1.193E-01	1.011E-01	6.086E-02	FAIL ABUN
TB-160	4.833E-02	1.489E-01	1.293E-01	7.595E-02	FAIL ABUN
HO-166M	4.103E-02	6.742E-02	6.040E-02	3.440E-02	NOT IDENT.
TM-171	-2.964E+01	3.782E+01	2.777E+01	1.930E+01	NOT IDENT.
LU-176	-7.081E-03	2.876E-02	2.336E-02	1.468E-02	FAIL ABUN
LU-177	1.158E+00	1.717E+00	1.137E+00	8.761E-01	FAIL ABUN
LU-177M	-2.136E-01	2.159E-01	1.681E-01	1.102E-01	NOT IDENT.
HF-181	-5.398E-02	4.960E-02	3.719E-02	2.531E-02	NOT IDENT.
W-181	1.671E-01	4.767E-01	3.718E-01	2.432E-01	NOT IDENT.
TA-182	6.091E-02	2.211E-01	1.937E-01	1.128E-01	FAIL ABUN
RE-183	3.761E-02	1.218E-01	1.091E-01	6.215E-02	FAIL ABUN
RE-184	1.747E-01	2.623E-01	2.339E-01	1.338E-01	NOT IDENT.
OS-185	1.332E-03	4.885E-02	4.207E-02	2.492E-02	NOT IDENT.
RE-188	-3.028E-02	1.841E-01	1.624E-01	9.394E-02	NOT IDENT.
W-188	2.913E+00	8.849E+00	6.831E+00	4.515E+00	FAIL ABUN
IR-192	1.146E-03	4.056E-02	3.466E-02	2.069E-02	FAIL ABUN
AU-195	3.251E-01	2.775E-01	2.314E-01	1.416E-01	FAIL ABUN
TL-200	-2.129E+02	5.362E+02	0.000E+00	2.736E+02	SHORT HLIF
TL-201	-8.944E-01	7.915E+00	6.967E+00	4.038E+00	NOT IDENT.
TL-202	-2.958E-03	7.636E-02	6.355E-02	3.896E-02	NOT IDENT.
HG-203	3.616E-02	4.707E-02	4.193E-02	2.402E-02	NOT IDENT.
BI-207	1.169E-02	5.975E-02	5.047E-02	3.048E-02	FAIL ABUN
TL-207	-2.826E-01	7.807E-01	6.498E-01	3.983E-01	FAIL ABUN
PO-209	-4.893E+00	8.624E+00	6.795E+00	4.400E+00	NOT IDENT.
BI-210	5.986E-01	4.911E+00	4.218E+00	2.506E+00	NOT IDENT.
PB-210	5.986E-01	4.911E+00	4.218E+00	2.506E+00	NOT IDENT.
PO-210	5.986E-01	4.911E+00	4.218E+00	2.506E+00	NOT IDENT.
PB-211	-3.180E-01	1.142E+00	9.273E-01	5.829E-01	NOT IDENT.
BI-212	1.273E+00	7.585E-01	3.956E-01	3.870E-01	FAIL ABUN
PO-215	-2.826E-01	7.807E-01	6.498E-01	3.983E-01	FAIL ABUN
RN-219	3.208E-01	5.032E-01	4.381E-01	2.567E-01	FAIL ABUN
RN-220	-7.175E+00	2.814E+01	2.397E+01	1.436E+01	NOT IDENT.
RA-223	-2.826E-01	7.807E-01	6.498E-01	3.983E-01	FAIL ABUN
AC-227	-2.744E-01	4.485E-01	3.740E-01	2.288E-01	FAIL ABUN
TH-227	-2.744E-01	4.493E-01	3.740E-01	2.292E-01	FAIL ABUN
TH-229	3.423E-01	5.624E-01	5.052E-01	2.869E-01	FAIL ABUN
PA-231	-4.875E-01	1.658E+00	1.398E+00	8.458E-01	FAIL ABUN
TH-231	-2.826E-01	7.807E-01	6.498E-01	3.983E-01	FAIL ABUN
U-231	-1.289E+00	1.400E+00	9.953E-01	7.142E-01	FAIL ABUN
PA-233	5.870E-03	7.076E-02	6.072E-02	3.610E-02	FAIL ABUN
PA-234	5.551E-02	3.259E-01	2.771E-01	1.663E-01	FAIL ABUN
PA-234M	5.428E+00	5.454E+00	4.897E+00	2.783E+00	NOT IDENT.
U-235	-8.610E-02	2.349E-01	2.032E-01	1.199E-01	FAIL ABUN
NP-236	1.248E-02	8.737E-02	7.784E-02	4.458E-02	NOT IDENT.
NP-239	3.627E-03	2.166E-01	1.815E-01	1.105E-01	FAIL ABUN
AM-241	1.190E-02	1.957E-01	1.513E-01	9.987E-02	NOT IDENT.
CM-243	-4.600E-02	1.063E-01	8.772E-02	5.426E-02	FAIL ABUN
AM-246	5.056E-02	1.482E-01	1.274E-01	7.561E-02	NOT IDENT.
CM-247	2.988E-02	4.389E-02	3.845E-02	2.239E-02	NOT IDENT.
CF-249	4.416E-02	4.767E-02	4.240E-02	2.432E-02	NOT IDENT.
CF-251	1.398E-02	1.374E-01	1.216E-01	7.009E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417

GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	265.1197
46.50	265.1197
46.50	265.1197
48.70	281.7688
49.72	256.5957
51.35	290.5266
52.39	284.9113
52.97	296.6468
53.15	296.7508
53.44	294.8431
54.07	269.2180
56.28	294.3668
56.28	294.3682
57.37	0.0000
57.53	279.9937
57.53	279.9947
57.60	280.0301
57.98	282.7414
57.98	282.7414
59.32	286.5911
59.32	286.5911
59.40	286.6328
59.54	278.8298
59.72	278.9217
60.01	266.4556
61.10	292.2580
61.14	292.2788
61.30	292.3632
63.00	312.7991
63.29	312.9591
63.29	312.9591
63.58	313.1190
64.28	365.4004
65.12	332.5225
65.20	332.5688
65.20	332.5688
66.05	363.3333
66.72	386.0845
66.83	374.9884
66.91	375.0386
67.20	389.5936
67.20	389.5936
67.75	362.7875
67.85	358.0544
68.90	367.6540
68.90	367.6540
69.30	381.3589
69.67	389.6117
70.82	367.8620
70.82	367.8620
70.83	367.8672
72.80	378.7195
72.87	378.7625
72.87	378.7625
74.67	341.6012
74.81	341.6786
74.81	341.6786
74.81	341.6786
74.81	341.6786
74.81	341.6786
74.81	341.6786
74.81	341.6786
74.97	341.7640
75.28	341.9333
75.70	342.1590
77.11	342.9168
77.11	342.9168

77.11	342.9168
77.11	342.9168
77.11	342.9168
77.11	342.9168
77.11	342.9168
78.38	307.2836
79.62	309.4980
79.80	334.0243
79.80	334.0243
80.11	334.1823
80.18	334.2167
80.30	355.4758
80.30	355.4758
80.57	355.6222
81.00	403.1916
81.07	403.2350
81.07	403.2350
81.07	403.2350
81.07	403.2350
82.60	355.0744
83.37	330.9085
83.78	326.1929
83.78	326.1929
83.78	326.1929
83.78	326.1929
84.21	329.6813
84.90	328.3737
85.43	353.2773
86.29	422.8190
86.50	422.9485
86.54	422.9720
86.59	434.5248
86.72	434.6074
86.79	434.6497
86.94	434.7444
87.30	358.0830
87.30	358.0830
87.30	358.0830
87.30	358.0830
87.30	358.0830
87.30	358.0830
87.30	358.0830
87.57	358.2223
87.88	358.3814
88.03	358.4594
88.36	358.6285
88.47	358.6849
89.95	359.4427
91.11	360.0313
92.29	360.6249
92.38	360.6713
92.38	360.6713
93.35	361.1571
94.00	361.4805
94.67	284.6773
94.67	284.6786
94.90	319.7402
94.90	319.7402
94.90	319.7402
94.90	319.7402
95.87	358.5165
95.87	358.5165
96.73	333.8943
97.43	299.1168
98.44	274.4227
98.44	274.4240
98.88	278.6037
99.55	279.2994
99.55	279.2994
99.86	283.8845
100.00	283.9374
100.10	307.4546
103.18	281.7558
103.76	283.0924
105.00	271.1679
105.31	275.7783
108.00	274.4651
109.28	281.6942

111.00	283.4333
111.00	283.4333
111.76	322.2821
112.95	296.6159
115.19	289.4500
116.30	276.1457
117.00	277.5192
117.00	277.5192
117.66	300.5984
121.11	277.7274
121.62	258.3721
121.78	267.6090
122.06	267.6961
122.32	265.4794
122.32	265.4794
122.32	265.4794
122.32	265.4794
123.07	274.9130
127.23	305.1245
129.76	279.3378
131.20	334.3535
133.02	303.6185
133.54	273.5308
135.34	234.4182
136.00	231.0846
136.25	241.6548
136.48	241.7148
140.51	280.5877
140.51	0.0000
142.18	234.3837
142.65	243.3172
143.76	288.6148
144.24	279.9290
144.24	279.9290
144.24	279.9290
144.24	279.9290
145.22	251.9299
145.44	251.9864
147.16	305.5811
152.43	262.7051
152.70	270.7941
153.22	276.2830
154.21	278.3439
154.21	278.3439
154.21	278.3439
154.21	278.3439
155.03	275.0010
156.02	281.5274
158.56	277.7564
159.00	0.0000
159.00	289.5300
160.31	267.4638
161.27	270.4090
162.32	268.8860
162.64	268.9704
163.35	276.3567
163.89	274.6983
165.85	269.8031
167.43	276.5351
171.28	256.6804
171.86	259.5410
172.10	259.5999
176.55	244.2654
176.60	244.2756
181.06	243.0729
184.41	240.8670
185.71	223.3167
186.00	223.3742
190.27	240.6379
192.34	237.8672
193.63	232.2715
197.04	259.8660
198.01	234.0736
198.60	233.2616
200.40	257.8172
201.83	296.3321
202.84	290.0558
205.31	233.2707

208.36	280.3288
208.81	280.4338
209.75	277.6468
209.75	277.6468
210.97	249.3810
215.65	240.0207
216.55	237.6804
218.09	215.3086
222.10	222.6254
223.80	198.2576
226.40	200.5604
227.00	194.9480
227.08	192.1074
227.20	192.1259
228.16	211.3041
228.18	211.3075
228.18	211.3075
231.56	0.0000
235.69	199.1212
236.00	206.8292
236.00	206.8292
238.63	205.3190
238.63	205.3190
238.63	205.3190
238.63	205.3190
239.00	205.3761
240.98	205.6798
241.98	205.8333
241.98	205.8333
241.98	205.8333
244.69	172.7072
245.39	166.6248
247.94	160.0919
248.90	187.5482
249.79	198.3107
252.40	172.5176
252.85	165.7867
252.85	165.7867
254.15	0.0000
256.20	204.0880
256.20	204.0880
260.50	149.1479
260.90	153.0903
262.80	169.8927
264.65	157.9901
268.24	145.8393
268.79	142.7585
269.46	130.2691
269.46	130.2691
269.46	130.2691
269.46	130.2691
271.23	146.3377
273.65	215.6412
276.40	160.8492
277.35	164.5606
277.60	167.6888
277.60	167.6888
278.00	169.7062
278.60	157.9321
279.20	162.9330
279.53	169.8820
280.46	184.8143
281.68	174.0852
283.67	149.5553
284.30	156.5535
285.00	146.7128
285.90	152.7522
286.10	145.8291
286.10	145.8291
287.40	139.9953
288.45	0.0000
290.67	135.3214
290.80	135.3339
291.72	178.4289
293.26	0.0000
293.70	145.1623
295.21	167.6591
295.21	167.6591

295.21	167.6591
295.96	167.7385
296.50	167.7975
297.23	167.8770
298.57	168.0231
299.80	168.1538
299.80	168.1538
300.09	168.1871
300.09	168.1871
300.09	168.1871
300.09	168.1871
300.12	168.1897
301.29	157.0943
302.84	144.4131
303.76	160.5518
303.91	160.5688
304.40	144.5559
304.40	144.5559
304.84	141.3822
306.84	143.6310
308.46	133.8564
311.98	130.1161
316.51	145.6567
318.01	137.6913
319.02	142.8417
319.41	147.9426
320.08	157.1262
323.87	157.4905
323.87	157.4905
323.87	157.4905
323.87	157.4905
325.23	164.7389
328.77	141.6512
333.44	140.6171
334.20	143.9539
334.20	143.9539
334.30	143.9625
338.28	117.8603
338.28	117.8603
338.28	117.8603
338.28	117.8603
338.32	117.8620
338.32	117.8620
338.32	117.8620
340.50	118.0129
340.57	118.0182
344.27	123.4167
345.85	90.5889
350.59	0.0000
351.07	125.5540
351.92	134.2926
351.92	134.2926
351.92	134.2926
355.39	0.0000
356.01	129.2218
364.48	105.0794
366.43	114.5688
367.43	114.6326
367.94	0.0000
369.80	102.2618
374.96	99.4125
383.85	131.4411
387.95	106.4371
388.63	115.9653
391.69	122.4889
391.69	122.4889
392.90	117.2854
398.62	114.4600
400.65	120.9476
401.10	114.6099
401.81	112.5280
402.60	106.2027
404.84	125.4650
410.95	109.8618
411.60	114.1675
413.65	134.5806
414.70	129.3103
415.30	114.3830

415.76	104.7874
417.63	0.0000
418.52	102.7925
423.70	90.1793
427.08	110.7640
427.89	111.8854
432.53	95.9694
433.93	93.8765
439.47	86.5601
439.56	86.5637
439.89	82.2483
443.98	83.4973
444.90	77.0257
445.03	77.0301
445.03	77.0301
445.03	77.0301
445.03	77.0301
453.90	82.8084
463.38	93.0323
468.07	66.6920
473.00	90.1542
475.06	86.9391
475.35	91.3524
476.78	62.7778
477.59	72.7172
477.96	67.2195
482.03	99.3617
484.57	78.4774
487.03	79.6718
490.36	0.0000
492.35	94.2839
497.08	73.3648
507.63	0.0000
510.53	0.0000
510.84	87.2352
511.00	87.2412
511.85	87.2733
511.85	87.2733
513.99	84.2190
513.99	84.2190
520.41	85.3539
520.65	85.3632
527.90	66.7012
528.96	0.0000
529.64	78.4784
529.87	0.0000
531.02	73.1076
537.32	66.9704
543.00	66.2240
546.56	0.0000
549.76	74.5988
552.65	76.5105
555.20	64.7372
563.23	62.2077
563.90	60.3942
568.70	83.4330
569.32	72.4501
569.50	66.9529
569.67	66.9565
573.80	75.3375
574.00	80.8564
574.64	75.5678
578.91	49.1016
579.30	0.0000
583.14	59.0203
585.48	63.0765
591.81	58.2996
592.07	57.3803
593.00	60.1774
595.88	62.0993
600.56	69.6423
602.52	0.0000
602.71	68.5392
602.71	68.5392
603.60	66.6259
604.41	63.5470
604.70	62.0052
609.31	63.3582

609.31	63.3582
609.31	63.3582
609.31	63.3582
610.33	63.3831
612.46	62.1908
614.37	70.0159
618.01	68.5566
621.84	76.7699
621.84	76.7699
631.29	60.1328
633.02	55.4709
633.10	60.1734
634.78	48.9214
635.90	59.2963
636.97	56.4946
645.85	73.6868
646.12	68.0256
656.30	66.3838
657.75	67.9993
657.90	0.0000
661.65	60.8125
661.65	60.8125
664.57	0.0000
666.33	60.9156
666.33	60.9156
675.00	66.8350
677.61	59.2512
685.20	51.7456
692.80	56.6881
695.00	52.8865
696.49	61.5719
696.49	61.5719
697.00	65.4317
697.49	63.5186
698.33	63.5379
698.50	63.5411
699.00	70.2928
702.63	60.7406
706.10	66.6045
706.58	0.0000
706.67	70.4799
709.31	72.4768
711.68	55.1283
713.82	59.0401
717.42	73.6491
720.50	72.7570
721.93	0.0000
722.20	71.1813
722.78	58.2510
722.78	58.2510
722.89	58.2524
722.95	58.2539
723.30	48.5510
724.18	59.8977
727.18	55.4205
733.00	74.6901
735.90	52.9378
739.58	53.7002
742.81	68.4192
744.21	63.5623
747.13	46.9840
751.79	78.4277
752.31	67.6557
753.82	41.2022
755.35	40.2413
756.15	46.1417
756.87	54.9910
763.93	63.9764
765.79	65.9858
766.42	50.2380
766.84	46.3035
776.49	56.3320
778.00	65.2588
778.57	59.3364
778.89	59.3423
783.80	53.4924
785.46	48.5657
792.07	84.4231

795.84	66.6254
796.30	60.6679
798.80	80.6223
801.93	55.7949
805.60	50.8718
810.29	44.9528
810.76	45.9584
815.85	42.0287
817.79	47.0597
818.51	56.0848
819.60	47.0861
826.30	49.1914
828.27	0.0000
831.60	56.3110
831.96	63.3568
834.83	54.3533
836.80	0.0000
846.75	49.5000
848.13	37.3929
856.28	0.0000
856.80	62.8219
860.37	39.5599
867.32	47.7734
867.82	39.6475
871.10	34.5977
873.19	38.6921
874.81	43.8042
875.33	0.0000
876.40	36.6908
879.36	38.7626
880.27	38.7728
880.51	31.6327
881.50	39.8074
883.24	49.0195
884.67	48.0178
889.25	41.9439
896.60	54.3366
898.02	51.2817
899.00	53.3482
903.28	48.7919
911.07	41.1797
911.07	41.1797
911.07	41.1797
919.63	40.2483
920.93	36.1331
925.00	56.8463
925.24	56.8503
926.50	49.6324
935.52	48.7223
937.48	57.0464
944.10	50.9177
946.00	39.5076
949.00	40.5815
962.29	46.9962
964.01	38.6594
966.15	38.6820
968.20	38.7037
969.11	38.7136
969.11	38.7136
969.11	38.7136
977.42	45.4429
980.50	38.8337
983.50	43.0670
989.30	37.8738
996.32	51.6474
1001.03	31.6604
1001.68	40.1106
1004.76	57.0454
1021.30	0.0000
1024.50	0.0000
1034.80	40.4604
1036.00	43.6686
1037.82	37.2952
1038.57	36.2379
1038.76	0.0000
1045.16	49.1108
1046.59	46.9928
1048.07	42.7363

1050.47	49.1782
1050.47	49.1782
1062.04	45.0331
1063.62	40.7609
1076.63	25.8293
1077.35	23.6812
1078.86	32.3042
1085.78	37.7532
1099.22	37.8796
1112.02	44.9787
1112.84	39.8177
1115.52	27.1655
1120.29	34.8125
1120.29	34.8125
1120.29	34.8125
1120.29	34.8125
1120.51	34.8156
1121.28	34.8219
1124.00	0.0000
1129.67	42.0575
1131.51	0.0000
1147.95	0.0000
1167.94	55.0220
1173.22	35.8087
1175.09	37.6617
1177.93	47.7979
1189.05	42.3931
1204.90	44.3984
1205.75	0.0000
1213.00	43.5557
1221.42	50.1372
1230.97	55.8301
1235.34	62.2732
1236.41	0.0000
1238.25	35.1515
1246.25	38.7068
1260.41	0.0000
1271.85	33.8057
1274.45	37.5846
1274.54	41.3431
1291.56	32.0673
1298.22	0.0000
1312.09	40.7359
1325.50	34.2026
1325.50	34.2026
1332.49	22.8359
1333.61	13.3244
1360.21	22.0136
1362.66	0.0000
1365.15	21.0780
1368.21	23.0088
1368.53	0.0000
1376.25	31.6908
1384.27	32.7051
1394.10	23.1328
1395.20	26.0299
1407.95	22.2316
1434.06	20.4070
1436.60	24.3062
1457.56	0.0000
1460.81	15.6309
1489.15	20.6309
1509.49	14.7943
1596.49	17.5007
1620.62	17.1211
1678.03	0.0000
1691.02	14.2791
1691.02	14.2791
1706.46	0.0000
1750.46	0.0000
1764.49	10.6251
1764.49	10.6251
1764.49	10.6251
1764.49	10.6251
1770.23	10.6356
1771.40	12.4106
1791.20	0.0000
1808.65	9.3669

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960008

Total Uranium Activity	9.2527E+00	ug/g
Total Uranium Counting Unc.	7.4205E+00	ug/g
Total Uranium Tpu	3.7860E-06	ug/g
Total Uranium Mda	3.6751E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G245960008
ANALYST	: MXR1	DETECTOR	: GAM01
SAMPLE DATE	: 28-JAN-2010 12:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 12-FEB-2010 15:53:44.15	SAMPLE ALQT	: 123.380 GRAM

GROSS GAMMA ACTIVITY (pCi/GRAM)	: 9.144E+00
GROSS GAMMA ERROR (pCi/GRAM)	: 1.378E+00
GROSS GAMMA MDA (pCi/GRAM)	: 3.790E+00
GROSS GAMMA DLC (pCi/GRAM)	: 1.832E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:55:05.73

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960009.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:54:12
Sample ID : G245960009 Sample quantity : 1.17960E+02 GRAM
Detector name : GAM06 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.17 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.65*	156	326	0.92	125.30	122	8	2.17E-02	22.0	
2	3	72.89	107	441	1.67	145.78	141	22	1.48E-02	41.8	1.30E+00
3	3	74.71	328	313	1.12	149.42	141	22	4.55E-02	11.0	
4	3	76.91*	541	322	1.10	153.81	141	22	7.52E-02	7.1	
5	0	86.83	166	391	1.06	173.67	171	7	2.30E-02	21.3	
6	0	93.23*	194	615	1.34	186.46	180	9	2.70E-02	24.8	
7	0	129.17	62	379	1.00	258.35	253	10	8.66E-03	59.8	
8	0	185.86*	150	313	1.08	371.72	367	9	2.08E-02	23.9	
9	0	209.19	80	282	1.44	418.38	413	10	1.12E-02	40.6	
10	4	238.44*	985	174	1.06	476.87	472	16	1.37E-01	3.9	1.15E+00
11	4	241.43	258	208	1.71	482.87	472	16	3.58E-02	14.4	
12	0	269.75	94	137	1.33	539.50	536	8	1.31E-02	23.8	
13	3	295.03*	313	114	1.17	590.06	586	19	4.35E-02	8.1	2.46E+00
14	3	299.65	90	184	2.02	599.30	586	19	1.25E-02	32.4	
15	0	338.12	206	129	1.31	676.24	671	9	2.87E-02	12.1	
16	0	351.62*	531	196	1.27	703.24	696	14	7.38E-02	7.1	
17	0	409.61	46	110	1.40	819.22	814	11	6.39E-03	46.5	
18	0	463.18	123	48	2.08	926.37	921	13	1.71E-02	15.0	
19	0	510.85*	130	120	2.06	1021.69	1015	14	1.81E-02	22.6	
20	0	582.94*	316	83	1.43	1165.88	1160	13	4.39E-02	8.4	
21	0	609.00*	389	105	1.61	1218.00	1211	16	5.40E-02	7.9	
22	0	661.77	135	100	1.41	1323.53	1316	16	1.87E-02	18.5	
23	0	727.34	55	63	1.41	1454.69	1449	11	7.63E-03	31.1	
24	0	795.76	73	60	2.50	1591.51	1582	23	1.01E-02	30.5	
25	0	911.01*	214	82	1.56	1822.03	1813	18	2.98E-02	12.2	
26	0	933.19	36	31	1.25	1866.38	1859	14	4.96E-03	37.3	
27	3	964.37	40	32	2.02	1928.73	1925	18	5.59E-03	28.7	1.28E+00
28	3	968.57*	123	48	1.96	1937.15	1925	18	1.71E-02	14.8	
29	0	1120.25	68	60	1.75	2240.51	2231	16	9.46E-03	28.2	
30	0	1460.52	604	18	1.97	2921.03	2912	18	8.39E-02	4.4	
31	0	1764.69*	43	11	2.82	3529.38	3521	14	5.95E-03	23.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:55:08

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960009.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:54:12
Sample ID : G245960009 Sample quantity : 117.96 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.17 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.872E+01	2.057E+00	5.586E-01	3.695E-02	33.506
CD-109	+	88.03	*	2.823E+00	1.233E+00	1.979E+00	1.954E-01	1.426
SN-126		64.28		-7.405E-02	7.821E-01	1.157E+00	1.780E-01	-0.064
	+	86.94		1.153E+00	6.867E-01	7.762E-01	3.230E-01	1.486
	+	87.57	*	2.775E-01	1.212E-01	1.851E-01	1.821E-02	1.499
BA-137M	+	661.65	*	2.461E-01	9.168E-02	6.893E-02	3.404E-03	3.570
CS-137	+	661.65	*	2.601E-01	9.692E-02	7.286E-02	3.619E-03	3.570
TL-208		277.35		4.532E-01	4.916E-01	8.193E-01	8.726E-02	0.553
	+	510.84		7.972E-01	3.698E-01	2.474E-01	2.482E-02	3.222
	+	583.14	*	5.533E-01	9.915E-02	6.883E-02	4.350E-03	8.039
		860.37		2.506E-01	3.338E-01	5.941E-01	4.543E-02	0.422
BI-211	+	72.87		6.842E+00	5.750E+00	5.766E+00	5.176E-01	1.187
	+	351.07	*	4.028E+00	6.317E-01	4.092E-01	2.641E-02	9.846
PB-212	+	74.81		2.373E+00	6.058E-01	6.509E-01	8.462E-02	3.646
	+	77.11		2.210E+00	3.727E-01	3.671E-01	3.352E-02	6.019
	+	87.30		1.283E+00	5.751E-01	8.723E-01	1.222E-01	1.471
	+	238.63	*	1.609E+00	1.730E-01	1.171E-01	8.629E-03	13.748
	+	300.09		2.286E+00	1.494E+00	1.428E+00	1.196E-01	1.600
PO-212	+	74.81		2.373E+00	6.058E-01	6.509E-01	8.462E-02	3.646
	+	77.11		2.210E+00	3.727E-01	3.671E-01	3.352E-02	6.019
	+	87.30		1.283E+00	5.751E-01	8.723E-01	1.222E-01	1.471
		115.19		2.194E+00	4.296E+00	7.218E+00	4.763E-01	0.304
	+	238.63	*	1.609E+00	1.730E-01	1.171E-01	8.629E-03	13.748
	+	300.09		2.286E+00	1.494E+00	1.428E+00	1.196E-01	1.600
BI-214	+	609.31	*	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
	+	1120.29		1.186E+00	6.764E-01	6.000E-01	5.480E-02	1.976
	+	1764.49		1.028E+00	4.854E-01	3.839E-01	2.248E-02	2.677
PB-214	+	74.81		4.089E+00	1.017E+00	1.122E+00	1.311E-01	3.646
	+	77.11		3.788E+00	7.010E-01	6.293E-01	7.484E-02	6.019
	+	87.30		2.198E+00	9.752E-01	1.494E+00	1.865E-01	1.471
	+	241.98		2.529E+00	7.580E-01	6.535E-01	5.303E-02	3.869
	+	295.21		1.396E+00	2.575E-01	2.548E-01	2.203E-02	5.481
	+	351.92	*	1.401E+00	2.316E-01	1.426E-01	1.183E-02	9.825
PO-214	+	74.81		4.089E+00	1.017E+00	1.122E+00	1.311E-01	3.646

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.788E+00	7.010E-01	6.293E-01	7.484E-02	6.019
	+	87.30		2.198E+00	9.752E-01	1.494E+00	1.865E-01	1.471
	+	241.98		2.529E+00	7.580E-01	6.535E-01	5.303E-02	3.869
	+	295.21		1.396E+00	2.575E-01	2.548E-01	2.203E-02	5.481
	+	351.92	*	1.401E+00	2.316E-01	1.426E-01	1.183E-02	9.825
PO-216	+	74.81		2.373E+00	6.058E-01	6.509E-01	8.462E-02	3.646
	+	77.11		2.210E+00	3.727E-01	3.671E-01	3.352E-02	6.019
	+	87.30		1.283E+00	5.751E-01	8.723E-01	1.222E-01	1.471
	+	238.63	*	1.609E+00	1.730E-01	1.171E-01	8.629E-03	13.748
	+	300.09		2.286E+00	1.494E+00	1.428E+00	1.196E-01	1.600
PO-218	+	74.81		4.089E+00	1.017E+00	1.122E+00	1.311E-01	3.646
	+	77.11		3.788E+00	7.010E-01	6.293E-01	7.484E-02	6.019
	+	87.30		2.198E+00	9.752E-01	1.494E+00	1.865E-01	1.471
	+	241.98		2.529E+00	7.580E-01	6.535E-01	5.303E-02	3.869
	+	295.21		1.396E+00	2.575E-01	2.548E-01	2.203E-02	5.481
	+	351.92	*	1.401E+00	2.316E-01	1.426E-01	1.183E-02	9.825
RA-224	+	240.98	*	4.795E+00	1.412E+00	1.332E+00	7.808E-02	3.599
RA-226	+	609.31	*	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
	+	1120.29		1.186E+00	6.764E-01	6.000E-01	5.480E-02	1.976
	+	1764.49		1.028E+00	4.854E-01	3.839E-01	2.248E-02	2.677
AC-228	+	338.32		1.723E+00	8.170E-01	4.640E-01	1.892E-01	3.713
	+	911.07	*	1.684E+00	4.444E-01	2.573E-01	2.629E-02	6.547
	+	969.11		1.706E+00	6.384E-01	4.236E-01	9.659E-02	4.027
RA-228	+	338.32		1.723E+00	8.170E-01	4.640E-01	1.892E-01	3.713
	+	911.07	*	1.684E+00	4.444E-01	2.573E-01	2.629E-02	6.547
	+	969.11		1.706E+00	6.384E-01	4.236E-01	9.659E-02	4.027
TH-228	+	74.81		2.409E+00	5.729E-01	6.608E-01	6.017E-02	3.646
	+	77.11		2.243E+00	3.783E-01	3.727E-01	3.403E-02	6.019
	+	87.30		1.303E+00	5.691E-01	8.856E-01	8.694E-02	1.471
	+	238.63	*	1.634E+00	1.756E-01	1.188E-01	8.760E-03	13.748
	+	300.09		2.320E+00	2.033E+00	1.450E+00	8.549E-01	1.600
TH-230	+	609.31	*	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
	+	1120.29		1.186E+00	6.764E-01	6.000E-01	5.480E-02	1.976
	+	1764.49		1.028E+00	4.854E-01	3.839E-01	2.248E-02	2.677
TH-232	+	338.32		1.723E+00	4.290E-01	4.640E-01	2.729E-02	3.713
	+	911.07	*	1.684E+00	4.444E-01	2.573E-01	2.629E-02	6.547
	+	969.11		1.706E+00	6.384E-01	4.236E-01	9.659E-02	4.027
TH-234	+	63.29	*	4.906E+00	2.333E+00	2.886E+00	5.247E-01	1.700
	+	92.38		2.079E+00	1.099E+00	9.397E-01	1.721E-01	2.212
U-234	+	609.31	*	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
	+	1120.29		1.186E+00	6.764E-01	6.000E-01	5.480E-02	1.976
	+	1764.49		1.028E+00	4.854E-01	3.839E-01	2.248E-02	2.677
NP-237	+	86.50	*	8.148E-01	3.936E-01	5.363E-01	1.224E-01	1.519
		95.87		-3.037E-01	1.321E+00	1.896E+00	4.667E-01	-0.160
U-238	+	63.29	*	4.906E+00	2.333E+00	2.886E+00	5.247E-01	1.700
	+	92.38		2.079E+00	1.048E+00	9.397E-01	8.543E-02	2.212
AM-243	+	74.67	*	3.847E-01	9.139E-02	1.059E-01	9.564E-03	3.633
	+	86.72		3.055E+01	1.335E+01	2.048E+01	2.000E+00	1.492
		117.66		-3.293E+00	4.607E+00	7.351E+00	4.713E-01	-0.448

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		2.583E+00	2.115E+01	3.478E+01	1.986E+00	0.074
ANH-511	+	511.00	*	1.722E-01	7.858E-02	5.345E-02	2.988E-03	3.222

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-4.871E-01	4.073E-01	6.085E-01	4.020E-02	-0.800
NA-22		1274.54	*	-1.310E-02	4.970E-02	7.828E-02	4.834E-03	-0.167
NA-24		1368.53	*	3.811E-01	4.970E-02	Half-Life too short		
AL-26		1129.67		-6.264E-01	2.017E+00	3.202E+00	1.995E-01	-0.196
		1808.65	*	-3.449E-03	3.124E-02	5.029E-02	2.889E-03	-0.069
TI-44		67.85		9.260E-02	7.497E-02	1.004E-01	8.958E-03	0.922
	+	78.38	*	4.078E-01	6.877E-02	9.661E-02	8.881E-03	4.220
SC-46		889.25	*	2.276E-02	4.555E-02	7.956E-02	5.703E-03	0.286
	+	1120.51		2.030E-01	1.150E-01	1.488E-01	9.357E-03	1.365
V-48		944.10		6.494E-02	9.810E-01	1.641E+00	1.171E-01	0.040
		983.50	*	1.631E-02	7.587E-02	1.287E-01	9.013E-03	0.127
		1312.09		4.473E-02	9.678E-02	1.665E-01	1.039E-02	0.269
CR-51		320.08	*	2.492E-01	4.691E-01	8.081E-01	5.324E-02	0.308
MN-52		744.21		2.575E-01	3.050E-01	5.278E-01	3.010E-02	0.488
		848.13		-6.514E-01	7.800E+00	1.292E+01	8.707E-01	-0.050
		935.52		2.754E-01	3.251E-01	5.224E-01	3.743E-02	0.527
		1246.25		-3.127E+00	8.238E+00	1.285E+01	7.837E-01	-0.243
		1333.61		-9.678E-01	5.201E+00	8.193E+00	5.147E-01	-0.118
		1434.06	*	-1.055E-02	2.280E-01	3.651E-01	2.298E-02	-0.029
MN-54		834.83	*	1.307E-02	5.233E-02	8.910E-02	5.881E-03	0.147
CO-56		846.75	*	-1.343E-02	4.477E-02	7.256E-02	4.878E-03	-0.185
		977.42		2.129E+00	3.387E+00	5.972E+00	4.196E-01	0.356
		1037.82		2.302E-01	3.528E-01	6.228E-01	4.571E-02	0.370
		1175.09		1.502E+00	2.560E+00	4.452E+00	2.636E-01	0.337
		1238.25		1.212E-01	1.134E-01	2.016E-01	1.296E-02	0.601
		1360.21		-3.567E-01	1.093E+00	1.679E+00	1.056E-01	-0.212
		1771.40		-8.079E-01	3.648E-01	3.442E-01	2.010E-02	-2.347
CO-57		122.06	*	2.190E-02	3.124E-02	5.279E-02	3.225E-03	0.415
		136.48		-1.054E-02	2.610E-01	4.270E-01	2.869E-02	-0.025
CO-58		810.76	*	-3.456E-03	4.746E-02	7.897E-02	5.042E-03	-0.044
FE-59		142.65		1.020E+00	3.263E+00	5.408E+00	3.085E-01	0.189
		192.34		1.081E+00	1.223E+00	2.047E+00	2.396E-01	0.528
		1099.22	*	-6.298E-03	9.731E-02	1.588E-01	1.165E-02	-0.040
		1291.56		-1.480E-02	1.278E-01	2.046E-01	1.583E-02	-0.072
CO-60		1173.22		-3.690E-02	5.132E-02	7.715E-02	4.564E-03	-0.478
		1332.49	*	2.847E-02	3.865E-02	7.004E-02	4.400E-03	0.406
ZN-65		1115.52	*	-4.131E-02	1.260E-01	1.690E-01	1.070E-02	-0.244
GE-68		1077.35	*	3.150E-01	1.422E+00	2.400E+00	1.573E-01	0.131
AS-73		53.44	*	1.266E+00	1.239E+00	2.147E+00	1.963E-01	0.590
AS-74		595.88	*	-1.251E-02	1.063E-01	1.712E-01	9.104E-03	-0.073
		634.78		-2.976E-01	4.405E-01	6.698E-01	3.423E-02	-0.444
SE-75		66.05		1.821E+00	6.836E+00	1.017E+01	1.088E+00	0.179

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		96.73		6.015E-01	1.066E+00	1.592E+00	2.153E-01	0.378
		121.11		6.234E-02	1.681E-01	2.805E-01	2.655E-02	0.222
		136.00		-1.299E-02	4.971E-02	8.060E-02	4.750E-03	-0.161
		198.60		-3.178E-01	2.427E+00	3.774E+00	2.634E-01	-0.084
		264.65	*	-2.410E-02	6.276E-02	8.461E-02	5.075E-03	-0.285
		279.53		-1.091E-02	1.337E-01	2.246E-01	1.443E-02	-0.049
		303.91		-1.100E+00	2.843E+00	4.031E+00	3.888E-01	-0.273
		400.65		7.532E-02	3.333E-01	5.608E-01	5.024E-02	0.134
BR-77	+	87.88		6.181E+02	2.700E+02	4.373E+02	4.315E+01	1.413
		200.40		4.039E+01	2.109E+02	3.439E+02	1.937E+01	0.117
	+	239.00		2.619E+02	2.559E+01	4.538E+01	2.656E+00	5.771
		249.79		-2.740E+01	8.145E+01	1.279E+02	7.541E+00	-0.214
		281.68		-1.424E+02	1.143E+02	1.802E+02	1.076E+01	-0.790
		297.23		3.597E+02	8.052E+01	1.533E+02	9.158E+00	2.346
		303.76		-9.494E+01	2.453E+02	3.480E+02	2.077E+01	-0.273
		439.47		1.711E+01	1.806E+02	3.005E+02	1.691E+01	0.057
		484.57		1.707E+02	2.811E+02	4.832E+02	2.718E+01	0.353
		520.65	*	-2.652E+00	1.370E+01	2.214E+01	1.234E+00	-0.120
		574.64		-4.006E+01	2.573E+02	4.143E+02	2.241E+01	-0.097
		578.91		-3.276E+00	1.237E+02	1.738E+02	9.370E+00	-0.019
		585.48		1.124E+03	3.105E+02	5.534E+02	2.969E+01	2.032
		755.35		-9.290E+00	2.154E+02	3.446E+02	2.002E+01	-0.027
		817.79		3.059E+01	1.503E+02	2.566E+02	1.649E+01	0.119
SR-82		698.33		-4.703E+01	4.527E+01	6.634E+01	3.497E+00	-0.709
		776.49	*	-6.572E-01	4.661E-01	6.805E-01	4.094E-02	-0.966
		1395.20		4.061E+00	1.159E+01	1.988E+01	1.252E+00	0.204
RB-83		520.41	*	-1.730E-02	8.942E-02	1.445E-01	8.051E-03	-0.120
		529.64		1.394E-02	1.209E-01	2.000E-01	1.111E-02	0.070
		552.65		-1.965E-02	2.406E-01	3.907E-01	2.144E-02	-0.050
RB-84		881.50	*	4.839E-02	7.929E-02	1.401E-01	9.925E-03	0.345
KR-85		513.99	*	1.302E+01	1.072E+01	1.689E+01	9.430E-01	0.771
SR-85		513.99	*	6.680E-02	5.501E-02	8.662E-02	4.838E-03	0.771
RB-86		1076.63	*	-1.704E-01	9.397E-01	1.517E+00	9.952E-02	-0.112
Y-88		898.02		-1.080E-02	4.775E-02	7.766E-02	5.677E-03	-0.139
		1836.01	*	1.937E-02	3.853E-02	7.031E-02	3.996E-03	0.276
ZR-88		392.90	*	-1.394E-03	3.734E-02	6.192E-02	3.436E-03	-0.023
Y-91		1204.90	*	-3.529E+00	2.193E+01	3.525E+01	2.114E+00	-0.100
NB-94		702.63	*	2.075E-03	4.312E-02	6.985E-02	3.710E-03	0.030
		871.10		3.055E-02	4.461E-02	7.870E-02	5.490E-03	0.388
NB-95		765.79	*	2.417E-02	5.463E-02	9.103E-02	5.381E-03	0.265
NB-95M		235.69	*	4.725E-01	2.022E-01	3.161E-01	2.389E-02	1.495
ZR-95		724.18		1.722E-01	1.227E-01	2.005E-01	1.327E-02	0.858
		756.15	*	-7.740E-03	8.839E-02	1.408E-01	9.921E-03	-0.055
NB-97		657.90	*	1.222E-01	8.839E-02	Half-Life too short		
		1024.50		2.556E-01	8.839E-02	Half-Life too short		
ZR-97		254.15		8.717E-01	8.839E-02	Half-Life too short		
		355.39		4.393E+00	8.839E-02	Half-Life too short		
		507.63	*	6.145E+00	8.839E-02	Half-Life too short		
		602.52		5.341E+00	8.839E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1021.30		1.228E+01	8.839E-02	Half-Life too short		
		1147.95		-2.073E+00	8.839E-02	Half-Life too short		
		1362.66		-8.746E+00	8.839E-02	Half-Life too short		
		1750.46		-5.485E+00	8.839E-02	Half-Life too short		
MO-99		140.51		-7.116E+00	3.251E+01	5.266E+01	1.418E+01	-0.135
		181.06		-8.969E+00	2.498E+01	3.460E+01	5.897E+00	-0.259
		366.43		3.745E+01	1.051E+02	1.789E+02	1.026E+01	0.209
		739.58	*	-1.153E+01	1.456E+01	2.138E+01	2.933E+00	-0.540
		778.00		-2.554E+01	4.068E+01	6.439E+01	3.883E+00	-0.397
TC-99M		140.51	*	-1.160E+10	4.068E+01	Half-Life too short		
RH-101		127.23		3.906E-02	4.580E-02	6.890E-02	4.114E-03	0.567
		198.01	*	-9.205E-03	4.493E-02	6.969E-02	3.914E-03	-0.132
		325.23		-1.091E-01	2.748E-01	4.506E-01	2.671E-02	-0.242
RH-102		418.52		-1.224E-01	3.625E-01	5.874E-01	3.290E-02	-0.208
		475.06	*	3.967E-02	3.642E-02	6.444E-02	3.628E-03	0.616
		631.29		4.562E-02	6.556E-02	1.129E-01	5.793E-03	0.404
		697.49		-6.045E-02	9.800E-02	1.494E-01	7.864E-03	-0.405
		766.84		7.823E-02	1.430E-01	2.399E-01	1.420E-02	0.326
		1046.59		8.744E-02	1.380E-01	2.421E-01	1.627E-02	0.361
		1112.84		-1.025E-02	3.104E-01	4.358E-01	2.763E-02	-0.024
RU-103		497.08	*	2.662E-02	5.027E-02	8.569E-02	1.076E-02	0.311
	+	610.33		1.387E+01	3.045E+00	3.555E+00	5.411E-01	3.903
RH-106	+	511.85		8.601E-01	3.925E-01	5.596E-01	3.128E-02	1.537
		621.84	*	5.850E-02	3.640E-01	6.001E-01	6.869E-02	0.097
		1050.47		7.145E-01	2.753E+00	4.663E+00	3.124E-01	0.153
RU-106	+	511.85		8.601E-01	3.925E-01	5.596E-01	3.128E-02	1.537
		621.84	*	5.850E-02	3.640E-01	6.001E-01	3.112E-02	0.097
		1050.47		7.145E-01	2.753E+00	4.663E+00	3.124E-01	0.153
AG-108M		433.93	*	-9.128E-03	4.244E-02	6.922E-02	4.245E-03	-0.132
		614.37		2.012E-02	4.743E-02	7.035E-02	4.057E-03	0.286
		722.95		9.804E-03	5.137E-02	7.332E-02	4.411E-03	0.134
AG-110M		657.75	*	3.485E-02	4.448E-02	6.873E-02	3.710E-03	0.507
		677.61		5.535E-02	3.785E-01	6.201E-01	3.400E-02	0.089
		706.67		-1.801E-01	2.774E-01	4.218E-01	2.414E-02	-0.427
		763.93		-1.184E-01	2.149E-01	3.275E-01	2.045E-02	-0.362
		884.67		-1.910E-02	5.940E-02	9.584E-02	7.142E-03	-0.199
		937.48		-4.803E-02	1.345E-01	1.805E-01	1.359E-02	-0.266
		1384.27		6.336E-02	1.802E-01	3.080E-01	2.041E-02	0.206
IN-111		171.28		2.328E-01	1.262E+00	2.069E+00	1.125E-01	0.112
		245.39	*	6.639E-01	1.428E+00	2.071E+00	1.217E-01	0.321
IN-113M		391.69	*	-4.752E-03	5.397E-02	8.921E-02	5.309E-03	-0.053
SN-113		391.69	*	-4.752E-03	5.397E-02	8.921E-02	5.309E-03	-0.053
IN-114M		190.27	*	-9.328E-02	2.667E-01	3.693E-01	2.055E-02	-0.253
CD-115		260.90		-8.358E+00	1.697E+02	2.706E+02	1.605E+01	-0.031
		492.35		2.702E+01	4.490E+01	7.710E+01	4.331E+00	0.350
		527.90	*	-1.341E+01	1.291E+01	1.920E+01	1.067E+00	-0.699
SN-117M		156.02		-1.160E+00	2.878E+00	4.418E+00	2.441E-01	-0.263
		158.56	*	-4.104E-02	6.566E-02	1.040E-01	5.712E-03	-0.395
SB-122		563.90	*	1.601E-01	2.596E+00	4.260E+00	2.321E-01	0.038

---- Non-Identified Nuclides ----

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		692.80		3.309E+01	5.485E+01	9.318E+01	4.865E+00	0.355
I-123		159.00	*	-3.560E+00	5.485E+01	Half-Life too short		
		528.96		-2.094E+02	5.485E+01	Half-Life too short		
TE-123M		159.00	*	-1.660E-02	3.386E-02	5.395E-02	3.005E-03	-0.308
I-124		602.71	*	6.614E-01	8.974E-01	1.371E+00	7.244E-02	0.483
		722.78		8.777E-01	5.393E+00	7.668E+00	4.217E-01	0.114
		1325.50		-1.082E+01	3.284E+01	5.024E+01	3.149E+00	-0.215
		1376.25		4.796E+01	3.515E+01	6.718E+01	4.229E+00	0.714
		1509.49		3.677E+01	1.925E+01	3.935E+01	2.462E+00	0.934
		1691.02		1.829E+00	4.152E+00	7.507E+00	4.515E-01	0.244
SB-124		602.71		3.817E-02	5.179E-02	7.910E-02	4.183E-03	0.483
		645.85		-2.277E-01	6.374E-01	1.000E+00	5.884E-02	-0.228
		709.31		1.229E+00	3.607E+00	5.985E+00	3.216E-01	0.205
		713.82		-3.452E-01	1.991E+00	3.155E+00	3.155E-01	-0.109
		722.78		7.342E-02	4.512E-01	6.415E-01	3.712E-02	0.114
	+	968.20		1.757E+01	5.360E+00	8.999E+00	6.352E-01	1.952
		1045.16		3.469E-01	2.936E+00	4.905E+00	3.299E-01	0.071
		1325.50		-9.672E-01	2.935E+00	4.489E+00	2.814E-01	-0.215
		1368.21		7.028E-01	1.920E+00	3.292E+00	3.990E-01	0.214
		1436.60		-5.452E+00	4.102E+00	4.895E+00	3.080E-01	-1.114
		1691.02	*	3.608E-02	8.193E-02	1.481E-01	9.619E-03	0.244
SB-125		427.89	*	-7.288E-02	1.206E-01	1.916E-01	1.124E-02	-0.380
	+	463.38		1.465E+00	4.503E-01	6.856E-01	4.540E-02	2.136
		600.56		5.086E-02	2.226E-01	3.594E-01	2.256E-02	0.142
		635.90		-3.045E-01	3.315E-01	4.904E-01	3.044E-02	-0.621
TE-125M		109.28	*	-8.402E+00	1.209E+01	1.903E+01	1.730E+00	-0.441
I-126		388.63		4.686E-02	2.529E-01	4.254E-01	2.370E-02	0.110
		666.33	*	3.145E-02	2.528E-01	3.586E-01	1.786E-02	0.088
		753.82		5.897E-02	1.915E+00	3.085E+00	1.788E-01	0.019
SB-126		223.80		-1.133E+00	5.049E+00	8.034E+00	4.640E-01	-0.141
		278.60		2.907E+00	3.070E+00	5.394E+00	3.218E-01	0.539
	+	296.50		1.394E+01	2.418E+00	4.510E+00	2.694E-01	3.091
		414.70		4.793E-02	1.075E-01	1.610E-01	9.008E-03	0.298
		415.30		1.187E+00	9.184E+00	1.337E+01	7.481E-01	0.089
		555.20		-2.729E+00	4.834E+00	7.517E+00	4.118E-01	-0.363
		573.80		-9.502E-02	1.249E+00	2.024E+00	1.096E-01	-0.047
		593.00		-1.132E+00	1.134E+00	1.678E+00	8.948E-02	-0.675
		656.30		-3.572E+00	4.615E+00	5.738E+00	2.855E-01	-0.622
		666.33		1.314E-02	1.057E-01	1.499E-01	7.463E-03	0.088
		675.00		3.198E-01	2.458E+00	4.021E+00	2.034E-01	0.080
		695.00		6.525E-02	9.635E-02	1.646E-01	8.627E-03	0.396
		697.00		7.034E-02	3.368E-01	5.535E-01	2.911E-02	0.127
		720.50	*	-3.486E-02	1.749E-01	2.477E-01	1.357E-02	-0.141
		856.80		-1.800E-01	5.350E-01	8.637E-01	5.896E-02	-0.208
		989.30		1.515E-01	1.413E+00	2.368E+00	1.653E-01	0.064
		1034.80		2.739E+00	1.003E+01	1.706E+01	1.156E+00	0.161
		1213.00		-1.819E+00	5.437E+00	8.573E+00	5.159E-01	-0.212
SB-127		61.10		1.227E+02	8.627E+01	1.342E+02	1.550E+01	0.915
		252.40		3.390E-01	5.308E+00	8.530E+00	3.546E+00	0.040

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		290.80		-6.286E+00	3.089E+01	4.465E+01	4.147E+00	-0.141
		411.60		3.043E+00	1.828E+01	2.669E+01	3.817E+00	0.114
		444.90		-8.182E+00	1.306E+01	2.063E+01	2.210E+00	-0.397
		473.00		2.843E-01	2.272E+00	3.773E+00	4.189E-01	0.075
		543.00		1.219E+01	2.071E+01	3.535E+01	4.522E+00	0.345
		603.60		6.237E+00	1.640E+01	2.403E+01	2.524E+00	0.260
		685.20	*	8.860E-01	1.669E+00	2.824E+00	2.559E-01	0.314
		698.50		-1.441E+01	1.995E+01	2.997E+01	4.281E+00	-0.481
		722.20		4.844E+00	3.698E+01	5.233E+01	4.702E+00	0.093
		783.80		4.126E+00	4.426E+00	7.947E+00	8.604E-01	0.519
XE-127		57.60		1.288E+00	9.119E+00	1.429E+01	1.315E+00	0.090
		145.22		-2.673E-02	8.277E-01	1.352E+00	7.659E-02	-0.020
		172.10		4.298E-03	1.495E-01	2.434E-01	1.325E-02	0.018
		202.84	*	-5.164E-02	6.609E-02	9.419E-02	5.321E-03	-0.548
		374.96		-9.683E-02	2.413E-01	3.917E-01	2.224E-02	-0.247
I-131		80.18		-8.145E+00	6.531E+00	8.934E+00	8.348E-01	-0.912
		284.30		-1.006E-01	1.848E+00	3.106E+00	2.051E-01	-0.032
		364.48	*	3.864E-02	1.476E-01	2.498E-01	1.606E-02	0.155
		636.97		-9.869E-01	1.858E+00	2.861E+00	1.681E-01	-0.345
		722.89		1.570E+00	8.678E+00	1.237E+01	6.911E-01	0.127
TE-132		49.72		-4.194E+01	3.075E+01	4.861E+01	5.303E+00	-0.863
		111.76		1.926E+01	3.768E+01	6.327E+01	6.038E+00	0.304
		116.30		-2.792E+01	3.474E+01	5.520E+01	5.126E+00	-0.506
		228.16	*	-1.252E-01	8.916E-01	1.424E+00	2.046E-01	-0.088
BA-133		53.15		4.408E+00	5.398E+00	9.304E+00	8.493E-01	0.474
		79.62		-8.434E-01	1.760E+00	2.511E+00	3.915E-01	-0.336
		81.00		-2.877E-01	1.483E-01	1.861E-01	3.030E-02	-1.546
		276.40		5.589E-01	4.861E-01	8.146E-01	1.062E-01	0.686
		302.84		-3.389E-02	1.930E-01	2.787E-01	3.272E-02	-0.122
		356.01	*	1.620E-02	6.386E-02	9.454E-02	1.093E-02	0.171
		383.85		-2.159E-01	3.811E-01	6.108E-01	6.579E-02	-0.353
I-133	+	510.53		1.817E+00	3.811E-01	Half-Life too short		
		529.87	*	2.290E-03	3.811E-01	Half-Life too short		
		706.58		-3.530E-01	3.811E-01	Half-Life too short		
		856.28		-3.869E-01	3.811E-01	Half-Life too short		
		875.33		-1.582E-01	3.811E-01	Half-Life too short		
		1236.41		8.805E-01	3.811E-01	Half-Life too short		
		1298.22		8.411E-02	3.811E-01	Half-Life too short		
CS-134		475.35		2.040E+00	2.414E+00	4.204E+00	2.367E-01	0.485
		563.23		1.368E-01	4.415E-01	7.386E-01	4.122E-02	0.185
		569.32		8.006E-02	2.364E-01	3.964E-01	2.225E-02	0.202
		604.70		2.495E-02	4.642E-02	6.922E-02	3.676E-03	0.360
	+	795.84	*	1.857E-01	1.140E-01	1.144E-01	7.201E-03	1.623
		801.93		-6.922E-01	5.228E-01	6.214E-01	3.936E-02	-1.114
		1038.57		2.362E+00	4.499E+00	7.836E+00	5.297E-01	0.301
		1167.94		-2.070E+00	2.860E+00	4.298E+00	2.560E-01	-0.482
		1365.15		4.495E-01	1.303E+00	2.232E+00	1.523E-01	0.201
CS-135		268.24	*	3.534E-01	2.328E-01	3.577E-01	2.780E-02	0.988
I-135		288.45		2.812E+10	2.328E-01	Half-Life too short		

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		417.63		3.371E+09	2.328E-01	Half-Life too short		
		546.56		-9.793E+09	2.328E-01	Half-Life too short		
		836.80		1.593E+10	2.328E-01	Half-Life too short		
		1038.76		1.543E+10	2.328E-01	Half-Life too short		
		1124.00		4.338E+10	2.328E-01	Half-Life too short		
		1131.51		2.460E+09	2.328E-01	Half-Life too short		
		1260.41	*	-9.273E+08	2.328E-01	Half-Life too short		
		1457.56		5.644E+11	2.328E-01	Half-Life too short		
		1678.03		2.315E+09	2.328E-01	Half-Life too short		
		1706.46		1.584E+10	2.328E-01	Half-Life too short		
		1791.20		1.963E+09	2.328E-01	Half-Life too short		
CS-136		66.91		2.340E+00	1.249E+00	1.691E+00	2.639E-01	1.384
	+	86.29		3.630E+00	1.623E+00	2.561E+00	3.489E-01	1.417
		153.22		1.029E+00	8.048E-01	1.378E+00	9.691E-02	0.747
		163.89		1.294E+00	1.297E+00	2.199E+00	1.530E-01	0.589
		176.55		2.707E-01	4.643E-01	7.729E-01	4.812E-02	0.350
		273.65		-9.348E-01	7.146E-01	8.918E-01	6.023E-02	-1.048
		340.57		4.608E-01	1.854E-01	3.125E-01	1.948E-02	1.475
		818.51		-2.161E-02	8.304E-02	1.354E-01	8.723E-03	-0.160
		1048.07	*	6.961E-02	1.302E-01	2.264E-01	1.625E-02	0.307
		1235.34		6.061E-01	7.854E-01	1.360E+00	1.380E-01	0.446
CE-139		165.85	*	1.695E-03	3.632E-02	5.924E-02	3.203E-03	0.029
BA-140		162.64		5.356E-01	9.199E-01	1.535E+00	9.532E-02	0.349
		304.84		7.731E-01	1.673E+00	2.519E+00	6.884E-01	0.307
		423.70		9.856E-01	2.375E+00	4.006E+00	1.272E+00	0.246
		537.32	*	-3.169E-02	3.073E-01	4.985E-01	1.619E-01	-0.064
LA-140		328.77		1.250E-01	3.709E-01	6.320E-01	4.171E-02	0.198
		432.53		2.955E+00	2.651E+00	4.688E+00	2.927E-01	0.630
		487.03		1.020E-03	1.781E-01	2.932E-01	1.879E-02	0.003
		751.79		9.460E-01	2.253E+00	3.756E+00	2.658E-01	0.252
		815.85		4.650E-02	3.668E-01	6.216E-01	4.781E-02	0.075
		867.82		-4.604E-02	1.807E+00	3.008E+00	2.257E-01	-0.015
		919.63		1.234E+00	3.371E+00	5.440E+00	5.190E-01	0.227
		925.24		2.589E-01	1.405E+00	2.149E+00	1.684E-01	0.120
		1596.49	*	6.258E-02	1.050E-01	1.902E-01	1.173E-02	0.329
CE-141		145.44	*	-1.136E-03	7.424E-02	1.213E-01	7.158E-03	-0.009
CE-143		57.37		-5.333E-04	7.424E-02	Half-Life too short		
		231.56		5.292E-06	7.424E-02	Half-Life too short		
		293.26	*	9.025E-04	7.424E-02	Half-Life too short		
	+	350.59		3.268E-02	7.424E-02	Half-Life too short		
		490.36		-2.351E-03	7.424E-02	Half-Life too short		
		664.57		1.852E-03	7.424E-02	Half-Life too short		
		721.93		9.853E-05	7.424E-02	Half-Life too short		
CE-144		80.11		-3.753E+00	2.995E+00	4.096E+00	3.805E-01	-0.916
		133.54	*	5.347E-02	2.924E-01	4.244E-01	6.036E-02	0.126
PM-144		476.78		-5.840E-02	8.648E-02	1.353E-01	9.204E-03	-0.432
		618.01		-3.951E-02	3.788E-02	5.320E-02	2.975E-03	-0.743
		696.49	*	2.378E-02	4.310E-02	7.285E-02	3.832E-03	0.326
		778.57		9.284E-02	2.661E+00	4.480E+00	2.706E-01	0.021

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144		696.49	*	1.611E+00	2.921E+00	4.937E+00	2.594E-01	0.326
		1489.15		3.232E+00	1.113E+01	1.909E+01	1.197E+00	0.169
PM-146		453.90	*	-3.131E-02	5.406E-02	8.544E-02	7.272E-03	-0.366
		633.02		-3.436E-01	1.688E+00	2.680E+00	9.841E-01	-0.128
		735.90		4.900E-02	1.716E-01	2.834E-01	7.892E-02	0.173
		747.13		-5.651E-02	1.231E-01	1.892E-01	2.361E-02	-0.299
ND-147		91.11		9.164E-01	6.001E-01	7.087E-01	7.063E-02	1.293
		319.41		3.157E+00	4.209E+00	7.328E+00	4.357E-01	0.431
		439.89		1.651E+00	7.416E+00	1.244E+01	7.003E-01	0.133
		531.02	*	5.391E-01	6.105E-01	1.070E+00	1.436E-01	0.504
PM-149		285.90	*	-2.209E+01	1.159E+02	1.934E+02	2.755E+01	-0.114
EU-152		121.78		6.977E-02	9.099E-02	1.540E-01	1.209E-02	0.453
		244.69		3.226E-01	4.406E-01	6.506E-01	3.823E-02	0.496
		344.27	*	-6.352E-02	1.364E-01	1.904E-01	1.254E-02	-0.334
		443.98		-1.127E-02	1.240E+00	2.048E+00	1.153E-01	-0.006
		778.89		-8.335E-03	3.053E-01	5.112E-01	3.087E-02	-0.016
		867.32		-2.846E-01	1.076E+00	1.753E+00	1.216E-01	-0.162
	+	964.01		6.419E-01	3.708E-01	7.042E-01	4.981E-02	0.912
		1085.78		-1.818E-01	4.806E-01	7.586E-01	4.935E-02	-0.240
		1112.02		3.645E-01	3.986E-01	6.428E-01	4.078E-02	0.567
		1407.95		7.839E-02	2.360E-01	3.993E-01	2.515E-02	0.196
GD-153		69.67		-1.074E+00	2.301E+00	3.304E+00	2.949E-01	-0.325
		83.37		2.587E+01	2.750E+01	3.128E+01	2.973E+00	0.827
		97.43	*	1.508E-01	1.013E-01	1.650E-01	1.379E-02	0.914
		103.18		-9.347E-02	1.252E-01	2.004E-01	1.540E-02	-0.466
EU-154		123.07		-2.990E-02	7.049E-02	1.050E-01	1.005E-02	-0.285
		247.94		-1.054E-01	4.524E-01	6.887E-01	6.608E-02	-0.153
		591.81		3.259E-02	7.358E-01	1.203E+00	1.144E-01	0.027
		723.30		1.232E-01	2.103E-01	3.170E-01	2.168E-02	0.389
		756.87		8.132E-02	9.501E-01	1.539E+00	1.562E-01	0.053
		873.19		1.524E-01	3.824E-01	6.597E-01	7.363E-02	0.231
		996.32		-2.801E-01	4.336E-01	6.634E-01	1.129E-01	-0.422
		1004.76		-1.962E-01	2.503E-01	3.773E-01	3.939E-02	-0.520
		1274.45	*	-3.658E-02	1.388E-01	2.186E-01	2.093E-02	-0.167
EU-155		48.70		-3.701E+00	3.821E+00	6.187E+00	5.181E-01	-0.598
		60.01		7.626E+00	7.229E+00	1.119E+01	1.025E+00	0.682
	+	86.54		3.342E-01	1.460E-01	2.327E-01	2.287E-02	1.436
		105.31	*	5.332E-02	1.305E-01	2.189E-01	1.660E-02	0.244
TB-160	+	86.79		8.930E-01	3.901E-01	6.141E-01	6.002E-02	1.454
		197.04		-4.274E-01	7.688E-01	1.173E+00	6.584E-02	-0.364
		215.65		4.086E-02	9.572E-01	1.546E+00	8.859E-02	0.026
	+	298.57		3.327E-01	2.165E-01	2.595E-01	1.550E-02	1.282
		879.36	*	4.576E-02	1.623E-01	2.781E-01	1.964E-02	0.165
		962.29		1.611E+00	7.118E-01	1.282E+00	9.077E-02	1.256
		966.15		1.461E+00	3.473E-01	6.876E-01	4.858E-02	2.124
		1177.93		1.001E-01	4.295E-01	7.203E-01	4.271E-02	0.139
		1271.85		1.513E-01	8.168E-01	1.361E+00	8.380E-02	0.111
HO-166M		80.57		-6.408E-01	3.916E-01	5.228E-01	4.870E-02	-1.226
	+	184.41		1.277E-01	6.157E-02	8.853E-02	4.891E-03	1.443

---- Non-Identified Nuclides ----

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		280.46		-8.404E-02	1.036E-01	1.674E-01	9.987E-03	-0.502
	+	410.95		4.547E-01	4.241E-01	5.446E-01	3.044E-02	0.835
		711.68	*	5.480E-02	7.605E-02	1.304E-01	7.034E-03	0.420
		752.31		2.944E-01	3.453E-01	5.980E-01	3.457E-02	0.492
		810.29		0.000E+00	7.131E-02	1.194E-01	7.586E-03	0.000
TM-171		51.35		-1.080E+01	4.658E+01	7.767E+01	6.965E+00	-0.139
		52.39		1.823E+01	2.369E+01	4.080E+01	3.703E+00	0.447
		59.40		2.139E+01	3.947E+01	5.981E+01	5.497E+00	0.358
		66.72	*	6.071E+01	4.173E+01	6.141E+01	5.486E+00	0.989
LU-176		88.36		5.453E-02	4.362E-01	4.646E-01	4.557E-02	0.117
		201.83		-2.355E-02	3.652E-02	5.722E-02	3.228E-03	-0.412
		306.84	*	1.536E-02	2.997E-02	5.052E-02	3.014E-03	0.304
		401.10		5.053E+00	8.647E+00	1.485E+01	8.269E-01	0.340
LU-177		112.95		2.344E-01	2.051E+00	3.396E+00	2.302E-01	0.069
	+	208.36	*	2.335E+00	1.903E+00	2.433E+00	1.383E-01	0.960
LU-177M		52.97		1.976E+00	2.455E+00	4.229E+00	3.856E-01	0.467
		54.07		8.616E-01	1.269E+00	2.178E+00	1.997E-01	0.396
	+	61.30		5.240E+00	2.350E+00	3.513E+00	3.194E-01	1.492
		121.62		3.906E-01	4.632E-01	7.868E-01	4.819E-02	0.496
		147.16		-5.994E-01	7.862E-01	1.242E+00	7.003E-02	-0.483
		171.86		3.573E-02	6.030E-01	9.829E-01	5.347E-02	0.036
		218.09		-2.771E-01	1.101E+00	1.752E+00	1.006E-01	-0.158
	+	268.79		2.370E+00	1.139E+00	1.871E+00	1.113E-01	1.267
		319.02		3.009E-01	3.229E-01	5.673E-01	3.372E-02	0.530
		367.43		5.382E-01	1.115E+00	1.912E+00	1.095E-01	0.282
		413.65	*	-2.842E-02	2.547E-01	3.627E-01	2.029E-02	-0.078
HF-181		56.28		-1.145E+00	1.374E+00	2.232E+00	2.055E-01	-0.513
		57.53		1.071E-01	7.652E-01	1.199E+00	1.104E-01	0.089
		65.20		-6.870E-01	1.406E+00	2.018E+00	1.807E-01	-0.340
		133.02		2.588E-02	9.301E-02	1.358E-01	7.955E-03	0.191
		136.25		-6.561E-02	5.742E-01	9.366E-01	5.434E-02	-0.070
		345.85		-8.726E-02	2.627E-01	3.707E-01	2.169E-02	-0.235
		482.03	*	-3.571E-02	5.335E-02	8.336E-02	4.691E-03	-0.428
W-181		56.28		-4.482E-01	5.377E-01	8.733E-01	8.039E-02	-0.513
		57.53		4.154E-02	2.996E-01	4.695E-01	4.321E-02	0.088
		65.20	*	-2.669E-01	5.463E-01	7.838E-01	7.021E-02	-0.340
TA-182		67.75		2.223E-01	1.792E-01	2.400E-01	2.141E-02	0.926
		100.10		2.596E-02	2.085E-01	3.466E-01	2.782E-02	0.075
		152.43		4.617E-01	4.148E-01	7.069E-01	3.938E-02	0.653
		222.10		2.297E-01	4.369E-01	7.211E-01	4.159E-02	0.318
		1001.68		2.086E+00	2.365E+00	4.246E+00	2.942E-01	0.491
	+	1121.28		5.607E-01	3.177E-01	4.179E-01	2.626E-02	1.342
		1189.05		-2.245E-01	3.551E-01	5.402E-01	3.218E-02	-0.416
		1221.42	*	9.892E-02	2.199E-01	3.761E-01	2.271E-02	0.263
		1230.97		7.174E-02	6.253E-01	1.032E+00	6.254E-02	0.070
RE-183		57.98		8.151E-02	3.170E-01	4.744E-01	4.365E-02	0.172
		59.32		8.587E-02	1.625E-01	2.460E-01	2.262E-02	0.349
		67.20		3.420E-01	3.258E-01	4.328E-01	3.864E-02	0.790
		162.32	*	3.694E-02	1.346E-01	2.219E-01	1.209E-02	0.166

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	+	208.81		2.090E+00	1.703E+00	2.178E+00	1.239E-01	0.960
		291.72		-9.253E-01	1.353E+00	1.886E+00	1.127E-01	-0.491
RE-184		57.98		3.003E-01	1.168E+00	1.748E+00	1.608E-01	0.172
		59.32		3.161E-01	5.980E-01	9.057E-01	8.325E-02	0.349
		67.20		1.259E+00	1.200E+00	1.594E+00	1.423E-01	0.790
		161.27		-7.330E-02	4.263E-01	6.892E-01	3.763E-02	-0.106
		216.55		-9.551E-02	3.427E-01	5.448E-01	3.124E-02	-0.175
		252.85	*	-3.853E-02	2.835E-01	4.504E-01	2.660E-02	-0.086
		318.01		3.290E-01	5.602E-01	9.684E-01	5.758E-02	0.340
		792.07		5.322E-01	1.358E+00	2.059E+00	1.270E-01	0.258
		903.28		8.735E-01	1.376E+00	2.141E+00	1.552E-01	0.408
		920.93		3.601E-01	5.209E-01	9.103E-01	6.559E-02	0.396
OS-185		59.72		4.352E-01	4.312E-01	6.662E-01	6.114E-02	0.653
		61.14		3.392E-01	2.437E-01	3.803E-01	3.461E-02	0.892
		69.30		-2.003E-02	4.086E-01	5.995E-01	5.350E-02	-0.033
		592.07		-5.247E-01	3.017E+00	4.838E+00	2.581E-01	-0.108
		646.12	*	-2.094E-02	5.369E-02	8.395E-02	4.232E-03	-0.249
		717.42		-6.148E-01	1.019E+00	1.536E+00	8.368E-02	-0.400
		874.81		-1.698E-01	7.244E-01	1.181E+00	8.285E-02	-0.144
		880.27		2.308E-01	8.933E-01	1.527E+00	1.080E-01	0.151
RE-188		155.03	*	9.519E-02	2.204E-01	3.517E-01	1.947E-02	0.271
		477.96		-3.383E+00	3.807E+00	5.839E+00	3.287E-01	-0.579
		633.10		-8.116E-01	3.393E+00	5.385E+00	2.758E-01	-0.151
W-188	+	63.58		1.973E+02	8.848E+01	1.228E+02	1.106E+01	1.606
		227.08		-1.035E+01	1.600E+01	2.486E+01	1.440E+00	-0.416
		290.67	*	-1.448E+00	1.064E+01	1.547E+01	9.239E-01	-0.094
IR-192	+	295.96		1.065E+00	1.852E-01	3.483E-01	2.111E-02	3.059
		308.46		1.373E-02	1.118E-01	1.891E-01	1.140E-02	0.073
		316.51	*	7.582E-03	4.275E-02	7.241E-02	4.328E-03	0.105
		468.07		-1.026E-02	9.417E-02	1.330E-01	8.701E-03	-0.077
		604.41		3.647E-01	6.308E-01	9.430E-01	1.046E-01	0.387
		612.46		1.800E+00	9.639E-01	1.618E+00	1.157E-01	1.112
AU-195		65.12		-1.095E-01	2.536E-01	3.650E-01	3.270E-02	-0.300
		66.83		2.001E-01	1.378E-01	2.028E-01	1.811E-02	0.987
	+	75.70		1.245E+00	2.958E-01	5.894E-01	5.346E-02	2.113
		98.88	*	2.147E-01	2.730E-01	4.644E-01	3.796E-02	0.462
	+	129.76		4.309E+00	5.164E+00	6.182E+00	3.659E-01	0.697
TL-200		367.94	*	1.495E-04	5.164E+00	Half-Life too short		
		579.30		2.529E-03	5.164E+00	Half-Life too short		
		828.27		-1.332E-03	5.164E+00	Half-Life too short		
		1205.75		-9.823E-04	5.164E+00	Half-Life too short		
TL-201		68.90		1.860E+00	6.655E+00	9.916E+00	8.848E-01	0.188
		70.82		-2.939E-01	3.752E+00	5.494E+00	4.910E-01	-0.053
		80.30		-8.954E+00	7.158E+00	9.790E+00	9.105E-01	-0.915
		135.34		-6.037E+00	3.225E+01	5.247E+01	3.052E+00	-0.115
		167.43	*	-3.286E+00	8.545E+00	1.366E+01	7.393E-01	-0.241
TL-202		68.90		1.660E-01	5.939E-01	8.849E-01	7.896E-02	0.188
		70.82		-2.615E-02	3.339E-01	4.889E-01	4.370E-02	-0.053
		80.30		-7.971E-01	6.372E-01	8.715E-01	8.105E-02	-0.915

---- Non-Identified Nuclides ----

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		439.56	*	1.256E-02	8.680E-02	1.449E-01	8.153E-03	0.087
HG-203		70.83		-1.085E-01	1.444E+00	2.115E+00	2.921E-01	-0.051
	+	72.87		1.362E+00	1.153E+00	1.490E+00	2.003E-01	0.914
		82.60		4.291E-01	2.123E+00	2.286E+00	3.264E-01	0.188
		279.20	*	2.548E-02	5.051E-02	8.715E-02	5.504E-03	0.292
BI-207	+	72.80		3.990E-01	3.353E-01	4.311E-01	3.870E-02	0.925
	+	74.97		6.906E-01	1.640E-01	3.000E-01	2.713E-02	2.302
		84.90		5.485E-01	2.909E-01	4.269E-01	4.106E-02	1.285
		569.67		1.241E-02	3.585E-02	6.019E-02	3.267E-03	0.206
		1063.62	*	3.576E-02	6.054E-02	1.060E-01	7.027E-03	0.337
		1770.23		1.616E-01	4.530E-01	7.302E-01	4.265E-02	0.221
TL-207		81.07		-6.449E-01	3.158E-01	4.094E-01	3.827E-02	-1.575
		83.78		1.212E-01	2.410E-01	2.653E-01	2.529E-02	0.457
		94.90		4.589E-01	3.344E-01	5.142E-01	4.476E-02	0.892
		122.32		9.786E-01	2.240E+00	3.626E+00	2.521E-01	0.270
		144.24		-1.825E-01	8.136E-01	1.318E+00	9.406E-02	-0.138
		154.21		5.565E-01	5.056E-01	8.274E-01	5.631E-02	0.673
	+	269.46		5.548E-01	2.669E-01	4.335E-01	2.691E-02	1.280
		323.87	*	-8.215E-01	8.393E-01	1.313E+00	2.175E-01	-0.626
	+	338.28		7.195E+00	1.900E+00	3.009E+00	3.183E-01	2.391
		445.03		-1.812E+00	3.022E+00	4.785E+00	4.868E-01	-0.379
PO-209		260.50		-6.754E+00	1.238E+01	1.918E+01	1.137E+00	-0.352
		262.80		3.261E+01	3.301E+01	5.568E+01	3.305E+00	0.586
		896.60	*	-8.346E+00	8.641E+00	1.288E+01	9.333E-01	-0.648
BI-210		46.50	*	3.752E+00	5.872E+00	9.816E+00	8.082E-01	0.382
PB-210		46.50	*	3.752E+00	5.872E+00	9.816E+00	8.082E-01	0.382
PO-210		46.50	*	3.752E+00	5.870E+00	9.816E+00	7.091E-01	0.382
PB-211		404.84	*	-4.904E-01	1.432E+00	1.953E+00	1.217E+00	-0.251
		427.08		-2.162E+00	3.008E+00	4.228E+00	2.613E+00	-0.511
		831.96		1.655E+00	1.859E+00	2.807E+00	1.752E+00	0.589
BI-212	+	727.18	*	8.296E-01	5.197E-01	7.587E-01	5.705E-02	1.093
		785.46		1.677E+00	2.175E+00	3.806E+00	2.323E-01	0.441
		1620.62		-2.562E-02	1.575E+00	2.618E+00	1.606E-01	-0.010
PO-215		81.07		-6.449E-01	3.158E-01	4.094E-01	3.827E-02	-1.575
		83.78		1.212E-01	2.410E-01	2.653E-01	2.529E-02	0.457
		94.90		4.589E-01	3.344E-01	5.142E-01	4.476E-02	0.892
		122.32		9.786E-01	2.240E+00	3.626E+00	2.521E-01	0.270
		144.24		-1.825E-01	8.136E-01	1.318E+00	9.406E-02	-0.138
		154.21		5.565E-01	5.056E-01	8.274E-01	5.631E-02	0.673
	+	269.46		5.548E-01	2.669E-01	4.335E-01	2.691E-02	1.280
		323.87	*	-8.215E-01	8.393E-01	1.313E+00	2.175E-01	-0.626
	+	338.28		7.195E+00	1.900E+00	3.009E+00	3.183E-01	2.391
		445.03		-1.812E+00	3.022E+00	4.785E+00	4.868E-01	-0.379
RN-219	+	271.23		7.118E-01	3.445E-01	5.477E-01	4.499E-02	1.300
		401.81	*	2.904E-01	5.388E-01	9.207E-01	1.244E-01	0.315
RN-220		549.76	*	1.196E+01	3.316E+01	5.572E+01	3.062E+00	0.215
RA-223		81.07		-6.449E-01	3.158E-01	4.094E-01	3.827E-02	-1.575
		83.78		1.212E-01	2.410E-01	2.653E-01	2.529E-02	0.457
		94.90		4.589E-01	3.344E-01	5.142E-01	4.476E-02	0.892

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		9.786E-01	2.240E+00	3.626E+00	2.521E-01	0.270
		144.24		-1.825E-01	8.136E-01	1.318E+00	9.406E-02	-0.138
		154.21		5.565E-01	5.056E-01	8.274E-01	5.631E-02	0.673
	+	269.46		5.548E-01	2.669E-01	4.335E-01	2.691E-02	1.280
		323.87	*	-8.215E-01	8.393E-01	1.313E+00	2.175E-01	-0.626
	+	338.28		7.195E+00	1.900E+00	3.009E+00	3.183E-01	2.391
		445.03		-1.812E+00	3.022E+00	4.785E+00	4.868E-01	-0.379
AC-227		79.80		-1.225E+00	2.235E+00	3.163E+00	6.887E-01	-0.387
		236.00		1.999E+00	4.560E-01	7.038E-01	7.371E-02	2.840
		256.20	*	-6.036E-02	4.782E-01	7.598E-01	1.064E-01	-0.079
		286.10		-7.371E-02	1.911E+00	3.213E+00	3.743E-01	-0.023
	+	299.80		4.236E+00	2.831E+00	3.270E+00	5.345E-01	1.296
		304.40		-1.092E-01	2.490E+00	3.631E+00	6.302E-01	-0.030
		334.20		1.615E+00	3.156E+00	4.762E+00	8.745E-01	0.339
TH-227		79.80		-1.225E+00	2.236E+00	3.163E+00	6.973E-01	-0.387
	+	94.00		8.032E+00	4.356E+00	5.031E+00	1.100E+00	1.596
		236.00		1.999E+00	4.439E-01	7.038E-01	6.392E-02	2.840
		256.20	*	-6.036E-02	4.782E-01	7.598E-01	1.287E-01	-0.079
		286.10		-7.371E-02	1.912E+00	3.213E+00	3.219E+00	-0.023
	+	299.80		4.236E+00	2.831E+00	3.270E+00	5.345E-01	1.296
		304.40		-1.092E-01	2.490E+00	3.631E+00	6.302E-01	-0.030
		334.20		1.615E+00	3.156E+00	4.762E+00	8.745E-01	0.339
TH-229	+	85.43		6.222E-01	2.718E-01	4.464E-01	4.313E-02	1.394
		88.47		1.458E-02	2.505E-01	2.656E-01	2.599E-02	0.055
		100.00		4.266E-02	2.170E-01	3.618E-01	2.909E-02	0.118
		193.63	*	2.385E-01	6.665E-01	1.096E+00	6.121E-02	0.218
		210.97		9.898E-01	1.117E+00	1.657E+00	9.449E-02	0.597
PA-231		283.67	*	-6.745E-01	1.880E+00	3.108E+00	4.305E-01	-0.217
		301.29		1.066E+00	7.976E-01	1.265E+00	1.334E-01	0.843
TH-231		81.07		-6.449E-01	3.158E-01	4.094E-01	3.827E-02	-1.575
		83.78		1.212E-01	2.410E-01	2.653E-01	2.529E-02	0.457
		94.90		4.589E-01	3.344E-01	5.142E-01	4.476E-02	0.892
		122.32		9.786E-01	2.240E+00	3.626E+00	2.521E-01	0.270
		144.24		-1.825E-01	8.136E-01	1.318E+00	9.406E-02	-0.138
		154.21		5.565E-01	5.056E-01	8.274E-01	5.631E-02	0.673
	+	269.46		5.548E-01	2.669E-01	4.335E-01	2.691E-02	1.280
		323.87	*	-8.215E-01	8.393E-01	1.313E+00	2.175E-01	-0.626
	+	338.28		7.195E+00	1.900E+00	3.009E+00	3.183E-01	2.391
		445.03		-1.812E+00	3.022E+00	4.785E+00	4.868E-01	-0.379
U-231		84.21		7.747E+00	8.931E+00	1.158E+01	1.108E+00	0.669
	+	92.29		7.992E+00	4.028E+00	5.341E+00	4.864E-01	1.496
		95.87	*	-3.467E-01	1.506E+00	2.165E+00	1.855E-01	-0.160
		108.00		-1.009E+00	2.571E+00	4.178E+00	3.011E-01	-0.241
PA-233	+	75.28		2.015E+01	5.428E+00	9.274E+00	1.446E+00	2.173
	+	86.59		5.432E+00	2.745E+00	3.771E+00	1.026E+00	1.440
	+	300.12		1.181E+00	7.818E-01	9.067E-01	1.225E-01	1.302
		311.98	*	-5.261E-02	7.306E-02	1.173E-01	7.397E-03	-0.449
		340.50		2.458E+00	1.060E+00	1.546E+00	3.554E-01	1.590
		398.62		4.451E-02	2.701E+00	4.490E+00	1.159E+00	0.010

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		3.439E-01	2.294E+00	3.497E+00	7.179E-01	0.098
PA-234	+	63.00		5.719E+00	2.669E+00	3.686E+00	5.798E-01	1.551
	+	94.67		7.162E-01	3.666E-01	3.876E-01	4.840E-02	1.848
		98.44		8.077E-02	1.216E-01	1.920E-01	1.070E-01	0.421
		99.86		1.616E-01	5.518E-01	9.233E-01	7.438E-02	0.175
		111.00		1.052E-01	2.371E-01	3.899E-01	4.271E-02	0.270
		131.20		6.977E-02	1.491E-01	2.200E-01	1.296E-02	0.317
		152.70		4.405E-01	4.064E-01	6.833E-01	1.074E-01	0.645
	+	186.00		4.597E+00	2.611E+00	3.200E+00	9.761E-01	1.437
		226.40		-1.970E-01	4.977E-01	7.834E-01	9.053E-02	-0.252
		227.20		-3.346E-01	5.409E-01	8.418E-01	4.878E-02	-0.397
		248.90		-8.715E-01	1.047E+00	1.571E+00	3.380E-01	-0.555
	+	293.70		6.703E+00	1.537E+00	2.126E+00	3.432E-01	3.153
		369.80		-4.097E-01	1.026E+00	1.660E+00	3.453E-01	-0.247
		568.70		3.802E-01	1.212E+00	2.028E+00	1.101E-01	0.188
		569.50		1.369E-01	3.203E-01	5.412E-01	2.938E-02	0.253
		574.00		-4.276E-01	1.815E+00	2.902E+00	1.571E-01	-0.147
		699.00		-5.186E-01	9.374E-01	1.433E+00	2.554E-01	-0.362
		706.10		-2.726E-01	1.391E+00	2.197E+00	9.683E-01	-0.124
		733.00		-9.167E-02	5.137E-01	6.932E-01	1.470E-01	-0.132
		742.81		1.021E+00	1.782E+00	2.805E+00	1.877E+00	0.364
	+	796.30		3.608E+00	2.401E+00	2.188E+00	5.772E-01	1.649
		805.60		-6.325E-01	1.451E+00	1.960E+00	5.895E-01	-0.323
		819.60		-6.776E-01	1.437E+00	2.255E+00	8.477E-01	-0.301
		826.30		-4.293E-01	9.868E-01	1.551E+00	6.885E-01	-0.277
		831.60		6.806E-01	8.593E-01	1.486E+00	4.356E-01	0.458
		876.40		-9.282E-01	1.411E+00	1.585E+00	1.628E+00	-0.585
		880.51		3.450E-02	3.277E-01	5.520E-01	3.906E-02	0.062
		883.24		-1.069E-01	3.483E-01	5.504E-01	3.690E-01	-0.194
		899.00		3.301E-01	9.812E-01	1.670E+00	7.261E-01	0.198
		925.00		-3.999E-01	1.542E+00	2.215E+00	1.593E-01	-0.181
		926.50		-1.331E-01	2.441E-01	3.165E-01	7.858E-02	-0.420
		946.00	*	3.030E-02	3.215E-01	5.393E-01	9.776E-02	0.056
		949.00		6.083E-02	4.513E-01	7.608E-01	5.419E-02	0.080
		980.50		-4.656E-01	8.422E-01	1.309E+00	9.179E-02	-0.356
		1394.10		2.155E-01	1.258E+00	2.084E+00	1.351E+00	0.103
PA-234M		766.42		7.542E+00	1.545E+01	2.505E+01	1.261E+01	0.301
		1001.03	*	5.238E+00	5.254E+00	9.529E+00	8.144E-01	0.550
U-235		89.95		-2.553E+00	2.555E+00	2.366E+00	7.363E-01	-1.079
	+	93.35		2.499E+00	1.425E+00	1.644E+00	4.623E-01	1.520
		105.00		7.374E-01	1.276E+00	2.126E+00	6.279E-01	0.347
		143.76	*	-4.722E-02	2.494E-01	4.045E-01	6.579E-02	-0.117
		163.35		4.765E-01	5.701E-01	9.523E-01	1.702E-01	0.500
	+	185.71		1.703E-01	8.209E-02	1.182E-01	6.539E-03	1.441
		205.31		6.162E-02	7.377E-01	1.046E+00	1.877E-01	0.059
NP-236	+	94.67		5.432E-01	2.738E-01	2.944E-01	2.573E-02	1.845
		98.44		6.109E-02	8.558E-02	1.452E-01	1.195E-02	0.421
		111.00		7.961E-02	1.792E-01	2.949E-01	2.047E-02	0.270
		160.31	*	-3.246E-02	9.495E-02	1.523E-01	8.335E-03	-0.213

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		5.625E-02	1.881E-01	3.148E-01	2.548E-02	0.179
		117.00	*	-2.637E-01	2.366E-01	3.708E-01	2.396E-02	-0.711
	+	209.75		1.648E+00	1.343E+00	1.718E+00	9.781E-02	0.960
		228.18		-4.028E-02	2.888E-01	4.612E-01	2.675E-02	-0.087
		277.60		2.107E-01	2.354E-01	3.931E-01	2.345E-02	0.536
		334.30		7.665E-01	1.773E+00	2.670E+00	1.575E-01	0.287
AM-241		59.54	*	1.489E-01	2.299E-01	3.498E-01	3.420E-02	0.426
CM-243		99.55		5.788E-02	1.936E-01	3.239E-01	2.621E-02	0.179
		103.76	*	1.236E-01	1.128E-01	1.939E-01	1.478E-02	0.637
		117.00		-2.713E-01	2.434E-01	3.815E-01	2.465E-02	-0.711
	+	209.75		1.625E+00	1.324E+00	1.694E+00	9.642E-02	0.960
		228.18		-4.070E-02	2.918E-01	4.660E-01	2.703E-02	-0.087
		277.60		2.124E-01	2.373E-01	3.963E-01	2.364E-02	0.536
AM-246		798.80		2.719E-02	1.441E-01	2.460E-01	1.534E-02	0.111
		1036.00		9.736E-02	3.471E-01	5.902E-01	3.998E-02	0.165
		1062.04		2.258E-01	2.564E-01	4.621E-01	3.068E-02	0.489
		1078.86	*	9.946E-02	1.677E-01	2.931E-01	1.919E-02	0.339
CM-247		278.00		5.459E-01	9.342E-01	1.617E+00	9.644E-02	0.338
		287.40		8.060E-01	1.567E+00	2.703E+00	1.615E-01	0.298
		402.60	*	5.474E-02	5.017E-02	8.443E-02	4.704E-03	0.648
CF-249		252.85		-1.446E-01	1.064E+00	1.690E+00	9.980E-02	-0.086
		333.44		4.881E-02	2.413E-01	3.569E-01	2.106E-02	0.137
		387.95	*	1.044E-02	4.995E-02	8.412E-02	4.692E-03	0.124
CF-251		176.60	*	9.581E-02	1.598E-01	2.663E-01	1.457E-02	0.360
		227.00		-3.368E-01	4.822E-01	7.472E-01	4.329E-02	-0.451
		285.00		-3.148E-01	2.175E+00	3.639E+00	2.173E-01	-0.087

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960009		
Acquisition date	: 12-FEB-2010 15:54:12	Detector SN#	:
Detector ID	: GAM06	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.17	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960009	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.1796E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

Standard Weight	: 0.00000		
CALIB. DATE/TIME	: 4-FEB-2009 13:05:54	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.872E+01	2.016E+00	5.569E-01	0.000E+00
CD-109	2.823E+00	1.209E+00	2.034E+00	0.000E+00
SN-126	2.775E-01	1.188E-01	1.902E-01	0.000E+00
BA-137M	2.461E-01	8.984E-02	6.932E-02	0.000E+00
CS-137	2.601E-01	9.498E-02	7.328E-02	0.000E+00
TL-208	5.533E-01	9.717E-02	6.932E-02	0.000E+00
BI-211	4.028E+00	6.191E-01	4.143E-01	0.000E+00
PB-212	1.609E+00	1.695E-01	1.190E-01	0.000E+00
PO-212	1.609E+00	1.695E-01	1.190E-01	0.000E+00
BI-214	1.284E+00	2.196E-01	1.378E-01	0.000E+00
PB-214	1.401E+00	2.270E-01	1.444E-01	0.000E+00
PO-214	1.401E+00	2.270E-01	1.444E-01	0.000E+00
PO-216	1.609E+00	1.695E-01	1.190E-01	0.000E+00
PO-218	1.401E+00	2.270E-01	1.444E-01	0.000E+00
RA-224	4.795E+00	1.384E+00	1.355E+00	0.000E+00
RA-226	1.284E+00	2.196E-01	1.378E-01	0.000E+00
AC-228	1.684E+00	4.355E-01	2.578E-01	0.000E+00
RA-228	1.684E+00	4.355E-01	2.578E-01	0.000E+00
TH-228	1.634E+00	1.721E-01	1.208E-01	0.000E+00
TH-230	1.284E+00	2.196E-01	1.378E-01	0.000E+00
TH-232	1.684E+00	4.355E-01	2.578E-01	0.000E+00
TH-234	4.906E+00	2.286E+00	2.976E+00	0.000E+00
U-234	1.284E+00	2.196E-01	1.378E-01	0.000E+00
NP-237	8.148E-01	3.858E-01	5.512E-01	0.000E+00
U-238	4.906E+00	2.286E+00	2.976E+00	0.000E+00
AM-243	3.847E-01	8.956E-02	1.090E-01	0.000E+00
ANH-511	1.722E-01	7.701E-02	5.390E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	-4.871E-01	3.992E-01	6.142E-01	0.000E+00	NOT IDENT.
NA-22	-1.310E-02	4.870E-02	7.816E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.230E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-3.449E-03	3.062E-02	5.002E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.739E-02	9.940E-02	0.000E+00	FAIL ABUN
SC-46	2.276E-02	4.464E-02	7.976E-02	0.000E+00	FAIL ABUN
V-48	1.631E-02	7.435E-02	1.289E-01	0.000E+00	NOT IDENT.
CR-51	2.492E-01	4.597E-01	8.192E-01	0.000E+00	NOT IDENT.
MN-52	-1.055E-02	2.234E-01	3.641E-01	0.000E+00	NOT IDENT.
MN-54	1.307E-02	5.128E-02	8.938E-02	0.000E+00	NOT IDENT.
CO-56	-1.343E-02	4.387E-02	7.277E-02	0.000E+00	NOT IDENT.
CO-57	2.190E-02	3.062E-02	5.406E-02	0.000E+00	NOT IDENT.
CO-58	-3.456E-03	4.651E-02	7.924E-02	0.000E+00	NOT IDENT.
FE-59	-6.298E-03	9.536E-02	1.589E-01	0.000E+00	NOT IDENT.
CO-60	2.847E-02	3.788E-02	6.990E-02	0.000E+00	NOT IDENT.
ZN-65	-4.131E-02	1.235E-01	1.689E-01	0.000E+00	NOT IDENT.
GE-68	3.150E-01	1.394E+00	2.400E+00	0.000E+00	NOT IDENT.
AS-73	1.266E+00	1.214E+00	2.217E+00	0.000E+00	NOT IDENT.
AS-74	-1.251E-02	1.041E-01	1.724E-01	0.000E+00	NOT IDENT.
SE-75	-2.410E-02	6.150E-02	8.593E-02	0.000E+00	NOT IDENT.
BR-77	-2.652E+00	1.343E+01	2.232E+01	0.000E+00	FAIL ABUN
SR-82	-6.572E-01	4.568E-01	6.832E-01	0.000E+00	NOT IDENT.
RB-83	-1.730E-02	8.763E-02	1.457E-01	0.000E+00	NOT IDENT.
RB-84	4.839E-02	7.770E-02	1.404E-01	0.000E+00	NOT IDENT.
KR-85	1.302E+01	1.051E+01	1.703E+01	0.000E+00	NOT IDENT.
SR-85	6.680E-02	5.391E-02	8.735E-02	0.000E+00	NOT IDENT.
RB-86	-1.704E-01	9.209E-01	1.518E+00	0.000E+00	NOT IDENT.
Y-88	1.937E-02	3.776E-02	6.992E-02	0.000E+00	NOT IDENT.
ZR-88	-1.394E-03	3.660E-02	6.262E-02	0.000E+00	NOT IDENT.
Y-91	-3.529E+00	2.149E+01	3.522E+01	0.000E+00	NOT IDENT.
NB-94	2.075E-03	4.226E-02	7.020E-02	0.000E+00	NOT IDENT.
NB-95	2.417E-02	5.354E-02	9.140E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.981E-01	3.215E-01	0.000E+00	NOT IDENT.
ZR-95	-7.740E-03	8.662E-02	1.414E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.288E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.695E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.153E+01	1.427E+01	2.147E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.196E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-9.205E-03	4.403E-02	7.100E-02	0.000E+00	NOT IDENT.
RH-102	3.967E-02	3.569E-02	6.504E-02	0.000E+00	NOT IDENT.
RU-103	2.662E-02	4.926E-02	8.644E-02	0.000E+00	FAIL ABUN
RH-106	5.850E-02	3.568E-01	6.039E-01	0.000E+00	FAIL ABUN
RU-106	5.850E-02	3.567E-01	6.039E-01	0.000E+00	FAIL ABUN
AG-108M	-9.128E-03	4.159E-02	6.993E-02	0.000E+00	NOT IDENT.
AG-110M	3.485E-02	4.359E-02	6.912E-02	0.000E+00	NOT IDENT.
IN-111	6.639E-01	1.400E+00	2.105E+00	0.000E+00	NOT IDENT.
IN-113M	-4.752E-03	5.289E-02	9.023E-02	0.000E+00	NOT IDENT.
SN-113	-4.752E-03	5.289E-02	9.023E-02	0.000E+00	NOT IDENT.
IN-114M	-9.328E-02	2.614E-01	3.764E-01	0.000E+00	NOT IDENT.
CD-115	-1.341E+01	1.265E+01	1.936E+01	0.000E+00	NOT IDENT.
SN-117M	-4.104E-02	6.435E-02	1.062E-01	0.000E+00	NOT IDENT.
SB-122	1.601E-01	2.544E+00	4.291E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.115E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.660E-02	3.318E-02	5.510E-02	0.000E+00	NOT IDENT.
I-124	6.614E-01	8.794E-01	1.380E+00	0.000E+00	NOT IDENT.
SB-124	3.608E-02	8.029E-02	1.474E-01	0.000E+00	FAIL ABUN
SB-125	-7.288E-02	1.182E-01	1.936E-01	0.000E+00	FAIL ABUN
TE-125M	-8.402E+00	1.185E+01	1.952E+01	0.000E+00	NOT IDENT.
I-126	3.145E-02	2.478E-01	3.606E-01	0.000E+00	NOT IDENT.
SB-126	-3.486E-02	1.714E-01	2.489E-01	0.000E+00	FAIL ABUN
SB-127	8.860E-01	1.635E+00	2.839E+00	0.000E+00	NOT IDENT.
XE-127	-5.164E-02	6.477E-02	9.594E-02	0.000E+00	NOT IDENT.
I-131	3.864E-02	1.446E-01	2.529E-01	0.000E+00	NOT IDENT.
TE-132	-1.252E-01	8.738E-01	1.448E+00	0.000E+00	NOT IDENT.
BA-133	1.620E-02	6.258E-02	9.572E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.907E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	1.117E-01	1.148E-01	0.000E+00	FAIL ABUN
CS-135	3.534E-01	2.282E-01	3.633E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.122E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	6.961E-02	1.276E-01	2.265E-01	0.000E+00	FAIL ABUN
CE-139	1.695E-03	3.559E-02	6.047E-02	0.000E+00	NOT IDENT.
BA-140	-3.169E-02	3.012E-01	5.024E-01	0.000E+00	NOT IDENT.
LA-140	6.258E-02	1.029E-01	1.894E-01	0.000E+00	NOT IDENT.
CE-141	-1.136E-03	7.276E-02	1.240E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.012E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	5.347E-02	2.865E-01	4.343E-01	0.000E+00	NOT IDENT.
PM-144	2.378E-02	4.224E-02	7.323E-02	0.000E+00	NOT IDENT.
PR-144	1.611E+00	2.862E+00	4.962E+00	0.000E+00	NOT IDENT.

PM-146	-3.131E-02	5.298E-02	8.628E-02	0.000E+00	NOT IDENT.
ND-147	5.391E-01	5.983E-01	1.079E+00	0.000E+00	NOT IDENT.
PM-149	-2.209E+01	1.136E+02	1.963E+02	0.000E+00	NOT IDENT.
EU-152	-6.352E-02	1.337E-01	1.928E-01	0.000E+00	FAIL ABUN
GD-153	1.508E-01	9.927E-02	1.694E-01	0.000E+00	NOT IDENT.
EU-154	-3.658E-02	1.361E-01	2.183E-01	0.000E+00	NOT IDENT.
EU-155	5.332E-02	1.279E-01	2.245E-01	0.000E+00	FAIL ABUN
TB-160	4.576E-02	1.591E-01	2.788E-01	0.000E+00	FAIL ABUN
HO-166M	5.480E-02	7.453E-02	1.310E-01	0.000E+00	FAIL ABUN
TM-171	6.071E+01	4.089E+01	6.329E+01	0.000E+00	NOT IDENT.
LU-176	1.536E-02	2.937E-02	5.124E-02	0.000E+00	NOT IDENT.
LU-177	2.335E+00	1.865E+00	2.478E+00	0.000E+00	FAIL ABUN
LU-177M	-2.842E-02	2.496E-01	3.666E-01	0.000E+00	FAIL ABUN
HF-181	-3.571E-02	5.229E-02	8.413E-02	0.000E+00	NOT IDENT.
W-181	-2.669E-01	5.354E-01	8.080E-01	0.000E+00	NOT IDENT.
TA-182	9.892E-02	2.155E-01	3.757E-01	0.000E+00	FAIL ABUN
RE-183	3.694E-02	1.319E-01	2.266E-01	0.000E+00	FAIL ABUN
RE-184	-3.853E-02	2.778E-01	4.577E-01	0.000E+00	NOT IDENT.
OS-185	-2.094E-02	5.261E-02	8.445E-02	0.000E+00	NOT IDENT.
RE-188	9.519E-02	2.160E-01	3.593E-01	0.000E+00	NOT IDENT.
W-188	-1.448E+00	1.043E+01	1.569E+01	0.000E+00	FAIL ABUN
IR-192	7.582E-03	4.190E-02	7.341E-02	0.000E+00	FAIL ABUN
AU-195	2.147E-01	2.675E-01	4.766E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.671E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.286E+00	8.374E+00	1.394E+01	0.000E+00	NOT IDENT.
TL-202	1.256E-02	8.506E-02	1.464E-01	0.000E+00	NOT IDENT.
HG-203	2.548E-02	4.950E-02	8.847E-02	0.000E+00	FAIL ABUN
BI-207	3.576E-02	5.933E-02	1.060E-01	0.000E+00	FAIL ABUN
TL-207	-8.215E-01	8.225E-01	1.331E+00	0.000E+00	FAIL ABUN
PO-209	-8.346E+00	8.468E+00	1.291E+01	0.000E+00	NOT IDENT.
BI-210	3.752E+00	5.755E+00	1.015E+01	0.000E+00	NOT IDENT.
PB-210	3.752E+00	5.755E+00	1.015E+01	0.000E+00	NOT IDENT.
PO-210	3.752E+00	5.753E+00	1.015E+01	0.000E+00	NOT IDENT.
PB-211	-4.904E-01	1.403E+00	1.975E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.093E-01	7.622E-01	0.000E+00	FAIL ABUN
PO-215	-8.215E-01	8.225E-01	1.331E+00	0.000E+00	FAIL ABUN
RN-219	2.904E-01	5.280E-01	9.309E-01	0.000E+00	FAIL ABUN
RN-220	1.196E+01	3.249E+01	5.615E+01	0.000E+00	NOT IDENT.
RA-223	-8.215E-01	8.225E-01	1.331E+00	0.000E+00	FAIL ABUN
AC-227	-6.036E-02	4.686E-01	7.720E-01	0.000E+00	FAIL ABUN
TH-227	-6.036E-02	4.687E-01	7.720E-01	0.000E+00	FAIL ABUN
TH-229	2.385E-01	6.532E-01	1.116E+00	0.000E+00	FAIL ABUN
PA-231	-6.745E-01	1.843E+00	3.154E+00	0.000E+00	NOT IDENT.
TH-231	-8.215E-01	8.225E-01	1.331E+00	0.000E+00	FAIL ABUN
U-231	-3.467E-01	1.476E+00	2.222E+00	0.000E+00	FAIL ABUN
PA-233	-5.261E-02	7.160E-02	1.189E-01	0.000E+00	FAIL ABUN
PA-234	3.030E-02	3.151E-01	5.402E-01	0.000E+00	FAIL ABUN
PA-234M	5.238E+00	5.149E+00	9.540E+00	0.000E+00	NOT IDENT.
U-235	-4.722E-02	2.444E-01	4.135E-01	0.000E+00	FAIL ABUN
NP-236	-3.246E-02	9.305E-02	1.556E-01	0.000E+00	FAIL ABUN
NP-239	-2.637E-01	2.318E-01	3.799E-01	0.000E+00	FAIL ABUN
AM-241	1.489E-01	2.253E-01	3.609E-01	0.000E+00	NOT IDENT.
CM-243	1.236E-01	1.105E-01	1.989E-01	0.000E+00	FAIL ABUN
AM-246	9.946E-02	1.643E-01	2.932E-01	0.000E+00	NOT IDENT.
CM-247	5.474E-02	4.916E-02	8.537E-02	0.000E+00	NOT IDENT.
CF-249	1.044E-02	4.895E-02	8.509E-02	0.000E+00	NOT IDENT.
CF-251	9.581E-02	1.566E-01	2.716E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:55:06.82

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960009.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:54:12
Sample ID : G245960009 Sample quantity : 1.17960E+02 GRAM
Detector name : GAM06 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.17 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	604	10.67*	9.625E-01	1.872E+01	1.872E+01	10.99
CD-109	88.03	166	3.72*	5.134E+00	2.760E+00	2.823E+00	43.69
SN-126	64.28	------	9.60	2.881E+00	------ Line Not Found		------
	86.94	166	8.90	5.134E+00	1.153E+00	1.153E+00	59.54
	87.57	166	37.00*	5.134E+00	2.775E-01	2.775E-01	43.69
BA-137M	661.65	135	89.98*	1.938E+00	2.458E-01	2.461E-01	37.26
CS-137	661.65	135	85.12*	1.938E+00	2.599E-01	2.601E-01	37.26
TL-208	277.35	------	6.80	3.899E+00	------ Line Not Found		------
	510.84	130	21.60	2.406E+00	7.972E-01	7.972E-01	46.39
	583.14	316	84.20*	2.158E+00	5.533E-01	5.533E-01	17.92
	860.37	------	12.46	1.539E+00	------ Line Not Found		------
BI-211	72.87	107	1.27	3.915E+00	6.842E+00	6.842E+00	84.04
	351.07	531	12.94*	3.243E+00	4.028E+00	4.028E+00	15.68
PB-212	74.81	328	10.70	4.109E+00	2.373E+00	2.373E+00	25.53
	77.11	541	18.00	4.329E+00	2.210E+00	2.210E+00	16.87
	87.30	166	8.00	5.134E+00	1.283E+00	1.283E+00	44.82
	238.63	985	44.60*	4.367E+00	1.609E+00	1.609E+00	10.75
	300.09	90	3.41	3.674E+00	2.286E+00	2.286E+00	65.35
PO-212	74.81	328	10.70	4.109E+00	2.373E+00	2.373E+00	25.53
	77.11	541	18.00	4.329E+00	2.210E+00	2.210E+00	16.87
	87.30	166	8.00	5.134E+00	1.283E+00	1.283E+00	44.82
	115.19	------	0.60	6.030E+00	------ Line Not Found		------
	238.63	985	44.60*	4.367E+00	1.609E+00	1.609E+00	10.75
	300.09	90	3.41	3.674E+00	2.286E+00	2.286E+00	65.35
BI-214	609.31	389	46.30*	2.080E+00	1.284E+00	1.284E+00	17.45
	1120.29	68	15.10	1.211E+00	1.186E+00	1.186E+00	57.05
	1764.49	43	15.80	8.403E-01	1.028E+00	1.028E+00	47.24
PB-214	74.81	328	6.21	4.109E+00	4.089E+00	4.089E+00	24.88
	77.11	541	10.50	4.329E+00	3.788E+00	3.788E+00	18.51
	87.30	166	4.67	5.134E+00	2.198E+00	2.198E+00	44.36
	241.98	258	7.49	4.327E+00	2.529E+00	2.529E+00	29.98
	295.21	313	19.20	3.718E+00	1.396E+00	1.396E+00	18.44

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	531	37.20*	3.243E+00	1.401E+00	1.401E+00	16.53
PO-214	74.81	328	6.21	4.109E+00	4.089E+00	4.089E+00	24.88
	77.11	541	10.50	4.329E+00	3.788E+00	3.788E+00	18.51
	87.30	166	4.67	5.134E+00	2.198E+00	2.198E+00	44.36
	241.98	258	7.49	4.327E+00	2.529E+00	2.529E+00	29.98
	295.21	313	19.20	3.718E+00	1.396E+00	1.396E+00	18.44
	351.92	531	37.20*	3.243E+00	1.401E+00	1.401E+00	16.53
PO-216	74.81	328	10.70	4.109E+00	2.373E+00	2.373E+00	25.53
	77.11	541	18.00	4.329E+00	2.210E+00	2.210E+00	16.87
	87.30	166	8.00	5.134E+00	1.283E+00	1.283E+00	44.82
	238.63	985	44.60*	4.367E+00	1.609E+00	1.609E+00	10.75
	300.09	90	3.41	3.674E+00	2.286E+00	2.286E+00	65.35
PO-218	74.81	328	6.21	4.109E+00	4.089E+00	4.089E+00	24.88
	77.11	541	10.50	4.329E+00	3.788E+00	3.788E+00	18.51
	87.30	166	4.67	5.134E+00	2.198E+00	2.198E+00	44.36
	241.98	258	7.49	4.327E+00	2.529E+00	2.529E+00	29.98
	295.21	313	19.20	3.718E+00	1.396E+00	1.396E+00	18.44
	351.92	531	37.20*	3.243E+00	1.401E+00	1.401E+00	16.53
RA-224	240.98	258	3.95*	4.327E+00	4.795E+00	4.795E+00	29.45
RA-226	609.31	389	46.30*	2.080E+00	1.284E+00	1.284E+00	17.45
	1120.29	68	15.10	1.211E+00	1.186E+00	1.186E+00	57.05
	1764.49	43	15.80	8.403E-01	1.028E+00	1.028E+00	47.24
AC-228	338.32	206	11.40	3.344E+00	1.723E+00	1.723E+00	47.42
	911.07	214	27.70*	1.461E+00	1.684E+00	1.684E+00	26.38
	969.11	123	16.60	1.382E+00	1.706E+00	1.706E+00	37.43
RA-228	338.32	206	11.40	3.344E+00	1.723E+00	1.723E+00	47.42
	911.07	214	27.70*	1.461E+00	1.684E+00	1.684E+00	26.38
	969.11	123	16.60	1.382E+00	1.706E+00	1.706E+00	37.43
TH-228	74.81	328	10.70	4.109E+00	2.373E+00	2.409E+00	23.78
	77.11	541	18.00	4.329E+00	2.210E+00	2.243E+00	16.87
	87.30	166	8.00	5.134E+00	1.283E+00	1.303E+00	43.69
	238.63	985	44.60*	4.367E+00	1.609E+00	1.634E+00	10.75
	300.09	90	3.41	3.674E+00	2.286E+00	2.320E+00	87.61
TH-230	609.31	389	46.30*	2.080E+00	1.284E+00	1.284E+00	17.45
	1120.29	68	15.10	1.211E+00	1.186E+00	1.186E+00	57.05
	1764.49	43	15.80	8.403E-01	1.028E+00	1.028E+00	47.24
TH-232	338.32	206	11.40	3.344E+00	1.723E+00	1.723E+00	24.90
	911.07	214	27.70*	1.461E+00	1.684E+00	1.684E+00	26.38
	969.11	123	16.60	1.382E+00	1.706E+00	1.706E+00	37.43
TH-234	63.29	156	3.80*	2.669E+00	4.906E+00	4.906E+00	47.55
	92.38	194	5.41	5.494E+00	2.079E+00	2.079E+00	52.85
U-234	609.31	389	46.30*	2.080E+00	1.284E+00	1.284E+00	17.45
	1120.29	68	15.10	1.211E+00	1.186E+00	1.186E+00	57.05
	1764.49	43	15.80	8.403E-01	1.028E+00	1.028E+00	47.24
NP-237	86.50	166	12.60*	5.134E+00	8.148E-01	8.148E-01	48.31
	95.87	------	2.60	5.611E+00	------ Line Not Found		------
U-238	63.29	156	3.80*	2.669E+00	4.906E+00	4.906E+00	47.55
	92.38	194	5.41	5.494E+00	2.079E+00	2.079E+00	50.40
AM-243	74.67	328	66.00*	4.109E+00	3.847E-01	3.847E-01	23.75

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	86.72	166	0.34	5.134E+00	3.055E+01	3.055E+01	43.69
	117.66	------	0.55	6.042E+00	------ Line Not Found		------
	142.18	------	0.13	5.887E+00	------ Line Not Found		------
ANH-511	511.00	130	100.00*	2.406E+00	1.722E-01	1.722E-01	45.64

Flag: "*" = Keyline

Sample ID : G245960009 Acquisition date : 12-FEB-2010 15:54:12

Total number of lines in spectrum 31
Number of unidentified lines 1
Number of lines tentatively identified by NID 30 96.77%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.872E+01	1.872E+01	0.206E+01	10.99	
CD-109	464.00D	1.02	2.760E+00	2.823E+00	1.233E+00	43.69	
SN-126	1.00E+05Y	1.00	2.775E-01	2.775E-01	1.212E-01	43.69	
BA-137M	30.17Y	1.00	2.458E-01	2.461E-01	0.917E-01	37.26	
CS-137	30.17Y	1.00	2.599E-01	2.601E-01	0.969E-01	37.26	
TL-208	1.41E+10Y	1.00	5.533E-01	5.533E-01	0.992E-01	17.92	
BI-211	7.04E+08Y	1.00	4.028E+00	4.028E+00	0.632E+00	15.68	
PB-212	1.41E+10Y	1.00	1.609E+00	1.609E+00	0.173E+00	10.75	
PO-212	1.41E+10Y	1.00	1.609E+00	1.609E+00	0.173E+00	10.75	
BI-214	1600.00Y	1.00	1.284E+00	1.284E+00	0.224E+00	17.45	
PB-214	1600.00Y	1.00	1.401E+00	1.401E+00	0.232E+00	16.53	
PO-214	1600.00Y	1.00	1.401E+00	1.401E+00	0.232E+00	16.53	
PO-216	1.41E+10Y	1.00	1.609E+00	1.609E+00	0.173E+00	10.75	
PO-218	1600.00Y	1.00	1.401E+00	1.401E+00	0.232E+00	16.53	
RA-224	1.41E+10Y	1.00	4.795E+00	4.795E+00	1.412E+00	29.45	
RA-226	1600.00Y	1.00	1.284E+00	1.284E+00	0.224E+00	17.45	
AC-228	1.41E+10Y	1.00	1.684E+00	1.684E+00	0.444E+00	26.38	
RA-228	1.41E+10Y	1.00	1.684E+00	1.684E+00	0.444E+00	26.38	
TH-228	1.91Y	1.02	1.609E+00	1.634E+00	0.176E+00	10.75	
TH-230	4.47E+09Y	1.00	1.284E+00	1.284E+00	0.224E+00	17.45	
TH-232	1.41E+10Y	1.00	1.684E+00	1.684E+00	0.444E+00	26.38	
TH-234	4.47E+09Y	1.00	4.906E+00	4.906E+00	2.333E+00	47.55	
U-234	4.47E+09Y	1.00	1.284E+00	1.284E+00	0.224E+00	17.45	
NP-237	2.14E+06Y	1.00	8.148E-01	8.148E-01	3.936E-01	48.31	
U-238	4.47E+09Y	1.00	4.906E+00	4.906E+00	2.333E+00	47.55	
AM-243	7380.00Y	1.00	3.847E-01	3.847E-01	0.914E-01	23.75	
ANH-511	1.00E+09Y	1.00	1.722E-01	1.722E-01	0.786E-01	45.64	
	Total Activity :		6.365E+01	6.374E+01			

Grand Total Activity : 6.365E+01 6.374E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960009 Acquisition date : 12-FEB-2010 15:54:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.17	62	379	1.00	258.35	253	10	8.66E-03	****	6.02E+00	T
0	185.86	150	313	1.08	371.72	367	9	2.08E-02	47.9	5.17E+00	T
0	209.19	80	282	1.44	418.38	413	10	1.12E-02	81.3	4.79E+00	T
0	269.75	94	137	1.33	539.50	536	8	1.31E-02	47.7	3.98E+00	T
0	409.61	46	110	1.40	819.22	814	11	6.39E-03	93.1	2.87E+00	T
0	463.18	123	48	2.08	926.37	921	13	1.71E-02	30.0	2.61E+00	T
0	727.34	55	63	1.41	1454.69	1449	11	7.63E-03	62.2	1.79E+00	T
0	795.76	73	60	2.50	1591.51	1582	23	1.01E-02	61.1	1.65E+00	T
0	933.19	36	31	1.25	1866.38	1859	14	4.96E-03	74.6	1.43E+00	
3	964.37	40	32	2.02	1928.73	1925	18	5.59E-03	57.3	1.39E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:55:11.58

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960009.CNF;1		
Acquisition date	: 12-FEB-2010 15:54:12	Detector SN#	:
Detector ID	: GAM06	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:01.17	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960009	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.17960E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 4-FEB-2009 13:05:54.47	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.872E+01	2.057E+00	5.586E-01	3.695E-02	33.506
CD-109	2.823E+00	1.233E+00	1.979E+00	1.954E-01	1.426
SN-126	2.775E-01	1.212E-01	1.851E-01	1.821E-02	1.499
BA-137M	2.461E-01	9.168E-02	6.893E-02	3.404E-03	3.570
CS-137	2.601E-01	9.692E-02	7.286E-02	3.619E-03	3.570
TL-208	5.533E-01	9.915E-02	6.883E-02	4.350E-03	8.039
BI-211	4.028E+00	6.317E-01	4.092E-01	2.641E-02	9.846
PB-212	1.609E+00	1.730E-01	1.171E-01	8.629E-03	13.748
PO-212	1.609E+00	1.730E-01	1.171E-01	8.629E-03	13.748
BI-214	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
PB-214	1.401E+00	2.316E-01	1.426E-01	1.183E-02	9.825
PO-214	1.401E+00	2.316E-01	1.426E-01	1.183E-02	9.825
PO-216	1.609E+00	1.730E-01	1.171E-01	8.629E-03	13.748
PO-218	1.401E+00	2.316E-01	1.426E-01	1.183E-02	9.825
RA-224	4.795E+00	1.412E+00	1.332E+00	7.808E-02	3.599
RA-226	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
AC-228	1.684E+00	4.444E-01	2.573E-01	2.629E-02	6.547
RA-228	1.684E+00	4.444E-01	2.573E-01	2.629E-02	6.547

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.634E+00	1.756E-01	1.188E-01	8.760E-03	13.748
TH-230	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
TH-232	1.684E+00	4.444E-01	2.573E-01	2.629E-02	6.547
TH-234	4.906E+00	2.333E+00	2.886E+00	5.247E-01	1.700
U-234	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
NP-237	8.148E-01	3.936E-01	5.363E-01	1.224E-01	1.519
U-238	4.906E+00	2.333E+00	2.886E+00	5.247E-01	1.700
AM-243	3.847E-01	9.139E-02	1.059E-01	9.564E-03	3.633
ANH-511	1.722E-01	7.858E-02	5.345E-02	2.988E-03	3.222

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-4.871E-01		4.073E-01	6.085E-01	4.020E-02	-0.800
NA-22	-1.310E-02		4.970E-02	7.828E-02	4.834E-03	-0.167
NA-24	3.811E-01		4.199E-01	Half-Life too short		
AL-26	-3.449E-03		3.124E-02	5.029E-02	2.889E-03	-0.069
TI-44	4.078E-01	+	6.877E-02	9.661E-02	8.881E-03	4.220
SC-46	2.276E-02		4.555E-02	7.956E-02	5.703E-03	0.286
V-48	1.631E-02		7.587E-02	1.287E-01	9.013E-03	0.127
CR-51	2.492E-01		4.691E-01	8.081E-01	5.324E-02	0.308
MN-52	-1.055E-02		2.280E-01	3.651E-01	2.298E-02	-0.029
MN-54	1.307E-02		5.233E-02	8.910E-02	5.881E-03	0.147
CO-56	-1.343E-02		4.477E-02	7.256E-02	4.878E-03	-0.185
CO-57	2.190E-02		3.124E-02	5.279E-02	3.225E-03	0.415
CO-58	-3.456E-03		4.746E-02	7.897E-02	5.042E-03	-0.044
FE-59	-6.298E-03		9.731E-02	1.588E-01	1.165E-02	-0.040
CO-60	2.847E-02		3.865E-02	7.004E-02	4.400E-03	0.406
ZN-65	-4.131E-02		1.260E-01	1.690E-01	1.070E-02	-0.244
GE-68	3.150E-01		1.422E+00	2.400E+00	1.573E-01	0.131
AS-73	1.266E+00		1.239E+00	2.147E+00	1.963E-01	0.590
AS-74	-1.251E-02		1.063E-01	1.712E-01	9.104E-03	-0.073
SE-75	-2.410E-02		6.276E-02	8.461E-02	5.075E-03	-0.285
BR-77	-2.652E+00		1.370E+01	2.214E+01	1.234E+00	-0.120
SR-82	-6.572E-01		4.661E-01	6.805E-01	4.094E-02	-0.966
RB-83	-1.730E-02		8.942E-02	1.445E-01	8.051E-03	-0.120
RB-84	4.839E-02		7.929E-02	1.401E-01	9.925E-03	0.345
KR-85	1.302E+01		1.072E+01	1.689E+01	9.430E-01	0.771
SR-85	6.680E-02		5.501E-02	8.662E-02	4.838E-03	0.771
RB-86	-1.704E-01		9.397E-01	1.517E+00	9.952E-02	-0.112
Y-88	1.937E-02		3.853E-02	7.031E-02	3.996E-03	0.276
ZR-88	-1.394E-03		3.734E-02	6.192E-02	3.436E-03	-0.023
Y-91	-3.529E+00		2.193E+01	3.525E+01	2.114E+00	-0.100
NB-94	2.075E-03		4.312E-02	6.985E-02	3.710E-03	0.030
NB-95	2.417E-02		5.463E-02	9.103E-02	5.381E-03	0.265
NB-95M	4.725E-01		2.022E-01	3.161E-01	2.389E-02	1.495
ZR-95	-7.740E-03		8.839E-02	1.408E-01	9.921E-03	-0.055

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	1.222E-01		6.570E-02	Half-Life too short		
ZR-97	6.145E+00		1.375E+00	Half-Life too short		
MO-99	-1.153E+01		1.456E+01	2.138E+01	2.933E+00	-0.540
TC-99M	-1.160E+10		2.651E+10	Half-Life too short		
RH-101	-9.205E-03		4.493E-02	6.969E-02	3.914E-03	-0.132
RH-102	3.967E-02		3.642E-02	6.444E-02	3.628E-03	0.616
RU-103	2.662E-02		5.027E-02	8.569E-02	1.076E-02	0.311
RH-106	5.850E-02		3.640E-01	6.001E-01	6.869E-02	0.097
RU-106	5.850E-02		3.640E-01	6.001E-01	3.112E-02	0.097
AG-108M	-9.128E-03		4.244E-02	6.922E-02	4.245E-03	-0.132
AG-110M	3.485E-02		4.448E-02	6.873E-02	3.710E-03	0.507
IN-111	6.639E-01		1.428E+00	2.071E+00	1.217E-01	0.321
IN-113M	-4.752E-03		5.397E-02	8.921E-02	5.309E-03	-0.053
SN-113	-4.752E-03		5.397E-02	8.921E-02	5.309E-03	-0.053
IN-114M	-9.328E-02		2.667E-01	3.693E-01	2.055E-02	-0.253
CD-115	-1.341E+01		1.291E+01	1.920E+01	1.067E+00	-0.699
SN-117M	-4.104E-02		6.566E-02	1.040E-01	5.712E-03	-0.395
SB-122	1.601E-01		2.596E+00	4.260E+00	2.321E-01	0.038
I-123	-3.560E+00		3.630E+00	Half-Life too short		
TE-123M	-1.660E-02		3.386E-02	5.395E-02	3.005E-03	-0.308
I-124	6.614E-01		8.974E-01	1.371E+00	7.244E-02	0.483
SB-124	3.608E-02		8.193E-02	1.481E-01	9.619E-03	0.244
SB-125	-7.288E-02		1.206E-01	1.916E-01	1.124E-02	-0.380
TE-125M	-8.402E+00		1.209E+01	1.903E+01	1.730E+00	-0.441
I-126	3.145E-02		2.528E-01	3.586E-01	1.786E-02	0.088
SB-126	-3.486E-02		1.749E-01	2.477E-01	1.357E-02	-0.141
SB-127	8.860E-01		1.669E+00	2.824E+00	2.559E-01	0.314
XE-127	-5.164E-02		6.609E-02	9.419E-02	5.321E-03	-0.548
I-131	3.864E-02		1.476E-01	2.498E-01	1.606E-02	0.155
TE-132	-1.252E-01		8.916E-01	1.424E+00	2.046E-01	-0.088
BA-133	1.620E-02		6.386E-02	9.454E-02	1.093E-02	0.171
I-133	2.290E-03		3.524E-03	Half-Life too short		
CS-134	1.857E-01	+	1.140E-01	1.144E-01	7.201E-03	1.623
CS-135	3.534E-01		2.328E-01	3.577E-01	2.780E-02	0.988
I-135	-9.273E+08		3.123E+09	Half-Life too short		
CS-136	6.961E-02		1.302E-01	2.264E-01	1.625E-02	0.307
CE-139	1.695E-03		3.632E-02	5.924E-02	3.203E-03	0.029
BA-140	-3.169E-02		3.073E-01	4.985E-01	1.619E-01	-0.064
LA-140	6.258E-02		1.050E-01	1.902E-01	1.173E-02	0.329
CE-141	-1.136E-03		7.424E-02	1.213E-01	7.158E-03	-0.009
CE-143	9.025E-04		1.537E-04	Half-Life too short		
CE-144	5.347E-02		2.924E-01	4.244E-01	6.036E-02	0.126
PM-144	2.378E-02		4.310E-02	7.285E-02	3.832E-03	0.326
PR-144	1.611E+00		2.921E+00	4.937E+00	2.594E-01	0.326
PM-146	-3.131E-02		5.406E-02	8.544E-02	7.272E-03	-0.366
ND-147	5.391E-01		6.105E-01	1.070E+00	1.436E-01	0.504
PM-149	-2.209E+01		1.159E+02	1.934E+02	2.755E+01	-0.114
EU-152	-6.352E-02		1.364E-01	1.904E-01	1.254E-02	-0.334

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	1.508E-01		1.013E-01	1.650E-01	1.379E-02	0.914
EU-154	-3.658E-02		1.388E-01	2.186E-01	2.093E-02	-0.167
EU-155	5.332E-02		1.305E-01	2.189E-01	1.660E-02	0.244
TB-160	4.576E-02		1.623E-01	2.781E-01	1.964E-02	0.165
HO-166M	5.480E-02		7.605E-02	1.304E-01	7.034E-03	0.420
TM-171	6.071E+01		4.173E+01	6.141E+01	5.486E+00	0.989
LU-176	1.536E-02		2.997E-02	5.052E-02	3.014E-03	0.304
LU-177	2.335E+00	+	1.903E+00	2.433E+00	1.383E-01	0.960
LU-177M	-2.842E-02		2.547E-01	3.627E-01	2.029E-02	-0.078
HF-181	-3.571E-02		5.335E-02	8.336E-02	4.691E-03	-0.428
W-181	-2.669E-01		5.463E-01	7.838E-01	7.021E-02	-0.340
TA-182	9.892E-02		2.199E-01	3.761E-01	2.271E-02	0.263
RE-183	3.694E-02		1.346E-01	2.219E-01	1.209E-02	0.166
RE-184	-3.853E-02		2.835E-01	4.504E-01	2.660E-02	-0.086
OS-185	-2.094E-02		5.369E-02	8.395E-02	4.232E-03	-0.249
RE-188	9.519E-02		2.204E-01	3.517E-01	1.947E-02	0.271
W-188	-1.448E+00		1.064E+01	1.547E+01	9.239E-01	-0.094
IR-192	7.582E-03		4.275E-02	7.241E-02	4.328E-03	0.105
AU-195	2.147E-01		2.730E-01	4.644E-01	3.796E-02	0.462
TL-200	1.495E-04		2.893E-04	Half-Life too short		
TL-201	-3.286E+00		8.545E+00	1.366E+01	7.393E-01	-0.241
TL-202	1.256E-02		8.680E-02	1.449E-01	8.153E-03	0.087
HG-203	2.548E-02		5.051E-02	8.715E-02	5.504E-03	0.292
BI-207	3.576E-02		6.054E-02	1.060E-01	7.027E-03	0.337
TL-207	-8.215E-01		8.393E-01	1.313E+00	2.175E-01	-0.626
PO-209	-8.346E+00		8.641E+00	1.288E+01	9.333E-01	-0.648
BI-210	3.752E+00		5.872E+00	9.816E+00	8.082E-01	0.382
PB-210	3.752E+00		5.872E+00	9.816E+00	8.082E-01	0.382
PO-210	3.752E+00		5.870E+00	9.816E+00	7.091E-01	0.382
PB-211	-4.904E-01		1.432E+00	1.953E+00	1.217E+00	-0.251
BI-212	8.296E-01	+	5.197E-01	7.587E-01	5.705E-02	1.093
PO-215	-8.215E-01		8.393E-01	1.313E+00	2.175E-01	-0.626
RN-219	2.904E-01		5.388E-01	9.207E-01	1.244E-01	0.315
RN-220	1.196E+01		3.316E+01	5.572E+01	3.062E+00	0.215
RA-223	-8.215E-01		8.393E-01	1.313E+00	2.175E-01	-0.626
AC-227	-6.036E-02		4.782E-01	7.598E-01	1.064E-01	-0.079
TH-227	-6.036E-02		4.782E-01	7.598E-01	1.287E-01	-0.079
TH-229	2.385E-01		6.665E-01	1.096E+00	6.121E-02	0.218
PA-231	-6.745E-01		1.880E+00	3.108E+00	4.305E-01	-0.217
TH-231	-8.215E-01		8.393E-01	1.313E+00	2.175E-01	-0.626
U-231	-3.467E-01		1.506E+00	2.165E+00	1.855E-01	-0.160
PA-233	-5.261E-02		7.306E-02	1.173E-01	7.397E-03	-0.449
PA-234	3.030E-02		3.215E-01	5.393E-01	9.776E-02	0.056
PA-234M	5.238E+00		5.254E+00	9.529E+00	8.144E-01	0.550
U-235	-4.722E-02		2.494E-01	4.045E-01	6.579E-02	-0.117
NP-236	-3.246E-02		9.495E-02	1.523E-01	8.335E-03	-0.213
NP-239	-2.637E-01		2.366E-01	3.708E-01	2.396E-02	-0.711
AM-241	1.489E-01		2.299E-01	3.498E-01	3.420E-02	0.426

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.236E-01		1.128E-01	1.939E-01	1.478E-02	0.637
AM-246	9.946E-02		1.677E-01	2.931E-01	1.919E-02	0.339
CM-247	5.474E-02		5.017E-02	8.443E-02	4.704E-03	0.648
CF-249	1.044E-02		4.995E-02	8.412E-02	4.692E-03	0.124
CF-251	9.581E-02		1.598E-01	2.663E-01	1.457E-02	0.360

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960009              *
* Acquisition date : 12-FEB-2010 15:54:12 Detector SN#    :                   *
* Detector ID      : GAM06                Sensitivity     : 5.000            *
* Geometry         : CAN                  Energy tolerance: 1.500            *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000           *
* Elapsed real time:    0 02:00:01.17     Half life ratio : 8.000            *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID             *
* Sample ID        : G245960009           Analyst initials: MXR1              *
* Batch Number     : 948717               Sample Quantity : 1.1796E+02 GRAM   *
* Recovery         :    1.00000           Carrier Weight :    0.00000         *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME :  4-FEB-2009 13:05:54 MS Isotope      :                   *
* MSD DPM          :    0.000             MSD Isotope     :                   *
* LCS DPM          :    0.000             LCS Isotope     :                   *
* LCSD DPM         :    0.000             LCSD Isotope    :                   *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.872E+01	2.016E+00	2.786E-01	1.029E+00
CD-109	2.823E+00	1.209E+00	1.017E+00	6.166E-01
SN-126	2.775E-01	1.188E-01	9.515E-02	6.061E-02
BA-137M	2.461E-01	8.984E-02	3.468E-02	4.584E-02
CS-137	2.601E-01	9.498E-02	3.666E-02	4.846E-02
TL-208	5.533E-01	9.717E-02	3.468E-02	4.958E-02
BI-211	4.028E+00	6.191E-01	2.073E-01	3.159E-01
PB-212	1.609E+00	1.695E-01	5.955E-02	8.650E-02
PO-212	1.609E+00	1.695E-01	5.955E-02	8.650E-02
BI-214	1.284E+00	2.196E-01	6.896E-02	1.120E-01
PB-214	1.401E+00	2.270E-01	7.226E-02	1.158E-01
PO-214	1.401E+00	2.270E-01	7.226E-02	1.158E-01
PO-216	1.609E+00	1.695E-01	5.955E-02	8.650E-02
PO-218	1.401E+00	2.270E-01	7.226E-02	1.158E-01
RA-224	4.795E+00	1.384E+00	6.777E-01	7.059E-01
RA-226	1.284E+00	2.196E-01	6.896E-02	1.120E-01
AC-228	1.684E+00	4.355E-01	1.290E-01	2.222E-01
RA-228	1.684E+00	4.355E-01	1.290E-01	2.222E-01
TH-228	1.634E+00	1.721E-01	6.046E-02	8.781E-02
TH-230	1.284E+00	2.196E-01	6.896E-02	1.120E-01
TH-232	1.684E+00	4.355E-01	1.290E-01	2.222E-01
TH-234	4.906E+00	2.286E+00	1.489E+00	1.166E+00
U-234	1.284E+00	2.196E-01	6.896E-02	1.120E-01
NP-237	8.148E-01	3.858E-01	2.758E-01	1.968E-01
U-238	4.906E+00	2.286E+00	1.489E+00	1.166E+00
AM-243	3.847E-01	8.956E-02	5.453E-02	4.570E-02
ANH-511	1.722E-01	7.701E-02	2.697E-02	3.929E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-4.871E-01	3.992E-01	3.073E-01	2.037E-01	NOT IDENT.
NA-22	-1.310E-02	4.870E-02	3.910E-02	2.485E-02	NOT IDENT.
NA-24	3.811E+05	8.230E+05	0.000E+00	4.199E+05	SHORT HLIF
AL-26	-3.449E-03	3.062E-02	2.502E-02	1.562E-02	NOT IDENT.
TI-44	4.078E-01	6.739E-02	4.973E-02	3.438E-02	FAIL ABUN
SC-46	2.276E-02	4.464E-02	3.990E-02	2.277E-02	FAIL ABUN
V-48	1.631E-02	7.435E-02	6.449E-02	3.793E-02	NOT IDENT.
CR-51	2.492E-01	4.597E-01	4.098E-01	2.345E-01	NOT IDENT.
MN-52	-1.055E-02	2.234E-01	1.821E-01	1.140E-01	NOT IDENT.
MN-54	1.307E-02	5.128E-02	4.471E-02	2.617E-02	NOT IDENT.
CO-56	-1.343E-02	4.387E-02	3.641E-02	2.238E-02	NOT IDENT.
CO-57	2.190E-02	3.062E-02	2.705E-02	1.562E-02	NOT IDENT.
CO-58	-3.456E-03	4.651E-02	3.964E-02	2.373E-02	NOT IDENT.
FE-59	-6.298E-03	9.536E-02	7.948E-02	4.865E-02	NOT IDENT.
CO-60	2.847E-02	3.788E-02	3.497E-02	1.933E-02	NOT IDENT.
ZN-65	-4.131E-02	1.235E-01	8.452E-02	6.300E-02	NOT IDENT.
GE-68	3.150E-01	1.394E+00	1.201E+00	7.111E-01	NOT IDENT.
AS-73	1.266E+00	1.214E+00	1.109E+00	6.194E-01	NOT IDENT.
AS-74	-1.251E-02	1.041E-01	8.624E-02	5.314E-02	NOT IDENT.
SE-75	-2.410E-02	6.150E-02	4.299E-02	3.138E-02	NOT IDENT.
BR-77	-2.652E+00	1.343E+01	1.117E+01	6.851E+00	FAIL ABUN
SR-82	-6.572E-01	4.568E-01	3.418E-01	2.331E-01	NOT IDENT.
RB-83	-1.730E-02	8.763E-02	7.288E-02	4.471E-02	NOT IDENT.
RB-84	4.839E-02	7.770E-02	7.026E-02	3.964E-02	NOT IDENT.
KR-85	1.302E+01	1.051E+01	8.519E+00	5.362E+00	NOT IDENT.
SR-85	6.680E-02	5.391E-02	4.370E-02	2.751E-02	NOT IDENT.
RB-86	-1.704E-01	9.209E-01	7.594E-01	4.699E-01	NOT IDENT.
Y-88	1.937E-02	3.776E-02	3.498E-02	1.927E-02	NOT IDENT.
ZR-88	-1.394E-03	3.660E-02	3.133E-02	1.867E-02	NOT IDENT.
Y-91	-3.529E+00	2.149E+01	1.762E+01	1.096E+01	NOT IDENT.
NB-94	2.075E-03	4.226E-02	3.512E-02	2.156E-02	NOT IDENT.
NB-95	2.417E-02	5.354E-02	4.572E-02	2.731E-02	NOT IDENT.
NB-95M	4.725E-01	1.981E-01	1.608E-01	1.011E-01	NOT IDENT.
ZR-95	-7.740E-03	8.662E-02	7.072E-02	4.419E-02	NOT IDENT.
NB-97	1.222E+05	1.288E+05	0.000E+00	6.570E+04	SHORT HLIF
ZR-97	6.145E+06	2.695E+06	0.000E+00	1.375E+06	SHORT HLIF
MO-99	-1.153E+01	1.427E+01	1.074E+01	7.278E+00	NOT IDENT.
TC-99M	-1.160E+16	5.196E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-9.205E-03	4.403E-02	3.552E-02	2.246E-02	NOT IDENT.
RH-102	3.967E-02	3.569E-02	3.254E-02	1.821E-02	NOT IDENT.
RU-103	2.662E-02	4.926E-02	4.325E-02	2.513E-02	FAIL ABUN
RH-106	5.850E-02	3.568E-01	3.021E-01	1.820E-01	FAIL ABUN
RU-106	5.850E-02	3.567E-01	3.021E-01	1.820E-01	FAIL ABUN
AG-108M	-9.128E-03	4.159E-02	3.499E-02	2.122E-02	NOT IDENT.
AG-110M	3.485E-02	4.359E-02	3.458E-02	2.224E-02	NOT IDENT.
IN-111	6.639E-01	1.400E+00	1.053E+00	7.142E-01	NOT IDENT.
IN-113M	-4.752E-03	5.289E-02	4.514E-02	2.699E-02	NOT IDENT.
SN-113	-4.752E-03	5.289E-02	4.514E-02	2.699E-02	NOT IDENT.
IN-114M	-9.328E-02	2.614E-01	1.883E-01	1.333E-01	NOT IDENT.
CD-115	-1.341E+01	1.265E+01	9.685E+00	6.456E+00	NOT IDENT.
SN-117M	-4.104E-02	6.435E-02	5.312E-02	3.283E-02	NOT IDENT.
SB-122	1.601E-01	2.544E+00	2.147E+00	1.298E+00	NOT IDENT.
I-123	-3.560E+06	7.115E+06	0.000E+00	3.630E+06	SHORT HLIF
TE-123M	-1.660E-02	3.318E-02	2.756E-02	1.693E-02	NOT IDENT.
I-124	6.614E-01	8.794E-01	6.903E-01	4.487E-01	NOT IDENT.
SB-124	3.608E-02	8.029E-02	7.376E-02	4.097E-02	FAIL ABUN
SB-125	-7.288E-02	1.182E-01	9.688E-02	6.029E-02	FAIL ABUN
TE-125M	-8.402E+00	1.185E+01	9.764E+00	6.047E+00	NOT IDENT.
I-126	3.145E-02	2.478E-01	1.804E-01	1.264E-01	NOT IDENT.
SB-126	-3.486E-02	1.714E-01	1.245E-01	8.743E-02	FAIL ABUN
SB-127	8.860E-01	1.635E+00	1.420E+00	8.344E-01	NOT IDENT.
XE-127	-5.164E-02	6.477E-02	4.800E-02	3.305E-02	NOT IDENT.
I-131	3.864E-02	1.446E-01	1.265E-01	7.378E-02	NOT IDENT.
TE-132	-1.252E-01	8.738E-01	7.246E-01	4.458E-01	NOT IDENT.
BA-133	1.620E-02	6.258E-02	4.789E-02	3.193E-02	NOT IDENT.
I-133	2.290E+03	6.907E+03	0.000E+00	3.524E+03	SHORT HLIF
CS-134	1.857E-01	1.117E-01	5.745E-02	5.700E-02	FAIL ABUN
CS-135	3.534E-01	2.282E-01	1.818E-01	1.164E-01	NOT IDENT.
I-135	-9.273E+14	6.122E+15	0.000E+00	3.123E+15	SHORT HLIF
CS-136	6.961E-02	1.276E-01	1.133E-01	6.510E-02	FAIL ABUN
CE-139	1.695E-03	3.559E-02	3.025E-02	1.816E-02	NOT IDENT.
BA-140	-3.169E-02	3.012E-01	2.514E-01	1.537E-01	NOT IDENT.
LA-140	6.258E-02	1.029E-01	9.476E-02	5.248E-02	NOT IDENT.
CE-141	-1.136E-03	7.276E-02	6.205E-02	3.712E-02	NOT IDENT.
CE-143	9.025E+02	3.012E+02	0.000E+00	1.537E+02	SHORT HLIF
CE-144	5.347E-02	2.865E-01	2.173E-01	1.462E-01	NOT IDENT.
PM-144	2.378E-02	4.224E-02	3.663E-02	2.155E-02	NOT IDENT.
PR-144	1.611E+00	2.862E+00	2.483E+00	1.460E+00	NOT IDENT.

PM-146	-3.131E-02	5.298E-02	4.316E-02	2.703E-02 NOT IDENT.
ND-147	5.391E-01	5.983E-01	5.398E-01	3.052E-01 NOT IDENT.
PM-149	-2.209E+01	1.136E+02	9.820E+01	5.797E+01 NOT IDENT.
EU-152	-6.352E-02	1.337E-01	9.646E-02	6.819E-02 FAIL ABUN
GD-153	1.508E-01	9.927E-02	8.475E-02	5.065E-02 NOT IDENT.
EU-154	-3.658E-02	1.361E-01	1.092E-01	6.942E-02 NOT IDENT.
EU-155	5.332E-02	1.279E-01	1.123E-01	6.524E-02 FAIL ABUN
TB-160	4.576E-02	1.591E-01	1.395E-01	8.117E-02 FAIL ABUN
HO-166M	5.480E-02	7.453E-02	6.554E-02	3.803E-02 FAIL ABUN
TM-171	6.071E+01	4.089E+01	3.167E+01	2.086E+01 NOT IDENT.
LU-176	1.536E-02	2.937E-02	2.563E-02	1.498E-02 NOT IDENT.
LU-177	2.335E+00	1.865E+00	1.240E+00	9.514E-01 FAIL ABUN
LU-177M	-2.842E-02	2.496E-01	1.834E-01	1.273E-01 FAIL ABUN
HF-181	-3.571E-02	5.229E-02	4.209E-02	2.668E-02 NOT IDENT.
W-181	-2.669E-01	5.354E-01	4.042E-01	2.731E-01 NOT IDENT.
TA-182	9.892E-02	2.155E-01	1.880E-01	1.099E-01 FAIL ABUN
RE-183	3.694E-02	1.319E-01	1.134E-01	6.731E-02 FAIL ABUN
RE-184	-3.853E-02	2.778E-01	2.290E-01	1.417E-01 NOT IDENT.
OS-185	-2.094E-02	5.261E-02	4.225E-02	2.684E-02 NOT IDENT.
RE-188	9.519E-02	2.160E-01	1.797E-01	1.102E-01 NOT IDENT.
W-188	-1.448E+00	1.043E+01	7.851E+00	5.322E+00 FAIL ABUN
IR-192	7.582E-03	4.190E-02	3.672E-02	2.138E-02 FAIL ABUN
AU-195	2.147E-01	2.675E-01	2.384E-01	1.365E-01 FAIL ABUN
TL-200	1.495E+02	5.671E+02	0.000E+00	2.893E+02 SHORT HLIF
TL-201	-3.286E+00	8.374E+00	6.975E+00	4.272E+00 NOT IDENT.
TL-202	1.256E-02	8.506E-02	7.324E-02	4.340E-02 NOT IDENT.
HG-203	2.548E-02	4.950E-02	4.426E-02	2.526E-02 FAIL ABUN
BI-207	3.576E-02	5.933E-02	5.304E-02	3.027E-02 FAIL ABUN
TL-207	-8.215E-01	8.225E-01	6.659E-01	4.196E-01 FAIL ABUN
PO-209	-8.346E+00	8.468E+00	6.459E+00	4.321E+00 NOT IDENT.
BI-210	3.752E+00	5.755E+00	5.080E+00	2.936E+00 NOT IDENT.
PB-210	3.752E+00	5.755E+00	5.080E+00	2.936E+00 NOT IDENT.
PO-210	3.752E+00	5.753E+00	5.080E+00	2.935E+00 NOT IDENT.
PB-211	-4.904E-01	1.403E+00	9.880E-01	7.159E-01 NOT IDENT.
BI-212	8.296E-01	5.093E-01	3.813E-01	2.598E-01 FAIL ABUN
PO-215	-8.215E-01	8.225E-01	6.659E-01	4.196E-01 FAIL ABUN
RN-219	2.904E-01	5.280E-01	4.657E-01	2.694E-01 FAIL ABUN
RN-220	1.196E+01	3.249E+01	2.809E+01	1.658E+01 NOT IDENT.
RA-223	-8.215E-01	8.225E-01	6.659E-01	4.196E-01 FAIL ABUN
AC-227	-6.036E-02	4.686E-01	3.862E-01	2.391E-01 FAIL ABUN
TH-227	-6.036E-02	4.687E-01	3.862E-01	2.391E-01 FAIL ABUN
TH-229	2.385E-01	6.532E-01	5.586E-01	3.333E-01 FAIL ABUN
PA-231	-6.745E-01	1.843E+00	1.578E+00	9.402E-01 NOT IDENT.
TH-231	-8.215E-01	8.225E-01	6.659E-01	4.196E-01 FAIL ABUN
U-231	-3.467E-01	1.476E+00	1.112E+00	7.528E-01 FAIL ABUN
PA-233	-5.261E-02	7.160E-02	5.949E-02	3.653E-02 FAIL ABUN
PA-234	3.030E-02	3.151E-01	2.703E-01	1.607E-01 FAIL ABUN
PA-234M	5.238E+00	5.149E+00	4.773E+00	2.627E+00 NOT IDENT.
U-235	-4.722E-02	2.444E-01	2.069E-01	1.247E-01 FAIL ABUN
NP-236	-3.246E-02	9.305E-02	7.782E-02	4.747E-02 FAIL ABUN
NP-239	-2.637E-01	2.318E-01	1.901E-01	1.183E-01 FAIL ABUN
AM-241	1.489E-01	2.253E-01	1.806E-01	1.149E-01 NOT IDENT.
CM-243	1.236E-01	1.105E-01	9.953E-02	5.638E-02 FAIL ABUN
AM-246	9.946E-02	1.643E-01	1.467E-01	8.383E-02 NOT IDENT.
CM-247	5.474E-02	4.916E-02	4.271E-02	2.508E-02 NOT IDENT.
CF-249	1.044E-02	4.895E-02	4.257E-02	2.498E-02 NOT IDENT.
CF-251	9.581E-02	1.566E-01	1.359E-01	7.991E-02 NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	320.7173
46.50	320.7173
46.50	320.7173
48.70	368.2488
49.72	382.5430
51.35	349.0019
52.39	322.2386
52.97	331.6932
53.15	329.9662
53.44	320.0681
54.07	335.0537
56.28	387.7297
56.28	387.7313
57.37	0.0000
57.53	349.8508
57.53	349.8515
57.60	352.3453
57.98	359.6855
57.98	359.6855
59.32	329.4313
59.32	329.4313
59.40	329.4728
59.54	329.5457
59.72	313.3793
60.01	313.5223
61.10	334.7963
61.14	340.7430
61.30	340.8279
63.00	392.7931
63.29	416.1911
63.29	416.1911
63.58	435.7069
64.28	446.5887
65.12	424.7951
65.20	424.8455
65.20	424.8455
66.05	370.1594
66.72	319.3530
66.83	319.4065
66.91	281.4597
67.20	341.3837
67.20	341.3837
67.75	341.6583
67.85	341.7084
68.90	379.2020
68.90	379.2020
69.30	389.9191
69.67	409.6349
70.82	402.7917
70.82	402.7917
70.83	402.7982
72.80	374.9074
72.87	374.9439
72.87	374.9439
74.67	375.8821
74.81	375.9550
74.81	375.9550
74.81	375.9550
74.81	375.9550
74.81	375.9550
74.81	375.9550
74.81	375.9550
74.97	376.0370
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75.70	376.4135
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77.11	377.1362

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77.11	377.1362
77.11	377.1362
77.11	377.1362
78.38	377.7815
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80.30	473.5271
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81.07	518.2074
81.07	518.2074
81.07	518.2074
81.07	518.2074
82.60	427.6118
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83.78	428.2629
83.78	428.2629
83.78	428.2629
84.21	418.2981
84.90	411.6465
85.43	404.6432
86.29	489.4773
86.50	544.8613
86.54	544.8873
86.59	544.9220
86.72	568.0417
86.79	568.0891
86.94	575.8759
87.30	593.0367
87.30	593.0367
87.30	593.0367
87.30	593.0367
87.30	593.0367
87.30	593.0367
87.30	593.0367
87.57	574.7945
87.88	641.8986
88.03	642.0184
88.36	642.2808
88.47	642.3701
89.95	643.5473
91.11	540.2698
92.29	459.8885
92.38	350.9453
92.38	350.9453
93.35	329.6872
94.00	357.8272
94.67	378.2648
94.67	378.2670
94.90	379.9220
94.90	379.9220
94.90	379.9220
94.90	379.9220
95.87	363.2827
95.87	363.2827
96.73	326.3549
97.43	278.6663
98.44	317.2750
98.44	317.2762
98.88	301.8581
99.55	307.9404
99.55	307.9404
99.86	295.3771
100.00	295.4245
100.10	295.4604
103.18	319.9858
103.76	259.4856
105.00	287.3030
105.31	302.1160
108.00	340.4037
109.28	351.7188

111.00	309.9346
111.00	309.9346
111.76	323.0308
112.95	331.3566
115.19	288.5223
116.30	336.5067
117.00	337.7471
117.00	337.7471
117.66	311.1409
121.11	289.3075
121.62	274.4870
121.78	280.5208
122.06	280.6013
122.32	288.8087
122.32	288.8087
122.32	288.8087
122.32	288.8087
123.07	322.5399
127.23	308.3643
129.76	312.3561
131.20	304.7348
133.02	303.6572
133.54	308.6590
135.34	318.7034
136.00	322.9525
136.25	312.9040
136.48	308.9209
140.51	311.1128
140.51	0.0000
142.18	293.2668
142.65	290.3381
143.76	292.6755
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144.24	296.8856
144.24	296.8856
144.24	296.8856
145.22	288.9829
145.44	281.8918
147.16	307.9077
152.43	267.2264
152.70	270.3740
153.22	257.1278
154.21	259.4097
154.21	259.4097
154.21	259.4097
154.21	259.4097
155.03	280.2012
156.02	289.7234
158.56	277.9645
159.00	0.0000
159.00	272.9006
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161.27	269.2914
162.32	270.5681
162.64	261.3093
163.35	243.8283
163.89	244.9784
165.85	268.2592
167.43	270.6958
171.28	264.2494
171.86	269.6017
172.10	269.6548
176.55	260.1434
176.60	260.1529
181.06	293.0876
184.41	280.3520
185.71	264.1544
186.00	258.7198
190.27	286.7224
192.34	253.8281
193.63	276.4027
197.04	289.9069
198.01	278.3858
198.60	269.9706
200.40	261.7873
201.83	280.2480
202.84	292.5896
205.31	255.6590

208.36	276.8642
208.81	270.9338
209.75	265.0917
209.75	265.0917
210.97	254.9875
215.65	245.2539
216.55	254.0586
218.09	251.0879
222.10	218.1492
223.80	227.0997
226.40	224.2406
227.00	237.4013
227.08	234.1475
227.20	234.1671
228.16	232.1400
228.18	232.1432
228.18	232.1432
231.56	0.0000
235.69	259.3957
236.00	261.2029
236.00	261.2029
238.63	237.0756
238.63	237.0756
238.63	237.0756
238.63	237.0756
239.00	237.1333
240.98	237.4448
241.98	204.1611
241.98	204.1611
241.98	204.1611
244.69	165.7347
245.39	164.0465
247.94	177.9478
248.90	203.3150
249.79	179.1082
252.40	169.4414
252.85	175.0293
252.85	175.0293
254.15	0.0000
256.20	184.2829
256.20	184.2829
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260.90	185.9435
262.80	151.6055
264.65	176.7788
268.24	168.2224
268.79	146.7972
269.46	149.9914
269.46	149.9914
269.46	149.9914
269.46	149.9914
271.23	190.0469
273.65	247.7834
276.40	171.9826
277.35	177.7042
277.60	176.6058
277.60	176.6058
278.00	186.3253
278.60	174.6853
279.20	179.2530
279.53	187.3955
280.46	194.7111
281.68	209.2871
283.67	178.8260
284.30	173.4727
285.00	178.0623
285.90	179.9672
286.10	176.3688
286.10	176.3688
287.40	172.8839
288.45	0.0000
290.67	187.4229
290.80	187.4355
291.72	199.6355
293.26	0.0000
293.70	183.2109
295.21	150.9380
295.21	150.9380

295.21	150.9380
295.96	151.0049
296.50	151.0515
297.23	151.1143
298.57	151.2298
299.80	151.3372
299.80	151.3372
300.09	145.8906
300.09	145.8906
300.09	145.8906
300.09	145.8906
300.12	145.8926
301.29	150.5524
302.84	155.2516
303.76	158.3783
303.91	158.3910
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304.40	146.2480
304.84	131.0454
306.84	134.2451
308.46	135.5884
311.98	141.3615
316.51	147.2363
318.01	141.8334
319.02	135.4600
319.41	142.8622
320.08	145.6813
323.87	176.4722
323.87	176.4722
323.87	176.4722
323.87	176.4722
325.23	164.5805
328.77	160.2636
333.44	151.6855
334.20	136.2629
334.20	136.2629
334.30	136.2700
338.28	142.7636
338.28	142.7636
338.28	142.7636
338.28	142.7636
338.32	142.7655
338.32	142.7655
338.32	142.7655
340.50	128.9479
340.57	128.9512
344.27	143.2109
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351.07	134.9666
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351.92	135.0246
351.92	135.0246
355.39	0.0000
356.01	140.9436
364.48	127.3914
366.43	116.1818
367.43	114.3488
367.94	0.0000
369.80	122.0524
374.96	125.2083
383.85	135.2779
387.95	120.2722
388.63	117.4461
391.69	115.7048
391.69	115.7048
392.90	114.8145
398.62	127.5969
400.65	126.7583
401.10	119.1018
401.81	122.0236
402.60	109.3330
404.84	136.3075
410.95	123.8279
411.60	125.4741
413.65	119.1510
414.70	106.3208
415.30	116.0186

415.76	113.2805
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418.52	119.0932
423.70	100.9328
427.08	131.2180
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432.53	93.5379
433.93	116.0192
439.47	101.6437
439.56	101.6476
439.89	103.6179
443.98	109.6785
444.90	123.4376
445.03	123.4452
445.03	123.4452
445.03	123.4452
445.03	123.4452
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468.07	97.2938
473.00	108.0713
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476.78	109.2333
477.59	113.2444
477.96	104.3194
482.03	102.5046
484.57	78.7020
487.03	97.7296
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511.00	75.5168
511.85	72.1854
511.85	72.1854
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513.99	97.4478
520.41	93.9877
520.65	93.9968
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528.96	0.0000
529.64	68.9695
529.87	0.0000
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537.32	75.2755
543.00	72.3798
546.56	0.0000
549.76	78.6975
552.65	76.7358
555.20	81.9297
563.23	76.0108
563.90	81.1679
568.70	74.1059
569.32	72.0645
569.50	67.9513
569.67	67.9545
573.80	75.2759
574.00	79.4063
574.64	78.3936
578.91	80.9247
579.30	0.0000
583.14	71.3921
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591.81	68.5008
592.07	71.6212
593.00	84.1047
595.88	68.5991
600.56	75.1915
602.52	0.0000
602.71	64.2502
602.71	64.2502
603.60	76.4307
604.41	72.9771
604.70	72.9839
609.31	79.3677

609.31	79.3677
609.31	79.3677
609.31	79.3677
610.33	79.3955
612.46	55.7578
614.37	54.0520
618.01	74.4878
621.84	58.7357
621.84	58.7357
631.29	56.8226
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633.10	68.4388
634.78	75.8531
635.90	76.9352
636.97	69.5836
645.85	75.0787
646.12	74.0281
656.30	70.7422
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657.90	0.0000
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661.65	65.9068
664.57	0.0000
666.33	65.6533
666.33	65.6533
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677.61	63.0447
685.20	56.7719
692.80	62.2792
695.00	61.2486
696.49	64.5029
696.49	64.5029
697.00	68.8141
697.49	81.7297
698.33	93.5823
698.50	86.0586
699.00	84.9964
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713.82	63.7736
717.42	59.5171
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722.78	48.7760
722.78	48.7760
722.89	48.7782
722.95	48.7793
723.30	43.3643
724.18	45.1833
727.18	55.3554
733.00	57.9909
735.90	48.9738
739.58	67.5491
742.81	50.1665
744.21	53.4610
747.13	75.3491
751.79	62.3312
752.31	52.4977
753.82	65.6528
755.35	64.5874
756.15	61.3184
756.87	58.0464
763.93	79.0207
765.79	68.0834
766.42	72.4888
766.84	72.4985
776.49	78.0291
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778.57	55.1123
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783.80	52.4367
785.46	54.2193
792.07	56.9104

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796.30	42.4708
798.80	42.5017
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805.60	65.0663
810.29	55.6189
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815.85	46.4223
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831.60	60.6161
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867.32	62.1556
867.82	59.3381
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873.19	51.8781
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875.33	0.0000
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879.36	43.4610
880.27	42.5272
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881.50	37.8141
883.24	51.0721
884.67	52.0381
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896.60	55.0511
898.02	47.4752
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903.28	44.0097
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911.07	49.5435
911.07	49.5435
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920.93	35.4292
925.00	47.3318
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926.50	50.8356
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937.48	39.4671
944.10	38.4359
946.00	36.5319
949.00	32.7113
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964.01	41.3879
966.15	48.3124
968.20	48.3368
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969.11	43.0988
969.11	43.0988
977.42	35.8513
980.50	46.5449
983.50	33.9646
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996.32	50.6204
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1001.68	37.0398
1004.76	51.6996
1021.30	0.0000
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1036.00	38.3287
1037.82	33.4300
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1038.76	0.0000
1045.16	42.3526
1046.59	38.4255
1048.07	39.4238

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1050.47	41.4189
1062.04	30.6544
1063.62	35.6118
1076.63	44.6484
1077.35	37.7093
1078.86	36.7290
1085.78	47.7246
1099.22	35.9033
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1112.84	46.3046
1115.52	53.1948
1120.29	54.9710
1120.29	54.9710
1120.29	54.9710
1120.29	54.9710
1120.51	54.9732
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1124.00	0.0000
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1131.51	0.0000
1147.95	0.0000
1167.94	49.6181
1173.22	49.6759
1175.09	37.5254
1177.93	44.6517
1189.05	50.8626
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1205.75	0.0000
1213.00	51.1210
1221.42	40.9701
1230.97	63.6297
1235.34	62.6605
1236.41	0.0000
1238.25	53.4473
1246.25	44.2703
1260.41	0.0000
1271.85	33.1185
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1274.54	36.2433
1291.56	27.0156
1298.22	0.0000
1312.09	28.1700
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1325.50	19.8759
1332.49	14.6659
1333.61	22.0032
1360.21	23.1709
1362.66	0.0000
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1368.21	17.9325
1368.53	0.0000
1376.25	15.8472
1384.27	19.0459
1394.10	16.9609
1395.20	15.9045
1407.95	25.5078
1434.06	13.8844
1436.60	22.4390
1457.56	0.0000
1460.81	15.0265
1489.15	9.7097
1509.49	8.6621
1596.49	16.0187
1620.62	18.9230
1678.03	0.0000
1691.02	8.6155
1691.02	8.6155
1706.46	0.0000
1750.46	0.0000
1764.49	11.8659
1764.49	11.8659
1764.49	11.8659
1764.49	11.8659
1770.23	5.0900
1771.40	35.8786
1791.20	0.0000
1808.65	8.7784

1836.01 7.8359

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960009

Total Uranium Activity	1.4574E+01	ug/g
Total Uranium Counting Unc.	6.8023E+00	ug/g
Total Uranium Tpu	3.4705E-06	ug/g
Total Uranium Mda	4.4309E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G245960009
ANALYST	: MXR1	DETECTOR	: GAM06
SAMPLE DATE	: 28-JAN-2010 12:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 12-FEB-2010 15:54:12.86	SAMPLE ALQT	: 117.960 GRAM

GROSS GAMMA ACTIVITY	(pCi/GRAM)	: 8.518E+00
GROSS GAMMA ERROR	(pCi/GRAM)	: 1.439E+00
GROSS GAMMA MDA	(pCi/GRAM)	: 3.816E+00
GROSS GAMMA DLC	(pCi/GRAM)	: 1.851E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:24:30.91

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960010.CNF;1
Sample date      : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:24:06
Sample ID        : G245960010           Sample quantity  : 1.05200E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.24  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 948717               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.74*	74	471	1.08	93.15	89	9	1.02E-02	55.7	
2	0	63.25*	475	651	1.02	126.16	121	10	6.60E-02	11.2	
3	3	74.76	412	573	1.34	149.17	143	18	5.72E-02	11.3	2.70E+00
4	3	77.21*	693	392	1.03	154.07	143	18	9.62E-02	6.1	
5	0	84.08*	177	488	1.89	167.81	164	8	2.45E-02	23.2	
6	0	87.18	231	406	1.34	174.00	172	6	3.21E-02	15.2	
7	2	89.97	145	420	1.00	179.59	177	13	2.01E-02	23.6	2.70E+00
8	2	92.72*	1056	480	1.12	185.08	177	13	1.47E-01	4.7	
9	0	128.85	172	395	1.90	257.33	252	12	2.39E-02	24.2	
10	0	143.83*	97	297	1.37	287.28	284	8	1.35E-02	33.3	
11	0	186.03*	406	354	1.21	371.67	365	12	5.65E-02	10.8	
12	0	209.49*	121	242	1.10	418.58	414	10	1.68E-02	26.2	
13	6	238.77*	1143	138	1.17	477.13	469	23	1.59E-01	3.5	1.40E+00
14	6	241.67	323	236	2.21	482.93	469	23	4.48E-02	15.5	
15	0	270.41	104	198	1.43	540.40	535	11	1.45E-02	27.9	
16	1	295.34*	312	115	1.21	590.26	585	23	4.33E-02	8.1	1.47E+00
17	1	300.32*	74	129	1.44	600.21	585	23	1.03E-02	31.6	
18	0	338.55	241	158	1.18	676.65	671	13	3.35E-02	12.5	
19	0	352.04*	568	192	1.14	703.63	697	13	7.89E-02	6.6	
20	0	409.65	24	103	0.78	818.83	815	8	3.36E-03	75.2	
21	0	511.38*	111	137	1.78	1022.25	1014	18	1.55E-02	29.7	
22	0	583.30*	323	78	1.49	1166.08	1159	13	4.49E-02	8.1	
23	0	609.43*	403	102	1.59	1218.34	1211	15	5.59E-02	7.4	
24	0	661.79	138	138	1.22	1323.04	1317	14	1.91E-02	19.9	
25	0	728.10	126	83	2.13	1455.64	1447	21	1.75E-02	21.0	
26	0	796.21	36	57	1.63	1591.84	1583	13	4.99E-03	46.9	
27	0	861.03	57	61	1.85	1721.48	1716	14	7.88E-03	31.8	
28	0	911.41*	228	55	1.23	1822.21	1816	13	3.17E-02	9.7	
29	1	964.78	57	49	1.98	1928.95	1924	20	7.94E-03	24.0	2.30E+00
30	1	969.38*	112	37	1.85	1938.14	1924	20	1.56E-02	15.6	
31	0	1001.62	37	43	1.80	2002.61	1997	10	5.19E-03	36.5	
32	0	1121.05	59	51	0.80	2241.46	2233	13	8.16E-03	26.8	
33	0	1378.59	24	26	4.35	2756.48	2747	15	3.30E-03	51.2	
34	0	1461.16*	798	18	1.71	2921.61	2912	17	1.11E-01	3.8	
35	0	1588.15	23	3	1.46	3175.57	3169	11	3.19E-03	25.3	
36	0	1592.65	17	10	1.67	3184.59	3179	10	2.36E-03	42.4	
37	0	1765.22*	51	8	2.49	3529.70	3524	11	7.04E-03	19.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 18:24:33

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960010.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:24:06
Sample ID : G245960010 Sample quantity : 105.20 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA7 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.24 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.363E+01	2.703E+00	5.213E-01	4.476E-02	45.322
CD-109	+	88.03	*	3.319E+00	1.056E+00	1.323E+00	1.246E-01	2.510
SN-126	+	64.28		3.686E+00	9.842E-01	7.301E-01	1.059E-01	5.048
	+	86.94		1.356E+00	6.978E-01	5.782E-01	2.400E-01	2.345
	+	87.57	*	3.262E-01	1.038E-01	1.333E-01	1.249E-02	2.447
BA-137M	+	661.65	*	2.450E-01	1.001E-01	7.127E-02	6.308E-03	3.438
CS-137	+	661.65	*	2.590E-01	1.058E-01	7.534E-02	6.680E-03	3.438
TL-208		277.35		3.492E-01	4.248E-01	7.316E-01	8.959E-02	0.477
	+	510.84		6.684E-01	4.051E-01	2.489E-01	3.032E-02	2.685
	+	583.14	*	5.530E-01	1.042E-01	6.560E-02	6.275E-03	8.431
	+	860.37		9.122E-01	5.874E-01	5.205E-01	5.089E-02	1.753
BI-210	+	46.50	*	3.077E+00	3.442E+00	3.337E+00	3.131E-01	0.922
PB-210	+	46.50	*	3.077E+00	3.442E+00	3.337E+00	3.131E-01	0.922
PO-210	+	46.50	*	3.077E+00	3.440E+00	3.337E+00	2.840E-01	0.922
BI-211		72.87		6.520E+00	3.331E+00	5.237E+00	4.133E-01	1.245
	+	351.07	*	4.257E+00	6.810E-01	3.990E-01	3.580E-02	10.669
PB-212	+	74.81		2.263E+00	5.834E-01	5.336E-01	6.581E-02	4.241
	+	77.11		2.191E+00	3.228E-01	3.085E-01	2.546E-02	7.103
	+	87.30		1.509E+00	5.030E-01	7.054E-01	9.651E-02	2.139
	+	238.63	*	1.864E+00	2.214E-01	1.001E-01	9.578E-03	18.611
	+	300.09		1.866E+00	1.195E+00	1.409E+00	1.462E-01	1.324
PO-212	+	74.81		2.263E+00	5.834E-01	5.336E-01	6.581E-02	4.241
	+	77.11		2.191E+00	3.228E-01	3.085E-01	2.546E-02	7.103
	+	87.30		1.509E+00	5.030E-01	7.054E-01	9.651E-02	2.139
		115.19		-4.486E+00	4.099E+00	6.254E+00	5.387E-01	-0.717
	+	238.63	*	1.864E+00	2.214E-01	1.001E-01	9.578E-03	18.611
	+	300.09		1.866E+00	1.195E+00	1.409E+00	1.462E-01	1.324
BI-214	+	609.31	*	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
	+	1120.29		9.822E-01	5.364E-01	4.933E-01	5.297E-02	1.991
	+	1764.49		1.165E+00	4.590E-01	3.577E-01	2.941E-02	3.256
PB-214	+	74.81		3.899E+00	9.804E-01	9.193E-01	1.006E-01	4.241
	+	77.11		3.757E+00	6.230E-01	5.289E-01	5.941E-02	7.103
	+	87.30		2.584E+00	8.459E-01	1.208E+00	1.463E-01	2.139
	+	241.98		3.161E+00	1.034E+00	6.032E-01	6.122E-02	5.241

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.381E+00	2.664E-01	2.468E-01	2.613E-02	5.593
	+	351.92	*	1.481E+00	2.492E-01	1.391E-01	1.443E-02	10.647
PO-214	+	74.81		3.899E+00	9.804E-01	9.193E-01	1.006E-01	4.241
	+	77.11		3.757E+00	6.230E-01	5.289E-01	5.941E-02	7.103
	+	87.30		2.584E+00	8.459E-01	1.208E+00	1.463E-01	2.139
	+	241.98		3.161E+00	1.034E+00	6.032E-01	6.122E-02	5.241
	+	295.21		1.381E+00	2.664E-01	2.468E-01	2.613E-02	5.593
	+	351.92	*	1.481E+00	2.492E-01	1.391E-01	1.443E-02	10.647
PO-216	+	74.81		2.263E+00	5.834E-01	5.336E-01	6.581E-02	4.241
	+	77.11		2.191E+00	3.228E-01	3.085E-01	2.546E-02	7.103
	+	87.30		1.509E+00	5.030E-01	7.054E-01	9.651E-02	2.139
	+	238.63	*	1.864E+00	2.214E-01	1.001E-01	9.578E-03	18.611
	+	300.09		1.866E+00	1.195E+00	1.409E+00	1.462E-01	1.324
PO-218	+	74.81		3.899E+00	9.804E-01	9.193E-01	1.006E-01	4.241
	+	77.11		3.757E+00	6.230E-01	5.289E-01	5.941E-02	7.103
	+	87.30		2.584E+00	8.459E-01	1.208E+00	1.463E-01	2.139
	+	241.98		3.161E+00	1.034E+00	6.032E-01	6.122E-02	5.241
	+	295.21		1.381E+00	2.664E-01	2.468E-01	2.613E-02	5.593
	+	351.92	*	1.481E+00	2.492E-01	1.391E-01	1.443E-02	10.647
RA-224	+	240.98	*	5.994E+00	1.932E+00	1.140E+00	9.639E-02	5.259
RA-226	+	609.31	*	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
	+	1120.29		9.822E-01	5.364E-01	4.933E-01	5.297E-02	1.991
	+	1764.49		1.165E+00	4.590E-01	3.577E-01	2.941E-02	3.256
AC-228	+	338.32		1.989E+00	9.591E-01	4.140E-01	1.707E-01	4.804
	+	911.07	*	1.736E+00	3.915E-01	2.595E-01	3.023E-02	6.689
	+	969.11		1.499E+00	5.858E-01	4.524E-01	1.063E-01	3.314
RA-228	+	338.32		1.989E+00	9.591E-01	4.140E-01	1.707E-01	4.804
	+	911.07	*	1.736E+00	3.915E-01	2.595E-01	3.023E-02	6.689
	+	969.11		1.499E+00	5.858E-01	4.524E-01	1.063E-01	3.314
TH-228	+	74.81		2.297E+00	5.526E-01	5.417E-01	4.403E-02	4.241
	+	77.11		2.225E+00	3.277E-01	3.132E-01	2.585E-02	7.103
	+	87.30		1.532E+00	4.872E-01	7.161E-01	6.687E-02	2.139
	+	238.63	*	1.892E+00	2.247E-01	1.017E-01	9.724E-03	18.611
	+	300.09		1.895E+00	1.641E+00	1.431E+00	8.482E-01	1.324
TH-230	+	609.31	*	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
	+	1120.29		9.821E-01	5.364E-01	4.933E-01	5.297E-02	1.991
	+	1764.49		1.165E+00	4.590E-01	3.577E-01	2.941E-02	3.256
TH-232	+	338.32		1.989E+00	5.254E-01	4.140E-01	3.543E-02	4.804
	+	911.07	*	1.736E+00	3.915E-01	2.595E-01	3.023E-02	6.689
	+	969.11		1.499E+00	5.858E-01	4.524E-01	1.063E-01	3.314
TH-234	+	63.29	*	9.312E+00	2.644E+00	1.863E+00	3.242E-01	4.997
	+	92.38		9.929E+00	2.049E+00	9.113E-01	1.672E-01	10.895
U-234	+	609.31	*	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
	+	1120.29		9.821E-01	5.364E-01	4.933E-01	5.297E-02	1.991
	+	1764.49		1.165E+00	4.590E-01	3.577E-01	2.941E-02	3.256
U-235	+	89.95		2.760E+00	1.557E+00	1.767E+00	5.486E-01	1.562
	+	93.35		1.194E+01	3.549E+00	1.093E+00	3.079E-01	10.924
		105.00		1.144E+00	1.227E+00	1.985E+00	5.931E-01	0.576
	+	143.76	*	4.921E-01	3.385E-01	3.747E-01	6.489E-02	1.313

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		163.35		9.016E-02	5.679E-01	8.939E-01	1.679E-01	0.101
	+	185.71		4.621E-01	1.063E-01	7.905E-02	6.400E-03	5.845
		205.31		3.498E-01	6.401E-01	9.644E-01	1.825E-01	0.363
NP-237	+	86.50	*	9.578E-01	3.632E-01	3.755E-01	8.490E-02	2.551
		95.87		-8.153E-01	1.247E+00	1.726E+00	4.276E-01	-0.472
U-238	+	63.29	*	9.312E+00	2.644E+00	1.863E+00	3.242E-01	4.997
	+	92.38		9.929E+00	1.306E+00	9.113E-01	8.348E-02	10.895
AM-243	+	74.67	*	3.669E-01	8.815E-02	8.666E-02	6.966E-03	4.233
	+	86.72		3.592E+01	1.143E+01	1.406E+01	1.303E+00	2.554
		117.66		-1.496E+00	4.082E+00	6.455E+00	5.552E-01	-0.232
		142.18		1.333E+01	2.368E+01	3.470E+01	2.864E+00	0.384
ANH-511	+	511.00	*	1.444E-01	8.668E-02	5.379E-02	4.779E-03	2.684

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	9.418E-02	4.215E-01	6.867E-01	6.481E-02	0.137
NA-22		1274.54	*	-6.213E-03	4.560E-02	7.407E-02	6.080E-03	-0.084
NA-24		1368.53	*	-2.588E-01	4.560E-02	Half-Life too short		
AL-26		1129.67		-1.236E-01	1.972E+00	3.269E+00	2.746E-01	-0.038
		1808.65	*	1.043E-02	3.815E-02	6.673E-02	5.442E-03	0.156
TI-44		67.85		2.529E-02	4.693E-02	7.082E-02	5.343E-03	0.357
	+	78.38	*	4.044E-01	5.957E-02	8.243E-02	6.901E-03	4.906
SC-46		889.25	*	-3.206E-02	4.891E-02	7.384E-02	6.766E-03	-0.434
	+	1120.51		1.682E-01	9.120E-02	1.357E-01	1.146E-02	1.240
V-48		944.10		5.191E-01	1.050E+00	1.786E+00	1.623E-01	0.291
		983.50	*	-4.328E-02	8.040E-02	1.209E-01	1.088E-02	-0.358
		1312.09		-7.036E-03	7.789E-02	1.267E-01	1.039E-02	-0.056
CR-51		320.08	*	-4.552E-01	4.697E-01	7.035E-01	6.358E-02	-0.647
MN-52		744.21		1.062E-02	2.795E-01	4.614E-01	4.188E-02	0.023
		848.13		-1.101E+00	7.461E+00	1.196E+01	1.098E+00	-0.092
		935.52		2.518E-01	2.960E-01	5.196E-01	4.732E-02	0.485
		1246.25		-2.219E+00	8.785E+00	1.418E+01	1.162E+00	-0.156
		1333.61		2.708E+00	6.046E+00	1.049E+01	8.598E-01	0.258
		1434.06	*	-4.799E-02	2.626E-01	4.170E-01	3.468E-02	-0.115
MN-54		834.83	*	2.160E-02	4.569E-02	7.760E-02	7.123E-03	0.278
CO-56		846.75	*	3.645E-03	4.387E-02	7.211E-02	6.620E-03	0.051
		977.42		-1.190E+00	3.250E+00	4.998E+00	4.507E-01	-0.238
		1037.82		-1.112E-01	3.490E-01	5.664E-01	5.254E-02	-0.196
		1175.09		-2.461E-01	2.574E+00	4.240E+00	3.452E-01	-0.058
		1238.25		2.216E-01	1.093E-01	2.071E-01	1.750E-02	1.070
		1360.21		-4.217E-01	1.197E+00	1.873E+00	1.542E-01	-0.225
		1771.40		-1.113E+00	4.192E-01	3.942E-01	3.237E-02	-2.823
CO-57		122.06	*	2.542E-02	2.849E-02	4.756E-02	4.092E-03	0.535
		136.48		-2.719E-02	2.406E-01	3.828E-01	3.446E-02	-0.071
CO-58		810.76	*	6.127E-03	4.346E-02	7.208E-02	6.622E-03	0.085
FE-59	+	142.65		6.355E+00	4.263E+00	5.679E+00	4.684E-01	1.119
		192.34		7.917E-01	1.017E+00	1.769E+00	2.323E-01	0.447

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1099.22	*	-4.668E-03	1.032E-01	1.717E-01	1.591E-02	-0.027
		1291.56		-1.154E-01	1.425E-01	2.113E-01	1.990E-02	-0.546
CO-60		1173.22		-3.459E-02	5.158E-02	7.984E-02	6.497E-03	-0.433
		1332.49	*	-5.760E-04	4.459E-02	7.329E-02	6.004E-03	-0.008
ZN-65		1115.52	*	-2.523E-02	1.119E-01	1.555E-01	1.320E-02	-0.162
GE-68		1077.35	*	5.342E-01	1.497E+00	2.589E+00	2.244E-01	0.206
AS-73		53.44	*	2.908E-01	6.417E-01	1.070E+00	8.036E-02	0.272
AS-74		595.88	*	3.777E-02	1.067E-01	1.830E-01	1.640E-02	0.206
		634.78		6.016E-02	3.834E-01	6.466E-01	5.765E-02	0.093
SE-75		66.05		-1.656E+00	4.861E+00	7.040E+00	6.679E-01	-0.235
		96.73		2.680E-01	9.692E-01	1.424E+00	1.973E-01	0.188
		121.11		8.488E-02	1.510E-01	2.489E-01	2.788E-02	0.341
		136.00		-1.457E-03	4.542E-02	7.255E-02	6.100E-03	-0.020
		198.60		8.401E-02	1.955E+00	3.237E+00	2.975E-01	0.026
		264.65	*	4.282E-02	5.430E-02	8.411E-02	7.183E-03	0.509
		279.53		-6.725E-02	1.262E-01	2.028E-01	1.787E-02	-0.332
		303.91		1.256E+00	2.551E+00	3.846E+00	4.397E-01	0.327
		400.65		4.791E-02	2.992E-01	4.908E-01	5.366E-02	0.098
BR-77	+	87.88		7.310E+02	2.325E+02	3.775E+02	3.552E+01	1.936
		200.40		1.749E+01	1.822E+02	3.087E+02	2.538E+01	0.057
	+	239.00		3.051E+02	3.356E+01	4.644E+01	3.924E+00	6.571
		249.79		-1.242E+01	7.582E+01	1.210E+02	1.027E+01	-0.103
		281.68		-6.801E+01	1.084E+02	1.730E+02	1.470E+01	-0.393
		297.23		2.918E+02	7.819E+01	1.429E+02	1.221E+01	2.042
		303.76		1.165E+02	2.218E+02	3.354E+02	2.872E+01	0.347
		439.47		1.585E+02	1.642E+02	2.842E+02	2.448E+01	0.558
		484.57		-9.956E+01	2.879E+02	4.477E+02	3.943E+01	-0.222
		520.65	*	-4.113E+00	1.206E+01	1.923E+01	1.712E+00	-0.214
		574.64		4.068E+01	2.384E+02	4.046E+02	3.629E+01	0.101
		578.91		4.673E+01	1.043E+02	1.599E+02	1.434E+01	0.292
		585.48		1.575E+03	3.386E+02	6.018E+02	5.397E+01	2.618
		755.35		1.795E+02	2.140E+02	3.750E+02	3.412E+01	0.479
		817.79		-5.833E+01	1.598E+02	2.512E+02	2.304E+01	-0.232
SR-82		698.33		1.499E+01	4.306E+01	7.301E+01	6.547E+00	0.205
		776.49	*	-3.252E-01	4.271E-01	6.443E-01	5.884E-02	-0.505
		1395.20		-5.967E+00	1.062E+01	1.562E+01	1.293E+00	-0.382
RB-83		520.41	*	-2.822E-02	7.808E-02	1.243E-01	1.107E-02	-0.227
		529.64		1.548E-02	1.212E-01	2.059E-01	1.838E-02	0.075
		552.65		9.981E-02	2.185E-01	3.798E-01	3.401E-02	0.263
RB-84		881.50	*	-2.926E-02	8.943E-02	1.405E-01	1.288E-02	-0.208
KR-85		513.99	*	1.735E+01	9.752E+00	1.638E+01	1.456E+00	1.060
SR-85		513.99	*	8.903E-02	5.004E-02	8.402E-02	7.472E-03	1.060
RB-86		1076.63	*	4.432E-01	9.624E-01	1.678E+00	1.455E-01	0.264
Y-88		898.02		-3.388E-03	4.921E-02	7.925E-02	7.288E-03	-0.043
		1836.01	*	-4.052E-02	3.511E-02	4.037E-02	3.276E-03	-1.004
ZR-88		392.90	*	6.931E-03	3.528E-02	5.811E-02	4.840E-03	0.119
Y-91		1204.90	*	-1.035E+01	2.187E+01	3.461E+01	2.827E+00	-0.299
NB-94		702.63	*	9.967E-03	4.117E-02	6.929E-02	6.222E-03	0.144
		871.10		-1.889E-02	3.773E-02	5.773E-02	5.297E-03	-0.327

---- Non-Identified Nuclides ----

Nuclide		Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.79	*	6.592E-02	5.303E-02	9.492E-02	8.653E-03	0.695
NB-95M		235.69	*	4.860E-02	1.515E-01	2.279E-01	2.212E-02	0.213
ZR-95		724.18		1.026E-01	1.310E-01	2.031E-01	1.980E-02	0.505
		756.15	*	3.367E-02	9.078E-02	1.537E-01	1.526E-02	0.219
NB-97		657.90	*	5.679E-02	9.078E-02	Half-Life too short		
		1024.50		1.136E+01	9.078E-02	Half-Life too short		
ZR-97		254.15		-5.466E+00	9.078E-02	Half-Life too short		
		355.39		3.430E+00	9.078E-02	Half-Life too short		
		507.63	*	1.108E+00	9.078E-02	Half-Life too short		
		602.52		-2.234E+00	9.078E-02	Half-Life too short		
		1021.30		-7.418E+00	9.078E-02	Half-Life too short		
		1147.95		-3.320E+00	9.078E-02	Half-Life too short		
		1362.66		7.119E-01	9.078E-02	Half-Life too short		
		1750.46		4.331E+00	9.078E-02	Half-Life too short		
MO-99		140.51		-1.059E+01	3.525E+01	4.865E+01	1.342E+01	-0.218
		181.06		-6.795E+00	2.164E+01	3.175E+01	5.724E+00	-0.214
		366.43		-4.750E+00	9.712E+01	1.579E+02	1.337E+01	-0.030
		739.58	*	3.494E-01	1.357E+01	2.239E+01	3.458E+00	0.016
		778.00		-3.232E+01	3.953E+01	5.929E+01	5.415E+00	-0.545
TC-99M		140.51	*	-1.818E+10	3.953E+01	Half-Life too short		
RH-101		127.23		4.098E-02	3.968E-02	6.005E-02	5.100E-03	0.682
		198.01	*	4.801E-04	3.543E-02	5.858E-02	4.805E-03	0.008
		325.23		-2.336E-01	2.780E-01	4.333E-01	3.716E-02	-0.539
RH-102		418.52		-7.376E-02	3.465E-01	5.515E-01	4.686E-02	-0.134
		475.06	*	6.678E-04	3.609E-02	5.796E-02	5.085E-03	0.012
		631.29		-2.770E-02	5.940E-02	9.458E-02	8.438E-03	-0.293
		697.49		1.251E-02	9.292E-02	1.552E-01	1.391E-02	0.081
		766.84		2.862E-01	1.344E-01	2.521E-01	2.298E-02	1.135
		1046.59		-1.228E-01	1.347E-01	2.044E-01	1.798E-02	-0.601
		1112.84		-1.228E-01	3.034E-01	4.108E-01	3.488E-02	-0.299
RU-103		497.08	*	1.585E-02	4.494E-02	7.406E-02	1.059E-02	0.214
	+	610.33		1.405E+01	3.145E+00	3.511E+00	5.919E-01	4.002
RH-106	+	511.85		7.212E-01	4.330E-01	5.306E-01	4.716E-02	1.359
		621.84	*	-1.348E-01	3.589E-01	5.779E-01	7.839E-02	-0.233
		1050.47		2.498E+00	2.623E+00	4.785E+00	4.201E-01	0.522
RU-106	+	511.85		7.212E-01	4.330E-01	5.306E-01	4.716E-02	1.359
		621.84	*	-1.348E-01	3.587E-01	5.779E-01	5.165E-02	-0.233
		1050.47		2.498E+00	2.623E+00	4.785E+00	4.201E-01	0.522
AG-108M		433.93	*	9.746E-03	3.786E-02	6.231E-02	5.563E-03	0.156
		614.37		-6.811E-03	4.905E-02	6.989E-02	6.482E-03	-0.097
		722.95		4.459E-03	5.443E-02	7.856E-02	7.349E-03	0.057
AG-110M		657.75	*	2.382E-02	4.509E-02	6.904E-02	6.290E-03	0.345
		677.61		1.298E-01	3.670E-01	6.254E-01	5.715E-02	0.207
		706.67		6.531E-02	2.524E-01	4.255E-01	3.922E-02	0.154
		763.93		-3.077E-02	2.054E-01	3.330E-01	3.111E-02	-0.092
		884.67		3.551E-03	5.960E-02	9.738E-02	9.182E-03	0.036
		937.48		-9.904E-02	1.318E-01	1.947E-01	1.830E-02	-0.509
		1384.27		8.660E-02	1.732E-01	2.735E-01	2.329E-02	0.317
IN-111		171.28		8.294E-02	1.166E+00	1.851E+00	1.473E-01	0.045

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		245.39	*	8.346E-03	1.288E+00	1.893E+00	1.603E-01	0.004
IN-113M		391.69	*	1.830E-02	5.101E-02	8.496E-02	7.303E-03	0.215
SN-113		391.69	*	1.830E-02	5.101E-02	8.496E-02	7.303E-03	0.215
IN-114M		190.27	*	3.083E-02	2.183E-01	3.289E-01	2.676E-02	0.094
CD-115		260.90		-2.013E+02	1.500E+02	2.289E+02	1.945E+01	-0.880
		492.35		2.445E+01	4.311E+01	7.222E+01	6.379E+00	0.339
		527.90	*	-6.162E+00	1.237E+01	1.999E+01	1.784E+00	-0.308
SN-117M		156.02		-4.176E-01	2.630E+00	4.146E+00	3.340E-01	-0.101
		158.56	*	-2.352E-02	6.192E-02	9.630E-02	7.721E-03	-0.244
SB-122		563.90	*	1.471E+00	2.467E+00	4.310E+00	3.864E-01	0.341
		692.80		-8.428E+00	5.281E+01	8.615E+01	7.711E+00	-0.098
I-123		159.00	*	-3.871E+00	5.281E+01	Half-Life too short		
		528.96		3.816E+01	5.281E+01	Half-Life too short		
TE-123M		159.00	*	-1.759E-02	3.246E-02	5.001E-02	4.035E-03	-0.352
I-124		602.71	*	8.760E-02	8.207E-01	1.206E+00	1.081E-01	0.073
		722.78		6.219E-01	5.760E+00	8.341E+00	7.532E-01	0.075
		1325.50		2.435E+00	3.903E+01	6.483E+01	5.312E+00	0.038
		1376.25		4.833E+01	3.967E+01	6.803E+01	5.615E+00	0.710
		1509.49		1.069E+01	2.007E+01	3.509E+01	2.934E+00	0.305
		1691.02		2.245E+00	4.573E+00	8.083E+00	6.716E-01	0.278
SB-124		602.71		5.039E-03	4.722E-02	6.939E-02	6.218E-03	0.073
		645.85		3.555E-01	5.749E-01	1.003E+00	9.422E-02	0.354
		709.31		1.342E+00	3.251E+00	5.551E+00	4.994E-01	0.242
		713.82		2.436E-01	1.841E+00	3.074E+00	3.787E-01	0.079
		722.78		5.186E-02	4.803E-01	6.955E-01	6.405E-02	0.075
	+	968.20		1.544E+01	5.020E+00	8.420E+00	7.612E-01	1.834
		1045.16		-1.734E+00	2.821E+00	4.429E+00	3.897E-01	-0.391
		1325.50		2.169E-01	3.477E+00	5.774E+00	4.731E-01	0.038
		1368.21		-8.436E-01	2.112E+00	3.082E+00	4.081E-01	-0.274
		1436.60		-3.915E-01	4.423E+00	7.142E+00	5.940E-01	-0.055
		1691.02	*	4.416E-02	8.995E-02	1.590E-01	1.377E-02	0.278
SB-125		427.89	*	7.842E-02	1.031E-01	1.762E-01	1.536E-02	0.445
		463.38		3.383E-01	3.444E-01	5.901E-01	5.543E-02	0.573
		600.56		-3.743E-02	2.066E-01	3.402E-01	3.257E-02	-0.110
		635.90		9.040E-02	2.934E-01	5.012E-01	4.805E-02	0.180
TE-125M		109.28	*	3.285E+00	1.089E+01	1.782E+01	1.847E+00	0.184
I-126		388.63		-1.503E-01	2.351E-01	3.635E-01	3.032E-02	-0.413
		666.33	*	1.107E-01	2.544E-01	3.836E-01	3.401E-02	0.289
		753.82		1.382E+00	1.875E+00	3.262E+00	2.967E-01	0.424
SB-126		223.80		-3.968E+00	4.533E+00	7.259E+00	6.084E-01	-0.547
		278.60		1.700E+00	2.852E+00	4.872E+00	4.135E-01	0.349
	+	296.50		1.380E+01	2.519E+00	4.255E+00	3.636E-01	3.243
		414.70		-2.427E-03	1.029E-01	1.536E-01	1.301E-02	-0.016
		415.30		-5.984E-01	8.171E+00	1.269E+01	1.076E+00	-0.047
		555.20		1.601E+00	4.436E+00	7.653E+00	6.856E-01	0.209
		573.80		2.550E-01	1.180E+00	2.009E+00	1.802E-01	0.127
		593.00		-9.103E-01	1.073E+00	1.662E+00	1.490E-01	-0.548
		656.30		3.164E+00	4.424E+00	6.902E+00	6.118E-01	0.458
		666.33		4.626E-02	1.063E-01	1.603E-01	1.421E-02	0.289

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		675.00		-1.891E+00	2.476E+00	3.831E+00	3.407E-01	-0.494
		695.00		-2.242E-02	9.317E-02	1.509E-01	1.352E-02	-0.149
		697.00		-5.357E-02	3.273E-01	5.336E-01	4.783E-02	-0.100
		720.50	*	-3.551E-02	1.872E-01	2.607E-01	2.352E-02	-0.136
		856.80		1.900E-01	5.358E-01	7.978E-01	7.324E-02	0.238
		989.30		6.228E-01	1.338E+00	2.276E+00	2.045E-01	0.274
		1034.80		6.455E+00	8.990E+00	1.624E+01	1.436E+00	0.397
		1213.00		4.102E+00	5.526E+00	9.760E+00	7.977E-01	0.420
SB-127		61.10		2.386E+01	5.463E+01	8.245E+01	8.368E+00	0.289
		252.40		3.295E+00	5.005E+00	8.314E+00	3.493E+00	0.396
		290.80		-2.136E+01	2.880E+01	3.920E+01	4.355E+00	-0.545
		411.60		1.054E+01	1.799E+01	2.671E+01	4.180E+00	0.395
		444.90		4.232E+00	1.131E+01	1.876E+01	2.357E+00	0.226
		473.00		-6.603E-01	2.110E+00	3.298E+00	4.281E-01	-0.200
		543.00		-2.000E+01	1.965E+01	3.002E+01	4.385E+00	-0.666
		603.60		-9.739E+00	1.561E+01	2.099E+01	2.679E+00	-0.464
		685.20	*	-2.306E-01	1.435E+00	2.336E+00	2.719E-01	-0.099
		698.50		1.133E+01	1.922E+01	3.306E+01	5.297E+00	0.343
		722.20		1.125E+01	3.913E+01	5.791E+01	6.659E+00	0.194
		783.80		4.422E+00	4.690E+00	8.220E+00	1.052E+00	0.538
XE-127		57.60		2.474E+00	5.050E+00	8.144E+00	5.903E-01	0.304
	+	145.22		1.628E+00	1.092E+00	1.423E+00	1.168E-01	1.145
		172.10		7.273E-02	1.346E-01	2.188E-01	1.743E-02	0.332
		202.84	*	5.055E-03	5.164E-02	8.743E-02	7.206E-03	0.058
		374.96		4.215E-02	2.244E-01	3.704E-01	3.121E-02	0.114
I-131		80.18		3.281E+00	6.187E+00	7.457E+00	6.417E-01	0.440
		284.30		9.224E-01	1.818E+00	3.090E+00	2.769E-01	0.299
		364.48	*	-5.513E-03	1.353E-01	2.202E-01	1.971E-02	-0.025
		636.97		4.219E-01	1.717E+00	2.916E+00	2.735E-01	0.145
		722.89		8.407E-01	9.226E+00	1.333E+01	1.211E+00	0.063
TE-132		49.72		-6.652E+00	1.458E+01	2.122E+01	2.194E+00	-0.313
		111.76		3.369E+01	3.593E+01	5.991E+01	6.523E+00	0.562
		116.30		-8.421E+00	3.057E+01	4.861E+01	5.280E+00	-0.173
		228.16	*	2.207E-01	7.593E-01	1.289E+00	2.013E-01	0.171
BA-133		53.15		1.220E+00	2.777E+00	4.630E+00	3.489E-01	0.264
		79.62		8.266E-01	1.738E+00	2.083E+00	3.157E-01	0.397
		81.00		3.175E-02	1.317E-01	1.554E-01	2.469E-02	0.204
		276.40		3.359E-01	4.387E-01	7.303E-01	1.050E-01	0.460
		302.84		8.698E-02	1.733E-01	2.614E-01	3.464E-02	0.333
		356.01	*	-7.397E-03	6.017E-02	8.403E-02	1.103E-02	-0.088
		383.85		-2.518E-02	3.253E-01	5.259E-01	6.540E-02	-0.048
I-133	+	510.53		1.549E+00	3.253E-01	Half-Life too short		
		529.87	*	2.205E-03	3.253E-01	Half-Life too short		
		706.58		1.163E-01	3.253E-01	Half-Life too short		
		856.28		-3.503E-02	3.253E-01	Half-Life too short		
		875.33		1.359E-02	3.253E-01	Half-Life too short		
		1236.41		8.718E-01	3.253E-01	Half-Life too short		
		1298.22		3.759E-01	3.253E-01	Half-Life too short		
CS-134		475.35		-1.680E+00	2.491E+00	3.779E+00	3.316E-01	-0.445

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		563.23		2.518E-01	4.153E-01	7.265E-01	6.570E-02	0.347
		569.32		6.891E-02	2.261E-01	3.874E-01	3.518E-02	0.178
		604.70		1.445E-02	4.303E-02	6.473E-02	5.812E-03	0.223
	+	795.84	*	8.862E-02	8.348E-02	1.003E-01	9.237E-03	0.884
		801.93		1.812E-01	4.778E-01	7.433E-01	6.843E-02	0.244
		1038.57		1.157E+00	4.393E+00	7.564E+00	6.676E-01	0.153
		1167.94		-7.820E-01	2.703E+00	4.359E+00	3.562E-01	-0.179
		1365.15		2.973E-01	1.454E+00	2.455E+00	2.123E-01	0.121
CS-135		268.24	*	1.832E-01	1.982E-01	3.082E-01	3.039E-02	0.595
I-135		288.45		5.062E+09	1.982E-01	Half-Life too short		
		417.63		-2.520E+09	1.982E-01	Half-Life too short		
		546.56		1.484E+10	1.982E-01	Half-Life too short		
		836.80		1.126E+10	1.982E-01	Half-Life too short		
		1038.76		8.294E+09	1.982E-01	Half-Life too short		
		1124.00		6.523E+10	1.982E-01	Half-Life too short		
		1131.51		9.121E+09	1.982E-01	Half-Life too short		
		1260.41	*	-3.815E+09	1.982E-01	Half-Life too short		
		1457.56		3.366E+11	1.982E-01	Half-Life too short		
		1678.03		5.167E+09	1.982E-01	Half-Life too short		
		1706.46		2.072E+10	1.982E-01	Half-Life too short		
		1791.20		-8.277E+07	1.982E-01	Half-Life too short		
CS-136		66.91		7.253E-01	7.831E-01	1.190E+00	1.765E-01	0.610
	+	86.29		4.272E+00	1.418E+00	2.208E+00	2.927E-01	1.935
		153.22		1.068E+00	7.841E-01	1.316E+00	1.207E-01	0.811
		163.89		3.059E-01	1.286E+00	2.032E+00	1.840E-01	0.151
		176.55		1.927E-01	3.992E-01	6.909E-01	5.902E-02	0.279
		273.65		-1.609E-01	5.845E-01	8.347E-01	7.571E-02	-0.193
		340.57		4.493E-01	1.830E-01	3.032E-01	2.671E-02	1.482
		818.51		-2.807E-02	8.638E-02	1.363E-01	1.251E-02	-0.206
		1048.07	*	-3.462E-02	1.230E-01	2.004E-01	1.833E-02	-0.173
		1235.34		-2.863E-01	7.158E-01	1.144E+00	1.320E-01	-0.250
CE-139		165.85	*	-1.904E-02	3.525E-02	5.423E-02	4.290E-03	-0.351
BA-140		162.64		7.511E-01	8.954E-01	1.454E+00	1.236E-01	0.517
		304.84		1.662E-01	1.583E+00	2.311E+00	6.473E-01	0.072
		423.70		-1.390E+00	2.197E+00	3.292E+00	1.066E+00	-0.422
		537.32	*	-4.814E-02	2.886E-01	4.784E-01	1.589E-01	-0.101
LA-140		328.77		5.894E-01	3.621E-01	6.414E-01	5.810E-02	0.919
		432.53		1.661E+00	2.397E+00	4.068E+00	3.660E-01	0.408
		487.03		-4.579E-02	1.633E-01	2.551E-01	2.382E-02	-0.180
		751.79		-1.856E-01	2.233E+00	3.645E+00	3.634E-01	-0.051
		815.85		-1.768E-02	3.724E-01	6.056E-01	6.122E-02	-0.029
		867.82		9.425E-01	1.692E+00	2.586E+00	2.485E-01	0.364
		919.63		1.082E+00	3.123E+00	5.126E+00	5.672E-01	0.211
		925.24		-4.901E-01	1.183E+00	1.812E+00	1.746E-01	-0.270
		1596.49	*	6.757E-02	1.073E-01	1.723E-01	1.442E-02	0.392
CE-141		145.44	*	9.768E-02	8.304E-02	1.255E-01	1.051E-02	0.778
CE-143		57.37		2.338E-04	8.304E-02	Half-Life too short		
		231.56		1.719E-03	8.304E-02	Half-Life too short		
		293.26	*	5.251E-04	8.304E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	350.59		3.490E-02	8.304E-02	Half-Life too short		
		490.36		3.341E-04	8.304E-02	Half-Life too short		
		664.57		5.986E-03	8.304E-02	Half-Life too short		
		721.93		4.346E-04	8.304E-02	Half-Life too short		
CE-144		80.11		1.542E+00	2.832E+00	3.417E+00	2.919E-01	0.451
		133.54	*	2.193E-01	2.553E-01	3.804E-01	5.872E-02	0.576
PM-144		476.78		-5.104E-02	8.966E-02	1.374E-01	1.315E-02	-0.372
		618.01		-7.213E-03	3.571E-02	5.848E-02	5.364E-03	-0.123
		696.49	*	-1.946E-02	4.254E-02	6.765E-02	6.064E-03	-0.288
		778.57		-3.039E+00	2.709E+00	3.922E+00	3.584E-01	-0.775
PR-144		696.49	*	-1.319E+00	2.883E+00	4.584E+00	4.108E-01	-0.288
		1489.15		-2.245E+00	1.314E+01	1.993E+01	1.665E+00	-0.113
PM-146		453.90	*	-7.349E-03	5.480E-02	8.726E-02	9.402E-03	-0.084
		633.02		-2.848E-01	1.452E+00	2.365E+00	8.855E-01	-0.120
		735.90		5.862E-02	1.803E-01	2.681E-01	7.706E-02	0.219
		747.13		-4.330E-02	1.096E-01	1.734E-01	2.484E-02	-0.250
ND-147	+	91.11		6.957E-01	3.350E-01	7.173E-01	7.099E-02	0.970
		319.41		-1.753E+00	4.027E+00	6.250E+00	5.361E-01	-0.281
		439.89		6.658E+00	6.485E+00	1.128E+01	9.718E-01	0.590
		531.02	*	3.840E-01	6.583E-01	1.150E+00	1.741E-01	0.334
PM-149		285.90	*	6.059E+01	1.114E+02	1.893E+02	2.931E+01	0.320
EU-152		121.78		7.088E-02	8.236E-02	1.372E-01	1.360E-02	0.516
		244.69		1.345E-01	4.112E-01	6.183E-01	5.235E-02	0.217
		344.27	*	-3.887E-02	1.303E-01	1.818E-01	1.648E-02	-0.214
		443.98		-4.002E-01	1.137E+00	1.779E+00	1.536E-01	-0.225
		778.89		-3.416E-01	3.134E-01	4.559E-01	4.164E-02	-0.749
		867.32		4.372E-01	1.036E+00	1.552E+00	1.424E-01	0.282
	+	964.01		8.797E-01	4.297E-01	7.038E-01	6.369E-02	1.250
		1085.78		3.257E-02	4.700E-01	7.916E-01	6.829E-02	0.041
		1112.02		-7.828E-02	3.832E-01	5.786E-01	4.916E-02	-0.135
		1407.95		1.865E-01	2.088E-01	3.830E-01	3.175E-02	0.487
GD-153		69.67		-8.601E-01	1.719E+00	2.471E+00	1.893E-01	-0.348
	+	83.37		4.471E+01	2.116E+01	2.739E+01	2.433E+00	1.633
		97.43	*	-4.407E-02	1.032E-01	1.462E-01	1.308E-02	-0.301
		103.18		-1.665E-01	1.217E-01	1.843E-01	1.618E-02	-0.903
EU-154		123.07		5.928E-02	5.974E-02	9.568E-02	1.084E-02	0.620
		247.94		2.626E-02	4.362E-01	6.434E-01	7.315E-02	0.041
		591.81		-5.677E-01	7.165E-01	1.114E+00	1.329E-01	-0.509
		723.30		-1.589E-02	2.394E-01	3.392E-01	3.359E-02	-0.047
		756.87		1.074E-01	9.719E-01	1.612E+00	1.987E-01	0.067
		873.19		-2.767E-01	3.436E-01	5.047E-01	6.380E-02	-0.548
		996.32		1.407E-01	4.167E-01	6.130E-01	1.100E-01	0.229
		1004.76		4.122E-02	3.305E-01	4.645E-01	5.518E-02	0.089
		1274.45	*	-1.042E-02	1.263E-01	2.065E-01	2.270E-02	-0.050
EU-155		48.70		-5.995E-01	1.754E+00	2.573E+00	2.083E-01	-0.233
		60.01		1.408E+00	4.601E+00	6.915E+00	4.979E-01	0.204
	+	86.54		3.929E-01	1.251E-01	2.041E-01	1.903E-02	1.925
		105.31	*	8.999E-02	1.220E-01	2.031E-01	1.795E-02	0.443
TB-160	+	86.79		1.050E+00	3.340E-01	5.404E-01	5.013E-02	1.943

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		-9.185E-02	6.070E-01	9.964E-01	8.165E-02	-0.092
		215.65		8.180E-02	8.568E-01	1.400E+00	1.166E-01	0.058
		298.57		8.776E-02	1.348E-01	2.239E-01	1.915E-02	0.392
		879.36	*	1.122E-01	1.758E-01	3.026E-01	2.775E-02	0.371
		962.29		3.296E-01	8.076E-01	1.179E+00	1.067E-01	0.280
	+	966.15		6.044E-01	2.952E-01	5.404E-01	4.888E-02	1.118
		1177.93		4.516E-01	4.287E-01	7.782E-01	6.336E-02	0.580
		1271.85		-2.737E-01	7.557E-01	1.193E+00	9.778E-02	-0.230
HO-166M		80.57		1.286E-01	3.643E-01	4.337E-01	3.724E-02	0.296
		184.41		2.567E-01	5.014E-02	9.047E-02	7.313E-03	2.837
		280.46		-1.356E-01	1.022E-01	1.559E-01	1.324E-02	-0.870
	+	410.95		2.352E-01	3.544E-01	5.547E-01	4.687E-02	0.424
		711.68	*	-4.460E-02	7.080E-02	1.100E-01	9.906E-03	-0.405
		752.31		-9.016E-02	3.585E-01	5.768E-01	5.244E-02	-0.156
		810.29		-2.526E-02	6.611E-02	1.037E-01	9.501E-03	-0.244
TM-171		51.35		-1.003E+01	2.533E+01	3.703E+01	2.859E+00	-0.271
		52.39		1.753E+01	1.189E+01	2.044E+01	1.555E+00	0.857
		59.40		2.853E+00	2.430E+01	3.624E+01	2.605E+00	0.079
		66.72	*	1.014E+01	2.861E+01	4.276E+01	3.198E+00	0.237
LU-176	+	88.36		7.736E-01	2.461E-01	4.006E-01	3.764E-02	1.931
		201.83		-8.942E-03	3.199E-02	5.327E-02	4.386E-03	-0.168
		306.84	*	-3.497E-03	3.101E-02	4.441E-02	3.804E-03	-0.079
		401.10		9.175E-01	7.753E+00	1.268E+01	1.063E+00	0.072
LU-177		112.95		1.766E+00	1.912E+00	3.193E+00	2.756E-01	0.553
	+	208.36	*	3.522E+00	1.868E+00	2.244E+00	1.858E-01	1.570
LU-177M		52.97		8.974E-01	1.249E+00	2.101E+00	1.587E-01	0.427
		54.07		9.435E-02	6.686E-01	1.104E+00	8.235E-02	0.085
		61.30		1.109E+00	1.415E+00	2.166E+00	1.568E-01	0.512
		121.62		3.577E-01	4.217E-01	7.031E-01	6.042E-02	0.509
		147.16		-4.810E-01	8.356E-01	1.138E+00	9.307E-02	-0.423
		171.86		3.050E-01	5.425E-01	8.827E-01	7.030E-02	0.345
		218.09		-5.633E-01	9.531E-01	1.554E+00	1.297E-01	-0.362
		268.79		1.341E+00	1.058E+00	1.673E+00	1.421E-01	0.802
		319.02		-1.143E-01	3.140E-01	4.898E-01	4.201E-02	-0.233
		367.43		6.471E-02	1.027E+00	1.683E+00	1.425E-01	0.038
		413.65	*	-1.874E-02	2.572E-01	3.613E-01	3.059E-02	-0.052
HF-181		56.28		-8.101E-01	7.609E-01	1.208E+00	8.834E-02	-0.670
		57.53		1.995E-01	4.241E-01	6.835E-01	4.956E-02	0.292
		65.20		7.747E-01	9.936E-01	1.510E+00	1.117E-01	0.513
		133.02		2.430E-02	8.317E-02	1.207E-01	1.013E-02	0.201
		136.25		-4.987E-02	5.256E-01	8.370E-01	6.982E-02	-0.060
		345.85		-1.160E-02	2.763E-01	3.671E-01	3.137E-02	-0.032
		482.03	*	1.270E-02	5.513E-02	8.986E-02	7.906E-03	0.141
W-181		56.28		-3.164E-01	2.977E-01	4.727E-01	3.456E-02	-0.669
		57.53		7.800E-02	1.660E-01	2.676E-01	1.940E-02	0.292
		65.20	*	3.009E-01	3.859E-01	5.863E-01	4.338E-02	0.513
TA-182		67.75		4.917E-02	1.127E-01	1.689E-01	1.273E-02	0.291
		100.10		-4.341E-02	2.063E-01	3.280E-01	2.904E-02	-0.132
		152.43		3.286E-01	3.971E-01	6.548E-01	5.308E-02	0.502

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		222.10		1.375E-01	3.829E-01	6.531E-01	5.468E-02	0.210
	+	1001.68		4.486E+00	3.299E+00	5.175E+00	4.632E-01	0.867
	+	1121.28		4.645E-01	2.518E-01	3.735E-01	3.154E-02	1.244
		1189.05		1.619E-01	3.580E-01	6.213E-01	5.065E-02	0.261
		1221.42	*	1.304E-02	2.283E-01	3.806E-01	3.113E-02	0.034
		1230.97		-4.326E-01	5.471E-01	8.357E-01	6.839E-02	-0.518
RE-183		57.98		7.337E-02	1.781E-01	2.695E-01	1.950E-02	0.272
		59.32		2.107E-02	9.965E-02	1.492E-01	1.073E-02	0.141
		67.20		1.888E-01	1.982E-01	3.034E-01	2.277E-02	0.622
		162.32	*	1.137E-01	1.262E-01	2.087E-01	1.661E-02	0.545
	+	208.81		3.147E+00	1.669E+00	2.052E+00	1.700E-01	1.533
		291.72		-8.569E-01	1.245E+00	1.705E+00	1.455E-01	-0.503
RE-184		57.98		2.703E-01	6.560E-01	9.927E-01	7.181E-02	0.272
		59.32		7.754E-02	3.668E-01	5.493E-01	3.951E-02	0.141
		67.20		6.951E-01	7.297E-01	1.117E+00	8.386E-02	0.622
		161.27		6.603E-02	4.064E-01	6.499E-01	5.185E-02	0.102
		216.55		-8.769E-02	2.904E-01	4.807E-01	4.008E-02	-0.182
		252.85	*	1.935E-01	2.554E-01	4.422E-01	3.753E-02	0.438
		318.01		2.975E-01	5.122E-01	8.720E-01	7.478E-02	0.341
		792.07		-1.278E-02	1.383E+00	1.958E+00	1.791E-01	-0.007
		903.28		-1.161E-01	1.208E+00	1.883E+00	1.723E-01	-0.062
		920.93		-1.548E-01	4.999E-01	7.794E-01	7.115E-02	-0.199
OS-185		59.72		6.683E-02	2.701E-01	4.050E-01	2.913E-02	0.165
		61.14		7.809E-02	1.540E-01	2.332E-01	1.687E-02	0.335
		69.30		-1.534E-01	3.064E-01	4.406E-01	3.364E-02	-0.348
		592.07		-2.624E+00	2.935E+00	4.529E+00	4.061E-01	-0.579
		646.12	*	2.550E-02	4.955E-02	8.576E-02	7.624E-03	0.297
		717.42		4.445E-01	9.657E-01	1.660E+00	1.497E-01	0.268
		874.81		-3.252E-01	6.874E-01	1.059E+00	9.714E-02	-0.307
		880.27		2.537E-01	9.993E-01	1.663E+00	1.525E-01	0.153
RE-188		155.03	*	1.613E-01	2.016E-01	3.320E-01	2.679E-02	0.486
		477.96		1.442E+00	4.033E+00	6.633E+00	5.826E-01	0.217
		633.10		-7.125E-01	2.916E+00	4.739E+00	4.226E-01	-0.150
W-188	+	63.58		3.745E+02	8.836E+01	1.087E+02	7.963E+00	3.445
		227.08		6.121E-01	1.428E+01	2.398E+01	2.014E+00	0.026
		290.67	*	-6.671E+00	9.875E+00	1.355E+01	1.155E+00	-0.492
IR-192	+	295.96		1.053E+00	1.926E-01	3.317E-01	2.855E-02	3.176
		308.46		-7.397E-02	1.076E-01	1.692E-01	1.458E-02	-0.437
		316.51	*	-7.208E-04	3.890E-02	6.394E-02	5.495E-03	-0.011
		468.07		-6.968E-03	8.198E-02	1.307E-01	1.223E-02	-0.053
		604.41		1.592E-01	5.797E-01	8.663E-01	1.147E-01	0.184
		612.46		1.942E+00	1.002E+00	1.691E+00	1.723E-01	1.149
AU-195		65.12		2.139E-01	1.812E-01	2.790E-01	2.063E-02	0.767
		66.83		3.840E-02	9.485E-02	1.420E-01	1.063E-02	0.270
	+	75.70		1.188E+00	2.853E-01	4.521E-01	3.674E-02	2.627
		98.88	*	2.109E-01	2.611E-01	4.313E-01	3.836E-02	0.489
	+	129.76		1.154E+01	5.679E+00	5.767E+00	4.872E-01	2.000
TL-200		367.94	*	-2.097E-04	5.679E+00	Half-Life too short		
		579.30		2.166E-03	5.679E+00	Half-Life too short		

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		828.27		4.729E-04	5.679E+00	Half-Life too short		
		1205.75		-1.601E-03	5.679E+00	Half-Life too short		
TL-201		68.90		-2.358E+00	4.727E+00	7.274E+00	5.536E-01	-0.324
		70.82		-1.920E+00	2.892E+00	4.122E+00	3.190E-01	-0.466
		80.30		3.446E+00	6.804E+00	8.188E+00	7.010E-01	0.421
		135.34		1.230E+01	2.907E+01	4.743E+01	3.963E+00	0.259
		167.43	*	3.047E+00	8.139E+00	1.313E+01	1.040E+00	0.232
TL-202		68.90		-2.097E-01	4.204E-01	6.468E-01	4.922E-02	-0.324
		70.82		-1.703E-01	2.565E-01	3.655E-01	2.829E-02	-0.466
		80.30		3.057E-01	6.036E-01	7.263E-01	6.218E-02	0.421
		439.56	*	7.446E-02	7.818E-02	1.352E-01	1.164E-02	0.551
HG-203		70.83		-7.365E-01	1.111E+00	1.580E+00	2.064E-01	-0.466
		72.87		1.298E+00	6.758E-01	1.043E+00	1.328E-01	1.245
	+	82.60		3.327E+00	1.614E+00	1.975E+00	2.738E-01	1.684
		279.20	*	5.032E-03	4.685E-02	7.811E-02	6.823E-03	0.064
BI-207		72.80		3.587E-01	1.935E-01	3.035E-01	2.394E-02	1.182
	+	74.97		6.585E-01	1.582E-01	2.221E-01	1.791E-02	2.965
	+	84.90		5.782E-01	2.737E-01	3.530E-01	3.197E-02	1.638
		569.67		8.716E-03	3.509E-02	5.988E-02	5.370E-03	0.146
		1063.62	*	3.591E-02	6.104E-02	1.079E-01	9.413E-03	0.333
		1770.23		-2.596E-01	6.209E-01	7.769E-01	6.382E-02	-0.334
TL-207		81.07		7.268E-02	2.907E-01	3.434E-01	2.967E-02	0.212
	+	83.78		3.812E-01	1.805E-01	2.393E-01	2.137E-02	1.593
		94.90		6.396E-01	3.097E-01	4.827E-01	4.365E-02	1.325
		122.32		2.296E+00	1.961E+00	3.306E+00	3.049E-01	0.694
	+	144.24		1.595E+00	1.072E+00	1.454E+00	1.351E-01	1.097
		154.21		2.107E-01	4.708E-01	7.638E-01	6.868E-02	0.276
	+	269.46		6.108E-01	3.445E-01	4.153E-01	3.605E-02	1.471
		323.87	*	-1.322E-01	8.007E-01	1.303E+00	2.303E-01	-0.101
	+	338.28		8.304E+00	2.312E+00	2.888E+00	3.543E-01	2.876
		445.03		1.026E+00	2.608E+00	4.330E+00	5.241E-01	0.237
PO-209		260.50		-1.440E+01	1.095E+01	1.676E+01	1.424E+00	-0.859
		262.80		-9.160E+00	2.987E+01	4.881E+01	4.147E+00	-0.188
		896.60	*	-1.165E+00	8.790E+00	1.406E+01	1.287E+00	-0.083
PB-211		404.84	*	-5.244E-01	1.321E+00	1.739E+00	1.089E+00	-0.302
		427.08		-5.145E-01	2.376E+00	3.736E+00	2.321E+00	-0.138
		831.96		-2.831E-01	1.474E+00	2.344E+00	1.471E+00	-0.121
BI-212	+	727.18	*	1.854E+00	8.034E-01	8.272E-01	8.580E-02	2.241
		785.46		3.196E+00	2.257E+00	4.089E+00	3.738E-01	0.782
		1620.62		1.539E+00	1.551E+00	2.898E+00	2.421E-01	0.531
PO-215		81.07		7.268E-02	2.907E-01	3.434E-01	2.967E-02	0.212
	+	83.78		3.812E-01	1.805E-01	2.393E-01	2.137E-02	1.593
		94.90		6.396E-01	3.097E-01	4.827E-01	4.365E-02	1.325
		122.32		2.296E+00	1.961E+00	3.306E+00	3.049E-01	0.694
	+	144.24		1.595E+00	1.072E+00	1.454E+00	1.351E-01	1.097
		154.21		2.107E-01	4.708E-01	7.638E-01	6.868E-02	0.276
	+	269.46		6.108E-01	3.445E-01	4.153E-01	3.605E-02	1.471
		323.87	*	-1.322E-01	8.007E-01	1.303E+00	2.303E-01	-0.101
	+	338.28		8.304E+00	2.312E+00	2.888E+00	3.543E-01	2.876

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		1.026E+00	2.608E+00	4.330E+00	5.241E-01	0.237
RN-219	+	271.23		7.837E-01	4.441E-01	5.350E-01	5.462E-02	1.465
		401.81	*	5.364E-02	4.778E-01	7.810E-01	1.163E-01	0.069
RN-220		549.76	*	-2.649E+01	3.023E+01	4.711E+01	4.218E+00	-0.562
RA-223		81.07		7.268E-02	2.907E-01	3.434E-01	2.967E-02	0.212
	+	83.78		3.812E-01	1.805E-01	2.393E-01	2.137E-02	1.593
		94.90		6.396E-01	3.097E-01	4.827E-01	4.365E-02	1.325
		122.32		2.296E+00	1.961E+00	3.306E+00	3.049E-01	0.694
	+	144.24		1.595E+00	1.072E+00	1.454E+00	1.351E-01	1.097
		154.21		2.107E-01	4.708E-01	7.638E-01	6.868E-02	0.276
	+	269.46		6.108E-01	3.445E-01	4.153E-01	3.605E-02	1.471
		323.87	*	-1.322E-01	8.007E-01	1.303E+00	2.303E-01	-0.101
	+	338.28		8.304E+00	2.312E+00	2.888E+00	3.543E-01	2.876
		445.03		1.026E+00	2.608E+00	4.330E+00	5.241E-01	0.237
AC-227		79.80		1.110E+00	2.215E+00	2.651E+00	5.690E-01	0.419
		236.00		2.878E-01	2.874E-01	4.472E-01	5.418E-02	0.644
		256.20	*	1.425E-01	4.303E-01	7.283E-01	1.113E-01	0.196
		286.10		4.345E-01	1.843E+00	3.088E+00	4.055E-01	0.141
	+	299.80		3.459E+00	2.267E+00	2.985E+00	5.211E-01	1.158
		304.40		7.602E-01	2.311E+00	3.436E+00	6.325E-01	0.221
		334.20		-9.276E-01	2.876E+00	4.004E+00	7.762E-01	-0.232
TH-227		79.80		1.110E+00	2.215E+00	2.651E+00	5.763E-01	0.419
	+	94.00		3.837E+01	9.185E+00	5.917E+00	1.300E+00	6.485
		236.00		2.878E-01	2.870E-01	4.472E-01	4.890E-02	0.644
		256.20	*	1.425E-01	4.305E-01	7.283E-01	1.311E-01	0.196
		286.10		4.345E-01	1.893E+00	3.088E+00	3.099E+00	0.141
	+	299.80		3.459E+00	2.267E+00	2.985E+00	5.211E-01	1.158
		304.40		7.602E-01	2.311E+00	3.436E+00	6.325E-01	0.221
		334.20		-9.276E-01	2.876E+00	4.004E+00	7.762E-01	-0.232
TH-229	+	85.43		5.707E-01	2.701E-01	3.557E-01	3.243E-02	1.604
	+	88.47		4.453E-01	1.417E-01	2.308E-01	2.167E-02	1.929
		100.00		2.853E-02	2.135E-01	3.441E-01	3.049E-02	0.083
		193.63	*	-1.030E-01	5.362E-01	8.978E-01	7.331E-02	-0.115
	+	210.97		2.462E+00	1.306E+00	1.545E+00	1.283E-01	1.593
PA-231		283.67	*	1.135E+00	1.836E+00	3.129E+00	4.731E-01	0.363
	+	301.29		1.383E+00	8.900E-01	1.198E+00	1.462E-01	1.155
TH-231		81.07		7.268E-02	2.907E-01	3.434E-01	2.967E-02	0.212
	+	83.78		3.812E-01	1.805E-01	2.393E-01	2.137E-02	1.593
		94.90		6.396E-01	3.097E-01	4.827E-01	4.365E-02	1.325
		122.32		2.296E+00	1.961E+00	3.306E+00	3.049E-01	0.694
	+	144.24		1.595E+00	1.072E+00	1.454E+00	1.351E-01	1.097
		154.21		2.107E-01	4.708E-01	7.638E-01	6.868E-02	0.276
	+	269.46		6.108E-01	3.445E-01	4.153E-01	3.605E-02	1.471
		323.87	*	-1.322E-01	8.007E-01	1.303E+00	2.303E-01	-0.101
	+	338.28		8.304E+00	2.312E+00	2.888E+00	3.543E-01	2.876
		445.03		1.026E+00	2.608E+00	4.330E+00	5.241E-01	0.237
U-231	+	84.21		1.660E+01	7.856E+00	1.039E+01	9.332E-01	1.597
	+	92.29		3.831E+01	5.039E+00	6.601E+00	6.050E-01	5.803
		95.87	*	-9.340E-01	1.413E+00	1.978E+00	1.780E-01	-0.472

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-9.643E-01	2.419E+00	3.844E+00	3.339E-01	-0.251
PA-233	+	75.28		1.922E+01	5.223E+00	6.737E+00	1.014E+00	2.853
	+	86.59		6.386E+00	2.599E+00	3.311E+00	8.949E-01	1.929
	+	300.12		9.642E-01	6.256E-01	8.292E-01	1.230E-01	1.163
		311.98	*	3.662E-02	6.985E-02	1.188E-01	1.048E-02	0.308
		340.50		2.395E+00	1.044E+00	1.499E+00	3.570E-01	1.597
		398.62		-3.762E-01	2.396E+00	3.838E+00	1.019E+00	-0.098
		415.76		6.708E-01	2.056E+00	3.395E+00	7.298E-01	0.198
PA-234	+	63.00		1.085E+01	2.918E+00	3.206E+00	4.748E-01	3.386
		94.67		9.959E-01	2.616E-01	3.908E-01	4.966E-02	2.548
		98.44		-2.039E-02	1.082E-01	1.715E-01	9.574E-02	-0.119
		99.86		1.293E-01	5.424E-01	8.782E-01	7.783E-02	0.147
		111.00		4.018E-02	2.170E-01	3.531E-01	4.276E-02	0.114
		131.20		7.251E-02	1.347E-01	1.983E-01	1.670E-02	0.366
		152.70		4.587E-01	3.869E-01	6.374E-01	1.070E-01	0.720
	+	186.00		1.248E+01	4.717E+00	3.683E+00	1.144E+00	3.387
		226.40		2.602E-01	4.418E-01	7.595E-01	9.916E-02	0.343
		227.20		7.386E-02	4.813E-01	8.126E-01	6.825E-02	0.091
		248.90		-6.538E-01	9.917E-01	1.449E+00	3.241E-01	-0.451
		293.70		4.272E+00	1.263E+00	1.846E+00	3.186E-01	2.314
		369.80		3.093E-01	9.226E-01	1.538E+00	3.339E-01	0.201
		568.70		-3.634E-01	1.135E+00	1.854E+00	1.663E-01	-0.196
		569.50		8.608E-02	3.121E-01	5.336E-01	4.785E-02	0.161
		574.00		8.118E-02	1.697E+00	2.852E+00	2.558E-01	0.028
		699.00		6.561E-01	8.881E-01	1.536E+00	2.956E-01	0.427
		706.10		-8.495E-05	1.258E+00	2.078E+00	9.281E-01	0.000
		733.00		-1.471E-01	4.584E-01	6.215E-01	1.390E-01	-0.237
		742.81		1.293E-02	1.593E+00	2.623E+00	1.765E+00	0.005
	+	796.30		1.722E+00	1.681E+00	1.967E+00	5.356E-01	0.875
		805.60		4.141E-01	1.086E+00	1.834E+00	5.649E-01	0.226
		819.60		8.212E-02	1.368E+00	2.248E+00	8.578E-01	0.037
		826.30		-3.953E-01	9.199E-01	1.403E+00	6.291E-01	-0.282
		831.60		-3.988E-01	7.769E-01	1.190E+00	3.572E-01	-0.335
		876.40		9.913E-01	1.405E+00	1.735E+00	1.785E+00	0.571
		880.51		1.134E-01	3.566E-01	5.968E-01	5.473E-02	0.190
		883.24		1.779E-01	3.763E-01	6.078E-01	4.090E-01	0.293
		899.00		3.128E-01	9.971E-01	1.655E+00	7.252E-01	0.189
		925.00		-6.244E-01	1.247E+00	1.890E+00	1.724E-01	-0.330
		926.50		2.503E-03	1.803E-01	2.922E-01	7.438E-02	0.009
		946.00	*	1.127E-01	3.579E-01	5.966E-01	1.133E-01	0.189
		949.00		-2.440E-01	5.459E-01	8.386E-01	7.615E-02	-0.291
		980.50		4.629E-01	7.822E-01	1.348E+00	1.214E-01	0.343
		1394.10		1.055E-01	1.103E+00	1.837E+00	1.195E+00	0.057
PA-234M		766.42		2.534E+01	1.891E+01	2.593E+01	1.318E+01	0.978
	+	1001.03	*	1.018E+01	7.503E+00	1.155E+01	1.184E+00	0.882
NP-236		94.67		7.634E-01	1.871E-01	2.971E-01	2.690E-02	2.569
		98.44		-1.547E-02	8.134E-02	1.296E-01	1.155E-02	-0.119
		111.00		3.039E-02	1.641E-01	2.671E-01	2.310E-02	0.114
		160.31	*	-3.654E-02	9.204E-02	1.430E-01	1.143E-02	-0.256

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.160E-01	1.805E-01	2.965E-01	2.631E-02	0.391
		117.00	*	4.189E-02	2.012E-01	3.274E-01	2.817E-02	0.128
	+	209.75		2.481E+00	1.316E+00	1.622E+00	1.345E-01	1.530
		228.18		7.144E-02	2.447E-01	4.159E-01	3.495E-02	0.172
		277.60		9.984E-02	2.076E-01	3.528E-01	2.995E-02	0.283
		334.30		-5.257E-01	1.627E+00	2.269E+00	1.944E-01	-0.232
AM-241		59.54	*	1.994E-02	1.415E-01	2.112E-01	1.674E-02	0.094
CM-243		99.55		1.194E-01	1.857E-01	3.051E-01	2.707E-02	0.391
		103.76	*	-7.097E-02	1.096E-01	1.724E-01	1.511E-02	-0.412
		117.00		4.310E-02	2.070E-01	3.369E-01	2.898E-02	0.128
	+	209.75		2.445E+00	1.297E+00	1.599E+00	1.326E-01	1.530
		228.18		7.219E-02	2.473E-01	4.202E-01	3.531E-02	0.172
		277.60		1.007E-01	2.093E-01	3.557E-01	3.019E-02	0.283
AM-246		798.80		-2.535E-02	1.721E-01	2.382E-01	2.182E-02	-0.106
		1036.00		-1.248E-01	3.382E-01	5.460E-01	4.824E-02	-0.229
		1062.04		8.373E-02	2.640E-01	4.559E-01	3.981E-02	0.184
		1078.86	*	-7.171E-02	1.783E-01	2.872E-01	2.486E-02	-0.250
CM-247		278.00		3.953E-01	8.561E-01	1.453E+00	1.234E-01	0.272
		287.40		-3.677E-01	1.489E+00	2.430E+00	2.070E-01	-0.151
		402.60	*	2.171E-02	4.295E-02	7.209E-02	6.053E-03	0.301
CF-249		252.85		7.258E-01	9.583E-01	1.659E+00	1.408E-01	0.438
		333.44		-9.832E-02	2.222E-01	3.068E-01	2.628E-02	-0.321
		387.95	*	-1.707E-02	4.515E-02	7.128E-02	5.950E-03	-0.240
CF-251		176.60	*	6.554E-02	1.372E-01	2.373E-01	1.901E-02	0.276
		227.00		1.292E-02	4.279E-01	7.182E-01	6.031E-02	0.018
		285.00		7.913E-01	2.122E+00	3.581E+00	3.048E-01	0.221

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960010		
Acquisition date	: 12-FEB-2010 16:24:06	Detector SN#	:
Detector ID	: GAM07	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.24	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960010	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.0520E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

Standard Weight	: 0.00000		
CALIB. DATE/TIME	: 20-JUL-2009 15:29:58	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.363E+01	2.649E+00	5.176E-01	0.000E+00
CD-109	3.319E+00	1.035E+00	1.332E+00	0.000E+00
SN-126	3.262E-01	1.017E-01	1.342E-01	0.000E+00
BA-137M	2.450E-01	9.806E-02	7.106E-02	0.000E+00
CS-137	2.590E-01	1.037E-01	7.511E-02	0.000E+00
TL-208	5.530E-01	1.022E-01	6.544E-02	0.000E+00
BI-210	3.077E+00	3.373E+00	3.371E+00	0.000E+00
PB-210	3.077E+00	3.373E+00	3.371E+00	0.000E+00
PO-210	3.077E+00	3.371E+00	3.371E+00	0.000E+00
BI-211	4.257E+00	6.674E-01	3.991E-01	0.000E+00
PB-212	1.864E+00	2.169E-01	1.003E-01	0.000E+00
PO-212	1.864E+00	2.169E-01	1.003E-01	0.000E+00
BI-214	1.300E+00	2.292E-01	1.323E-01	0.000E+00
PB-214	1.481E+00	2.442E-01	1.391E-01	0.000E+00
PO-214	1.481E+00	2.442E-01	1.391E-01	0.000E+00
PO-216	1.864E+00	2.169E-01	1.003E-01	0.000E+00
PO-218	1.481E+00	2.442E-01	1.391E-01	0.000E+00
RA-224	5.994E+00	1.893E+00	1.142E+00	0.000E+00
RA-226	1.300E+00	2.292E-01	1.323E-01	0.000E+00
AC-228	1.736E+00	3.837E-01	2.583E-01	0.000E+00
RA-228	1.736E+00	3.837E-01	2.583E-01	0.000E+00
TH-228	1.892E+00	2.203E-01	1.019E-01	0.000E+00
TH-230	1.300E+00	2.292E-01	1.323E-01	0.000E+00
TH-232	1.736E+00	3.837E-01	2.583E-01	0.000E+00
TH-234	9.312E+00	2.591E+00	1.880E+00	0.000E+00
U-234	1.300E+00	2.292E-01	1.323E-01	0.000E+00
U-235	4.921E-01	3.317E-01	3.764E-01	0.000E+00
NP-237	9.578E-01	3.559E-01	3.782E-01	0.000E+00
U-238	9.312E+00	2.591E+00	1.880E+00	0.000E+00
AM-243	3.669E-01	8.639E-02	8.734E-02	0.000E+00
ANH-511	1.444E-01	8.495E-02	5.369E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	9.418E-02	4.130E-01	6.858E-01	0.000E+00	NOT IDENT.
NA-22	-6.213E-03	4.468E-02	7.360E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.542E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.043E-02	3.739E-02	6.618E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.838E-02	8.306E-02	0.000E+00	FAIL ABUN
SC-46	-3.206E-02	4.793E-02	7.350E-02	0.000E+00	FAIL ABUN
V-48	-4.328E-02	7.879E-02	1.203E-01	0.000E+00	NOT IDENT.
CR-51	-4.552E-01	4.603E-01	7.040E-01	0.000E+00	NOT IDENT.
MN-52	-4.799E-02	2.573E-01	4.141E-01	0.000E+00	NOT IDENT.
MN-54	2.160E-02	4.478E-02	7.728E-02	0.000E+00	NOT IDENT.
CO-56	3.645E-03	4.299E-02	7.180E-02	0.000E+00	NOT IDENT.
CO-57	2.542E-02	2.792E-02	4.782E-02	0.000E+00	NOT IDENT.
CO-58	6.127E-03	4.259E-02	7.178E-02	0.000E+00	NOT IDENT.
FE-59	-4.668E-03	1.011E-01	1.707E-01	0.000E+00	FAIL ABUN
CO-60	-5.760E-04	4.369E-02	7.281E-02	0.000E+00	NOT IDENT.
ZN-65	-2.523E-02	1.097E-01	1.546E-01	0.000E+00	NOT IDENT.
GE-68	5.342E-01	1.467E+00	2.575E+00	0.000E+00	NOT IDENT.
AS-73	2.908E-01	6.289E-01	1.080E+00	0.000E+00	NOT IDENT.
AS-74	3.777E-02	1.045E-01	1.825E-01	0.000E+00	NOT IDENT.
SE-75	4.282E-02	5.322E-02	8.424E-02	0.000E+00	NOT IDENT.
BR-77	-4.113E+00	1.181E+01	1.919E+01	0.000E+00	FAIL ABUN
SR-82	-3.252E-01	4.186E-01	6.419E-01	0.000E+00	NOT IDENT.
RB-83	-2.822E-02	7.652E-02	1.241E-01	0.000E+00	NOT IDENT.
RB-84	-2.926E-02	8.764E-02	1.399E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	9.557E+00	1.635E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.904E-02	8.387E-02	0.000E+00	NOT IDENT.
RB-86	4.432E-01	9.431E-01	1.669E+00	0.000E+00	NOT IDENT.
Y-88	-4.052E-02	3.441E-02	4.004E-02	0.000E+00	NOT IDENT.
ZR-88	6.931E-03	3.458E-02	5.808E-02	0.000E+00	NOT IDENT.
Y-91	-1.035E+01	2.143E+01	3.440E+01	0.000E+00	NOT IDENT.
NB-94	9.967E-03	4.034E-02	6.906E-02	0.000E+00	NOT IDENT.
NB-95	6.592E-02	5.197E-02	9.456E-02	0.000E+00	NOT IDENT.
NB-95M	4.860E-02	1.485E-01	2.284E-01	0.000E+00	NOT IDENT.
ZR-95	3.367E-02	8.896E-02	1.531E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.304E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.479E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	3.494E-01	1.330E+01	2.231E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.936E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.801E-04	3.472E-02	5.875E-02	0.000E+00	NOT IDENT.
RH-102	6.678E-04	3.537E-02	5.788E-02	0.000E+00	NOT IDENT.
RU-103	1.585E-02	4.404E-02	7.394E-02	0.000E+00	FAIL ABUN
RH-106	-1.348E-01	3.518E-01	5.763E-01	0.000E+00	FAIL ABUN
RU-106	-1.348E-01	3.515E-01	5.763E-01	0.000E+00	FAIL ABUN
AG-108M	9.746E-03	3.710E-02	6.225E-02	0.000E+00	NOT IDENT.
AG-110M	2.382E-02	4.419E-02	6.883E-02	0.000E+00	NOT IDENT.
IN-111	8.346E-03	1.262E+00	1.897E+00	0.000E+00	NOT IDENT.
IN-113M	1.830E-02	4.999E-02	8.492E-02	0.000E+00	NOT IDENT.
SN-113	1.830E-02	4.999E-02	8.492E-02	0.000E+00	NOT IDENT.
IN-114M	3.083E-02	2.140E-01	3.299E-01	0.000E+00	NOT IDENT.
CD-115	-6.162E+00	1.212E+01	1.995E+01	0.000E+00	NOT IDENT.
SN-117M	-2.352E-02	6.069E-02	9.670E-02	0.000E+00	NOT IDENT.
SB-122	1.471E+00	2.418E+00	4.301E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.001E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.759E-02	3.181E-02	5.022E-02	0.000E+00	NOT IDENT.
I-124	8.760E-02	8.043E-01	1.203E+00	0.000E+00	NOT IDENT.
SB-124	4.416E-02	8.815E-02	1.578E-01	0.000E+00	FAIL ABUN
SB-125	7.842E-02	1.011E-01	1.760E-01	0.000E+00	NOT IDENT.
TE-125M	3.285E+00	1.068E+01	1.792E+01	0.000E+00	NOT IDENT.
I-126	1.107E-01	2.493E-01	3.824E-01	0.000E+00	NOT IDENT.
SB-126	-3.551E-02	1.834E-01	2.597E-01	0.000E+00	FAIL ABUN
SB-127	-2.306E-01	1.406E+00	2.329E+00	0.000E+00	NOT IDENT.
XE-127	5.055E-03	5.061E-02	8.769E-02	0.000E+00	FAIL ABUN
I-131	-5.513E-03	1.326E-01	2.202E-01	0.000E+00	NOT IDENT.
TE-132	2.207E-01	7.441E-01	1.292E+00	0.000E+00	NOT IDENT.
BA-133	-7.397E-03	5.897E-02	8.403E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.108E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.862E-02	8.181E-02	9.986E-02	0.000E+00	FAIL ABUN
CS-135	1.832E-01	1.942E-01	3.086E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.581E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.462E-02	1.205E-01	1.993E-01	0.000E+00	FAIL ABUN
CE-139	-1.904E-02	3.455E-02	5.445E-02	0.000E+00	NOT IDENT.
BA-140	-4.814E-02	2.829E-01	4.774E-01	0.000E+00	NOT IDENT.
LA-140	6.757E-02	1.051E-01	1.711E-01	0.000E+00	NOT IDENT.
CE-141	9.768E-02	8.138E-02	1.261E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	2.186E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.193E-01	2.502E-01	3.823E-01	0.000E+00	NOT IDENT.
PM-144	-1.946E-02	4.169E-02	6.742E-02	0.000E+00	NOT IDENT.
PR-144	-1.319E+00	2.825E+00	4.569E+00	0.000E+00	NOT IDENT.
PM-146	-7.349E-03	5.371E-02	8.716E-02	0.000E+00	NOT IDENT.
ND-147	3.840E-01	6.451E-01	1.148E+00	0.000E+00	FAIL ABUN
PM-149	6.059E+01	1.092E+02	1.895E+02	0.000E+00	NOT IDENT.
EU-152	-3.887E-02	1.277E-01	1.819E-01	0.000E+00	FAIL ABUN
GD-153	-4.407E-02	1.012E-01	1.472E-01	0.000E+00	FAIL ABUN
EU-154	-1.042E-02	1.238E-01	2.052E-01	0.000E+00	NOT IDENT.
EU-155	8.999E-02	1.196E-01	2.044E-01	0.000E+00	FAIL ABUN
TB-160	1.122E-01	1.722E-01	3.012E-01	0.000E+00	FAIL ABUN
HO-166M	-4.460E-02	6.939E-02	1.097E-01	0.000E+00	FAIL ABUN
TM-171	1.014E+01	2.804E+01	4.312E+01	0.000E+00	NOT IDENT.
LU-176	-3.497E-03	3.039E-02	4.444E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.831E+00	2.250E+00	0.000E+00	FAIL ABUN
LU-177M	-1.874E-02	2.520E-01	3.610E-01	0.000E+00	NOT IDENT.
HF-181	1.270E-02	5.403E-02	8.973E-02	0.000E+00	NOT IDENT.
W-181	3.009E-01	3.782E-01	5.913E-01	0.000E+00	NOT IDENT.
TA-182	1.304E-02	2.238E-01	3.783E-01	0.000E+00	FAIL ABUN
RE-183	1.137E-01	1.237E-01	2.095E-01	0.000E+00	FAIL ABUN
RE-184	1.935E-01	2.503E-01	4.430E-01	0.000E+00	NOT IDENT.
OS-185	2.550E-02	4.856E-02	8.551E-02	0.000E+00	NOT IDENT.
RE-188	1.613E-01	1.976E-01	3.334E-01	0.000E+00	NOT IDENT.
W-188	-6.671E+00	9.678E+00	1.356E+01	0.000E+00	FAIL ABUN
IR-192	-7.208E-04	3.812E-02	6.398E-02	0.000E+00	FAIL ABUN
AU-195	2.109E-01	2.559E-01	4.341E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.285E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.047E+00	7.976E+00	1.318E+01	0.000E+00	NOT IDENT.
TL-202	7.446E-02	7.662E-02	1.350E-01	0.000E+00	NOT IDENT.
HG-203	5.032E-03	4.591E-02	7.821E-02	0.000E+00	FAIL ABUN
BI-207	3.591E-02	5.982E-02	1.073E-01	0.000E+00	FAIL ABUN
TL-207	-1.322E-01	7.847E-01	1.303E+00	0.000E+00	FAIL ABUN
PO-209	-1.165E+00	8.614E+00	1.399E+01	0.000E+00	NOT IDENT.
PB-211	-5.244E-01	1.295E+00	1.738E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.873E-01	8.243E-01	0.000E+00	FAIL ABUN
PO-215	-1.322E-01	7.847E-01	1.303E+00	0.000E+00	FAIL ABUN
RN-219	5.364E-02	4.682E-01	7.806E-01	0.000E+00	FAIL ABUN
RN-220	-2.649E+01	2.962E+01	4.701E+01	0.000E+00	NOT IDENT.
RA-223	-1.322E-01	7.847E-01	1.303E+00	0.000E+00	FAIL ABUN
AC-227	1.425E-01	4.217E-01	7.295E-01	0.000E+00	FAIL ABUN
TH-227	1.425E-01	4.219E-01	7.295E-01	0.000E+00	FAIL ABUN
TH-229	-1.030E-01	5.254E-01	9.006E-01	0.000E+00	FAIL ABUN
PA-231	1.135E+00	1.800E+00	3.133E+00	0.000E+00	FAIL ABUN
TH-231	-1.322E-01	7.847E-01	1.303E+00	0.000E+00	FAIL ABUN
U-231	-9.340E-01	1.385E+00	1.991E+00	0.000E+00	FAIL ABUN
PA-233	3.662E-02	6.845E-02	1.189E-01	0.000E+00	FAIL ABUN
PA-234	1.127E-01	3.507E-01	5.937E-01	0.000E+00	FAIL ABUN
PA-234M	1.018E+01	7.353E+00	1.149E+01	0.000E+00	FAIL ABUN
NP-236	-3.654E-02	9.020E-02	1.436E-01	0.000E+00	NOT IDENT.
NP-239	4.189E-02	1.972E-01	3.293E-01	0.000E+00	FAIL ABUN
AM-241	1.994E-02	1.387E-01	2.131E-01	0.000E+00	NOT IDENT.
CM-243	-7.097E-02	1.075E-01	1.735E-01	0.000E+00	FAIL ABUN
AM-246	-7.171E-02	1.748E-01	2.856E-01	0.000E+00	NOT IDENT.
CM-247	2.171E-02	4.209E-02	7.205E-02	0.000E+00	NOT IDENT.
CF-249	-1.707E-02	4.425E-02	7.126E-02	0.000E+00	NOT IDENT.
CF-251	6.554E-02	1.344E-01	2.382E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:24:31.89

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960010.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:24:06
Sample ID : G245960010 Sample quantity : 1.05200E+02 GRAM
Detector name : GAM07 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.24 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	798	10.67*	1.129E+00	2.363E+01	2.363E+01	11.44
CD-109	88.03	231	3.72*	6.834E+00	3.244E+00	3.319E+00	31.81
SN-126	64.28	475	9.60	4.792E+00	3.686E+00	3.686E+00	26.70
	86.94	231	8.90	6.834E+00	1.356E+00	1.356E+00	51.46
	87.57	231	37.00*	6.834E+00	3.262E-01	3.262E-01	31.81
BA-137M	661.65	138	89.98*	2.231E+00	2.448E-01	2.450E-01	40.84
CS-137	661.65	138	85.12*	2.231E+00	2.588E-01	2.590E-01	40.84
TL-208	277.35	------	6.80	4.401E+00	------ Line Not Found		------
	510.84	111	21.60	2.753E+00	6.684E-01	6.684E-01	60.62
	583.14	323	84.20*	2.476E+00	5.530E-01	5.530E-01	18.85
	860.37	57	12.46	1.782E+00	9.122E-01	9.122E-01	64.39
BI-210	46.50	74	4.05*	2.110E+00	3.073E+00	3.077E+00	111.86
PB-210	46.50	74	4.05*	2.110E+00	3.073E+00	3.077E+00	111.86
PO-210	46.50	74	4.05*	2.110E+00	3.073E+00	3.077E+00	111.79
BI-211	72.87	------	1.27	5.899E+00	------ Line Not Found		------
	351.07	568	12.94*	3.680E+00	4.257E+00	4.257E+00	16.00
PB-212	74.81	412	10.70	6.068E+00	2.263E+00	2.263E+00	25.78
	77.11	693	18.00	6.265E+00	2.191E+00	2.191E+00	14.73
	87.30	231	8.00	6.834E+00	1.509E+00	1.509E+00	33.35
	238.63	1143	44.60*	4.908E+00	1.864E+00	1.864E+00	11.88
	300.09	74	3.41	4.149E+00	1.866E+00	1.866E+00	64.01
PO-212	74.81	412	10.70	6.068E+00	2.263E+00	2.263E+00	25.78
	77.11	693	18.00	6.265E+00	2.191E+00	2.191E+00	14.73
	87.30	231	8.00	6.834E+00	1.509E+00	1.509E+00	33.35
	115.19	------	0.60	7.150E+00	------ Line Not Found		------
	238.63	1143	44.60*	4.908E+00	1.864E+00	1.864E+00	11.88
	300.09	74	3.41	4.149E+00	1.866E+00	1.866E+00	64.01
BI-214	609.31	403	46.30*	2.389E+00	1.300E+00	1.300E+00	18.00
	1120.29	59	15.10	1.413E+00	9.821E-01	9.822E-01	54.62
	1764.49	51	15.80	9.831E-01	1.165E+00	1.165E+00	39.41
PB-214	74.81	412	6.21	6.068E+00	3.899E+00	3.899E+00	25.14
	77.11	693	10.50	6.265E+00	3.757E+00	3.757E+00	16.58

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	231	4.67	6.834E+00	2.584E+00	2.584E+00	32.73
	241.98	323	7.49	4.866E+00	3.161E+00	3.161E+00	32.71
	295.21	312	19.20	4.201E+00	1.381E+00	1.381E+00	19.30
	351.92	568	37.20*	3.680E+00	1.481E+00	1.481E+00	16.83
PO-214	74.81	412	6.21	6.068E+00	3.899E+00	3.899E+00	25.14
	77.11	693	10.50	6.265E+00	3.757E+00	3.757E+00	16.58
	87.30	231	4.67	6.834E+00	2.584E+00	2.584E+00	32.73
	241.98	323	7.49	4.866E+00	3.161E+00	3.161E+00	32.71
	295.21	312	19.20	4.201E+00	1.381E+00	1.381E+00	19.30
	351.92	568	37.20*	3.680E+00	1.481E+00	1.481E+00	16.83
PO-216	74.81	412	10.70	6.068E+00	2.263E+00	2.263E+00	25.78
	77.11	693	18.00	6.265E+00	2.191E+00	2.191E+00	14.73
	87.30	231	8.00	6.834E+00	1.509E+00	1.509E+00	33.35
	238.63	1143	44.60*	4.908E+00	1.864E+00	1.864E+00	11.88
	300.09	74	3.41	4.149E+00	1.866E+00	1.866E+00	64.01
PO-218	74.81	412	6.21	6.068E+00	3.899E+00	3.899E+00	25.14
	77.11	693	10.50	6.265E+00	3.757E+00	3.757E+00	16.58
	87.30	231	4.67	6.834E+00	2.584E+00	2.584E+00	32.73
	241.98	323	7.49	4.866E+00	3.161E+00	3.161E+00	32.71
	295.21	312	19.20	4.201E+00	1.381E+00	1.381E+00	19.30
	351.92	568	37.20*	3.680E+00	1.481E+00	1.481E+00	16.83
RA-224	240.98	323	3.95*	4.866E+00	5.994E+00	5.994E+00	32.22
RA-226	609.31	403	46.30*	2.389E+00	1.300E+00	1.300E+00	18.00
	1120.29	59	15.10	1.413E+00	9.821E-01	9.822E-01	54.62
	1764.49	51	15.80	9.831E-01	1.165E+00	1.165E+00	39.41
AC-228	338.32	241	11.40	3.791E+00	1.989E+00	1.989E+00	48.23
	911.07	228	27.70*	1.695E+00	1.736E+00	1.736E+00	22.55
	969.11	112	16.60	1.606E+00	1.499E+00	1.499E+00	39.07
RA-228	338.32	241	11.40	3.791E+00	1.989E+00	1.989E+00	48.23
	911.07	228	27.70*	1.695E+00	1.736E+00	1.736E+00	22.55
	969.11	112	16.60	1.606E+00	1.499E+00	1.499E+00	39.07
TH-228	74.81	412	10.70	6.068E+00	2.263E+00	2.297E+00	24.05
	77.11	693	18.00	6.265E+00	2.191E+00	2.225E+00	14.73
	87.30	231	8.00	6.834E+00	1.509E+00	1.532E+00	31.81
	238.63	1143	44.60*	4.908E+00	1.864E+00	1.892E+00	11.88
	300.09	74	3.41	4.149E+00	1.866E+00	1.895E+00	86.62
TH-230	609.31	403	46.30*	2.389E+00	1.300E+00	1.300E+00	18.00
	1120.29	59	15.10	1.413E+00	9.821E-01	9.821E-01	54.62
	1764.49	51	15.80	9.831E-01	1.165E+00	1.165E+00	39.41
TH-232	338.32	241	11.40	3.791E+00	1.989E+00	1.989E+00	26.42
	911.07	228	27.70*	1.695E+00	1.736E+00	1.736E+00	22.55
	969.11	112	16.60	1.606E+00	1.499E+00	1.499E+00	39.07
TH-234	63.29	475	3.80*	4.792E+00	9.312E+00	9.312E+00	28.39
	92.38	1056	5.41	7.017E+00	9.929E+00	9.929E+00	20.63
U-234	609.31	403	46.30*	2.389E+00	1.300E+00	1.300E+00	18.00
	1120.29	59	15.10	1.413E+00	9.821E-01	9.821E-01	54.62
	1764.49	51	15.80	9.831E-01	1.165E+00	1.165E+00	39.41
U-235	89.95	145	2.70	6.936E+00	2.760E+00	2.760E+00	56.43
	93.35	1056	4.50	7.017E+00	1.194E+01	1.194E+01	29.73

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	105.00	------	2.10	7.182E+00	------ Line Not Found		------
	143.76	97	10.50*	6.689E+00	4.921E-01	4.921E-01	68.79
	163.35	------	4.70	6.279E+00	------ Line Not Found		------
	185.71	406	54.00	5.813E+00	4.621E-01	4.621E-01	23.02
	205.31	------	4.70	5.451E+00	------ Line Not Found		------
NP-237	86.50	231	12.60*	6.834E+00	9.578E-01	9.578E-01	37.92
	95.87	------	2.60	7.087E+00	------ Line Not Found		------
U-238	63.29	475	3.80*	4.792E+00	9.312E+00	9.312E+00	28.39
	92.38	1056	5.41	7.017E+00	9.929E+00	9.929E+00	13.15
AM-243	74.67	412	66.00*	6.068E+00	3.669E-01	3.669E-01	24.03
	86.72	231	0.34	6.834E+00	3.592E+01	3.592E+01	31.81
	117.66	------	0.55	7.126E+00	------ Line Not Found		------
	142.18	------	0.13	6.723E+00	------ Line Not Found		------
ANH-511	511.00	111	100.00*	2.753E+00	1.444E-01	1.444E-01	60.04

Flag: "*" = Keyline

Sample ID : G245960010 Acquisition date : 12-FEB-2010 16:24:06

Total number of lines in spectrum 37
Number of unidentified lines 3
Number of lines tentatively identified by NID 34 91.89%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.363E+01	2.363E+01	0.270E+01	11.44	
CD-109	464.00D	1.02	3.244E+00	3.319E+00	1.056E+00	31.81	
SN-126	1.00E+05Y	1.00	3.262E-01	3.262E-01	1.038E-01	31.81	
BA-137M	30.17Y	1.00	2.448E-01	2.450E-01	1.001E-01	40.84	
CS-137	30.17Y	1.00	2.588E-01	2.590E-01	1.058E-01	40.84	
TL-208	1.41E+10Y	1.00	5.530E-01	5.530E-01	1.042E-01	18.85	
BI-210	22.26Y	1.00	3.073E+00	3.077E+00	3.442E+00	111.86	
PB-210	22.26Y	1.00	3.073E+00	3.077E+00	3.442E+00	111.86	
PO-210	22.26Y	1.00	3.073E+00	3.077E+00	3.440E+00	111.79	
BI-211	7.04E+08Y	1.00	4.257E+00	4.257E+00	0.681E+00	16.00	
PB-212	1.41E+10Y	1.00	1.864E+00	1.864E+00	0.221E+00	11.88	
PO-212	1.41E+10Y	1.00	1.864E+00	1.864E+00	0.221E+00	11.88	
BI-214	1600.00Y	1.00	1.300E+00	1.300E+00	0.234E+00	18.00	
PB-214	1600.00Y	1.00	1.481E+00	1.481E+00	0.249E+00	16.83	
PO-214	1600.00Y	1.00	1.481E+00	1.481E+00	0.249E+00	16.83	
PO-216	1.41E+10Y	1.00	1.864E+00	1.864E+00	0.221E+00	11.88	
PO-218	1600.00Y	1.00	1.481E+00	1.481E+00	0.249E+00	16.83	
RA-224	1.41E+10Y	1.00	5.994E+00	5.994E+00	1.932E+00	32.22	
RA-226	1600.00Y	1.00	1.300E+00	1.300E+00	0.234E+00	18.00	
AC-228	1.41E+10Y	1.00	1.736E+00	1.736E+00	0.392E+00	22.55	
RA-228	1.41E+10Y	1.00	1.736E+00	1.736E+00	0.392E+00	22.55	
TH-228	1.91Y	1.02	1.864E+00	1.892E+00	0.225E+00	11.88	
TH-230	4.47E+09Y	1.00	1.300E+00	1.300E+00	0.234E+00	18.00	
TH-232	1.41E+10Y	1.00	1.736E+00	1.736E+00	0.392E+00	22.55	
TH-234	4.47E+09Y	1.00	9.312E+00	9.312E+00	2.644E+00	28.39	
U-234	4.47E+09Y	1.00	1.300E+00	1.300E+00	0.234E+00	18.00	
U-235	7.04E+08Y	1.00	4.921E-01	4.921E-01	3.385E-01	68.79	
NP-237	2.14E+06Y	1.00	9.578E-01	9.578E-01	3.632E-01	37.92	
U-238	4.47E+09Y	1.00	9.312E+00	9.312E+00	2.644E+00	28.39	
AM-243	7380.00Y	1.00	3.669E-01	3.669E-01	0.882E-01	24.03	
ANH-511	1.00E+09Y	1.00	1.444E-01	1.444E-01	0.867E-01	60.04	
Total Activity :			9.061E+01	9.073E+01			

Grand Total Activity : 9.061E+01 9.073E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960010 Acquisition date : 12-FEB-2010 16:24:06

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.08	177	488	1.89	167.81	164	8	2.45E-02	46.5	6.69E+00	T
0	128.85	172	395	1.90	257.33	252	12	2.39E-02	48.5	6.97E+00	T
0	209.49	121	242	1.10	418.58	414	10	1.68E-02	52.4	5.38E+00	T
0	270.41	104	198	1.43	540.40	535	11	1.45E-02	55.7	4.48E+00	T
0	409.65	24	103	0.78	818.83	815	8	3.36E-03	****	3.28E+00	T
0	728.10	126	83	2.13	1455.64	1447	21	1.75E-02	42.1	2.06E+00	T
0	796.21	36	57	1.63	1591.84	1583	13	4.99E-03	93.7	1.91E+00	T
1	964.78	57	49	1.98	1928.95	1924	20	7.94E-03	48.0	1.61E+00	T
0	1001.62	37	43	1.80	2002.61	1997	10	5.19E-03	73.0	1.56E+00	T
0	1378.59	24	26	4.35	2756.48	2747	15	3.30E-03	****	1.18E+00	
0	1588.15	23	3	1.46	3175.57	3169	11	3.19E-03	50.5	1.06E+00	
0	1592.65	17	10	1.67	3184.59	3179	10	2.36E-03	84.8	1.06E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:24:36.50

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960010.CNF;1		
Acquisition date	: 12-FEB-2010 16:24:06	Detector SN#	:
Detector ID	: GAM07	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:01.24	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960010	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.05200E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 20-JUL-2009 15:29:58.0	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.363E+01	2.703E+00	5.213E-01	4.476E-02	45.322
CD-109	3.319E+00	1.056E+00	1.323E+00	1.246E-01	2.510
SN-126	3.262E-01	1.038E-01	1.333E-01	1.249E-02	2.447
BA-137M	2.450E-01	1.001E-01	7.127E-02	6.308E-03	3.438
CS-137	2.590E-01	1.058E-01	7.534E-02	6.680E-03	3.438
TL-208	5.530E-01	1.042E-01	6.560E-02	6.275E-03	8.431
BI-210	3.077E+00	3.442E+00	3.337E+00	3.131E-01	0.922
PB-210	3.077E+00	3.442E+00	3.337E+00	3.131E-01	0.922
PO-210	3.077E+00	3.440E+00	3.337E+00	2.840E-01	0.922
BI-211	4.257E+00	6.810E-01	3.990E-01	3.580E-02	10.669
PB-212	1.864E+00	2.214E-01	1.001E-01	9.578E-03	18.611
PO-212	1.864E+00	2.214E-01	1.001E-01	9.578E-03	18.611
BI-214	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
PB-214	1.481E+00	2.492E-01	1.391E-01	1.443E-02	10.647
PO-214	1.481E+00	2.492E-01	1.391E-01	1.443E-02	10.647
PO-216	1.864E+00	2.214E-01	1.001E-01	9.578E-03	18.611
PO-218	1.481E+00	2.492E-01	1.391E-01	1.443E-02	10.647
RA-224	5.994E+00	1.932E+00	1.140E+00	9.639E-02	5.259

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
AC-228	1.736E+00	3.915E-01	2.595E-01	3.023E-02	6.689
RA-228	1.736E+00	3.915E-01	2.595E-01	3.023E-02	6.689
TH-228	1.892E+00	2.247E-01	1.017E-01	9.724E-03	18.611
TH-230	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
TH-232	1.736E+00	3.915E-01	2.595E-01	3.023E-02	6.689
TH-234	9.312E+00	2.644E+00	1.863E+00	3.242E-01	4.997
U-234	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
U-235	4.921E-01	3.385E-01	3.747E-01	6.489E-02	1.313
NP-237	9.578E-01	3.632E-01	3.755E-01	8.490E-02	2.551
U-238	9.312E+00	2.644E+00	1.863E+00	3.242E-01	4.997
AM-243	3.669E-01	8.815E-02	8.666E-02	6.966E-03	4.233
ANH-511	1.444E-01	8.668E-02	5.379E-02	4.779E-03	2.684

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	9.418E-02		4.215E-01	6.867E-01	6.481E-02	0.137
NA-22	-6.213E-03		4.560E-02	7.407E-02	6.080E-03	-0.084
NA-24	-2.588E-01		4.869E-01	Half-Life too short		
AL-26	1.043E-02		3.815E-02	6.673E-02	5.442E-03	0.156
TI-44	4.044E-01	+	5.957E-02	8.243E-02	6.901E-03	4.906
SC-46	-3.206E-02		4.891E-02	7.384E-02	6.766E-03	-0.434
V-48	-4.328E-02		8.040E-02	1.209E-01	1.088E-02	-0.358
CR-51	-4.552E-01		4.697E-01	7.035E-01	6.358E-02	-0.647
MN-52	-4.799E-02		2.626E-01	4.170E-01	3.468E-02	-0.115
MN-54	2.160E-02		4.569E-02	7.760E-02	7.123E-03	0.278
CO-56	3.645E-03		4.387E-02	7.211E-02	6.620E-03	0.051
CO-57	2.542E-02		2.849E-02	4.756E-02	4.092E-03	0.535
CO-58	6.127E-03		4.346E-02	7.208E-02	6.622E-03	0.085
FE-59	-4.668E-03		1.032E-01	1.717E-01	1.591E-02	-0.027
CO-60	-5.760E-04		4.459E-02	7.329E-02	6.004E-03	-0.008
ZN-65	-2.523E-02		1.119E-01	1.555E-01	1.320E-02	-0.162
GE-68	5.342E-01		1.497E+00	2.589E+00	2.244E-01	0.206
AS-73	2.908E-01		6.417E-01	1.070E+00	8.036E-02	0.272
AS-74	3.777E-02		1.067E-01	1.830E-01	1.640E-02	0.206
SE-75	4.282E-02		5.430E-02	8.411E-02	7.183E-03	0.509
BR-77	-4.113E+00		1.206E+01	1.923E+01	1.712E+00	-0.214
SR-82	-3.252E-01		4.271E-01	6.443E-01	5.884E-02	-0.505
RB-83	-2.822E-02		7.808E-02	1.243E-01	1.107E-02	-0.227
RB-84	-2.926E-02		8.943E-02	1.405E-01	1.288E-02	-0.208
KR-85	1.735E+01		9.752E+00	1.638E+01	1.456E+00	1.060
SR-85	8.903E-02		5.004E-02	8.402E-02	7.472E-03	1.060
RB-86	4.432E-01		9.624E-01	1.678E+00	1.455E-01	0.264
Y-88	-4.052E-02		3.511E-02	4.037E-02	3.276E-03	-1.004
ZR-88	6.931E-03		3.528E-02	5.811E-02	4.840E-03	0.119
Y-91	-1.035E+01		2.187E+01	3.461E+01	2.827E+00	-0.299

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	9.967E-03		4.117E-02	6.929E-02	6.222E-03	0.144
NB-95	6.592E-02		5.303E-02	9.492E-02	8.653E-03	0.695
NB-95M	4.860E-02		1.515E-01	2.279E-01	2.212E-02	0.213
ZR-95	3.367E-02		9.078E-02	1.537E-01	1.526E-02	0.219
NB-97	5.679E-02		6.651E-02	Half-Life too short		
ZR-97	1.108E+00		1.265E+00	Half-Life too short		
MO-99	3.494E-01		1.357E+01	2.239E+01	3.458E+00	0.016
TC-99M	-1.818E+10		3.028E+10	Half-Life too short		
RH-101	4.801E-04		3.543E-02	5.858E-02	4.805E-03	0.008
RH-102	6.678E-04		3.609E-02	5.796E-02	5.085E-03	0.012
RU-103	1.585E-02		4.494E-02	7.406E-02	1.059E-02	0.214
RH-106	-1.348E-01		3.589E-01	5.779E-01	7.839E-02	-0.233
RU-106	-1.348E-01		3.587E-01	5.779E-01	5.165E-02	-0.233
AG-108M	9.746E-03		3.786E-02	6.231E-02	5.563E-03	0.156
AG-110M	2.382E-02		4.509E-02	6.904E-02	6.290E-03	0.345
IN-111	8.346E-03		1.288E+00	1.893E+00	1.603E-01	0.004
IN-113M	1.830E-02		5.101E-02	8.496E-02	7.303E-03	0.215
SN-113	1.830E-02		5.101E-02	8.496E-02	7.303E-03	0.215
IN-114M	3.083E-02		2.183E-01	3.289E-01	2.676E-02	0.094
CD-115	-6.162E+00		1.237E+01	1.999E+01	1.784E+00	-0.308
SN-117M	-2.352E-02		6.192E-02	9.630E-02	7.721E-03	-0.244
SB-122	1.471E+00		2.467E+00	4.310E+00	3.864E-01	0.341
I-123	-3.871E+00		3.572E+00	Half-Life too short		
TE-123M	-1.759E-02		3.246E-02	5.001E-02	4.035E-03	-0.352
I-124	8.760E-02		8.207E-01	1.206E+00	1.081E-01	0.073
SB-124	4.416E-02		8.995E-02	1.590E-01	1.377E-02	0.278
SB-125	7.842E-02		1.031E-01	1.762E-01	1.536E-02	0.445
TE-125M	3.285E+00		1.089E+01	1.782E+01	1.847E+00	0.184
I-126	1.107E-01		2.544E-01	3.836E-01	3.401E-02	0.289
SB-126	-3.551E-02		1.872E-01	2.607E-01	2.352E-02	-0.136
SB-127	-2.306E-01		1.435E+00	2.336E+00	2.719E-01	-0.099
XE-127	5.055E-03		5.164E-02	8.743E-02	7.206E-03	0.058
I-131	-5.513E-03		1.353E-01	2.202E-01	1.971E-02	-0.025
TE-132	2.207E-01		7.593E-01	1.289E+00	2.013E-01	0.171
BA-133	-7.397E-03		6.017E-02	8.403E-02	1.103E-02	-0.088
I-133	2.205E-03		3.626E-03	Half-Life too short		
CS-134	8.862E-02	+	8.348E-02	1.003E-01	9.237E-03	0.884
CS-135	1.832E-01		1.982E-01	3.082E-01	3.039E-02	0.595
I-135	-3.815E+09		3.868E+09	Half-Life too short		
CS-136	-3.462E-02		1.230E-01	2.004E-01	1.833E-02	-0.173
CE-139	-1.904E-02		3.525E-02	5.423E-02	4.290E-03	-0.351
BA-140	-4.814E-02		2.886E-01	4.784E-01	1.589E-01	-0.101
LA-140	6.757E-02		1.073E-01	1.723E-01	1.442E-02	0.392
CE-141	9.768E-02		8.304E-02	1.255E-01	1.051E-02	0.778
CE-143	5.251E-04		1.115E-04	Half-Life too short		
CE-144	2.193E-01		2.553E-01	3.804E-01	5.872E-02	0.576
PM-144	-1.946E-02		4.254E-02	6.765E-02	6.064E-03	-0.288
PR-144	-1.319E+00		2.883E+00	4.584E+00	4.108E-01	-0.288

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	-7.349E-03		5.480E-02	8.726E-02	9.402E-03	-0.084
ND-147	3.840E-01		6.583E-01	1.150E+00	1.741E-01	0.334
PM-149	6.059E+01		1.114E+02	1.893E+02	2.931E+01	0.320
EU-152	-3.887E-02		1.303E-01	1.818E-01	1.648E-02	-0.214
GD-153	-4.407E-02		1.032E-01	1.462E-01	1.308E-02	-0.301
EU-154	-1.042E-02		1.263E-01	2.065E-01	2.270E-02	-0.050
EU-155	8.999E-02		1.220E-01	2.031E-01	1.795E-02	0.443
TB-160	1.122E-01		1.758E-01	3.026E-01	2.775E-02	0.371
HO-166M	-4.460E-02		7.080E-02	1.100E-01	9.906E-03	-0.405
TM-171	1.014E+01		2.861E+01	4.276E+01	3.198E+00	0.237
LU-176	-3.497E-03		3.101E-02	4.441E-02	3.804E-03	-0.079
LU-177	3.522E+00	+	1.868E+00	2.244E+00	1.858E-01	1.570
LU-177M	-1.874E-02		2.572E-01	3.613E-01	3.059E-02	-0.052
HF-181	1.270E-02		5.513E-02	8.986E-02	7.906E-03	0.141
W-181	3.009E-01		3.859E-01	5.863E-01	4.338E-02	0.513
TA-182	1.304E-02		2.283E-01	3.806E-01	3.113E-02	0.034
RE-183	1.137E-01		1.262E-01	2.087E-01	1.661E-02	0.545
RE-184	1.935E-01		2.554E-01	4.422E-01	3.753E-02	0.438
OS-185	2.550E-02		4.955E-02	8.576E-02	7.624E-03	0.297
RE-188	1.613E-01		2.016E-01	3.320E-01	2.679E-02	0.486
W-188	-6.671E+00		9.875E+00	1.355E+01	1.155E+00	-0.492
IR-192	-7.208E-04		3.890E-02	6.394E-02	5.495E-03	-0.011
AU-195	2.109E-01		2.611E-01	4.313E-01	3.836E-02	0.489
TL-200	-2.097E-04		2.696E-04	Half-Life too short		
TL-201	3.047E+00		8.139E+00	1.313E+01	1.040E+00	0.232
TL-202	7.446E-02		7.818E-02	1.352E-01	1.164E-02	0.551
HG-203	5.032E-03		4.685E-02	7.811E-02	6.823E-03	0.064
BI-207	3.591E-02		6.104E-02	1.079E-01	9.413E-03	0.333
TL-207	-1.322E-01		8.007E-01	1.303E+00	2.303E-01	-0.101
PO-209	-1.165E+00		8.790E+00	1.406E+01	1.287E+00	-0.083
PB-211	-5.244E-01		1.321E+00	1.739E+00	1.089E+00	-0.302
BI-212	1.854E+00	+	8.034E-01	8.272E-01	8.580E-02	2.241
PO-215	-1.322E-01		8.007E-01	1.303E+00	2.303E-01	-0.101
RN-219	5.364E-02		4.778E-01	7.810E-01	1.163E-01	0.069
RN-220	-2.649E+01		3.023E+01	4.711E+01	4.218E+00	-0.562
RA-223	-1.322E-01		8.007E-01	1.303E+00	2.303E-01	-0.101
AC-227	1.425E-01		4.303E-01	7.283E-01	1.113E-01	0.196
TH-227	1.425E-01		4.305E-01	7.283E-01	1.311E-01	0.196
TH-229	-1.030E-01		5.362E-01	8.978E-01	7.331E-02	-0.115
PA-231	1.135E+00		1.836E+00	3.129E+00	4.731E-01	0.363
TH-231	-1.322E-01		8.007E-01	1.303E+00	2.303E-01	-0.101
U-231	-9.340E-01		1.413E+00	1.978E+00	1.780E-01	-0.472
PA-233	3.662E-02		6.985E-02	1.188E-01	1.048E-02	0.308
PA-234	1.127E-01		3.579E-01	5.966E-01	1.133E-01	0.189
PA-234M	1.018E+01	+	7.503E+00	1.155E+01	1.184E+00	0.882
NP-236	-3.654E-02		9.204E-02	1.430E-01	1.143E-02	-0.256
NP-239	4.189E-02		2.012E-01	3.274E-01	2.817E-02	0.128
AM-241	1.994E-02		1.415E-01	2.112E-01	1.674E-02	0.094

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-7.097E-02		1.096E-01	1.724E-01	1.511E-02	-0.412
AM-246	-7.171E-02		1.783E-01	2.872E-01	2.486E-02	-0.250
CM-247	2.171E-02		4.295E-02	7.209E-02	6.053E-03	0.301
CF-249	-1.707E-02		4.515E-02	7.128E-02	5.950E-03	-0.240
CF-251	6.554E-02		1.372E-01	2.373E-01	1.901E-02	0.276

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960010		
Acquisition date	: 12-FEB-2010 16:24:06	Detector SN#	:
Detector ID	: GAM07	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.24	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960010	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.0520E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

CALIB. DATE/TIME	: 20-JUL-2009 15:29:58	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.363E+01	2.649E+00	2.590E-01	1.351E+00
CD-109	3.319E+00	1.035E+00	6.663E-01	5.279E-01
SN-126	3.262E-01	1.017E-01	6.715E-02	5.188E-02
BA-137M	2.450E-01	9.806E-02	3.555E-02	5.003E-02
CS-137	2.590E-01	1.037E-01	3.758E-02	5.289E-02
TL-208	5.530E-01	1.022E-01	3.274E-02	5.212E-02
BI-210	3.077E+00	3.373E+00	1.687E+00	1.721E+00
PB-210	3.077E+00	3.373E+00	1.687E+00	1.721E+00
PO-210	3.077E+00	3.371E+00	1.687E+00	1.720E+00
BI-211	4.257E+00	6.674E-01	1.997E-01	3.405E-01
PB-212	1.864E+00	2.169E-01	5.020E-02	1.107E-01
PO-212	1.864E+00	2.169E-01	5.020E-02	1.107E-01
BI-214	1.300E+00	2.292E-01	6.619E-02	1.170E-01
PB-214	1.481E+00	2.442E-01	6.960E-02	1.246E-01
PO-214	1.481E+00	2.442E-01	6.960E-02	1.246E-01
PO-216	1.864E+00	2.169E-01	5.020E-02	1.107E-01
PO-218	1.481E+00	2.442E-01	6.960E-02	1.246E-01
RA-224	5.994E+00	1.893E+00	5.714E-01	9.658E-01
RA-226	1.300E+00	2.292E-01	6.619E-02	1.170E-01
AC-228	1.736E+00	3.837E-01	1.292E-01	1.958E-01
RA-228	1.736E+00	3.837E-01	1.292E-01	1.958E-01
TH-228	1.892E+00	2.203E-01	5.097E-02	1.124E-01
TH-230	1.300E+00	2.292E-01	6.619E-02	1.170E-01
TH-232	1.736E+00	3.837E-01	1.292E-01	1.958E-01
TH-234	9.312E+00	2.591E+00	9.404E-01	1.322E+00
U-234	1.300E+00	2.292E-01	6.619E-02	1.170E-01
U-235	4.921E-01	3.317E-01	1.883E-01	1.693E-01
NP-237	9.578E-01	3.559E-01	1.892E-01	1.816E-01
U-238	9.312E+00	2.591E+00	9.404E-01	1.322E+00
AM-243	3.669E-01	8.639E-02	4.370E-02	4.408E-02
ANH-511	1.444E-01	8.495E-02	2.686E-02	4.334E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	9.418E-02	4.130E-01	3.431E-01	2.107E-01	NOT IDENT.
NA-22	-6.213E-03	4.468E-02	3.682E-02	2.280E-02	NOT IDENT.
NA-24	-2.588E+05	9.542E+05	0.000E+00	4.869E+05	SHORT HLIF
AL-26	1.043E-02	3.739E-02	3.311E-02	1.908E-02	NOT IDENT.
TI-44	4.044E-01	5.838E-02	4.156E-02	2.978E-02	FAIL ABUN
SC-46	-3.206E-02	4.793E-02	3.677E-02	2.446E-02	FAIL ABUN
V-48	-4.328E-02	7.879E-02	6.016E-02	4.020E-02	NOT IDENT.
CR-51	-4.552E-01	4.603E-01	3.522E-01	2.348E-01	NOT IDENT.
MN-52	-4.799E-02	2.573E-01	2.072E-01	1.313E-01	NOT IDENT.
MN-54	2.160E-02	4.478E-02	3.866E-02	2.284E-02	NOT IDENT.
CO-56	3.645E-03	4.299E-02	3.592E-02	2.193E-02	NOT IDENT.
CO-57	2.542E-02	2.792E-02	2.392E-02	1.424E-02	NOT IDENT.
CO-58	6.127E-03	4.259E-02	3.591E-02	2.173E-02	NOT IDENT.
FE-59	-4.668E-03	1.011E-01	8.541E-02	5.159E-02	FAIL ABUN
CO-60	-5.760E-04	4.369E-02	3.643E-02	2.229E-02	NOT IDENT.
ZN-65	-2.523E-02	1.097E-01	7.736E-02	5.595E-02	NOT IDENT.
GE-68	5.342E-01	1.467E+00	1.288E+00	7.487E-01	NOT IDENT.
AS-73	2.908E-01	6.289E-01	5.405E-01	3.209E-01	NOT IDENT.
AS-74	3.777E-02	1.045E-01	9.131E-02	5.334E-02	NOT IDENT.
SE-75	4.282E-02	5.322E-02	4.215E-02	2.715E-02	NOT IDENT.
BR-77	-4.113E+00	1.181E+01	9.601E+00	6.028E+00	FAIL ABUN
SR-82	-3.252E-01	4.186E-01	3.211E-01	2.136E-01	NOT IDENT.
RB-83	-2.822E-02	7.652E-02	6.207E-02	3.904E-02	NOT IDENT.
RB-84	-2.926E-02	8.764E-02	6.997E-02	4.471E-02	NOT IDENT.
KR-85	1.735E+01	9.557E+00	8.178E+00	4.876E+00	NOT IDENT.
SR-85	8.903E-02	4.904E-02	4.196E-02	2.502E-02	NOT IDENT.
RB-86	4.432E-01	9.431E-01	8.351E-01	4.812E-01	NOT IDENT.
Y-88	-4.052E-02	3.441E-02	2.003E-02	1.756E-02	NOT IDENT.
ZR-88	6.931E-03	3.458E-02	2.906E-02	1.764E-02	NOT IDENT.
Y-91	-1.035E+01	2.143E+01	1.721E+01	1.094E+01	NOT IDENT.
NB-94	9.967E-03	4.034E-02	3.455E-02	2.058E-02	NOT IDENT.
NB-95	6.592E-02	5.197E-02	4.731E-02	2.652E-02	NOT IDENT.
NB-95M	4.860E-02	1.485E-01	1.143E-01	7.577E-02	NOT IDENT.
ZR-95	3.367E-02	8.896E-02	7.659E-02	4.539E-02	NOT IDENT.
NB-97	5.679E+04	1.304E+05	0.000E+00	6.651E+04	SHORT HLIF
ZR-97	1.108E+06	2.479E+06	0.000E+00	1.265E+06	SHORT HLIF
MO-99	3.494E-01	1.330E+01	1.116E+01	6.786E+00	NOT IDENT.
TC-99M	-1.818E+16	5.936E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.801E-04	3.472E-02	2.939E-02	1.771E-02	NOT IDENT.
RH-102	6.678E-04	3.537E-02	2.896E-02	1.804E-02	NOT IDENT.
RU-103	1.585E-02	4.404E-02	3.699E-02	2.247E-02	FAIL ABUN
RH-106	-1.348E-01	3.518E-01	2.883E-01	1.795E-01	FAIL ABUN
RU-106	-1.348E-01	3.515E-01	2.883E-01	1.793E-01	FAIL ABUN
AG-108M	9.746E-03	3.710E-02	3.114E-02	1.893E-02	NOT IDENT.
AG-110M	2.382E-02	4.419E-02	3.444E-02	2.254E-02	NOT IDENT.
IN-111	8.346E-03	1.262E+00	9.488E-01	6.438E-01	NOT IDENT.
IN-113M	1.830E-02	4.999E-02	4.249E-02	2.550E-02	NOT IDENT.
SN-113	1.830E-02	4.999E-02	4.249E-02	2.550E-02	NOT IDENT.
IN-114M	3.083E-02	2.140E-01	1.651E-01	1.092E-01	NOT IDENT.
CD-115	-6.162E+00	1.212E+01	9.982E+00	6.183E+00	NOT IDENT.
SN-117M	-2.352E-02	6.069E-02	4.838E-02	3.096E-02	NOT IDENT.
SB-122	1.471E+00	2.418E+00	2.152E+00	1.234E+00	NOT IDENT.
I-123	-3.871E+06	7.001E+06	0.000E+00	3.572E+06	SHORT HLIF
TE-123M	-1.759E-02	3.181E-02	2.512E-02	1.623E-02	NOT IDENT.
I-124	8.760E-02	8.043E-01	6.019E-01	4.104E-01	NOT IDENT.
SB-124	4.416E-02	8.815E-02	7.893E-02	4.497E-02	FAIL ABUN
SB-125	7.842E-02	1.011E-01	8.805E-02	5.157E-02	NOT IDENT.
TE-125M	3.285E+00	1.068E+01	8.968E+00	5.447E+00	NOT IDENT.
I-126	1.107E-01	2.493E-01	1.913E-01	1.272E-01	NOT IDENT.
SB-126	-3.551E-02	1.834E-01	1.300E-01	9.358E-02	FAIL ABUN
SB-127	-2.306E-01	1.406E+00	1.165E+00	7.173E-01	NOT IDENT.
XE-127	5.055E-03	5.061E-02	4.387E-02	2.582E-02	FAIL ABUN
I-131	-5.513E-03	1.326E-01	1.101E-01	6.766E-02	NOT IDENT.
TE-132	2.207E-01	7.441E-01	6.466E-01	3.797E-01	NOT IDENT.
BA-133	-7.397E-03	5.897E-02	4.204E-02	3.009E-02	NOT IDENT.
I-133	2.205E+03	7.108E+03	0.000E+00	3.626E+03	SHORT HLIF
CS-134	8.862E-02	8.181E-02	4.996E-02	4.174E-02	FAIL ABUN
CS-135	1.832E-01	1.942E-01	1.544E-01	9.911E-02	NOT IDENT.
I-135	-3.815E+15	7.581E+15	0.000E+00	3.868E+15	SHORT HLIF
CS-136	-3.462E-02	1.205E-01	9.970E-02	6.150E-02	FAIL ABUN
CE-139	-1.904E-02	3.455E-02	2.724E-02	1.763E-02	NOT IDENT.
BA-140	-4.814E-02	2.829E-01	2.389E-01	1.443E-01	NOT IDENT.
LA-140	6.757E-02	1.051E-01	8.558E-02	5.364E-02	NOT IDENT.
CE-141	9.768E-02	8.138E-02	6.309E-02	4.152E-02	NOT IDENT.

CE-143	5.251E+02	2.186E+02	0.000E+00	1.115E+02	SHORT HLIF
CE-144	2.193E-01	2.502E-01	1.913E-01	1.276E-01	NOT IDENT.
PM-144	-1.946E-02	4.169E-02	3.373E-02	2.127E-02	NOT IDENT.
PR-144	-1.319E+00	2.825E+00	2.286E+00	1.441E+00	NOT IDENT.
PM-146	-7.349E-03	5.371E-02	4.360E-02	2.740E-02	NOT IDENT.
ND-147	3.840E-01	6.451E-01	5.744E-01	3.291E-01	FAIL ABUN
PM-149	6.059E+01	1.092E+02	9.481E+01	5.572E+01	NOT IDENT.
EU-152	-3.887E-02	1.277E-01	9.099E-02	6.516E-02	FAIL ABUN
GD-153	-4.407E-02	1.012E-01	7.364E-02	5.162E-02	FAIL ABUN
EU-154	-1.042E-02	1.238E-01	1.027E-01	6.314E-02	NOT IDENT.
EU-155	8.999E-02	1.196E-01	1.022E-01	6.100E-02	FAIL ABUN
TB-160	1.122E-01	1.722E-01	1.507E-01	8.788E-02	FAIL ABUN
HO-166M	-4.460E-02	6.939E-02	5.486E-02	3.540E-02	FAIL ABUN
TM-171	1.014E+01	2.804E+01	2.157E+01	1.431E+01	NOT IDENT.
LU-176	-3.497E-03	3.039E-02	2.224E-02	1.550E-02	FAIL ABUN
LU-177	3.522E+00	1.831E+00	1.126E+00	9.340E-01	FAIL ABUN
LU-177M	-1.874E-02	2.520E-01	1.806E-01	1.286E-01	NOT IDENT.
HF-181	1.270E-02	5.403E-02	4.489E-02	2.757E-02	NOT IDENT.
W-181	3.009E-01	3.782E-01	2.958E-01	1.929E-01	NOT IDENT.
TA-182	1.304E-02	2.238E-01	1.892E-01	1.142E-01	FAIL ABUN
RE-183	1.137E-01	1.237E-01	1.048E-01	6.311E-02	FAIL ABUN
RE-184	1.935E-01	2.503E-01	2.216E-01	1.277E-01	NOT IDENT.
OS-185	2.550E-02	4.856E-02	4.278E-02	2.478E-02	NOT IDENT.
RE-188	1.613E-01	1.976E-01	1.668E-01	1.008E-01	NOT IDENT.
W-188	-6.671E+00	9.678E+00	6.785E+00	4.938E+00	FAIL ABUN
IR-192	-7.208E-04	3.812E-02	3.201E-02	1.945E-02	FAIL ABUN
AU-195	2.109E-01	2.559E-01	2.172E-01	1.306E-01	FAIL ABUN
TL-200	-2.097E+02	5.285E+02	0.000E+00	2.696E+02	SHORT HLIF
TL-201	3.047E+00	7.976E+00	6.594E+00	4.070E+00	NOT IDENT.
TL-202	7.446E-02	7.662E-02	6.756E-02	3.909E-02	NOT IDENT.
HG-203	5.032E-03	4.591E-02	3.913E-02	2.343E-02	FAIL ABUN
BI-207	3.591E-02	5.982E-02	5.368E-02	3.052E-02	FAIL ABUN
TL-207	-1.322E-01	7.847E-01	6.520E-01	4.004E-01	FAIL ABUN
PO-209	-1.165E+00	8.614E+00	7.001E+00	4.395E+00	NOT IDENT.
PB-211	-5.244E-01	1.295E+00	8.694E-01	6.606E-01	NOT IDENT.
BI-212	1.854E+00	7.873E-01	4.124E-01	4.017E-01	FAIL ABUN
PO-215	-1.322E-01	7.847E-01	6.520E-01	4.004E-01	FAIL ABUN
RN-219	5.364E-02	4.682E-01	3.905E-01	2.389E-01	FAIL ABUN
RN-220	-2.649E+01	2.962E+01	2.352E+01	1.511E+01	NOT IDENT.
RA-223	-1.322E-01	7.847E-01	6.520E-01	4.004E-01	FAIL ABUN
AC-227	1.425E-01	4.217E-01	3.650E-01	2.151E-01	FAIL ABUN
TH-227	1.425E-01	4.219E-01	3.650E-01	2.152E-01	FAIL ABUN
TH-229	-1.030E-01	5.254E-01	4.506E-01	2.681E-01	FAIL ABUN
PA-231	1.135E+00	1.800E+00	1.567E+00	9.182E-01	FAIL ABUN
TH-231	-1.322E-01	7.847E-01	6.520E-01	4.004E-01	FAIL ABUN
U-231	-9.340E-01	1.385E+00	9.960E-01	7.064E-01	FAIL ABUN
PA-233	3.662E-02	6.845E-02	5.948E-02	3.493E-02	FAIL ABUN
PA-234	1.127E-01	3.507E-01	2.970E-01	1.789E-01	FAIL ABUN
PA-234M	1.018E+01	7.353E+00	5.749E+00	3.752E+00	FAIL ABUN
NP-236	-3.654E-02	9.020E-02	7.182E-02	4.602E-02	NOT IDENT.
NP-239	4.189E-02	1.972E-01	1.647E-01	1.006E-01	FAIL ABUN
AM-241	1.994E-02	1.387E-01	1.066E-01	7.075E-02	NOT IDENT.
CM-243	-7.097E-02	1.075E-01	8.681E-02	5.482E-02	FAIL ABUN
AM-246	-7.171E-02	1.748E-01	1.429E-01	8.917E-02	NOT IDENT.
CM-247	2.171E-02	4.209E-02	3.605E-02	2.147E-02	NOT IDENT.
CF-249	-1.707E-02	4.425E-02	3.565E-02	2.258E-02	NOT IDENT.
CF-251	6.554E-02	1.344E-01	1.192E-01	6.858E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417

GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	283.3824
46.50	283.3824
46.50	283.3824
48.70	319.6421
49.72	321.9308
51.35	366.2168
52.39	292.6072
52.97	323.6829
53.15	334.3687
53.44	328.8601
54.07	344.7437
56.28	390.0722
56.28	390.0743
57.37	0.0000
57.53	334.6963
57.53	334.6980
57.60	334.7525
57.98	343.2004
57.98	343.2004
59.32	364.7165
59.32	364.7165
59.40	369.1617
59.54	369.2833
59.72	369.4396
60.01	376.9957
61.10	389.6708
61.14	389.7063
61.30	389.8504
63.00	418.8301
63.29	419.1048
63.29	419.1048
63.58	419.3790
64.28	433.8088
65.12	449.4032
65.20	449.4827
65.20	449.4827
66.05	434.0299
66.72	412.4124
66.83	412.5142
66.91	381.4197
67.20	377.2037
67.20	377.2037
67.75	408.8766
67.85	408.9647
68.90	455.4972
68.90	455.4972
69.30	447.5327
69.67	450.8734
70.82	466.9312
70.82	466.9312
70.83	466.9407
72.80	422.2718
72.87	422.3340
72.87	422.3340
74.67	436.4613
74.81	436.5849
74.81	436.5849
74.81	436.5849
74.81	436.5849
74.81	436.5849
74.81	436.5849
74.81	436.5849
74.97	436.7262
75.28	436.9999
75.70	437.3686
77.11	438.6025
77.11	438.6025

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77.11	438.6025
77.11	438.6025
77.11	438.6025
77.11	438.6025
78.38	439.7040
79.62	371.7094
79.80	371.8398
79.80	371.8398
80.11	365.9637
80.18	366.0132
80.30	366.0974
80.30	366.0974
80.57	372.3926
81.00	372.7017
81.07	372.7519
81.07	372.7519
81.07	372.7519
81.07	372.7519
82.60	373.8428
83.37	427.5757
83.78	420.7436
83.78	420.7436
83.78	420.7436
83.78	420.7436
84.21	421.0844
84.90	375.4624
85.43	375.8328
86.29	376.4323
86.50	376.5775
86.54	376.6054
86.59	376.6407
86.72	376.7301
86.79	376.7766
86.94	447.9344
87.30	540.9656
87.30	540.9656
87.30	540.9656
87.30	540.9656
87.30	540.9656
87.30	540.9656
87.30	540.9656
87.57	414.4296
87.88	414.6647
88.03	396.2051
88.36	396.4434
88.47	396.5234
89.95	397.5820
91.11	432.6464
92.29	433.5500
92.38	433.6199
92.38	433.6199
93.35	434.3580
94.00	347.2561
94.67	372.7139
94.67	372.7175
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94.90	388.5331
94.90	388.5331
95.87	409.5847
95.87	409.5847
96.73	345.7541
97.43	379.2084
98.44	349.9119
98.44	349.9119
98.88	310.2115
99.55	307.4029
99.55	307.4029
99.86	320.2029
100.00	320.2771
100.10	330.8700
103.18	357.9766
103.76	326.5137
105.00	277.2461
105.31	290.1389
108.00	333.0187
109.28	315.5111

111.00	315.2910
111.00	315.2910
111.76	303.8528
112.95	288.2778
115.19	317.3321
116.30	265.9695
117.00	234.8637
117.00	234.8637
117.66	252.4309
121.11	238.4809
121.62	235.3909
121.78	235.4458
122.06	236.6330
122.32	226.9044
122.32	226.9044
122.32	226.9044
122.32	226.9044
123.07	222.7847
127.23	237.3041
129.76	253.5892
131.20	256.8630
133.02	250.8656
133.54	226.1071
135.34	243.3318
136.00	264.6801
136.25	261.4323
136.48	263.7392
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140.51	0.0000
142.18	277.5286
142.65	265.9210
143.76	251.6992
144.24	251.8587
144.24	251.8587
144.24	251.8587
144.24	251.8587
145.22	254.9945
145.44	246.6201
147.16	264.0974
152.43	243.1490
152.70	231.8657
153.22	232.0172
154.21	255.0784
154.21	255.0784
154.21	255.0784
154.21	255.0784
155.03	239.3796
156.02	251.0874
158.56	233.5549
159.00	0.0000
159.00	242.8433
160.31	245.5262
161.27	228.5816
162.32	213.9197
162.64	214.0010
163.35	236.0616
163.89	231.6068
165.85	254.0908
167.43	217.5376
171.28	215.0298
171.86	197.7281
172.10	197.7834
176.55	211.3623
176.60	211.3751
181.06	243.9929
184.41	223.8438
185.71	224.1623
186.00	224.2337
190.27	206.5754
192.34	190.9709
193.63	205.5316
197.04	201.7897
198.01	195.7097
198.60	199.4226
200.40	212.3968
201.83	228.9356
202.84	213.8356
205.31	192.4863

208.36	216.3119
208.81	201.5229
209.75	201.7126
209.75	201.7126
210.97	209.6016
215.65	199.5051
216.55	200.3351
218.09	212.5475
222.10	184.8644
223.80	211.8821
226.40	173.6209
227.00	191.2766
227.08	191.2924
227.20	188.5403
228.16	173.9106
228.18	173.9149
228.18	173.9149
231.56	0.0000
235.69	193.7717
236.00	189.3543
236.00	189.3543
238.63	174.6790
238.63	174.6790
238.63	174.6790
238.63	174.6790
239.00	174.7390
240.98	175.0543
241.98	175.2133
241.98	175.2133
241.98	175.2133
244.69	166.8130
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247.94	146.1986
248.90	170.9615
249.79	154.2030
252.40	139.9672
252.85	139.0765
252.85	139.0765
254.15	0.0000
256.20	154.6667
256.20	154.6667
260.50	181.9099
260.90	178.1630
262.80	157.4570
264.65	129.9882
268.24	142.6537
268.79	154.9965
269.46	151.6304
269.46	151.6304
269.46	151.6304
269.46	151.6304
271.23	161.4657
273.65	172.5773
276.40	150.0260
277.35	144.8982
277.60	156.5222
277.60	156.5222
278.00	154.6411
278.60	152.7828
279.20	157.6948
279.53	171.2851
280.46	193.6890
281.68	172.5543
283.67	148.5596
284.30	153.4916
285.00	156.4945
285.90	146.8803
286.10	155.6592
286.10	155.6592
287.40	166.5356
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290.67	168.7263
290.80	168.7447
291.72	168.8687
293.26	0.0000
293.70	150.3398
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295.21	144.0504

295.21	144.0504
295.96	144.1356
296.50	144.1962
297.23	144.2792
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299.80	144.5685
299.80	144.5685
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300.09	144.5999
300.09	144.5999
300.09	144.5999
300.12	144.6044
301.29	144.7345
302.84	115.1372
303.76	115.2192
303.91	115.2316
304.40	120.0136
304.40	120.0136
304.84	123.2137
306.84	123.4023
308.46	135.6328
311.98	108.2000
316.51	122.5120
318.01	115.6690
319.02	134.7157
319.41	134.7549
320.08	155.7929
323.87	148.2168
323.87	148.2168
323.87	148.2168
323.87	148.2168
325.23	172.4225
328.77	123.6212
333.44	137.1476
334.20	124.3073
334.20	124.3073
334.30	124.3167
338.28	116.3722
338.28	116.3722
338.28	116.3722
338.28	116.3722
338.32	116.3757
338.32	116.3757
338.32	116.3757
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340.57	121.6278
344.27	128.4502
345.85	124.1147
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351.07	131.7124
351.92	131.7912
351.92	131.7912
351.92	131.7912
355.39	0.0000
356.01	118.0230
364.48	109.2219
366.43	102.1436
367.43	101.1791
367.94	0.0000
369.80	87.8962
374.96	98.5718
383.85	91.8390
387.95	104.6387
388.63	110.9655
391.69	95.4489
391.69	95.4489
392.90	97.6219
398.62	101.1357
400.65	101.2646
401.10	100.2374
401.81	100.2823
402.60	95.0510
404.84	115.0671
410.95	115.5021
411.60	113.8493
413.65	120.7971
414.70	114.9164
415.30	114.3494

415.76	105.4081
417.63	0.0000
418.52	105.5848
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427.08	92.1925
427.89	75.0768
432.53	79.5859
433.93	85.0332
439.47	70.1922
439.56	70.1952
439.89	66.9686
443.98	95.2778
444.90	79.0796
445.03	79.0863
445.03	79.0863
445.03	79.0863
445.03	79.0863
453.90	102.3564
463.38	88.6741
468.07	96.5897
473.00	96.8542
475.06	91.4550
475.35	111.3071
476.78	113.5992
477.59	99.3054
477.96	97.1188
482.03	95.1228
484.57	93.0388
487.03	84.2905
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492.35	70.0723
497.08	64.6739
507.63	0.0000
510.53	0.0000
510.84	79.7450
511.00	79.7515
511.85	79.7867
511.85	79.7867
513.99	79.5000
513.99	79.5000
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520.65	77.2653
527.90	79.7672
528.96	0.0000
529.64	76.2091
529.87	0.0000
531.02	71.7230
537.32	73.7721
543.00	90.4197
546.56	0.0000
549.76	87.0586
552.65	63.3213
555.20	65.2382
563.23	70.1052
563.90	72.8956
568.70	79.5374
569.32	73.0866
569.50	73.0924
569.67	73.0981
573.80	70.4614
574.00	73.2486
574.64	69.5618
578.91	58.8601
579.30	0.0000
583.14	67.9795
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591.81	81.3458
592.07	83.2246
593.00	81.3904
595.88	70.2576
600.56	80.7363
602.52	0.0000
602.71	65.7805
602.71	65.7805
603.60	87.7438
604.41	72.1015
604.70	72.1108
609.31	78.2320

609.31	78.2320
609.31	78.2320
609.31	78.2320
610.33	78.2684
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614.37	70.8545
618.01	68.1311
621.84	69.1967
621.84	69.1967
631.29	63.7760
633.02	56.2041
633.10	56.2056
634.78	55.2940
635.90	54.3671
636.97	57.2563
645.85	56.5210
646.12	59.4010
656.30	57.7383
657.75	57.7734
657.90	0.0000
661.65	74.2666
661.65	74.2666
664.57	0.0000
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666.33	70.8716
675.00	82.4475
677.61	63.1163
685.20	52.6012
692.80	72.3090
695.00	74.3319
696.49	82.2056
696.49	82.2056
697.00	76.3490
697.49	72.4481
698.33	76.3909
698.50	71.4994
699.00	67.5951
702.63	72.6017
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706.58	0.0000
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713.82	57.1617
717.42	48.3612
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721.93	0.0000
722.20	59.3306
722.78	62.6406
722.78	62.6406
722.89	62.6437
722.95	62.6453
723.30	70.8986
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727.18	60.4385
733.00	52.9635
735.90	44.7396
739.58	56.7509
742.81	58.8171
744.21	57.8513
747.13	65.9049
751.79	74.0271
752.31	77.0432
753.82	61.0700
755.35	59.1023
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756.87	67.1554
763.93	75.3772
765.79	60.3442
766.42	52.3110
766.84	48.2941
776.49	60.5889
778.00	62.6433
778.57	69.7311
778.89	69.7395
783.80	59.7418
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792.07	64.3276

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796.30	44.0824
798.80	49.2136
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805.60	42.8716
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810.76	46.0195
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818.51	53.3279
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828.27	0.0000
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836.80	0.0000
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848.13	45.6006
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860.37	48.5716
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867.82	34.7827
871.10	47.0099
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879.36	48.1899
880.27	54.4934
880.51	52.4011
881.50	59.7582
883.24	48.2540
884.67	49.3270
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903.28	50.4571
911.07	53.9995
911.07	53.9995
911.07	53.9995
919.63	36.5737
920.93	43.5525
925.00	41.4832
925.24	39.3595
926.50	35.1189
935.52	38.4240
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946.00	43.9088
949.00	54.6706
962.29	68.1792
964.01	61.0356
966.15	52.8138
968.20	52.8473
969.11	52.8628
969.11	52.8628
969.11	52.8628
977.42	42.1840
980.50	31.3980
983.50	45.5150
989.30	31.4837
996.32	29.0137
1001.03	47.9413
1001.68	44.6816
1004.76	45.4508
1021.30	0.0000
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1036.00	46.7998
1037.82	45.9066
1038.57	41.3251
1038.76	0.0000
1045.16	50.6069
1046.59	56.1525
1048.07	46.9679

1050.47	35.0204
1050.47	35.0204
1062.04	42.5373
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1077.35	45.5128
1078.86	57.6129
1085.78	46.5556
1099.22	44.8652
1112.02	47.5289
1112.84	53.0795
1115.52	46.6820
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1120.29	40.2972
1120.29	40.2972
1120.29	40.2972
1120.51	40.2989
1121.28	41.9199
1124.00	0.0000
1129.67	49.0208
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1147.95	0.0000
1167.94	45.7285
1173.22	55.3332
1175.09	49.6344
1177.93	41.0754
1189.05	44.0721
1204.90	57.7271
1205.75	0.0000
1213.00	47.2435
1221.42	54.1133
1230.97	63.9348
1235.34	71.7658
1236.41	0.0000
1238.25	42.7020
1246.25	54.4619
1260.41	0.0000
1271.85	36.2186
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1274.54	33.3041
1291.56	43.2839
1298.22	0.0000
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1325.50	27.7756
1332.49	28.8171
1333.61	27.8302
1360.21	31.0101
1362.66	0.0000
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1368.21	27.6618
1368.53	0.0000
1376.25	18.9354
1384.27	13.7974
1394.10	15.1257
1395.20	20.1725
1407.95	18.2095
1434.06	21.3726
1436.60	23.4211
1457.56	0.0000
1460.81	14.3350
1489.15	14.4261
1509.49	21.7366
1596.49	12.6538
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1678.03	0.0000
1691.02	10.7503
1691.02	10.7503
1706.46	0.0000
1750.46	0.0000
1764.49	11.2178
1764.49	11.2178
1764.49	11.2178
1764.49	11.2178
1770.23	14.7393
1771.40	51.4839
1791.20	0.0000
1808.65	12.2551

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960010

Total Uranium Activity	2.7931E+01	ug/g
Total Uranium Counting Unc.	7.7090E+00	ug/g
Total Uranium Tpu	3.9331E-06	ug/g
Total Uranium Mda	2.7989E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G245960010
ANALYST	: MXR1	DETECTOR	: GAM07
SAMPLE DATE	: 28-JAN-2010 12:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 12-FEB-2010 16:24:06.84	SAMPLE ALQT	: 105.200 GRAM

GROSS GAMMA ACTIVITY	(pCi/GRAM)	: 1.053E+01
GROSS GAMMA ERROR	(pCi/GRAM)	: 1.579E+00
GROSS GAMMA MDA	(pCi/GRAM)	: 5.075E+00
GROSS GAMMA DLC	(pCi/GRAM)	: 2.465E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:31:30.38

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960011.CNF;1
Sample date      : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:31:04
Sample ID        : G245960011           Sample quantity  : 1.32020E+02 GRAM
Detector name    : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.23  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 948717               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.79	335	358	1.11	149.62	144	15	4.65E-02	10.9	2.01E+00
2	2	77.10	550	300	1.01	154.24	144	15	7.63E-02	6.7	
3	2	87.17	174	338	1.02	174.39	168	15	2.41E-02	18.1	1.50E+00
4	2	89.92	115	243	0.85	179.89	168	15	1.60E-02	23.0	
5	0	92.90*	213	333	1.51	185.84	183	8	2.96E-02	16.9	
6	0	128.81	95	395	2.23	257.67	253	10	1.33E-02	40.2	
7	0	185.93*	225	367	1.46	371.91	367	11	3.13E-02	18.1	
8	0	209.16	119	205	1.10	418.39	415	7	1.65E-02	22.1	
9	5	238.57*	1246	174	1.12	477.22	470	20	1.73E-01	3.4	1.41E+00
10	5	241.58*	308	199	1.86	483.23	470	20	4.28E-02	13.7	
11	0	269.56	153	225	1.21	539.19	533	13	2.12E-02	21.8	
12	0	295.23	428	122	1.24	590.54	587	9	5.95E-02	6.7	
13	0	299.91	91	107	1.21	599.91	597	7	1.26E-02	21.6	
14	0	338.49*	264	210	1.27	677.07	672	12	3.67E-02	12.7	
15	0	351.76*	684	171	1.24	703.60	698	13	9.49E-02	5.5	
16	0	462.37	51	135	1.48	924.84	921	11	7.13E-03	45.7	
17	0	510.85*	120	104	1.73	1021.79	1016	14	1.67E-02	23.4	
18	0	583.09*	366	128	1.46	1166.27	1160	14	5.09E-02	8.5	
19	0	609.15*	463	61	1.36	1218.40	1212	11	6.43E-02	5.8	
20	0	727.39	85	45	1.81	1454.86	1449	10	1.18E-02	18.4	
21	0	767.71	55	73	1.44	1535.51	1530	12	7.65E-03	33.7	
22	0	795.20	48	47	0.84	1590.48	1586	9	6.66E-03	29.6	
23	0	860.17*	39	44	1.60	1720.40	1715	11	5.37E-03	38.2	
24	0	911.11*	270	42	1.58	1822.28	1813	16	3.76E-02	8.2	
25	0	934.09	31	24	1.48	1868.24	1862	9	4.25E-03	34.4	
26	1	964.30	66	25	1.87	1928.66	1923	23	9.12E-03	21.1	1.44E+00
27	1	968.64*	151	29	1.72	1937.34	1923	23	2.09E-02	11.1	
28	0	1120.25*	98	78	1.88	2240.51	2232	20	1.36E-02	24.2	
29	0	1238.07	43	43	1.36	2476.12	2473	9	5.93E-03	30.7	
30	0	1460.59*	798	41	1.92	2921.06	2914	15	1.11E-01	4.0	
31	0	1730.21	18	16	1.57	3460.17	3453	13	2.45E-03	52.8	
32	0	1764.30*	74	13	2.28	3528.32	3522	13	1.03E-02	15.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 18:31:33

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960011.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:31:04
Sample ID : G245960011 Sample quantity : 132.02 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.23 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.978E+01	2.111E+00	6.024E-01	4.281E-02	32.838
CD-109	+	88.03	*	2.710E+00	1.033E+00	1.297E+00	1.559E-01	2.089
SN-126		64.28		2.033E-01	6.148E-01	1.045E+00	1.800E-01	0.195
	+	86.94		1.107E+00	6.155E-01	5.400E-01	2.277E-01	2.051
	+	87.57	*	2.664E-01	1.015E-01	1.285E-01	1.541E-02	2.073
CS-135	+	268.24	*	6.146E-01	2.725E-01	2.224E-01	1.854E-02	2.763
TL-208		277.35		3.135E-01	3.522E-01	6.172E-01	6.820E-02	0.508
	+	510.84		5.797E-01	2.778E-01	1.965E-01	1.973E-02	2.950
	+	583.14	*	5.040E-01	9.156E-02	5.475E-02	3.445E-03	9.205
	+	860.37		5.053E-01	3.883E-01	4.194E-01	3.499E-02	1.205
BI-211		72.87		2.062E+00	3.621E+00	5.610E+00	6.432E-01	0.368
	+	351.07	*	4.141E+00	5.353E-01	2.956E-01	1.997E-02	14.010
PB-212	+	74.81		2.446E+00	6.453E-01	5.672E-01	8.384E-02	4.313
	+	77.11		2.210E+00	3.882E-01	3.131E-01	3.592E-02	7.060
	+	87.30		1.232E+00	4.855E-01	5.970E-01	9.312E-02	2.064
	+	238.63	*	1.646E+00	1.732E-01	8.376E-02	6.727E-03	19.652
	+	300.09		1.850E+00	8.143E-01	1.096E+00	9.652E-02	1.687
PO-212	+	74.81		2.446E+00	6.453E-01	5.672E-01	8.384E-02	4.313
	+	77.11		2.210E+00	3.882E-01	3.131E-01	3.592E-02	7.060
	+	87.30		1.232E+00	4.855E-01	5.970E-01	9.312E-02	2.064
		115.19		3.037E+00	3.259E+00	5.579E+00	4.198E-01	0.544
	+	238.63	*	1.646E+00	1.732E-01	8.376E-02	6.727E-03	19.652
	+	300.09		1.850E+00	8.143E-01	1.096E+00	9.652E-02	1.687
BI-214	+	609.31	*	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
	+	1120.29		1.355E+00	6.685E-01	4.272E-01	3.980E-02	3.173
	+	1764.49		1.402E+00	4.521E-01	3.352E-01	2.043E-02	4.183
PB-214	+	74.81		4.215E+00	1.086E+00	9.773E-01	1.333E-01	4.313
	+	77.11		3.789E+00	7.255E-01	5.367E-01	7.391E-02	7.060
	+	87.30		2.110E+00	8.208E-01	1.023E+00	1.456E-01	2.064
	+	241.98		2.447E+00	7.031E-01	5.046E-01	4.396E-02	4.850
	+	295.21		1.536E+00	2.491E-01	1.930E-01	1.753E-02	7.957
	+	351.92	*	1.440E+00	2.008E-01	1.030E-01	8.789E-03	13.981
PO-214	+	74.81		4.215E+00	1.086E+00	9.773E-01	1.333E-01	4.313
	+	77.11		3.789E+00	7.255E-01	5.367E-01	7.391E-02	7.060

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		2.110E+00	8.208E-01	1.023E+00	1.456E-01	2.064
	+	241.98		2.447E+00	7.031E-01	5.046E-01	4.396E-02	4.850
	+	295.21		1.536E+00	2.491E-01	1.930E-01	1.753E-02	7.957
	+	351.92	*	1.440E+00	2.008E-01	1.030E-01	8.789E-03	13.981
PO-216	+	74.81		2.446E+00	6.453E-01	5.672E-01	8.384E-02	4.313
	+	77.11		2.210E+00	3.882E-01	3.131E-01	3.592E-02	7.060
	+	87.30		1.232E+00	4.855E-01	5.970E-01	9.312E-02	2.064
	+	238.63	*	1.646E+00	1.732E-01	8.376E-02	6.727E-03	19.652
	+	300.09		1.850E+00	8.143E-01	1.096E+00	9.652E-02	1.687
PO-218	+	74.81		4.215E+00	1.086E+00	9.773E-01	1.333E-01	4.313
	+	77.11		3.789E+00	7.255E-01	5.367E-01	7.391E-02	7.060
	+	87.30		2.110E+00	8.208E-01	1.023E+00	1.456E-01	2.064
	+	241.98		2.447E+00	7.031E-01	5.046E-01	4.396E-02	4.850
	+	295.21		1.536E+00	2.491E-01	1.930E-01	1.753E-02	7.957
	+	351.92	*	1.440E+00	2.008E-01	1.030E-01	8.789E-03	13.981
RA-224	+	240.98	*	4.640E+00	1.308E+00	9.534E-01	6.356E-02	4.867
RA-226	+	609.31	*	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
	+	1120.29		1.355E+00	6.685E-01	4.272E-01	3.980E-02	3.173
	+	1764.49		1.402E+00	4.521E-01	3.352E-01	2.043E-02	4.183
AC-228	+	338.32		1.766E+00	8.495E-01	3.556E-01	1.452E-01	4.966
	+	911.07	*	1.679E+00	3.314E-01	1.917E-01	2.090E-02	8.761
	+	969.11		1.656E+00	5.293E-01	3.225E-01	7.437E-02	5.136
RA-228	+	338.32		1.766E+00	8.495E-01	3.556E-01	1.452E-01	4.966
	+	911.07	*	1.679E+00	3.314E-01	1.917E-01	2.090E-02	8.761
	+	969.11		1.656E+00	5.293E-01	3.225E-01	7.437E-02	5.136
TH-228	+	74.81		2.484E+00	6.133E-01	5.758E-01	6.626E-02	4.313
	+	77.11		2.244E+00	3.942E-01	3.178E-01	3.646E-02	7.060
	+	87.30		1.251E+00	4.768E-01	6.061E-01	7.256E-02	2.064
	+	238.63	*	1.671E+00	1.759E-01	8.503E-02	6.829E-03	19.652
	+	300.09		1.878E+00	1.373E+00	1.113E+00	6.569E-01	1.687
TH-230	+	609.31	*	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
	+	1120.29		1.355E+00	6.685E-01	4.272E-01	3.980E-02	3.173
	+	1764.49		1.402E+00	4.521E-01	3.352E-01	2.043E-02	4.183
TH-232	+	338.32		1.766E+00	4.627E-01	3.556E-01	2.235E-02	4.966
	+	911.07	*	1.679E+00	3.314E-01	1.917E-01	2.090E-02	8.761
	+	969.11		1.656E+00	5.293E-01	3.225E-01	7.437E-02	5.136
U-234	+	609.31	*	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
	+	1120.29		1.355E+00	6.685E-01	4.272E-01	3.980E-02	3.173
	+	1764.49		1.402E+00	4.521E-01	3.352E-01	2.043E-02	4.183
NP-237	+	86.50	*	7.822E-01	3.390E-01	3.844E-01	9.158E-02	2.035
		95.87		-7.422E-01	9.630E-01	1.341E+00	3.379E-01	-0.553
AM-243	+	74.67	*	3.966E-01	9.783E-02	9.239E-02	1.058E-02	4.293
	+	86.72		2.933E+01	1.118E+01	1.436E+01	1.712E+00	2.043
		117.66		-2.407E+00	3.433E+00	5.459E+00	3.985E-01	-0.441
		142.18		-7.395E+00	1.588E+01	2.532E+01	1.656E+00	-0.292
ANH-511	+	511.00	*	1.252E-01	5.909E-02	4.247E-02	2.375E-03	2.949

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-9.219E-03	2.815E-01	4.576E-01	3.031E-02	-0.020

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	2.021E-03	4.121E-02	6.932E-02	4.532E-03	0.029
NA-24		1368.53	*	6.671E-01	4.121E-02	Half-Life too short		
AL-26		1129.67		-1.657E-02	1.727E+00	2.520E+00	1.625E-01	-0.007
		1808.65	*	1.012E-02	2.272E-02	4.122E-02	2.444E-03	0.246
TI-44		67.85		8.704E-03	5.281E-02	8.957E-02	1.042E-02	0.097
	+	78.38	*	4.079E-01	7.165E-02	8.090E-02	9.303E-03	5.042
SC-46		889.25	*	1.139E-02	3.312E-02	5.662E-02	4.579E-03	0.201
	+	1120.51		2.321E-01	1.135E-01	1.266E-01	8.295E-03	1.833
V-48		944.10		1.131E-01	8.624E-01	1.432E+00	1.145E-01	0.079
		983.50	*	-1.522E-02	6.449E-02	1.025E-01	7.938E-03	-0.149
		1312.09		4.793E-02	7.405E-02	1.329E-01	8.956E-03	0.361
CR-51		320.08	*	-9.286E-02	3.465E-01	5.707E-01	4.019E-02	-0.163
MN-52		744.21		-1.137E-02	2.164E-01	3.594E-01	2.133E-02	-0.032
		848.13		-1.655E+00	6.067E+00	9.739E+00	7.245E-01	-0.170
	+	935.52		3.772E-01	2.609E-01	4.789E-01	3.852E-02	0.788
		1246.25		-9.685E-01	7.201E+00	1.165E+01	7.418E-01	-0.083
		1333.61		3.905E+00	4.650E+00	8.545E+00	5.855E-01	0.457
		1434.06	*	-1.338E-01	2.375E-01	3.667E-01	2.502E-02	-0.365
MN-54		834.83	*	2.098E-02	3.487E-02	6.075E-02	4.396E-03	0.345
CO-56		846.75	*	-3.697E-02	3.538E-02	5.171E-02	3.836E-03	-0.715
		977.42		1.183E+00	2.706E+00	4.529E+00	3.527E-01	0.261
		1037.82		6.281E-02	2.964E-01	4.932E-01	3.882E-02	0.127
		1175.09		1.692E-02	2.294E+00	3.695E+00	2.201E-01	0.005
	+	1238.25		1.673E-01	1.035E-01	1.774E-01	1.181E-02	0.943
		1360.21		1.334E-01	7.494E-01	1.284E+00	8.802E-02	0.104
		1771.40		-4.602E-01	3.108E-01	3.766E-01	2.286E-02	-1.222
CO-57		122.06	*	-2.169E-02	2.360E-02	3.706E-02	2.572E-03	-0.585
		136.48		-3.837E-02	1.937E-01	3.137E-01	2.333E-02	-0.122
CO-58		810.76	*	1.051E-03	3.486E-02	5.798E-02	4.003E-03	0.018
FE-59		142.65		-1.164E+00	2.448E+00	3.902E+00	2.551E-01	-0.298
		192.34		-3.228E-01	9.473E-01	1.494E+00	1.816E-01	-0.216
		1099.22	*	-5.828E-02	8.824E-02	1.322E-01	1.010E-02	-0.441
		1291.56		-1.909E-03	1.127E-01	1.881E-01	1.520E-02	-0.010
CO-60		1173.22		-1.790E-03	4.473E-02	7.170E-02	4.264E-03	-0.025
		1332.49	*	3.031E-03	3.763E-02	6.336E-02	4.341E-03	0.048
ZN-65		1115.52	*	2.872E-02	9.619E-02	1.403E-01	9.281E-03	0.205
GE-68		1077.35	*	6.918E-01	1.127E+00	1.954E+00	1.365E-01	0.354
AS-73		53.44	*	-2.584E-01	1.447E+00	2.416E+00	3.160E-01	-0.107
AS-74		595.88	*	9.417E-02	8.981E-02	1.565E-01	8.264E-03	0.602
		634.78		2.860E-01	3.323E-01	5.734E-01	2.900E-02	0.499
SE-75		66.05		-4.273E+00	5.729E+00	9.333E+00	1.225E+00	-0.458
		96.73		-6.395E-01	8.070E-01	1.138E+00	1.651E-01	-0.562
		121.11		-6.707E-02	1.222E-01	1.954E-01	1.961E-02	-0.343
		136.00		4.945E-03	3.625E-02	5.963E-02	3.997E-03	0.083
		198.60		-1.058E+00	1.781E+00	2.741E+00	2.116E-01	-0.386
		264.65	*	-2.928E-03	4.348E-02	6.465E-02	4.349E-03	-0.045
		279.53		-2.310E-02	9.998E-02	1.666E-01	1.176E-02	-0.139
		303.91		2.949E+00	1.941E+00	3.204E+00	3.208E-01	0.920
		400.65		-1.166E-01	2.418E-01	3.765E-01	3.390E-02	-0.310

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	87.88		5.978E+02	2.279E+02	3.406E+02	4.093E+01	1.755
		200.40		-1.129E+02	1.640E+02	2.531E+02	1.651E+01	-0.446
	+	239.00		2.699E+02	2.569E+01	3.883E+01	2.587E+00	6.951
		249.79		3.316E+01	5.880E+01	1.026E+02	6.852E+00	0.323
		281.68		-6.948E+00	7.858E+01	1.319E+02	8.756E+00	-0.053
		297.23		2.665E+02	6.308E+01	1.032E+02	6.792E+00	2.582
		303.76		1.961E+02	1.735E+02	2.798E+02	1.832E+01	0.701
		439.47		-1.404E+01	1.369E+02	2.228E+02	1.264E+01	-0.063
		484.57		1.009E+02	2.104E+02	3.560E+02	2.009E+01	0.283
		520.65	*	-3.383E-01	1.029E+01	1.663E+01	9.260E-01	-0.020
		574.64		5.801E+01	2.078E+02	3.421E+02	1.840E+01	0.170
		578.91		1.719E+01	9.605E+01	1.376E+02	7.378E+00	0.125
		585.48		9.025E+02	2.371E+02	4.290E+02	2.287E+01	2.104
		755.35		1.068E+02	1.704E+02	2.981E+02	1.814E+01	0.358
		817.79		1.508E+02	1.298E+02	2.370E+02	1.654E+01	0.636
SR-82		698.33		-1.148E+01	3.172E+01	5.162E+01	2.752E+00	-0.222
		776.49	*	-1.625E-01	3.566E-01	5.683E-01	3.627E-02	-0.286
		1395.20		-3.909E+00	9.422E+00	1.460E+01	9.995E-01	-0.268
RB-83		520.41	*	-2.517E-02	6.796E-02	1.067E-01	5.945E-03	-0.236
		529.64		-5.019E-02	1.028E-01	1.595E-01	8.841E-03	-0.315
		552.65		1.128E-01	1.809E-01	3.078E-01	1.683E-02	0.366
RB-84		881.50	*	5.046E-02	5.857E-02	1.054E-01	8.396E-03	0.479
KR-85		513.99	*	2.406E+00	7.512E+00	1.102E+01	6.153E-01	0.218
SR-85		513.99	*	1.234E-02	3.855E-02	5.652E-02	3.157E-03	0.218
RB-86		1076.63	*	6.008E-01	6.844E-01	1.223E+00	8.554E-02	0.491
Y-88		898.02		2.422E-02	3.888E-02	6.787E-02	5.616E-03	0.357
		1836.01	*	1.619E-02	3.015E-02	5.472E-02	3.193E-03	0.296
ZR-88		392.90	*	-2.234E-02	2.762E-02	4.290E-02	2.414E-03	-0.521
Y-91		1204.90	*	2.821E+00	1.906E+01	3.108E+01	1.905E+00	0.091
NB-94		702.63	*	1.075E-02	3.306E-02	5.675E-02	3.057E-03	0.189
		871.10		3.383E-03	2.735E-02	4.577E-02	3.569E-03	0.074
NB-95		765.79	*	5.883E-02	4.564E-02	7.538E-02	4.698E-03	0.780
NB-95M		235.69	*	5.837E-02	1.367E-01	1.980E-01	1.625E-02	0.295
ZR-95		724.18		4.576E-03	9.630E-02	1.409E-01	9.507E-03	0.032
		756.15	*	8.186E-02	6.952E-02	1.264E-01	9.207E-03	0.647
NB-97		657.90	*	-7.388E-03	6.952E-02	Half-Life too short		
		1024.50		3.152E+00	6.952E-02	Half-Life too short		
ZR-97		254.15		-4.165E+00	6.952E-02	Half-Life too short		
		355.39		9.039E-01	6.952E-02	Half-Life too short		
		507.63	*	1.399E+00	6.952E-02	Half-Life too short		
		602.52		1.452E+00	6.952E-02	Half-Life too short		
		1021.30		4.963E+00	6.952E-02	Half-Life too short		
		1147.95		2.486E+00	6.952E-02	Half-Life too short		
		1362.66		-1.547E+00	6.952E-02	Half-Life too short		
		1750.46		-1.346E+00	6.952E-02	Half-Life too short		
MO-99		140.51		-1.490E+00	2.474E+01	3.981E+01	1.080E+01	-0.037
		181.06		1.117E+01	1.818E+01	2.697E+01	4.682E+00	0.414
		366.43		3.323E+00	7.987E+01	1.329E+02	7.946E+00	0.025
		739.58	*	8.961E-01	1.048E+01	1.764E+01	2.436E+00	0.051

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.00		-1.530E+00	3.279E+01	5.432E+01	3.479E+00	-0.028
TC-99M		140.51	*	-2.590E+09	3.279E+01	Half-Life too short		
RH-101		127.23		-5.769E-03	3.353E-02	4.867E-02	3.305E-03	-0.119
		198.01	*	-4.510E-03	3.256E-02	5.136E-02	3.345E-03	-0.088
		325.23		-3.200E-01	2.230E-01	3.417E-01	2.187E-02	-0.936
RH-102		418.52		1.183E-01	2.471E-01	4.211E-01	2.385E-02	0.281
		475.06	*	3.026E-03	2.578E-02	4.245E-02	2.400E-03	0.071
		631.29		2.308E-02	4.579E-02	7.703E-02	3.913E-03	0.300
		697.49		-4.604E-02	7.263E-02	1.155E-01	6.146E-03	-0.399
	+	766.84		2.403E-01	1.625E-01	2.081E-01	1.300E-02	1.155
		1046.59		-9.838E-02	1.097E-01	1.591E-01	1.155E-02	-0.618
		1112.84		1.831E-01	2.111E-01	3.383E-01	2.243E-02	0.541
RU-103		497.08	*	3.623E-02	3.827E-02	6.646E-02	8.350E-03	0.545
	+	610.33		1.298E+01	2.479E+00	2.944E+00	4.476E-01	4.409
RH-106	+	511.85		6.256E-01	2.952E-01	4.168E-01	2.330E-02	1.501
		621.84	*	-2.964E-03	2.918E-01	4.661E-01	5.325E-02	-0.006
		1050.47		1.660E+00	2.136E+00	3.763E+00	2.720E-01	0.441
RU-106	+	511.85		6.256E-01	2.952E-01	4.168E-01	2.330E-02	1.501
		621.84	*	-2.964E-03	2.918E-01	4.661E-01	2.395E-02	-0.006
		1050.47		1.660E+00	2.136E+00	3.763E+00	2.720E-01	0.441
AG-108M		433.93	*	-1.052E-02	2.975E-02	4.749E-02	2.934E-03	-0.222
		614.37		-4.132E-03	4.009E-02	5.518E-02	3.160E-03	-0.075
		722.95		-7.274E-04	4.157E-02	6.035E-02	3.714E-03	-0.012
AG-110M		657.75	*	-3.453E-04	3.284E-02	5.525E-02	2.952E-03	-0.006
		677.61		1.195E-01	2.704E-01	4.714E-01	2.580E-02	0.254
		706.67		-1.447E-02	2.075E-01	3.458E-01	2.009E-02	-0.042
		763.93		1.366E-01	1.635E-01	2.611E-01	1.708E-02	0.523
		884.67		2.678E-03	4.198E-02	6.965E-02	5.789E-03	0.038
		937.48		7.793E-02	1.082E-01	1.709E-01	1.429E-02	0.456
		1384.27		1.226E-02	1.509E-01	2.535E-01	1.814E-02	0.048
IN-111		171.28		-1.926E-01	9.362E-01	1.496E+00	9.537E-02	-0.129
		245.39	*	-4.445E-01	1.047E+00	1.412E+00	9.423E-02	-0.315
IN-113M		391.69	*	-2.913E-02	4.030E-02	6.308E-02	3.801E-03	-0.462
SN-113		391.69	*	-2.913E-02	4.030E-02	6.308E-02	3.801E-03	-0.462
IN-114M		190.27	*	8.535E-02	2.000E-01	2.936E-01	1.900E-02	0.291
CD-115		260.90		-6.143E+01	1.210E+02	1.995E+02	1.332E+01	-0.308
		492.35		-1.378E+01	3.445E+01	5.416E+01	3.049E+00	-0.254
		527.90	*	1.142E+01	1.067E+01	1.873E+01	1.039E+00	0.610
SN-117M		156.02		1.251E-01	2.128E+00	3.464E+00	2.222E-01	0.036
		158.56	*	-3.861E-05	4.899E-02	7.945E-02	5.082E-03	0.000
SB-122		563.90	*	1.941E+00	2.044E+00	3.543E+00	1.922E-01	0.548
		692.80		2.917E+01	4.111E+01	7.279E+01	3.830E+00	0.401
I-123		159.00	*	-3.170E+00	4.111E+01	Half-Life too short		
		528.96		3.286E+01	4.111E+01	Half-Life too short		
TE-123M		159.00	*	-1.431E-02	2.565E-02	4.042E-02	2.612E-03	-0.354
I-124		602.71	*	4.576E-02	6.905E-01	9.734E-01	5.105E-02	0.047
		722.78		-4.251E-02	4.397E+00	6.389E+00	3.609E-01	-0.007
		1325.50		-6.696E+00	3.196E+01	5.184E+01	3.532E+00	-0.129
		1376.25		4.533E+01	3.226E+01	6.150E+01	4.213E+00	0.737

---- Non-Identified Nuclides ----

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		1509.49		1.984E+01	1.559E+01	3.007E+01	2.028E+00	0.660
		1691.02		3.420E+00	3.840E+00	7.264E+00	4.604E-01	0.471
SB-124		602.71		2.631E-03	3.969E-02	5.595E-02	2.936E-03	0.047
		645.85		-7.603E-02	4.433E-01	7.365E-01	4.298E-02	-0.103
		709.31		-1.589E+00	2.814E+00	4.407E+00	2.412E-01	-0.361
		713.82		1.347E-01	1.487E+00	2.509E+00	2.525E-01	0.054
		722.78		-3.542E-03	3.664E-01	5.324E-01	3.157E-02	-0.007
	+	968.20		1.706E+01	4.006E+00	7.428E+00	5.830E-01	2.297
		1045.16		-1.723E+00	2.257E+00	3.320E+00	2.415E-01	-0.519
		1325.50		-5.959E-01	2.844E+00	4.614E+00	3.144E-01	-0.129
		1368.21		1.194E+00	1.612E+00	2.938E+00	3.649E-01	0.406
		1436.60		-5.280E+00	3.698E+00	4.788E+00	3.267E-01	-1.103
		1691.02	*	6.722E-02	7.549E-02	1.428E-01	9.701E-03	0.471
SB-125		427.89	*	-1.036E-01	8.461E-02	1.253E-01	7.419E-03	-0.826
	+	463.38		4.828E-01	4.420E-01	5.493E-01	3.651E-02	0.879
		600.56		1.565E-03	1.706E-01	2.737E-01	1.709E-02	0.006
		635.90		-4.009E-02	2.599E-01	4.087E-01	2.520E-02	-0.098
TE-125M		109.28	*	3.134E-01	8.743E+00	1.447E+01	1.436E+00	0.022
I-126		388.63		1.479E-01	1.843E-01	3.209E-01	1.820E-02	0.461
		666.33	*	-8.576E-02	1.623E-01	2.609E-01	1.287E-02	-0.329
		753.82		1.419E-01	1.454E+00	2.445E+00	1.483E-01	0.058
SB-126		223.80		1.481E+00	3.832E+00	6.223E+00	4.122E-01	0.238
		278.60		1.989E+00	2.285E+00	4.016E+00	2.670E-01	0.495
	+	296.50		1.535E+01	2.297E+00	3.531E+00	2.324E-01	4.348
		414.70		-4.231E-02	6.832E-02	1.072E-01	6.068E-03	-0.395
		415.30		-1.438E+00	5.545E+00	8.949E+00	5.065E-01	-0.161
		555.20		6.956E-01	3.724E+00	6.105E+00	3.333E-01	0.114
		573.80		5.846E-01	9.975E-01	1.684E+00	9.066E-02	0.347
		593.00		-1.415E+00	9.567E-01	1.325E+00	7.013E-02	-1.068
		656.30		1.542E+00	3.145E+00	5.497E+00	2.702E-01	0.281
		666.33		-3.584E-02	6.782E-02	1.090E-01	5.378E-03	-0.329
		675.00		-3.801E-01	1.704E+00	2.807E+00	1.414E-01	-0.135
		695.00		-1.510E-02	7.249E-02	1.195E-01	6.323E-03	-0.126
		697.00		-1.055E-01	2.485E-01	4.021E-01	2.137E-02	-0.262
		720.50	*	1.172E-02	1.437E-01	2.208E-01	1.241E-02	0.053
		856.80		-2.597E-02	4.729E-01	6.715E-01	5.086E-02	-0.039
		989.30		-6.845E-01	1.227E+00	1.878E+00	1.447E-01	-0.365
		1034.80		-5.363E+00	8.353E+00	1.254E+01	9.232E-01	-0.428
		1213.00		-1.033E+00	4.503E+00	7.045E+00	4.350E-01	-0.147
SB-127		61.10		-7.971E+01	7.474E+01	1.192E+02	1.672E+01	-0.669
		252.40		-1.560E-02	3.785E+00	6.422E+00	2.677E+00	-0.002
		290.80		-9.660E+00	2.196E+01	3.145E+01	3.056E+00	-0.307
		411.60		-2.550E+00	1.138E+01	1.844E+01	2.643E+00	-0.138
		444.90		-3.704E+00	9.289E+00	1.474E+01	1.584E+00	-0.251
		473.00		5.360E-01	1.529E+00	2.563E+00	2.850E-01	0.209
		543.00		-7.650E-01	1.596E+01	2.567E+01	3.283E+00	-0.030
		603.60		-5.273E+00	1.226E+01	1.617E+01	1.696E+00	-0.326
		685.20	*	4.407E-01	1.209E+00	2.092E+00	1.900E-01	0.211
		698.50		-6.917E+00	1.444E+01	2.323E+01	3.324E+00	-0.298

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		722.20		-2.678E-02	3.065E+01	4.459E+01	4.052E+00	-0.001
		783.80		1.910E+00	3.798E+00	6.556E+00	7.253E-01	0.291
XE-127		57.60		6.764E+00	8.976E+00	1.564E+01	1.958E+00	0.433
		145.22		3.488E-01	6.161E-01	1.030E+00	6.701E-02	0.339
		172.10		4.093E-02	1.108E-01	1.821E-01	1.162E-02	0.225
		202.84	*	2.235E-02	4.500E-02	7.375E-02	4.821E-03	0.303
		374.96		-1.527E-01	1.825E-01	2.846E-01	1.669E-02	-0.536
I-131		80.18		-2.026E+00	4.911E+00	7.210E+00	8.362E-01	-0.281
		284.30		-9.235E-01	1.291E+00	2.081E+00	1.500E-01	-0.444
		364.48	*	9.613E-02	1.086E-01	1.902E-01	1.266E-02	0.506
		636.97		-2.831E-01	1.489E+00	2.333E+00	1.360E-01	-0.121
		722.89		-1.232E-01	7.045E+00	1.023E+01	5.865E-01	-0.012
TE-132		49.72		-1.252E+01	4.026E+01	6.758E+01	9.458E+00	-0.185
		111.76		-1.531E+01	2.849E+01	4.586E+01	4.717E+00	-0.334
		116.30		4.500E+00	2.593E+01	4.305E+01	4.284E+00	0.105
		228.16	*	2.052E-01	7.056E-01	1.137E+00	1.676E-01	0.180
BA-133		53.15		1.336E+00	6.352E+00	1.079E+01	1.413E+00	0.124
		79.62		-8.593E-01	1.392E+00	2.013E+00	3.431E-01	-0.427
		81.00		-1.041E-01	1.189E-01	1.523E-01	2.691E-02	-0.683
		276.40		2.310E-01	3.599E-01	6.061E-01	8.103E-02	0.381
		302.84		3.064E-02	1.451E-01	2.184E-01	2.631E-02	0.140
		356.01	*	9.969E-04	4.625E-02	6.775E-02	7.937E-03	0.015
		383.85		-2.228E-01	2.854E-01	4.455E-01	4.829E-02	-0.500
I-133	+	510.53		1.349E+00	2.854E-01	Half-Life too short		
		529.87	*	-4.885E-03	2.854E-01	Half-Life too short		
		706.58		-1.385E-03	2.854E-01	Half-Life too short		
		856.28		1.161E-01	2.854E-01	Half-Life too short		
		875.33		1.023E-02	2.854E-01	Half-Life too short		
		1236.41		8.975E-01	2.854E-01	Half-Life too short		
		1298.22		4.652E-02	2.854E-01	Half-Life too short		
CS-134		475.35		-9.314E-01	1.733E+00	2.699E+00	1.526E-01	-0.345
		563.23		2.891E-01	3.413E-01	5.881E-01	3.268E-02	0.492
		569.32		-2.209E-01	1.925E-01	2.737E-01	1.529E-02	-0.807
		604.70		-2.961E-02	3.565E-02	4.438E-02	2.339E-03	-0.667
	+	795.84	*	9.597E-02	5.712E-02	9.481E-02	6.390E-03	1.012
		801.93		-2.668E-01	4.099E-01	6.207E-01	4.227E-02	-0.430
		1038.57		-4.961E-01	3.779E+00	6.056E+00	4.439E-01	-0.082
		1167.94		3.705E-01	2.255E+00	3.701E+00	2.224E-01	0.100
		1365.15		-8.980E-01	1.100E+00	1.596E+00	1.171E-01	-0.563
I-135		288.45		-3.602E+08	1.100E+00	Half-Life too short		
		417.63		1.848E+10	1.100E+00	Half-Life too short		
		546.56		2.873E+09	1.100E+00	Half-Life too short		
		836.80		-4.710E+08	1.100E+00	Half-Life too short		
		1038.76		2.302E+09	1.100E+00	Half-Life too short		
		1124.00		2.279E+10	1.100E+00	Half-Life too short		
		1131.51		-1.154E+09	1.100E+00	Half-Life too short		
		1260.41	*	-2.723E+09	1.100E+00	Half-Life too short		
		1457.56		5.222E+11	1.100E+00	Half-Life too short		
		1678.03		-6.557E+09	1.100E+00	Half-Life too short		

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		1706.46		-3.069E+10	1.100E+00	Half-Life too short		
		1791.20		2.170E+09	1.100E+00	Half-Life too short		
CS-136		66.91		-5.097E-01	9.058E-01	1.486E+00	2.575E-01	-0.343
	+	86.29		3.489E+00	1.371E+00	2.030E+00	3.094E-01	1.719
		153.22		8.350E-01	6.309E-01	1.079E+00	8.357E-02	0.774
		163.89		1.060E-01	9.914E-01	1.613E+00	1.244E-01	0.066
		176.55		-1.014E-01	3.537E-01	5.622E-01	3.967E-02	-0.180
		273.65		-5.769E-01	4.830E-01	6.561E-01	4.843E-02	-0.879
		340.57		3.240E-01	1.313E-01	2.257E-01	1.491E-02	1.435
		818.51		9.028E-02	7.067E-02	1.302E-01	9.115E-03	0.693
		1048.07	*	6.362E-02	1.000E-01	1.739E-01	1.336E-02	0.366
		1235.34		3.997E-01	6.946E-01	1.070E+00	1.101E-01	0.373
BA-137M		661.65	*	-2.854E-02	3.532E-02	5.628E-02	2.745E-03	-0.507
CS-137		661.65	*	-3.017E-02	3.734E-02	5.949E-02	2.919E-03	-0.507
CE-139		165.85	*	2.323E-03	2.727E-02	4.430E-02	2.815E-03	0.052
BA-140		162.64		4.582E-01	6.798E-01	1.136E+00	7.992E-02	0.403
		304.84		-5.984E-02	1.212E+00	1.882E+00	5.167E-01	-0.032
		423.70		1.860E+00	1.837E+00	3.078E+00	9.775E-01	0.604
		537.32	*	-6.501E-02	2.436E-01	3.831E-01	1.244E-01	-0.170
LA-140		328.77		5.214E-01	3.018E-01	5.438E-01	3.813E-02	0.959
		432.53		1.095E+00	1.792E+00	3.080E+00	1.937E-01	0.355
		487.03		-6.489E-02	1.277E-01	1.990E-01	1.278E-02	-0.326
		751.79		-7.822E-01	1.673E+00	2.677E+00	1.953E-01	-0.292
		815.85		2.666E-01	3.044E-01	5.441E-01	4.435E-02	0.490
		867.82		-3.918E-01	1.135E+00	1.795E+00	1.481E-01	-0.218
		919.63		7.030E-01	2.361E+00	4.008E+00	4.109E-01	0.175
		925.24		8.248E-04	9.583E-01	1.573E+00	1.364E-01	0.001
		1596.49	*	-1.058E-01	9.442E-02	1.272E-01	8.378E-03	-0.832
CE-141		145.44	*	3.870E-02	5.590E-02	9.391E-02	6.304E-03	0.412
CE-143		57.37		1.934E-03	5.590E-02	Half-Life too short		
		231.56		-3.370E-03	5.590E-02	Half-Life too short		
		293.26	*	7.008E-04	5.590E-02	Half-Life too short		
	+	350.59		3.403E-02	5.590E-02	Half-Life too short		
		490.36		1.344E-03	5.590E-02	Half-Life too short		
		664.57		-1.072E-03	5.590E-02	Half-Life too short		
		721.93		5.839E-04	5.590E-02	Half-Life too short		
CE-144		80.11		-1.018E+00	2.246E+00	3.289E+00	3.801E-01	-0.310
		133.54	*	-9.746E-03	2.110E-01	3.076E-01	4.483E-02	-0.032
PM-144		476.78		-3.522E-02	6.158E-02	9.557E-02	6.518E-03	-0.369
		618.01		-4.755E-03	3.039E-02	4.781E-02	2.653E-03	-0.099
		696.49	*	-7.987E-03	3.185E-02	5.232E-02	2.780E-03	-0.153
		778.57		8.469E-01	2.205E+00	3.789E+00	2.431E-01	0.224
PR-144		696.49	*	-5.413E-01	2.159E+00	3.546E+00	1.882E-01	-0.153
		1489.15		-1.734E+00	1.100E+01	1.769E+01	1.198E+00	-0.098
PM-146		453.90	*	1.086E-02	4.064E-02	6.782E-02	5.789E-03	0.160
		633.02		3.654E-01	1.287E+00	2.101E+00	7.713E-01	0.174
		735.90		-5.786E-02	1.402E-01	2.241E-01	6.250E-02	-0.258
		747.13		3.954E-02	8.260E-02	1.435E-01	1.806E-02	0.276
ND-147	+	91.11		5.814E-01	2.764E-01	4.650E-01	5.453E-02	1.250

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		319.41		1.491E+00	3.037E+00	5.227E+00	3.370E-01	0.285
		439.89		2.284E+00	5.424E+00	9.170E+00	5.204E-01	0.249
		531.02	*	9.806E-03	5.250E-01	8.509E-01	1.141E-01	0.012
PM-149		285.90	*	4.103E+01	8.133E+01	1.406E+02	2.043E+01	0.292
EU-152		121.78		-7.765E-02	6.799E-02	1.052E-01	8.968E-03	-0.738
		244.69		-3.076E-02	3.161E-01	4.400E-01	2.936E-02	-0.070
		344.27	*	8.660E-02	9.466E-02	1.499E-01	1.037E-02	0.578
		443.98		-9.002E-02	8.908E-01	1.449E+00	8.217E-02	-0.062
		778.89		1.035E-01	2.531E-01	4.358E-01	2.796E-02	0.238
		867.32		-4.430E-01	6.909E-01	1.015E+00	7.854E-02	-0.436
	+	964.01		8.300E-01	3.564E-01	6.087E-01	4.793E-02	1.364
		1085.78		9.682E-02	3.767E-01	6.280E-01	4.336E-02	0.154
		1112.02		2.804E-02	3.103E-01	4.603E-01	3.057E-02	0.061
		1407.95		4.958E-02	2.035E-01	3.467E-01	2.372E-02	0.143
GD-153		69.67		1.926E-01	2.091E+00	3.169E+00	3.659E-01	0.061
		83.37		6.152E+00	1.660E+01	2.533E+01	2.965E+00	0.243
		97.43	*	-5.740E-02	8.402E-02	1.199E-01	1.177E-02	-0.479
		103.18		-1.094E-01	9.890E-02	1.549E-01	1.379E-02	-0.706
EU-154		123.07		6.419E-03	4.782E-02	7.904E-02	8.001E-03	0.081
		247.94		-1.004E-01	3.549E-01	5.216E-01	5.267E-02	-0.192
		591.81		-6.004E-01	6.137E-01	8.924E-01	8.466E-02	-0.673
		723.30		6.760E-04	1.741E-01	2.535E-01	1.765E-02	0.003
		756.87		8.768E-01	7.353E-01	1.338E+00	1.380E-01	0.656
		873.19		-1.298E-01	2.376E-01	3.644E-01	4.264E-02	-0.356
		996.32		-1.896E-01	3.672E-01	5.641E-01	9.769E-02	-0.336
		1004.76		-2.076E-01	2.107E-01	3.043E-01	3.318E-02	-0.682
		1274.45	*	-6.762E-03	1.164E-01	1.936E-01	1.899E-02	-0.035
EU-155		48.70		-2.904E+00	5.304E+00	8.806E+00	1.015E+00	-0.330
		60.01		-7.598E+00	6.556E+00	1.042E+01	1.266E+00	-0.729
	+	86.54		3.208E-01	1.224E-01	1.879E-01	2.250E-02	1.708
		105.31	*	4.408E-02	1.012E-01	1.705E-01	1.486E-02	0.259
TB-160	+	86.79		8.575E-01	3.269E-01	5.046E-01	6.021E-02	1.699
		197.04		1.502E-01	5.493E-01	8.843E-01	5.754E-02	0.170
		215.65		-5.278E-01	7.458E-01	1.143E+00	7.536E-02	-0.462
	+	298.57		2.694E-01	1.175E-01	1.826E-01	1.200E-02	1.475
		879.36	*	-5.007E-02	1.158E-01	1.810E-01	1.435E-02	-0.277
		962.29		9.545E-01	6.426E-01	1.058E+00	8.340E-02	0.902
		966.15		1.115E+00	2.661E-01	5.243E-01	4.121E-02	2.127
		1177.93		-7.514E-03	4.101E-01	6.141E-01	3.669E-02	-0.012
		1271.85		-6.493E-02	6.765E-01	1.120E+00	7.295E-02	-0.058
HO-166M		80.57		-3.074E-01	3.010E-01	4.249E-01	4.917E-02	-0.724
		184.41		6.585E-02	3.908E-02	6.122E-02	3.943E-03	1.076
		280.46		-2.981E-02	7.839E-02	1.295E-01	8.607E-03	-0.230
		410.95		1.289E-01	2.323E-01	3.965E-01	2.242E-02	0.325
		711.68	*	1.642E-02	5.701E-02	9.770E-02	5.377E-03	0.168
		752.31		-7.415E-02	2.653E-01	4.318E-01	2.611E-02	-0.172
		810.29		-5.386E-03	5.223E-02	8.573E-02	5.890E-03	-0.063
TM-171		51.35		-1.797E+01	5.803E+01	9.733E+01	1.260E+01	-0.185
		52.39		9.302E+00	2.903E+01	4.954E+01	6.479E+00	0.188

---- Non-Identified Nuclides ----

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		59.40		-8.750E+00	3.503E+01	5.864E+01	7.151E+00	-0.149
		66.72	*	-1.608E+01	3.285E+01	5.422E+01	6.339E+00	-0.296
LU-176	+	88.36		6.318E-01	2.408E-01	3.512E-01	4.186E-02	1.799
		201.83		6.461E-03	2.796E-02	4.524E-02	2.955E-03	0.143
		306.84	*	-1.122E-02	2.172E-02	3.528E-02	2.303E-03	-0.318
		401.10		-3.989E+00	6.422E+00	9.915E+00	5.593E-01	-0.402
LU-177		112.95		-1.075E+00	1.561E+00	2.495E+00	1.932E-01	-0.431
	+	208.36	*	2.799E+00	1.248E+00	1.954E+00	1.282E-01	1.432
LU-177M		52.97		9.995E-01	2.909E+00	4.968E+00	6.505E-01	0.201
		54.07		-8.414E-01	1.482E+00	2.425E+00	3.162E-01	-0.347
		61.30		-2.003E+00	1.890E+00	3.025E+00	3.650E-01	-0.662
		121.62		-3.636E-01	3.453E-01	5.379E-01	3.746E-02	-0.676
		147.16		2.586E-01	5.709E-01	9.493E-01	6.159E-02	0.272
		171.86		1.698E-01	4.462E-01	7.340E-01	4.681E-02	0.231
		218.09		6.757E-01	8.267E-01	1.372E+00	9.058E-02	0.493
	+	268.79		3.089E+00	1.361E+00	1.474E+00	9.829E-02	2.096
		319.02		1.238E-01	2.389E-01	4.116E-01	2.654E-02	0.301
		367.43		-4.983E-01	8.504E-01	1.355E+00	8.082E-02	-0.368
		413.65	*	-1.450E-01	1.628E-01	2.503E-01	1.416E-02	-0.579
HF-181		56.28		4.008E-01	1.466E+00	2.516E+00	3.207E-01	0.159
		57.53		7.953E-01	7.534E-01	1.323E+00	1.659E-01	0.601
		65.20		-1.154E+00	1.134E+00	1.822E+00	2.148E-01	-0.633
		133.02		-1.796E-02	6.791E-02	9.771E-02	6.521E-03	-0.184
		136.25		-1.954E-02	4.267E-01	6.961E-01	4.609E-02	-0.028
		345.85		9.659E-02	1.907E-01	2.921E-01	1.814E-02	0.331
		482.03	*	-2.075E-02	4.086E-02	6.265E-02	3.537E-03	-0.331
W-181		56.28		1.566E-01	5.734E-01	9.839E-01	1.254E-01	0.159
		57.53		3.116E-01	2.949E-01	5.182E-01	6.494E-02	0.601
		65.20	*	-4.482E-01	4.405E-01	7.076E-01	8.340E-02	-0.633
TA-182		67.75		8.101E-03	1.258E-01	2.126E-01	2.473E-02	0.038
		100.10		1.123E-01	1.668E-01	2.840E-01	2.659E-02	0.395
		152.43		2.377E-01	3.194E-01	5.357E-01	3.451E-02	0.444
		222.10		-8.543E-02	3.365E-01	5.278E-01	3.493E-02	-0.162
		1001.68		-1.510E+00	1.880E+00	2.761E+00	2.104E-01	-0.547
	+	1121.28		6.410E-01	3.133E-01	3.497E-01	2.288E-02	1.833
		1189.05		-5.491E-02	3.349E-01	5.298E-01	3.199E-02	-0.104
		1221.42	*	5.688E-02	1.799E-01	3.108E-01	1.934E-02	0.183
		1230.97		6.563E-02	4.349E-01	7.251E-01	4.552E-02	0.091
RE-183		57.98		7.970E-02	2.871E-01	4.922E-01	6.129E-02	0.162
		59.32		-2.806E-02	1.449E-01	2.433E-01	2.970E-02	-0.115
		67.20		-3.292E-02	2.262E-01	3.791E-01	4.422E-02	-0.087
		162.32	*	6.406E-02	1.005E-01	1.677E-01	1.068E-02	0.382
	+	208.81		2.499E+00	1.115E+00	1.745E+00	1.146E-01	1.432
		291.72		1.514E-01	9.100E-01	1.368E+00	9.038E-02	0.111
RE-184		57.98		2.936E-01	1.058E+00	1.813E+00	2.257E-01	0.162
		59.32		-1.033E-01	5.334E-01	8.954E-01	1.093E-01	-0.115
		67.20		-1.212E-01	8.329E-01	1.396E+00	1.628E-01	-0.087
		161.27		6.008E-02	3.224E-01	5.272E-01	3.363E-02	0.114
		216.55		-3.196E-02	2.594E-01	4.106E-01	2.709E-02	-0.078

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		252.85	*	-1.389E-01	2.074E-01	3.394E-01	2.266E-02	-0.409
		318.01		2.290E-01	4.048E-01	6.999E-01	4.518E-02	0.327
		792.07		1.707E-01	1.027E+00	1.514E+00	1.000E-01	0.113
		903.28		-1.416E-01	1.139E+00	1.594E+00	1.308E-01	-0.089
		920.93		2.796E-01	3.708E-01	6.610E-01	5.367E-02	0.423
OS-185		59.72		-2.375E-01	3.837E-01	6.299E-01	7.662E-02	-0.377
		61.14		-2.233E-01	2.091E-01	3.346E-01	4.041E-02	-0.667
		69.30		-3.042E-02	3.518E-01	5.610E-01	6.487E-02	-0.054
		592.07		-2.778E+00	2.511E+00	3.613E+00	1.914E-01	-0.769
		646.12	*	-1.636E-02	3.820E-02	6.206E-02	3.094E-03	-0.264
		717.42		1.658E-02	8.142E-01	1.365E+00	7.615E-02	0.012
		874.81		-1.437E-03	4.832E-01	7.965E-01	6.258E-02	-0.002
		880.27		-1.740E-02	6.753E-01	1.110E+00	8.815E-02	-0.016
RE-188		155.03	*	1.198E-01	1.648E-01	2.759E-01	1.772E-02	0.434
		477.96		-3.789E-01	2.749E+00	4.430E+00	2.503E-01	-0.086
		633.10		8.306E-01	2.597E+00	4.276E+00	2.167E-01	0.194
W-188		63.58		8.367E+01	6.481E+01	1.131E+02	1.346E+01	0.740
		227.08		3.146E+00	1.247E+01	2.008E+01	1.332E+00	0.157
		290.67	*	-3.669E+00	7.491E+00	1.069E+01	7.063E-01	-0.343
IR-192	+	295.96		1.172E+00	1.758E-01	2.890E-01	1.926E-02	4.056
		308.46		-2.480E-02	8.539E-02	1.407E-01	9.256E-03	-0.176
		316.51	*	-2.682E-02	3.276E-02	5.215E-02	3.386E-03	-0.514
		468.07		-3.935E-02	7.094E-02	9.508E-02	6.243E-03	-0.414
		604.41		-3.664E-01	4.744E-01	5.928E-01	6.563E-02	-0.618
		612.46		5.357E-01	7.339E-01	1.113E+00	7.924E-02	0.481
AU-195		65.12		-1.858E-01	2.051E-01	3.317E-01	3.911E-02	-0.560
		66.83		-5.623E-02	1.082E-01	1.784E-01	2.084E-02	-0.315
	+	75.70		1.284E+00	3.167E-01	4.979E-01	5.703E-02	2.579
		98.88	*	2.970E-01	2.105E-01	3.670E-01	3.509E-02	0.809
	+	129.76		5.459E+00	4.402E+00	4.793E+00	3.228E-01	1.139
TL-200		367.94	*	-2.242E-04	4.402E+00	Half-Life too short		
		579.30		1.404E-03	4.402E+00	Half-Life too short		
		828.27		7.974E-04	4.402E+00	Half-Life too short		
		1205.75		-8.490E-04	4.402E+00	Half-Life too short		
TL-201		68.90		-7.851E-01	5.681E+00	9.086E+00	1.052E+00	-0.086
		70.82		1.754E+00	3.289E+00	5.085E+00	5.852E-01	0.345
		80.30		-1.804E+00	5.412E+00	7.984E+00	9.230E-01	-0.226
		135.34		5.679E+00	2.376E+01	3.927E+01	2.605E+00	0.145
		167.43	*	2.846E+00	6.344E+00	1.049E+01	6.666E-01	0.271
TL-202		68.90		-6.976E-02	5.047E-01	8.073E-01	9.347E-02	-0.086
		70.82		1.554E-01	2.914E-01	4.505E-01	5.185E-02	0.345
		80.30		-1.599E-01	4.797E-01	7.076E-01	8.181E-02	-0.226
		439.56	*	-3.226E-03	6.542E-02	1.069E-01	6.063E-03	-0.030
HG-203		70.83		6.684E-01	1.261E+00	1.946E+00	3.035E-01	0.344
		72.87		4.106E-01	7.221E-01	1.117E+00	1.699E-01	0.368
		82.60		6.729E-01	1.205E+00	1.853E+00	2.934E-01	0.363
		279.20	*	4.054E-03	3.780E-02	6.412E-02	4.464E-03	0.063
BI-207		72.80		1.044E-01	2.110E-01	3.259E-01	3.737E-02	0.320
	+	74.97		7.119E-01	1.756E-01	2.474E-01	2.833E-02	2.878

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		84.90		3.470E-02	2.057E-01	3.109E-01	3.668E-02	0.112
		569.67		-2.799E-02	2.967E-02	4.309E-02	2.327E-03	-0.650
		1063.62	*	-2.445E-02	5.412E-02	8.359E-02	5.945E-03	-0.293
		1770.23		-2.969E-01	6.057E-01	7.290E-01	4.429E-02	-0.407
TL-207		81.07		-2.282E-01	2.604E-01	3.360E-01	3.895E-02	-0.679
		83.78		5.817E-02	1.409E-01	2.153E-01	2.525E-02	0.270
		94.90		1.279E-01	2.276E-01	3.494E-01	3.600E-02	0.366
		122.32		-8.585E-01	1.625E+00	2.603E+00	2.002E-01	-0.330
		144.24		-3.246E-02	5.933E-01	9.645E-01	7.543E-02	-0.034
		154.21		1.402E-01	3.846E-01	6.344E-01	4.784E-02	0.221
	+	269.46		7.230E-01	3.188E-01	3.567E-01	2.460E-02	2.027
		323.87	*	-5.757E-01	6.487E-01	1.018E+00	1.705E-01	-0.565
	+	338.28		7.373E+00	2.038E+00	2.527E+00	2.731E-01	2.918
		445.03		-8.312E-01	2.138E+00	3.396E+00	3.463E-01	-0.245
PO-209		260.50		-3.619E+00	8.757E+00	1.451E+01	9.692E-01	-0.249
		262.80		1.383E+01	2.438E+01	4.122E+01	2.752E+00	0.336
		896.60	*	-1.059E+00	7.159E+00	1.160E+01	9.522E-01	-0.091
BI-210		46.50	*	5.681E+00	9.156E+00	1.567E+01	1.365E+00	0.363
PB-210		46.50	*	5.681E+00	9.156E+00	1.567E+01	1.365E+00	0.363
PO-210		46.50	*	5.681E+00	9.153E+00	1.567E+01	1.217E+00	0.363
PB-211		404.84	*	-5.860E-02	8.837E-01	1.449E+00	9.034E-01	-0.040
		427.08		-3.304E-01	1.883E+00	3.034E+00	1.875E+00	-0.109
		831.96		-6.472E-01	1.254E+00	1.867E+00	1.167E+00	-0.347
BI-212	+	727.18	*	1.005E+00	3.771E-01	6.120E-01	4.678E-02	1.643
		785.46		9.754E-01	1.777E+00	3.083E+00	2.007E-01	0.316
		1620.62		1.026E+00	1.101E+00	2.099E+00	1.370E-01	0.489
PO-215		81.07		-2.282E-01	2.604E-01	3.360E-01	3.895E-02	-0.679
		83.78		5.817E-02	1.409E-01	2.153E-01	2.525E-02	0.270
		94.90		1.279E-01	2.276E-01	3.494E-01	3.600E-02	0.366
		122.32		-8.585E-01	1.625E+00	2.603E+00	2.002E-01	-0.330
		144.24		-3.246E-02	5.933E-01	9.645E-01	7.543E-02	-0.034
		154.21		1.402E-01	3.846E-01	6.344E-01	4.784E-02	0.221
	+	269.46		7.230E-01	3.188E-01	3.567E-01	2.460E-02	2.027
		323.87	*	-5.757E-01	6.487E-01	1.018E+00	1.705E-01	-0.565
	+	338.28		7.373E+00	2.038E+00	2.527E+00	2.731E-01	2.918
		445.03		-8.312E-01	2.138E+00	3.396E+00	3.463E-01	-0.245
RN-219		271.23		5.367E-01	2.646E-01	4.388E-01	3.837E-02	1.223
		401.81	*	-2.302E-01	3.997E-01	6.179E-01	8.365E-02	-0.373
RN-220		549.76	*	-1.694E+01	2.390E+01	3.599E+01	1.972E+00	-0.471
RA-223		81.07		-2.282E-01	2.604E-01	3.360E-01	3.895E-02	-0.679
		83.78		5.817E-02	1.409E-01	2.153E-01	2.525E-02	0.270
		94.90		1.279E-01	2.276E-01	3.494E-01	3.600E-02	0.366
		122.32		-8.585E-01	1.625E+00	2.603E+00	2.002E-01	-0.330
		144.24		-3.246E-02	5.933E-01	9.645E-01	7.543E-02	-0.034
		154.21		1.402E-01	3.846E-01	6.344E-01	4.784E-02	0.221
	+	269.46		7.230E-01	3.188E-01	3.567E-01	2.460E-02	2.027
		323.87	*	-5.757E-01	6.487E-01	1.018E+00	1.705E-01	-0.565
	+	338.28		7.373E+00	2.038E+00	2.527E+00	2.731E-01	2.918
		445.03		-8.312E-01	2.138E+00	3.396E+00	3.463E-01	-0.245

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		79.80		-1.125E+00	1.770E+00	2.542E+00	5.803E-01	-0.443
		236.00		2.713E-01	2.584E-01	3.867E-01	4.234E-02	0.702
		256.20	*	5.181E-02	3.335E-01	5.698E-01	8.175E-02	0.091
		286.10		6.151E-01	1.337E+00	2.308E+00	2.768E-01	0.267
	+	299.80		3.429E+00	1.584E+00	2.484E+00	4.117E-01	1.380
		304.40		1.026E+00	1.845E+00	2.840E+00	4.987E-01	0.361
		334.20		3.914E-01	2.513E+00	3.729E+00	6.901E-01	0.105
TH-227		79.80		-1.125E+00	1.770E+00	2.542E+00	5.869E-01	-0.443
	+	94.00		7.896E+00	3.222E+00	3.446E+00	7.783E-01	2.292
		236.00		2.713E-01	2.580E-01	3.867E-01	3.723E-02	0.702
		256.20	*	5.181E-02	3.335E-01	5.698E-01	9.812E-02	0.091
		286.10		6.151E-01	1.470E+00	2.308E+00	2.313E+00	0.267
	+	299.80		3.429E+00	1.584E+00	2.484E+00	4.117E-01	1.380
		304.40		1.026E+00	1.845E+00	2.840E+00	4.987E-01	0.361
		334.20		3.914E-01	2.513E+00	3.729E+00	6.901E-01	0.105
TH-229		85.43		1.454E-01	2.056E-01	3.175E-01	3.758E-02	0.458
	+	88.47		3.637E-01	1.386E-01	2.006E-01	2.385E-02	1.813
		100.00		1.286E-01	1.737E-01	2.965E-01	2.781E-02	0.434
		193.63	*	-1.550E-01	5.007E-01	7.907E-01	5.132E-02	-0.196
		210.97		3.213E-01	8.136E-01	1.185E+00	7.792E-02	0.271
PA-231		283.67	*	-1.959E+00	1.354E+00	2.038E+00	2.884E-01	-0.962
	+	301.29		1.371E+00	6.101E-01	1.024E+00	1.115E-01	1.339
TH-231		81.07		-2.282E-01	2.604E-01	3.360E-01	3.895E-02	-0.679
		83.78		5.817E-02	1.409E-01	2.153E-01	2.525E-02	0.270
		94.90		1.279E-01	2.276E-01	3.494E-01	3.600E-02	0.366
		122.32		-8.585E-01	1.625E+00	2.603E+00	2.002E-01	-0.330
		144.24		-3.246E-02	5.933E-01	9.645E-01	7.543E-02	-0.034
		154.21		1.402E-01	3.846E-01	6.344E-01	4.784E-02	0.221
	+	269.46		7.230E-01	3.188E-01	3.567E-01	2.460E-02	2.027
		323.87	*	-5.757E-01	6.487E-01	1.018E+00	1.705E-01	-0.565
	+	338.28		7.373E+00	2.038E+00	2.527E+00	2.731E-01	2.918
		445.03		-8.312E-01	2.138E+00	3.396E+00	3.463E-01	-0.245
U-231		84.21		1.680E+00	6.077E+00	9.232E+00	1.085E+00	0.182
	+	92.29		7.890E+00	2.806E+00	3.795E+00	4.129E-01	2.079
		95.87	*	-8.510E-01	1.087E+00	1.538E+00	1.555E-01	-0.553
		108.00		-2.029E+00	1.999E+00	3.148E+00	2.606E-01	-0.645
PA-233	+	75.28		2.077E+01	5.764E+00	7.330E+00	1.254E+00	2.834
	+	86.59		5.215E+00	2.388E+00	3.056E+00	8.572E-01	1.707
	+	300.12		9.558E-01	4.328E-01	7.036E-01	9.699E-02	1.359
		311.98	*	1.638E-02	5.839E-02	9.945E-02	6.782E-03	0.165
		340.50		1.753E+00	7.538E-01	1.122E+00	2.590E-01	1.563
		398.62		1.233E+00	1.961E+00	3.331E+00	8.600E-01	0.370
		415.76		4.072E-01	1.450E+00	2.433E+00	5.000E-01	0.167
PA-234		63.00		1.362E+00	1.942E+00	3.330E+00	5.851E-01	0.409
		94.67		1.786E-01	1.686E-01	2.630E-01	3.594E-02	0.679
		98.44		1.000E-01	1.023E-01	1.491E-01	8.345E-02	0.670
		99.86		3.672E-01	4.422E-01	7.571E-01	7.116E-02	0.485
		111.00		1.327E-01	1.749E-01	2.969E-01	3.449E-02	0.447
		131.20		1.523E-02	1.079E-01	1.594E-01	1.069E-02	0.096

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		152.70		3.595E-01	3.101E-01	5.212E-01	8.368E-02	0.690
	+	186.00		5.618E+00	2.665E+00	2.494E+00	7.653E-01	2.253
		226.40		-2.663E-01	4.061E-01	6.204E-01	7.445E-02	-0.429
		227.20		1.326E-01	4.221E-01	6.820E-01	4.525E-02	0.194
		248.90		5.983E-01	7.795E-01	1.273E+00	2.767E-01	0.470
		293.70		5.167E+00	1.199E+00	1.649E+00	2.702E-01	3.133
		369.80		9.268E-02	7.351E-01	1.230E+00	2.565E-01	0.075
		568.70		-1.241E+00	9.857E-01	1.387E+00	7.497E-02	-0.895
		569.50		-2.660E-01	2.638E-01	3.804E-01	2.055E-02	-0.699
		574.00		7.996E-01	1.424E+00	2.399E+00	1.292E-01	0.333
		699.00		-2.328E-01	6.617E-01	1.076E+00	1.919E-01	-0.216
		706.10		5.494E-02	1.041E+00	1.750E+00	7.715E-01	0.031
		733.00		1.562E-02	3.809E-01	5.820E-01	1.237E-01	0.027
		742.81		-4.194E-01	1.285E+00	2.030E+00	1.358E+00	-0.207
	+	796.30		1.865E+00	1.208E+00	1.854E+00	4.913E-01	1.006
		805.60		-1.940E-02	9.833E-01	1.629E+00	4.917E-01	-0.012
		819.60		8.320E-01	1.239E+00	2.111E+00	7.958E-01	0.394
		826.30		2.587E-01	7.620E-01	1.289E+00	5.733E-01	0.201
		831.60		-1.572E-01	6.077E-01	9.791E-01	2.885E-01	-0.161
		876.40		-7.983E-03	6.410E-01	1.055E+00	1.084E+00	-0.008
		880.51		1.982E-02	2.470E-01	4.105E-01	3.263E-02	0.048
		883.24		1.678E-01	2.805E-01	4.520E-01	3.035E-01	0.371
		899.00		5.992E-01	8.364E-01	1.404E+00	6.125E-01	0.427
		925.00		-2.397E-01	1.019E+00	1.626E+00	1.317E-01	-0.147
		926.50		-9.110E-02	1.622E-01	2.285E-01	5.736E-02	-0.399
		946.00	*	1.486E-02	3.016E-01	4.966E-01	9.176E-02	0.030
		949.00		6.167E-02	4.604E-01	7.639E-01	6.085E-02	0.081
		980.50		-1.302E-01	6.749E-01	1.078E+00	8.377E-02	-0.121
		1394.10		-2.412E-01	9.804E-01	1.541E+00	9.998E-01	-0.157
PA-234M	+	766.42		2.528E+01	2.126E+01	2.127E+01	1.072E+01	1.188
		1001.03	*	-1.455E+00	4.166E+00	6.483E+00	5.911E-01	-0.224
TH-234		63.29	*	1.383E+00	1.656E+00	2.836E+00	5.611E-01	0.488
	+	92.38		2.043E+00	7.959E-01	9.863E-01	1.899E-01	2.072
U-235	+	89.95		2.305E+00	1.289E+00	1.826E+00	5.802E-01	1.262
	+	93.35		2.457E+00	1.092E+00	1.174E+00	3.370E-01	2.093
		105.00		7.174E-01	9.980E-01	1.665E+00	4.970E-01	0.431
		143.76	*	-4.978E-02	1.877E-01	3.019E-01	5.004E-02	-0.165
		163.35		1.730E-01	4.351E-01	7.161E-01	1.301E-01	0.242
	+	185.71		2.081E-01	7.647E-02	9.205E-02	5.935E-03	2.261
		205.31		4.670E-02	5.595E-01	8.000E-01	1.459E-01	0.058
NP-236		94.67		1.372E-01	1.274E-01	1.997E-01	2.068E-02	0.687
		98.44		7.558E-02	6.515E-02	1.127E-01	1.087E-02	0.670
		111.00		1.004E-01	1.320E-01	2.246E-01	1.784E-02	0.447
		160.31	*	-7.055E-02	7.296E-02	1.124E-01	7.174E-03	-0.628
U-238		63.29	*	1.383E+00	1.656E+00	2.836E+00	5.611E-01	0.488
	+	92.38		2.043E+00	7.266E-01	9.863E-01	1.071E-01	2.072
NP-239		99.55		1.592E-01	1.475E-01	2.545E-01	2.405E-02	0.625
		117.00	*	-1.018E-01	1.744E-01	2.792E-01	2.055E-02	-0.365
	+	209.75		1.970E+00	8.787E-01	1.368E+00	8.988E-02	1.440

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		228.18		6.483E-02	2.271E-01	3.661E-01	2.430E-02	0.177
		277.60		1.431E-01	1.707E-01	2.993E-01	1.991E-02	0.478
		334.30		1.920E-01	1.422E+00	2.108E+00	1.333E-01	0.091
AM-241		59.54	*	-9.710E-02	2.029E-01	3.357E-01	4.238E-02	-0.289
CM-243		99.55		1.638E-01	1.517E-01	2.619E-01	2.475E-02	0.625
		103.76	*	-5.143E-02	9.027E-02	1.455E-01	1.283E-02	-0.353
		117.00		-1.048E-01	1.794E-01	2.873E-01	2.114E-02	-0.365
	+	209.75		1.942E+00	8.662E-01	1.349E+00	8.860E-02	1.440
		228.18		6.551E-02	2.295E-01	3.700E-01	2.456E-02	0.177
		277.60		1.442E-01	1.721E-01	3.018E-01	2.007E-02	0.478
AM-246		798.80		4.201E-02	1.538E-01	2.292E-01	1.536E-02	0.183
		1036.00		-2.901E-02	2.795E-01	4.493E-01	3.303E-02	-0.065
		1062.04		6.706E-02	2.312E-01	3.865E-01	2.754E-02	0.173
		1078.86	*	9.806E-02	1.292E-01	2.272E-01	1.584E-02	0.432
CM-247		278.00		8.342E-01	7.032E-01	1.251E+00	8.320E-02	0.667
		287.40		1.387E+00	1.081E+00	1.943E+00	1.286E-01	0.714
		402.60	*	-1.045E-02	3.453E-02	5.576E-02	3.147E-03	-0.187
CF-249		252.85		-5.210E-01	7.780E-01	1.273E+00	8.502E-02	-0.409
		333.44		3.996E-02	1.837E-01	2.741E-01	1.735E-02	0.146
		387.95	*	4.443E-02	3.734E-02	6.635E-02	3.770E-03	0.670
CF-251		176.60	*	-3.621E-02	1.215E-01	1.929E-01	1.235E-02	-0.188
		227.00		-2.494E-02	3.786E-01	5.993E-01	3.976E-02	-0.042
		285.00		-6.141E-01	1.516E+00	2.494E+00	1.654E-01	-0.246

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960011
Acquisition date : 12-FEB-2010 16:31:04 Detector SN# :
Detector ID : GAM04 Sensitivity : 5.000
Geometry : CAN Energy tolerance: 1.500
Elapsed live time: 0 02:00:00.00 Abundance limit : 75.000
Elapsed real time: 0 02:00:01.23 Half life ratio : 8.000

SAMPLE DATA

Sample date : 28-JAN-2010 12:00:00 Nuclide Library : SOLID
Sample ID : G245960011 Analyst initials: MXR1
Batch Number : 948717 Sample Quantity : 1.3202E+02 GRAM
Recovery : 1.00000 Carrier Weight : 0.00000

QC DATA

Standard Weight : 0.00000
CALIB. DATE/TIME : 5-MAY-2009 14:25:41 MS Isotope :
MSD DPM : 0.000 MSD Isotope :
LCS DPM : 0.000 LCS Isotope :
LCSD DPM : 0.000 LCSD Isotope :

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.978E+01	2.069E+00	6.031E-01	0.000E+00
CD-109	2.710E+00	1.012E+00	1.362E+00	0.000E+00
SN-126	2.664E-01	9.950E-02	1.349E-01	0.000E+00
CS-135	6.146E-01	2.671E-01	2.293E-01	0.000E+00
TL-208	5.040E-01	8.973E-02	5.570E-02	0.000E+00
BI-211	4.141E+00	5.246E-01	3.033E-01	0.000E+00
PB-212	1.646E+00	1.698E-01	8.651E-02	0.000E+00
PO-212	1.646E+00	1.698E-01	8.651E-02	0.000E+00
BI-214	1.201E+00	1.612E-01	1.032E-01	0.000E+00
PB-214	1.440E+00	1.968E-01	1.057E-01	0.000E+00
PO-214	1.440E+00	1.968E-01	1.057E-01	0.000E+00
PO-216	1.646E+00	1.698E-01	8.651E-02	0.000E+00
PO-218	1.440E+00	1.968E-01	1.057E-01	0.000E+00
RA-224	4.640E+00	1.281E+00	9.846E-01	0.000E+00
RA-226	1.201E+00	1.612E-01	1.032E-01	0.000E+00
AC-228	1.679E+00	3.248E-01	1.935E-01	0.000E+00
RA-228	1.679E+00	3.248E-01	1.935E-01	0.000E+00
TH-228	1.671E+00	1.723E-01	8.783E-02	0.000E+00
TH-230	1.201E+00	1.612E-01	1.032E-01	0.000E+00
TH-232	1.679E+00	3.248E-01	1.935E-01	0.000E+00
U-234	1.201E+00	1.612E-01	1.032E-01	0.000E+00
NP-237	7.822E-01	3.323E-01	4.036E-01	0.000E+00
AM-243	3.966E-01	9.587E-02	9.725E-02	0.000E+00
ANH-511	1.252E-01	5.791E-02	4.330E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Ided)	Act error	MDA (pCi/GRAM)	
BE-7	-9.219E-03		2.758E-01	4.672E-01	0.000E+00 NOT IDENT.
NA-22	2.021E-03		4.038E-02	6.957E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00		7.242E+05	0.000E+00	0.000E+00 SHORT HLIF

AL-26	1.012E-02	2.226E-02	4.111E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	7.021E-02	8.508E-02	0.000E+00	FAIL ABUN
SC-46	1.139E-02	3.246E-02	5.719E-02	0.000E+00	FAIL ABUN
V-48	-1.522E-02	6.320E-02	1.033E-01	0.000E+00	NOT IDENT.
CR-51	-9.286E-02	3.396E-01	5.866E-01	0.000E+00	NOT IDENT.
MN-52	-1.338E-01	2.328E-01	3.673E-01	0.000E+00	FAIL ABUN
MN-54	2.098E-02	3.417E-02	6.143E-02	0.000E+00	NOT IDENT.
CO-56	-3.697E-02	3.468E-02	5.227E-02	0.000E+00	FAIL ABUN
CO-57	-2.169E-02	2.313E-02	3.870E-02	0.000E+00	NOT IDENT.
CO-58	1.051E-03	3.416E-02	5.866E-02	0.000E+00	NOT IDENT.
FE-59	-5.828E-02	8.648E-02	1.331E-01	0.000E+00	NOT IDENT.
CO-60	3.031E-03	3.687E-02	6.354E-02	0.000E+00	NOT IDENT.
ZN-65	2.872E-02	9.427E-02	1.412E-01	0.000E+00	NOT IDENT.
GE-68	6.918E-01	1.104E+00	1.967E+00	0.000E+00	NOT IDENT.
AS-73	-2.584E-01	1.418E+00	2.556E+00	0.000E+00	NOT IDENT.
AS-74	9.417E-02	8.802E-02	1.592E-01	0.000E+00	NOT IDENT.
SE-75	-2.928E-03	4.261E-02	6.666E-02	0.000E+00	NOT IDENT.
BR-77	-3.383E-01	1.008E+01	1.695E+01	0.000E+00	FAIL ABUN
SR-82	-1.625E-01	3.495E-01	5.754E-01	0.000E+00	NOT IDENT.
RB-83	-2.517E-02	6.660E-02	1.088E-01	0.000E+00	NOT IDENT.
RB-84	5.046E-02	5.740E-02	1.065E-01	0.000E+00	NOT IDENT.
KR-85	2.406E+00	7.362E+00	1.123E+01	0.000E+00	NOT IDENT.
SR-85	1.234E-02	3.777E-02	5.763E-02	0.000E+00	NOT IDENT.
RB-86	6.008E-01	6.707E-01	1.232E+00	0.000E+00	NOT IDENT.
Y-88	1.619E-02	2.955E-02	5.457E-02	0.000E+00	NOT IDENT.
ZR-88	-2.234E-02	2.707E-02	4.394E-02	0.000E+00	NOT IDENT.
Y-91	2.821E+00	1.868E+01	3.122E+01	0.000E+00	NOT IDENT.
NB-94	1.075E-02	3.240E-02	5.756E-02	0.000E+00	NOT IDENT.
NB-95	5.883E-02	4.473E-02	7.634E-02	0.000E+00	NOT IDENT.
NB-95M	5.837E-02	1.339E-01	2.045E-01	0.000E+00	NOT IDENT.
ZR-95	8.186E-02	6.813E-02	1.281E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.570E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.883E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	8.961E-01	1.027E+01	1.787E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.215E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-4.510E-03	3.191E-02	5.321E-02	0.000E+00	NOT IDENT.
RH-102	3.026E-03	2.526E-02	4.334E-02	0.000E+00	FAIL ABUN
RU-103	3.623E-02	3.751E-02	6.780E-02	0.000E+00	FAIL ABUN
RH-106	-2.964E-03	2.859E-01	4.737E-01	0.000E+00	FAIL ABUN
RU-106	-2.964E-03	2.859E-01	4.737E-01	0.000E+00	FAIL ABUN
AG-108M	-1.052E-02	2.916E-02	4.856E-02	0.000E+00	NOT IDENT.
AG-110M	-3.453E-04	3.218E-02	5.610E-02	0.000E+00	NOT IDENT.
IN-111	-4.445E-01	1.026E+00	1.458E+00	0.000E+00	NOT IDENT.
IN-113M	-2.913E-02	3.949E-02	6.461E-02	0.000E+00	NOT IDENT.
SN-113	-2.913E-02	3.949E-02	6.461E-02	0.000E+00	NOT IDENT.
IN-114M	8.535E-02	1.960E-01	3.044E-01	0.000E+00	NOT IDENT.
CD-115	1.142E+01	1.046E+01	1.909E+01	0.000E+00	NOT IDENT.
SN-117M	-3.861E-05	4.801E-02	8.262E-02	0.000E+00	NOT IDENT.
SB-122	1.941E+00	2.003E+00	3.606E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.568E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.431E-02	2.514E-02	4.202E-02	0.000E+00	NOT IDENT.
I-124	4.576E-02	6.766E-01	9.897E-01	0.000E+00	NOT IDENT.
SB-124	6.722E-02	7.398E-02	1.426E-01	0.000E+00	FAIL ABUN
SB-125	-1.036E-01	8.291E-02	1.282E-01	0.000E+00	FAIL ABUN
TE-125M	3.134E-01	8.568E+00	1.513E+01	0.000E+00	NOT IDENT.
I-126	-8.576E-02	1.590E-01	2.648E-01	0.000E+00	NOT IDENT.
SB-126	1.172E-02	1.408E-01	2.238E-01	0.000E+00	FAIL ABUN
SB-127	4.407E-01	1.185E+00	2.123E+00	0.000E+00	NOT IDENT.
XE-127	2.235E-02	4.410E-02	7.638E-02	0.000E+00	NOT IDENT.
I-131	9.613E-02	1.065E-01	1.950E-01	0.000E+00	NOT IDENT.
TE-132	2.052E-01	6.915E-01	1.175E+00	0.000E+00	NOT IDENT.
BA-133	9.969E-04	4.533E-02	6.951E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.155E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.598E-02	9.594E-02	0.000E+00	FAIL ABUN
I-135	0.000E+00	5.976E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	6.362E-02	9.805E-02	1.752E-01	0.000E+00	FAIL ABUN
BA-137M	-2.854E-02	3.462E-02	5.714E-02	0.000E+00	NOT IDENT.
CS-137	-3.017E-02	3.659E-02	6.040E-02	0.000E+00	NOT IDENT.
CE-139	2.323E-03	2.672E-02	4.603E-02	0.000E+00	NOT IDENT.
BA-140	-6.501E-02	2.387E-01	3.903E-01	0.000E+00	NOT IDENT.
LA-140	-1.058E-01	9.254E-02	1.272E-01	0.000E+00	NOT IDENT.
CE-141	3.870E-02	5.478E-02	9.779E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.165E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.746E-03	2.067E-01	3.207E-01	0.000E+00	NOT IDENT.
PM-144	-7.987E-03	3.122E-02	5.307E-02	0.000E+00	NOT IDENT.
PR-144	-5.413E-01	2.115E+00	3.597E+00	0.000E+00	NOT IDENT.
PM-146	1.086E-02	3.983E-02	6.930E-02	0.000E+00	NOT IDENT.
ND-147	9.806E-03	5.145E-01	8.671E-01	0.000E+00	FAIL ABUN

PM-149	4.103E+01	7.971E+01	1.447E+02	0.000E+00	NOT IDENT.
EU-152	8.660E-02	9.277E-02	1.539E-01	0.000E+00	FAIL ABUN
GD-153	-5.740E-02	8.234E-02	1.256E-01	0.000E+00	NOT IDENT.
EU-154	-6.762E-03	1.141E-01	1.943E-01	0.000E+00	NOT IDENT.
EU-155	4.408E-02	9.916E-02	1.784E-01	0.000E+00	FAIL ABUN
TB-160	-5.007E-02	1.135E-01	1.828E-01	0.000E+00	FAIL ABUN
HO-166M	1.642E-02	5.587E-02	9.906E-02	0.000E+00	NOT IDENT.
TM-171	-1.608E+01	3.219E+01	5.718E+01	0.000E+00	NOT IDENT.
LU-176	-1.122E-02	2.129E-02	3.629E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.223E+00	2.023E+00	0.000E+00	FAIL ABUN
LU-177M	-1.450E-01	1.595E-01	2.561E-01	0.000E+00	FAIL ABUN
HF-181	-2.075E-02	4.005E-02	6.395E-02	0.000E+00	NOT IDENT.
W-181	-4.482E-01	4.317E-01	7.464E-01	0.000E+00	NOT IDENT.
TA-182	5.688E-02	1.763E-01	3.122E-01	0.000E+00	FAIL ABUN
RE-183	6.406E-02	9.849E-02	1.743E-01	0.000E+00	FAIL ABUN
RE-184	-1.389E-01	2.033E-01	3.502E-01	0.000E+00	NOT IDENT.
OS-185	-1.636E-02	3.744E-02	6.303E-02	0.000E+00	NOT IDENT.
RE-188	1.198E-01	1.615E-01	2.870E-01	0.000E+00	NOT IDENT.
W-188	-3.669E+00	7.341E+00	1.100E+01	0.000E+00	NOT IDENT.
IR-192	-2.682E-02	3.210E-02	5.361E-02	0.000E+00	FAIL ABUN
AU-195	2.970E-01	2.063E-01	3.845E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.282E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.846E+00	6.217E+00	1.089E+01	0.000E+00	NOT IDENT.
TL-202	-3.226E-03	6.411E-02	1.093E-01	0.000E+00	NOT IDENT.
HG-203	4.054E-03	3.704E-02	6.605E-02	0.000E+00	NOT IDENT.
BI-207	-2.445E-02	5.304E-02	8.416E-02	0.000E+00	FAIL ABUN
TL-207	-5.757E-01	6.358E-01	1.046E+00	0.000E+00	FAIL ABUN
PO-209	-1.059E+00	7.015E+00	1.172E+01	0.000E+00	NOT IDENT.
BI-210	5.681E+00	8.973E+00	1.662E+01	0.000E+00	NOT IDENT.
PB-210	5.681E+00	8.973E+00	1.662E+01	0.000E+00	NOT IDENT.
PO-210	5.681E+00	8.970E+00	1.662E+01	0.000E+00	NOT IDENT.
PB-211	-5.860E-02	8.660E-01	1.484E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.696E-01	6.203E-01	0.000E+00	FAIL ABUN
PO-215	-5.757E-01	6.358E-01	1.046E+00	0.000E+00	FAIL ABUN
RN-219	-2.302E-01	3.917E-01	6.326E-01	0.000E+00	NOT IDENT.
RN-220	-1.694E+01	2.342E+01	3.665E+01	0.000E+00	NOT IDENT.
RA-223	-5.757E-01	6.358E-01	1.046E+00	0.000E+00	FAIL ABUN
AC-227	5.181E-02	3.268E-01	5.878E-01	0.000E+00	FAIL ABUN
TH-227	5.181E-02	3.268E-01	5.878E-01	0.000E+00	FAIL ABUN
TH-229	-1.550E-01	4.907E-01	8.195E-01	0.000E+00	FAIL ABUN
PA-231	-1.959E+00	1.327E+00	2.098E+00	0.000E+00	FAIL ABUN
TH-231	-5.757E-01	6.358E-01	1.046E+00	0.000E+00	FAIL ABUN
U-231	-8.510E-01	1.065E+00	1.612E+00	0.000E+00	FAIL ABUN
PA-233	1.638E-02	5.722E-02	1.023E-01	0.000E+00	FAIL ABUN
PA-234	1.486E-02	2.955E-01	5.010E-01	0.000E+00	FAIL ABUN
PA-234M	-1.455E+00	4.083E+00	6.535E+00	0.000E+00	FAIL ABUN
TH-234	1.383E+00	1.623E+00	2.993E+00	0.000E+00	FAIL ABUN
U-235	-4.978E-02	1.839E-01	3.144E-01	0.000E+00	FAIL ABUN
NP-236	-7.055E-02	7.150E-02	1.168E-01	0.000E+00	NOT IDENT.
U-238	1.383E+00	1.623E+00	2.993E+00	0.000E+00	FAIL ABUN
NP-239	-1.018E-01	1.709E-01	2.918E-01	0.000E+00	FAIL ABUN
AM-241	-9.710E-02	1.989E-01	3.546E-01	0.000E+00	NOT IDENT.
CM-243	-5.143E-02	8.847E-02	1.524E-01	0.000E+00	FAIL ABUN
AM-246	9.806E-02	1.266E-01	2.288E-01	0.000E+00	NOT IDENT.
CM-247	-1.045E-02	3.384E-02	5.709E-02	0.000E+00	NOT IDENT.
CF-249	4.443E-02	3.660E-02	6.797E-02	0.000E+00	NOT IDENT.
CF-251	-3.621E-02	1.190E-01	2.003E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:31:31.31

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960011.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:31:04
Sample ID : G245960011 Sample quantity : 1.32020E+02 GRAM
Detector name : GAM04 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.23 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	798	10.67*	1.075E+00	1.978E+01	1.978E+01	10.67
CD-109	88.03	174	3.72*	5.010E+00	2.649E+00	2.710E+00	38.12
SN-126	64.28	------	9.60	2.203E+00	------ Line Not Found		------
	86.94	174	8.90	5.010E+00	1.107E+00	1.107E+00	55.58
	87.57	174	37.00*	5.010E+00	2.664E-01	2.664E-01	38.12
CS-135	268.24	153	16.00*	4.418E+00	6.146E-01	6.146E-01	44.34
TL-208	277.35	------	6.80	4.326E+00	------ Line Not Found		------
	510.84	120	21.60	2.730E+00	5.797E-01	5.797E-01	47.92
	583.14	366	84.20*	2.455E+00	5.040E-01	5.040E-01	18.17
	860.37	39	12.46	1.744E+00	5.053E-01	5.053E-01	76.84
BI-211	72.87	------	1.27	3.384E+00	------ Line Not Found		------
	351.07	684	12.94*	3.627E+00	4.141E+00	4.141E+00	12.93
PB-212	74.81	335	10.70	3.635E+00	2.446E+00	2.446E+00	26.38
	77.11	550	18.00	3.927E+00	2.210E+00	2.210E+00	17.56
	87.30	174	8.00	5.010E+00	1.232E+00	1.232E+00	39.41
	238.63	1246	44.60*	4.826E+00	1.646E+00	1.646E+00	10.52
	300.09	91	3.41	4.084E+00	1.850E+00	1.850E+00	44.02
PO-212	74.81	335	10.70	3.635E+00	2.446E+00	2.446E+00	26.38
	77.11	550	18.00	3.927E+00	2.210E+00	2.210E+00	17.56
	87.30	174	8.00	5.010E+00	1.232E+00	1.232E+00	39.41
	115.19	------	0.60	6.408E+00	------ Line Not Found		------
	238.63	1246	44.60*	4.826E+00	1.646E+00	1.646E+00	10.52
	300.09	91	3.41	4.084E+00	1.850E+00	1.850E+00	44.02
BI-214	609.31	463	46.30*	2.368E+00	1.201E+00	1.201E+00	13.70
	1120.29	98	15.10	1.358E+00	1.355E+00	1.355E+00	49.33
	1764.49	74	15.80	9.530E-01	1.402E+00	1.402E+00	32.25
PB-214	74.81	335	6.21	3.635E+00	4.215E+00	4.215E+00	25.76
	77.11	550	10.50	3.927E+00	3.789E+00	3.789E+00	19.15
	87.30	174	4.67	5.010E+00	2.110E+00	2.110E+00	38.89
	241.98	308	7.49	4.783E+00	2.447E+00	2.447E+00	28.73
	295.21	428	19.20	4.132E+00	1.536E+00	1.536E+00	16.22
	351.92	684	37.20*	3.627E+00	1.440E+00	1.440E+00	13.94

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	74.81	335	6.21	3.635E+00	4.215E+00	4.215E+00	25.76
	77.11	550	10.50	3.927E+00	3.789E+00	3.789E+00	19.15
	87.30	174	4.67	5.010E+00	2.110E+00	2.110E+00	38.89
	241.98	308	7.49	4.783E+00	2.447E+00	2.447E+00	28.73
	295.21	428	19.20	4.132E+00	1.536E+00	1.536E+00	16.22
	351.92	684	37.20*	3.627E+00	1.440E+00	1.440E+00	13.94
PO-216	74.81	335	10.70	3.635E+00	2.446E+00	2.446E+00	26.38
	77.11	550	18.00	3.927E+00	2.210E+00	2.210E+00	17.56
	87.30	174	8.00	5.010E+00	1.232E+00	1.232E+00	39.41
	238.63	1246	44.60*	4.826E+00	1.646E+00	1.646E+00	10.52
	300.09	91	3.41	4.084E+00	1.850E+00	1.850E+00	44.02
PO-218	74.81	335	6.21	3.635E+00	4.215E+00	4.215E+00	25.76
	77.11	550	10.50	3.927E+00	3.789E+00	3.789E+00	19.15
	87.30	174	4.67	5.010E+00	2.110E+00	2.110E+00	38.89
	241.98	308	7.49	4.783E+00	2.447E+00	2.447E+00	28.73
	295.21	428	19.20	4.132E+00	1.536E+00	1.536E+00	16.22
	351.92	684	37.20*	3.627E+00	1.440E+00	1.440E+00	13.94
RA-224	240.98	308	3.95*	4.783E+00	4.640E+00	4.640E+00	28.18
RA-226	609.31	463	46.30*	2.368E+00	1.201E+00	1.201E+00	13.70
	1120.29	98	15.10	1.358E+00	1.355E+00	1.355E+00	49.33
	1764.49	74	15.80	9.530E-01	1.402E+00	1.402E+00	32.25
AC-228	338.32	264	11.40	3.733E+00	1.766E+00	1.766E+00	48.11
	911.07	270	27.70*	1.653E+00	1.679E+00	1.679E+00	19.74
	969.11	151	16.60	1.559E+00	1.656E+00	1.656E+00	31.96
RA-228	338.32	264	11.40	3.733E+00	1.766E+00	1.766E+00	48.11
	911.07	270	27.70*	1.653E+00	1.679E+00	1.679E+00	19.74
	969.11	151	16.60	1.559E+00	1.656E+00	1.656E+00	31.96
TH-228	74.81	335	10.70	3.635E+00	2.446E+00	2.484E+00	24.69
	77.11	550	18.00	3.927E+00	2.210E+00	2.244E+00	17.56
	87.30	174	8.00	5.010E+00	1.232E+00	1.251E+00	38.12
	238.63	1246	44.60*	4.826E+00	1.646E+00	1.671E+00	10.52
	300.09	91	3.41	4.084E+00	1.850E+00	1.878E+00	73.10
TH-230	609.31	463	46.30*	2.368E+00	1.201E+00	1.201E+00	13.70
	1120.29	98	15.10	1.358E+00	1.355E+00	1.355E+00	49.33
	1764.49	74	15.80	9.530E-01	1.402E+00	1.402E+00	32.25
TH-232	338.32	264	11.40	3.733E+00	1.766E+00	1.766E+00	26.21
	911.07	270	27.70*	1.653E+00	1.679E+00	1.679E+00	19.74
	969.11	151	16.60	1.559E+00	1.656E+00	1.656E+00	31.96
U-234	609.31	463	46.30*	2.368E+00	1.201E+00	1.201E+00	13.70
	1120.29	98	15.10	1.358E+00	1.355E+00	1.355E+00	49.33
	1764.49	74	15.80	9.530E-01	1.402E+00	1.402E+00	32.25
NP-237	86.50	174	12.60*	5.010E+00	7.822E-01	7.822E-01	43.35
	95.87	------	2.60	5.678E+00	------ Line Not Found		------
AM-243	74.67	335	66.00*	3.635E+00	3.966E-01	3.966E-01	24.67
	86.72	174	0.34	5.010E+00	2.933E+01	2.933E+01	38.12
	117.66	------	0.55	6.445E+00	------ Line Not Found		------
	142.18	------	0.13	6.417E+00	------ Line Not Found		------
ANH-511	511.00	120	100.00*	2.730E+00	1.252E-01	1.252E-01	47.19

Sample ID : G245960011 Acquisition date : 12-FEB-2010 16:31:04

Flag: "*" = Keyline

Sample ID : G245960011 Acquisition date : 12-FEB-2010 16:31:04

Total number of lines in spectrum	32	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	31	96.88%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.978E+01	1.978E+01	0.211E+01	10.67	
CD-109	464.00D	1.02	2.649E+00	2.710E+00	1.033E+00	38.12	
SN-126	1.00E+05Y	1.00	2.664E-01	2.664E-01	1.015E-01	38.12	
CS-135	2.30E+06Y	1.00	6.146E-01	6.146E-01	2.725E-01	44.34	
TL-208	1.41E+10Y	1.00	5.040E-01	5.040E-01	0.916E-01	18.17	
BI-211	7.04E+08Y	1.00	4.141E+00	4.141E+00	0.535E+00	12.93	
PB-212	1.41E+10Y	1.00	1.646E+00	1.646E+00	0.173E+00	10.52	
PO-212	1.41E+10Y	1.00	1.646E+00	1.646E+00	0.173E+00	10.52	
BI-214	1600.00Y	1.00	1.201E+00	1.201E+00	0.164E+00	13.70	
PB-214	1600.00Y	1.00	1.440E+00	1.440E+00	0.201E+00	13.94	
PO-214	1600.00Y	1.00	1.440E+00	1.440E+00	0.201E+00	13.94	
PO-216	1.41E+10Y	1.00	1.646E+00	1.646E+00	0.173E+00	10.52	
PO-218	1600.00Y	1.00	1.440E+00	1.440E+00	0.201E+00	13.94	
RA-224	1.41E+10Y	1.00	4.640E+00	4.640E+00	1.308E+00	28.18	
RA-226	1600.00Y	1.00	1.201E+00	1.201E+00	0.164E+00	13.70	
AC-228	1.41E+10Y	1.00	1.679E+00	1.679E+00	0.331E+00	19.74	
RA-228	1.41E+10Y	1.00	1.679E+00	1.679E+00	0.331E+00	19.74	
TH-228	1.91Y	1.02	1.646E+00	1.671E+00	0.176E+00	10.52	
TH-230	4.47E+09Y	1.00	1.201E+00	1.201E+00	0.164E+00	13.70	
TH-232	1.41E+10Y	1.00	1.679E+00	1.679E+00	0.331E+00	19.74	
U-234	4.47E+09Y	1.00	1.201E+00	1.201E+00	0.164E+00	13.70	
NP-237	2.14E+06Y	1.00	7.822E-01	7.822E-01	3.390E-01	43.35	
AM-243	7380.00Y	1.00	3.966E-01	3.966E-01	0.978E-01	24.67	
ANH-511	1.00E+09Y	1.00	1.252E-01	1.252E-01	0.591E-01	47.19	
	Total Activity :		5.465E+01	5.473E+01			

Grand Total Activity : 5.465E+01 5.473E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960011 Acquisition date : 12-FEB-2010 16:31:04

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	89.92	115	243	0.85	179.89	168	15	1.60E-02	46.0	5.25E+00	T
0	92.90	213	333	1.51	185.84	183	8	2.96E-02	33.9	5.48E+00	T
0	128.81	95	395	2.23	257.67	253	10	1.33E-02	80.3	6.50E+00	T
0	185.93	225	367	1.46	371.91	367	11	3.13E-02	36.2	5.70E+00	T
0	209.16	119	205	1.10	418.39	415	7	1.65E-02	44.1	5.29E+00	T
0	462.37	51	135	1.48	924.84	921	11	7.13E-03	91.3	2.95E+00	T
0	727.39	85	45	1.81	1454.86	1449	10	1.18E-02	36.7	2.03E+00	T
0	767.71	55	73	1.44	1535.51	1530	12	7.65E-03	67.3	1.94E+00	T
0	795.20	48	47	0.84	1590.48	1586	9	6.66E-03	59.1	1.88E+00	T
0	934.09	31	24	1.48	1868.24	1862	9	4.25E-03	68.7	1.61E+00	T
1	964.30	66	25	1.87	1928.66	1923	23	9.12E-03	42.2	1.57E+00	T
0	1238.07	43	43	1.36	2476.12	2473	9	5.93E-03	61.5	1.24E+00	T
0	1730.21	18	16	1.57	3460.17	3453	13	2.45E-03	****	9.62E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:31:35.94

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960011.CNF;1		
Acquisition date	: 12-FEB-2010 16:31:04	Detector SN#	:
Detector ID	: GAM04	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:01.23	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960011	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.32020E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 5-MAY-2009 14:25:41.36	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.978E+01	2.111E+00	6.024E-01	4.281E-02	32.838
CD-109	2.710E+00	1.033E+00	1.297E+00	1.559E-01	2.089
SN-126	2.664E-01	1.015E-01	1.285E-01	1.541E-02	2.073
CS-135	6.146E-01	2.725E-01	2.224E-01	1.854E-02	2.763
TL-208	5.040E-01	9.156E-02	5.475E-02	3.445E-03	9.205
BI-211	4.141E+00	5.353E-01	2.956E-01	1.997E-02	14.010
PB-212	1.646E+00	1.732E-01	8.376E-02	6.727E-03	19.652
PO-212	1.646E+00	1.732E-01	8.376E-02	6.727E-03	19.652
BI-214	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
PB-214	1.440E+00	2.008E-01	1.030E-01	8.789E-03	13.981
PO-214	1.440E+00	2.008E-01	1.030E-01	8.789E-03	13.981
PO-216	1.646E+00	1.732E-01	8.376E-02	6.727E-03	19.652
PO-218	1.440E+00	2.008E-01	1.030E-01	8.789E-03	13.981
RA-224	4.640E+00	1.308E+00	9.534E-01	6.356E-02	4.867
RA-226	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
AC-228	1.679E+00	3.314E-01	1.917E-01	2.090E-02	8.761
RA-228	1.679E+00	3.314E-01	1.917E-01	2.090E-02	8.761
TH-228	1.671E+00	1.759E-01	8.503E-02	6.829E-03	19.652

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
TH-232	1.679E+00	3.314E-01	1.917E-01	2.090E-02	8.761
U-234	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
NP-237	7.822E-01	3.390E-01	3.844E-01	9.158E-02	2.035
AM-243	3.966E-01	9.783E-02	9.239E-02	1.058E-02	4.293
ANH-511	1.252E-01	5.909E-02	4.247E-02	2.375E-03	2.949

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-9.219E-03		2.815E-01	4.576E-01	3.031E-02	-0.020
NA-22	2.021E-03		4.121E-02	6.932E-02	4.532E-03	0.029
NA-24	6.671E-01		3.695E-01	Half-Life too short		
AL-26	1.012E-02		2.272E-02	4.122E-02	2.444E-03	0.246
TI-44	4.079E-01	+	7.165E-02	8.090E-02	9.303E-03	5.042
SC-46	1.139E-02		3.312E-02	5.662E-02	4.579E-03	0.201
V-48	-1.522E-02		6.449E-02	1.025E-01	7.938E-03	-0.149
CR-51	-9.286E-02		3.465E-01	5.707E-01	4.019E-02	-0.163
MN-52	-1.338E-01		2.375E-01	3.667E-01	2.502E-02	-0.365
MN-54	2.098E-02		3.487E-02	6.075E-02	4.396E-03	0.345
CO-56	-3.697E-02		3.538E-02	5.171E-02	3.836E-03	-0.715
CO-57	-2.169E-02		2.360E-02	3.706E-02	2.572E-03	-0.585
CO-58	1.051E-03		3.486E-02	5.798E-02	4.003E-03	0.018
FE-59	-5.828E-02		8.824E-02	1.322E-01	1.010E-02	-0.441
CO-60	3.031E-03		3.763E-02	6.336E-02	4.341E-03	0.048
ZN-65	2.872E-02		9.619E-02	1.403E-01	9.281E-03	0.205
GE-68	6.918E-01		1.127E+00	1.954E+00	1.365E-01	0.354
AS-73	-2.584E-01		1.447E+00	2.416E+00	3.160E-01	-0.107
AS-74	9.417E-02		8.981E-02	1.565E-01	8.264E-03	0.602
SE-75	-2.928E-03		4.348E-02	6.465E-02	4.349E-03	-0.045
BR-77	-3.383E-01		1.029E+01	1.663E+01	9.260E-01	-0.020
SR-82	-1.625E-01		3.566E-01	5.683E-01	3.627E-02	-0.286
RB-83	-2.517E-02		6.796E-02	1.067E-01	5.945E-03	-0.236
RB-84	5.046E-02		5.857E-02	1.054E-01	8.396E-03	0.479
KR-85	2.406E+00		7.512E+00	1.102E+01	6.153E-01	0.218
SR-85	1.234E-02		3.855E-02	5.652E-02	3.157E-03	0.218
RB-86	6.008E-01		6.844E-01	1.223E+00	8.554E-02	0.491
Y-88	1.619E-02		3.015E-02	5.472E-02	3.193E-03	0.296
ZR-88	-2.234E-02		2.762E-02	4.290E-02	2.414E-03	-0.521
Y-91	2.821E+00		1.906E+01	3.108E+01	1.905E+00	0.091
NB-94	1.075E-02		3.306E-02	5.675E-02	3.057E-03	0.189
NB-95	5.883E-02		4.564E-02	7.538E-02	4.698E-03	0.780
NB-95M	5.837E-02		1.367E-01	1.980E-01	1.625E-02	0.295
ZR-95	8.186E-02		6.952E-02	1.264E-01	9.207E-03	0.647
NB-97	-7.388E-03		4.883E-02	Half-Life too short		
ZR-97	1.399E+00		9.608E-01	Half-Life too short		
MO-99	8.961E-01		1.048E+01	1.764E+01	2.436E+00	0.051

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TC-99M	-2.590E+09		2.151E+10	Half-Life too short		
RH-101	-4.510E-03		3.256E-02	5.136E-02	3.345E-03	-0.088
RH-102	3.026E-03		2.578E-02	4.245E-02	2.400E-03	0.071
RU-103	3.623E-02		3.827E-02	6.646E-02	8.350E-03	0.545
RH-106	-2.964E-03		2.918E-01	4.661E-01	5.325E-02	-0.006
RU-106	-2.964E-03		2.918E-01	4.661E-01	2.395E-02	-0.006
AG-108M	-1.052E-02		2.975E-02	4.749E-02	2.934E-03	-0.222
AG-110M	-3.453E-04		3.284E-02	5.525E-02	2.952E-03	-0.006
IN-111	-4.445E-01		1.047E+00	1.412E+00	9.423E-02	-0.315
IN-113M	-2.913E-02		4.030E-02	6.308E-02	3.801E-03	-0.462
SN-113	-2.913E-02		4.030E-02	6.308E-02	3.801E-03	-0.462
IN-114M	8.535E-02		2.000E-01	2.936E-01	1.900E-02	0.291
CD-115	1.142E+01		1.067E+01	1.873E+01	1.039E+00	0.610
SN-117M	-3.861E-05		4.899E-02	7.945E-02	5.082E-03	0.000
SB-122	1.941E+00		2.044E+00	3.543E+00	1.922E-01	0.548
I-123	-3.170E+00		2.841E+00	Half-Life too short		
TE-123M	-1.431E-02		2.565E-02	4.042E-02	2.612E-03	-0.354
I-124	4.576E-02		6.905E-01	9.734E-01	5.105E-02	0.047
SB-124	6.722E-02		7.549E-02	1.428E-01	9.701E-03	0.471
SB-125	-1.036E-01		8.461E-02	1.253E-01	7.419E-03	-0.826
TE-125M	3.134E-01		8.743E+00	1.447E+01	1.436E+00	0.022
I-126	-8.576E-02		1.623E-01	2.609E-01	1.287E-02	-0.329
SB-126	1.172E-02		1.437E-01	2.208E-01	1.241E-02	0.053
SB-127	4.407E-01		1.209E+00	2.092E+00	1.900E-01	0.211
XE-127	2.235E-02		4.500E-02	7.375E-02	4.821E-03	0.303
I-131	9.613E-02		1.086E-01	1.902E-01	1.266E-02	0.506
TE-132	2.052E-01		7.056E-01	1.137E+00	1.676E-01	0.180
BA-133	9.969E-04		4.625E-02	6.775E-02	7.937E-03	0.015
I-133	-4.885E-03		3.140E-03	Half-Life too short		
CS-134	9.597E-02	+	5.712E-02	9.481E-02	6.390E-03	1.012
I-135	-2.723E+09		3.049E+09	Half-Life too short		
CS-136	6.362E-02		1.000E-01	1.739E-01	1.336E-02	0.366
BA-137M	-2.854E-02		3.532E-02	5.628E-02	2.745E-03	-0.507
CS-137	-3.017E-02		3.734E-02	5.949E-02	2.919E-03	-0.507
CE-139	2.323E-03		2.727E-02	4.430E-02	2.815E-03	0.052
BA-140	-6.501E-02		2.436E-01	3.831E-01	1.244E-01	-0.170
LA-140	-1.058E-01		9.442E-02	1.272E-01	8.378E-03	-0.832
CE-141	3.870E-02		5.590E-02	9.391E-02	6.304E-03	0.412
CE-143	7.008E-04		1.104E-04	Half-Life too short		
CE-144	-9.746E-03		2.110E-01	3.076E-01	4.483E-02	-0.032
PM-144	-7.987E-03		3.185E-02	5.232E-02	2.780E-03	-0.153
PR-144	-5.413E-01		2.159E+00	3.546E+00	1.882E-01	-0.153
PM-146	1.086E-02		4.064E-02	6.782E-02	5.789E-03	0.160
ND-147	9.806E-03		5.250E-01	8.509E-01	1.141E-01	0.012
PM-149	4.103E+01		8.133E+01	1.406E+02	2.043E+01	0.292
EU-152	8.660E-02		9.466E-02	1.499E-01	1.037E-02	0.578
GD-153	-5.740E-02		8.402E-02	1.199E-01	1.177E-02	-0.479
EU-154	-6.762E-03		1.164E-01	1.936E-01	1.899E-02	-0.035

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	4.408E-02		1.012E-01	1.705E-01	1.486E-02	0.259
TB-160	-5.007E-02		1.158E-01	1.810E-01	1.435E-02	-0.277
HO-166M	1.642E-02		5.701E-02	9.770E-02	5.377E-03	0.168
TM-171	-1.608E+01		3.285E+01	5.422E+01	6.339E+00	-0.296
LU-176	-1.122E-02		2.172E-02	3.528E-02	2.303E-03	-0.318
LU-177	2.799E+00	+	1.248E+00	1.954E+00	1.282E-01	1.432
LU-177M	-1.450E-01		1.628E-01	2.503E-01	1.416E-02	-0.579
HF-181	-2.075E-02		4.086E-02	6.265E-02	3.537E-03	-0.331
W-181	-4.482E-01		4.405E-01	7.076E-01	8.340E-02	-0.633
TA-182	5.688E-02		1.799E-01	3.108E-01	1.934E-02	0.183
RE-183	6.406E-02		1.005E-01	1.677E-01	1.068E-02	0.382
RE-184	-1.389E-01		2.074E-01	3.394E-01	2.266E-02	-0.409
OS-185	-1.636E-02		3.820E-02	6.206E-02	3.094E-03	-0.264
RE-188	1.198E-01		1.648E-01	2.759E-01	1.772E-02	0.434
W-188	-3.669E+00		7.491E+00	1.069E+01	7.063E-01	-0.343
IR-192	-2.682E-02		3.276E-02	5.215E-02	3.386E-03	-0.514
AU-195	2.970E-01		2.105E-01	3.670E-01	3.509E-02	0.809
TL-200	-2.242E-04		2.185E-04	Half-Life too short		
TL-201	2.846E+00		6.344E+00	1.049E+01	6.666E-01	0.271
TL-202	-3.226E-03		6.542E-02	1.069E-01	6.063E-03	-0.030
HG-203	4.054E-03		3.780E-02	6.412E-02	4.464E-03	0.063
BI-207	-2.445E-02		5.412E-02	8.359E-02	5.945E-03	-0.293
TL-207	-5.757E-01		6.487E-01	1.018E+00	1.705E-01	-0.565
PO-209	-1.059E+00		7.159E+00	1.160E+01	9.522E-01	-0.091
BI-210	5.681E+00		9.156E+00	1.567E+01	1.365E+00	0.363
PB-210	5.681E+00		9.156E+00	1.567E+01	1.365E+00	0.363
PO-210	5.681E+00		9.153E+00	1.567E+01	1.217E+00	0.363
PB-211	-5.860E-02		8.837E-01	1.449E+00	9.034E-01	-0.040
BI-212	1.005E+00	+	3.771E-01	6.120E-01	4.678E-02	1.643
PO-215	-5.757E-01		6.487E-01	1.018E+00	1.705E-01	-0.565
RN-219	-2.302E-01		3.997E-01	6.179E-01	8.365E-02	-0.373
RN-220	-1.694E+01		2.390E+01	3.599E+01	1.972E+00	-0.471
RA-223	-5.757E-01		6.487E-01	1.018E+00	1.705E-01	-0.565
AC-227	5.181E-02		3.335E-01	5.698E-01	8.175E-02	0.091
TH-227	5.181E-02		3.335E-01	5.698E-01	9.812E-02	0.091
TH-229	-1.550E-01		5.007E-01	7.907E-01	5.132E-02	-0.196
PA-231	-1.959E+00		1.354E+00	2.038E+00	2.884E-01	-0.962
TH-231	-5.757E-01		6.487E-01	1.018E+00	1.705E-01	-0.565
U-231	-8.510E-01		1.087E+00	1.538E+00	1.555E-01	-0.553
PA-233	1.638E-02		5.839E-02	9.945E-02	6.782E-03	0.165
PA-234	1.486E-02		3.016E-01	4.966E-01	9.176E-02	0.030
PA-234M	-1.455E+00		4.166E+00	6.483E+00	5.911E-01	-0.224
TH-234	1.383E+00		1.656E+00	2.836E+00	5.611E-01	0.488
U-235	-4.978E-02		1.877E-01	3.019E-01	5.004E-02	-0.165
NP-236	-7.055E-02		7.296E-02	1.124E-01	7.174E-03	-0.628
U-238	1.383E+00		1.656E+00	2.836E+00	5.611E-01	0.488
NP-239	-1.018E-01		1.744E-01	2.792E-01	2.055E-02	-0.365
AM-241	-9.710E-02		2.029E-01	3.357E-01	4.238E-02	-0.289

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-5.143E-02		9.027E-02	1.455E-01	1.283E-02	-0.353
AM-246	9.806E-02		1.292E-01	2.272E-01	1.584E-02	0.432
CM-247	-1.045E-02		3.453E-02	5.576E-02	3.147E-03	-0.187
CF-249	4.443E-02		3.734E-02	6.635E-02	3.770E-03	0.670
CF-251	-3.621E-02		1.215E-01	1.929E-01	1.235E-02	-0.188

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960011		
Acquisition date	: 12-FEB-2010 16:31:04	Detector SN#	:
Detector ID	: GAM04	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.23	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G245960011	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.3202E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

CALIB. DATE/TIME	: 5-MAY-2009 14:25:41	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.978E+01	2.069E+00	3.017E-01	1.056E+00
CD-109	2.710E+00	1.012E+00	6.815E-01	5.166E-01
SN-126	2.664E-01	9.950E-02	6.749E-02	5.077E-02
CS-135	6.146E-01	2.671E-01	1.147E-01	1.363E-01
TL-208	5.040E-01	8.973E-02	2.787E-02	4.578E-02
BI-211	4.141E+00	5.246E-01	1.517E-01	2.677E-01
PB-212	1.646E+00	1.698E-01	4.328E-02	8.661E-02
PO-212	1.646E+00	1.698E-01	4.328E-02	8.661E-02
BI-214	1.201E+00	1.612E-01	5.165E-02	8.222E-02
PB-214	1.440E+00	1.968E-01	5.289E-02	1.004E-01
PO-214	1.440E+00	1.968E-01	5.289E-02	1.004E-01
PO-216	1.646E+00	1.698E-01	4.328E-02	8.661E-02
PO-218	1.440E+00	1.968E-01	5.289E-02	1.004E-01
RA-224	4.640E+00	1.281E+00	4.926E-01	6.538E-01
RA-226	1.201E+00	1.612E-01	5.165E-02	8.222E-02
AC-228	1.679E+00	3.248E-01	9.682E-02	1.657E-01
RA-228	1.679E+00	3.248E-01	9.682E-02	1.657E-01
TH-228	1.671E+00	1.723E-01	4.394E-02	8.793E-02
TH-230	1.201E+00	1.612E-01	5.165E-02	8.222E-02
TH-232	1.679E+00	3.248E-01	9.682E-02	1.657E-01
U-234	1.201E+00	1.612E-01	5.165E-02	8.222E-02
NP-237	7.822E-01	3.323E-01	2.019E-01	1.695E-01
AM-243	3.966E-01	9.587E-02	4.865E-02	4.892E-02
ANH-511	1.252E-01	5.791E-02	2.166E-02	2.955E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-9.219E-03	2.758E-01	2.337E-01	1.407E-01	NOT IDENT.
NA-22	2.021E-03	4.038E-02	3.481E-02	2.060E-02	NOT IDENT.
NA-24	6.671E+05	7.242E+05	0.000E+00	3.695E+05	SHORT HLIF

AL-26	1.012E-02	2.226E-02	2.057E-02	1.136E-02 NOT IDENT.
TI-44	4.079E-01	7.021E-02	4.257E-02	3.582E-02 FAIL ABUN
SC-46	1.139E-02	3.246E-02	2.861E-02	1.656E-02 FAIL ABUN
V-48	-1.522E-02	6.320E-02	5.168E-02	3.225E-02 NOT IDENT.
CR-51	-9.286E-02	3.396E-01	2.935E-01	1.733E-01 NOT IDENT.
MN-52	-1.338E-01	2.328E-01	1.838E-01	1.188E-01 FAIL ABUN
MN-54	2.098E-02	3.417E-02	3.073E-02	1.744E-02 NOT IDENT.
CO-56	-3.697E-02	3.468E-02	2.615E-02	1.769E-02 FAIL ABUN
CO-57	-2.169E-02	2.313E-02	1.936E-02	1.180E-02 NOT IDENT.
CO-58	1.051E-03	3.416E-02	2.935E-02	1.743E-02 NOT IDENT.
FE-59	-5.828E-02	8.648E-02	6.657E-02	4.412E-02 NOT IDENT.
CO-60	3.031E-03	3.687E-02	3.179E-02	1.881E-02 NOT IDENT.
ZN-65	2.872E-02	9.427E-02	7.062E-02	4.810E-02 NOT IDENT.
GE-68	6.918E-01	1.104E+00	9.842E-01	5.633E-01 NOT IDENT.
AS-73	-2.584E-01	1.418E+00	1.279E+00	7.236E-01 NOT IDENT.
AS-74	9.417E-02	8.802E-02	7.964E-02	4.491E-02 NOT IDENT.
SE-75	-2.928E-03	4.261E-02	3.335E-02	2.174E-02 NOT IDENT.
BR-77	-3.383E-01	1.008E+01	8.480E+00	5.145E+00 FAIL ABUN
SR-82	-1.625E-01	3.495E-01	2.879E-01	1.783E-01 NOT IDENT.
RB-83	-2.517E-02	6.660E-02	5.444E-02	3.398E-02 NOT IDENT.
RB-84	5.046E-02	5.740E-02	5.328E-02	2.929E-02 NOT IDENT.
KR-85	2.406E+00	7.362E+00	5.619E+00	3.756E+00 NOT IDENT.
SR-85	1.234E-02	3.777E-02	2.883E-02	1.927E-02 NOT IDENT.
RB-86	6.008E-01	6.707E-01	6.162E-01	3.422E-01 NOT IDENT.
Y-88	1.619E-02	2.955E-02	2.730E-02	1.507E-02 NOT IDENT.
ZR-88	-2.234E-02	2.707E-02	2.198E-02	1.381E-02 NOT IDENT.
Y-91	2.821E+00	1.868E+01	1.562E+01	9.532E+00 NOT IDENT.
NB-94	1.075E-02	3.240E-02	2.880E-02	1.653E-02 NOT IDENT.
NB-95	5.883E-02	4.473E-02	3.819E-02	2.282E-02 NOT IDENT.
NB-95M	5.837E-02	1.339E-01	1.023E-01	6.833E-02 NOT IDENT.
ZR-95	8.186E-02	6.813E-02	6.407E-02	3.476E-02 NOT IDENT.
NB-97	-7.388E+03	9.570E+04	0.000E+00	4.883E+04 SHORT HLIF
ZR-97	1.399E+06	1.883E+06	0.000E+00	9.608E+05 SHORT HLIF
MO-99	8.961E-01	1.027E+01	8.942E+00	5.241E+00 NOT IDENT.
TC-99M	-2.590E+15	4.215E+16	0.000E+00	0.000E+00 SHORT HLIF
RH-101	-4.510E-03	3.191E-02	2.662E-02	1.628E-02 NOT IDENT.
RH-102	3.026E-03	2.526E-02	2.168E-02	1.289E-02 FAIL ABUN
RU-103	3.623E-02	3.751E-02	3.392E-02	1.914E-02 FAIL ABUN
RH-106	-2.964E-03	2.859E-01	2.370E-01	1.459E-01 FAIL ABUN
RU-106	-2.964E-03	2.859E-01	2.370E-01	1.459E-01 FAIL ABUN
AG-108M	-1.052E-02	2.916E-02	2.429E-02	1.488E-02 NOT IDENT.
AG-110M	-3.453E-04	3.218E-02	2.807E-02	1.642E-02 NOT IDENT.
IN-111	-4.445E-01	1.026E+00	7.293E-01	5.233E-01 NOT IDENT.
IN-113M	-2.913E-02	3.949E-02	3.232E-02	2.015E-02 NOT IDENT.
SN-113	-2.913E-02	3.949E-02	3.232E-02	2.015E-02 NOT IDENT.
IN-114M	8.535E-02	1.960E-01	1.523E-01	1.000E-01 NOT IDENT.
CD-115	1.142E+01	1.046E+01	9.551E+00	5.337E+00 NOT IDENT.
SN-117M	-3.861E-05	4.801E-02	4.133E-02	2.449E-02 NOT IDENT.
SB-122	1.941E+00	2.003E+00	1.804E+00	1.022E+00 NOT IDENT.
I-123	-3.170E+06	5.568E+06	0.000E+00	2.841E+06 SHORT HLIF
TE-123M	-1.431E-02	2.514E-02	2.102E-02	1.283E-02 NOT IDENT.
I-124	4.576E-02	6.766E-01	4.952E-01	3.452E-01 NOT IDENT.
SB-124	6.722E-02	7.398E-02	7.133E-02	3.775E-02 FAIL ABUN
SB-125	-1.036E-01	8.291E-02	6.413E-02	4.230E-02 FAIL ABUN
TE-125M	3.134E-01	8.568E+00	7.572E+00	4.371E+00 NOT IDENT.
I-126	-8.576E-02	1.590E-01	1.325E-01	8.114E-02 NOT IDENT.
SB-126	1.172E-02	1.408E-01	1.120E-01	7.183E-02 FAIL ABUN
SB-127	4.407E-01	1.185E+00	1.062E+00	6.044E-01 NOT IDENT.
XE-127	2.235E-02	4.410E-02	3.821E-02	2.250E-02 NOT IDENT.
I-131	9.613E-02	1.065E-01	9.757E-02	5.431E-02 NOT IDENT.
TE-132	2.052E-01	6.915E-01	5.880E-01	3.528E-01 NOT IDENT.
BA-133	9.969E-04	4.533E-02	3.478E-02	2.313E-02 NOT IDENT.
I-133	-4.885E+03	6.155E+03	0.000E+00	3.140E+03 SHORT HLIF
CS-134	9.597E-02	5.598E-02	4.800E-02	2.856E-02 FAIL ABUN
I-135	-2.723E+15	5.976E+15	0.000E+00	3.049E+15 SHORT HLIF
CS-136	6.362E-02	9.805E-02	8.763E-02	5.002E-02 FAIL ABUN
BA-137M	-2.854E-02	3.462E-02	2.859E-02	1.766E-02 NOT IDENT.
CS-137	-3.017E-02	3.659E-02	3.022E-02	1.867E-02 NOT IDENT.
CE-139	2.323E-03	2.672E-02	2.303E-02	1.363E-02 NOT IDENT.
BA-140	-6.501E-02	2.387E-01	1.952E-01	1.218E-01 NOT IDENT.
LA-140	-1.058E-01	9.254E-02	6.362E-02	4.721E-02 NOT IDENT.
CE-141	3.870E-02	5.478E-02	4.892E-02	2.795E-02 NOT IDENT.
CE-143	7.008E+02	2.165E+02	0.000E+00	1.104E+02 SHORT HLIF
CE-144	-9.746E-03	2.067E-01	1.605E-01	1.055E-01 NOT IDENT.
PM-144	-7.987E-03	3.122E-02	2.655E-02	1.593E-02 NOT IDENT.
PR-144	-5.413E-01	2.115E+00	1.799E+00	1.079E+00 NOT IDENT.
PM-146	1.086E-02	3.983E-02	3.467E-02	2.032E-02 NOT IDENT.
ND-147	9.806E-03	5.145E-01	4.338E-01	2.625E-01 FAIL ABUN

PM-149	4.103E+01	7.971E+01	7.242E+01	4.067E+01 NOT IDENT.
EU-152	8.660E-02	9.277E-02	7.699E-02	4.733E-02 FAIL ABUN
GD-153	-5.740E-02	8.234E-02	6.285E-02	4.201E-02 NOT IDENT.
EU-154	-6.762E-03	1.141E-01	9.722E-02	5.821E-02 NOT IDENT.
EU-155	4.408E-02	9.916E-02	8.927E-02	5.059E-02 FAIL ABUN
TB-160	-5.007E-02	1.135E-01	9.147E-02	5.791E-02 FAIL ABUN
HO-166M	1.642E-02	5.587E-02	4.956E-02	2.851E-02 NOT IDENT.
TM-171	-1.608E+01	3.219E+01	2.860E+01	1.642E+01 NOT IDENT.
LU-176	-1.122E-02	2.129E-02	1.815E-02	1.086E-02 FAIL ABUN
LU-177	2.799E+00	1.223E+00	1.012E+00	6.240E-01 FAIL ABUN
LU-177M	-1.450E-01	1.595E-01	1.281E-01	8.138E-02 FAIL ABUN
HF-181	-2.075E-02	4.005E-02	3.199E-02	2.043E-02 NOT IDENT.
W-181	-4.482E-01	4.317E-01	3.734E-01	2.202E-01 NOT IDENT.
TA-182	5.688E-02	1.763E-01	1.562E-01	8.996E-02 FAIL ABUN
RE-183	6.406E-02	9.849E-02	8.718E-02	5.025E-02 FAIL ABUN
RE-184	-1.389E-01	2.033E-01	1.752E-01	1.037E-01 NOT IDENT.
OS-185	-1.636E-02	3.744E-02	3.153E-02	1.910E-02 NOT IDENT.
RE-188	1.198E-01	1.615E-01	1.436E-01	8.240E-02 NOT IDENT.
W-188	-3.669E+00	7.341E+00	5.504E+00	3.745E+00 NOT IDENT.
IR-192	-2.682E-02	3.210E-02	2.682E-02	1.638E-02 FAIL ABUN
AU-195	2.970E-01	2.063E-01	1.924E-01	1.052E-01 FAIL ABUN
TL-200	-2.242E+02	4.282E+02	0.000E+00	2.185E+02 SHORT HLIF
TL-201	2.846E+00	6.217E+00	5.450E+00	3.172E+00 NOT IDENT.
TL-202	-3.226E-03	6.411E-02	5.466E-02	3.271E-02 NOT IDENT.
HG-203	4.054E-03	3.704E-02	3.305E-02	1.890E-02 NOT IDENT.
BI-207	-2.445E-02	5.304E-02	4.211E-02	2.706E-02 FAIL ABUN
TL-207	-5.757E-01	6.358E-01	5.235E-01	3.244E-01 FAIL ABUN
PO-209	-1.059E+00	7.015E+00	5.862E+00	3.579E+00 NOT IDENT.
BI-210	5.681E+00	8.973E+00	8.312E+00	4.578E+00 NOT IDENT.
PB-210	5.681E+00	8.973E+00	8.312E+00	4.578E+00 NOT IDENT.
PO-210	5.681E+00	8.970E+00	8.312E+00	4.576E+00 NOT IDENT.
PB-211	-5.860E-02	8.660E-01	7.424E-01	4.419E-01 NOT IDENT.
BI-212	1.005E+00	3.696E-01	3.104E-01	1.886E-01 FAIL ABUN
PO-215	-5.757E-01	6.358E-01	5.235E-01	3.244E-01 FAIL ABUN
RN-219	-2.302E-01	3.917E-01	3.165E-01	1.998E-01 NOT IDENT.
RN-220	-1.694E+01	2.342E+01	1.834E+01	1.195E+01 NOT IDENT.
RA-223	-5.757E-01	6.358E-01	5.235E-01	3.244E-01 FAIL ABUN
AC-227	5.181E-02	3.268E-01	2.941E-01	1.667E-01 FAIL ABUN
TH-227	5.181E-02	3.268E-01	2.941E-01	1.668E-01 FAIL ABUN
TH-229	-1.550E-01	4.907E-01	4.100E-01	2.504E-01 FAIL ABUN
PA-231	-1.959E+00	1.327E+00	1.050E+00	6.770E-01 FAIL ABUN
TH-231	-5.757E-01	6.358E-01	5.235E-01	3.244E-01 FAIL ABUN
U-231	-8.510E-01	1.065E+00	8.064E-01	5.433E-01 FAIL ABUN
PA-233	1.638E-02	5.722E-02	5.116E-02	2.919E-02 FAIL ABUN
PA-234	1.486E-02	2.955E-01	2.507E-01	1.508E-01 FAIL ABUN
PA-234M	-1.455E+00	4.083E+00	3.269E+00	2.083E+00 FAIL ABUN
TH-234	1.383E+00	1.623E+00	1.497E+00	8.278E-01 FAIL ABUN
U-235	-4.978E-02	1.839E-01	1.573E-01	9.385E-02 FAIL ABUN
NP-236	-7.055E-02	7.150E-02	5.844E-02	3.648E-02 NOT IDENT.
U-238	1.383E+00	1.623E+00	1.497E+00	8.278E-01 FAIL ABUN
NP-239	-1.018E-01	1.709E-01	1.460E-01	8.720E-02 FAIL ABUN
AM-241	-9.710E-02	1.989E-01	1.774E-01	1.015E-01 NOT IDENT.
CM-243	-5.143E-02	8.847E-02	7.623E-02	4.514E-02 FAIL ABUN
AM-246	9.806E-02	1.266E-01	1.144E-01	6.458E-02 NOT IDENT.
CM-247	-1.045E-02	3.384E-02	2.856E-02	1.727E-02 NOT IDENT.
CF-249	4.443E-02	3.660E-02	3.401E-02	1.867E-02 NOT IDENT.
CF-251	-3.621E-02	1.190E-01	1.002E-01	6.073E-02 NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417

GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	198.8585
46.50	198.8585
46.50	198.8585
48.70	215.6169
49.72	207.6383
51.35	209.4680
52.39	197.0559
52.97	197.3723
53.15	199.2103
53.44	206.3335
54.07	225.0033
56.28	212.3039
56.28	212.3057
57.37	0.0000
57.53	195.4012
57.53	195.4023
57.60	206.0015
57.98	215.0175
57.98	215.0175
59.32	218.4153
59.32	218.4153
59.40	218.4599
59.54	223.8464
59.72	227.4900
60.01	248.9178
61.10	259.3756
61.14	259.4016
61.30	259.5063
63.00	228.4749
63.29	228.6380
63.29	228.6380
63.58	214.5007
64.28	247.0970
65.12	295.1462
65.20	295.2032
65.20	295.2032
66.05	294.9061
66.72	285.4690
66.83	285.5447
66.91	287.4015
67.20	271.3697
67.20	271.3697
67.75	274.4300
67.85	274.4950
68.90	285.6674
68.90	285.6674
69.30	289.1938
69.67	292.4362
70.82	267.2943
70.82	267.2943
70.83	267.3003
72.80	301.3704
72.87	301.4174
72.87	301.4174
74.67	278.7795
74.81	278.8661
74.81	278.8661
74.81	278.8661
74.81	278.8661
74.81	278.8661
74.81	278.8661
74.81	278.8661
74.97	278.9636
75.28	279.1537
75.70	279.4104
77.11	280.2655
77.11	280.2655

77.11	280.2655
77.11	280.2655
77.11	280.2655
77.11	280.2655
77.11	280.2655
78.38	295.3581
79.62	300.3074
79.80	300.4211
79.80	300.4211
80.11	293.6585
80.18	293.7012
80.30	293.7744
80.30	293.7744
80.57	334.3414
81.00	329.0644
81.07	329.1112
81.07	329.1112
81.07	329.1112
81.07	329.1112
82.60	296.5820
83.37	329.2747
83.78	330.9549
83.78	330.9549
83.78	330.9549
83.78	330.9549
84.21	334.0520
84.90	327.4927
85.43	327.8411
86.29	328.4082
86.50	328.5451
86.54	328.5717
86.59	328.6037
86.72	328.6891
86.79	328.7335
86.94	328.8331
87.30	329.0695
87.30	329.0695
87.30	329.0695
87.30	329.0695
87.30	329.0695
87.30	329.0695
87.30	329.0695
87.30	329.0695
87.57	329.2455
87.88	329.4464
88.03	329.5441
88.36	329.7592
88.47	329.8303
89.95	255.5420
91.11	256.1160
92.29	256.6969
92.38	256.7409
92.38	256.7409
93.35	235.7801
94.00	230.3480
94.67	250.6907
94.67	250.6933
94.90	247.9352
94.90	247.9352
94.90	247.9352
94.90	247.9352
95.87	262.7428
95.87	262.7428
96.73	277.5435
97.43	280.7811
98.44	226.9649
98.44	226.9649
98.88	216.5600
99.55	229.3520
99.55	229.3520
99.86	237.1939
100.00	237.2540
100.10	237.2990
103.18	277.4058
103.76	262.1558
105.00	230.6160
105.31	246.3188
108.00	295.3965
109.28	260.7533

111.00	245.7848
111.00	245.7848
111.76	278.5825
112.95	286.0425
115.19	223.7424
116.30	244.9774
117.00	253.1998
117.00	253.1998
117.66	247.5068
121.11	237.8838
121.62	258.0827
121.78	264.1504
122.06	264.2672
122.32	254.3617
122.32	254.3617
122.32	254.3617
122.32	254.3617
123.07	239.6224
127.23	269.4275
129.76	235.5202
131.20	248.2134
133.02	256.5220
133.54	249.0814
135.34	242.0822
136.00	244.3609
136.25	252.6333
136.48	253.7406
140.51	240.8150
140.51	0.0000
142.18	256.8623
142.65	258.0643
143.76	247.0960
144.24	230.7106
144.24	230.7106
144.24	230.7106
144.24	230.7106
145.22	223.7761
145.44	220.7353
147.16	217.1088
152.43	242.7428
152.70	229.2255
153.22	231.4808
154.21	263.2507
154.21	263.2507
154.21	263.2507
154.21	263.2507
155.03	247.7923
156.02	248.1188
158.56	218.3603
159.00	0.0000
159.00	235.3745
160.31	250.5805
161.27	222.3111
162.32	216.2520
162.64	208.9177
163.35	223.9707
163.89	231.5607
165.85	224.6876
167.43	203.7982
171.28	221.9379
171.86	213.5145
172.10	213.5772
176.55	242.8047
176.60	242.8207
181.06	218.0894
184.41	241.8347
185.71	252.0241
186.00	252.1087
190.27	235.2662
192.34	255.0669
193.63	246.6338
197.04	218.8486
198.01	232.3663
198.60	242.4831
200.40	250.7372
201.83	227.7993
202.84	213.5918
205.31	227.5555

208.36	226.6322
208.81	208.2661
209.75	225.2908
209.75	225.2908
210.97	217.1678
215.65	236.8588
216.55	214.5038
218.09	189.9741
222.10	207.7980
223.80	183.1362
226.40	226.9641
227.00	206.5599
227.08	195.1634
227.20	195.1878
228.16	205.6604
228.18	205.6641
228.18	205.6641
231.56	0.0000
235.69	217.5738
236.00	214.1846
236.00	214.1846
238.63	185.8762
238.63	185.8762
238.63	185.8762
238.63	185.8762
239.00	185.9433
240.98	186.3020
241.98	186.4838
241.98	186.4838
241.98	186.4838
244.69	142.8419
245.39	146.4232
247.94	159.3620
248.90	142.2502
249.79	142.6623
252.40	148.2773
252.85	171.1621
252.85	171.1621
254.15	0.0000
256.20	149.6845
256.20	149.6845
260.50	168.8445
260.90	168.9057
262.80	139.7134
264.65	146.2344
268.24	142.4365
268.79	142.5073
269.46	142.5928
269.46	142.5928
269.46	142.5928
269.46	142.5928
271.23	151.3864
273.65	201.8063
276.40	162.9428
277.35	156.1555
277.60	159.7806
277.60	159.7806
278.00	149.9575
278.60	149.1381
279.20	161.8011
279.53	164.5453
280.46	165.5792
281.68	135.1250
283.67	157.0131
284.30	140.8489
285.00	138.2220
285.90	122.9595
286.10	124.7888
286.10	124.7888
287.40	112.2539
288.45	0.0000
290.67	152.5089
290.80	152.5243
291.72	132.2899
293.26	0.0000
293.70	126.6874
295.21	134.1367
295.21	134.1367

295.21	134.1367
295.96	87.5361
296.50	58.3828
297.23	58.4189
298.57	58.4834
299.80	152.2117
299.80	152.2117
300.09	133.2186
300.09	133.2186
300.09	133.2186
300.09	133.2186
300.12	133.2208
301.29	137.7458
302.84	133.5185
303.76	102.7852
303.91	89.5803
304.40	117.5293
304.40	117.5293
304.84	129.8194
306.84	130.6441
308.46	128.9728
311.98	123.7950
316.51	150.2065
318.01	114.1808
319.02	120.7741
319.41	118.0238
320.08	135.7522
323.87	163.2000
323.87	163.2000
323.87	163.2000
323.87	163.2000
325.23	185.7791
328.77	135.7384
333.44	135.2856
334.20	139.8769
334.20	139.8769
334.30	139.8860
338.28	131.0676
338.28	131.0676
338.28	131.0676
338.28	131.0676
338.32	131.0718
338.32	131.0718
338.32	131.0718
340.50	98.2300
340.57	98.2347
344.27	92.4442
345.85	101.6565
350.59	0.0000
351.07	110.4262
351.92	110.4952
351.92	110.4952
351.92	110.4952
355.39	0.0000
356.01	120.7605
364.48	97.0840
366.43	107.8062
367.43	119.4420
367.94	0.0000
369.80	91.6616
374.96	118.1391
383.85	121.7918
387.95	89.8901
388.63	87.9758
391.69	109.7083
391.69	109.7083
392.90	108.8168
398.62	93.4895
400.65	107.4116
401.10	113.3575
401.81	114.3981
402.60	109.5231
404.84	109.6857
410.95	101.1953
411.60	105.2091
413.65	112.3051
414.70	102.4373
415.30	92.5275

415.76	83.5975
417.63	0.0000
418.52	76.7674
423.70	77.0223
427.08	92.2232
427.89	107.3151
432.53	71.4171
433.93	91.6137
439.47	92.9391
439.56	92.9448
439.89	83.8701
443.98	90.1584
444.90	95.2780
445.03	95.2852
445.03	95.2852
445.03	95.2852
445.03	95.2852
453.90	84.5894
463.38	91.2190
468.07	93.7341
473.00	73.1841
475.06	73.2718
475.35	85.6697
476.78	86.7737
477.59	73.3791
477.96	77.5303
482.03	86.0016
484.57	69.5242
487.03	85.2094
490.36	0.0000
492.35	83.3826
497.08	66.8838
507.63	0.0000
510.53	0.0000
510.84	76.8747
511.00	76.8819
511.85	76.9176
511.85	76.9176
513.99	86.0799
513.99	86.0799
520.41	87.8633
520.65	80.4647
527.90	64.8348
528.96	0.0000
529.64	86.1737
529.87	0.0000
531.02	72.3953
537.32	75.8427
543.00	74.9988
546.56	0.0000
549.76	76.3389
552.65	60.3015
555.20	67.9276
563.23	64.9603
563.90	67.1484
568.70	89.0244
569.32	85.7963
569.50	82.5452
569.67	81.4659
573.80	67.4852
574.00	67.4927
574.64	74.0471
578.91	75.0778
579.30	0.0000
583.14	73.2669
585.48	71.8201
591.81	86.7607
592.07	88.9670
593.00	98.8989
595.88	62.7230
600.56	76.1005
602.52	0.0000
602.71	67.1271
602.71	67.1271
603.60	75.9933
604.41	79.5586
604.70	83.1060
609.31	70.8848

609.31	70.8848
609.31	70.8848
609.31	70.8848
610.33	63.8279
612.46	63.8930
614.37	67.5038
618.01	65.6188
621.84	61.2791
621.84	61.2791
631.29	44.7644
633.02	57.1213
633.10	57.1229
634.78	51.5633
635.90	66.1697
636.97	66.2021
645.85	62.1910
646.12	66.7066
656.30	63.3931
657.75	70.6837
657.90	0.0000
661.65	70.8075
661.65	70.8075
664.57	0.0000
666.33	70.9560
666.33	70.9560
675.00	57.5321
677.61	53.0270
685.20	53.2025
692.80	58.9000
695.00	70.9317
696.49	70.9778
696.49	70.9778
697.00	72.8378
697.49	79.3085
698.33	73.8008
698.50	76.5744
699.00	72.8995
702.63	73.0133
706.10	76.8236
706.58	0.0000
706.67	77.7677
709.31	74.1484
711.68	62.1615
713.82	59.4313
717.42	59.5219
720.50	59.8645
721.93	0.0000
722.20	60.5725
722.78	59.0348
722.78	59.0348
722.89	59.0364
722.95	59.0379
723.30	59.0472
724.18	63.7322
727.18	62.2559
733.00	60.1768
735.90	64.6673
739.58	52.5629
742.81	61.0914
744.21	55.4839
747.13	49.9010
751.79	69.8050
752.31	66.9889
753.82	65.1406
755.35	61.4025
756.15	51.0284
756.87	47.2620
763.93	47.3962
765.79	53.7559
766.42	60.0940
766.84	69.5951
776.49	62.8756
778.00	59.0998
778.57	56.2531
778.89	55.3067
783.80	64.0115
785.46	63.0964
792.07	54.3134

795.84	62.3927
796.30	62.4038
798.80	57.6592
801.93	71.6255
805.60	60.6998
810.29	48.2605
810.76	47.3037
815.85	42.5595
817.79	40.6547
818.51	38.7295
819.60	47.4628
826.30	45.6403
828.27	0.0000
831.60	61.2989
831.96	66.1722
834.83	50.6568
836.80	0.0000
846.75	56.7511
848.13	47.9700
856.28	0.0000
856.80	45.8304
860.37	47.5286
867.32	41.6244
867.82	39.4404
871.10	33.5642
873.19	38.5287
874.81	36.5736
875.33	0.0000
876.40	31.6492
879.36	40.5936
880.27	40.6066
880.51	40.6106
881.50	29.7253
883.24	36.6838
884.67	37.6948
889.25	34.7753
896.60	50.8033
898.02	40.8629
899.00	40.8769
903.28	54.9167
911.07	44.0526
911.07	44.0526
911.07	44.0526
919.63	34.1411
920.93	28.1285
925.00	40.2402
925.24	36.2188
926.50	42.7770
935.52	40.3848
937.48	31.9921
944.10	45.5647
946.00	50.6592
949.00	50.7104
962.29	54.3307
964.01	39.7522
966.15	39.7798
968.20	39.8074
969.11	39.8188
969.11	39.8188
969.11	39.8188
977.42	35.2635
980.50	43.0428
983.50	42.0590
989.30	50.3602
996.32	54.5941
1001.03	42.2973
1001.68	48.4974
1004.76	57.8416
1021.30	0.0000
1024.50	0.0000
1034.80	46.9226
1036.00	41.7246
1037.82	40.7043
1038.57	45.9336
1038.76	0.0000
1045.16	46.0281
1046.59	51.2801
1048.07	34.5517

1050.47	33.5297
1050.47	33.5297
1062.04	45.2151
1063.62	54.7066
1076.63	27.4612
1077.35	32.7498
1078.86	31.7080
1085.78	39.1878
1099.22	48.9154
1112.02	38.1208
1112.84	26.6919
1115.52	42.7402
1120.29	43.8688
1120.29	43.8688
1120.29	43.8688
1120.29	43.8688
1120.51	43.8728
1121.28	43.8828
1124.00	0.0000
1129.67	41.3833
1131.51	0.0000
1147.95	0.0000
1167.94	39.0498
1173.22	49.9711
1175.09	52.1719
1177.93	51.1263
1189.05	62.1962
1204.90	52.6055
1205.75	0.0000
1213.00	51.6243
1221.42	46.7894
1230.97	48.1662
1235.34	63.1473
1236.41	0.0000
1238.25	53.4546
1246.25	50.3795
1260.41	0.0000
1271.85	39.9853
1274.45	40.0133
1274.54	38.1522
1291.56	33.6489
1298.22	0.0000
1312.09	25.3707
1325.50	29.2290
1325.50	29.2290
1332.49	29.2814
1333.61	20.7861
1360.21	15.2181
1362.66	0.0000
1365.15	27.6170
1368.21	18.1078
1368.53	0.0000
1376.25	22.9180
1384.27	23.9207
1394.10	19.1821
1395.20	22.0660
1407.95	29.8332
1434.06	23.2412
1436.60	28.0997
1457.56	0.0000
1460.81	27.2868
1489.15	18.6382
1509.49	13.7972
1596.49	32.1536
1620.62	9.0905
1678.03	0.0000
1691.02	9.2263
1691.02	9.2263
1706.46	0.0000
1750.46	0.0000
1764.49	14.5680
1764.49	14.5680
1764.49	14.5680
1764.49	14.5680
1770.23	19.6444
1771.40	34.3857
1791.20	0.0000
1808.65	5.2482

1836.01 7.3868

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960011

Total Uranium Activity	4.0906E+00	ug/g
Total Uranium Counting Unc.	4.8277E+00	ug/g
Total Uranium Tpu	2.4631E-06	ug/g
Total Uranium Mda	4.4554E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G245960011
ANALYST	: MXR1	DETECTOR	: GAM04
SAMPLE DATE	: 28-JAN-2010 12:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 12-FEB-2010 16:31:04.86	SAMPLE ALQT	: 132.020 GRAM

GROSS GAMMA ACTIVITY (pCi/GRAM)	: 8.350E+00
GROSS GAMMA ERROR (pCi/GRAM)	: 1.153E+00
GROSS GAMMA MDA (pCi/GRAM)	: 2.826E+00
GROSS GAMMA DLC (pCi/GRAM)	: 1.360E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:33:15.37

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*******************************************************************************
*                            GEL Laboratories LLC                             *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032510.CNF;1
Sample date      : 5-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 16:32:21
Sample ID        : G1202032510          Sample quantity  : 1.36210E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:00.52  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 948717               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	93.22*	16	122	0.77	185.94	181	12	2.20E-03	160.0	
2	0	185.71*	11	70	1.18	370.74	366	10	1.53E-03	173.8	
3	0	238.42*	33	104	1.46	476.06	469	15	4.58E-03	74.7	
4	0	511.12*	45	22	3.00	1021.11	1014	17	6.26E-03	43.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 18:33:18

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032510.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-FEB-2010 00:00:00 Acquisition date : 12-FEB-2010 16:32:21
Sample ID : G1202032510 Sample quantity : 136.21 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA14 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.52 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	511.00	*	4.025E-02	3.494E-02	2.180E-02	1.281E-03	1.847

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-6.023E-02	1.320E-01	2.022E-01	1.363E-02	-0.298
NA-22		1274.54	*	1.844E-02	1.960E-02	3.799E-02	2.482E-03	0.485
NA-24		1368.53	*	3.827E-05	1.960E-02	Half-Life too short		
AL-26		1129.67		-3.164E-01	6.622E-01	9.769E-01	6.169E-02	-0.324
		1808.65	*	-7.550E-03	2.191E-02	3.208E-02	1.860E-03	-0.235
K-40		1460.81	*	3.054E-02	2.667E-01	4.891E-01	3.551E-02	0.062
TI-44		67.85		-1.238E-02	1.666E-02	2.561E-02	1.803E-03	-0.483
		78.38	*	-1.736E-02	1.276E-02	1.844E-02	1.440E-03	-0.941
SC-46		889.25	*	5.975E-03	1.626E-02	2.892E-02	2.673E-03	0.207
		1120.51		6.106E-03	2.426E-02	4.170E-02	2.700E-03	0.146
V-48		944.10		1.118E-01	3.030E-01	5.367E-01	4.797E-02	0.208
		983.50	*	-7.357E-03	2.381E-02	3.739E-02	3.175E-03	-0.197
		1312.09		2.951E-03	2.315E-02	3.927E-02	2.714E-03	0.075
CR-51		320.08	*	-6.171E-02	1.577E-01	2.522E-01	1.630E-02	-0.245
MN-52		744.21		3.268E-02	4.840E-02	8.594E-02	6.065E-03	0.380
		848.13		8.645E-01	1.419E+00	2.575E+00	2.213E-01	0.336
		935.52		-4.076E-02	4.949E-02	7.059E-02	6.371E-03	-0.577
		1246.25		2.413E-01	9.795E-01	1.710E+00	1.065E-01	0.141
		1333.61		2.298E-01	1.070E+00	1.832E+00	1.305E-01	0.125
		1434.06	*	-1.881E-02	5.157E-02	7.689E-02	5.389E-03	-0.245
MN-54		834.83	*	1.225E-02	1.866E-02	3.398E-02	2.851E-03	0.360
CO-56		846.75	*	1.214E-02	2.133E-02	3.826E-02	3.279E-03	0.317
		977.42		2.372E-01	1.135E+00	1.968E+00	1.685E-01	0.121
		1037.82		7.171E-02	1.535E-01	2.734E-01	2.265E-02	0.262
		1175.09		2.935E-01	1.010E+00	1.750E+00	9.670E-02	0.168
		1238.25		1.630E-02	3.027E-02	5.514E-02	3.582E-03	0.296
		1360.21		2.385E-01	5.328E-01	9.496E-01	6.746E-02	0.251
		1771.40		-6.358E-02	1.353E-01	1.872E-01	1.117E-02	-0.340

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57		122.06	*	-8.012E-03	1.133E-02	1.712E-02	1.218E-03	-0.468
		136.48		-5.940E-02	9.161E-02	1.386E-01	1.017E-02	-0.429
CO-58		810.76	*	-8.907E-03	1.997E-02	2.964E-02	2.385E-03	-0.300
FE-59		142.65		-1.021E-01	1.124E+00	1.789E+00	1.122E-01	-0.057
		192.34		-4.606E-01	4.118E-01	5.830E-01	6.806E-02	-0.790
		1099.22	*	6.925E-03	3.796E-02	6.495E-02	5.000E-03	0.107
		1291.56		-6.000E-02	5.441E-02	6.858E-02	5.583E-03	-0.875
CO-60		1173.22		3.235E-02	2.036E-02	4.216E-02	2.322E-03	0.767
		1332.49	*	2.908E-03	2.052E-02	3.467E-02	2.471E-03	0.084
ZN-65		1115.52	*	9.461E-03	4.529E-02	7.741E-02	5.088E-03	0.122
GE-68		1077.35	*	3.763E-01	5.705E-01	1.053E+00	7.572E-02	0.357
AS-73		53.44	*	-2.427E-01	2.369E-01	3.521E-01	2.295E-02	-0.689
AS-74		595.88	*	2.507E-02	4.097E-02	7.117E-02	4.257E-03	0.352
		634.78		-7.063E-03	1.410E-01	2.270E-01	1.356E-02	-0.031
SE-75		66.05		-1.132E+00	1.783E+00	2.660E+00	2.419E-01	-0.425
		96.73		1.467E-01	3.267E-01	4.850E-01	6.443E-02	0.302
		121.11		-2.797E-02	5.733E-02	8.826E-02	8.931E-03	-0.317
		136.00		-9.895E-03	1.675E-02	2.549E-02	1.684E-03	-0.388
		198.60		8.540E-02	7.981E-01	1.353E+00	9.370E-02	0.063
		264.65	*	2.941E-03	2.082E-02	3.518E-02	2.065E-03	0.084
		279.53		-3.372E-02	5.436E-02	8.596E-02	5.414E-03	-0.392
		303.91		6.488E-01	1.041E+00	1.819E+00	1.739E-01	0.357
		400.65		8.387E-02	1.239E-01	2.183E-01	1.945E-02	0.384
BR-77		87.88		-4.359E+00	9.430E+00	1.275E+01	1.113E+00	-0.342
		200.40		-8.850E+00	8.919E+00	1.388E+01	7.721E-01	-0.637
	+	239.00		6.732E-01	1.007E+00	1.023E+00	5.875E-02	0.658
		249.79		1.041E+00	3.524E+00	6.043E+00	3.491E-01	0.172
		281.68		3.444E+00	5.380E+00	9.419E+00	5.494E-01	0.366
		297.23		1.989E+00	2.761E+00	4.885E+00	2.850E-01	0.407
		303.76		7.712E+00	1.046E+01	1.847E+01	1.076E+00	0.418
		439.47		5.112E+00	8.094E+00	1.426E+01	8.064E-01	0.358
		484.57		6.645E+00	1.396E+01	2.411E+01	1.400E+00	0.276
		520.65	*	3.102E-01	5.434E-01	9.583E-01	5.650E-02	0.324
		574.64		5.402E+00	1.366E+01	2.327E+01	1.389E+00	0.232
		578.91		-4.439E+00	5.235E+00	7.533E+00	4.500E-01	-0.589
		585.48		-2.083E+00	9.301E+00	1.466E+01	8.761E-01	-0.142
		755.35		-8.965E-01	7.927E+00	1.247E+01	8.998E-01	-0.072
		817.79		-4.907E+00	7.455E+00	1.117E+01	9.080E-01	-0.439
SR-82		698.33		6.650E+00	1.530E+01	2.611E+01	1.678E+00	0.255
		776.49	*	-1.948E-02	1.487E-01	2.335E-01	1.756E-02	-0.083
		1395.20		-1.673E+00	4.430E+00	6.552E+00	4.629E-01	-0.255
RB-83		520.41	*	1.484E-02	2.924E-02	5.119E-02	3.018E-03	0.290
		529.64		1.108E-02	5.328E-02	8.923E-02	5.276E-03	0.124
		552.65		-1.149E-02	1.001E-01	1.608E-01	9.566E-03	-0.071
RB-84		881.50	*	3.819E-03	3.007E-02	5.131E-02	4.678E-03	0.074
KR-85		513.99	*	1.154E+01	4.675E+00	8.677E+00	5.103E-01	1.329
SR-85		513.99	*	5.470E-02	2.217E-02	4.115E-02	2.420E-03	1.329
RB-86		1076.63	*	5.205E-02	2.918E-01	4.989E-01	3.592E-02	0.104
Y-88		898.02		1.461E-02	1.667E-02	3.201E-02	3.015E-03	0.456

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1836.01	*	1.912E-02	2.670E-02	4.958E-02	2.816E-03	0.386
ZR-88		392.90	*	-1.058E-03	1.417E-02	2.320E-02	1.263E-03	-0.046
Y-91		1204.90	*	-2.182E+00	6.955E+00	1.073E+01	6.243E-01	-0.203
NB-94		702.63	*	-7.495E-03	1.763E-02	2.666E-02	1.729E-03	-0.281
		871.10		2.779E-03	1.585E-02	2.731E-02	2.445E-03	0.102
NB-95		765.79	*	6.448E-03	1.728E-02	2.955E-02	2.176E-03	0.218
NB-95M		235.69	*	4.584E-02	5.713E-02	9.054E-02	6.767E-03	0.506
ZR-95		724.18		9.241E-03	4.170E-02	6.952E-02	5.356E-03	0.133
		756.15	*	-1.161E-02	2.882E-02	4.273E-02	3.525E-03	-0.272
NB-97		657.90	*	1.307E-05	2.882E-02	Half-Life too short		
		1024.50		-1.073E-03	2.882E-02	Half-Life too short		
ZR-97		254.15		-1.185E-03	2.882E-02	Half-Life too short		
		355.39		-4.812E-04	2.882E-02	Half-Life too short		
		507.63	*	1.338E-03	2.882E-02	Half-Life too short		
		602.52		1.681E-03	2.882E-02	Half-Life too short		
		1021.30		-3.702E-04	2.882E-02	Half-Life too short		
		1147.95		-1.153E-04	2.882E-02	Half-Life too short		
		1362.66		5.235E-04	2.882E-02	Half-Life too short		
		1750.46		-1.020E-03	2.882E-02	Half-Life too short		
MO-99		140.51		2.214E-01	1.843E+00	2.985E+00	8.082E-01	0.074
		181.06		-1.621E-01	1.224E+00	1.772E+00	3.017E-01	-0.091
		366.43		2.772E+00	6.287E+00	1.088E+01	6.106E-01	0.255
		739.58	*	3.388E-01	8.915E-01	1.521E+00	2.179E-01	0.223
		778.00		3.041E+00	2.338E+00	4.572E+00	3.447E-01	0.665
TC-99M		140.51	*	2.548E+00	2.338E+00	Half-Life too short		
RH-101		127.23		-5.158E-03	1.386E-02	2.158E-02	1.484E-03	-0.239
		198.01	*	7.413E-03	1.508E-02	2.626E-02	1.457E-03	0.282
		325.23		-5.241E-02	1.074E-01	1.698E-01	9.828E-03	-0.309
RH-102		418.52		7.251E-02	1.433E-01	2.489E-01	1.385E-02	0.291
		475.06	*	-5.850E-03	1.674E-02	2.138E-02	1.236E-03	-0.274
		631.29		9.692E-04	2.608E-02	4.254E-02	2.542E-03	0.023
		697.49		6.182E-03	4.294E-02	7.068E-02	4.535E-03	0.087
		766.84		2.037E-02	4.604E-02	7.965E-02	5.877E-03	0.256
		1046.59		-3.787E-03	5.776E-02	9.490E-02	7.263E-03	-0.040
		1112.84		-5.450E-02	1.116E-01	1.692E-01	1.118E-02	-0.322
RU-103		497.08	*	-6.357E-03	1.681E-02	2.604E-02	3.297E-03	-0.244
		610.33		-1.878E-01	4.207E-01	6.547E-01	1.014E-01	-0.287
RH-106	+	511.85		1.983E-01	1.721E-01	2.736E-01	1.608E-02	0.725
		621.84	*	-4.423E-02	1.479E-01	2.285E-01	2.702E-02	-0.194
		1050.47		5.854E-02	1.174E+00	1.965E+00	1.493E-01	0.030
RU-106	+	511.85		1.983E-01	1.721E-01	2.736E-01	1.608E-02	0.725
		621.84	*	-4.423E-02	1.479E-01	2.285E-01	1.366E-02	-0.194
		1050.47		5.854E-02	1.174E+00	1.965E+00	1.493E-01	0.030
AG-108M		433.93	*	-3.722E-03	1.622E-02	2.594E-02	1.593E-03	-0.143
		614.37		8.506E-03	2.219E-02	3.764E-02	2.432E-03	0.226
		722.95		-7.624E-03	2.101E-02	3.196E-02	2.297E-03	-0.239
CD-109		88.03	*	-3.321E-02	3.647E-01	5.120E-01	4.478E-02	-0.065
AG-110M		657.75	*	6.513E-03	1.831E-02	3.107E-02	1.963E-03	0.210
		677.61		8.184E-03	1.349E-01	2.205E-01	1.430E-02	0.037

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	706.67		1.515E-02	9.670E-02	1.600E-01	1.096E-02	0.095
	763.93		-1.629E-02	7.407E-02	1.146E-01	8.734E-03	-0.142
	884.67		-3.044E-03	2.338E-02	3.829E-02	3.610E-03	-0.080
	937.48		-2.099E-02	5.031E-02	7.768E-02	7.227E-03	-0.270
	1384.27		2.979E-02	6.197E-02	1.152E-01	8.494E-03	0.259
IN-111	171.28		2.593E-02	7.646E-02	1.256E-01	6.775E-03	0.206
	245.39	*	2.944E-02	8.520E-02	1.295E-01	7.461E-03	0.227
IN-113M	391.69	*	3.866E-03	2.238E-02	3.757E-02	2.199E-03	0.103
SN-113	391.69	*	3.866E-03	2.238E-02	3.757E-02	2.199E-03	0.103
IN-114M	190.27	*	2.621E-02	8.025E-02	1.220E-01	6.716E-03	0.215
CD-115	260.90		2.029E+00	6.298E+00	1.080E+01	6.270E-01	0.188
	492.35		1.223E+00	1.920E+00	3.373E+00	1.966E-01	0.363
	527.90	*	-2.377E-01	5.591E-01	8.615E-01	5.091E-02	-0.276
SN-117M	156.02		2.454E-01	7.186E-01	1.182E+00	6.806E-02	0.208
	158.56	*	-4.045E-03	1.941E-02	2.935E-02	1.660E-03	-0.138
SB-122	563.90	*	-1.427E-01	1.936E-01	2.891E-01	1.723E-02	-0.494
	692.80		3.200E+00	3.434E+00	6.233E+00	3.960E-01	0.513
I-123	159.00	*	-1.263E-04	3.434E+00	Half-Life too short		
	528.96		8.654E-03	3.434E+00	Half-Life too short		
TE-123M	159.00	*	-7.306E-03	1.425E-02	2.101E-02	1.202E-03	-0.348
I-124	602.71	*	8.030E-02	1.089E-01	1.919E-01	1.148E-02	0.419
	722.78		-2.324E-01	6.405E-01	9.743E-01	6.586E-02	-0.239
	1325.50		-2.347E+00	4.295E+00	5.997E+00	4.229E-01	-0.391
	1376.25		-1.426E+00	4.674E+00	7.156E+00	5.072E-01	-0.199
	1509.49		1.222E+00	2.370E+00	4.338E+00	2.976E-01	0.282
	1691.02		6.695E-02	7.216E-01	1.198E+00	7.551E-02	0.056
SB-124	602.71		1.468E-02	1.991E-02	3.508E-02	2.100E-03	0.419
	645.85		8.700E-02	2.196E-01	3.775E-01	2.525E-02	0.230
	709.31		-8.162E-01	1.253E+00	1.802E+00	1.185E-01	-0.453
	713.82		-3.441E-02	7.468E-01	1.196E+00	1.281E-01	-0.029
	722.78		-6.160E-02	1.698E-01	2.583E-01	1.807E-02	-0.239
	968.20		6.936E-01	1.043E+00	1.915E+00	1.661E-01	0.362
	1045.16		5.873E-02	1.104E+00	1.851E+00	1.420E-01	0.032
	1325.50		-6.645E-01	1.216E+00	1.698E+00	1.197E-01	-0.391
	1368.21		-1.332E-02	9.991E-01	1.634E+00	2.052E-01	-0.008
	1436.60		-1.133E+00	1.999E+00	2.831E+00	1.983E-01	-0.400
	1691.02	*	4.186E-03	4.512E-02	7.493E-02	5.065E-03	0.056
SB-125	427.89	*	9.778E-03	4.585E-02	7.727E-02	4.528E-03	0.127
	463.38		-1.063E-01	1.355E-01	2.001E-01	1.343E-02	-0.531
	600.56		-3.008E-02	1.066E-01	1.676E-01	1.151E-02	-0.179
	635.90		1.264E-02	1.509E-01	2.474E-01	1.717E-02	0.051
TE-125M	109.28	*	-1.379E+00	3.548E+00	5.530E+00	5.182E-01	-0.249
I-126	388.63		5.998E-02	7.284E-02	1.297E-01	7.083E-03	0.463
	666.33	*	-9.546E-03	6.009E-02	9.490E-02	5.699E-03	-0.101
	753.82		-1.362E-01	4.255E-01	6.416E-01	4.615E-02	-0.212
SB-126	223.80		-4.877E-01	1.216E+00	1.973E+00	1.121E-01	-0.247
	278.60		-9.088E-01	8.230E-01	1.240E+00	7.229E-02	-0.733
	296.50		4.955E-01	3.994E-01	7.371E-01	4.299E-02	0.672
	414.70		3.859E-03	2.662E-02	4.450E-02	2.469E-03	0.087

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	415.30		6.963E-01	2.163E+00	3.683E+00	2.045E-01	0.189
	555.20		-3.492E-01	1.367E+00	2.151E+00	1.280E-01	-0.162
	573.80		1.236E-01	4.098E-01	6.898E-01	4.118E-02	0.179
	593.00		-1.117E-01	3.678E-01	5.760E-01	3.445E-02	-0.194
	656.30		6.756E-01	1.220E+00	2.118E+00	1.261E-01	0.319
	666.33		-3.922E-03	2.469E-02	3.899E-02	2.341E-03	-0.101
	675.00		-4.353E-01	6.101E-01	8.614E-01	5.271E-02	-0.505
	695.00		-7.730E-04	2.935E-02	4.725E-02	3.016E-03	-0.016
	697.00		-4.453E-03	1.042E-01	1.674E-01	1.073E-02	-0.027
	720.50	*	-2.331E-02	4.844E-02	7.209E-02	4.850E-03	-0.323
	856.80		6.701E-02	1.550E-01	2.756E-01	2.405E-02	0.243
	989.30		2.777E-01	4.236E-01	7.766E-01	6.539E-02	0.358
	1034.80		-5.810E-01	2.907E+00	4.663E+00	3.647E-01	-0.125
	1213.00		3.144E-01	1.229E+00	2.129E+00	1.255E-01	0.148
SN-126	64.28		8.484E-03	1.898E-01	3.176E-01	4.526E-02	0.027
	86.94		-3.506E-02	1.560E-01	2.140E-01	8.852E-02	-0.164
	87.57	*	-1.989E-02	3.845E-02	5.173E-02	4.501E-03	-0.385
SB-127	61.10		-4.629E+00	5.492E+00	8.311E+00	6.323E-01	-0.557
	252.40		3.203E-01	5.391E-01	9.202E-01	3.781E-01	0.348
	290.80		-2.418E+00	2.539E+00	3.821E+00	2.623E-01	-0.633
	411.60		-1.037E+00	1.728E+00	2.660E+00	3.432E-01	-0.390
	444.90		-9.146E-01	1.239E+00	1.838E+00	1.621E-01	-0.498
	473.00		-1.515E-02	2.152E-01	3.497E-01	3.268E-02	-0.043
	543.00		-5.165E-01	2.355E+00	3.733E+00	4.272E-01	-0.138
	603.60		4.405E-01	1.739E+00	2.908E+00	2.613E-01	0.151
	685.20	*	9.534E-02	1.462E-01	2.637E-01	1.994E-02	0.361
	698.50		1.003E+00	2.207E+00	3.771E+00	5.060E-01	0.266
	722.20		4.896E-01	3.789E+00	6.233E+00	4.774E-01	0.079
	783.80		1.841E-01	4.346E-01	7.489E-01	7.520E-02	0.246
XE-127	57.60		4.758E-01	1.655E+00	2.764E+00	1.820E-01	0.172
	145.22		-7.972E-02	3.081E-01	4.587E-01	2.831E-02	-0.174
	172.10		-2.893E-02	5.020E-02	7.611E-02	4.108E-03	-0.380
	202.84	*	2.116E-03	1.932E-02	3.274E-02	1.825E-03	0.065
	374.96		2.062E-02	8.933E-02	1.510E-01	8.396E-03	0.136
I-131	80.18		-5.566E-01	8.781E-01	1.354E+00	1.081E-01	-0.411
	284.30		2.395E-01	4.224E-01	7.352E-01	4.723E-02	0.326
	364.48	*	3.972E-03	2.970E-02	4.982E-02	3.119E-03	0.080
	636.97		2.968E-01	4.498E-01	7.914E-01	5.219E-02	0.375
	722.89		-6.769E-01	1.865E+00	2.838E+00	1.924E-01	-0.239
TE-132	49.72		-5.961E-01	1.258E+00	1.983E+00	1.442E-01	-0.301
	111.76		1.297E+00	2.686E+00	4.495E+00	3.646E-01	0.289
	116.30		-1.576E+00	2.502E+00	3.810E+00	3.044E-01	-0.414
	228.16	*	5.384E-02	6.882E-02	1.215E-01	1.597E-02	0.443
BA-133	53.15		-9.343E-01	1.070E+00	1.614E+00	1.051E-01	-0.579
	79.62		-1.758E-01	4.629E-01	7.286E-01	1.081E-01	-0.241
	81.00		-1.567E-02	3.585E-02	5.613E-02	8.740E-03	-0.279
	276.40		-9.728E-03	1.772E-01	2.941E-01	3.817E-02	-0.033
	302.84		1.929E-02	7.509E-02	1.275E-01	1.489E-02	0.151
	356.01	*	-3.177E-03	2.166E-02	3.532E-02	4.060E-03	-0.090

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		383.85		-5.353E-02	1.550E-01	2.465E-01	2.641E-02	-0.217
I-133	+	510.53		1.077E-03	1.550E-01	Half-Life too short		
		529.87	*	1.352E-06	1.550E-01	Half-Life too short		
		706.58		1.843E-05	1.550E-01	Half-Life too short		
		856.28		2.146E-04	1.550E-01	Half-Life too short		
		875.33		5.016E-05	1.550E-01	Half-Life too short		
		1236.41		1.912E-04	1.550E-01	Half-Life too short		
		1298.22		3.638E-04	1.550E-01	Half-Life too short		
CS-134		475.35		-4.742E-01	1.107E+00	1.406E+00	8.127E-02	-0.337
		563.23		-3.603E-02	2.102E-01	3.357E-01	2.040E-02	-0.107
		569.32		1.268E-01	1.241E-01	2.227E-01	1.366E-02	0.569
		604.70		-1.945E-02	2.036E-02	2.935E-02	1.765E-03	-0.663
		795.84	*	1.120E-02	2.214E-02	3.848E-02	3.029E-03	0.291
		801.93		-1.689E-01	2.393E-01	3.303E-01	2.624E-02	-0.511
		1038.57		1.211E+00	2.020E+00	3.663E+00	2.846E-01	0.331
		1167.94		-1.060E+00	1.127E+00	1.506E+00	8.448E-02	-0.704
		1365.15		-3.166E-01	7.824E-01	1.183E+00	8.957E-02	-0.268
CS-135		268.24	*	3.101E-02	7.378E-02	1.275E-01	9.778E-03	0.243
I-135		288.45		6.684E+01	7.378E-02	Half-Life too short		
		417.63		1.059E+02	7.378E-02	Half-Life too short		
		546.56		-5.285E+00	7.378E-02	Half-Life too short		
		836.80		6.405E+01	7.378E-02	Half-Life too short		
		1038.76		4.280E+01	7.378E-02	Half-Life too short		
		1124.00		5.382E+00	7.378E-02	Half-Life too short		
		1131.51		4.898E+00	7.378E-02	Half-Life too short		
		1260.41	*	1.393E+01	7.378E-02	Half-Life too short		
		1457.56		-2.770E+01	7.378E-02	Half-Life too short		
		1678.03		-2.220E+01	7.378E-02	Half-Life too short		
		1706.46		-8.098E+00	7.378E-02	Half-Life too short		
		1791.20		1.479E+01	7.378E-02	Half-Life too short		
CS-136		66.91		-2.899E-01	2.144E-01	2.972E-01	4.334E-02	-0.976
		86.29		5.277E-02	3.058E-01	4.651E-01	5.957E-02	0.113
		153.22		-8.126E-02	2.023E-01	3.126E-01	2.272E-02	-0.260
		163.89		3.347E-01	3.521E-01	6.039E-01	4.205E-02	0.554
		176.55		5.222E-02	1.130E-01	1.877E-01	1.159E-02	0.278
		273.65		8.007E-02	1.388E-01	2.429E-01	1.611E-02	0.330
		340.57		9.916E-03	4.279E-02	7.240E-02	4.416E-03	0.137
		818.51		-1.800E-02	2.484E-02	3.679E-02	2.995E-03	-0.489
		1048.07	*	-8.547E-04	3.721E-02	6.158E-02	4.949E-03	-0.014
		1235.34		-3.181E-02	1.460E-01	2.297E-01	2.336E-02	-0.138
BA-137M		661.65	*	-1.063E-02	1.879E-02	2.788E-02	1.658E-03	-0.381
CS-137		661.65	*	-1.123E-02	1.986E-02	2.947E-02	1.759E-03	-0.381
CE-139		165.85	*	5.521E-03	1.391E-02	2.295E-02	1.232E-03	0.241
BA-140		162.64		4.250E-02	2.451E-01	3.974E-01	2.485E-02	0.107
		304.84		3.199E-01	4.367E-01	7.576E-01	2.068E-01	0.422
		423.70		-1.088E-02	6.214E-01	1.021E+00	3.240E-01	-0.011
		537.32	*	5.565E-02	9.251E-02	1.593E-01	5.184E-02	0.349
LA-140		328.77		1.034E-01	9.120E-02	1.670E-01	1.081E-02	0.619
		432.53		-4.102E-02	6.858E-01	1.120E+00	7.001E-02	-0.037

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	487.03		-3.254E-02	5.278E-02	8.029E-02	5.282E-03	-0.405
	751.79		5.566E-02	4.616E-01	7.612E-01	6.280E-02	0.073
	815.85		-2.764E-02	1.041E-01	1.675E-01	1.532E-02	-0.165
	867.82		1.548E-01	4.527E-01	7.977E-01	7.453E-02	0.194
	919.63		2.740E-01	9.804E-01	1.705E+00	1.894E-01	0.161
	925.24		-1.625E-01	4.043E-01	6.325E-01	6.098E-02	-0.257
	1596.49	*	1.229E-02	3.486E-02	6.116E-02	4.054E-03	0.201
CE-141	145.44	*	-3.239E-03	2.704E-02	4.064E-02	2.593E-03	-0.080
CE-143	57.37		3.601E-01	7.946E+00	1.302E+01	1.055E+00	0.028
	231.56		-2.298E+01	3.482E+01	4.598E+01	1.421E+01	-0.500
	293.26	*	-1.018E+00	1.335E+00	2.026E+00	4.147E-01	-0.502
	350.59		-4.222E+01	2.507E+01	2.772E+01	8.406E+00	-1.523
	490.36		1.988E+00	3.720E+01	6.128E+01	1.895E+01	0.032
	664.57		-2.982E+00	1.535E+01	2.408E+01	7.632E+00	-0.124
	721.93		-3.749E+00	1.624E+01	2.519E+01	7.218E+00	-0.149
CE-144	80.11		-4.810E-01	7.527E-01	1.160E+00	9.239E-02	-0.415
	133.54	*	2.419E-02	8.626E-02	1.418E-01	2.065E-02	0.171
PM-144	476.78		-3.100E-02	3.917E-02	4.658E-02	3.227E-03	-0.665
	618.01		-1.228E-02	1.797E-02	2.589E-02	1.635E-03	-0.474
	696.49	*	7.838E-04	1.956E-02	3.176E-02	2.034E-03	0.025
	778.57		7.035E-01	1.070E+00	1.908E+00	1.440E-01	0.369
PR-144	696.49	*	5.291E-02	1.320E+00	2.143E+00	1.372E-01	0.025
	1489.15		-5.035E+00	7.830E+00	1.095E+01	7.559E-01	-0.460
PM-146	453.90	*	-5.132E-03	2.351E-02	3.767E-02	3.224E-03	-0.136
	633.02		4.299E-01	7.099E-01	1.222E+00	4.502E-01	0.352
	735.90		2.516E-02	7.161E-02	1.215E-01	3.420E-02	0.207
	747.13		2.596E-02	4.341E-02	7.660E-02	1.008E-02	0.339
ND-147	91.11		7.798E-02	8.541E-02	1.299E-01	1.193E-02	0.601
	319.41		-5.666E-01	1.064E+00	1.678E+00	9.734E-02	-0.338
	439.89		7.861E-01	1.809E+00	3.121E+00	1.766E-01	0.252
	531.02	*	5.459E-02	1.911E-01	3.226E-01	4.378E-02	0.169
PM-149	285.90	*	-9.282E-01	4.741E+00	7.770E+00	1.101E+00	-0.119
EU-152	121.78		-2.852E-02	3.315E-02	4.924E-02	4.259E-03	-0.579
	244.69		9.729E-02	1.576E-01	2.475E-01	1.425E-02	0.393
	344.27	*	3.300E-04	5.286E-02	8.766E-02	5.671E-03	0.004
	443.98		-1.814E-01	4.727E-01	7.401E-01	4.198E-02	-0.245
	778.89		6.740E-02	1.264E-01	2.213E-01	1.671E-02	0.305
	867.32		2.402E-01	4.000E-01	7.304E-01	6.494E-02	0.329
	964.01		-1.462E-02	1.432E-01	2.351E-01	2.050E-02	-0.062
	1085.78		-1.640E-01	1.758E-01	2.323E-01	1.639E-02	-0.706
	1112.02		7.679E-03	1.599E-01	2.670E-01	1.768E-02	0.029
	1407.95		-5.512E-02	8.371E-02	1.111E-01	7.828E-03	-0.496
GD-153	69.67		-2.655E-03	5.542E-01	9.015E-01	6.446E-02	-0.003
	83.37		1.768E+00	5.575E+00	9.243E+00	7.643E-01	0.191
	97.43	*	1.457E-02	3.422E-02	5.075E-02	4.070E-03	0.287
	103.18		2.494E-03	4.093E-02	6.647E-02	5.128E-03	0.038
EU-154	123.07		1.303E-02	2.318E-02	3.896E-02	3.986E-03	0.334
	247.94		-1.217E-01	1.688E-01	2.638E-01	2.512E-02	-0.461
	591.81		-2.058E-02	3.553E-01	5.735E-01	5.667E-02	-0.036

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		723.30		-3.729E-02	8.891E-02	1.340E-01	1.058E-02	-0.278
		756.87		6.952E-02	3.172E-01	5.323E-01	5.867E-02	0.131
		873.19		-1.498E-01	1.445E-01	1.951E-01	2.439E-02	-0.768
		996.32		-2.064E-01	1.807E-01	2.291E-01	4.039E-02	-0.901
		1004.76		-6.887E-02	1.029E-01	1.477E-01	1.677E-02	-0.466
		1274.45	*	5.170E-02	5.509E-02	1.065E-01	1.044E-02	0.485
EU-155		48.70		3.579E-01	7.506E-01	1.271E+00	8.142E-02	0.282
		60.01		-2.188E+00	1.808E+00	2.650E+00	1.761E-01	-0.826
		86.54		-1.950E-03	4.288E-02	6.230E-02	5.407E-03	-0.031
		105.31	*	-9.137E-04	4.296E-02	6.924E-02	5.360E-03	-0.013
TB-160		86.79		-3.649E-02	1.085E-01	1.541E-01	1.328E-02	-0.237
		197.04		2.778E-01	2.386E-01	4.336E-01	2.403E-02	0.641
		215.65		-1.038E-02	3.135E-01	5.250E-01	2.962E-02	-0.020
		298.57		-6.235E-03	4.984E-02	8.203E-02	4.784E-03	-0.076
		879.36	*	5.264E-03	6.632E-02	1.123E-01	1.020E-02	0.047
		962.29		1.018E-01	2.279E-01	4.053E-01	3.542E-02	0.251
		966.15		3.138E-03	8.980E-02	1.505E-01	1.308E-02	0.021
		1177.93		-1.245E-01	1.603E-01	2.261E-01	1.256E-02	-0.551
		1271.85		1.838E-01	3.042E-01	5.586E-01	3.627E-02	0.329
HO-166M		80.57		-5.958E-02	9.843E-02	1.522E-01	1.218E-02	-0.391
	+	184.41		6.433E-03	2.236E-02	3.025E-02	1.655E-03	0.213
		280.46		7.450E-04	4.447E-02	7.425E-02	4.330E-03	0.010
		410.95		4.514E-02	1.261E-01	2.154E-01	1.192E-02	0.209
		711.68	*	-5.518E-03	2.935E-02	4.590E-02	3.033E-03	-0.120
		752.31		-5.770E-02	1.104E-01	1.576E-01	1.130E-02	-0.366
		810.29		-1.744E-02	3.269E-02	4.776E-02	3.828E-03	-0.365
TM-171		51.35		6.236E-01	9.048E+00	1.488E+01	9.647E-01	0.042
		52.39		-2.972E-01	4.519E+00	7.345E+00	4.776E-01	-0.040
		59.40		-4.491E+00	9.282E+00	1.443E+01	9.557E-01	-0.311
		66.72	*	-1.256E+01	1.106E+01	1.586E+01	1.106E+00	-0.792
LU-176		88.36		2.800E-02	8.258E-02	1.209E-01	1.053E-02	0.232
		201.83		-1.396E-02	1.377E-02	2.141E-02	1.192E-03	-0.652
		306.84	*	-2.952E-04	1.233E-02	2.046E-02	1.191E-03	-0.014
		401.10		2.527E+00	3.326E+00	5.916E+00	3.245E-01	0.427
LU-177		112.95		4.003E-01	3.293E-01	5.793E-01	4.254E-02	0.691
		208.36	*	-1.832E-01	2.314E-01	3.657E-01	2.049E-02	-0.501
LU-177M		52.97		-2.844E-01	4.590E-01	7.089E-01	4.616E-02	-0.401
		54.07		-1.823E-01	2.489E-01	3.806E-01	2.484E-02	-0.479
		61.30		-3.720E-01	5.280E-01	8.090E-01	5.423E-02	-0.460
		121.62		-1.015E-01	1.610E-01	2.446E-01	1.739E-02	-0.415
		147.16		-4.445E-02	2.863E-01	4.529E-01	2.761E-02	-0.098
		171.86		-1.423E-01	2.248E-01	3.388E-01	1.828E-02	-0.420
		218.09		8.791E-02	3.718E-01	6.357E-01	3.594E-02	0.138
		268.79		1.614E-01	3.523E-01	6.110E-01	3.555E-02	0.264
		319.02		-7.486E-02	1.244E-01	1.943E-01	1.128E-02	-0.385
		367.43		-1.340E-01	4.238E-01	6.763E-01	3.791E-02	-0.198
		413.65	*	-8.603E-02	9.104E-02	1.344E-01	7.449E-03	-0.640
HF-181		56.28		-1.374E-01	2.611E-01	4.073E-01	2.672E-02	-0.337
		57.53		3.777E-02	1.417E-01	2.363E-01	1.556E-02	0.160

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Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	65.20		2.989E-01	3.148E-01	5.241E-01	3.611E-02	0.570
	133.02		2.295E-02	2.376E-02	4.134E-02	2.747E-03	0.555
	136.25		-1.472E-01	1.826E-01	2.722E-01	1.774E-02	-0.541
	345.85		7.256E-02	8.953E-02	1.590E-01	9.087E-03	0.456
	482.03	*	8.000E-03	1.922E-02	3.306E-02	1.918E-03	0.242
W-181	56.28		-5.809E-02	1.106E-01	1.725E-01	1.132E-02	-0.337
	57.53		1.597E-02	6.008E-02	1.002E-01	6.595E-03	0.159
	65.20	*	1.257E-01	1.324E-01	2.204E-01	1.518E-02	0.570
TA-182	67.75		-2.850E-02	3.800E-02	5.838E-02	4.105E-03	-0.488
	100.10		2.245E-02	7.171E-02	1.106E-01	8.701E-03	0.203
	152.43		-1.292E-02	1.428E-01	2.269E-01	1.338E-02	-0.057
	222.10		-6.964E-02	1.506E-01	2.432E-01	1.379E-02	-0.286
	1001.68		2.194E-01	9.676E-01	1.614E+00	1.334E-01	0.136
	1121.28		9.380E-03	6.347E-02	1.076E-01	6.955E-03	0.087
	1189.05		2.953E-02	1.380E-01	2.362E-01	1.338E-02	0.125
	1221.42	*	1.381E-02	7.004E-02	1.202E-01	7.192E-03	0.115
	1230.97		-2.441E-03	1.664E-01	2.734E-01	1.661E-02	-0.009
RE-183	57.98		3.518E-02	5.770E-02	9.869E-02	6.507E-03	0.356
	59.32		-1.728E-02	3.571E-02	5.551E-02	3.676E-03	-0.311
	67.20		-1.107E-01	7.396E-02	1.027E-01	7.189E-03	-1.078
	162.32	*	-1.756E-02	5.037E-02	7.824E-02	4.309E-03	-0.224
	208.81		-4.799E-01	4.101E-01	6.257E-01	3.508E-02	-0.767
	291.72		-3.878E-01	3.871E-01	5.785E-01	3.375E-02	-0.670
RE-184	57.98		1.353E-01	2.220E-01	3.797E-01	2.503E-02	0.356
	59.32		-6.642E-02	1.373E-01	2.134E-01	1.413E-02	-0.311
	67.20		-4.258E-01	2.844E-01	3.950E-01	2.765E-02	-1.078
	161.27		-1.672E-01	1.750E-01	2.577E-01	1.430E-02	-0.649
	216.55		-1.033E-02	1.174E-01	1.958E-01	1.105E-02	-0.053
	252.85	*	1.628E-02	1.056E-01	1.789E-01	1.035E-02	0.091
	318.01		-1.033E-01	2.108E-01	3.329E-01	1.933E-02	-0.310
	792.07		3.091E-01	4.329E-01	7.796E-01	6.039E-02	0.396
	903.28		-1.513E-01	4.558E-01	7.190E-01	6.711E-02	-0.210
	920.93		4.604E-02	2.282E-01	3.928E-01	3.602E-02	0.117
OS-185	59.72		-9.208E-02	1.007E-01	1.512E-01	1.003E-02	-0.609
	61.14		-4.598E-02	5.639E-02	8.559E-02	5.731E-03	-0.537
	69.30		-1.824E-03	9.585E-02	1.558E-01	1.110E-02	-0.012
	592.07		1.381E-02	1.406E+00	2.289E+00	1.369E-01	0.006
	646.12	*	9.635E-03	1.862E-02	3.262E-02	1.945E-03	0.295
	717.42		2.130E-01	4.176E-01	7.264E-01	4.857E-02	0.293
	874.81		2.906E-02	2.548E-01	4.348E-01	3.918E-02	0.067
	880.27		4.057E-02	3.684E-01	6.271E-01	5.705E-02	0.065
RE-188	155.03	*	4.474E-03	7.231E-02	1.164E-01	6.743E-03	0.038
	477.96		-6.482E-01	1.333E+00	2.038E+00	1.179E-01	-0.318
	633.10		8.677E-01	1.311E+00	2.324E+00	1.388E-01	0.373
W-188	63.58		-9.452E+00	1.842E+01	2.971E+01	2.023E+00	-0.318
	227.08		2.026E+00	5.627E+00	9.693E+00	5.519E-01	0.209
	290.67	*	-2.839E+00	3.119E+00	4.723E+00	2.755E-01	-0.601
IR-192	295.96		2.550E-02	4.304E-02	7.553E-02	4.475E-03	0.338
	308.46		-1.606E-02	4.340E-02	6.956E-02	4.095E-03	-0.231

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		316.51	*	4.739E-03	1.577E-02	2.694E-02	1.572E-03	0.176
		468.07		-7.631E-03	2.938E-02	4.657E-02	3.096E-03	-0.164
		604.41		-1.429E-01	2.543E-01	3.855E-01	4.412E-02	-0.371
		612.46		-5.684E-02	3.785E-01	6.037E-01	4.656E-02	-0.094
AU-195		65.12		6.225E-02	6.242E-02	1.042E-01	7.176E-03	0.597
		66.83		-4.067E-02	3.584E-02	5.137E-02	3.585E-03	-0.792
		75.70		5.943E-02	6.711E-02	1.042E-01	7.904E-03	0.570
		98.88	*	9.878E-03	9.849E-02	1.408E-01	1.117E-02	0.070
		129.76		-9.333E-01	1.162E+00	1.730E+00	1.172E-01	-0.539
TL-200		367.94	*	-1.493E+00	1.966E+00	2.971E+00	1.665E-01	-0.502
		579.30		-1.179E+01	1.547E+01	2.243E+01	1.340E+00	-0.525
		828.27		-5.343E+00	2.290E+01	3.713E+01	3.077E+00	-0.144
		1205.75		-1.624E+00	8.290E+00	1.310E+01	7.632E-01	-0.124
TL-201		68.90		-1.080E-01	3.030E-01	4.798E-01	3.408E-02	-0.225
		70.82		3.126E-02	1.695E-01	2.796E-01	2.020E-02	0.112
		80.30		-2.092E-01	3.348E-01	5.167E-01	4.123E-02	-0.405
		135.34		-4.549E-01	2.064E+00	3.251E+00	2.130E-01	-0.140
		167.43	*	-4.044E-01	6.451E-01	9.768E-01	5.247E-02	-0.414
TL-202		68.90		-3.460E-02	9.708E-02	1.537E-01	1.092E-02	-0.225
		70.82		9.987E-03	5.416E-02	8.931E-02	6.454E-03	0.112
		80.30		-6.687E-02	1.070E-01	1.651E-01	1.317E-02	-0.405
		439.56	*	1.394E-02	2.241E-02	3.946E-02	2.231E-03	0.353
HG-203		70.83		5.789E-02	3.201E-01	5.277E-01	6.738E-02	0.110
		72.87		-4.387E-02	1.912E-01	3.057E-01	3.797E-02	-0.144
		82.60		3.610E-01	3.689E-01	6.353E-01	8.564E-02	0.568
		279.20	*	-1.051E-02	1.859E-02	2.952E-02	1.827E-03	-0.356
BI-207		72.80		-1.648E-02	6.250E-02	9.966E-02	7.340E-03	-0.165
		74.97		1.588E-02	3.914E-02	5.888E-02	4.432E-03	0.270
		84.90		1.552E-02	7.937E-02	1.209E-01	1.018E-02	0.128
		569.67		1.981E-02	1.968E-02	3.524E-02	2.102E-03	0.562
		1063.62	*	1.985E-03	2.322E-02	3.916E-02	2.898E-03	0.051
		1770.23		-1.321E-01	2.639E-01	3.547E-01	2.119E-02	-0.372
TL-207		81.07		-3.151E-02	7.930E-02	1.248E-01	1.004E-02	-0.253
		83.78		-2.670E-03	4.906E-02	7.926E-02	6.586E-03	-0.034
		94.90		1.724E-01	1.118E-01	1.800E-01	1.473E-02	0.958
		122.32		-3.409E-01	7.993E-01	1.240E+00	9.731E-02	-0.275
		144.24		4.382E-02	3.398E-01	5.213E-01	3.944E-02	0.084
		154.21		-8.245E-02	1.835E-01	2.824E-01	1.987E-02	-0.292
		269.46		5.475E-03	8.753E-02	1.469E-01	8.933E-03	0.037
		323.87	*	-5.362E-02	3.165E-01	5.166E-01	8.530E-02	-0.104
		338.28		1.022E-01	4.848E-01	8.194E-01	8.606E-02	0.125
		445.03		-8.116E-01	1.100E+00	1.630E+00	1.663E-01	-0.498
TL-208		277.35		-8.779E-02	1.865E-01	2.984E-01	3.156E-02	-0.294
	+	510.84		1.864E-01	1.625E-01	2.654E-01	2.706E-02	0.702
		583.14	*	-9.368E-03	2.003E-02	3.003E-02	2.054E-03	-0.312
		860.37		-3.412E-02	1.435E-01	2.319E-01	2.181E-02	-0.147
PO-209		260.50		6.813E-01	4.738E+00	8.011E+00	4.649E-01	0.085
		262.80		-3.201E-01	1.371E+01	2.287E+01	1.328E+00	-0.014
		896.60	*	1.881E+00	3.189E+00	5.875E+00	5.498E-01	0.320

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-210		46.50	*	-1.130E+00	1.181E+00	1.852E+00	1.373E-01	-0.610
PB-210		46.50	*	-1.130E+00	1.181E+00	1.852E+00	1.373E-01	-0.610
PO-210		46.50	*	-1.130E+00	1.180E+00	1.852E+00	1.162E-01	-0.610
BI-211		72.87		-2.463E-01	1.073E+00	1.716E+00	1.265E-01	-0.144
		351.07	*	-2.036E-01	1.134E-01	1.470E-01	9.312E-03	-1.385
PB-211		404.84	*	-1.014E-01	5.028E-01	8.054E-01	5.019E-01	-0.126
		427.08		7.147E-02	1.025E+00	1.698E+00	1.049E+00	0.042
		831.96		-8.134E-01	8.129E-01	8.545E-01	5.352E-01	-0.952
BI-212		727.18	*	1.451E-02	1.468E-01	2.402E-01	2.043E-02	0.060
		785.46		2.874E-01	7.730E-01	1.325E+00	1.014E-01	0.217
		1620.62		-1.143E-01	6.087E-01	9.303E-01	6.095E-02	-0.123
PB-212		74.81		3.337E-02	1.364E-01	2.031E-01	2.436E-02	0.164
		77.11		-1.304E-02	6.920E-02	1.108E-01	8.534E-03	-0.118
		87.30		-4.769E-03	1.618E-01	2.417E-01	3.199E-02	-0.020
	+	238.63	*	3.658E-02	5.473E-02	5.572E-02	4.058E-03	0.657
		300.09		4.525E-04	3.823E-01	6.362E-01	5.262E-02	0.001
PO-212		74.81		3.337E-02	1.364E-01	2.031E-01	2.436E-02	0.164
		77.11		-1.304E-02	6.920E-02	1.108E-01	8.534E-03	-0.118
		87.30		-4.769E-03	1.618E-01	2.417E-01	3.199E-02	-0.020
		115.19		2.002E-01	1.612E+00	2.624E+00	1.909E-01	0.076
	+	238.63	*	3.658E-02	5.473E-02	5.572E-02	4.058E-03	0.657
		300.09		4.525E-04	3.823E-01	6.362E-01	5.262E-02	0.001
BI-214		609.31	*	-3.882E-02	4.484E-02	6.639E-02	5.255E-03	-0.585
		1120.29		3.834E-02	1.508E-01	2.592E-01	2.401E-02	0.148
		1764.49		-2.016E-02	1.478E-01	2.422E-01	1.453E-02	-0.083
PB-214		74.81		5.750E-02	2.350E-01	3.500E-01	3.693E-02	0.164
		77.11		-2.236E-02	1.186E-01	1.900E-01	2.058E-02	-0.118
		87.30		-8.170E-03	2.772E-01	4.140E-01	4.804E-02	-0.020
		241.98		8.500E-02	1.682E-01	2.596E-01	2.085E-02	0.327
		295.21		8.550E-03	6.042E-02	1.019E-01	8.714E-03	0.084
		351.92	*	-4.589E-02	3.834E-02	5.347E-02	4.388E-03	-0.858
PO-214		74.81		5.750E-02	2.350E-01	3.500E-01	3.693E-02	0.164
		77.11		-2.236E-02	1.186E-01	1.900E-01	2.058E-02	-0.118
		87.30		-8.170E-03	2.772E-01	4.140E-01	4.804E-02	-0.020
		241.98		8.500E-02	1.682E-01	2.596E-01	2.085E-02	0.327
		295.21		8.550E-03	6.042E-02	1.019E-01	8.714E-03	0.084
		351.92	*	-4.589E-02	3.834E-02	5.347E-02	4.388E-03	-0.858
PO-215		81.07		-3.151E-02	7.930E-02	1.248E-01	1.004E-02	-0.253
		83.78		-2.670E-03	4.906E-02	7.926E-02	6.586E-03	-0.034
		94.90		1.724E-01	1.118E-01	1.800E-01	1.473E-02	0.958
		122.32		-3.409E-01	7.993E-01	1.240E+00	9.731E-02	-0.275
		144.24		4.382E-02	3.398E-01	5.213E-01	3.944E-02	0.084
		154.21		-8.245E-02	1.835E-01	2.824E-01	1.987E-02	-0.292
		269.46		5.475E-03	8.753E-02	1.469E-01	8.933E-03	0.037
		323.87	*	-5.362E-02	3.165E-01	5.166E-01	8.530E-02	-0.104
		338.28		1.022E-01	4.848E-01	8.194E-01	8.606E-02	0.125
		445.03		-8.116E-01	1.100E+00	1.630E+00	1.663E-01	-0.498
PO-216		74.81		3.337E-02	1.364E-01	2.031E-01	2.436E-02	0.164
		77.11		-1.304E-02	6.920E-02	1.108E-01	8.534E-03	-0.118

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		87.30		-4.769E-03	1.618E-01	2.417E-01	3.199E-02	-0.020
	+	238.63	*	3.658E-02	5.473E-02	5.572E-02	4.058E-03	0.657
		300.09		4.525E-04	3.823E-01	6.362E-01	5.262E-02	0.001
PO-218		74.81		5.750E-02	2.350E-01	3.500E-01	3.693E-02	0.164
		77.11		-2.236E-02	1.186E-01	1.900E-01	2.058E-02	-0.118
		87.30		-8.170E-03	2.772E-01	4.140E-01	4.804E-02	-0.020
		241.98		8.500E-02	1.682E-01	2.596E-01	2.085E-02	0.327
		295.21		8.550E-03	6.042E-02	1.019E-01	8.714E-03	0.084
		351.92	*	-4.589E-02	3.834E-02	5.347E-02	4.388E-03	-0.858
RN-219		271.23		-1.097E-01	1.153E-01	1.759E-01	1.429E-02	-0.623
		401.81	*	1.564E-01	2.084E-01	3.685E-01	4.966E-02	0.424
RN-220		549.76	*	4.114E+00	1.377E+01	2.330E+01	1.385E+00	0.177
RA-223		81.07		-3.151E-02	7.930E-02	1.248E-01	1.004E-02	-0.253
		83.78		-2.670E-03	4.906E-02	7.926E-02	6.586E-03	-0.034
		94.90		1.724E-01	1.118E-01	1.800E-01	1.473E-02	0.958
		122.32		-3.409E-01	7.993E-01	1.240E+00	9.731E-02	-0.275
		144.24		4.382E-02	3.398E-01	5.213E-01	3.944E-02	0.084
		154.21		-8.245E-02	1.835E-01	2.824E-01	1.987E-02	-0.292
		269.46		5.475E-03	8.753E-02	1.469E-01	8.933E-03	0.037
		323.87	*	-5.362E-02	3.165E-01	5.166E-01	8.530E-02	-0.104
		338.28		1.022E-01	4.848E-01	8.194E-01	8.606E-02	0.125
		445.03		-8.116E-01	1.100E+00	1.630E+00	1.663E-01	-0.498
RA-224		240.98	*	2.135E-01	3.447E-01	5.359E-01	3.080E-02	0.398
RA-226		609.31	*	-3.882E-02	4.484E-02	6.639E-02	5.255E-03	-0.585
		1120.29		3.834E-02	1.508E-01	2.592E-01	2.401E-02	0.148
		1764.49		-2.016E-02	1.478E-01	2.422E-01	1.453E-02	-0.083
AC-227		79.80		-2.308E-01	5.887E-01	9.237E-01	1.962E-01	-0.250
		236.00		1.373E-01	1.159E-01	1.893E-01	1.971E-02	0.725
		256.20	*	-1.155E-01	1.842E-01	2.900E-01	4.048E-02	-0.398
		286.10		-2.744E-01	8.165E-01	1.322E+00	1.530E-01	-0.208
		299.80		-5.608E-01	7.317E-01	1.128E+00	1.838E-01	-0.497
		304.40		9.205E-01	9.556E-01	1.698E+00	2.938E-01	0.542
		334.20		-5.653E-01	1.105E+00	1.733E+00	3.174E-01	-0.326
TH-227		79.80		-2.308E-01	5.888E-01	9.237E-01	1.987E-01	-0.250
	+	94.00		4.254E-01	1.365E+00	1.646E+00	3.561E-01	0.258
		236.00		1.373E-01	1.157E-01	1.893E-01	1.706E-02	0.725
		256.20	*	-1.155E-01	1.845E-01	2.900E-01	4.900E-02	-0.398
		286.10		-2.744E-01	8.610E-01	1.322E+00	1.324E+00	-0.208
		299.80		-5.608E-01	7.317E-01	1.128E+00	1.838E-01	-0.497
		304.40		9.205E-01	9.556E-01	1.698E+00	2.938E-01	0.542
		334.20		-5.653E-01	1.105E+00	1.733E+00	3.174E-01	-0.326
AC-228		338.32		4.278E-02	1.161E-01	1.969E-01	8.024E-02	0.217
		911.07	*	4.236E-02	8.028E-02	1.351E-01	1.587E-02	0.313
		969.11		3.795E-02	1.165E-01	2.031E-01	4.744E-02	0.187
RA-228		338.32		4.278E-02	1.161E-01	1.969E-01	8.024E-02	0.217
		911.07	*	4.236E-02	8.028E-02	1.351E-01	1.587E-02	0.313
		969.11		3.795E-02	1.165E-01	2.031E-01	4.744E-02	0.187
TH-228		74.81		3.363E-02	1.374E-01	2.047E-01	1.555E-02	0.164
		77.11		-1.314E-02	6.973E-02	1.117E-01	8.600E-03	-0.118

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		87.30		-4.806E-03	1.631E-01	2.436E-01	2.112E-02	-0.020
	+	238.63	*	3.686E-02	5.516E-02	5.615E-02	4.090E-03	0.657
		300.09		4.560E-04	3.852E-01	6.412E-01	3.779E-01	0.001
TH-229		85.43		5.365E-02	7.825E-02	1.233E-01	1.045E-02	0.435
		88.47		-2.617E-03	4.907E-02	6.915E-02	6.017E-03	-0.038
		100.00		2.620E-02	7.798E-02	1.205E-01	9.490E-03	0.217
		193.63	*	-2.303E-01	2.351E-01	3.660E-01	2.021E-02	-0.629
		210.97		1.037E-01	3.292E-01	5.664E-01	3.182E-02	0.183
TH-230		609.31	*	-3.882E-02	4.484E-02	6.639E-02	5.255E-03	-0.585
		1120.29		3.834E-02	1.508E-01	2.592E-01	2.401E-02	0.148
		1764.49		-2.016E-02	1.478E-01	2.422E-01	1.453E-02	-0.083
PA-231		283.67	*	3.050E-01	8.166E-01	1.400E+00	1.931E-01	0.218
		301.29		-5.661E-02	2.835E-01	4.636E-01	4.853E-02	-0.122
TH-231		81.07		-3.151E-02	7.930E-02	1.248E-01	1.004E-02	-0.253
		83.78		-2.670E-03	4.906E-02	7.926E-02	6.586E-03	-0.034
		94.90		1.724E-01	1.118E-01	1.800E-01	1.473E-02	0.958
		122.32		-3.409E-01	7.993E-01	1.240E+00	9.731E-02	-0.275
		144.24		4.382E-02	3.398E-01	5.213E-01	3.944E-02	0.084
		154.21		-8.245E-02	1.835E-01	2.824E-01	1.987E-02	-0.292
		269.46		5.475E-03	8.753E-02	1.469E-01	8.933E-03	0.037
		323.87	*	-5.362E-02	3.165E-01	5.166E-01	8.530E-02	-0.104
		338.28		1.022E-01	4.848E-01	8.194E-01	8.606E-02	0.125
		445.03		-8.116E-01	1.100E+00	1.630E+00	1.663E-01	-0.498
U-231		84.21		-9.502E-02	6.764E-01	1.008E+00	8.416E-02	-0.094
	+	92.29		1.233E-01	3.948E-01	4.853E-01	4.064E-02	0.254
		95.87	*	5.684E-02	1.437E-01	2.119E-01	1.720E-02	0.268
		108.00		-1.132E-01	2.439E-01	3.773E-01	2.835E-02	-0.300
TH-232		338.32		4.278E-02	1.148E-01	1.969E-01	1.131E-02	0.217
		911.07	*	4.236E-02	8.028E-02	1.351E-01	1.587E-02	0.313
		969.11		3.795E-02	1.165E-01	2.031E-01	4.744E-02	0.187
PA-233		75.28		4.902E-01	1.145E+00	1.725E+00	2.549E-01	0.284
		86.59		-4.839E-02	6.979E-01	1.011E+00	2.712E-01	-0.048
		300.12		1.299E-03	1.976E-01	3.291E-01	4.426E-02	0.004
		311.98	*	-1.834E-02	3.038E-02	4.737E-02	2.925E-03	-0.387
		340.50		7.712E-02	3.079E-01	5.210E-01	1.196E-01	0.148
		398.62		-5.675E-02	1.009E+00	1.653E+00	4.263E-01	-0.034
		415.76		3.750E-01	8.614E-01	1.478E+00	3.033E-01	0.254
PA-234		63.00		-5.631E-01	5.968E-01	9.261E-01	1.348E-01	-0.608
	+	94.67		3.794E-02	1.215E-01	1.380E-01	1.671E-02	0.275
		98.44		6.007E-03	4.136E-02	5.926E-02	3.300E-02	0.101
		99.86		1.033E-01	1.944E-01	3.065E-01	2.415E-02	0.337
		111.00		-1.740E-02	8.010E-02	1.268E-01	1.428E-02	-0.137
		131.20		-8.853E-03	4.447E-02	7.020E-02	4.715E-03	-0.126
		152.70		-1.298E-02	1.439E-01	2.285E-01	3.620E-02	-0.057
	+	186.00		2.316E-01	8.080E-01	1.114E+00	3.399E-01	0.208
		226.40		-1.247E-02	1.861E-01	3.104E-01	3.571E-02	-0.040
		227.20		8.377E-02	2.056E-01	3.553E-01	2.023E-02	0.236
		248.90		-3.276E-01	3.913E-01	5.955E-01	1.279E-01	-0.550
		293.70		-2.388E-01	2.899E-01	4.392E-01	7.069E-02	-0.544

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		369.80		-1.322E-01	4.273E-01	6.817E-01	1.416E-01	-0.194
		568.70		5.541E-01	6.442E-01	1.139E+00	6.792E-02	0.487
		569.50		1.728E-01	1.743E-01	3.119E-01	1.861E-02	0.554
		574.00		5.154E-01	8.609E-01	1.497E+00	8.938E-02	0.344
		699.00		2.639E-01	3.878E-01	6.781E-01	1.234E-01	0.389
		706.10		-1.877E-01	5.211E-01	7.824E-01	3.461E-01	-0.240
		733.00		-8.011E-02	1.847E-01	2.745E-01	5.926E-02	-0.292
		742.81		-3.757E-03	6.754E-01	1.087E+00	7.286E-01	-0.003
		796.30		1.641E-01	4.388E-01	7.445E-01	1.996E-01	0.220
		805.60		7.204E-01	5.506E-01	9.883E-01	3.011E-01	0.729
		819.60		-5.398E-01	6.423E-01	8.742E-01	3.316E-01	-0.617
		826.30		2.879E-01	4.598E-01	8.051E-01	3.597E-01	0.358
		831.60		-4.014E-01	3.456E-01	4.406E-01	1.311E-01	-0.911
		876.40		1.313E-01	4.118E-01	6.872E-01	7.067E-01	0.191
		880.51		-1.521E-03	1.378E-01	2.303E-01	2.096E-02	-0.007
		883.24		1.467E-02	1.405E-01	2.384E-01	1.604E-01	0.062
		899.00		-5.055E-02	3.687E-01	6.002E-01	2.633E-01	-0.084
		925.00		-2.872E-01	6.518E-01	1.016E+00	9.274E-02	-0.283
		926.50		1.487E-02	9.312E-02	1.591E-01	4.050E-02	0.093
		946.00	*	-1.370E-02	1.369E-01	2.244E-01	4.241E-02	-0.061
		949.00		-1.728E-01	1.933E-01	2.625E-01	2.332E-02	-0.658
		980.50		-7.773E-03	3.118E-01	5.170E-01	4.408E-02	-0.015
		1394.10		-1.394E-01	6.138E-01	9.391E-01	6.095E-01	-0.148
PA-234M		766.42		2.646E+00	5.120E+00	8.664E+00	4.379E+00	0.305
		1001.03	*	1.100E-01	2.287E+00	3.704E+00	3.581E-01	0.030
TH-234		63.29	*	-4.597E-01	5.118E-01	7.946E-01	1.366E-01	-0.579
	+	92.38		1.101E-01	3.529E-01	4.318E-01	7.756E-02	0.255
U-234		609.31	*	-3.882E-02	4.484E-02	6.639E-02	5.255E-03	-0.585
		1120.29		3.834E-02	1.508E-01	2.592E-01	2.401E-02	0.148
		1764.49		-2.016E-02	1.478E-01	2.422E-01	1.453E-02	-0.083
U-235		89.95		-3.456E-01	5.143E-01	6.639E-01	2.048E-01	-0.521
	+	93.35		1.324E-01	4.252E-01	5.226E-01	1.459E-01	0.253
		105.00		-4.048E-02	4.200E-01	6.722E-01	1.988E-01	-0.060
		143.76	*	9.054E-03	1.055E-01	1.615E-01	2.658E-02	0.056
		163.35		1.834E-01	2.288E-01	3.854E-01	6.890E-02	0.476
	+	185.71		8.578E-03	2.981E-02	4.121E-02	2.257E-03	0.208
		205.31		1.602E-01	2.574E-01	4.280E-01	7.668E-02	0.374
NP-236	+	94.67		2.877E-02	9.212E-02	1.048E-01	8.593E-03	0.275
		98.44		4.545E-03	3.117E-02	4.480E-02	3.566E-03	0.101
		111.00		-1.316E-02	6.057E-02	9.594E-02	7.106E-03	-0.137
		160.31	*	-3.394E-02	3.907E-02	5.787E-02	3.234E-03	-0.586
NP-237		86.50	*	-2.775E-03	1.050E-01	1.528E-01	3.416E-02	-0.018
		95.87		1.709E-01	4.337E-01	6.370E-01	1.558E-01	0.268
U-238		63.29	*	-4.597E-01	5.118E-01	7.946E-01	1.366E-01	-0.579
	+	92.38		1.101E-01	3.525E-01	4.318E-01	3.612E-02	0.255
NP-239		99.55		3.524E-02	6.705E-02	1.008E-01	7.958E-03	0.350
		117.00	*	-5.916E-02	8.402E-02	1.270E-01	9.179E-03	-0.466
		209.75		-2.814E-01	3.414E-01	5.364E-01	3.010E-02	-0.525
		228.18		8.586E-02	1.089E-01	1.930E-01	1.100E-02	0.445

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		-3.844E-02	8.901E-02	1.430E-01	8.335E-03	-0.269
		334.30		-3.016E-01	6.257E-01	9.882E-01	5.692E-02	-0.305
AM-241		59.54	*	-4.986E-02	5.611E-02	8.445E-02	6.270E-03	-0.590
AM-243		74.67	*	6.196E-03	2.221E-02	3.318E-02	2.490E-03	0.187
		86.72		-1.326E+00	3.989E+00	5.669E+00	4.882E-01	-0.234
		117.66		-1.679E+00	1.727E+00	2.545E+00	1.835E-01	-0.660
		142.18		-2.076E+00	8.304E+00	1.305E+01	8.208E-01	-0.159
CM-243		99.55		3.625E-02	6.896E-02	1.036E-01	8.185E-03	0.350
		103.76	*	1.124E-02	3.792E-02	6.284E-02	4.832E-03	0.179
		117.00		-6.083E-02	8.640E-02	1.306E-01	9.439E-03	-0.466
		209.75		-2.772E-01	3.364E-01	5.285E-01	2.966E-02	-0.525
		228.18		8.671E-02	1.099E-01	1.949E-01	1.111E-02	0.445
		277.60		-3.874E-02	8.969E-02	1.441E-01	8.399E-03	-0.269
AM-246		798.80		-9.520E-02	7.497E-02	9.275E-02	7.276E-03	-1.026
		1036.00		6.154E-02	1.474E-01	2.618E-01	2.043E-02	0.235
		1062.04		4.983E-02	1.022E-01	1.845E-01	1.370E-02	0.270
		1078.86	*	4.581E-02	6.675E-02	1.236E-01	8.859E-03	0.370
CM-247		278.00		-1.455E-01	3.602E-01	5.796E-01	3.379E-02	-0.251
		287.40		-3.684E-02	6.013E-01	9.964E-01	5.814E-02	-0.037
		402.60	*	1.161E-02	1.877E-02	3.291E-02	1.808E-03	0.353
CF-249		252.85		6.297E-02	4.084E-01	6.920E-01	4.003E-02	0.091
		333.44		-3.501E-02	8.143E-02	1.293E-01	7.451E-03	-0.271
		387.95	*	1.768E-02	2.142E-02	3.812E-02	2.084E-03	0.464
CF-251		176.60	*	2.663E-02	5.764E-02	9.570E-02	5.191E-03	0.278
		227.00		5.924E-02	1.813E-01	3.116E-01	1.774E-02	0.190
		285.00		8.174E-02	9.188E-01	1.543E+00	8.999E-02	0.053

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032510		
Acquisition date	: 12-FEB-2010 16:32:21	Detector SN#	:
Detector ID	: GAM14	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:00.52	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 5-FEB-2010 00:00:00	Nuclide Library	: SOLID
Sample ID	: G1202032510	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.3621E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

Standard Weight	: 0.00000		
CALIB. DATE/TIME	: 6-MAR-2009 11:43:06	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
ANH-511	4.025E-02	3.424E-02	2.230E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	-6.023E-02	1.293E-01	2.072E-01	0.000E+00 NOT IDENT.
NA-22	1.844E-02	1.921E-02	3.819E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	1.178E+02	0.000E+00	0.000E+00 SHORT HLIF
AL-26	-7.550E-03	2.148E-02	3.203E-02	0.000E+00 NOT IDENT.
K-40	3.054E-02	2.614E-01	4.904E-01	0.000E+00 NOT IDENT.
TI-44	-1.736E-02	1.251E-02	1.952E-02	0.000E+00 NOT IDENT.
SC-46	5.975E-03	1.594E-02	2.928E-02	0.000E+00 NOT IDENT.
V-48	-7.357E-03	2.333E-02	3.777E-02	0.000E+00 NOT IDENT.
CR-51	-6.171E-02	1.545E-01	2.603E-01	0.000E+00 NOT IDENT.
MN-52	-1.881E-02	5.054E-02	7.711E-02	0.000E+00 NOT IDENT.
MN-54	1.225E-02	1.829E-02	3.444E-02	0.000E+00 NOT IDENT.
CO-56	1.214E-02	2.090E-02	3.877E-02	0.000E+00 NOT IDENT.
CO-57	-8.012E-03	1.110E-02	1.798E-02	0.000E+00 NOT IDENT.
CO-58	-8.907E-03	1.957E-02	3.006E-02	0.000E+00 NOT IDENT.
FE-59	6.925E-03	3.720E-02	6.548E-02	0.000E+00 NOT IDENT.
CO-60	2.908E-03	2.011E-02	3.482E-02	0.000E+00 NOT IDENT.
ZN-65	9.461E-03	4.439E-02	7.802E-02	0.000E+00 NOT IDENT.
GE-68	3.763E-01	5.590E-01	1.062E+00	0.000E+00 NOT IDENT.
AS-73	-2.427E-01	2.321E-01	3.752E-01	0.000E+00 NOT IDENT.
AS-74	2.507E-02	4.015E-02	7.260E-02	0.000E+00 NOT IDENT.
SE-75	2.941E-03	2.040E-02	3.643E-02	0.000E+00 NOT IDENT.
BR-77	3.102E-01	5.325E-01	9.800E-01	0.000E+00 FAIL ABUN
SR-82	-1.948E-02	1.457E-01	2.370E-01	0.000E+00 NOT IDENT.
RB-83	1.484E-02	2.865E-02	5.235E-02	0.000E+00 NOT IDENT.
RB-84	3.819E-03	2.947E-02	5.195E-02	0.000E+00 NOT IDENT.
KR-85	0.000E+00	4.581E+00	8.876E+00	0.000E+00 NOT IDENT.

SR-85	0.000E+00	2.172E-02	4.209E-02	0.000E+00	NOT IDENT.
RB-86	5.205E-02	2.859E-01	5.032E-01	0.000E+00	NOT IDENT.
Y-88	1.912E-02	2.617E-02	4.948E-02	0.000E+00	NOT IDENT.
ZR-88	-1.058E-03	1.389E-02	2.385E-02	0.000E+00	NOT IDENT.
Y-91	-2.182E+00	6.816E+00	1.080E+01	0.000E+00	NOT IDENT.
NB-94	-7.495E-03	1.728E-02	2.711E-02	0.000E+00	NOT IDENT.
NB-95	6.448E-03	1.694E-02	3.000E-02	0.000E+00	NOT IDENT.
NB-95M	4.584E-02	5.599E-02	9.396E-02	0.000E+00	NOT IDENT.
ZR-95	-1.161E-02	2.824E-02	4.339E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.419E+01	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	8.387E+02	0.000E+00	0.000E+00	SHORT HLIF
MO-99	3.388E-01	8.737E-01	1.545E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.078E+07	0.000E+00	0.000E+00	SHORT HLIF
RH-101	7.413E-03	1.478E-02	2.734E-02	0.000E+00	NOT IDENT.
RH-102	-5.850E-03	1.640E-02	2.191E-02	0.000E+00	NOT IDENT.
RU-103	-6.357E-03	1.648E-02	2.665E-02	0.000E+00	NOT IDENT.
RH-106	-4.423E-02	1.450E-01	2.329E-01	0.000E+00	FAIL ABUN
RU-106	-4.423E-02	1.449E-01	2.329E-01	0.000E+00	FAIL ABUN
AG-108M	-3.722E-03	1.589E-02	2.662E-02	0.000E+00	NOT IDENT.
CD-109	-3.321E-02	3.574E-01	5.409E-01	0.000E+00	NOT IDENT.
AG-110M	6.513E-03	1.794E-02	3.163E-02	0.000E+00	NOT IDENT.
IN-111	2.944E-02	8.350E-02	1.343E-01	0.000E+00	NOT IDENT.
IN-113M	3.866E-03	2.193E-02	3.863E-02	0.000E+00	NOT IDENT.
SN-113	3.866E-03	2.193E-02	3.863E-02	0.000E+00	NOT IDENT.
IN-114M	2.621E-02	7.864E-02	1.271E-01	0.000E+00	NOT IDENT.
CD-115	-2.377E-01	5.479E-01	8.808E-01	0.000E+00	NOT IDENT.
SN-117M	-4.045E-03	1.902E-02	3.068E-02	0.000E+00	NOT IDENT.
SB-122	-1.427E-01	1.897E-01	2.952E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.416E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-7.306E-03	1.397E-02	2.196E-02	0.000E+00	NOT IDENT.
I-124	8.030E-02	1.067E-01	1.957E-01	0.000E+00	NOT IDENT.
SB-124	4.186E-03	4.421E-02	7.491E-02	0.000E+00	NOT IDENT.
SB-125	9.778E-03	4.494E-02	7.931E-02	0.000E+00	NOT IDENT.
TE-125M	-1.379E+00	3.477E+00	5.819E+00	0.000E+00	NOT IDENT.
I-126	-9.546E-03	5.889E-02	9.660E-02	0.000E+00	NOT IDENT.
SB-126	-2.331E-02	4.747E-02	7.327E-02	0.000E+00	NOT IDENT.
SN-126	-1.989E-02	3.768E-02	5.465E-02	0.000E+00	NOT IDENT.
SB-127	9.534E-02	1.433E-01	2.683E-01	0.000E+00	NOT IDENT.
XE-127	2.116E-03	1.893E-02	3.407E-02	0.000E+00	NOT IDENT.
I-131	3.972E-03	2.910E-02	5.129E-02	0.000E+00	NOT IDENT.
TE-132	5.384E-02	6.744E-02	1.261E-01	0.000E+00	NOT IDENT.
BA-133	-3.177E-03	2.122E-02	3.638E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.426E+00	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.120E-02	2.169E-02	3.904E-02	0.000E+00	NOT IDENT.
CS-135	3.101E-02	7.231E-02	1.320E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.858E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.547E-04	3.647E-02	6.214E-02	0.000E+00	NOT IDENT.
BA-137M	-1.063E-02	1.841E-02	2.838E-02	0.000E+00	NOT IDENT.
CS-137	-1.123E-02	1.947E-02	3.000E-02	0.000E+00	NOT IDENT.
CE-139	5.521E-03	1.363E-02	2.397E-02	0.000E+00	NOT IDENT.
BA-140	5.565E-02	9.066E-02	1.628E-01	0.000E+00	NOT IDENT.
LA-140	1.229E-02	3.417E-02	6.121E-02	0.000E+00	NOT IDENT.
CE-141	-3.239E-03	2.649E-02	4.255E-02	0.000E+00	NOT IDENT.
CE-143	-1.018E+00	1.309E+00	2.094E+00	0.000E+00	NOT IDENT.
CE-144	2.419E-02	8.454E-02	1.487E-01	0.000E+00	NOT IDENT.
PM-144	7.838E-04	1.917E-02	3.230E-02	0.000E+00	NOT IDENT.
PR-144	5.291E-02	1.294E+00	2.180E+00	0.000E+00	NOT IDENT.
PM-146	-5.132E-03	2.304E-02	3.862E-02	0.000E+00	NOT IDENT.
ND-147	5.459E-02	1.873E-01	3.298E-01	0.000E+00	NOT IDENT.
PM-149	-9.282E-01	4.646E+00	8.035E+00	0.000E+00	NOT IDENT.
EU-152	3.300E-04	5.181E-02	9.034E-02	0.000E+00	NOT IDENT.
GD-153	1.457E-02	3.354E-02	5.351E-02	0.000E+00	NOT IDENT.
EU-154	5.170E-02	5.399E-02	1.071E-01	0.000E+00	NOT IDENT.
EU-155	-9.137E-04	4.210E-02	7.291E-02	0.000E+00	NOT IDENT.
TB-160	5.264E-03	6.499E-02	1.138E-01	0.000E+00	NOT IDENT.
HO-166M	-5.518E-03	2.876E-02	4.666E-02	0.000E+00	FAIL ABUN
TM-171	-1.256E+01	1.084E+01	1.683E+01	0.000E+00	NOT IDENT.
LU-176	-2.952E-04	1.208E-02	2.113E-02	0.000E+00	NOT IDENT.
LU-177	-1.832E-01	2.268E-01	3.803E-01	0.000E+00	NOT IDENT.
LU-177M	-8.603E-02	8.922E-02	1.380E-01	0.000E+00	NOT IDENT.
HF-181	8.000E-03	1.884E-02	3.386E-02	0.000E+00	NOT IDENT.
W-181	1.257E-01	1.297E-01	2.340E-01	0.000E+00	NOT IDENT.
TA-182	1.381E-02	6.863E-02	1.210E-01	0.000E+00	NOT IDENT.
RE-183	-1.756E-02	4.936E-02	8.175E-02	0.000E+00	NOT IDENT.
RE-184	1.628E-02	1.035E-01	1.854E-01	0.000E+00	NOT IDENT.
OS-185	9.635E-03	1.825E-02	3.322E-02	0.000E+00	NOT IDENT.
RE-188	4.474E-03	7.087E-02	1.217E-01	0.000E+00	NOT IDENT.
W-188	-2.839E+00	3.057E+00	4.882E+00	0.000E+00	NOT IDENT.

IR-192	4.739E-03	1.545E-02	2.781E-02	0.000E+00	NOT IDENT.
AU-195	9.878E-03	9.652E-02	1.484E-01	0.000E+00	NOT IDENT.
TL-200	-1.493E+00	1.926E+00	3.058E+00	0.000E+00	NOT IDENT.
TL-201	-4.044E-01	6.321E-01	1.020E+00	0.000E+00	NOT IDENT.
TL-202	1.394E-02	2.196E-02	4.048E-02	0.000E+00	NOT IDENT.
HG-203	-1.051E-02	1.822E-02	3.054E-02	0.000E+00	NOT IDENT.
BI-207	1.985E-03	2.275E-02	3.951E-02	0.000E+00	NOT IDENT.
TL-207	-5.362E-02	3.102E-01	5.330E-01	0.000E+00	NOT IDENT.
TL-208	-9.368E-03	1.963E-02	3.065E-02	0.000E+00	FAIL ABUN
PO-209	1.881E+00	3.126E+00	5.946E+00	0.000E+00	NOT IDENT.
BI-210	-1.130E+00	1.157E+00	1.979E+00	0.000E+00	NOT IDENT.
PB-210	-1.130E+00	1.157E+00	1.979E+00	0.000E+00	NOT IDENT.
PO-210	-1.130E+00	1.157E+00	1.979E+00	0.000E+00	NOT IDENT.
BI-211	-2.036E-01	1.112E-01	1.514E-01	0.000E+00	NOT IDENT.
PB-211	-1.014E-01	4.928E-01	8.275E-01	0.000E+00	NOT IDENT.
BI-212	1.451E-02	1.438E-01	2.440E-01	0.000E+00	NOT IDENT.
PB-212	3.658E-02	5.364E-02	5.781E-02	0.000E+00	FAIL ABUN
PO-212	3.658E-02	5.364E-02	5.781E-02	0.000E+00	FAIL ABUN
BI-214	-3.882E-02	4.395E-02	6.770E-02	0.000E+00	NOT IDENT.
PB-214	-4.589E-02	3.758E-02	5.509E-02	0.000E+00	NOT IDENT.
PO-214	-4.589E-02	3.758E-02	5.509E-02	0.000E+00	NOT IDENT.
PO-215	-5.362E-02	3.102E-01	5.330E-01	0.000E+00	NOT IDENT.
PO-216	3.658E-02	5.364E-02	5.781E-02	0.000E+00	FAIL ABUN
PO-218	-4.589E-02	3.758E-02	5.509E-02	0.000E+00	NOT IDENT.
RN-219	1.564E-01	2.042E-01	3.787E-01	0.000E+00	NOT IDENT.
RN-220	4.114E+00	1.349E+01	2.380E+01	0.000E+00	NOT IDENT.
RA-223	-5.362E-02	3.102E-01	5.330E-01	0.000E+00	NOT IDENT.
RA-224	2.135E-01	3.378E-01	5.559E-01	0.000E+00	NOT IDENT.
RA-226	-3.882E-02	4.395E-02	6.770E-02	0.000E+00	NOT IDENT.
AC-227	-1.155E-01	1.805E-01	3.005E-01	0.000E+00	NOT IDENT.
TH-227	-1.155E-01	1.808E-01	3.005E-01	0.000E+00	FAIL ABUN
AC-228	4.236E-02	7.868E-02	1.367E-01	0.000E+00	NOT IDENT.
RA-228	4.236E-02	7.868E-02	1.367E-01	0.000E+00	NOT IDENT.
TH-228	3.686E-02	5.405E-02	5.825E-02	0.000E+00	FAIL ABUN
TH-229	-2.303E-01	2.304E-01	3.812E-01	0.000E+00	NOT IDENT.
TH-230	-3.882E-02	4.395E-02	6.769E-02	0.000E+00	NOT IDENT.
PA-231	3.050E-01	8.003E-01	1.448E+00	0.000E+00	NOT IDENT.
TH-231	-5.362E-02	3.102E-01	5.330E-01	0.000E+00	NOT IDENT.
U-231	5.684E-02	1.408E-01	2.234E-01	0.000E+00	FAIL ABUN
TH-232	4.236E-02	7.868E-02	1.367E-01	0.000E+00	NOT IDENT.
PA-233	-1.834E-02	2.977E-02	4.891E-02	0.000E+00	NOT IDENT.
PA-234	-1.370E-02	1.342E-01	2.269E-01	0.000E+00	FAIL ABUN
PA-234M	1.100E-01	2.241E+00	3.741E+00	0.000E+00	NOT IDENT.
TH-234	-4.597E-01	5.015E-01	8.442E-01	0.000E+00	FAIL ABUN
U-234	-3.882E-02	4.395E-02	6.769E-02	0.000E+00	NOT IDENT.
U-235	9.054E-03	1.034E-01	1.691E-01	0.000E+00	FAIL ABUN
NP-236	-3.394E-02	3.829E-02	6.048E-02	0.000E+00	FAIL ABUN
NP-237	-2.775E-03	1.029E-01	1.615E-01	0.000E+00	NOT IDENT.
U-238	-4.597E-01	5.015E-01	8.442E-01	0.000E+00	FAIL ABUN
NP-239	-5.916E-02	8.234E-02	1.335E-01	0.000E+00	NOT IDENT.
AM-241	-4.986E-02	5.499E-02	8.982E-02	0.000E+00	NOT IDENT.
AM-243	6.196E-03	2.177E-02	3.515E-02	0.000E+00	NOT IDENT.
CM-243	1.124E-02	3.717E-02	6.619E-02	0.000E+00	NOT IDENT.
AM-246	4.581E-02	6.542E-02	1.247E-01	0.000E+00	NOT IDENT.
CM-247	1.161E-02	1.840E-02	3.382E-02	0.000E+00	NOT IDENT.
CF-249	1.768E-02	2.100E-02	3.920E-02	0.000E+00	NOT IDENT.
CF-251	2.663E-02	5.648E-02	9.984E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:33:16.28

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*******************************************************************************
*                            GEL Laboratories LLC                             *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032510.CNF;1
Sample date      : 5-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 16:32:21
Sample ID        : G1202032510          Sample quantity  : 1.36210E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:00.52  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 948717               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*******************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
ANH-511	511.00	45	100.00*	3.087E+00	4.025E-02	4.025E-02	86.80

Flag: "*" = Keyline

Sample ID : Gl202032510 Acquisition date : 12-FEB-2010 16:32:21

Total number of lines in spectrum	4	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	4	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
ANH-511	1.00E+09Y	1.00	4.025E-02	4.025E-02	3.494E-02	86.80	
Total Activity :			4.025E-02	4.025E-02			
Grand Total Activity :			4.025E-02	4.025E-02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202032510 Acquisition date : 12-FEB-2010 16:32:21

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.22	16	122	0.77	185.94	181	12	2.20E-03	****	7.33E+00	T
0	185.71	11	70	1.18	370.74	366	10	1.53E-03	****	6.53E+00	T
0	238.42	33	104	1.46	476.06	469	15	4.58E-03	****	5.57E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:33:20.88

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032510.CNF;1		
Acquisition date	: 12-FEB-2010 16:32:21	Detector SN#	:
Detector ID	: GAM14	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:00.52	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 5-FEB-2010 00:00:00.	Nuclide Library	: SOLID
Sample ID	: G1202032510	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.36210E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 6-MAR-2009 11:43:06.61	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	4.025E-02	3.494E-02	2.180E-02	1.281E-03	1.847

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.023E-02		1.320E-01	2.022E-01	1.363E-02	-0.298
NA-22	1.844E-02		1.960E-02	3.799E-02	2.482E-03	0.485
NA-24	3.827E-05		6.009E-05	Half-Life too short		
AL-26	-7.550E-03		2.191E-02	3.208E-02	1.860E-03	-0.235
K-40	3.054E-02		2.667E-01	4.891E-01	3.551E-02	0.062
TI-44	-1.736E-02		1.276E-02	1.844E-02	1.440E-03	-0.941
SC-46	5.975E-03		1.626E-02	2.892E-02	2.673E-03	0.207
V-48	-7.357E-03		2.381E-02	3.739E-02	3.175E-03	-0.197
CR-51	-6.171E-02		1.577E-01	2.522E-01	1.630E-02	-0.245
MN-52	-1.881E-02		5.157E-02	7.689E-02	5.389E-03	-0.245
MN-54	1.225E-02		1.866E-02	3.398E-02	2.851E-03	0.360

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-56	1.214E-02		2.133E-02	3.826E-02	3.279E-03	0.317
CO-57	-8.012E-03		1.133E-02	1.712E-02	1.218E-03	-0.468
CO-58	-8.907E-03		1.997E-02	2.964E-02	2.385E-03	-0.300
FE-59	6.925E-03		3.796E-02	6.495E-02	5.000E-03	0.107
CO-60	2.908E-03		2.052E-02	3.467E-02	2.471E-03	0.084
ZN-65	9.461E-03		4.529E-02	7.741E-02	5.088E-03	0.122
GE-68	3.763E-01		5.705E-01	1.053E+00	7.572E-02	0.357
AS-73	-2.427E-01		2.369E-01	3.521E-01	2.295E-02	-0.689
AS-74	2.507E-02		4.097E-02	7.117E-02	4.257E-03	0.352
SE-75	2.941E-03		2.082E-02	3.518E-02	2.065E-03	0.084
BR-77	3.102E-01		5.434E-01	9.583E-01	5.650E-02	0.324
SR-82	-1.948E-02		1.487E-01	2.335E-01	1.756E-02	-0.083
RB-83	1.484E-02		2.924E-02	5.119E-02	3.018E-03	0.290
RB-84	3.819E-03		3.007E-02	5.131E-02	4.678E-03	0.074
KR-85	1.154E+01		4.675E+00	8.677E+00	5.103E-01	1.329
SR-85	5.470E-02		2.217E-02	4.115E-02	2.420E-03	1.329
RB-86	5.205E-02		2.918E-01	4.989E-01	3.592E-02	0.104
Y-88	1.912E-02		2.670E-02	4.958E-02	2.816E-03	0.386
ZR-88	-1.058E-03		1.417E-02	2.320E-02	1.263E-03	-0.046
Y-91	-2.182E+00		6.955E+00	1.073E+01	6.243E-01	-0.203
NB-94	-7.495E-03		1.763E-02	2.666E-02	1.729E-03	-0.281
NB-95	6.448E-03		1.728E-02	2.955E-02	2.176E-03	0.218
NB-95M	4.584E-02		5.713E-02	9.054E-02	6.767E-03	0.506
ZR-95	-1.161E-02		2.882E-02	4.273E-02	3.525E-03	-0.272
NB-97	1.307E-05		1.744E-05	Half-Life too short		
ZR-97	1.338E-03		4.279E-04	Half-Life too short		
MO-99	3.388E-01		8.915E-01	1.521E+00	2.179E-01	0.223
TC-99M	2.548E+00		1.060E+01	Half-Life too short		
RH-101	7.413E-03		1.508E-02	2.626E-02	1.457E-03	0.282
RH-102	-5.850E-03		1.674E-02	2.138E-02	1.236E-03	-0.274
RU-103	-6.357E-03		1.681E-02	2.604E-02	3.297E-03	-0.244
RH-106	-4.423E-02		1.479E-01	2.285E-01	2.702E-02	-0.194
RU-106	-4.423E-02		1.479E-01	2.285E-01	1.366E-02	-0.194
AG-108M	-3.722E-03		1.622E-02	2.594E-02	1.593E-03	-0.143
CD-109	-3.321E-02		3.647E-01	5.120E-01	4.478E-02	-0.065
AG-110M	6.513E-03		1.831E-02	3.107E-02	1.963E-03	0.210
IN-111	2.944E-02		8.520E-02	1.295E-01	7.461E-03	0.227
IN-113M	3.866E-03		2.238E-02	3.757E-02	2.199E-03	0.103
SN-113	3.866E-03		2.238E-02	3.757E-02	2.199E-03	0.103
IN-114M	2.621E-02		8.025E-02	1.220E-01	6.716E-03	0.215
CD-115	-2.377E-01		5.591E-01	8.615E-01	5.091E-02	-0.276
SN-117M	-4.045E-03		1.941E-02	2.935E-02	1.660E-03	-0.138
SB-122	-1.427E-01		1.936E-01	2.891E-01	1.723E-02	-0.494
I-123	-1.263E-04		1.232E-04	Half-Life too short		
TE-123M	-7.306E-03		1.425E-02	2.101E-02	1.202E-03	-0.348
I-124	8.030E-02		1.089E-01	1.919E-01	1.148E-02	0.419
SB-124	4.186E-03		4.512E-02	7.493E-02	5.065E-03	0.056
SB-125	9.778E-03		4.585E-02	7.727E-02	4.528E-03	0.127

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M	-1.379E+00		3.548E+00	5.530E+00	5.182E-01	-0.249
I-126	-9.546E-03		6.009E-02	9.490E-02	5.699E-03	-0.101
SB-126	-2.331E-02		4.844E-02	7.209E-02	4.850E-03	-0.323
SN-126	-1.989E-02		3.845E-02	5.173E-02	4.501E-03	-0.385
SB-127	9.534E-02		1.462E-01	2.637E-01	1.994E-02	0.361
XE-127	2.116E-03		1.932E-02	3.274E-02	1.825E-03	0.065
I-131	3.972E-03		2.970E-02	4.982E-02	3.119E-03	0.080
TE-132	5.384E-02		6.882E-02	1.215E-01	1.597E-02	0.443
BA-133	-3.177E-03		2.166E-02	3.532E-02	4.060E-03	-0.090
I-133	1.352E-06		4.299E-06	Half-Life too short		
CS-134	1.120E-02		2.214E-02	3.848E-02	3.029E-03	0.291
CS-135	3.101E-02		7.378E-02	1.275E-01	9.778E-03	0.243
I-135	1.393E+01		9.478E+00	Half-Life too short		
CS-136	-8.547E-04		3.721E-02	6.158E-02	4.949E-03	-0.014
BA-137M	-1.063E-02		1.879E-02	2.788E-02	1.658E-03	-0.381
CS-137	-1.123E-02		1.986E-02	2.947E-02	1.759E-03	-0.381
CE-139	5.521E-03		1.391E-02	2.295E-02	1.232E-03	0.241
BA-140	5.565E-02		9.251E-02	1.593E-01	5.184E-02	0.349
LA-140	1.229E-02		3.486E-02	6.116E-02	4.054E-03	0.201
CE-141	-3.239E-03		2.704E-02	4.064E-02	2.593E-03	-0.080
CE-143	-1.018E+00		1.335E+00	2.026E+00	4.147E-01	-0.502
CE-144	2.419E-02		8.626E-02	1.418E-01	2.065E-02	0.171
PM-144	7.838E-04		1.956E-02	3.176E-02	2.034E-03	0.025
PR-144	5.291E-02		1.320E+00	2.143E+00	1.372E-01	0.025
PM-146	-5.132E-03		2.351E-02	3.767E-02	3.224E-03	-0.136
ND-147	5.459E-02		1.911E-01	3.226E-01	4.378E-02	0.169
PM-149	-9.282E-01		4.741E+00	7.770E+00	1.101E+00	-0.119
EU-152	3.300E-04		5.286E-02	8.766E-02	5.671E-03	0.004
GD-153	1.457E-02		3.422E-02	5.075E-02	4.070E-03	0.287
EU-154	5.170E-02		5.509E-02	1.065E-01	1.044E-02	0.485
EU-155	-9.137E-04		4.296E-02	6.924E-02	5.360E-03	-0.013
TB-160	5.264E-03		6.632E-02	1.123E-01	1.020E-02	0.047
HO-166M	-5.518E-03		2.935E-02	4.590E-02	3.033E-03	-0.120
TM-171	-1.256E+01		1.106E+01	1.586E+01	1.106E+00	-0.792
LU-176	-2.952E-04		1.233E-02	2.046E-02	1.191E-03	-0.014
LU-177	-1.832E-01		2.314E-01	3.657E-01	2.049E-02	-0.501
LU-177M	-8.603E-02		9.104E-02	1.344E-01	7.449E-03	-0.640
HF-181	8.000E-03		1.922E-02	3.306E-02	1.918E-03	0.242
W-181	1.257E-01		1.324E-01	2.204E-01	1.518E-02	0.570
TA-182	1.381E-02		7.004E-02	1.202E-01	7.192E-03	0.115
RE-183	-1.756E-02		5.037E-02	7.824E-02	4.309E-03	-0.224
RE-184	1.628E-02		1.056E-01	1.789E-01	1.035E-02	0.091
OS-185	9.635E-03		1.862E-02	3.262E-02	1.945E-03	0.295
RE-188	4.474E-03		7.231E-02	1.164E-01	6.743E-03	0.038
W-188	-2.839E+00		3.119E+00	4.723E+00	2.755E-01	-0.601
IR-192	4.739E-03		1.577E-02	2.694E-02	1.572E-03	0.176
AU-195	9.878E-03		9.849E-02	1.408E-01	1.117E-02	0.070
TL-200	-1.493E+00		1.966E+00	2.971E+00	1.665E-01	-0.502

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-201	-4.044E-01		6.451E-01	9.768E-01	5.247E-02	-0.414
TL-202	1.394E-02		2.241E-02	3.946E-02	2.231E-03	0.353
HG-203	-1.051E-02		1.859E-02	2.952E-02	1.827E-03	-0.356
BI-207	1.985E-03		2.322E-02	3.916E-02	2.898E-03	0.051
TL-207	-5.362E-02		3.165E-01	5.166E-01	8.530E-02	-0.104
TL-208	-9.368E-03		2.003E-02	3.003E-02	2.054E-03	-0.312
PO-209	1.881E+00		3.189E+00	5.875E+00	5.498E-01	0.320
BI-210	-1.130E+00		1.181E+00	1.852E+00	1.373E-01	-0.610
PB-210	-1.130E+00		1.181E+00	1.852E+00	1.373E-01	-0.610
PO-210	-1.130E+00		1.180E+00	1.852E+00	1.162E-01	-0.610
BI-211	-2.036E-01		1.134E-01	1.470E-01	9.312E-03	-1.385
PB-211	-1.014E-01		5.028E-01	8.054E-01	5.019E-01	-0.126
BI-212	1.451E-02		1.468E-01	2.402E-01	2.043E-02	0.060
PB-212	3.658E-02	+	5.473E-02	5.572E-02	4.058E-03	0.657
PO-212	3.658E-02	+	5.473E-02	5.572E-02	4.058E-03	0.657
BI-214	-3.882E-02		4.484E-02	6.639E-02	5.255E-03	-0.585
PB-214	-4.589E-02		3.834E-02	5.347E-02	4.388E-03	-0.858
PO-214	-4.589E-02		3.834E-02	5.347E-02	4.388E-03	-0.858
PO-215	-5.362E-02		3.165E-01	5.166E-01	8.530E-02	-0.104
PO-216	3.658E-02	+	5.473E-02	5.572E-02	4.058E-03	0.657
PO-218	-4.589E-02		3.834E-02	5.347E-02	4.388E-03	-0.858
RN-219	1.564E-01		2.084E-01	3.685E-01	4.966E-02	0.424
RN-220	4.114E+00		1.377E+01	2.330E+01	1.385E+00	0.177
RA-223	-5.362E-02		3.165E-01	5.166E-01	8.530E-02	-0.104
RA-224	2.135E-01		3.447E-01	5.359E-01	3.080E-02	0.398
RA-226	-3.882E-02		4.484E-02	6.639E-02	5.255E-03	-0.585
AC-227	-1.155E-01		1.842E-01	2.900E-01	4.048E-02	-0.398
TH-227	-1.155E-01		1.845E-01	2.900E-01	4.900E-02	-0.398
AC-228	4.236E-02		8.028E-02	1.351E-01	1.587E-02	0.313
RA-228	4.236E-02		8.028E-02	1.351E-01	1.587E-02	0.313
TH-228	3.686E-02	+	5.516E-02	5.615E-02	4.090E-03	0.657
TH-229	-2.303E-01		2.351E-01	3.660E-01	2.021E-02	-0.629
TH-230	-3.882E-02		4.484E-02	6.639E-02	5.255E-03	-0.585
PA-231	3.050E-01		8.166E-01	1.400E+00	1.931E-01	0.218
TH-231	-5.362E-02		3.165E-01	5.166E-01	8.530E-02	-0.104
U-231	5.684E-02		1.437E-01	2.119E-01	1.720E-02	0.268
TH-232	4.236E-02		8.028E-02	1.351E-01	1.587E-02	0.313
PA-233	-1.834E-02		3.038E-02	4.737E-02	2.925E-03	-0.387
PA-234	-1.370E-02		1.369E-01	2.244E-01	4.241E-02	-0.061
PA-234M	1.100E-01		2.287E+00	3.704E+00	3.581E-01	0.030
TH-234	-4.597E-01		5.118E-01	7.946E-01	1.366E-01	-0.579
U-234	-3.882E-02		4.484E-02	6.639E-02	5.255E-03	-0.585
U-235	9.054E-03		1.055E-01	1.615E-01	2.658E-02	0.056
NP-236	-3.394E-02		3.907E-02	5.787E-02	3.234E-03	-0.586
NP-237	-2.775E-03		1.050E-01	1.528E-01	3.416E-02	-0.018
U-238	-4.597E-01		5.118E-01	7.946E-01	1.366E-01	-0.579
NP-239	-5.916E-02		8.402E-02	1.270E-01	9.179E-03	-0.466
AM-241	-4.986E-02		5.611E-02	8.445E-02	6.270E-03	-0.590

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	6.196E-03		2.221E-02	3.318E-02	2.490E-03	0.187
CM-243	1.124E-02		3.792E-02	6.284E-02	4.832E-03	0.179
AM-246	4.581E-02		6.675E-02	1.236E-01	8.859E-03	0.370
CM-247	1.161E-02		1.877E-02	3.291E-02	1.808E-03	0.353
CF-249	1.768E-02		2.142E-02	3.812E-02	2.084E-03	0.464
CF-251	2.663E-02		5.764E-02	9.570E-02	5.191E-03	0.278

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032510		
Acquisition date	: 12-FEB-2010 16:32:21	Detector SN#	:
Detector ID	: GAM14	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:00.52	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 5-FEB-2010 00:00:00	Nuclide Library	: SOLID
Sample ID	: G1202032510	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.3621E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

CALIB. DATE/TIME	: 6-MAR-2009 11:43:06	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
ANH-511	4.025E-02	3.424E-02	1.116E-02	1.747E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.023E-02	1.293E-01	1.036E-01	6.599E-02	NOT IDENT.
NA-22	1.844E-02	1.921E-02	1.911E-02	9.802E-03	NOT IDENT.
NA-24	3.827E+01	1.178E+02	0.000E+00	6.009E+01	SHORT HLIF
AL-26	-7.550E-03	2.148E-02	1.602E-02	1.096E-02	NOT IDENT.
K-40	3.054E-02	2.614E-01	2.453E-01	1.334E-01	NOT IDENT.
TI-44	-1.736E-02	1.251E-02	9.767E-03	6.381E-03	NOT IDENT.
SC-46	5.975E-03	1.594E-02	1.465E-02	8.131E-03	NOT IDENT.
V-48	-7.357E-03	2.333E-02	1.890E-02	1.190E-02	NOT IDENT.
CR-51	-6.171E-02	1.545E-01	1.302E-01	7.885E-02	NOT IDENT.
MN-52	-1.881E-02	5.054E-02	3.858E-02	2.578E-02	NOT IDENT.
MN-54	1.225E-02	1.829E-02	1.723E-02	9.330E-03	NOT IDENT.
CO-56	1.214E-02	2.090E-02	1.939E-02	1.066E-02	NOT IDENT.
CO-57	-8.012E-03	1.110E-02	8.995E-03	5.665E-03	NOT IDENT.
CO-58	-8.907E-03	1.957E-02	1.504E-02	9.985E-03	NOT IDENT.
FE-59	6.925E-03	3.720E-02	3.276E-02	1.898E-02	NOT IDENT.
CO-60	2.908E-03	2.011E-02	1.742E-02	1.026E-02	NOT IDENT.
ZN-65	9.461E-03	4.439E-02	3.903E-02	2.265E-02	NOT IDENT.
GE-68	3.763E-01	5.590E-01	5.315E-01	2.852E-01	NOT IDENT.
AS-73	-2.427E-01	2.321E-01	1.877E-01	1.184E-01	NOT IDENT.
AS-74	2.507E-02	4.015E-02	3.632E-02	2.048E-02	NOT IDENT.
SE-75	2.941E-03	2.040E-02	1.823E-02	1.041E-02	NOT IDENT.
BR-77	3.102E-01	5.325E-01	4.903E-01	2.717E-01	FAIL ABUN
SR-82	-1.948E-02	1.457E-01	1.186E-01	7.434E-02	NOT IDENT.
RB-83	1.484E-02	2.865E-02	2.619E-02	1.462E-02	NOT IDENT.
RB-84	3.819E-03	2.947E-02	2.599E-02	1.503E-02	NOT IDENT.
KR-85	1.154E+01	4.581E+00	4.440E+00	2.337E+00	NOT IDENT.

SR-85	5.470E-02	2.172E-02	2.106E-02	1.108E-02 NOT IDENT.
RB-86	5.205E-02	2.859E-01	2.517E-01	1.459E-01 NOT IDENT.
Y-88	1.912E-02	2.617E-02	2.476E-02	1.335E-02 NOT IDENT.
ZR-88	-1.058E-03	1.389E-02	1.193E-02	7.086E-03 NOT IDENT.
Y-91	-2.182E+00	6.816E+00	5.403E+00	3.477E+00 NOT IDENT.
NB-94	-7.495E-03	1.728E-02	1.356E-02	8.815E-03 NOT IDENT.
NB-95	6.448E-03	1.694E-02	1.501E-02	8.641E-03 NOT IDENT.
NB-95M	4.584E-02	5.599E-02	4.701E-02	2.856E-02 NOT IDENT.
ZR-95	-1.161E-02	2.824E-02	2.171E-02	1.441E-02 NOT IDENT.
NB-97	1.307E+01	3.419E+01	0.000E+00	1.744E+01 SHORT HLIF
ZR-97	1.338E+03	8.387E+02	0.000E+00	4.279E+02 SHORT HLIF
MO-99	3.388E-01	8.737E-01	7.732E-01	4.457E-01 NOT IDENT.
TC-99M	2.548E+06	2.078E+07	0.000E+00	1.060E+07 SHORT HLIF
RH-101	7.413E-03	1.478E-02	1.368E-02	7.540E-03 NOT IDENT.
RH-102	-5.850E-03	1.640E-02	1.096E-02	8.370E-03 NOT IDENT.
RU-103	-6.357E-03	1.648E-02	1.333E-02	8.407E-03 NOT IDENT.
RH-106	-4.423E-02	1.450E-01	1.165E-01	7.397E-02 FAIL ABUN
RU-106	-4.423E-02	1.449E-01	1.165E-01	7.394E-02 FAIL ABUN
AG-108M	-3.722E-03	1.589E-02	1.332E-02	8.109E-03 NOT IDENT.
CD-109	-3.321E-02	3.574E-01	2.706E-01	1.824E-01 NOT IDENT.
AG-110M	6.513E-03	1.794E-02	1.583E-02	9.153E-03 NOT IDENT.
IN-111	2.944E-02	8.350E-02	6.718E-02	4.260E-02 NOT IDENT.
IN-113M	3.866E-03	2.193E-02	1.933E-02	1.119E-02 NOT IDENT.
SN-113	3.866E-03	2.193E-02	1.933E-02	1.119E-02 NOT IDENT.
IN-114M	2.621E-02	7.864E-02	6.361E-02	4.012E-02 NOT IDENT.
CD-115	-2.377E-01	5.479E-01	4.407E-01	2.795E-01 NOT IDENT.
SN-117M	-4.045E-03	1.902E-02	1.535E-02	9.705E-03 NOT IDENT.
SB-122	-1.427E-01	1.897E-01	1.477E-01	9.680E-02 NOT IDENT.
I-123	-1.263E+02	2.416E+02	0.000E+00	1.232E+02 SHORT HLIF
TE-123M	-7.306E-03	1.397E-02	1.099E-02	7.127E-03 NOT IDENT.
I-124	8.030E-02	1.067E-01	9.789E-02	5.444E-02 NOT IDENT.
SB-124	4.186E-03	4.421E-02	3.748E-02	2.256E-02 NOT IDENT.
SB-125	9.778E-03	4.494E-02	3.968E-02	2.293E-02 NOT IDENT.
TE-125M	-1.379E+00	3.477E+00	2.911E+00	1.774E+00 NOT IDENT.
I-126	-9.546E-03	5.889E-02	4.833E-02	3.005E-02 NOT IDENT.
SB-126	-2.331E-02	4.747E-02	3.666E-02	2.422E-02 NOT IDENT.
SN-126	-1.989E-02	3.768E-02	2.734E-02	1.922E-02 NOT IDENT.
SB-127	9.534E-02	1.433E-01	1.342E-01	7.312E-02 NOT IDENT.
XE-127	2.116E-03	1.893E-02	1.705E-02	9.659E-03 NOT IDENT.
I-131	3.972E-03	2.910E-02	2.566E-02	1.485E-02 NOT IDENT.
TE-132	5.384E-02	6.744E-02	6.310E-02	3.441E-02 NOT IDENT.
BA-133	-3.177E-03	2.122E-02	1.820E-02	1.083E-02 NOT IDENT.
I-133	1.352E+00	8.426E+00	0.000E+00	4.299E+00 SHORT HLIF
CS-134	1.120E-02	2.169E-02	1.953E-02	1.107E-02 NOT IDENT.
CS-135	3.101E-02	7.231E-02	6.603E-02	3.689E-02 NOT IDENT.
I-135	1.393E+07	1.858E+07	0.000E+00	9.478E+06 SHORT HLIF
CS-136	-8.547E-04	3.647E-02	3.109E-02	1.861E-02 NOT IDENT.
BA-137M	-1.063E-02	1.841E-02	1.420E-02	9.395E-03 NOT IDENT.
CS-137	-1.123E-02	1.947E-02	1.501E-02	9.932E-03 NOT IDENT.
CE-139	5.521E-03	1.363E-02	1.199E-02	6.956E-03 NOT IDENT.
BA-140	5.565E-02	9.066E-02	8.146E-02	4.625E-02 NOT IDENT.
LA-140	1.229E-02	3.417E-02	3.062E-02	1.743E-02 NOT IDENT.
CE-141	-3.239E-03	2.649E-02	2.129E-02	1.352E-02 NOT IDENT.
CE-143	-1.018E+00	1.309E+00	1.047E+00	6.677E-01 NOT IDENT.
CE-144	2.419E-02	8.454E-02	7.440E-02	4.313E-02 NOT IDENT.
PM-144	7.838E-04	1.917E-02	1.616E-02	9.779E-03 NOT IDENT.
PR-144	5.291E-02	1.294E+00	1.091E+00	6.601E-01 NOT IDENT.
PM-146	-5.132E-03	2.304E-02	1.932E-02	1.176E-02 NOT IDENT.
ND-147	5.459E-02	1.873E-01	1.650E-01	9.556E-02 NOT IDENT.
PM-149	-9.282E-01	4.646E+00	4.020E+00	2.370E+00 NOT IDENT.
EU-152	3.300E-04	5.181E-02	4.520E-02	2.643E-02 NOT IDENT.
GD-153	1.457E-02	3.354E-02	2.677E-02	1.711E-02 NOT IDENT.
EU-154	5.170E-02	5.399E-02	5.357E-02	2.755E-02 NOT IDENT.
EU-155	-9.137E-04	4.210E-02	3.648E-02	2.148E-02 NOT IDENT.
TB-160	5.264E-03	6.499E-02	5.691E-02	3.316E-02 NOT IDENT.
HO-166M	-5.518E-03	2.876E-02	2.335E-02	1.468E-02 FAIL ABUN
TM-171	-1.256E+01	1.084E+01	8.422E+00	5.532E+00 NOT IDENT.
LU-176	-2.952E-04	1.208E-02	1.057E-02	6.164E-03 NOT IDENT.
LU-177	-1.832E-01	2.268E-01	1.903E-01	1.157E-01 NOT IDENT.
LU-177M	-8.603E-02	8.922E-02	6.904E-02	4.552E-02 NOT IDENT.
HF-181	8.000E-03	1.884E-02	1.694E-02	9.612E-03 NOT IDENT.
W-181	1.257E-01	1.297E-01	1.171E-01	6.619E-02 NOT IDENT.
TA-182	1.381E-02	6.863E-02	6.053E-02	3.502E-02 NOT IDENT.
RE-183	-1.756E-02	4.936E-02	4.090E-02	2.518E-02 NOT IDENT.
RE-184	1.628E-02	1.035E-01	9.277E-02	5.279E-02 NOT IDENT.
OS-185	9.635E-03	1.825E-02	1.662E-02	9.309E-03 NOT IDENT.
RE-188	4.474E-03	7.087E-02	6.088E-02	3.616E-02 NOT IDENT.
W-188	-2.839E+00	3.057E+00	2.443E+00	1.560E+00 NOT IDENT.

IR-192	4.739E-03	1.545E-02	1.391E-02	7.884E-03	NOT IDENT.
AU-195	9.878E-03	9.652E-02	7.426E-02	4.924E-02	NOT IDENT.
TL-200	-1.493E+00	1.926E+00	1.530E+00	9.829E-01	NOT IDENT.
TL-201	-4.044E-01	6.321E-01	5.103E-01	3.225E-01	NOT IDENT.
TL-202	1.394E-02	2.196E-02	2.025E-02	1.121E-02	NOT IDENT.
HG-203	-1.051E-02	1.822E-02	1.528E-02	9.296E-03	NOT IDENT.
BI-207	1.985E-03	2.275E-02	1.977E-02	1.161E-02	NOT IDENT.
TL-207	-5.362E-02	3.102E-01	2.667E-01	1.582E-01	NOT IDENT.
TL-208	-9.368E-03	1.963E-02	1.533E-02	1.002E-02	FAIL ABUN
PO-209	1.881E+00	3.126E+00	2.975E+00	1.595E+00	NOT IDENT.
BI-210	-1.130E+00	1.157E+00	9.898E-01	5.905E-01	NOT IDENT.
PB-210	-1.130E+00	1.157E+00	9.898E-01	5.905E-01	NOT IDENT.
PO-210	-1.130E+00	1.157E+00	9.898E-01	5.901E-01	NOT IDENT.
BI-211	-2.036E-01	1.112E-01	7.575E-02	5.671E-02	NOT IDENT.
PB-211	-1.014E-01	4.928E-01	4.140E-01	2.514E-01	NOT IDENT.
BI-212	1.451E-02	1.438E-01	1.221E-01	7.339E-02	NOT IDENT.
PB-212	3.658E-02	5.364E-02	2.892E-02	2.737E-02	FAIL ABUN
PO-212	3.658E-02	5.364E-02	2.892E-02	2.737E-02	FAIL ABUN
BI-214	-3.882E-02	4.395E-02	3.387E-02	2.242E-02	NOT IDENT.
PB-214	-4.589E-02	3.758E-02	2.756E-02	1.917E-02	NOT IDENT.
PO-214	-4.589E-02	3.758E-02	2.756E-02	1.917E-02	NOT IDENT.
PO-215	-5.362E-02	3.102E-01	2.667E-01	1.582E-01	NOT IDENT.
PO-216	3.658E-02	5.364E-02	2.892E-02	2.737E-02	FAIL ABUN
PO-218	-4.589E-02	3.758E-02	2.756E-02	1.917E-02	NOT IDENT.
RN-219	1.564E-01	2.042E-01	1.895E-01	1.042E-01	NOT IDENT.
RN-220	4.114E+00	1.349E+01	1.191E+01	6.884E+00	NOT IDENT.
RA-223	-5.362E-02	3.102E-01	2.667E-01	1.582E-01	NOT IDENT.
RA-224	2.135E-01	3.378E-01	2.781E-01	1.723E-01	NOT IDENT.
RA-226	-3.882E-02	4.395E-02	3.387E-02	2.242E-02	NOT IDENT.
AC-227	-1.155E-01	1.805E-01	1.503E-01	9.209E-02	NOT IDENT.
TH-227	-1.155E-01	1.808E-01	1.503E-01	9.226E-02	FAIL ABUN
AC-228	4.236E-02	7.868E-02	6.840E-02	4.014E-02	NOT IDENT.
RA-228	4.236E-02	7.868E-02	6.840E-02	4.014E-02	NOT IDENT.
TH-228	3.686E-02	5.405E-02	2.914E-02	2.758E-02	FAIL ABUN
TH-229	-2.303E-01	2.304E-01	1.907E-01	1.176E-01	NOT IDENT.
TH-230	-3.882E-02	4.395E-02	3.387E-02	2.242E-02	NOT IDENT.
PA-231	3.050E-01	8.003E-01	7.244E-01	4.083E-01	NOT IDENT.
TH-231	-5.362E-02	3.102E-01	2.667E-01	1.582E-01	NOT IDENT.
U-231	5.684E-02	1.408E-01	1.118E-01	7.183E-02	FAIL ABUN
TH-232	4.236E-02	7.868E-02	6.840E-02	4.014E-02	NOT IDENT.
PA-233	-1.834E-02	2.977E-02	2.447E-02	1.519E-02	NOT IDENT.
PA-234	-1.370E-02	1.342E-01	1.135E-01	6.847E-02	FAIL ABUN
PA-234M	1.100E-01	2.241E+00	1.872E+00	1.144E+00	NOT IDENT.
TH-234	-4.597E-01	5.015E-01	4.224E-01	2.559E-01	FAIL ABUN
U-234	-3.882E-02	4.395E-02	3.387E-02	2.242E-02	NOT IDENT.
U-235	9.054E-03	1.034E-01	8.459E-02	5.277E-02	FAIL ABUN
NP-236	-3.394E-02	3.829E-02	3.026E-02	1.953E-02	FAIL ABUN
NP-237	-2.775E-03	1.029E-01	8.079E-02	5.250E-02	NOT IDENT.
U-238	-4.597E-01	5.015E-01	4.224E-01	2.559E-01	FAIL ABUN
NP-239	-5.916E-02	8.234E-02	6.678E-02	4.201E-02	NOT IDENT.
AM-241	-4.986E-02	5.499E-02	4.494E-02	2.806E-02	NOT IDENT.
AM-243	6.196E-03	2.177E-02	1.758E-02	1.110E-02	NOT IDENT.
CM-243	1.124E-02	3.717E-02	3.311E-02	1.896E-02	NOT IDENT.
AM-246	4.581E-02	6.542E-02	6.239E-02	3.338E-02	NOT IDENT.
CM-247	1.161E-02	1.840E-02	1.692E-02	9.386E-03	NOT IDENT.
CF-249	1.768E-02	2.100E-02	1.961E-02	1.071E-02	NOT IDENT.
CF-251	2.663E-02	5.648E-02	4.995E-02	2.882E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417

GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	98.5591
46.50	98.5591
46.50	98.5591
48.70	86.5904
49.72	98.9317
51.35	76.6358
52.39	71.6103
52.97	78.8223
53.15	84.9812
53.44	89.1053
54.07	83.0177
56.28	84.2442
56.28	84.2445
57.37	79.1998
57.53	75.0982
57.53	75.0983
57.60	75.1037
57.98	69.9878
57.98	69.9878
59.32	89.6691
59.32	89.6691
59.40	89.6766
59.54	102.0607
59.72	102.0798
60.01	109.3303
61.10	106.3555
61.14	106.3598
61.30	106.3773
63.00	101.3880
63.29	102.4525
63.29	102.4525
63.58	92.1305
64.28	81.8361
65.12	80.8675
65.20	80.8740
65.20	80.8740
66.05	109.9976
66.72	121.4918
66.83	121.5051
66.91	129.8232
67.20	129.8599
67.20	129.8599
67.75	115.3770
67.85	115.3880
68.90	100.9367
68.90	100.9367
69.30	94.7293
69.67	94.7630
70.82	91.7386
70.82	91.7386
70.83	91.7393
72.80	106.5305
72.87	106.5373
72.87	106.5373
74.67	92.0673
74.81	92.0790
74.81	92.0790
74.81	92.0790
74.81	92.0790
74.81	92.0790
74.81	92.0790
74.81	92.0790
74.97	86.8599
75.28	87.9313
75.70	76.4455
77.11	101.7078
77.11	101.7078

77.11	101.7078
77.11	101.7078
77.11	101.7078
77.11	101.7078
77.11	101.7078
78.38	120.7183
79.62	99.8336
79.80	99.8496
79.80	99.8496
80.11	105.1334
80.18	105.1399
80.30	105.1510
80.30	105.1510
80.57	105.1758
81.00	104.1633
81.07	104.1697
81.07	104.1697
81.07	104.1697
81.07	104.1697
82.60	84.2896
83.37	102.2684
83.78	110.7422
83.78	110.7422
83.78	110.7422
83.78	110.7422
84.21	112.8932
84.90	103.4584
85.43	96.1116
86.29	104.6369
86.50	108.7329
86.54	108.7368
86.59	108.7411
86.72	117.2119
86.79	117.2182
86.94	114.2119
87.30	114.2461
87.30	114.2461
87.30	114.2461
87.30	114.2461
87.30	114.2461
87.30	114.2461
87.30	114.2461
87.57	130.3548
87.88	123.6152
88.03	111.7754
88.36	98.2541
88.47	110.1223
89.95	125.5236
91.11	123.9449
92.29	100.2708
92.38	100.2784
92.38	100.2784
93.35	89.3006
94.00	89.3474
94.67	78.3269
94.67	78.3272
94.90	83.4507
94.90	83.4507
94.90	83.4507
94.90	83.4507
95.87	80.1065
95.87	80.1065
96.73	71.6335
97.43	69.9663
98.44	73.4373
98.44	73.4373
98.88	73.4624
99.55	61.5355
99.55	61.5355
99.86	64.1148
100.00	68.3967
100.10	68.4021
103.18	71.7776
103.76	66.4504
105.00	72.9493
105.31	72.9662
108.00	79.5639
109.28	82.8679

111.00	86.2048
111.00	86.2048
111.76	79.7835
112.95	67.9823
115.19	86.4655
116.30	89.7788
117.00	89.8235
117.00	89.8235
117.66	97.4443
121.11	83.5699
121.62	85.7710
121.78	92.2953
122.06	92.3131
122.32	89.0710
122.32	89.0710
122.32	89.0710
122.32	89.0710
123.07	73.9019
127.23	85.0096
129.76	85.1536
131.20	76.4931
133.02	56.8917
133.54	71.1384
135.34	81.0837
136.00	86.5991
136.25	90.9985
136.48	87.7228
140.51	84.6511
140.51	0.0000
142.18	95.7457
142.65	91.3708
143.76	73.8088
144.24	71.6269
144.24	71.6269
144.24	71.6269
144.24	71.6269
145.22	81.5941
145.44	76.0915
147.16	85.0042
152.43	78.6335
152.70	78.6465
153.22	86.4271
154.21	89.8050
154.21	89.8050
154.21	89.8050
154.21	89.8050
155.03	79.8662
156.02	78.8035
158.56	81.1453
159.00	0.0000
159.00	87.8377
160.31	101.2579
161.27	109.1090
162.32	95.8071
162.64	86.9109
163.35	75.8001
163.89	75.8235
165.85	81.4912
167.43	99.4426
171.28	73.9051
171.86	89.6112
172.10	89.6234
176.55	67.3851
176.60	67.3869
181.06	69.0533
184.41	63.1636
185.71	74.9467
186.00	85.7957
190.27	67.8877
192.34	94.0139
193.63	94.3046
197.04	65.4042
198.01	75.4343
198.60	81.8212
200.40	99.1864
201.83	101.0802
202.84	83.8214
205.31	73.8922

208.36	94.1063
208.81	95.9554
209.75	87.7717
209.75	87.7717
210.97	68.6133
215.65	71.5235
216.55	73.3896
218.09	67.0184
222.10	75.4281
223.80	74.5690
226.40	71.8967
227.00	70.0732
227.08	70.0760
227.20	70.0797
228.16	66.4216
228.18	66.4225
228.18	66.4225
231.56	87.7805
235.69	61.7196
236.00	58.6421
236.00	58.6421
238.63	59.3316
238.63	59.3316
238.63	59.3316
238.63	59.3316
239.00	59.3418
240.98	66.5112
241.98	57.2570
241.98	57.2570
241.98	57.2570
244.69	48.0313
245.39	52.6965
247.94	69.8259
248.90	71.7189
249.79	56.8390
252.40	51.3080
252.85	58.7830
252.85	58.7830
254.15	0.0000
256.20	71.0183
256.20	71.0183
260.50	63.6628
260.90	59.9289
262.80	70.2869
264.65	62.8403
268.24	57.3014
268.79	54.4968
269.46	62.0313
269.46	62.0313
269.46	62.0313
269.46	62.0313
271.23	76.1867
273.65	52.7270
276.40	64.1003
277.35	73.5554
277.60	71.6777
277.60	71.6777
278.00	67.9166
278.60	82.0861
279.20	75.5010
279.53	79.2863
280.46	70.8188
281.68	61.4080
283.67	65.2409
284.30	63.3662
285.00	66.2231
285.90	70.9799
286.10	72.8784
286.10	72.8784
287.40	58.7131
288.45	0.0000
290.67	61.6365
290.80	61.6397
291.72	60.7141
293.26	56.9553
293.70	59.8139
295.21	50.3506
295.21	50.3506

295.21	50.3506
295.96	45.6141
296.50	38.9705
297.23	47.5391
298.57	60.8836
299.80	76.1416
299.80	76.1416
300.09	63.7760
300.09	63.7760
300.09	63.7760
300.09	63.7760
300.12	63.7768
301.29	65.7117
302.84	62.8934
303.76	53.3839
303.91	56.2466
304.40	48.6299
304.40	48.6299
304.84	50.5454
306.84	55.3577
308.46	55.3931
311.98	54.5139
316.51	47.9034
318.01	54.6419
319.02	58.4988
319.41	61.3852
320.08	59.4820
323.87	51.8827
323.87	51.8827
323.87	51.8827
323.87	51.8827
325.23	57.6775
328.77	37.5408
333.44	54.9641
334.20	55.9447
334.20	55.9447
334.30	55.9468
338.28	52.1655
338.28	52.1655
338.28	52.1655
338.28	52.1655
338.32	49.2687
338.32	49.2687
338.32	49.2687
340.50	56.0763
340.57	56.0778
344.27	59.0588
345.85	46.4994
350.59	62.1070
351.07	57.2650
351.92	46.6031
351.92	46.6031
351.92	46.6031
355.39	0.0000
356.01	49.5887
364.48	40.9618
366.43	37.0866
367.43	43.9338
367.94	48.8239
369.80	46.9020
374.96	45.0291
383.85	49.0955
387.95	41.2981
388.63	40.3243
391.69	45.2891
391.69	45.2891
392.90	41.3678
398.62	39.4741
400.65	36.5384
401.10	34.5685
401.81	35.5645
402.60	37.5505
404.84	50.4341
410.95	41.6180
411.60	54.5119
413.65	55.5399
414.70	44.6457
415.30	40.6852

415.76	38.7067
417.63	0.0000
418.52	34.7680
423.70	36.8166
427.08	36.8564
427.89	35.8699
432.53	36.9210
433.93	37.9355
439.47	30.0018
439.56	30.0029
439.89	32.0063
443.98	38.0566
444.90	39.0690
445.03	39.0709
445.03	39.0709
445.03	39.0709
445.03	39.0709
453.90	43.1968
463.38	42.3153
468.07	33.2953
473.00	32.3344
475.06	28.3104
475.35	30.3351
476.78	34.3943
477.59	30.3552
477.96	32.3828
482.03	30.3955
484.57	32.4465
487.03	47.6902
490.36	37.5804
492.35	30.4885
497.08	30.5306
507.63	0.0000
510.53	0.0000
510.84	27.5872
511.00	27.5885
511.85	27.5951
511.85	27.5951
513.99	25.5666
513.99	25.5666
520.41	20.4907
520.65	20.4922
527.90	34.9081
528.96	0.0000
529.64	31.8431
529.87	0.0000
531.02	31.8552
537.32	26.7643
543.00	35.0542
546.56	0.0000
549.76	28.9222
552.65	33.0797
555.20	32.0687
563.23	41.4688
563.90	52.8814
568.70	39.4528
569.32	36.3441
569.50	37.3843
569.67	37.3860
573.80	37.4273
574.00	32.2306
574.64	33.2758
578.91	39.5604
579.30	35.3995
583.14	25.0131
585.48	30.2426
591.81	35.5157
592.07	36.5629
593.00	40.7510
595.88	33.4617
600.56	43.9718
602.52	0.0000
602.71	30.3785
602.71	30.3785
603.60	36.6722
604.41	48.2079
604.70	53.4516
609.31	44.0713

609.31	44.0713
609.31	44.0713
609.31	44.0713
610.33	38.8346
612.46	40.9557
614.37	33.6211
618.01	32.6007
621.84	24.2112
621.84	24.2112
631.29	22.1582
633.02	20.0562
633.10	20.0567
634.78	27.4574
635.90	29.5777
636.97	24.3027
645.85	19.0613
646.12	16.9445
656.30	25.4801
657.75	25.4889
657.90	0.0000
661.65	31.8918
661.65	31.8918
664.57	26.5948
666.33	25.5422
666.33	25.5422
675.00	24.5285
677.61	18.1414
685.20	11.7597
692.80	20.3485
695.00	32.1460
696.49	32.1570
696.49	32.1570
697.00	34.3047
697.49	30.0200
698.33	26.8091
698.50	26.8103
699.00	23.5958
702.63	30.0562
706.10	25.7830
706.58	0.0000
706.67	20.4143
709.31	26.8774
711.68	22.5894
713.82	22.6006
717.42	18.3107
720.50	26.9464
721.93	24.7991
722.20	21.5659
722.78	26.9604
722.78	26.9604
722.89	26.9617
722.95	26.9617
723.30	28.0427
724.18	21.5757
727.18	23.7494
733.00	23.7805
735.90	17.3062
739.58	18.4032
742.81	20.5832
744.21	17.3387
747.13	15.1812
751.79	13.0260
752.31	16.2843
753.82	17.3758
755.35	15.2089
756.15	18.4713
756.87	13.0406
763.93	20.6801
765.79	16.3330
766.42	15.2462
766.84	15.2476
776.49	19.6453
778.00	8.7342
778.57	14.1946
778.89	15.2879
783.80	15.3040
785.46	14.2159
792.07	13.1411

795.84	16.4396
796.30	17.5375
798.80	31.8037
801.93	24.1431
805.60	10.9827
810.29	26.3848
810.76	25.2876
815.85	20.1783
817.79	22.9396
818.51	23.8608
819.60	24.7841
826.30	18.3842
828.27	23.9095
831.60	31.2877
831.96	32.2108
834.83	18.4167
836.80	0.0000
846.75	22.1548
848.13	17.5442
856.28	0.0000
856.80	17.5752
860.37	22.2163
867.32	13.9047
867.82	15.7604
871.10	14.8431
873.19	23.2020
874.81	14.8542
875.33	0.0000
876.40	13.9304
879.36	18.5848
880.27	17.6587
880.51	17.6594
881.50	17.6629
883.24	16.7391
884.67	17.6741
889.25	12.1039
896.60	10.2568
898.02	8.3941
899.00	14.9258
903.28	18.6731
911.07	15.8963
911.07	15.8963
911.07	15.8963
919.63	17.7963
920.93	17.8005
925.00	24.3782
925.24	22.5039
926.50	18.7577
935.52	22.5483
937.48	17.8577
944.10	13.1748
946.00	15.0625
949.00	17.8968
962.29	16.0534
964.01	22.6709
966.15	20.7897
968.20	13.2349
969.11	17.0193
969.11	17.0193
969.11	17.0193
977.42	10.4168
980.50	12.3179
983.50	16.1170
989.30	13.2871
996.32	22.8076
1001.03	9.5113
1001.68	8.5612
1004.76	16.1803
1021.30	0.0000
1024.50	0.0000
1034.80	17.2251
1036.00	13.4001
1037.82	15.3197
1038.57	14.3640
1038.76	0.0000
1045.16	15.3398
1046.59	17.2617
1048.07	17.2661

1050.47	17.2734
1050.47	17.2734
1062.04	10.5775
1063.62	12.5044
1076.63	14.4611
1077.35	10.6061
1078.86	10.6088
1085.78	17.3811
1099.22	13.5500
1112.02	17.4595
1112.84	20.3719
1115.52	18.4403
1120.29	18.4550
1120.29	18.4550
1120.29	18.4550
1120.29	18.4550
1120.51	18.4557
1121.28	16.5151
1124.00	0.0000
1129.67	12.6472
1131.51	0.0000
1147.95	0.0000
1167.94	19.5817
1173.22	5.8796
1175.09	14.7040
1177.93	20.5950
1189.05	14.7375
1204.90	13.7904
1205.75	11.8218
1213.00	10.8492
1221.42	9.8763
1230.97	10.8805
1235.34	12.8678
1236.41	0.0000
1238.25	8.9125
1246.25	6.9408
1260.41	0.0000
1271.85	8.9597
1274.45	6.9715
1274.54	6.9715
1291.56	15.9766
1298.22	0.0000
1312.09	7.0117
1325.50	10.0370
1325.50	10.0370
1332.49	11.0524
1333.61	11.0546
1360.21	10.0895
1362.66	0.0000
1365.15	17.1646
1368.21	14.1418
1368.53	0.0000
1376.25	13.1476
1384.27	4.0501
1394.10	10.1400
1395.20	10.1416
1407.95	10.1603
1434.06	11.2184
1436.60	13.2629
1457.56	0.0000
1460.81	10.2372
1489.15	15.4169
1509.49	6.1841
1596.49	8.3428
1620.62	6.2771
1678.03	0.0000
1691.02	7.3899
1691.02	7.3899
1706.46	0.0000
1750.46	0.0000
1764.49	5.3274
1764.49	5.3274
1764.49	5.3274
1764.49	5.3274
1770.23	7.4634
1771.40	8.5309
1791.20	0.0000
1808.65	9.6412

1836.01 7.5232

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032510

Total Uranium Activity	-1.3635E+00	ug/g
Total Uranium Counting Unc.	1.4929E+00	ug/g
Total Uranium Tpu	7.6167E-07	ug/g
Total Uranium Mda	1.2572E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G1202032510
ANALYST	: MXR1	DETECTOR	: GAM14
SAMPLE DATE	: 5-FEB-2010 00:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 12-FEB-2010 16:32:21.56	SAMPLE ALQT	: 136.210 GRAM

GROSS GAMMA ACTIVITY (pCi/GRAM)	: 6.716E-02
GROSS GAMMA ERROR (pCi/GRAM)	: 6.577E-02
GROSS GAMMA MDA (pCi/GRAM)	: 1.042E-01
GROSS GAMMA DLC (pCi/GRAM)	: 4.917E-02

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:39:20.72

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032511.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:38:58
Sample ID : G1202032511 Sample quantity : 1.21500E+02 GRAM
Detector name : GAM16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.92 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.28*	210	524	0.89	126.76	123	8	2.91E-02	20.6	
2	3	74.88	412	434	0.95	149.94	145	13	5.72E-02	9.4	1.51E+00
3	3	77.16*	689	335	0.86	154.50	145	13	9.57E-02	5.6	
4	0	87.00	167	515	1.13	174.18	172	7	2.31E-02	23.8	
5	3	89.95	141	326	0.83	180.08	178	15	1.96E-02	20.4	3.18E+00
6	3	92.70*	742	401	1.17	185.58	178	15	1.03E-01	6.1	
7	0	128.81	146	383	0.85	257.81	253	10	2.02E-02	26.5	
8	0	143.78*	81	332	1.05	287.76	284	8	1.12E-02	41.4	
9	0	185.83*	388	389	1.07	371.85	367	11	5.39E-02	11.5	
10	0	209.23	191	253	0.91	418.65	415	10	2.65E-02	17.3	
11	0	238.51*	1221	375	1.04	477.22	471	10	1.70E-01	4.2	
12	0	241.84	186	248	0.97	483.87	482	7	2.59E-02	16.8	
13	0	269.96*	108	238	1.07	540.12	535	11	1.50E-02	29.5	
14	0	295.18*	415	195	1.10	590.55	586	10	5.76E-02	8.1	
15	0	299.91	76	147	1.62	600.01	596	8	1.06E-02	29.9	
16	0	327.23	83	161	1.03	654.65	651	9	1.16E-02	29.3	
17	0	338.29	282	156	0.98	676.76	672	10	3.92E-02	10.2	
18	0	351.83*	683	134	1.12	703.85	699	9	9.49E-02	4.9	
19	0	409.40	32	146	0.60	818.98	814	11	4.45E-03	75.1	
20	0	462.57	81	147	1.07	925.31	920	13	1.13E-02	32.6	
21	0	510.96*	117	129	1.85	1022.07	1015	15	1.63E-02	26.6	
22	0	583.19*	372	106	1.27	1166.51	1162	12	5.16E-02	7.7	
23	0	609.27*	486	100	1.24	1218.67	1213	13	6.74E-02	6.3	
24	0	661.40	164	107	1.20	1322.92	1319	11	2.28E-02	14.3	
25	0	727.42	91	55	1.23	1454.93	1450	9	1.26E-02	18.2	
26	0	770.39	59	119	0.71	1540.86	1533	16	8.25E-03	44.2	
27	0	795.00	82	67	1.47	1590.06	1582	16	1.14E-02	25.1	
28	0	860.80	58	42	1.33	1721.63	1716	10	8.07E-03	24.7	
29	0	911.00*	266	60	1.33	1822.01	1816	14	3.69E-02	9.2	
30	0	964.98*	36	47	1.02	1929.94	1924	9	5.03E-03	39.5	
31	0	968.85*	137	60	1.52	1937.68	1933	10	1.90E-02	13.9	
32	0	1001.40*	35	38	1.06	2002.76	1998	11	4.88E-03	39.2	
33	0	1120.08*	137	45	1.39	2240.04	2233	15	1.91E-02	13.9	
34	0	1377.53	30	27	1.76	2754.73	2750	10	4.12E-03	37.8	
35	0	1460.66*	1056	24	2.02	2920.93	2912	19	1.47E-01	3.3	
36	0	1764.55*	127	5	1.81	3528.39	3519	18	1.76E-02	10.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 18:39:23

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032511.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:38:58
Sample ID : G1202032511 Sample quantity : 121.50 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.92 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.530E+01	2.782E+00	4.667E-01	4.102E-02	54.215
CD-109	+	88.03	*	2.267E+00	1.100E+00	1.135E+00	1.094E-01	1.997
SN-126	+	64.28		1.913E+00	8.341E-01	7.344E-01	1.070E-01	2.605
	+	86.94		9.262E-01	5.852E-01	5.604E-01	2.329E-01	1.653
	+	87.57	*	2.228E-01	1.081E-01	1.330E-01	1.275E-02	1.675
BA-137M	+	661.65	*	2.346E-01	7.021E-02	5.783E-02	5.132E-03	4.057
CS-137	+	661.65	*	2.480E-01	7.423E-02	6.113E-02	5.435E-03	4.057
TL-208		277.35		2.355E-01	3.627E-01	5.991E-01	8.906E-02	0.393
	+	510.84		5.647E-01	3.092E-01	2.104E-01	2.660E-02	2.684
	+	583.14	*	5.114E-01	9.387E-02	5.869E-02	5.818E-03	8.713
	+	860.37		7.512E-01	3.787E-01	4.130E-01	4.134E-02	1.819
BI-211		72.87		2.942E+00	2.989E+00	4.794E+00	3.897E-01	0.614
	+	351.07	*	4.140E+00	6.093E-01	3.002E-01	3.283E-02	13.789
PB-212	+	74.81		2.326E+00	5.254E-01	5.130E-01	6.409E-02	4.534
	+	77.11		2.203E+00	3.105E-01	2.911E-01	2.472E-02	7.567
	+	87.30		1.030E+00	5.106E-01	6.169E-01	8.532E-02	1.670
	+	238.63	*	1.618E+00	2.348E-01	1.301E-01	1.540E-02	12.437
	+	300.09		1.557E+00	9.530E-01	1.191E+00	1.561E-01	1.307
PO-212	+	74.81		2.326E+00	5.254E-01	5.130E-01	6.409E-02	4.534
	+	77.11		2.203E+00	3.105E-01	2.911E-01	2.472E-02	7.567
	+	87.30		1.030E+00	5.106E-01	6.169E-01	8.532E-02	1.670
		115.19		-1.404E+00	3.310E+00	5.461E+00	4.557E-01	-0.257
	+	238.63	*	1.618E+00	2.348E-01	1.301E-01	1.540E-02	12.437
	+	300.09		1.557E+00	9.530E-01	1.191E+00	1.561E-01	1.307
BI-214	+	609.31	*	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
	+	1120.29		1.855E+00	5.544E-01	4.137E-01	4.441E-02	4.484
	+	1764.49		2.349E+00	5.176E-01	2.566E-01	2.124E-02	9.155
PB-214	+	74.81		4.008E+00	8.759E-01	8.840E-01	9.828E-02	4.534
	+	77.11		3.776E+00	6.051E-01	4.990E-01	5.694E-02	7.567
	+	87.30		1.765E+00	8.675E-01	1.057E+00	1.297E-01	1.670
	+	241.98		1.486E+00	5.331E-01	6.257E-01	7.751E-02	2.375
	+	295.21		1.488E+00	3.121E-01	2.017E-01	2.693E-02	7.377
	+	351.92	*	1.440E+00	2.249E-01	9.859E-02	1.192E-02	14.606
PO-214	+	74.81		4.008E+00	8.759E-01	8.840E-01	9.828E-02	4.534

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.776E+00	6.051E-01	4.990E-01	5.694E-02	7.567
	+	87.30		1.765E+00	8.675E-01	1.057E+00	1.297E-01	1.670
	+	241.98		1.486E+00	5.331E-01	6.257E-01	7.751E-02	2.375
	+	295.21		1.488E+00	3.121E-01	2.017E-01	2.693E-02	7.377
	+	351.92	*	1.440E+00	2.249E-01	9.859E-02	1.192E-02	14.606
PO-216	+	74.81		2.326E+00	5.254E-01	5.130E-01	6.409E-02	4.534
	+	77.11		2.203E+00	3.105E-01	2.911E-01	2.472E-02	7.567
	+	87.30		1.030E+00	5.106E-01	6.169E-01	8.532E-02	1.670
	+	238.63	*	1.618E+00	2.348E-01	1.301E-01	1.540E-02	12.437
	+	300.09		1.557E+00	9.530E-01	1.191E+00	1.561E-01	1.307
PO-218	+	74.81		4.008E+00	8.759E-01	8.840E-01	9.828E-02	4.534
	+	77.11		3.776E+00	6.051E-01	4.990E-01	5.694E-02	7.567
	+	87.30		1.765E+00	8.675E-01	1.057E+00	1.297E-01	1.670
	+	241.98		1.486E+00	5.331E-01	6.257E-01	7.751E-02	2.375
	+	295.21		1.488E+00	3.121E-01	2.017E-01	2.693E-02	7.377
	+	351.92	*	1.440E+00	2.249E-01	9.859E-02	1.192E-02	14.606
RA-224	+	240.98	*	2.818E+00	9.984E-01	1.334E+00	1.470E-01	2.112
RA-226	+	609.31	*	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
	+	1120.29		1.855E+00	5.544E-01	4.137E-01	4.441E-02	4.484
	+	1764.49		2.349E+00	5.176E-01	2.566E-01	2.124E-02	9.155
AC-228	+	338.32		1.883E+00	8.765E-01	3.260E-01	1.363E-01	5.777
	+	911.07	*	1.625E+00	3.564E-01	2.030E-01	2.411E-02	8.009
	+	969.11		1.478E+00	5.383E-01	3.361E-01	7.925E-02	4.398
RA-228	+	338.32		1.883E+00	8.765E-01	3.260E-01	1.363E-01	5.777
	+	911.07	*	1.625E+00	3.564E-01	2.030E-01	2.411E-02	8.009
	+	969.11		1.478E+00	5.383E-01	3.361E-01	7.925E-02	4.398
TH-228	+	74.81		2.362E+00	4.863E-01	5.209E-01	4.358E-02	4.534
	+	77.11		2.236E+00	3.152E-01	2.955E-01	2.510E-02	7.567
	+	87.30		1.046E+00	5.077E-01	6.263E-01	5.985E-02	1.670
	+	238.63	*	1.643E+00	2.384E-01	1.321E-01	1.564E-02	12.437
	+	300.09		1.581E+00	1.337E+00	1.210E+00	7.235E-01	1.307
TH-230	+	609.31	*	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
	+	1120.29		1.855E+00	5.544E-01	4.137E-01	4.441E-02	4.484
	+	1764.49		2.349E+00	5.176E-01	2.566E-01	2.123E-02	9.155
TH-232	+	338.32		1.883E+00	4.367E-01	3.260E-01	3.558E-02	5.777
	+	911.07	*	1.625E+00	3.564E-01	2.030E-01	2.411E-02	8.009
	+	969.11		1.478E+00	5.383E-01	3.361E-01	7.925E-02	4.398
TH-234	+	63.29	*	4.833E+00	2.158E+00	1.997E+00	3.483E-01	2.420
	+	92.38		6.428E+00	1.417E+00	6.845E-01	1.258E-01	9.391
U-234	+	609.31	*	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
	+	1120.29		1.855E+00	5.544E-01	4.137E-01	4.441E-02	4.484
	+	1764.49		2.349E+00	5.176E-01	2.566E-01	2.123E-02	9.155
U-235	+	89.95		2.504E+00	1.286E+00	1.761E+00	5.475E-01	1.422
	+	93.35		7.728E+00	2.375E+00	8.174E-01	2.305E-01	9.454
		105.00		1.052E+00	9.710E-01	1.621E+00	4.835E-01	0.649
	+	143.76	*	3.428E-01	2.904E-01	3.051E-01	5.331E-02	1.124
		163.35		2.082E-02	4.649E-01	7.563E-01	1.456E-01	0.028
	+	185.71		3.610E-01	8.983E-02	6.299E-02	6.017E-03	5.731
		205.31		4.773E-01	5.423E-01	8.213E-01	1.624E-01	0.581

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	+	86.50	*	6.542E-01	3.450E-01	3.977E-01	9.028E-02	1.645
		95.87		-6.664E-01	9.548E-01	1.382E+00	3.423E-01	-0.482
U-238	+	63.29	*	4.833E+00	2.158E+00	1.997E+00	3.483E-01	2.420
	+	92.38		6.428E+00	9.814E-01	6.845E-01	6.316E-02	9.391
AM-243	+	74.67	*	3.771E-01	7.754E-02	8.343E-02	6.907E-03	4.520
	+	86.72		2.453E+01	1.191E+01	1.488E+01	1.412E+00	1.649
		117.66		1.334E-01	3.475E+00	5.840E+00	4.860E-01	0.023
		142.18		3.405E+00	1.823E+01	2.740E+01	2.336E+00	0.124
ANH-511	+	511.00	*	1.220E-01	6.602E-02	4.546E-02	4.323E-03	2.683

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	8.449E-02	3.161E-01	5.334E-01	5.395E-02	0.158
NA-22		1274.54	*	3.415E-02	3.909E-02	6.980E-02	5.808E-03	0.489
NA-24		1368.53	*	-3.341E-01	3.909E-02	Half-Life too short		
AL-26		1129.67		-1.542E-02	1.580E+00	2.583E+00	2.165E-01	-0.006
		1808.65	*	1.442E-02	3.317E-02	5.862E-02	4.793E-03	0.246
TI-44		67.85		-6.985E-03	4.522E-02	6.906E-02	5.348E-03	-0.101
	+	78.38	*	4.065E-01	5.730E-02	7.227E-02	6.223E-03	5.624
SC-46		889.25	*	-2.081E-02	3.399E-02	5.296E-02	5.007E-03	-0.393
	+	1120.51		3.177E-01	9.261E-02	1.403E-01	1.185E-02	2.264
V-48		944.10		-6.002E-01	8.821E-01	1.317E+00	1.230E-01	-0.456
		983.50	*	2.583E-02	6.498E-02	1.120E-01	1.031E-02	0.231
		1312.09		-2.411E-02	7.892E-02	1.226E-01	1.029E-02	-0.197
CR-51		320.08	*	1.787E-01	3.475E-01	5.691E-01	6.654E-02	0.314
MN-52		744.21		1.033E-01	2.324E-01	3.881E-01	3.563E-02	0.266
		848.13		-1.940E+00	6.286E+00	1.023E+01	9.627E-01	-0.190
		935.52		1.799E-01	2.391E-01	4.248E-01	3.980E-02	0.423
		1246.25		4.579E+00	6.926E+00	1.200E+01	9.893E-01	0.381
		1333.61		2.609E-01	4.366E+00	7.114E+00	6.002E-01	0.037
		1434.06	*	-3.845E-02	2.089E-01	3.240E-01	2.765E-02	-0.119
MN-54		834.83	*	6.391E-03	3.855E-02	6.554E-02	6.156E-03	0.098
CO-56		846.75	*	-1.212E-02	3.495E-02	5.661E-02	5.327E-03	-0.214
		977.42		1.292E+00	2.492E+00	4.362E+00	4.026E-01	0.296
		1037.82		-1.156E-01	2.853E-01	4.495E-01	4.225E-02	-0.257
		1175.09		4.926E-01	2.092E+00	3.500E+00	2.816E-01	0.141
		1238.25		2.143E-01	9.499E-02	1.788E-01	1.517E-02	1.199
		1360.21		-1.973E-01	8.544E-01	1.324E+00	1.122E-01	-0.149
		1771.40		7.058E-04	2.067E-01	2.931E-01	2.422E-02	0.002
CO-57		122.06	*	1.423E-02	2.333E-02	4.002E-02	3.325E-03	0.356
		136.48		5.335E-02	1.930E-01	3.252E-01	2.956E-02	0.164
CO-58		810.76	*	-2.451E-02	3.858E-02	6.123E-02	5.737E-03	-0.400
FE-59	+	142.65		4.427E+00	3.689E+00	4.518E+00	3.857E-01	0.980
		192.34		-1.974E-02	8.865E-01	1.448E+00	2.050E-01	-0.014
		1099.22	*	-1.995E-02	8.144E-02	1.300E-01	1.209E-02	-0.153
		1291.56		-8.999E-02	1.135E-01	1.637E-01	1.563E-02	-0.550
CO-60		1173.22		-1.011E-02	4.255E-02	6.776E-02	5.448E-03	-0.149

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	-9.538E-03	3.274E-02	5.040E-02	4.251E-03	-0.189
ZN-65		1115.52	*	-6.271E-02	9.679E-02	1.236E-01	1.050E-02	-0.507
GE-68		1077.35	*	4.180E-01	1.154E+00	1.970E+00	1.721E-01	0.212
AS-73		53.44	*	-2.406E-01	8.111E-01	1.252E+00	9.548E-02	-0.192
AS-74		595.88	*	4.774E-02	8.683E-02	1.478E-01	1.372E-02	0.323
		634.78		-8.726E-02	3.444E-01	5.458E-01	4.947E-02	-0.160
SE-75		66.05		-3.650E+00	5.194E+00	7.073E+00	6.805E-01	-0.516
		96.73		-6.594E-01	7.813E-01	1.131E+00	1.564E-01	-0.583
		121.11		-1.727E-02	1.243E-01	2.071E-01	2.274E-02	-0.083
		136.00		1.349E-02	3.595E-02	6.081E-02	5.161E-03	0.222
		198.60		-1.693E+00	1.766E+00	2.692E+00	2.886E-01	-0.629
		264.65	*	-5.191E-02	4.976E-02	6.446E-02	7.522E-03	-0.805
		279.53		-1.029E-01	1.074E-01	1.602E-01	1.960E-02	-0.642
		303.91		1.188E+00	2.186E+00	3.226E+00	4.484E-01	0.368
		400.65		-3.135E-02	2.270E-01	3.770E-01	4.389E-02	-0.083
BR-77	+	87.88		5.008E+02	2.431E+02	3.251E+02	3.129E+01	1.541
		200.40		-5.715E+01	1.530E+02	2.447E+02	2.431E+01	-0.234
	+	239.00		2.657E+02	3.668E+01	3.937E+01	4.318E+00	6.749
		249.79		-2.548E+01	6.429E+01	1.009E+02	1.135E+01	-0.253
		281.68		4.877E+01	8.517E+01	1.406E+02	1.685E+01	0.347
		297.23		1.306E+02	7.759E+01	1.005E+02	1.182E+01	1.300
		303.76		8.360E+01	1.915E+02	2.805E+02	3.268E+01	0.298
		439.47		-6.674E+01	1.407E+02	2.265E+02	2.138E+01	-0.295
		484.57		-2.798E+02	2.359E+02	3.537E+02	3.365E+01	-0.791
		520.65	*	-8.906E-01	9.652E+00	1.577E+01	1.499E+00	-0.056
		574.64		1.649E+02	2.171E+02	3.743E+02	3.508E+01	0.440
		578.91		-2.277E+01	1.025E+02	1.431E+02	1.339E+01	-0.159
		585.48		7.198E+02	2.346E+02	4.052E+02	3.780E+01	1.776
		755.35		1.810E+02	1.679E+02	2.942E+02	2.711E+01	0.615
		817.79		3.902E-01	1.188E+02	1.997E+02	1.870E+01	0.002
SR-82		698.33		-1.097E+01	3.378E+01	5.279E+01	4.764E+00	-0.208
		776.49	*	1.630E-01	3.869E-01	5.717E-01	5.300E-02	0.285
		1395.20		-1.134E+01	1.117E+01	1.530E+01	1.301E+00	-0.741
RB-83		520.41	*	-7.019E-03	6.233E-02	1.017E-01	9.661E-03	-0.069
		529.64		8.057E-05	9.319E-02	1.533E-01	1.455E-02	0.001
		552.65		2.568E-01	1.794E-01	3.261E-01	3.078E-02	0.787
RB-84		881.50	*	4.583E-02	7.019E-02	1.238E-01	1.169E-02	0.370
KR-85		513.99	*	4.535E+00	7.310E+00	1.122E+01	1.067E+00	0.404
SR-85		513.99	*	2.327E-02	3.751E-02	5.759E-02	5.476E-03	0.404
RB-86		1076.63	*	3.543E-01	7.180E-01	1.242E+00	1.086E-01	0.285
Y-88		898.02		1.119E-02	3.546E-02	6.109E-02	5.802E-03	0.183
		1836.01	*	8.120E-03	3.291E-02	5.673E-02	4.605E-03	0.143
ZR-88		392.90	*	-2.542E-02	2.804E-02	4.405E-02	4.074E-03	-0.577
Y-91		1204.90	*	-1.227E+01	1.773E+01	2.673E+01	2.174E+00	-0.459
NB-94		702.63	*	1.155E-02	3.148E-02	5.234E-02	4.731E-03	0.221
		871.10		1.931E-02	2.886E-02	5.148E-02	4.859E-03	0.375
NB-95		765.79	*	-1.523E-02	5.328E-02	7.370E-02	6.812E-03	-0.207
NB-95M		235.69	*	1.257E-01	1.270E-01	1.938E-01	2.305E-02	0.649
ZR-95		724.18		-1.699E-02	1.080E-01	1.483E-01	1.457E-02	-0.115

---- Non-Identified Nuclides ----

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		756.15	*	9.440E-02	7.289E-02	1.291E-01	1.296E-02	0.731
NB-97		657.90	*	-1.675E-02	7.289E-02	Half-Life too short		
		1024.50		9.629E-01	7.289E-02	Half-Life too short		
ZR-97		254.15		2.242E+00	7.289E-02	Half-Life too short		
		355.39		5.598E-01	7.289E-02	Half-Life too short		
		507.63	*	2.276E+00	7.289E-02	Half-Life too short		
		602.52		1.167E+00	7.289E-02	Half-Life too short		
		1021.30		9.380E+00	7.289E-02	Half-Life too short		
		1147.95		-2.302E+00	7.289E-02	Half-Life too short		
		1362.66		-4.267E+00	7.289E-02	Half-Life too short		
		1750.46		1.921E+00	7.289E-02	Half-Life too short		
MO-99		140.51		-9.040E+00	2.741E+01	3.919E+01	1.084E+01	-0.231
		181.06		-8.244E+00	1.826E+01	2.594E+01	4.846E+00	-0.318
		366.43		5.479E+01	7.964E+01	1.396E+02	1.412E+01	0.392
		739.58	*	2.689E-01	1.171E+01	1.882E+01	2.917E+00	0.014
		778.00		-3.417E+01	3.597E+01	4.908E+01	4.553E+00	-0.696
TC-99M		140.51	*	-1.593E+10	3.597E+01	Half-Life too short		
RH-101		127.23		2.529E-02	3.055E-02	4.792E-02	3.990E-03	0.528
		198.01	*	-1.275E-02	3.219E-02	5.074E-02	5.009E-03	-0.251
		325.23		1.300E-01	2.340E-01	3.447E-01	3.870E-02	0.377
RH-102		418.52		1.316E-01	2.565E-01	4.434E-01	4.154E-02	0.297
		475.06	*	-6.871E-03	2.898E-02	4.722E-02	4.488E-03	-0.146
		631.29		-6.124E-03	5.268E-02	8.461E-02	7.689E-03	-0.072
		697.49		-1.335E-02	7.419E-02	1.175E-01	1.060E-02	-0.114
		766.84		2.971E-02	1.463E-01	2.124E-01	1.964E-02	0.140
		1046.59		-9.696E-03	1.084E-01	1.771E-01	1.578E-02	-0.055
		1112.84		2.420E-01	2.339E-01	3.806E-01	3.236E-02	0.636
RU-103		497.08	*	-1.958E-02	3.635E-02	5.719E-02	8.421E-03	-0.342
	+	610.33		1.361E+01	2.886E+00	3.011E+00	5.117E-01	4.520
RH-106	+	511.85		6.093E-01	3.298E-01	4.332E-01	4.119E-02	1.407
		621.84	*	-3.597E-02	2.800E-01	4.494E-01	6.157E-02	-0.080
		1050.47		1.902E+00	2.241E+00	3.988E+00	3.546E-01	0.477
RU-106	+	511.85		6.093E-01	3.298E-01	4.332E-01	4.119E-02	1.407
		621.84	*	-3.597E-02	2.800E-01	4.494E-01	4.109E-02	-0.080
		1050.47		1.902E+00	2.241E+00	3.988E+00	3.546E-01	0.477
AG-108M		433.93	*	2.701E-03	3.015E-02	5.002E-02	4.869E-03	0.054
		614.37		-1.592E-02	3.766E-02	5.051E-02	4.801E-03	-0.315
		722.95		-1.953E-02	4.786E-02	6.353E-02	5.992E-03	-0.307
AG-110M		657.75	*	4.904E-03	3.575E-02	5.147E-02	4.711E-03	0.095
		677.61		-1.701E-01	3.180E-01	4.883E-01	4.481E-02	-0.348
		706.67		-4.431E-02	2.012E-01	3.170E-01	2.942E-02	-0.140
		763.93		1.414E-01	1.827E-01	2.789E-01	2.640E-02	0.507
		884.67		5.227E-03	4.609E-02	7.786E-02	7.555E-03	0.067
		937.48		-1.019E-01	1.044E-01	1.555E-01	1.501E-02	-0.655
		1384.27		6.755E-02	1.847E-01	2.949E-01	2.578E-02	0.229
IN-111		171.28		-4.169E-01	9.585E-01	1.544E+00	1.420E-01	-0.270
		245.39	*	-2.487E-01	1.077E+00	1.516E+00	1.689E-01	-0.164
IN-113M		391.69	*	-1.843E-02	3.952E-02	6.421E-02	6.095E-03	-0.287
SN-113		391.69	*	-1.843E-02	3.952E-02	6.421E-02	6.095E-03	-0.287

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IN-114M		190.27	*	1.319E-01	1.881E-01	2.866E-01	2.772E-02	0.460
CD-115		260.90		6.339E+01	1.380E+02	2.268E+02	2.617E+01	0.280
		492.35		2.218E+01	3.471E+01	6.004E+01	5.714E+00	0.369
		527.90	*	3.057E-01	9.534E+00	1.573E+01	1.493E+00	0.019
SN-117M		156.02		-8.547E-01	2.162E+00	3.513E+00	3.099E-01	-0.243
		158.56	*	5.197E-02	5.304E-02	9.095E-02	8.078E-03	0.571
SB-122		563.90	*	6.662E-01	2.033E+00	3.412E+00	3.210E-01	0.195
		692.80		1.322E+01	4.406E+01	7.284E+01	6.557E+00	0.182
I-123		159.00	*	4.783E+00	4.406E+01	Half-Life too short		
		528.96		8.224E+01	4.406E+01	Half-Life too short		
TE-123M		159.00	*	2.145E-02	2.720E-02	4.635E-02	4.145E-03	0.463
I-124		602.71	*	1.105E-01	7.113E-01	1.087E+00	1.006E-01	0.102
		722.78		6.088E-01	4.753E+00	6.769E+00	6.168E-01	0.090
		1325.50		-1.030E-02	3.076E+01	4.971E+01	4.186E+00	0.000
	+	1376.25		5.579E+01	4.249E+01	6.466E+01	5.488E+00	0.863
		1509.49		1.452E+01	1.494E+01	2.812E+01	2.404E+00	0.516
		1691.02		5.881E-01	2.739E+00	4.772E+00	4.013E-01	0.123
SB-124		602.71		6.349E-03	4.085E-02	6.245E-02	5.777E-03	0.102
		645.85		-3.397E-01	5.134E-01	7.817E-01	7.417E-02	-0.435
		709.31		-3.502E-01	2.597E+00	4.122E+00	3.736E-01	-0.085
		713.82		2.349E-01	1.639E+00	2.668E+00	3.301E-01	0.088
		722.78		5.069E-02	3.957E-01	5.636E-01	5.235E-02	0.090
	+	968.20		1.523E+01	4.456E+00	7.333E+00	6.792E-01	2.077
		1045.16		-8.431E-01	2.216E+00	3.497E+00	3.119E-01	-0.241
		1325.50		-9.162E-04	2.736E+00	4.420E+00	3.722E-01	0.000
		1368.21		-6.547E-01	1.677E+00	2.536E+00	3.395E-01	-0.258
		1436.60		-1.367E-01	3.260E+00	5.440E+00	4.642E-01	-0.025
		1691.02	*	1.155E-02	5.380E-02	9.372E-02	8.208E-03	0.123
SB-125		427.89	*	1.545E-02	8.312E-02	1.406E-01	1.343E-02	0.110
	+	463.38		7.667E-01	5.056E-01	5.501E-01	5.560E-02	1.394
		600.56		-5.188E-02	1.743E-01	2.770E-01	2.730E-02	-0.187
		635.90		4.290E-02	2.461E-01	4.057E-01	3.945E-02	0.106
TE-125M		109.28	*	-3.366E+00	8.436E+00	1.374E+01	1.398E+00	-0.245
I-126		388.63		9.006E-02	1.929E-01	3.331E-01	3.117E-02	0.270
		666.33	*	1.229E-02	1.990E-01	2.832E-01	2.519E-02	0.043
		753.82		6.356E-01	1.527E+00	2.534E+00	2.334E-01	0.251
SB-126		223.80		-1.049E+00	3.823E+00	6.101E+00	6.444E-01	-0.172
		278.60		2.044E+00	2.338E+00	3.912E+00	4.692E-01	0.522
	+	296.50		1.488E+01	2.979E+00	3.617E+00	4.258E-01	4.114
		414.70		-5.433E-02	8.239E-02	1.137E-01	1.063E-02	-0.478
		415.30		5.820E-01	6.176E+00	9.665E+00	9.040E-01	0.060
		555.20		-1.487E+00	3.851E+00	6.106E+00	5.760E-01	-0.244
		573.80		4.644E-01	1.113E+00	1.874E+00	1.756E-01	0.248
		593.00		-8.259E-01	8.876E-01	1.322E+00	1.229E-01	-0.625
		656.30		-2.265E-01	3.688E+00	5.175E+00	4.614E-01	-0.044
		666.33		5.136E-03	8.319E-02	1.184E-01	1.053E-02	0.043
		675.00		7.421E-01	1.930E+00	3.222E+00	2.878E-01	0.230
		695.00		4.533E-02	7.720E-02	1.305E-01	1.176E-02	0.347
		697.00		-2.535E-02	2.668E-01	4.260E-01	3.842E-02	-0.060

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		720.50	*	8.040E-04	1.423E-01	2.287E-01	2.082E-02	0.004
		856.80		-2.534E-01	5.083E-01	6.584E-01	6.204E-02	-0.385
		989.30		-3.444E-01	1.141E+00	1.827E+00	1.678E-01	-0.188
		1034.80		1.606E+00	8.419E+00	1.417E+01	1.271E+00	0.113
		1213.00		1.482E+00	4.924E+00	8.231E+00	6.712E-01	0.180
SB-127		61.10		3.032E+01	6.267E+01	9.202E+01	9.346E+00	0.329
		252.40		-4.560E-01	4.233E+00	6.756E+00	2.883E+00	-0.067
		290.80		1.240E+01	2.224E+01	3.293E+01	4.556E+00	0.377
		411.60		1.093E+01	1.301E+01	2.044E+01	3.300E+00	0.535
		444.90		2.175E+00	9.517E+00	1.609E+01	2.113E+00	0.135
		473.00		2.386E-01	1.657E+00	2.774E+00	3.743E-01	0.086
		543.00		-9.284E+00	1.523E+01	2.356E+01	3.518E+00	-0.394
		603.60		-9.516E-01	1.326E+01	1.875E+01	2.431E+00	-0.051
		685.20	*	2.655E-03	1.421E+00	2.292E+00	2.676E-01	0.001
		698.50		-1.719E+00	1.491E+01	2.376E+01	3.815E+00	-0.072
		722.20		1.144E+01	3.281E+01	4.799E+01	5.550E+00	0.238
		783.80		2.923E+00	3.640E+00	6.212E+00	8.020E-01	0.471
XE-127		57.60		-6.006E+00	6.005E+00	8.892E+00	6.428E-01	-0.675
	+	145.22		1.135E+00	9.453E-01	1.126E+00	9.662E-02	1.008
		172.10		-7.431E-02	1.116E-01	1.775E-01	1.636E-02	-0.419
		202.84	*	-3.529E-02	4.370E-02	6.809E-02	6.810E-03	-0.518
		374.96		3.040E-02	1.906E-01	3.240E-01	3.186E-02	0.094
I-131		80.18		2.541E+00	4.316E+00	6.808E+00	6.019E-01	0.373
		284.30		-3.801E-01	1.377E+00	2.156E+00	2.646E-01	-0.176
		364.48	*	3.808E-02	1.080E-01	1.835E-01	1.941E-02	0.207
		636.97		-8.577E-01	1.502E+00	2.304E+00	2.191E-01	-0.372
		722.89		6.615E-01	7.593E+00	1.076E+01	9.860E-01	0.061
TE-132		49.72		-2.482E+00	1.882E+01	2.937E+01	3.072E+00	-0.085
		111.76		4.147E+00	2.745E+01	4.645E+01	4.968E+00	0.089
		116.30		-3.435E+00	2.585E+01	4.317E+01	4.597E+00	-0.080
		228.16	*	7.525E-02	6.474E-01	1.054E+00	1.786E-01	0.071
BA-133		53.15		-4.728E-01	3.498E+00	5.446E+00	4.172E-01	-0.087
		79.62		-1.435E-01	1.226E+00	1.876E+00	2.868E-01	-0.077
		81.00		-1.151E-01	9.295E-02	1.416E-01	2.268E-02	-0.813
		276.40		2.523E-01	3.640E-01	6.012E-01	1.001E-01	0.420
		302.84		4.746E-02	1.502E-01	2.178E-01	3.363E-02	0.218
		356.01	*	5.675E-03	4.188E-02	6.322E-02	9.135E-03	0.090
		383.85		2.573E-01	2.927E-01	5.144E-01	6.812E-02	0.500
I-133	+	510.53		1.319E+00	2.927E-01	Half-Life too short		
		529.87	*	-1.417E-03	2.927E-01	Half-Life too short		
		706.58		-6.742E-02	2.927E-01	Half-Life too short		
		856.28		-1.736E-01	2.927E-01	Half-Life too short		
		875.33		-8.658E-02	2.927E-01	Half-Life too short		
		1236.41		1.443E+00	2.927E-01	Half-Life too short		
		1298.22		1.193E-01	2.927E-01	Half-Life too short		
CS-134		475.35		-8.473E-02	1.873E+00	3.095E+00	2.942E-01	-0.027
		563.23		1.417E-01	3.495E-01	5.899E-01	5.595E-02	0.240
		569.32		2.231E-02	2.042E-01	3.354E-01	3.185E-02	0.067
		604.70		-5.700E-03	3.829E-02	5.368E-02	4.970E-03	-0.106

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	795.84	*	1.623E-01	8.273E-02	9.576E-02	8.978E-03	1.695
		801.93		-4.831E-01	4.499E-01	5.665E-01	5.312E-02	-0.853
		1038.57		-2.236E-01	3.348E+00	5.482E+00	4.908E-01	-0.041
		1167.94		8.787E-01	2.393E+00	4.052E+00	3.276E-01	0.217
		1365.15		6.702E-01	1.076E+00	1.900E+00	1.686E-01	0.353
CS-135		268.24	*	1.218E-01	1.655E-01	2.447E-01	3.121E-02	0.498
I-135		288.45		-2.656E+10	1.655E-01	Half-Life too short		
		417.63		1.308E+10	1.655E-01	Half-Life too short		
		546.56		1.725E+10	1.655E-01	Half-Life too short		
		836.80		1.532E+10	1.655E-01	Half-Life too short		
		1038.76		-1.008E+09	1.655E-01	Half-Life too short		
		1124.00		5.851E+09	1.655E-01	Half-Life too short		
		1131.51		-1.471E+09	1.655E-01	Half-Life too short		
		1260.41	*	-4.171E+09	1.655E-01	Half-Life too short		
		1457.56		4.974E+11	1.655E-01	Half-Life too short		
		1678.03		-1.259E+09	1.655E-01	Half-Life too short		
		1706.46		7.229E+09	1.655E-01	Half-Life too short		
		1791.20		1.335E+10	1.655E-01	Half-Life too short		
CS-136		66.91		-3.503E-01	8.306E-01	1.149E+00	1.715E-01	-0.305
	+	86.29		2.919E+00	1.444E+00	1.889E+00	2.533E-01	1.546
		153.22		4.831E-01	6.302E-01	1.074E+00	1.048E-01	0.450
		163.89		1.157E-02	1.054E+00	1.712E+00	1.714E-01	0.007
		176.55		-1.119E-02	3.454E-01	5.667E-01	5.545E-02	-0.020
		273.65		-2.653E-02	4.883E-01	6.920E-01	8.503E-02	-0.038
		340.57		1.519E-01	1.215E-01	1.980E-01	2.189E-02	0.767
		818.51		-1.492E-02	6.662E-02	1.096E-01	1.027E-02	-0.136
		1048.07	*	2.130E-02	1.035E-01	1.741E-01	1.612E-02	0.122
		1235.34		5.664E-01	6.080E-01	1.060E+00	1.225E-01	0.534
CE-139		165.85	*	-1.334E-02	2.869E-02	4.630E-02	4.199E-03	-0.288
BA-140		162.64		-1.074E-01	7.380E-01	1.190E+00	1.127E-01	-0.090
		304.84		-1.722E-01	1.276E+00	1.904E+00	5.540E-01	-0.090
		423.70		2.077E-01	1.793E+00	3.016E+00	9.842E-01	0.069
		537.32	*	-2.139E-01	2.459E-01	3.557E-01	1.187E-01	-0.601
LA-140		328.77		1.689E-01	3.897E-01	5.632E-01	6.491E-02	0.300
		432.53		-1.080E-01	1.892E+00	3.106E+00	3.044E-01	-0.035
		487.03		1.079E-01	1.360E-01	2.370E-01	2.370E-02	0.455
		751.79		-1.285E+00	1.685E+00	2.479E+00	2.497E-01	-0.518
		815.85		-1.407E-01	2.914E-01	4.669E-01	4.800E-02	-0.301
		867.82		-1.059E+00	1.212E+00	1.834E+00	1.807E-01	-0.578
		919.63		6.759E-01	2.459E+00	4.212E+00	4.758E-01	0.160
		925.24		-2.831E-03	1.052E+00	1.752E+00	1.734E-01	-0.002
		1596.49	*	-5.581E-02	8.073E-02	1.189E-01	1.013E-02	-0.469
CE-141		145.44	*	2.595E-02	6.556E-02	9.877E-02	8.640E-03	0.263
CE-143		57.37		-6.894E-04	6.556E-02	Half-Life too short		
		231.56		-4.908E-04	6.556E-02	Half-Life too short		
		293.26	*	4.687E-04	6.556E-02	Half-Life too short		
	+	350.59		3.411E-02	6.556E-02	Half-Life too short		
		490.36		-1.602E-03	6.556E-02	Half-Life too short		
		664.57		2.004E-03	6.556E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		721.93		3.853E-04	6.556E-02	Half-Life too short		
CE-144		80.11		1.212E+00	1.976E+00	3.121E+00	2.739E-01	0.388
		133.54	*	-9.388E-03	2.040E-01	3.044E-01	4.701E-02	-0.031
PM-144		476.78		3.272E-02	6.595E-02	1.129E-01	1.157E-02	0.290
		618.01		2.695E-03	2.847E-02	4.669E-02	4.385E-03	0.058
		696.49	*	9.031E-03	3.386E-02	5.580E-02	5.033E-03	0.162
		778.57		-2.506E+00	2.345E+00	3.315E+00	3.077E-01	-0.756
PR-144		696.49	*	6.120E-01	2.295E+00	3.782E+00	3.410E-01	0.162
		1489.15		2.395E-01	9.360E+00	1.574E+01	1.346E+00	0.015
PM-146		453.90	*	5.404E-02	4.021E-02	7.236E-02	8.264E-03	0.747
		633.02		5.371E-02	1.315E+00	2.141E+00	8.024E-01	0.025
		735.90		-9.392E-03	1.507E-01	2.401E-01	6.908E-02	-0.039
		747.13		-3.792E-02	8.402E-02	1.277E-01	1.839E-02	-0.297
ND-147	+	91.11		6.316E-01	2.659E-01	5.367E-01	5.364E-02	1.177
		319.41		-2.196E-01	3.111E+00	4.898E+00	5.562E-01	-0.045
		439.89		8.240E-01	5.473E+00	9.215E+00	8.698E-01	0.089
		531.02	*	-3.147E-01	5.368E-01	8.365E-01	1.294E-01	-0.376
PM-149		285.90	*	-4.496E+01	8.588E+01	1.315E+02	2.313E+01	-0.342
EU-152		121.78		1.350E-02	6.819E-02	1.151E-01	1.112E-02	0.117
		244.69		-1.896E-01	3.304E-01	4.512E-01	5.017E-02	-0.420
		344.27	*	-5.208E-02	8.437E-02	1.318E-01	1.473E-02	-0.395
		443.98		8.246E-01	9.028E-01	1.592E+00	1.504E-01	0.518
		778.89		-3.115E-01	2.690E-01	3.753E-01	3.482E-02	-0.830
		867.32		-3.264E-01	7.340E-01	1.136E+00	1.072E-01	-0.287
	+	964.01		4.492E-01	3.574E-01	5.548E-01	5.147E-02	0.810
		1085.78		-1.919E-02	3.953E-01	6.466E-01	5.614E-02	-0.030
		1112.02		1.477E-01	3.193E-01	5.202E-01	4.426E-02	0.284
		1407.95		1.372E-01	1.821E-01	3.224E-01	2.745E-02	0.426
GD-153		69.67		-8.484E-01	1.506E+00	2.419E+00	1.906E-01	-0.351
		83.37		1.479E+01	1.500E+01	2.366E+01	2.157E+00	0.625
		97.43	*	-1.132E-02	7.977E-02	1.206E-01	1.072E-02	-0.094
		103.18		-1.296E-01	9.084E-02	1.429E-01	1.231E-02	-0.907
EU-154		123.07		2.564E-02	4.636E-02	7.929E-02	8.823E-03	0.323
		247.94		8.054E-02	3.369E-01	5.497E-01	7.435E-02	0.147
		591.81		-5.166E-01	5.884E-01	8.789E-01	1.071E-01	-0.588
		723.30		-7.179E-02	2.008E-01	2.684E-01	2.678E-02	-0.267
		756.87		8.169E-01	7.881E-01	1.369E+00	1.699E-01	0.597
		873.19		-8.610E-02	2.663E-01	4.306E-01	5.527E-02	-0.200
		996.32		-2.496E-02	3.873E-01	5.509E-01	9.933E-02	-0.045
		1004.76		-5.432E-02	2.237E-01	3.099E-01	3.722E-02	-0.175
		1274.45	*	6.663E-02	1.123E-01	1.944E-01	2.154E-02	0.343
EU-155		48.70		-1.153E+00	2.388E+00	3.659E+00	3.006E-01	-0.315
		60.01		3.637E+00	5.371E+00	7.980E+00	5.700E-01	0.456
	+	86.54		2.683E-01	1.303E-01	1.753E-01	1.674E-02	1.531
		105.31	*	1.416E-01	9.524E-02	1.687E-01	1.460E-02	0.839
TB-160	+	86.79		7.172E-01	3.481E-01	4.737E-01	4.499E-02	1.514
		197.04		3.616E-01	5.425E-01	8.980E-01	8.843E-02	0.403
		215.65		1.858E-01	7.128E-01	1.172E+00	1.213E-01	0.159
	+	298.57		2.267E-01	1.381E-01	1.880E-01	2.207E-02	1.206

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		879.36	*	3.376E-02	1.373E-01	2.346E-01	2.216E-02	0.144
		962.29		6.876E-01	5.254E-01	8.800E-01	8.169E-02	0.781
	+	966.15		3.086E-01	2.456E-01	4.728E-01	4.382E-02	0.653
		1177.93		-2.815E-02	3.325E-01	5.379E-01	4.333E-02	-0.052
		1271.85		-1.803E-01	7.088E-01	1.116E+00	9.269E-02	-0.162
HO-166M		80.57		-1.050E-01	2.616E-01	3.949E-01	3.485E-02	-0.266
	+	184.41		2.708E-01	6.737E-02	7.277E-02	6.927E-03	3.721
		280.46		-8.657E-02	8.413E-02	1.247E-01	1.495E-02	-0.694
		410.95		2.986E-01	2.691E-01	4.314E-01	4.027E-02	0.692
		711.68	*	-9.188E-03	5.879E-02	9.311E-02	8.448E-03	-0.099
		752.31		-1.703E-01	2.688E-01	4.019E-01	3.699E-02	-0.424
		810.29		-3.037E-02	5.773E-02	9.260E-02	8.656E-03	-0.328
TM-171		51.35		-8.990E+00	2.978E+01	4.600E+01	3.625E+00	-0.195
		52.39		8.858E+00	1.501E+01	2.424E+01	1.879E+00	0.365
		59.40		7.972E+00	2.878E+01	4.192E+01	2.977E+00	0.190
		66.72	*	-6.239E+00	2.968E+01	4.163E+01	3.189E+00	-0.150
LU-176	+	88.36		5.284E-01	2.565E-01	3.284E-01	3.153E-02	1.609
		201.83		-1.918E-03	2.613E-02	4.244E-02	4.233E-03	-0.045
		306.84	*	-5.361E-03	2.433E-02	3.804E-02	4.412E-03	-0.141
		401.10		-5.893E-02	5.928E+00	9.933E+00	9.228E-01	-0.006
LU-177		112.95		6.138E-01	1.518E+00	2.591E+00	2.169E-01	0.237
	+	208.36	*	4.529E+00	1.632E+00	1.960E+00	1.989E-01	2.310
LU-177M		52.97		-1.655E-01	1.587E+00	2.475E+00	1.902E-01	-0.067
		54.07		-4.810E-01	8.405E-01	1.277E+00	9.653E-02	-0.377
		61.30		5.558E-01	1.587E+00	2.315E+00	1.680E-01	0.240
		121.62		5.955E-02	3.474E-01	5.862E-01	4.865E-02	0.102
		147.16		6.161E-02	6.570E-01	9.727E-01	8.389E-02	0.063
		171.86		-2.336E-01	4.520E-01	7.249E-01	6.675E-02	-0.322
		218.09		-4.967E-01	8.377E-01	1.316E+00	1.370E-01	-0.377
	+	268.79		2.188E+00	1.318E+00	1.385E+00	1.626E-01	1.580
		319.02		1.851E-02	2.353E-01	3.746E-01	4.256E-02	0.049
		367.43		2.849E-01	8.265E-01	1.423E+00	1.434E-01	0.200
		413.65	*	-9.542E-02	1.932E-01	2.716E-01	2.539E-02	-0.351
HF-181		56.28		9.083E-04	9.021E-01	1.411E+00	1.036E-01	0.001
		57.53		-4.946E-01	5.058E-01	7.499E-01	5.425E-02	-0.660
		65.20		-5.416E-02	9.880E-01	1.406E+00	1.062E-01	-0.039
		133.02		1.040E-03	6.445E-02	9.652E-02	8.094E-03	0.011
		136.25		1.084E-01	4.229E-01	7.119E-01	6.001E-02	0.152
		345.85		-3.655E-02	1.673E-01	2.699E-01	2.893E-02	-0.135
		482.03	*	-1.397E-02	4.105E-02	6.623E-02	6.299E-03	-0.211
W-181		56.28		2.657E-04	3.528E-01	5.518E-01	4.050E-02	0.000
		57.53		-1.935E-01	1.980E-01	2.936E-01	2.124E-02	-0.659
		65.20	*	-2.103E-02	3.837E-01	5.461E-01	4.124E-02	-0.039
TA-182		67.75		-1.552E-02	1.081E-01	1.651E-01	1.278E-02	-0.094
		100.10		1.578E-01	1.637E-01	2.858E-01	2.500E-02	0.552
		152.43		1.486E-01	3.164E-01	5.340E-01	4.666E-02	0.278
		222.10		1.529E-01	3.354E-01	5.556E-01	5.843E-02	0.275
	+	1001.68		3.395E+00	2.679E+00	3.763E+00	3.436E-01	0.902
	+	1121.28		8.774E-01	2.557E-01	3.848E-01	3.249E-02	2.280

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		1189.05		-2.259E-01	2.950E-01	4.414E-01	3.570E-02	-0.512
		1221.42	*	-6.526E-02	1.934E-01	3.043E-01	2.489E-02	-0.214
		1230.97		-3.181E-01	4.661E-01	7.062E-01	5.793E-02	-0.450
RE-183		57.98		-2.695E-01	2.004E-01	2.909E-01	2.094E-02	-0.927
		59.32		1.389E-01	1.122E-01	1.719E-01	1.222E-02	0.808
		67.20		-2.692E-02	2.105E-01	2.965E-01	2.282E-02	-0.091
		162.32	*	-4.125E-02	1.078E-01	1.720E-01	1.544E-02	-0.240
	+	208.81		4.043E+00	1.457E+00	1.777E+00	1.806E-01	2.275
		291.72		4.052E-01	9.741E-01	1.427E+00	1.690E-01	0.284
RE-184		57.98		-9.926E-01	7.381E-01	1.071E+00	7.713E-02	-0.927
		59.32		5.110E-01	4.129E-01	6.328E-01	4.497E-02	0.808
		67.20		-9.913E-02	7.750E-01	1.092E+00	8.403E-02	-0.091
		161.27		-2.167E-01	3.429E-01	5.497E-01	4.919E-02	-0.394
		216.55		1.371E-01	2.542E-01	4.232E-01	4.387E-02	0.324
		252.85	*	4.008E-02	2.232E-01	3.626E-01	4.109E-02	0.111
		318.01		-5.249E-01	4.287E-01	6.099E-01	6.942E-02	-0.861
		792.07		5.081E-01	1.002E+00	1.562E+00	1.454E-01	0.325
		903.28		-2.510E-02	8.746E-01	1.417E+00	1.339E-01	-0.018
		920.93		7.564E-02	3.946E-01	6.704E-01	6.307E-02	0.113
OS-185		59.72		2.555E-01	3.147E-01	4.711E-01	3.352E-02	0.542
		61.14		8.031E-02	1.756E-01	2.576E-01	1.866E-02	0.312
		69.30		-1.092E-01	2.582E-01	4.367E-01	3.429E-02	-0.250
		592.07		-2.110E+00	2.397E+00	3.590E+00	3.338E-01	-0.588
		646.12	*	-1.529E-02	4.316E-02	6.772E-02	6.087E-03	-0.226
		717.42		-3.251E-01	9.013E-01	1.399E+00	1.272E-01	-0.232
		874.81		-5.959E-02	5.400E-01	8.937E-01	8.438E-02	-0.067
		880.27		3.366E-01	7.739E-01	1.342E+00	1.268E-01	0.251
RE-188		155.03	*	-7.955E-02	1.667E-01	2.701E-01	2.376E-02	-0.295
		477.96		-1.011E+00	3.081E+00	4.984E+00	4.738E-01	-0.203
		633.10		4.580E-01	2.625E+00	4.327E+00	3.927E-01	0.106
W-188	+	63.58		1.944E+02	8.121E+01	1.016E+02	7.553E+00	1.913
		227.08		-1.047E+00	1.166E+01	1.878E+01	2.000E+00	-0.056
		290.67	*	4.343E+00	7.602E+00	1.128E+01	1.337E+00	0.385
IR-192	+	295.96		1.135E+00	2.277E-01	2.972E-01	3.515E-02	3.821
		308.46		5.861E-02	9.310E-02	1.536E-01	1.782E-02	0.382
		316.51	*	-7.368E-04	3.130E-02	4.949E-02	5.656E-03	-0.015
		468.07		-6.207E-02	6.833E-02	8.914E-02	8.970E-03	-0.696
		604.41		-9.927E-02	5.167E-01	7.207E-01	9.685E-02	-0.138
		612.46		2.178E-01	6.762E-01	1.001E+00	1.042E-01	0.218
AU-195		65.12		8.235E-03	1.784E-01	2.553E-01	1.927E-02	0.032
		66.83		-2.061E-02	9.810E-02	1.376E-01	1.055E-02	-0.150
	+	75.70		1.221E+00	2.510E-01	4.142E-01	3.466E-02	2.947
		98.88	*	3.853E-01	2.194E-01	3.764E-01	3.314E-02	1.024
	+	129.76		8.246E+00	4.420E+00	4.783E+00	3.993E-01	1.724
TL-200		367.94	*	1.864E-04	4.420E+00	Half-Life too short		
		579.30		-1.684E-03	4.420E+00	Half-Life too short		
		828.27		-7.010E-04	4.420E+00	Half-Life too short		
		1205.75		-2.787E-03	4.420E+00	Half-Life too short		
TL-201		68.90		3.998E-01	4.197E+00	7.229E+00	5.654E-01	0.055

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		70.82		1.011E+00	2.626E+00	4.131E+00	3.291E-01	0.245
		80.30		2.595E+00	4.745E+00	7.472E+00	6.574E-01	0.347
		135.34		-6.663E+00	2.334E+01	3.841E+01	3.232E+00	-0.173
		167.43	*	3.261E+00	6.664E+00	1.121E+01	1.021E+00	0.291
TL-202		68.90		3.549E-02	3.726E-01	6.417E-01	5.019E-02	0.055
		70.82		8.951E-02	2.324E-01	3.657E-01	2.913E-02	0.245
		80.30		2.298E-01	4.201E-01	6.617E-01	5.821E-02	0.347
		439.56	*	-1.274E-02	6.564E-02	1.079E-01	1.018E-02	-0.118
HG-203		70.83		3.916E-01	1.005E+00	1.580E+00	2.086E-01	0.248
		72.87		5.858E-01	5.981E-01	9.547E-01	1.230E-01	0.614
		82.60		-4.191E-01	1.017E+00	1.683E+00	2.357E-01	-0.249
		279.20	*	-3.123E-03	3.890E-02	6.184E-02	7.537E-03	-0.050
BI-207		72.80		1.665E-01	1.744E-01	2.794E-01	2.270E-02	0.596
	+	74.97		6.769E-01	1.392E-01	2.138E-01	1.776E-02	3.166
		84.90		2.426E-01	1.910E-01	3.036E-01	2.818E-02	0.799
		569.67		-1.077E-02	3.256E-02	5.172E-02	4.856E-03	-0.208
		1063.62	*	3.704E-03	5.053E-02	8.384E-02	7.391E-03	0.044
		1770.23		1.680E-01	4.800E-01	7.483E-01	6.184E-02	0.224
TL-207		81.07		-2.505E-01	2.024E-01	3.129E-01	2.777E-02	-0.801
		83.78		1.525E-01	1.298E-01	2.058E-01	1.885E-02	0.741
		94.90		3.479E-01	2.229E-01	3.619E-01	3.272E-02	0.961
		122.32		1.352E+00	1.589E+00	2.747E+00	2.460E-01	0.492
	+	144.24		1.111E+00	9.269E-01	1.175E+00	1.127E-01	0.946
		154.21		-4.253E-02	3.806E-01	6.270E-01	6.033E-02	-0.068
	+	269.46		5.121E-01	3.086E-01	3.482E-01	4.141E-02	1.471
		323.87	*	-3.898E-01	7.218E-01	9.562E-01	1.829E-01	-0.408
	+	338.28		7.865E+00	1.950E+00	2.572E+00	3.605E-01	3.057
		445.03		3.127E-01	2.172E+00	3.653E+00	4.637E-01	0.086
PO-209		260.50		4.811E+00	9.903E+00	1.629E+01	1.879E+00	0.295
		262.80		1.019E+01	2.644E+01	4.331E+01	5.020E+00	0.235
		896.60	*	2.147E+00	6.387E+00	1.103E+01	1.043E+00	0.195
BI-210		46.50	*	8.764E-01	3.521E+00	5.601E+00	5.223E-01	0.156
PB-210		46.50	*	8.764E-01	3.521E+00	5.601E+00	5.223E-01	0.156
PO-210		46.50	*	8.764E-01	3.521E+00	5.601E+00	4.731E-01	0.156
PB-211		404.84	*	3.710E-01	9.799E-01	1.456E+00	9.136E-01	0.255
		427.08		1.914E-01	1.901E+00	3.191E+00	1.986E+00	0.060
		831.96		-6.848E-01	1.284E+00	1.936E+00	1.216E+00	-0.354
BI-212	+	727.18	*	1.069E+00	4.050E-01	6.589E-01	6.884E-02	1.623
		785.46		2.930E-01	1.655E+00	2.831E+00	2.631E-01	0.104
		1620.62		1.663E+00	1.351E+00	2.599E+00	2.208E-01	0.640
PO-215		81.07		-2.505E-01	2.024E-01	3.129E-01	2.777E-02	-0.801
		83.78		1.525E-01	1.298E-01	2.058E-01	1.885E-02	0.741
		94.90		3.479E-01	2.229E-01	3.619E-01	3.272E-02	0.961
		122.32		1.352E+00	1.589E+00	2.747E+00	2.460E-01	0.492
	+	144.24		1.111E+00	9.269E-01	1.175E+00	1.127E-01	0.946
		154.21		-4.253E-02	3.806E-01	6.270E-01	6.033E-02	-0.068
	+	269.46		5.121E-01	3.086E-01	3.482E-01	4.141E-02	1.471
		323.87	*	-3.898E-01	7.218E-01	9.562E-01	1.829E-01	-0.408
	+	338.28		7.865E+00	1.950E+00	2.572E+00	3.605E-01	3.057

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		3.127E-01	2.172E+00	3.653E+00	4.637E-01	0.086
RN-219	+	271.23		6.570E-01	3.975E-01	4.451E-01	5.829E-02	1.476
		401.81	*	8.444E-03	3.731E-01	6.265E-01	9.662E-02	0.013
RN-220		549.76	*	-7.947E+00	2.396E+01	3.816E+01	3.605E+00	-0.208
RA-223		81.07		-2.505E-01	2.024E-01	3.129E-01	2.777E-02	-0.801
		83.78		1.525E-01	1.298E-01	2.058E-01	1.885E-02	0.741
		94.90		3.479E-01	2.229E-01	3.619E-01	3.272E-02	0.961
		122.32		1.352E+00	1.589E+00	2.747E+00	2.460E-01	0.492
	+	144.24		1.111E+00	9.269E-01	1.175E+00	1.127E-01	0.946
		154.21		-4.253E-02	3.806E-01	6.270E-01	6.033E-02	-0.068
	+	269.46		5.121E-01	3.086E-01	3.482E-01	4.141E-02	1.471
		323.87	*	-3.898E-01	7.218E-01	9.562E-01	1.829E-01	-0.408
	+	338.28		7.865E+00	1.950E+00	2.572E+00	3.605E-01	3.057
		445.03		3.127E-01	2.172E+00	3.653E+00	4.637E-01	0.086
AC-227		79.80		7.427E-02	1.563E+00	2.411E+00	5.196E-01	0.031
		236.00		1.758E-01	2.434E-01	3.654E-01	5.092E-02	0.481
		256.20	*	-2.633E-01	3.739E-01	5.712E-01	9.755E-02	-0.461
		286.10		-9.780E-01	1.423E+00	2.150E+00	3.345E-01	-0.455
	+	299.80		2.886E+00	1.812E+00	2.485E+00	4.773E-01	1.161
		304.40		8.545E-01	1.862E+00	2.897E+00	5.801E-01	0.295
		334.20		-3.238E+00	2.543E+00	3.293E+00	6.780E-01	-0.983
TH-227		79.80		7.427E-02	1.563E+00	2.411E+00	5.262E-01	0.031
	+	94.00		2.484E+01	6.250E+00	4.189E+00	9.204E-01	5.930
		236.00		1.758E-01	2.433E-01	3.654E-01	4.721E-02	0.481
		256.20	*	-2.633E-01	3.747E-01	5.712E-01	1.117E-01	-0.461
		286.10		-9.780E-01	1.724E+00	2.150E+00	2.165E+00	-0.455
	+	299.80		2.886E+00	1.812E+00	2.485E+00	4.773E-01	1.161
		304.40		8.545E-01	1.862E+00	2.897E+00	5.801E-01	0.295
		334.20		-3.238E+00	2.543E+00	3.293E+00	6.780E-01	-0.983
TH-229		85.43		1.944E-01	1.866E-01	2.973E-01	2.777E-02	0.654
	+	88.47		3.042E-01	1.476E-01	1.884E-01	1.807E-02	1.614
		100.00		1.810E-01	1.708E-01	2.988E-01	2.615E-02	0.606
		193.63	*	-7.438E-01	4.911E-01	7.341E-01	7.164E-02	-1.013
		210.97		3.155E-01	7.677E-01	1.144E+00	1.169E-01	0.276
PA-231		283.67	*	-3.863E-01	1.439E+00	2.254E+00	3.899E-01	-0.171
	+	301.29		1.154E+00	7.103E-01	9.519E-01	1.387E-01	1.213
TH-231		81.07		-2.505E-01	2.024E-01	3.129E-01	2.777E-02	-0.801
		83.78		1.525E-01	1.298E-01	2.058E-01	1.885E-02	0.741
		94.90		3.479E-01	2.229E-01	3.619E-01	3.272E-02	0.961
		122.32		1.352E+00	1.589E+00	2.747E+00	2.460E-01	0.492
	+	144.24		1.111E+00	9.269E-01	1.175E+00	1.127E-01	0.946
		154.21		-4.253E-02	3.806E-01	6.270E-01	6.033E-02	-0.068
	+	269.46		5.121E-01	3.086E-01	3.482E-01	4.141E-02	1.471
		323.87	*	-3.898E-01	7.218E-01	9.562E-01	1.829E-01	-0.408
	+	338.28		7.865E+00	1.950E+00	2.572E+00	3.605E-01	3.057
		445.03		3.127E-01	2.172E+00	3.653E+00	4.637E-01	0.086
U-231		84.21		9.797E+00	5.590E+00	9.004E+00	8.288E-01	1.088
	+	92.29		2.484E+01	3.793E+00	5.213E+00	4.814E-01	4.766
		95.87	*	-7.647E-01	1.081E+00	1.586E+00	1.424E-01	-0.482

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		108.00		-1.193E+00	1.886E+00	3.040E+00	2.575E-01	-0.392
PA-233	+	75.28		1.975E+01	4.774E+00	6.258E+00	9.504E-01	3.156
	+	86.59		4.361E+00	2.389E+00	2.856E+00	7.741E-01	1.527
	+	300.12		8.045E-01	4.997E-01	6.889E-01	1.161E-01	1.168
		311.98	*	-9.192E-03	6.213E-02	9.749E-02	1.139E-02	-0.094
		340.50		8.100E-01	6.188E-01	9.707E-01	2.401E-01	0.834
		398.62		-7.134E-01	1.815E+00	2.943E+00	7.902E-01	-0.242
		415.76		-2.305E-01	1.571E+00	2.513E+00	5.493E-01	-0.092
PA-234	+	63.00		5.634E+00	2.463E+00	3.042E+00	4.518E-01	1.852
		94.67		3.915E-01	1.740E-01	2.809E-01	3.570E-02	1.394
		98.44		1.232E-01	1.155E-01	1.505E-01	8.403E-02	0.818
		99.86		6.915E-01	4.302E-01	7.636E-01	6.687E-02	0.906
		111.00		-8.935E-02	1.701E-01	2.797E-01	3.338E-02	-0.319
		131.20		1.547E-02	1.034E-01	1.561E-01	1.306E-02	0.099
		152.70		1.762E-01	3.089E-01	5.214E-01	8.920E-02	0.338
	+	186.00		9.747E+00	3.799E+00	3.038E+00	9.567E-01	3.208
		226.40		-1.263E-01	3.704E-01	5.877E-01	8.577E-02	-0.215
		227.20		-4.975E-02	3.928E-01	6.313E-01	6.725E-02	-0.079
		248.90		2.064E-01	7.640E-01	1.247E+00	2.935E-01	0.166
	+	293.70		7.143E+00	1.787E+00	1.621E+00	3.095E-01	4.407
		369.80		-1.271E-01	8.025E-01	1.339E+00	2.994E-01	-0.095
		568.70		1.212E-01	1.000E+00	1.645E+00	1.545E-01	0.074
		569.50		1.969E-02	2.817E-01	4.613E-01	4.332E-02	0.043
		574.00		7.554E-01	1.599E+00	2.700E+00	2.531E-01	0.280
		699.00		-6.753E-03	6.773E-01	1.090E+00	2.099E-01	-0.006
		706.10		3.571E-01	1.009E+00	1.655E+00	7.393E-01	0.216
		733.00		3.697E-01	3.853E-01	6.401E-01	1.434E-01	0.578
		742.81		-2.968E-01	1.361E+00	2.110E+00	1.420E+00	-0.141
	+	796.30		3.154E+00	1.799E+00	1.799E+00	4.909E-01	1.753
		805.60		7.806E-01	1.013E+00	1.762E+00	5.438E-01	0.443
		819.60		2.275E-01	1.115E+00	1.905E+00	7.277E-01	0.119
		826.30		8.206E-02	7.857E-01	1.331E+00	5.974E-01	0.062
		831.60		-4.069E-01	6.423E-01	1.002E+00	3.013E-01	-0.406
		876.40		-3.375E-01	8.557E-01	1.253E+00	1.289E+00	-0.269
		880.51		1.644E-01	2.793E-01	4.904E-01	4.633E-02	0.335
		883.24		1.560E-01	2.962E-01	4.866E-01	3.276E-01	0.321
		899.00		7.634E-03	7.146E-01	1.194E+00	5.241E-01	0.006
		925.00		-1.396E-01	1.097E+00	1.803E+00	1.694E-01	-0.077
		926.50		3.861E-02	1.614E-01	2.747E-01	7.019E-02	0.141
		946.00	*	-2.955E-01	3.091E-01	4.415E-01	8.435E-02	-0.669
		949.00		3.735E-01	4.231E-01	7.591E-01	7.080E-02	0.492
		980.50		-1.958E-01	6.244E-01	9.977E-01	9.195E-02	-0.196
		1394.10		-7.361E-01	1.215E+00	1.631E+00	1.061E+00	-0.451
PA-234M		766.42		3.770E+00	1.486E+01	2.157E+01	1.097E+01	0.175
	+	1001.03	*	7.704E+00	6.093E+00	8.494E+00	8.844E-01	0.907
NP-236		94.67		3.001E-01	1.295E-01	2.134E-01	1.933E-02	1.406
		98.44		9.304E-02	7.063E-02	1.138E-01	1.005E-02	0.818
		111.00		-6.759E-02	1.285E-01	2.116E-01	1.778E-02	-0.319
		160.31	*	-4.726E-02	7.807E-02	1.254E-01	1.119E-02	-0.377

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.253E-01	1.461E-01	2.587E-01	2.269E-02	0.871
		117.00	*	-3.313E-02	1.768E-01	2.944E-01	2.451E-02	-0.113
	+	209.75		3.187E+00	1.148E+00	1.395E+00	1.421E-01	2.285
		228.18		2.464E-02	2.083E-01	3.393E-01	3.624E-02	0.073
		277.60		1.511E-01	1.731E-01	2.893E-01	3.463E-02	0.522
		334.30		-1.924E+00	1.402E+00	1.847E+00	2.034E-01	-1.042
AM-241		59.54	*	1.127E-01	1.652E-01	2.457E-01	1.928E-02	0.459
CM-243		99.55		2.318E-01	1.503E-01	2.662E-01	2.335E-02	0.871
		103.76	*	-7.729E-02	8.473E-02	1.371E-01	1.179E-02	-0.564
		117.00		-3.409E-02	1.818E-01	3.029E-01	2.522E-02	-0.113
	+	209.75		3.142E+00	1.132E+00	1.375E+00	1.400E-01	2.285
		228.18		2.490E-02	2.105E-01	3.429E-01	3.662E-02	0.073
		277.60		1.523E-01	1.745E-01	2.917E-01	3.491E-02	0.522
AM-246		798.80		-8.193E-02	1.370E-01	1.840E-01	1.716E-02	-0.445
		1036.00		-1.968E-01	2.757E-01	4.178E-01	3.746E-02	-0.471
		1062.04		-1.142E-01	2.144E-01	3.324E-01	2.933E-02	-0.344
		1078.86	*	-2.280E-02	1.363E-01	2.203E-01	1.922E-02	-0.103
CM-247		278.00		5.790E-01	7.302E-01	1.215E+00	1.456E-01	0.476
		287.40		1.274E-01	1.124E+00	1.805E+00	2.149E-01	0.071
		402.60	*	1.098E-02	3.345E-02	5.726E-02	5.324E-03	0.192
CF-249		252.85		1.503E-01	8.373E-01	1.360E+00	1.541E-01	0.111
		333.44		-1.482E-01	1.846E-01	2.587E-01	2.855E-02	-0.573
		387.95	*	8.692E-03	3.796E-02	6.467E-02	6.067E-03	0.134
CF-251		176.60	*	-5.261E-04	1.188E-01	1.951E-01	1.819E-02	-0.003
		227.00		-3.535E-02	3.503E-01	5.640E-01	6.005E-02	-0.063
		285.00		-9.290E-01	1.619E+00	2.476E+00	2.956E-01	-0.375

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032511		
Acquisition date	: 12-FEB-2010 16:38:58	Detector SN#	:
Detector ID	: GAM16	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.92	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G1202032511	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.2150E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

Standard Weight	: 0.00000		
CALIB. DATE/TIME	: 16-NOV-2009 11:22:16	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.530E+01	2.726E+00	4.658E-01	0.000E+00
CD-109	2.267E+00	1.078E+00	1.173E+00	0.000E+00
SN-126	2.228E-01	1.060E-01	1.374E-01	0.000E+00
BA-137M	2.346E-01	6.881E-02	5.830E-02	0.000E+00
CS-137	2.480E-01	7.275E-02	6.163E-02	0.000E+00
TL-208	5.114E-01	9.199E-02	5.926E-02	0.000E+00
BI-211	4.140E+00	5.971E-01	3.050E-01	0.000E+00
PB-212	1.618E+00	2.301E-01	1.328E-01	0.000E+00
PO-212	1.618E+00	2.301E-01	1.328E-01	0.000E+00
BI-214	1.259E+00	2.036E-01	1.046E-01	0.000E+00
PB-214	1.440E+00	2.204E-01	1.002E-01	0.000E+00
PO-214	1.440E+00	2.204E-01	1.002E-01	0.000E+00
PO-216	1.618E+00	2.301E-01	1.328E-01	0.000E+00
PO-218	1.440E+00	2.204E-01	1.002E-01	0.000E+00
RA-224	2.818E+00	9.784E-01	1.362E+00	0.000E+00
RA-226	1.259E+00	2.036E-01	1.046E-01	0.000E+00
AC-228	1.625E+00	3.493E-01	2.038E-01	0.000E+00
RA-228	1.625E+00	3.493E-01	2.038E-01	0.000E+00
TH-228	1.643E+00	2.336E-01	1.348E-01	0.000E+00
TH-230	1.259E+00	2.036E-01	1.045E-01	0.000E+00
TH-232	1.625E+00	3.493E-01	2.038E-01	0.000E+00
TH-234	4.833E+00	2.115E+00	2.071E+00	0.000E+00
U-234	1.259E+00	2.036E-01	1.045E-01	0.000E+00
U-235	3.428E-01	2.845E-01	3.133E-01	0.000E+00
NP-237	6.542E-01	3.381E-01	4.110E-01	0.000E+00
U-238	4.833E+00	2.115E+00	2.071E+00	0.000E+00
AM-243	3.771E-01	7.599E-02	8.637E-02	0.000E+00
ANH-511	1.220E-01	6.470E-02	4.597E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	8.449E-02	3.097E-01	5.399E-01	0.000E+00	NOT IDENT.
NA-22	3.415E-02	3.831E-02	6.979E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.493E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.442E-02	3.251E-02	5.834E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.616E-02	7.478E-02	0.000E+00	FAIL ABUN
SC-46	-2.081E-02	3.331E-02	5.319E-02	0.000E+00	FAIL ABUN
V-48	2.583E-02	6.368E-02	1.124E-01	0.000E+00	NOT IDENT.
CR-51	1.787E-01	3.405E-01	5.789E-01	0.000E+00	NOT IDENT.
MN-52	-3.845E-02	2.047E-01	3.235E-01	0.000E+00	NOT IDENT.
MN-54	6.391E-03	3.778E-02	6.588E-02	0.000E+00	NOT IDENT.
CO-56	-1.212E-02	3.425E-02	5.689E-02	0.000E+00	NOT IDENT.
CO-57	1.423E-02	2.287E-02	4.118E-02	0.000E+00	NOT IDENT.
CO-58	-2.451E-02	3.781E-02	6.157E-02	0.000E+00	NOT IDENT.
FE-59	-1.995E-02	7.981E-02	1.302E-01	0.000E+00	FAIL ABUN
CO-60	-9.538E-03	3.209E-02	5.036E-02	0.000E+00	NOT IDENT.
ZN-65	-6.271E-02	9.486E-02	1.238E-01	0.000E+00	NOT IDENT.
GE-68	4.180E-01	1.131E+00	1.974E+00	0.000E+00	NOT IDENT.
AS-73	-2.406E-01	7.949E-01	1.301E+00	0.000E+00	NOT IDENT.
AS-74	4.774E-02	8.509E-02	1.492E-01	0.000E+00	NOT IDENT.
SE-75	-5.191E-02	4.877E-02	6.572E-02	0.000E+00	NOT IDENT.
BR-77	-8.906E-01	9.459E+00	1.595E+01	0.000E+00	FAIL ABUN
SR-82	1.630E-01	3.792E-01	5.751E-01	0.000E+00	NOT IDENT.
RB-83	-7.019E-03	6.108E-02	1.028E-01	0.000E+00	NOT IDENT.
RB-84	4.583E-02	6.878E-02	1.243E-01	0.000E+00	NOT IDENT.
KR-85	4.535E+00	7.163E+00	1.135E+01	0.000E+00	NOT IDENT.
SR-85	2.327E-02	3.676E-02	5.824E-02	0.000E+00	NOT IDENT.
RB-86	3.543E-01	7.037E-01	1.245E+00	0.000E+00	NOT IDENT.
Y-88	8.120E-03	3.226E-02	5.645E-02	0.000E+00	NOT IDENT.
ZR-88	-2.542E-02	2.748E-02	4.469E-02	0.000E+00	NOT IDENT.
Y-91	-1.227E+01	1.737E+01	2.674E+01	0.000E+00	NOT IDENT.
NB-94	1.155E-02	3.085E-02	5.272E-02	0.000E+00	NOT IDENT.
NB-95	-1.523E-02	5.221E-02	7.416E-02	0.000E+00	NOT IDENT.
NB-95M	1.257E-01	1.244E-01	1.979E-01	0.000E+00	NOT IDENT.
ZR-95	9.440E-02	7.143E-02	1.299E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.089E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.755E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.689E-01	1.148E+01	1.894E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.737E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.275E-02	3.155E-02	5.192E-02	0.000E+00	NOT IDENT.
RH-102	-6.871E-03	2.840E-02	4.780E-02	0.000E+00	NOT IDENT.
RU-103	-1.958E-02	3.563E-02	5.786E-02	0.000E+00	FAIL ABUN
RH-106	-3.597E-02	2.744E-01	4.533E-01	0.000E+00	FAIL ABUN
RU-106	-3.597E-02	2.744E-01	4.533E-01	0.000E+00	FAIL ABUN
AG-108M	2.701E-03	2.955E-02	5.069E-02	0.000E+00	NOT IDENT.
AG-110M	4.904E-03	3.504E-02	5.189E-02	0.000E+00	NOT IDENT.
IN-111	-2.487E-01	1.055E+00	1.547E+00	0.000E+00	NOT IDENT.
IN-113M	-1.843E-02	3.873E-02	6.515E-02	0.000E+00	NOT IDENT.
SN-113	-1.843E-02	3.873E-02	6.515E-02	0.000E+00	NOT IDENT.
IN-114M	1.319E-01	1.844E-01	2.934E-01	0.000E+00	NOT IDENT.
CD-115	3.057E-01	9.343E+00	1.590E+01	0.000E+00	NOT IDENT.
SN-117M	5.197E-02	5.197E-02	9.331E-02	0.000E+00	NOT IDENT.
SB-122	6.662E-01	1.992E+00	3.447E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.944E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.145E-02	2.665E-02	4.755E-02	0.000E+00	NOT IDENT.
I-124	1.105E-01	6.970E-01	1.097E+00	0.000E+00	FAIL ABUN
SB-124	1.155E-02	5.272E-02	9.336E-02	0.000E+00	FAIL ABUN
SB-125	1.545E-02	8.146E-02	1.425E-01	0.000E+00	FAIL ABUN
TE-125M	-3.366E+00	8.267E+00	1.416E+01	0.000E+00	NOT IDENT.
I-126	1.229E-02	1.951E-01	2.855E-01	0.000E+00	NOT IDENT.
SB-126	8.040E-04	1.395E-01	2.303E-01	0.000E+00	FAIL ABUN
SB-127	2.655E-03	1.393E+00	2.310E+00	0.000E+00	NOT IDENT.
XE-127	-3.529E-02	4.282E-02	6.965E-02	0.000E+00	FAIL ABUN
I-131	3.808E-02	1.058E-01	1.864E-01	0.000E+00	NOT IDENT.
TE-132	7.525E-02	6.345E-01	1.077E+00	0.000E+00	NOT IDENT.
BA-133	5.675E-03	4.104E-02	6.422E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.645E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.107E-02	9.631E-02	0.000E+00	FAIL ABUN
CS-135	1.218E-01	1.622E-01	2.494E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.851E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.130E-02	1.014E-01	1.745E-01	0.000E+00	FAIL ABUN
CE-139	-1.334E-02	2.812E-02	4.747E-02	0.000E+00	NOT IDENT.
BA-140	-2.139E-01	2.410E-01	3.595E-01	0.000E+00	NOT IDENT.
LA-140	-5.581E-02	7.912E-02	1.185E-01	0.000E+00	NOT IDENT.
CE-141	2.595E-02	6.425E-02	1.014E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.919E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.388E-03	2.000E-01	3.130E-01	0.000E+00	NOT IDENT.
PM-144	9.031E-03	3.319E-02	5.622E-02	0.000E+00	NOT IDENT.

PR-144	6.120E-01	2.249E+00	3.810E+00	0.000E+00	NOT IDENT.
PM-146	5.404E-02	3.941E-02	7.329E-02	0.000E+00	NOT IDENT.
ND-147	-3.147E-01	5.260E-01	8.456E-01	0.000E+00	FAIL ABUN
PM-149	-4.496E+01	8.416E+01	1.339E+02	0.000E+00	NOT IDENT.
EU-152	-5.208E-02	8.268E-02	1.340E-01	0.000E+00	FAIL ABUN
GD-153	-1.132E-02	7.818E-02	1.245E-01	0.000E+00	NOT IDENT.
EU-154	6.663E-02	1.101E-01	1.944E-01	0.000E+00	NOT IDENT.
EU-155	1.416E-01	9.333E-02	1.740E-01	0.000E+00	FAIL ABUN
TB-160	3.376E-02	1.346E-01	2.357E-01	0.000E+00	FAIL ABUN
HO-166M	-9.188E-03	5.761E-02	9.378E-02	0.000E+00	FAIL ABUN
TM-171	-6.239E+00	2.909E+01	4.315E+01	0.000E+00	NOT IDENT.
LU-176	-5.361E-03	2.384E-02	3.871E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.599E+00	2.005E+00	0.000E+00	FAIL ABUN
LU-177M	-9.542E-02	1.894E-01	2.755E-01	0.000E+00	FAIL ABUN
HF-181	-1.397E-02	4.023E-02	6.703E-02	0.000E+00	NOT IDENT.
W-181	-2.103E-02	3.760E-01	5.663E-01	0.000E+00	NOT IDENT.
TA-182	-6.526E-02	1.895E-01	3.044E-01	0.000E+00	FAIL ABUN
RE-183	-4.125E-02	1.056E-01	1.764E-01	0.000E+00	FAIL ABUN
RE-184	4.008E-02	2.187E-01	3.699E-01	0.000E+00	NOT IDENT.
OS-185	-1.529E-02	4.230E-02	6.828E-02	0.000E+00	NOT IDENT.
RE-188	-7.955E-02	1.634E-01	2.771E-01	0.000E+00	NOT IDENT.
W-188	4.343E+00	7.450E+00	1.148E+01	0.000E+00	FAIL ABUN
IR-192	-7.368E-04	3.067E-02	5.035E-02	0.000E+00	FAIL ABUN
AU-195	3.853E-01	2.150E-01	3.884E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.292E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.261E+00	6.530E+00	1.149E+01	0.000E+00	NOT IDENT.
TL-202	-1.274E-02	6.432E-02	1.093E-01	0.000E+00	NOT IDENT.
HG-203	-3.123E-03	3.813E-02	6.301E-02	0.000E+00	NOT IDENT.
BI-207	3.704E-03	4.952E-02	8.401E-02	0.000E+00	FAIL ABUN
TL-207	-3.898E-01	7.074E-01	9.726E-01	0.000E+00	FAIL ABUN
PO-209	2.147E+00	6.259E+00	1.107E+01	0.000E+00	NOT IDENT.
BI-210	8.764E-01	3.451E+00	5.831E+00	0.000E+00	NOT IDENT.
PB-210	8.764E-01	3.451E+00	5.831E+00	0.000E+00	NOT IDENT.
PO-210	8.764E-01	3.450E+00	5.831E+00	0.000E+00	NOT IDENT.
PB-211	3.710E-01	9.603E-01	1.476E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.969E-01	6.634E-01	0.000E+00	FAIL ABUN
PO-215	-3.898E-01	7.074E-01	9.726E-01	0.000E+00	FAIL ABUN
RN-219	8.444E-03	3.656E-01	6.355E-01	0.000E+00	FAIL ABUN
RN-220	-7.947E+00	2.348E+01	3.855E+01	0.000E+00	NOT IDENT.
RA-223	-3.898E-01	7.074E-01	9.726E-01	0.000E+00	FAIL ABUN
AC-227	-2.633E-01	3.664E-01	5.826E-01	0.000E+00	FAIL ABUN
TH-227	-2.633E-01	3.672E-01	5.826E-01	0.000E+00	FAIL ABUN
TH-229	-7.438E-01	4.813E-01	7.514E-01	0.000E+00	FAIL ABUN
PA-231	-3.863E-01	1.411E+00	2.296E+00	0.000E+00	FAIL ABUN
TH-231	-3.898E-01	7.074E-01	9.726E-01	0.000E+00	FAIL ABUN
U-231	-7.647E-01	1.060E+00	1.637E+00	0.000E+00	FAIL ABUN
PA-233	-9.192E-03	6.089E-02	9.920E-02	0.000E+00	FAIL ABUN
PA-234	-2.955E-01	3.029E-01	4.431E-01	0.000E+00	FAIL ABUN
PA-234M	7.704E+00	5.971E+00	8.518E+00	0.000E+00	FAIL ABUN
NP-236	-4.726E-02	7.651E-02	1.287E-01	0.000E+00	NOT IDENT.
NP-239	-3.313E-02	1.732E-01	3.031E-01	0.000E+00	FAIL ABUN
AM-241	1.127E-01	1.619E-01	2.550E-01	0.000E+00	NOT IDENT.
CM-243	-7.729E-02	8.304E-02	1.414E-01	0.000E+00	FAIL ABUN
AM-246	-2.280E-02	1.336E-01	2.207E-01	0.000E+00	NOT IDENT.
CM-247	1.098E-02	3.279E-02	5.808E-02	0.000E+00	NOT IDENT.
CF-249	8.692E-03	3.720E-02	6.562E-02	0.000E+00	NOT IDENT.
CF-251	-5.261E-04	1.164E-01	1.999E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:39:21.70

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032511.CNF;1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:38:58
Sample ID : G1202032511 Sample quantity : 1.21500E+02 GRAM
Detector name : GAM16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.92 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1056	10.67*	1.208E+00	2.530E+01	2.530E+01	11.00
CD-109	88.03	167	3.72*	6.241E+00	2.216E+00	2.267E+00	48.54
SN-126	64.28	210	9.60	3.529E+00	1.913E+00	1.913E+00	43.60
	86.94	167	8.90	6.241E+00	9.262E-01	9.262E-01	63.18
	87.57	167	37.00*	6.241E+00	2.228E-01	2.228E-01	48.54
BA-137M	661.65	164	89.98*	2.406E+00	2.344E-01	2.346E-01	29.92
CS-137	661.65	164	85.12*	2.406E+00	2.478E-01	2.480E-01	29.93
TL-208	277.35	------	6.80	4.695E+00	------ Line Not Found		------
	510.84	117	21.60	2.964E+00	5.647E-01	5.647E-01	54.76
	583.14	372	84.20*	2.668E+00	5.114E-01	5.114E-01	18.36
	860.37	58	12.46	1.919E+00	7.512E-01	7.512E-01	50.42
BI-211	72.87	------	1.27	4.872E+00	------ Line Not Found		------
	351.07	683	12.94*	3.940E+00	4.140E+00	4.140E+00	14.72
PB-212	74.81	412	10.70	5.113E+00	2.326E+00	2.326E+00	22.59
	77.11	689	18.00	5.368E+00	2.203E+00	2.203E+00	14.10
	87.30	167	8.00	6.241E+00	1.030E+00	1.030E+00	49.56
	238.63	1221	44.60*	5.226E+00	1.618E+00	1.618E+00	14.51
	300.09	76	3.41	4.434E+00	1.557E+00	1.557E+00	61.21
PO-212	74.81	412	10.70	5.113E+00	2.326E+00	2.326E+00	22.59
	77.11	689	18.00	5.368E+00	2.203E+00	2.203E+00	14.10
	87.30	167	8.00	6.241E+00	1.030E+00	1.030E+00	49.56
	115.19	------	0.60	7.166E+00	------ Line Not Found		------
	238.63	1221	44.60*	5.226E+00	1.618E+00	1.618E+00	14.51
	300.09	76	3.41	4.434E+00	1.557E+00	1.557E+00	61.21
BI-214	609.31	486	46.30*	2.574E+00	1.259E+00	1.259E+00	16.51
	1120.29	137	15.10	1.516E+00	1.855E+00	1.855E+00	29.89
	1764.49	127	15.80	1.056E+00	2.349E+00	2.349E+00	22.04
PB-214	74.81	412	6.21	5.113E+00	4.008E+00	4.008E+00	21.86
	77.11	689	10.50	5.368E+00	3.776E+00	3.776E+00	16.02
	87.30	167	4.67	6.241E+00	1.765E+00	1.765E+00	49.14
	241.98	186	7.49	5.176E+00	1.486E+00	1.486E+00	35.87
	295.21	415	19.20	4.486E+00	1.488E+00	1.488E+00	20.98

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	683	37.20*	3.940E+00	1.440E+00	1.440E+00	15.62
PO-214	74.81	412	6.21	5.113E+00	4.008E+00	4.008E+00	21.86
	77.11	689	10.50	5.368E+00	3.776E+00	3.776E+00	16.02
	87.30	167	4.67	6.241E+00	1.765E+00	1.765E+00	49.14
	241.98	186	7.49	5.176E+00	1.486E+00	1.486E+00	35.87
	295.21	415	19.20	4.486E+00	1.488E+00	1.488E+00	20.98
	351.92	683	37.20*	3.940E+00	1.440E+00	1.440E+00	15.62
PO-216	74.81	412	10.70	5.113E+00	2.326E+00	2.326E+00	22.59
	77.11	689	18.00	5.368E+00	2.203E+00	2.203E+00	14.10
	87.30	167	8.00	6.241E+00	1.030E+00	1.030E+00	49.56
	238.63	1221	44.60*	5.226E+00	1.618E+00	1.618E+00	14.51
	300.09	76	3.41	4.434E+00	1.557E+00	1.557E+00	61.21
PO-218	74.81	412	6.21	5.113E+00	4.008E+00	4.008E+00	21.86
	77.11	689	10.50	5.368E+00	3.776E+00	3.776E+00	16.02
	87.30	167	4.67	6.241E+00	1.765E+00	1.765E+00	49.14
	241.98	186	7.49	5.176E+00	1.486E+00	1.486E+00	35.87
	295.21	415	19.20	4.486E+00	1.488E+00	1.488E+00	20.98
	351.92	683	37.20*	3.940E+00	1.440E+00	1.440E+00	15.62
RA-224	240.98	186	3.95*	5.176E+00	2.818E+00	2.818E+00	35.43
RA-226	609.31	486	46.30*	2.574E+00	1.259E+00	1.259E+00	16.51
	1120.29	137	15.10	1.516E+00	1.855E+00	1.855E+00	29.89
	1764.49	127	15.80	1.056E+00	2.349E+00	2.349E+00	22.04
AC-228	338.32	282	11.40	4.057E+00	1.883E+00	1.883E+00	46.54
	911.07	266	27.70*	1.825E+00	1.625E+00	1.625E+00	21.93
	969.11	137	16.60	1.727E+00	1.478E+00	1.478E+00	36.42
RA-228	338.32	282	11.40	4.057E+00	1.883E+00	1.883E+00	46.54
	911.07	266	27.70*	1.825E+00	1.625E+00	1.625E+00	21.93
	969.11	137	16.60	1.727E+00	1.478E+00	1.478E+00	36.42
TH-228	74.81	412	10.70	5.113E+00	2.326E+00	2.362E+00	20.59
	77.11	689	18.00	5.368E+00	2.203E+00	2.236E+00	14.10
	87.30	167	8.00	6.241E+00	1.030E+00	1.046E+00	48.54
	238.63	1221	44.60*	5.226E+00	1.618E+00	1.643E+00	14.51
	300.09	76	3.41	4.434E+00	1.557E+00	1.581E+00	84.57
TH-230	609.31	486	46.30*	2.574E+00	1.259E+00	1.259E+00	16.51
	1120.29	137	15.10	1.516E+00	1.855E+00	1.855E+00	29.89
	1764.49	127	15.80	1.056E+00	2.349E+00	2.349E+00	22.04
TH-232	338.32	282	11.40	4.057E+00	1.883E+00	1.883E+00	23.19
	911.07	266	27.70*	1.825E+00	1.625E+00	1.625E+00	21.93
	969.11	137	16.60	1.727E+00	1.478E+00	1.478E+00	36.42
TH-234	63.29	210	3.80*	3.529E+00	4.833E+00	4.833E+00	44.66
	92.38	742	5.41	6.591E+00	6.428E+00	6.428E+00	22.04
U-234	609.31	486	46.30*	2.574E+00	1.259E+00	1.259E+00	16.51
	1120.29	137	15.10	1.516E+00	1.855E+00	1.855E+00	29.89
	1764.49	127	15.80	1.056E+00	2.349E+00	2.349E+00	22.04
U-235	89.95	141	2.70	6.435E+00	2.504E+00	2.504E+00	51.36
	93.35	742	4.50	6.591E+00	7.728E+00	7.728E+00	30.73
	105.00	------	2.10	7.034E+00	------ Line Not Found		------
	143.76	81	10.50*	6.942E+00	3.428E-01	3.428E-01	84.70
	163.35	------	4.70	6.588E+00	------ Line Not Found		------

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	185.71	388	54.00	6.146E+00	3.610E-01	3.610E-01	24.88
	205.31	------	4.70	5.780E+00	------ Line Not Found		------
NP-237	86.50	167	12.60*	6.241E+00	6.542E-01	6.542E-01	52.74
	95.87	------	2.60	6.742E+00	------ Line Not Found		------
U-238	63.29	210	3.80*	3.529E+00	4.833E+00	4.833E+00	44.66
	92.38	742	5.41	6.591E+00	6.428E+00	6.428E+00	15.27
AM-243	74.67	412	66.00*	5.113E+00	3.771E-01	3.771E-01	20.56
	86.72	167	0.34	6.241E+00	2.453E+01	2.453E+01	48.54
	117.66	------	0.55	7.175E+00	------ Line Not Found		------
	142.18	------	0.13	6.968E+00	------ Line Not Found		------
ANH-511	511.00	117	100.00*	2.964E+00	1.220E-01	1.220E-01	54.12

Flag: "*" = Keyline

Sample ID : G1202032511 Acquisition date : 12-FEB-2010 16:38:58

Total number of lines in spectrum 36
Number of unidentified lines 3
Number of lines tentatively identified by NID 33 91.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.530E+01	2.530E+01	0.278E+01	11.00	
CD-109	464.00D	1.02	2.216E+00	2.267E+00	1.100E+00	48.54	
SN-126	1.00E+05Y	1.00	2.228E-01	2.228E-01	1.081E-01	48.54	
BA-137M	30.17Y	1.00	2.344E-01	2.346E-01	0.702E-01	29.92	
CS-137	30.17Y	1.00	2.478E-01	2.480E-01	0.742E-01	29.93	
TL-208	1.41E+10Y	1.00	5.114E-01	5.114E-01	0.939E-01	18.36	
BI-211	7.04E+08Y	1.00	4.140E+00	4.140E+00	0.609E+00	14.72	
PB-212	1.41E+10Y	1.00	1.618E+00	1.618E+00	0.235E+00	14.51	
PO-212	1.41E+10Y	1.00	1.618E+00	1.618E+00	0.235E+00	14.51	
BI-214	1600.00Y	1.00	1.259E+00	1.259E+00	0.208E+00	16.51	
PB-214	1600.00Y	1.00	1.440E+00	1.440E+00	0.225E+00	15.62	
PO-214	1600.00Y	1.00	1.440E+00	1.440E+00	0.225E+00	15.62	
PO-216	1.41E+10Y	1.00	1.618E+00	1.618E+00	0.235E+00	14.51	
PO-218	1600.00Y	1.00	1.440E+00	1.440E+00	0.225E+00	15.62	
RA-224	1.41E+10Y	1.00	2.818E+00	2.818E+00	0.998E+00	35.43	
RA-226	1600.00Y	1.00	1.259E+00	1.259E+00	0.208E+00	16.51	
AC-228	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.356E+00	21.93	
RA-228	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.356E+00	21.93	
TH-228	1.91Y	1.02	1.618E+00	1.643E+00	0.238E+00	14.51	
TH-230	4.47E+09Y	1.00	1.259E+00	1.259E+00	0.208E+00	16.51	
TH-232	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.356E+00	21.93	
TH-234	4.47E+09Y	1.00	4.833E+00	4.833E+00	2.158E+00	44.66	
U-234	4.47E+09Y	1.00	1.259E+00	1.259E+00	0.208E+00	16.51	
U-235	7.04E+08Y	1.00	3.428E-01	3.428E-01	2.904E-01	84.70	
NP-237	2.14E+06Y	1.00	6.542E-01	6.542E-01	3.450E-01	52.74	
U-238	4.47E+09Y	1.00	4.833E+00	4.833E+00	2.158E+00	44.66	
AM-243	7380.00Y	1.00	3.771E-01	3.771E-01	0.775E-01	20.56	
ANH-511	1.00E+09Y	1.00	1.220E-01	1.220E-01	0.660E-01	54.12	
	Total Activity :		6.756E+01	6.763E+01			

Grand Total Activity : 6.756E+01 6.763E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202032511 Acquisition date : 12-FEB-2010 16:38:58

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.81	146	383	0.85	257.81	253	10	2.02E-02	52.9	7.13E+00	T
0	209.23	191	253	0.91	418.65	415	10	2.65E-02	34.6	5.71E+00	T
0	269.96	108	238	1.07	540.12	535	11	1.50E-02	59.1	4.79E+00	T
0	327.23	83	161	1.03	654.65	651	9	1.16E-02	58.6	4.16E+00	
0	409.40	32	146	0.60	818.98	814	11	4.45E-03	****	3.52E+00	
0	462.57	81	147	1.07	925.31	920	13	1.13E-02	65.2	3.20E+00	T
0	727.42	91	55	1.23	1454.93	1450	9	1.26E-02	36.4	2.22E+00	T
0	770.39	59	119	0.71	1540.86	1533	16	8.25E-03	88.5	2.11E+00	
0	795.00	82	67	1.47	1590.06	1582	16	1.14E-02	50.1	2.06E+00	T
0	964.98	36	47	1.02	1929.94	1924	9	5.03E-03	79.0	1.73E+00	T
0	1001.40	35	38	1.06	2002.76	1998	11	4.88E-03	78.4	1.68E+00	T
0	1377.53	30	27	1.76	2754.73	2750	10	4.12E-03	75.7	1.27E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:39:26.53

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032511.CNF;1		
Acquisition date	: 12-FEB-2010 16:38:58	Detector SN#	:
Detector ID	: GAM16	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 02:00:01.92	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G1202032511	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.21500E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 16-NOV-2009 11:22:16.1	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.530E+01	2.782E+00	4.667E-01	4.102E-02	54.215
CD-109	2.267E+00	1.100E+00	1.135E+00	1.094E-01	1.997
SN-126	2.228E-01	1.081E-01	1.330E-01	1.275E-02	1.675
BA-137M	2.346E-01	7.021E-02	5.783E-02	5.132E-03	4.057
CS-137	2.480E-01	7.423E-02	6.113E-02	5.435E-03	4.057
TL-208	5.114E-01	9.387E-02	5.869E-02	5.818E-03	8.713
BI-211	4.140E+00	6.093E-01	3.002E-01	3.283E-02	13.789
PB-212	1.618E+00	2.348E-01	1.301E-01	1.540E-02	12.437
PO-212	1.618E+00	2.348E-01	1.301E-01	1.540E-02	12.437
BI-214	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
PB-214	1.440E+00	2.249E-01	9.859E-02	1.192E-02	14.606
PO-214	1.440E+00	2.249E-01	9.859E-02	1.192E-02	14.606
PO-216	1.618E+00	2.348E-01	1.301E-01	1.540E-02	12.437
PO-218	1.440E+00	2.249E-01	9.859E-02	1.192E-02	14.606
RA-224	2.818E+00	9.984E-01	1.334E+00	1.470E-01	2.112
RA-226	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
AC-228	1.625E+00	3.564E-01	2.030E-01	2.411E-02	8.009
RA-228	1.625E+00	3.564E-01	2.030E-01	2.411E-02	8.009

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.643E+00	2.384E-01	1.321E-01	1.564E-02	12.437
TH-230	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
TH-232	1.625E+00	3.564E-01	2.030E-01	2.411E-02	8.009
TH-234	4.833E+00	2.158E+00	1.997E+00	3.483E-01	2.420
U-234	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
U-235	3.428E-01	2.904E-01	3.051E-01	5.331E-02	1.124
NP-237	6.542E-01	3.450E-01	3.977E-01	9.028E-02	1.645
U-238	4.833E+00	2.158E+00	1.997E+00	3.483E-01	2.420
AM-243	3.771E-01	7.754E-02	8.343E-02	6.907E-03	4.520
ANH-511	1.220E-01	6.602E-02	4.546E-02	4.323E-03	2.683

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	8.449E-02		3.161E-01	5.334E-01	5.395E-02	0.158
NA-22	3.415E-02		3.909E-02	6.980E-02	5.808E-03	0.489
NA-24	-3.341E-01		3.823E-01	Half-Life too short		
AL-26	1.442E-02		3.317E-02	5.862E-02	4.793E-03	0.246
TI-44	4.065E-01	+	5.730E-02	7.227E-02	6.223E-03	5.624
SC-46	-2.081E-02		3.399E-02	5.296E-02	5.007E-03	-0.393
V-48	2.583E-02		6.498E-02	1.120E-01	1.031E-02	0.231
CR-51	1.787E-01		3.475E-01	5.691E-01	6.654E-02	0.314
MN-52	-3.845E-02		2.089E-01	3.240E-01	2.765E-02	-0.119
MN-54	6.391E-03		3.855E-02	6.554E-02	6.156E-03	0.098
CO-56	-1.212E-02		3.495E-02	5.661E-02	5.327E-03	-0.214
CO-57	1.423E-02		2.333E-02	4.002E-02	3.325E-03	0.356
CO-58	-2.451E-02		3.858E-02	6.123E-02	5.737E-03	-0.400
FE-59	-1.995E-02		8.144E-02	1.300E-01	1.209E-02	-0.153
CO-60	-9.538E-03		3.274E-02	5.040E-02	4.251E-03	-0.189
ZN-65	-6.271E-02		9.679E-02	1.236E-01	1.050E-02	-0.507
GE-68	4.180E-01		1.154E+00	1.970E+00	1.721E-01	0.212
AS-73	-2.406E-01		8.111E-01	1.252E+00	9.548E-02	-0.192
AS-74	4.774E-02		8.683E-02	1.478E-01	1.372E-02	0.323
SE-75	-5.191E-02		4.976E-02	6.446E-02	7.522E-03	-0.805
BR-77	-8.906E-01		9.652E+00	1.577E+01	1.499E+00	-0.056
SR-82	1.630E-01		3.869E-01	5.717E-01	5.300E-02	0.285
RB-83	-7.019E-03		6.233E-02	1.017E-01	9.661E-03	-0.069
RB-84	4.583E-02		7.019E-02	1.238E-01	1.169E-02	0.370
KR-85	4.535E+00		7.310E+00	1.122E+01	1.067E+00	0.404
SR-85	2.327E-02		3.751E-02	5.759E-02	5.476E-03	0.404
RB-86	3.543E-01		7.180E-01	1.242E+00	1.086E-01	0.285
Y-88	8.120E-03		3.291E-02	5.673E-02	4.605E-03	0.143
ZR-88	-2.542E-02		2.804E-02	4.405E-02	4.074E-03	-0.577
Y-91	-1.227E+01		1.773E+01	2.673E+01	2.174E+00	-0.459
NB-94	1.155E-02		3.148E-02	5.234E-02	4.731E-03	0.221
NB-95	-1.523E-02		5.328E-02	7.370E-02	6.812E-03	-0.207
NB-95M	1.257E-01		1.270E-01	1.938E-01	2.305E-02	0.649

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	9.440E-02		7.289E-02	1.291E-01	1.296E-02	0.731
NB-97	-1.675E-02		5.557E-02	Half-Life too short		
ZR-97	2.276E+00		8.953E-01	Half-Life too short		
MO-99	2.689E-01		1.171E+01	1.882E+01	2.917E+00	0.014
TC-99M	-1.593E+10		2.417E+10	Half-Life too short		
RH-101	-1.275E-02		3.219E-02	5.074E-02	5.009E-03	-0.251
RH-102	-6.871E-03		2.898E-02	4.722E-02	4.488E-03	-0.146
RU-103	-1.958E-02		3.635E-02	5.719E-02	8.421E-03	-0.342
RH-106	-3.597E-02		2.800E-01	4.494E-01	6.157E-02	-0.080
RU-106	-3.597E-02		2.800E-01	4.494E-01	4.109E-02	-0.080
AG-108M	2.701E-03		3.015E-02	5.002E-02	4.869E-03	0.054
AG-110M	4.904E-03		3.575E-02	5.147E-02	4.711E-03	0.095
IN-111	-2.487E-01		1.077E+00	1.516E+00	1.689E-01	-0.164
IN-113M	-1.843E-02		3.952E-02	6.421E-02	6.095E-03	-0.287
SN-113	-1.843E-02		3.952E-02	6.421E-02	6.095E-03	-0.287
IN-114M	1.319E-01		1.881E-01	2.866E-01	2.772E-02	0.460
CD-115	3.057E-01		9.534E+00	1.573E+01	1.493E+00	0.019
SN-117M	5.197E-02		5.304E-02	9.095E-02	8.078E-03	0.571
SB-122	6.662E-01		2.033E+00	3.412E+00	3.210E-01	0.195
I-123	4.783E+00		3.033E+00	Half-Life too short		
TE-123M	2.145E-02		2.720E-02	4.635E-02	4.145E-03	0.463
I-124	1.105E-01		7.113E-01	1.087E+00	1.006E-01	0.102
SB-124	1.155E-02		5.380E-02	9.372E-02	8.208E-03	0.123
SB-125	1.545E-02		8.312E-02	1.406E-01	1.343E-02	0.110
TE-125M	-3.366E+00		8.436E+00	1.374E+01	1.398E+00	-0.245
I-126	1.229E-02		1.990E-01	2.832E-01	2.519E-02	0.043
SB-126	8.040E-04		1.423E-01	2.287E-01	2.082E-02	0.004
SB-127	2.655E-03		1.421E+00	2.292E+00	2.676E-01	0.001
XE-127	-3.529E-02		4.370E-02	6.809E-02	6.810E-03	-0.518
I-131	3.808E-02		1.080E-01	1.835E-01	1.941E-02	0.207
TE-132	7.525E-02		6.474E-01	1.054E+00	1.786E-01	0.071
BA-133	5.675E-03		4.188E-02	6.322E-02	9.135E-03	0.090
I-133	-1.417E-03		2.880E-03	Half-Life too short		
CS-134	1.623E-01	+	8.273E-02	9.576E-02	8.978E-03	1.695
CS-135	1.218E-01		1.655E-01	2.447E-01	3.121E-02	0.498
I-135	-4.171E+09		2.985E+09	Half-Life too short		
CS-136	2.130E-02		1.035E-01	1.741E-01	1.612E-02	0.122
CE-139	-1.334E-02		2.869E-02	4.630E-02	4.199E-03	-0.288
BA-140	-2.139E-01		2.459E-01	3.557E-01	1.187E-01	-0.601
LA-140	-5.581E-02		8.073E-02	1.189E-01	1.013E-02	-0.469
CE-141	2.595E-02		6.556E-02	9.877E-02	8.640E-03	0.263
CE-143	4.687E-04		9.789E-05	Half-Life too short		
CE-144	-9.388E-03		2.040E-01	3.044E-01	4.701E-02	-0.031
PM-144	9.031E-03		3.386E-02	5.580E-02	5.033E-03	0.162
PR-144	6.120E-01		2.295E+00	3.782E+00	3.410E-01	0.162
PM-146	5.404E-02		4.021E-02	7.236E-02	8.264E-03	0.747
ND-147	-3.147E-01		5.368E-01	8.365E-01	1.294E-01	-0.376
PM-149	-4.496E+01		8.588E+01	1.315E+02	2.313E+01	-0.342

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-5.208E-02		8.437E-02	1.318E-01	1.473E-02	-0.395
GD-153	-1.132E-02		7.977E-02	1.206E-01	1.072E-02	-0.094
EU-154	6.663E-02		1.123E-01	1.944E-01	2.154E-02	0.343
EU-155	1.416E-01		9.524E-02	1.687E-01	1.460E-02	0.839
TB-160	3.376E-02		1.373E-01	2.346E-01	2.216E-02	0.144
HO-166M	-9.188E-03		5.879E-02	9.311E-02	8.448E-03	-0.099
TM-171	-6.239E+00		2.968E+01	4.163E+01	3.189E+00	-0.150
LU-176	-5.361E-03		2.433E-02	3.804E-02	4.412E-03	-0.141
LU-177	4.529E+00	+	1.632E+00	1.960E+00	1.989E-01	2.310
LU-177M	-9.542E-02		1.932E-01	2.716E-01	2.539E-02	-0.351
HF-181	-1.397E-02		4.105E-02	6.623E-02	6.299E-03	-0.211
W-181	-2.103E-02		3.837E-01	5.461E-01	4.124E-02	-0.039
TA-182	-6.526E-02		1.934E-01	3.043E-01	2.489E-02	-0.214
RE-183	-4.125E-02		1.078E-01	1.720E-01	1.544E-02	-0.240
RE-184	4.008E-02		2.232E-01	3.626E-01	4.109E-02	0.111
OS-185	-1.529E-02		4.316E-02	6.772E-02	6.087E-03	-0.226
RE-188	-7.955E-02		1.667E-01	2.701E-01	2.376E-02	-0.295
W-188	4.343E+00		7.602E+00	1.128E+01	1.337E+00	0.385
IR-192	-7.368E-04		3.130E-02	4.949E-02	5.656E-03	-0.015
AU-195	3.853E-01		2.194E-01	3.764E-01	3.314E-02	1.024
TL-200	1.864E-04		2.190E-04	Half-Life too short		
TL-201	3.261E+00		6.664E+00	1.121E+01	1.021E+00	0.291
TL-202	-1.274E-02		6.564E-02	1.079E-01	1.018E-02	-0.118
HG-203	-3.123E-03		3.890E-02	6.184E-02	7.537E-03	-0.050
BI-207	3.704E-03		5.053E-02	8.384E-02	7.391E-03	0.044
TL-207	-3.898E-01		7.218E-01	9.562E-01	1.829E-01	-0.408
PO-209	2.147E+00		6.387E+00	1.103E+01	1.043E+00	0.195
BI-210	8.764E-01		3.521E+00	5.601E+00	5.223E-01	0.156
PB-210	8.764E-01		3.521E+00	5.601E+00	5.223E-01	0.156
PO-210	8.764E-01		3.521E+00	5.601E+00	4.731E-01	0.156
PB-211	3.710E-01		9.799E-01	1.456E+00	9.136E-01	0.255
BI-212	1.069E+00	+	4.050E-01	6.589E-01	6.884E-02	1.623
PO-215	-3.898E-01		7.218E-01	9.562E-01	1.829E-01	-0.408
RN-219	8.444E-03		3.731E-01	6.265E-01	9.662E-02	0.013
RN-220	-7.947E+00		2.396E+01	3.816E+01	3.605E+00	-0.208
RA-223	-3.898E-01		7.218E-01	9.562E-01	1.829E-01	-0.408
AC-227	-2.633E-01		3.739E-01	5.712E-01	9.755E-02	-0.461
TH-227	-2.633E-01		3.747E-01	5.712E-01	1.117E-01	-0.461
TH-229	-7.438E-01		4.911E-01	7.341E-01	7.164E-02	-1.013
PA-231	-3.863E-01		1.439E+00	2.254E+00	3.899E-01	-0.171
TH-231	-3.898E-01		7.218E-01	9.562E-01	1.829E-01	-0.408
U-231	-7.647E-01		1.081E+00	1.586E+00	1.424E-01	-0.482
PA-233	-9.192E-03		6.213E-02	9.749E-02	1.139E-02	-0.094
PA-234	-2.955E-01		3.091E-01	4.415E-01	8.435E-02	-0.669
PA-234M	7.704E+00	+	6.093E+00	8.494E+00	8.844E-01	0.907
NP-236	-4.726E-02		7.807E-02	1.254E-01	1.119E-02	-0.377
NP-239	-3.313E-02		1.768E-01	2.944E-01	2.451E-02	-0.113
AM-241	1.127E-01		1.652E-01	2.457E-01	1.928E-02	0.459

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-7.729E-02		8.473E-02	1.371E-01	1.179E-02	-0.564
AM-246	-2.280E-02		1.363E-01	2.203E-01	1.922E-02	-0.103
CM-247	1.098E-02		3.345E-02	5.726E-02	5.324E-03	0.192
CF-249	8.692E-03		3.796E-02	6.467E-02	6.067E-03	0.134
CF-251	-5.261E-04		1.188E-01	1.951E-01	1.819E-02	-0.003

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032511		
Acquisition date	: 12-FEB-2010 16:38:58	Detector SN#	:
Detector ID	: GAM16	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 02:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 02:00:01.92	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 28-JAN-2010 12:00:00	Nuclide Library	: SOLID
Sample ID	: G1202032511	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.2150E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

CALIB. DATE/TIME	: 16-NOV-2009 11:22:16	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.530E+01	2.726E+00	2.330E-01	1.391E+00
CD-109	2.267E+00	1.078E+00	5.868E-01	5.501E-01
SN-126	2.228E-01	1.060E-01	6.876E-02	5.407E-02
BA-137M	2.346E-01	6.881E-02	2.917E-02	3.511E-02
CS-137	2.480E-01	7.275E-02	3.083E-02	3.712E-02
TL-208	5.114E-01	9.199E-02	2.965E-02	4.693E-02
BI-211	4.140E+00	5.971E-01	1.526E-01	3.047E-01
PB-212	1.618E+00	2.301E-01	6.644E-02	1.174E-01
PO-212	1.618E+00	2.301E-01	6.644E-02	1.174E-01
BI-214	1.259E+00	2.036E-01	5.231E-02	1.039E-01
PB-214	1.440E+00	2.204E-01	5.012E-02	1.124E-01
PO-214	1.440E+00	2.204E-01	5.012E-02	1.124E-01
PO-216	1.618E+00	2.301E-01	6.644E-02	1.174E-01
PO-218	1.440E+00	2.204E-01	5.012E-02	1.124E-01
RA-224	2.818E+00	9.784E-01	6.812E-01	4.992E-01
RA-226	1.259E+00	2.036E-01	5.231E-02	1.039E-01
AC-228	1.625E+00	3.493E-01	1.020E-01	1.782E-01
RA-228	1.625E+00	3.493E-01	1.020E-01	1.782E-01
TH-228	1.643E+00	2.336E-01	6.746E-02	1.192E-01
TH-230	1.259E+00	2.036E-01	5.231E-02	1.039E-01
TH-232	1.625E+00	3.493E-01	1.020E-01	1.782E-01
TH-234	4.833E+00	2.115E+00	1.036E+00	1.079E+00
U-234	1.259E+00	2.036E-01	5.231E-02	1.039E-01
U-235	3.428E-01	2.845E-01	1.568E-01	1.452E-01
NP-237	6.542E-01	3.381E-01	2.056E-01	1.725E-01
U-238	4.833E+00	2.115E+00	1.036E+00	1.079E+00
AM-243	3.771E-01	7.599E-02	4.321E-02	3.877E-02
ANH-511	1.220E-01	6.470E-02	2.300E-02	3.301E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	8.449E-02	3.097E-01	2.701E-01	1.580E-01	NOT IDENT.
NA-22	3.415E-02	3.831E-02	3.491E-02	1.955E-02	NOT IDENT.
NA-24	-3.341E+05	7.493E+05	0.000E+00	3.823E+05	SHORT HLIF
AL-26	1.442E-02	3.251E-02	2.919E-02	1.659E-02	NOT IDENT.
TI-44	4.065E-01	5.616E-02	3.741E-02	2.865E-02	FAIL ABUN
SC-46	-2.081E-02	3.331E-02	2.661E-02	1.700E-02	FAIL ABUN
V-48	2.583E-02	6.368E-02	5.622E-02	3.249E-02	NOT IDENT.
CR-51	1.787E-01	3.405E-01	2.896E-01	1.737E-01	NOT IDENT.
MN-52	-3.845E-02	2.047E-01	1.618E-01	1.044E-01	NOT IDENT.
MN-54	6.391E-03	3.778E-02	3.296E-02	1.928E-02	NOT IDENT.
CO-56	-1.212E-02	3.425E-02	2.846E-02	1.748E-02	NOT IDENT.
CO-57	1.423E-02	2.287E-02	2.060E-02	1.167E-02	NOT IDENT.
CO-58	-2.451E-02	3.781E-02	3.080E-02	1.929E-02	NOT IDENT.
FE-59	-1.995E-02	7.981E-02	6.516E-02	4.072E-02	FAIL ABUN
CO-60	-9.538E-03	3.209E-02	2.519E-02	1.637E-02	NOT IDENT.
ZN-65	-6.271E-02	9.486E-02	6.192E-02	4.840E-02	NOT IDENT.
GE-68	4.180E-01	1.131E+00	9.876E-01	5.771E-01	NOT IDENT.
AS-73	-2.406E-01	7.949E-01	6.508E-01	4.056E-01	NOT IDENT.
AS-74	4.774E-02	8.509E-02	7.466E-02	4.341E-02	NOT IDENT.
SE-75	-5.191E-02	4.877E-02	3.288E-02	2.488E-02	NOT IDENT.
BR-77	-8.906E-01	9.459E+00	7.979E+00	4.826E+00	FAIL ABUN
SR-82	1.630E-01	3.792E-01	2.877E-01	1.935E-01	NOT IDENT.
RB-83	-7.019E-03	6.108E-02	5.143E-02	3.116E-02	NOT IDENT.
RB-84	4.583E-02	6.878E-02	6.220E-02	3.509E-02	NOT IDENT.
KR-85	4.535E+00	7.163E+00	5.678E+00	3.655E+00	NOT IDENT.
SR-85	2.327E-02	3.676E-02	2.914E-02	1.875E-02	NOT IDENT.
RB-86	3.543E-01	7.037E-01	6.228E-01	3.590E-01	NOT IDENT.
Y-88	8.120E-03	3.226E-02	2.824E-02	1.646E-02	NOT IDENT.
ZR-88	-2.542E-02	2.748E-02	2.236E-02	1.402E-02	NOT IDENT.
Y-91	-1.227E+01	1.737E+01	1.338E+01	8.863E+00	NOT IDENT.
NB-94	1.155E-02	3.085E-02	2.638E-02	1.574E-02	NOT IDENT.
NB-95	-1.523E-02	5.221E-02	3.710E-02	2.664E-02	NOT IDENT.
NB-95M	1.257E-01	1.244E-01	9.902E-02	6.348E-02	NOT IDENT.
ZR-95	9.440E-02	7.143E-02	6.500E-02	3.644E-02	NOT IDENT.
NB-97	-1.675E+04	1.089E+05	0.000E+00	5.557E+04	SHORT HLIF
ZR-97	2.276E+06	1.755E+06	0.000E+00	8.953E+05	SHORT HLIF
MO-99	2.689E-01	1.148E+01	9.476E+00	5.857E+00	NOT IDENT.
TC-99M	-1.593E+16	4.737E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.275E-02	3.155E-02	2.597E-02	1.610E-02	NOT IDENT.
RH-102	-6.871E-03	2.840E-02	2.391E-02	1.449E-02	NOT IDENT.
RU-103	-1.958E-02	3.563E-02	2.895E-02	1.818E-02	FAIL ABUN
RH-106	-3.597E-02	2.744E-01	2.268E-01	1.400E-01	FAIL ABUN
RU-106	-3.597E-02	2.744E-01	2.268E-01	1.400E-01	FAIL ABUN
AG-108M	2.701E-03	2.955E-02	2.536E-02	1.508E-02	NOT IDENT.
AG-110M	4.904E-03	3.504E-02	2.596E-02	1.788E-02	NOT IDENT.
IN-111	-2.487E-01	1.055E+00	7.741E-01	5.385E-01	NOT IDENT.
IN-113M	-1.843E-02	3.873E-02	3.260E-02	1.976E-02	NOT IDENT.
SN-113	-1.843E-02	3.873E-02	3.260E-02	1.976E-02	NOT IDENT.
IN-114M	1.319E-01	1.844E-01	1.468E-01	9.406E-02	NOT IDENT.
CD-115	3.057E-01	9.343E+00	7.955E+00	4.767E+00	NOT IDENT.
SN-117M	5.197E-02	5.197E-02	4.668E-02	2.652E-02	NOT IDENT.
SB-122	6.662E-01	1.992E+00	1.724E+00	1.016E+00	NOT IDENT.
I-123	4.783E+06	5.944E+06	0.000E+00	3.033E+06	SHORT HLIF
TE-123M	2.145E-02	2.665E-02	2.379E-02	1.360E-02	NOT IDENT.
I-124	1.105E-01	6.970E-01	5.490E-01	3.556E-01	FAIL ABUN
SB-124	1.155E-02	5.272E-02	4.671E-02	2.690E-02	FAIL ABUN
SB-125	1.545E-02	8.146E-02	7.128E-02	4.156E-02	FAIL ABUN
TE-125M	-3.366E+00	8.267E+00	7.082E+00	4.218E+00	NOT IDENT.
I-126	1.229E-02	1.951E-01	1.428E-01	9.952E-02	NOT IDENT.
SB-126	8.040E-04	1.395E-01	1.152E-01	7.116E-02	FAIL ABUN
SB-127	2.655E-03	1.393E+00	1.156E+00	7.106E-01	NOT IDENT.
XE-127	-3.529E-02	4.282E-02	3.484E-02	2.185E-02	FAIL ABUN
I-131	3.808E-02	1.058E-01	9.325E-02	5.400E-02	NOT IDENT.
TE-132	7.525E-02	6.345E-01	5.388E-01	3.237E-01	NOT IDENT.
BA-133	5.675E-03	4.104E-02	3.213E-02	2.094E-02	NOT IDENT.
I-133	-1.417E+03	5.645E+03	0.000E+00	2.880E+03	SHORT HLIF
CS-134	1.623E-01	8.107E-02	4.818E-02	4.136E-02	FAIL ABUN
CS-135	1.218E-01	1.622E-01	1.248E-01	8.275E-02	NOT IDENT.
I-135	-4.171E+15	5.851E+15	0.000E+00	2.985E+15	SHORT HLIF
CS-136	2.130E-02	1.014E-01	8.731E-02	5.173E-02	FAIL ABUN
CE-139	-1.334E-02	2.812E-02	2.375E-02	1.435E-02	NOT IDENT.
BA-140	-2.139E-01	2.410E-01	1.798E-01	1.229E-01	NOT IDENT.
LA-140	-5.581E-02	7.912E-02	5.930E-02	4.037E-02	NOT IDENT.
CE-141	2.595E-02	6.425E-02	5.075E-02	3.278E-02	NOT IDENT.
CE-143	4.687E+02	1.919E+02	0.000E+00	9.789E+01	SHORT HLIF
CE-144	-9.388E-03	2.000E-01	1.566E-01	1.020E-01	NOT IDENT.
PM-144	9.031E-03	3.319E-02	2.813E-02	1.693E-02	NOT IDENT.

PR-144	6.120E-01	2.249E+00	1.906E+00	1.147E+00	NOT IDENT.
PM-146	5.404E-02	3.941E-02	3.667E-02	2.011E-02	NOT IDENT.
ND-147	-3.147E-01	5.260E-01	4.230E-01	2.684E-01	FAIL ABUN
PM-149	-4.496E+01	8.416E+01	6.699E+01	4.294E+01	NOT IDENT.
EU-152	-5.208E-02	8.268E-02	6.704E-02	4.218E-02	FAIL ABUN
GD-153	-1.132E-02	7.818E-02	6.228E-02	3.989E-02	NOT IDENT.
EU-154	6.663E-02	1.101E-01	9.725E-02	5.616E-02	NOT IDENT.
EU-155	1.416E-01	9.333E-02	8.703E-02	4.762E-02	FAIL ABUN
TB-160	3.376E-02	1.346E-01	1.179E-01	6.866E-02	FAIL ABUN
HO-166M	-9.188E-03	5.761E-02	4.692E-02	2.939E-02	FAIL ABUN
TM-171	-6.239E+00	2.909E+01	2.159E+01	1.484E+01	NOT IDENT.
LU-176	-5.361E-03	2.384E-02	1.937E-02	1.216E-02	FAIL ABUN
LU-177	4.529E+00	1.599E+00	1.003E+00	8.160E-01	FAIL ABUN
LU-177M	-9.542E-02	1.894E-01	1.378E-01	9.661E-02	FAIL ABUN
HF-181	-1.397E-02	4.023E-02	3.354E-02	2.053E-02	NOT IDENT.
W-181	-2.103E-02	3.760E-01	2.833E-01	1.918E-01	NOT IDENT.
TA-182	-6.526E-02	1.895E-01	1.523E-01	9.671E-02	FAIL ABUN
RE-183	-4.125E-02	1.056E-01	8.825E-02	5.390E-02	FAIL ABUN
RE-184	4.008E-02	2.187E-01	1.851E-01	1.116E-01	NOT IDENT.
OS-185	-1.529E-02	4.230E-02	3.416E-02	2.158E-02	NOT IDENT.
RE-188	-7.955E-02	1.634E-01	1.387E-01	8.334E-02	NOT IDENT.
W-188	4.343E+00	7.450E+00	5.745E+00	3.801E+00	FAIL ABUN
IR-192	-7.368E-04	3.067E-02	2.519E-02	1.565E-02	FAIL ABUN
AU-195	3.853E-01	2.150E-01	1.943E-01	1.097E-01	FAIL ABUN
TL-200	1.864E+02	4.292E+02	0.000E+00	2.190E+02	SHORT HLIF
TL-201	3.261E+00	6.530E+00	5.751E+00	3.332E+00	NOT IDENT.
TL-202	-1.274E-02	6.432E-02	5.469E-02	3.282E-02	NOT IDENT.
HG-203	-3.123E-03	3.813E-02	3.152E-02	1.945E-02	NOT IDENT.
BI-207	3.704E-03	4.952E-02	4.203E-02	2.527E-02	FAIL ABUN
TL-207	-3.898E-01	7.074E-01	4.866E-01	3.609E-01	FAIL ABUN
PO-209	2.147E+00	6.259E+00	5.540E+00	3.194E+00	NOT IDENT.
BI-210	8.764E-01	3.451E+00	2.917E+00	1.760E+00	NOT IDENT.
PB-210	8.764E-01	3.451E+00	2.917E+00	1.760E+00	NOT IDENT.
PO-210	8.764E-01	3.450E+00	2.917E+00	1.760E+00	NOT IDENT.
PB-211	3.710E-01	9.603E-01	7.386E-01	4.899E-01	NOT IDENT.
BI-212	1.069E+00	3.969E-01	3.319E-01	2.025E-01	FAIL ABUN
PO-215	-3.898E-01	7.074E-01	4.866E-01	3.609E-01	FAIL ABUN
RN-219	8.444E-03	3.656E-01	3.179E-01	1.866E-01	FAIL ABUN
RN-220	-7.947E+00	2.348E+01	1.929E+01	1.198E+01	NOT IDENT.
RA-223	-3.898E-01	7.074E-01	4.866E-01	3.609E-01	FAIL ABUN
AC-227	-2.633E-01	3.664E-01	2.915E-01	1.869E-01	FAIL ABUN
TH-227	-2.633E-01	3.672E-01	2.915E-01	1.874E-01	FAIL ABUN
TH-229	-7.438E-01	4.813E-01	3.759E-01	2.456E-01	FAIL ABUN
PA-231	-3.863E-01	1.411E+00	1.149E+00	7.197E-01	FAIL ABUN
TH-231	-3.898E-01	7.074E-01	4.866E-01	3.609E-01	FAIL ABUN
U-231	-7.647E-01	1.060E+00	8.191E-01	5.407E-01	FAIL ABUN
PA-233	-9.192E-03	6.089E-02	4.963E-02	3.107E-02	FAIL ABUN
PA-234	-2.955E-01	3.029E-01	2.217E-01	1.545E-01	FAIL ABUN
PA-234M	7.704E+00	5.971E+00	4.262E+00	3.046E+00	FAIL ABUN
NP-236	-4.726E-02	7.651E-02	6.437E-02	3.904E-02	NOT IDENT.
NP-239	-3.313E-02	1.732E-01	1.517E-01	8.838E-02	FAIL ABUN
AM-241	1.127E-01	1.619E-01	1.276E-01	8.258E-02	NOT IDENT.
CM-243	-7.729E-02	8.304E-02	7.076E-02	4.237E-02	FAIL ABUN
AM-246	-2.280E-02	1.336E-01	1.104E-01	6.817E-02	NOT IDENT.
CM-247	1.098E-02	3.279E-02	2.906E-02	1.673E-02	NOT IDENT.
CF-249	8.692E-03	3.720E-02	3.283E-02	1.898E-02	NOT IDENT.
CF-251	-5.261E-04	1.164E-01	1.000E-01	5.939E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417

GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	216.2876
46.50	216.2876
46.50	216.2876
48.70	252.0982
49.72	233.8879
51.35	248.1569
52.39	222.5900
52.97	252.9357
53.15	253.0682
53.44	258.0822
54.07	270.5761
56.28	255.3299
56.28	255.3315
57.37	0.0000
57.53	306.0046
57.53	306.0060
57.60	306.0637
57.98	327.0516
57.98	327.0516
59.32	250.5563
59.32	250.5563
59.40	304.3125
59.54	288.1481
59.72	288.2871
60.01	303.1819
61.10	320.4101
61.14	320.4435
61.30	320.5786
63.00	347.4725
63.29	347.7339
63.29	347.7339
63.58	347.9942
64.28	326.3670
65.12	340.2817
65.20	340.3493
65.20	340.3493
66.05	360.9494
66.72	333.3602
66.83	333.4522
66.91	346.7941
67.20	337.0799
67.20	337.0799
67.75	341.6952
67.85	341.7809
68.90	344.3305
68.90	344.3305
69.30	365.5302
69.67	370.8717
70.82	346.7709
70.82	346.7709
70.83	346.7793
72.80	367.3422
72.87	367.4022
72.87	367.4022
74.67	380.3604
74.81	380.4817
74.81	380.4817
74.81	380.4817
74.81	380.4817
74.81	380.4817
74.81	380.4817
74.81	380.4817
74.81	380.4817
74.97	380.6236
75.28	380.8960
75.70	381.2622
77.11	382.4890
77.11	382.4890

77.11	382.4890
77.11	382.4890
77.11	382.4890
77.11	382.4890
77.11	382.4890
78.38	361.8488
79.62	355.1577
79.80	355.2993
79.80	355.2993
80.11	326.0208
80.18	326.0712
80.30	326.1565
80.30	326.1565
80.57	376.4591
81.00	418.7400
81.07	418.8046
81.07	418.8046
81.07	418.8046
81.07	418.8046
82.60	396.6268
83.37	359.3647
83.78	368.7396
83.78	368.7396
83.78	368.7396
83.78	368.7396
84.21	341.8835
84.90	352.7604
85.43	373.9307
86.29	461.7584
86.50	468.4680
86.54	468.5065
86.59	468.5559
86.72	468.6823
86.79	468.7482
86.94	468.8992
87.30	462.7334
87.30	462.7334
87.30	462.7334
87.30	462.7334
87.30	462.7334
87.30	462.7334
87.30	462.7334
87.30	462.7334
87.57	462.9934
87.88	328.8716
88.03	328.9735
88.36	329.1985
88.47	329.2734
89.95	453.4703
91.11	286.3861
92.29	287.0681
92.38	287.1196
92.38	287.1196
93.35	287.6751
94.00	288.0477
94.67	288.4252
94.67	288.4286
94.90	272.6743
94.90	272.6743
94.90	272.6743
94.90	272.6743
95.87	322.2616
95.87	322.2616
96.73	322.8048
97.43	300.6270
98.44	262.5590
98.44	262.5605
98.88	253.9775
99.55	258.2200
99.55	258.2200
99.86	246.7905
100.00	266.4611
100.10	266.5143
103.18	280.6060
103.76	276.4211
105.00	227.5788
105.31	223.2086
108.00	276.7569
109.28	270.1413

111.00	292.7886
111.00	292.7886
111.76	272.2386
112.95	273.7183
115.19	288.5209
116.30	273.4698
117.00	274.7160
117.00	274.7160
117.66	259.3864
121.11	256.2653
121.62	253.7045
121.78	256.5499
122.06	242.7706
122.32	228.9695
122.32	228.9695
122.32	228.9695
122.32	228.9695
123.07	231.1084
127.23	218.6573
129.76	236.4269
131.20	241.1967
133.02	239.0539
133.54	246.3230
135.34	255.5255
136.00	245.3655
136.25	252.0917
136.48	252.1810
140.51	251.8130
140.51	0.0000
142.18	248.1358
142.65	229.6509
143.76	239.6113
144.24	250.3294
144.24	250.3294
144.24	250.3294
144.24	250.3294
145.22	246.3683
145.44	246.4465
147.16	232.6142
152.43	251.3568
152.70	254.3642
153.22	251.6361
154.21	276.3066
154.21	276.3066
154.21	276.3066
154.21	276.3066
155.03	289.2868
156.02	273.1042
158.56	237.8485
159.00	0.0000
159.00	238.9688
160.31	284.5306
161.27	276.0605
162.32	256.7758
162.64	249.9951
163.35	249.2502
163.89	247.4586
165.85	266.8881
167.43	228.8146
171.28	241.9148
171.86	243.0940
172.10	243.1685
176.55	231.5287
176.60	231.5452
181.06	247.9669
184.41	212.5592
185.71	211.8829
186.00	211.9595
190.27	207.9615
192.34	222.7856
193.63	264.0679
197.04	192.1684
198.01	221.1938
198.60	233.6989
200.40	217.6818
201.83	209.7753
202.84	231.7451
205.31	199.1992

208.36	234.2422
208.81	206.2379
209.75	206.4554
209.75	206.4554
210.97	198.9065
215.65	203.6108
216.55	197.5086
218.09	229.4118
222.10	197.6432
223.80	200.1204
226.40	190.0564
227.00	182.7395
227.08	181.6927
227.20	181.7153
228.16	180.8360
228.18	180.8394
228.18	180.8394
231.56	0.0000
235.69	181.7197
236.00	202.6909
236.00	202.6909
238.63	445.1856
238.63	445.1856
238.63	445.1856
238.63	445.1856
239.00	445.3499
240.98	362.1714
241.98	284.8506
241.98	284.8506
241.98	284.8506
244.69	168.7778
245.39	157.5288
247.94	155.2134
248.90	153.1875
249.79	169.6332
252.40	166.7975
252.85	161.4173
252.85	161.4173
254.15	0.0000
256.20	181.6376
256.20	181.6376
260.50	174.6988
260.90	175.8626
262.80	160.7657
264.65	186.9666
268.24	139.4531
268.79	119.5928
269.46	144.0442
269.46	144.0442
269.46	144.0442
269.46	144.0442
271.23	169.8060
273.65	170.1857
276.40	157.2337
277.35	152.9042
277.60	145.1259
277.60	145.1259
278.00	151.8794
278.60	138.5540
279.20	156.5145
279.53	180.0473
280.46	179.0788
281.68	129.9737
283.67	143.6771
284.30	135.8961
285.00	142.7225
285.90	138.3400
286.10	143.9870
286.10	143.9870
287.40	128.3868
288.45	0.0000
290.67	127.0638
290.80	127.0775
291.72	133.9634
293.26	0.0000
293.70	157.9763
295.21	146.2772
295.21	146.2772

295.21	146.2772
295.96	136.1621
296.50	136.2256
297.23	136.3110
298.57	136.4673
299.80	141.7343
299.80	141.7343
300.09	157.1423
300.09	157.1423
300.09	157.1423
300.09	157.1423
300.12	157.1479
301.29	129.9478
302.84	128.4073
303.76	125.0811
303.91	121.6694
304.40	126.1766
304.40	126.1766
304.84	135.8277
306.84	140.8674
308.46	121.5640
311.98	132.2739
316.51	111.9885
318.01	139.8693
319.02	111.0625
319.41	119.1985
320.08	110.0003
323.87	137.6352
323.87	137.6352
323.87	137.6352
323.87	137.6352
325.23	116.8574
328.77	192.3993
333.44	161.5166
334.20	165.8280
334.20	165.8280
334.30	165.8424
338.28	110.1437
338.28	110.1437
338.28	110.1437
338.28	110.1437
338.32	110.1475
338.32	110.1475
338.32	110.1475
340.50	103.0965
340.57	103.1018
344.27	112.3008
345.85	107.3734
350.59	0.0000
351.07	113.9043
351.92	101.1559
351.92	101.1559
351.92	101.1559
355.39	0.0000
356.01	101.4688
364.48	96.1785
366.43	99.9180
367.43	102.6932
367.94	0.0000
369.80	117.3106
374.96	116.8452
383.85	104.8294
387.95	111.5342
388.63	105.1839
391.69	105.4102
391.69	105.4102
392.90	116.5084
398.62	97.6298
400.65	99.6103
401.10	97.7964
401.81	101.5355
402.60	96.9731
404.84	96.1956
410.95	101.0537
411.60	93.6633
413.65	119.1016
414.70	117.6957
415.30	96.8763

415.76	101.1661
417.63	0.0000
418.52	84.9487
423.70	98.3542
427.08	93.8782
427.89	88.2928
432.53	84.7911
433.93	83.9237
439.47	105.9895
439.56	98.4236
439.89	91.8182
443.98	80.6693
444.90	94.0104
445.03	94.0195
445.03	94.0195
445.03	94.0195
445.03	94.0195
453.90	68.7590
463.38	84.5330
468.07	94.0228
473.00	91.7921
475.06	100.6135
475.35	95.7930
476.78	87.1587
477.59	91.0768
477.96	102.7263
482.03	94.2322
484.57	112.8600
487.03	80.8710
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492.35	73.3051
497.08	80.3684
507.63	0.0000
510.53	0.0000
510.84	87.9204
511.00	87.9285
511.85	87.9699
511.85	87.9699
513.99	80.7533
513.99	80.7533
520.41	73.4964
520.65	73.5077
527.90	63.8301
528.96	0.0000
529.64	67.8859
529.87	0.0000
531.02	84.9222
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546.56	0.0000
549.76	74.6888
552.65	50.5432
555.20	81.9912
563.23	76.2405
563.90	76.2657
568.70	78.4969
569.32	84.6414
569.50	84.6490
569.67	94.8561
573.80	89.9497
574.00	89.9578
574.64	76.6937
578.91	93.4655
579.30	0.0000
583.14	84.2197
585.48	77.3274
591.81	81.4977
592.07	81.5073
593.00	82.5781
595.88	66.1582
600.56	86.0016
602.52	0.0000
602.71	81.5979
602.71	81.5979
603.60	87.9986
604.41	91.3569
604.70	91.3704
609.31	73.8861

609.31	73.8861
609.31	73.8861
609.31	73.8861
610.33	73.9229
612.46	60.0346
614.37	65.0984
618.01	60.6161
621.84	59.6823
621.84	59.6823
631.29	69.4221
633.02	65.2695
633.10	62.1131
634.78	70.5925
635.90	57.9793
636.97	73.8303
645.85	82.6132
646.12	77.3286
656.30	68.1172
657.75	57.9395
657.90	0.0000
661.65	75.7560
661.65	75.7560
664.57	0.0000
666.33	68.4336
666.33	68.4336
675.00	61.1905
677.61	80.6099
685.20	73.3374
692.80	68.1757
695.00	64.9933
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696.49	68.2872
697.00	73.7234
697.49	71.5712
698.33	77.0214
698.50	71.6034
699.00	67.2789
702.63	60.8655
706.10	62.0463
706.58	0.0000
706.67	69.6836
709.31	63.2233
711.68	66.5624
713.82	66.6238
717.42	72.1976
720.50	66.8174
721.93	0.0000
722.20	61.3850
722.78	63.1547
722.78	63.1547
722.89	63.1582
722.95	77.1955
723.30	77.2063
724.18	77.2363
727.18	59.3196
733.00	51.6018
735.90	66.1560
739.58	61.8413
742.81	64.1384
744.21	54.2173
747.13	57.6066
751.79	68.8191
752.31	67.7240
753.82	63.3231
755.35	50.0235
756.15	51.1520
756.87	53.3921
763.93	57.1172
765.79	82.1688
766.42	83.9781
766.84	92.9271
776.49	44.8523
778.00	70.5263
778.57	75.1910
778.89	75.2012
783.80	53.9824
785.46	61.2216
792.07	51.1522

795.84	40.6824
796.30	40.6901
798.80	55.8147
801.93	75.5188
805.60	54.4526
810.29	66.3737
810.76	68.2050
815.85	54.6724
817.79	46.5064
818.51	51.0795
819.60	47.4513
826.30	54.8936
828.27	0.0000
831.60	74.2586
831.96	72.4347
834.83	71.5958
836.80	0.0000
846.75	51.6359
848.13	54.4310
856.28	0.0000
856.80	53.9911
860.37	47.2671
867.32	47.4924
867.82	52.0447
871.10	34.4282
873.19	48.4225
874.81	49.3834
875.33	0.0000
876.40	54.0734
879.36	52.2662
880.27	51.3503
880.51	49.4869
881.50	49.5051
883.24	46.7322
884.67	47.6917
889.25	47.7714
896.60	38.5066
898.02	38.5266
899.00	41.3606
903.28	42.8885
911.07	50.9796
911.07	50.9796
911.07	50.9796
919.63	39.7718
920.93	39.7903
925.00	48.3853
925.24	46.4914
926.50	43.6652
935.52	41.8978
937.48	59.0786
944.10	45.8438
946.00	52.5629
949.00	40.1810
962.29	38.4414
964.01	46.4772
966.15	52.9268
968.20	52.9630
969.11	44.9531
969.11	44.9531
969.11	44.9531
977.42	32.8429
980.50	40.6126
983.50	39.6857
989.30	44.6119
996.32	45.3633
1001.03	40.5660
1001.68	37.0045
1004.76	42.2405
1021.30	0.0000
1024.50	0.0000
1034.80	43.3104
1036.00	49.2358
1037.82	46.3069
1038.57	38.4344
1038.76	0.0000
1045.16	44.4419
1046.59	46.4377
1048.07	44.4814

1050.47	39.5703
1050.47	39.5703
1062.04	49.6436
1063.62	46.6879
1076.63	36.9024
1077.35	39.9043
1078.86	47.9063
1085.78	50.0098
1099.22	43.1848
1112.02	44.1089
1112.84	35.2974
1115.52	55.5103
1120.29	43.4619
1120.29	43.4619
1120.29	43.4619
1120.29	43.4619
1120.51	43.4640
1121.28	43.4745
1124.00	0.0000
1129.67	41.5565
1131.51	0.0000
1147.95	0.0000
1167.94	46.1250
1173.22	51.3281
1175.09	45.1945
1177.93	47.2870
1189.05	58.7812
1204.90	58.0098
1205.75	0.0000
1213.00	61.2586
1221.42	61.4026
1230.97	66.7813
1235.34	59.5494
1236.41	0.0000
1238.25	46.0045
1246.25	40.8681
1260.41	0.0000
1271.85	45.3726
1274.45	31.6787
1274.54	27.4549
1291.56	40.3101
1298.22	0.0000
1312.09	37.3293
1325.50	25.6875
1325.50	25.6875
1332.49	24.6610
1333.61	23.5963
1360.21	22.6775
1362.66	0.0000
1365.15	17.3000
1368.21	28.1341
1368.53	0.0000
1376.25	28.9141
1384.27	29.8781
1394.10	26.1398
1395.20	32.6836
1407.95	21.8584
1434.06	19.7991
1436.60	20.1783
1457.56	0.0000
1460.81	17.5288
1489.15	13.9319
1509.49	15.8649
1596.49	23.7976
1620.62	14.3549
1678.03	0.0000
1691.02	6.8012
1691.02	6.8012
1706.46	0.0000
1750.46	0.0000
1764.49	8.8788
1764.49	8.8788
1764.49	8.8788
1764.49	8.8788
1770.23	10.1589
1771.40	8.4678
1791.20	0.0000
1808.65	11.9443

1836.01 11.0085

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032511

Total Uranium Activity	1.4537E+01	ug/g
Total Uranium Counting Unc.	6.2938E+00	ug/g
Total Uranium Tpu	3.2111E-06	ug/g
Total Uranium Mda	3.0840E+00	ug/g

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*********************************************************************************
*                                                                               *
*                          GEL Laboratories LLC                                 *
*                               2040 SAVAGE ROAD                                *
*                             CHARLESTON ,SC 29417                              *
*                              GROSS GAMMA REPORT                               *
*                                                                               *
*                                                                               *
*********************************************************************************
*                                                                               *
*   BATCH ID      : 948717                    SAMPLE ID  : G1202032511          *
*   ANALYST       : MXR1                      DETECTOR   : GAM16                *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00    *
*   ANALYSIS DATE: 12-FEB-2010 16:38:58.97    SAMPLE ALQT:  121.500 GRAM        *
*                                                                               *
*********************************************************************************
```

GROSS GAMMA ACTIVITY	(pCi/GRAM)	: 9.908E+00
GROSS GAMMA ERROR	(pCi/GRAM)	: 1.420E+00
GROSS GAMMA MDA	(pCi/GRAM)	: 3.350E+00
GROSS GAMMA DLC	(pCi/GRAM)	: 1.621E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:33:44.20

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032512.CNF;1
Sample date : 5-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 16:33:11
Sample ID : G1202032512 Sample quantity : 1.55440E+02 GRAM
Detector name : GAM15 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.29 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.73	1427	498	1.27	118.40	113	11	3.96E-01	4.0	
2	0	77.59*	127	356	0.84	154.10	151	7	3.53E-02	26.8	
3	3	88.25*	1097	353	1.47	175.43	171	22	3.05E-01	4.3	2.43E+00
4	3	92.56*	85	287	1.72	184.05	171	22	2.35E-02	44.4	
5	0	122.25	240	252	1.30	243.41	239	9	6.68E-02	13.6	
6	0	185.99*	87	333	1.70	370.89	365	13	2.42E-02	45.1	
7	0	238.82*	412	407	1.21	476.54	471	13	1.15E-01	11.3	
8	0	295.14*	99	194	1.62	589.18	585	9	2.75E-02	27.5	
9	0	338.55	95	175	1.27	676.01	672	9	2.64E-02	27.1	
10	0	351.94*	166	154	1.09	702.78	698	10	4.61E-02	16.3	
11	0	510.92*	83	190	2.19	1020.74	1013	19	2.31E-02	43.1	
12	0	583.25*	141	94	1.69	1165.41	1159	13	3.91E-02	16.9	
13	0	609.18*	138	112	1.89	1217.28	1210	13	3.83E-02	18.3	
14	0	661.58*	1989	190	1.71	1322.08	1312	20	5.53E-01	2.8	
15	0	911.02*	114	110	1.32	1821.02	1815	13	3.17E-02	21.3	
16	0	969.73	46	127	1.70	1938.47	1931	12	1.29E-02	51.0	
17	0	1172.89	1581	48	1.84	2344.88	2338	15	4.39E-01	2.7	
18	0	1332.07	1385	31	2.11	2663.33	2656	19	3.85E-01	2.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:33:47

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032512.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-FEB-2010 00:00:00 Acquisition date : 12-FEB-2010 16:33:11
Sample ID : G1202032512 Sample quantity : 155.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.29 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.458E-01	7.114E-02	7.722E-02	7.779E-03	3.182
		136.48		-6.977E-02	3.903E-01	6.268E-01	6.665E-02	-0.111
CO-60	+	1173.22		6.524E+00	6.368E-01	1.584E-01	1.289E-02	41.183
	+	1332.49	*	6.423E+00	7.200E-01	8.693E-02	8.357E-03	73.883
CD-109	+	88.03	*	3.188E+01	4.788E+00	2.499E+00	3.102E-01	12.758
SN-126		64.28		-2.356E-01	1.387E+00	2.013E+00	3.407E-01	-0.117
	+	86.94		1.317E+01	5.684E+00	1.161E+00	4.909E-01	11.345
	+	87.57	*	3.169E+00	4.758E-01	2.874E-01	3.557E-02	11.024
BA-137M	+	661.65	*	5.390E+00	5.370E-01	1.256E-01	1.032E-02	42.919
CS-137	+	661.65	*	5.697E+00	5.684E-01	1.327E-01	1.094E-02	42.919
TL-208		277.35		1.794E-01	7.988E-01	1.346E+00	1.881E-01	0.133
	+	510.84		7.683E-01	6.692E-01	4.937E-01	5.926E-02	1.556
	+	583.14	*	3.682E-01	1.286E-01	1.330E-01	1.218E-02	2.768
		860.37		1.201E+00	7.458E-01	1.339E+00	1.309E-01	0.897
BI-211		72.87		-7.407E+00	7.752E+00	1.057E+01	1.211E+00	-0.701
	+	351.07	*	1.974E+00	6.734E-01	6.715E-01	6.686E-02	2.939
PB-212		74.81		1.163E+00	8.916E-01	1.350E+00	2.001E-01	0.861
	+	77.11		9.635E-01	5.287E-01	6.712E-01	7.781E-02	1.435
	+	87.30		1.465E+01	2.644E+00	1.284E+00	2.040E-01	11.415
	+	238.63	*	1.086E+00	2.773E-01	1.908E-01	2.272E-02	5.690
		300.09		1.600E+00	1.935E+00	2.934E+00	3.544E-01	0.545
PO-212		74.81		1.163E+00	8.916E-01	1.350E+00	2.001E-01	0.861
	+	77.11		9.635E-01	5.287E-01	6.712E-01	7.781E-02	1.435
	+	87.30		1.465E+01	2.644E+00	1.284E+00	2.040E-01	11.415
		115.19		4.330E+00	6.776E+00	1.131E+01	1.145E+00	0.383
	+	238.63	*	1.086E+00	2.773E-01	1.908E-01	2.272E-02	5.690
		300.09		1.600E+00	1.935E+00	2.934E+00	3.544E-01	0.545
PB-214		74.81		2.003E+00	1.532E+00	2.326E+00	3.183E-01	0.861
	+	77.11		1.652E+00	9.150E-01	1.151E+00	1.596E-01	1.435
	+	87.30		2.510E+01	4.238E+00	2.199E+00	3.201E-01	11.415
		241.98		1.850E+00	8.605E-01	1.361E+00	1.684E-01	1.360
	+	295.21		7.018E-01	3.956E-01	4.924E-01	6.070E-02	1.425
	+	351.92	*	6.865E-01	2.370E-01	2.521E-01	2.830E-02	2.723
PO-214		74.81		2.003E+00	1.532E+00	2.326E+00	3.183E-01	0.861

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		1.652E+00	9.150E-01	1.151E+00	1.596E-01	1.435
	+	87.30		2.510E+01	4.238E+00	2.199E+00	3.201E-01	11.415
		241.98		1.850E+00	8.605E-01	1.361E+00	1.684E-01	1.360
	+	295.21		7.018E-01	3.956E-01	4.924E-01	6.070E-02	1.425
	+	351.92	*	6.865E-01	2.370E-01	2.521E-01	2.830E-02	2.723
PO-216		74.81		1.163E+00	8.916E-01	1.350E+00	2.001E-01	0.861
	+	77.11		9.635E-01	5.287E-01	6.712E-01	7.781E-02	1.435
	+	87.30		1.465E+01	2.644E+00	1.284E+00	2.040E-01	11.415
	+	238.63	*	1.086E+00	2.773E-01	1.908E-01	2.272E-02	5.690
		300.09		1.600E+00	1.935E+00	2.934E+00	3.544E-01	0.545
PO-218		74.81		2.003E+00	1.532E+00	2.326E+00	3.183E-01	0.861
	+	77.11		1.652E+00	9.150E-01	1.151E+00	1.596E-01	1.435
	+	87.30		2.510E+01	4.238E+00	2.199E+00	3.201E-01	11.415
		241.98		1.850E+00	8.605E-01	1.361E+00	1.684E-01	1.360
	+	295.21		7.018E-01	3.956E-01	4.924E-01	6.070E-02	1.425
	+	351.92	*	6.865E-01	2.370E-01	2.521E-01	2.830E-02	2.723
AC-228	+	338.32		1.248E+00	8.529E-01	8.462E-01	3.515E-01	1.475
	+	911.07	*	1.333E+00	5.881E-01	6.122E-01	7.212E-02	2.177
	+	969.11		9.582E-01	1.003E+00	1.095E+00	2.579E-01	0.875
RA-228	+	338.32		1.248E+00	8.529E-01	8.462E-01	3.515E-01	1.475
	+	911.07	*	1.333E+00	5.881E-01	6.122E-01	7.212E-02	2.177
	+	969.11		9.582E-01	1.003E+00	1.095E+00	2.579E-01	0.875
TH-228		74.81		1.172E+00	8.919E-01	1.361E+00	1.573E-01	0.861
	+	77.11		9.709E-01	5.328E-01	6.764E-01	7.841E-02	1.435
	+	87.30		1.477E+01	2.218E+00	1.294E+00	1.597E-01	11.415
	+	238.63	*	1.094E+00	2.794E-01	1.922E-01	2.289E-02	5.690
		300.09		1.612E+00	2.165E+00	2.957E+00	1.762E+00	0.545
TH-232	+	338.32		1.248E+00	6.883E-01	8.462E-01	8.342E-02	1.475
	+	911.07	*	1.333E+00	5.881E-01	6.122E-01	7.212E-02	2.177
	+	969.11		9.582E-01	1.003E+00	1.095E+00	2.579E-01	0.875
AM-241	+	59.54	*	1.378E+01	1.965E+00	9.029E-01	1.060E-01	15.257
ANH-511	+	511.00	*	1.659E-01	1.439E-01	1.067E-01	9.216E-03	1.556

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	5.603E-02	7.474E-01	1.224E+00	1.138E-01	0.046
NA-22		1274.54	*	2.278E-02	5.543E-02	9.566E-02	8.690E-03	0.238
NA-24		1368.53	*	-8.776E-05	5.543E-02	Half-Life too short		
AL-26		1129.67		3.690E+00	3.651E+00	6.446E+00	5.444E-01	0.572
		1808.65	*	1.742E-02	4.455E-02	8.015E-02	6.857E-03	0.217
K-40		1460.81	*	3.613E-01	5.770E-01	1.096E+00	1.077E-01	0.330
TI-44		67.85		2.695E-02	1.073E-01	1.786E-01	2.038E-02	0.151
	+	78.38	*	1.778E-01	9.753E-02	1.464E-01	1.707E-02	1.214
SC-46		889.25	*	2.219E-03	1.009E-01	1.669E-01	1.551E-02	0.013
		1120.51		1.223E-01	1.128E-01	1.982E-01	1.685E-02	0.617
V-48		944.10		-7.775E-01	1.832E+00	2.924E+00	2.704E-01	-0.266
		983.50	*	8.091E-02	1.403E-01	2.391E-01	2.186E-02	0.338

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1312.09		-5.805E-02	8.783E-02	1.254E-01	1.182E-02	-0.463
CR-51		320.08	*	6.659E-01	6.884E-01	1.191E+00	1.264E-01	0.559
MN-52		744.21		7.778E-02	2.101E-01	3.592E-01	3.109E-02	0.217
		848.13		-3.399E-01	6.628E+00	1.094E+01	9.987E-01	-0.031
		935.52		-2.152E-01	2.688E-01	4.168E-01	3.861E-02	-0.516
		1246.25		5.458E-01	3.281E+00	5.462E+00	4.813E-01	0.100
		1333.61		3.209E+02	3.555E+01	4.084E+01	3.926E+00	7.856
		1434.06	*	-4.815E-02	1.202E-01	1.834E-01	1.765E-02	-0.263
MN-54		834.83	*	-2.114E-03	8.354E-02	1.382E-01	1.254E-02	-0.015
CO-56		846.75	*	-4.532E-02	9.070E-02	1.448E-01	1.321E-02	-0.313
		977.42		-6.286E+00	7.805E+00	1.174E+01	1.076E+00	-0.535
		1037.82		2.597E-01	8.064E-01	1.349E+00	1.266E-01	0.193
		1175.09		2.669E+02	2.650E+01	3.404E+01	2.777E+00	7.841
		1238.25		1.997E-01	1.227E-01	2.324E-01	2.088E-02	0.859
		1360.21		9.852E-01	1.252E+00	2.360E+00	2.272E-01	0.418
		1771.40		-3.286E-01	3.802E-01	4.997E-01	4.366E-02	-0.658
CO-58		810.76	*	1.008E-02	8.460E-02	1.416E-01	1.273E-02	0.071
FE-59		142.65		7.573E-01	4.558E+00	7.424E+00	7.540E-01	0.102
		192.34		1.482E+00	1.962E+00	2.856E+00	4.274E-01	0.519
		1099.22	*	4.968E-02	1.987E-01	3.305E-01	3.084E-02	0.150
		1291.56		-3.808E-02	1.426E-01	2.190E-01	2.262E-02	-0.174
ZN-65		1115.52	*	-1.479E-01	2.120E-01	3.257E-01	2.783E-02	-0.454
GE-68		1077.35	*	-2.809E+00	3.180E+00	4.815E+00	4.215E-01	-0.583
AS-73		53.44	*	-2.212E+00	3.957E+00	5.921E+00	7.688E-01	-0.373
AS-74		595.88	*	-5.902E-02	1.484E-01	2.320E-01	1.971E-02	-0.254
		634.78		-2.321E-01	5.673E-01	8.807E-01	7.354E-02	-0.264
SE-75		66.05		-1.225E+01	1.168E+01	1.756E+01	2.255E+00	-0.698
		96.73		-6.104E-01	1.507E+00	2.100E+00	3.218E-01	-0.291
	+	121.11		1.290E+00	3.847E-01	5.492E-01	6.792E-02	2.349
		136.00		5.636E-03	7.121E-02	1.157E-01	1.172E-02	0.049
		198.60		-4.685E-01	3.524E+00	5.596E+00	6.532E-01	-0.084
		264.65	*	-7.049E-03	8.605E-02	1.434E-01	1.572E-02	-0.049
		279.53		1.657E-01	2.272E-01	3.904E-01	4.321E-02	0.424
		303.91		-1.615E+00	4.501E+00	7.354E+00	9.522E-01	-0.220
		400.65		9.766E-02	5.347E-01	8.881E-01	9.755E-02	0.110
BR-77	+	87.88		7.935E+02	1.192E+02	1.261E+02	1.564E+01	6.293
		200.40		2.403E+01	3.871E+01	6.349E+01	6.937E+00	0.378
	+	239.00		1.986E+01	4.995E+00	6.041E+00	6.664E-01	3.288
		249.79		5.251E-02	1.608E+01	2.696E+01	2.968E+00	0.002
		281.68		-1.120E+01	2.277E+01	3.708E+01	4.000E+00	-0.302
		297.23		1.501E+01	1.650E+01	2.503E+01	2.652E+00	0.600
		303.76		-1.235E+01	4.578E+01	7.517E+01	7.896E+00	-0.164
		439.47		2.521E+01	4.054E+01	6.849E+01	5.870E+00	0.368
		484.57		3.030E+01	6.218E+01	1.042E+02	8.997E+00	0.291
		520.65	*	5.063E-01	2.895E+00	4.484E+00	3.872E-01	0.113
		574.64		-1.644E+00	5.484E+01	8.595E+01	7.352E+00	-0.019
		578.91		-2.325E-01	2.546E+01	3.541E+01	3.025E+00	-0.007
		585.48		1.219E+02	5.418E+01	8.793E+01	7.497E+00	1.386
		755.35		9.346E+00	4.012E+01	6.797E+01	5.921E+00	0.137

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		817.79		-3.756E+01	4.030E+01	6.253E+01	5.629E+00	-0.601
SR-82		698.33		2.102E+01	5.741E+01	9.840E+01	8.285E+00	0.214
		776.49	*	-1.861E-01	6.174E-01	1.002E+00	8.833E-02	-0.186
		1395.20		-3.140E+00	1.117E+01	1.758E+01	1.694E+00	-0.179
RB-83		520.41	*	-8.020E-03	1.648E-01	2.413E-01	2.084E-02	-0.033
		529.64		-2.447E-02	2.306E-01	3.715E-01	3.205E-02	-0.066
		552.65		-1.242E-01	4.046E-01	6.400E-01	5.503E-02	-0.194
RB-84		881.50	*	3.717E-02	1.483E-01	2.493E-01	2.310E-02	0.149
KR-85		513.99	*	2.876E+01	1.738E+01	2.766E+01	2.390E+00	1.040
SR-85		513.99	*	1.364E-01	8.238E-02	1.311E-01	1.133E-02	1.040
RB-86		1076.63	*	-2.088E+00	1.606E+00	2.340E+00	2.049E-01	-0.892
Y-88		898.02		-4.072E-02	1.053E-01	1.692E-01	1.585E-02	-0.241
		1836.01	*	5.441E-02	5.039E-02	1.018E-01	8.573E-03	0.534
ZR-88		392.90	*	-1.815E-02	6.527E-02	1.057E-01	8.898E-03	-0.172
Y-91		1204.90	*	-1.607E+01	2.498E+01	3.690E+01	3.111E+00	-0.435
NB-94		702.63	*	-1.736E-02	6.566E-02	1.077E-01	9.091E-03	-0.161
		871.10		-4.275E-02	8.914E-02	1.424E-01	1.313E-02	-0.300
NB-95		765.79	*	6.298E-02	7.658E-02	1.348E-01	1.181E-02	0.467
NB-95M		235.69	*	1.039E-01	2.573E-01	3.849E-01	4.632E-02	0.270
ZR-95		724.18		3.193E-02	1.846E-01	3.118E-01	2.902E-02	0.102
		756.15	*	4.003E-02	1.382E-01	2.351E-01	2.252E-02	0.170
NB-97		657.90	*	1.080E-03	1.382E-01	Half-Life too short		
		1024.50		7.878E-03	1.382E-01	Half-Life too short		
ZR-97		254.15		3.982E-04	1.382E-01	Half-Life too short		
		355.39		2.318E-03	1.382E-01	Half-Life too short		
		507.63	*	4.612E-03	1.382E-01	Half-Life too short		
		602.52		2.804E-03	1.382E-01	Half-Life too short		
		1021.30		-4.301E-03	1.382E-01	Half-Life too short		
		1147.95		-1.276E-03	1.382E-01	Half-Life too short		
		1362.66		4.323E-03	1.382E-01	Half-Life too short		
		1750.46		-5.593E-03	1.382E-01	Half-Life too short		
MO-99		140.51		-1.676E-01	7.684E+00	1.240E+01	3.496E+00	-0.014
		181.06		-1.947E+00	5.688E+00	7.751E+00	1.504E+00	-0.251
		366.43		8.689E-01	2.983E+01	4.931E+01	4.517E+00	0.018
		739.58	*	-6.467E-01	3.737E+00	6.153E+00	9.347E-01	-0.105
		778.00		-4.208E-01	1.088E+01	1.804E+01	1.591E+00	-0.023
TC-99M		140.51	*	-1.836E+00	1.088E+01	Half-Life too short		
RH-101		127.23		-2.777E-02	6.858E-02	9.477E-02	9.509E-03	-0.293
		198.01	*	-3.822E-02	6.866E-02	1.067E-01	1.164E-02	-0.358
		325.23		-4.637E-01	4.850E-01	7.618E-01	7.719E-02	-0.609
RH-102		418.52		-8.566E-01	6.897E-01	1.046E+00	8.904E-02	-0.819
		475.06	*	4.247E-02	7.780E-02	1.304E-01	1.125E-02	0.326
		631.29		6.385E-03	1.151E-01	1.858E-01	1.554E-02	0.034
		697.49		4.478E-02	1.615E-01	2.751E-01	2.315E-02	0.163
		766.84		2.351E-01	2.089E-01	3.742E-01	3.281E-02	0.628
		1046.59		-3.171E-01	2.948E-01	4.389E-01	3.908E-02	-0.722
		1112.84		-7.021E-01	5.503E-01	7.968E-01	6.815E-02	-0.881
RU-103		497.08	*	-1.876E-02	7.865E-02	1.259E-01	1.784E-02	-0.149
	+	610.33		6.429E+00	2.582E+00	3.249E+00	5.391E-01	1.979

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-106	+	511.85		8.173E-01	7.087E-01	7.134E-01	6.164E-02	1.146
		621.84	*	2.062E-01	7.018E-01	1.152E+00	1.523E-01	0.179
		1050.47		-4.959E-01	5.813E+00	9.446E+00	8.393E-01	-0.052
RU-106	+	511.85		8.173E-01	7.087E-01	7.134E-01	6.164E-02	1.146
		621.84	*	2.062E-01	7.015E-01	1.152E+00	9.685E-02	0.179
		1050.47		-4.959E-01	5.813E+00	9.446E+00	8.393E-01	-0.052
AG-108M		433.93	*	-9.874E-02	8.244E-02	1.252E-01	1.115E-02	-0.789
		614.37		1.092E-02	9.522E-02	1.337E-01	1.173E-02	0.082
		722.95		-1.226E-01	9.221E-02	1.389E-01	1.235E-02	-0.882
AG-110M		657.75	*	4.194E-01	1.181E-01	2.029E-01	1.726E-02	2.067
		677.61		-5.560E-01	6.030E-01	9.368E-01	8.019E-02	-0.594
		706.67		-2.462E-01	4.007E-01	6.382E-01	5.556E-02	-0.386
		763.93		-1.736E-01	3.199E-01	5.080E-01	4.568E-02	-0.342
		884.67		1.310E-02	1.249E-01	2.078E-01	1.981E-02	0.063
		937.48		-5.726E-02	2.821E-01	4.579E-01	4.373E-02	-0.125
		1384.27		8.775E-03	2.187E-01	3.678E-01	3.624E-02	0.024
IN-111		171.28		2.257E-02	3.106E-01	5.008E-01	5.365E-02	0.045
		245.39	*	8.078E-02	3.950E-01	5.843E-01	6.439E-02	0.138
IN-113M		391.69	*	7.766E-02	9.514E-02	1.632E-01	1.417E-02	0.476
SN-113		391.69	*	7.766E-02	9.514E-02	1.632E-01	1.417E-02	0.476
IN-114M		190.27	*	8.213E-02	3.909E-01	5.528E-01	6.002E-02	0.149
CD-115		260.90		1.696E+01	2.715E+01	4.662E+01	5.108E+00	0.364
		492.35		2.520E+00	8.261E+00	1.370E+01	1.184E+00	0.184
		527.90	*	-9.385E-01	2.521E+00	3.989E+00	3.443E-01	-0.235
SN-117M		156.02		1.448E+00	3.021E+00	4.969E+00	5.180E-01	0.291
		158.56	*	-6.345E-02	7.506E-02	1.157E-01	1.214E-02	-0.548
SB-122		563.90	*	-9.711E-02	6.382E-01	1.020E+00	8.751E-02	-0.095
		692.80		-6.029E+00	1.361E+01	2.207E+01	1.852E+00	-0.273
I-123		159.00	*	-6.186E-04	1.361E+01	Half-Life too short		
		528.96		-1.930E-02	1.361E+01	Half-Life too short		
TE-123M		159.00	*	-3.669E-02	5.419E-02	8.436E-02	8.889E-03	-0.435
I-124		602.71	*	1.586E-01	4.810E-01	6.900E-01	5.847E-02	0.230
		722.78		-3.691E+00	2.802E+00	4.229E+00	3.614E-01	-0.873
		1325.50		6.206E+00	1.883E+01	2.782E+01	2.656E+00	0.223
		1376.25		-2.327E+00	1.231E+01	1.993E+01	1.920E+00	-0.117
		1509.49		2.270E+00	7.542E+00	1.312E+01	1.253E+00	0.173
		1691.02		-5.679E-01	1.870E+00	2.882E+00	2.615E-01	-0.197
SB-124		602.71		2.910E-02	8.823E-02	1.266E-01	1.073E-02	0.230
		645.85		-7.308E-01	1.084E+00	1.649E+00	1.457E-01	-0.443
		709.31		3.294E+00	4.965E+00	8.691E+00	7.368E-01	0.379
		713.82		-1.686E+00	3.034E+00	4.849E+00	5.796E-01	-0.348
		722.78		-9.813E-01	7.453E-01	1.124E+00	9.821E-02	-0.873
		968.20		3.058E+00	8.434E+00	1.223E+01	1.123E+00	0.250
		1045.16		-5.477E+00	5.968E+00	9.043E+00	8.056E-01	-0.606
		1325.50		1.762E+00	5.346E+00	7.900E+00	7.543E-01	0.223
		1368.21		-7.329E-01	2.078E+00	3.235E+00	4.576E-01	-0.227
		1436.60		5.776E-01	4.190E+00	7.186E+00	6.916E-01	0.080
		1691.02	*	-3.561E-02	1.173E-01	1.808E-01	1.699E-02	-0.197
SB-125		427.89	*	-6.879E-02	2.345E-01	3.784E-01	3.295E-02	-0.182

---- Non-Identified Nuclides ----

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		463.38		5.224E-01	6.899E-01	1.169E+00	1.086E-01	0.447
		600.56		-2.043E-01	3.978E-01	5.974E-01	5.452E-02	-0.342
		635.90		-4.602E-01	5.982E-01	9.000E-01	8.157E-02	-0.511
TE-125M		109.28	*	-7.371E+00	1.577E+01	2.513E+01	2.948E+00	-0.293
I-126		388.63		-1.955E-01	3.206E-01	5.096E-01	4.337E-02	-0.384
		666.33	*	1.914E-01	2.840E-01	4.381E-01	3.613E-02	0.437
		753.82		1.611E+00	2.158E+00	3.775E+00	3.286E-01	0.427
SB-126		223.80		7.838E-01	5.600E+00	9.476E+00	1.045E+00	0.083
		278.60		3.298E+00	3.456E+00	5.986E+00	6.476E-01	0.551
	+	296.50		4.607E+00	2.582E+00	3.876E+00	4.112E-01	1.189
		414.70		-7.463E-03	1.164E-01	1.904E-01	1.619E-02	-0.039
		415.30		-1.556E+00	9.601E+00	1.561E+01	1.328E+00	-0.100
		555.20		-1.807E+00	5.641E+00	8.908E+00	7.656E-01	-0.203
		573.80		-1.382E+00	1.592E+00	2.410E+00	2.062E-01	-0.573
		593.00		-7.212E-02	1.361E+00	2.186E+00	1.859E-01	-0.033
		656.30		1.565E+00	5.863E+00	8.699E+00	7.176E-01	0.180
		666.33		7.862E-02	1.167E-01	1.800E-01	1.484E-02	0.437
		675.00		9.982E-01	2.599E+00	4.476E+00	3.712E-01	0.223
		695.00		8.211E-02	1.087E-01	1.906E-01	1.601E-02	0.431
		697.00		2.184E-01	3.764E-01	6.532E-01	5.495E-02	0.334
		720.50	*	-3.339E-03	1.952E-01	3.258E-01	2.780E-02	-0.010
		856.80		-4.769E-01	8.138E-01	1.294E+00	1.186E-01	-0.369
		989.30		-3.960E-01	2.126E+00	3.441E+00	3.140E-01	-0.115
		1034.80		-4.906E+00	1.639E+01	2.625E+01	2.351E+00	-0.187
		1213.00		1.141E+00	4.485E+00	7.504E+00	6.382E-01	0.152
SB-127	+	61.10		1.396E+03	2.000E+02	1.584E+02	1.887E+01	8.812
		252.40		1.550E+00	2.540E+00	4.226E+00	1.781E+00	0.367
		290.80		8.207E+00	1.302E+01	1.964E+01	2.215E+00	0.418
		411.60		4.216E+00	7.401E+00	1.248E+01	1.800E+00	0.338
		444.90		7.912E-01	6.391E+00	1.053E+01	1.149E+00	0.075
		473.00		7.470E-01	1.204E+00	2.022E+00	2.291E-01	0.369
		543.00		-3.205E-03	9.914E+00	1.606E+01	2.093E+00	0.000
		603.60		5.671E+00	7.604E+00	1.130E+01	1.220E+00	0.502
		685.20	*	-1.187E-01	7.045E-01	1.165E+00	1.091E-01	-0.102
		698.50		3.960E+00	8.229E+00	1.418E+01	2.053E+00	0.279
		722.20		-2.587E+01	1.739E+01	2.579E+01	2.392E+00	-1.003
		783.80		-1.614E-01	2.074E+00	3.431E+00	3.772E-01	-0.047
XE-127		57.60		2.059E+02	3.817E+01	5.337E+01	6.274E+00	3.858
		145.22		1.254E-02	1.141E+00	1.855E+00	1.891E-01	0.007
		172.10		-1.868E-02	1.983E-01	3.171E-01	3.399E-02	-0.059
		202.84	*	4.317E-02	8.419E-02	1.375E-01	1.504E-02	0.314
		374.96		1.175E-01	3.951E-01	6.615E-01	5.901E-02	0.178
I-131		80.18		-2.875E+00	5.928E+00	8.321E+00	9.792E-01	-0.345
		284.30		5.687E-01	1.686E+00	2.855E+00	3.166E-01	0.199
		364.48	*	-2.467E-02	1.416E-01	2.316E-01	2.227E-02	-0.107
		636.97		-5.536E-01	1.800E+00	2.822E+00	2.483E-01	-0.196
		722.89		-1.083E+01	8.171E+00	1.232E+01	1.055E+00	-0.879
TE-132		49.72		1.849E+01	2.124E+01	3.620E+01	5.071E+00	0.511
		111.76		-5.796E+00	1.136E+01	1.805E+01	1.938E+00	-0.321

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		116.30		-1.311E+00	1.182E+01	1.767E+01	1.882E+00	-0.074
		228.16	*	2.781E-02	2.951E-01	4.983E-01	8.066E-02	0.056
BA-133		53.15		-1.449E+01	1.767E+01	2.725E+01	3.560E+00	-0.532
		79.62		2.084E+00	3.180E+00	4.709E+00	8.086E-01	0.443
		81.00		-4.232E-01	2.542E-01	3.182E-01	5.668E-02	-1.330
		276.40		-3.277E-01	8.026E-01	1.313E+00	2.084E-01	-0.250
		302.84		1.551E-02	3.296E-01	5.495E-01	8.017E-02	0.028
		356.01	*	4.644E-03	1.111E-01	1.598E-01	2.197E-02	0.029
		383.85		3.817E-01	6.973E-01	1.179E+00	1.489E-01	0.324
I-133	+	510.53		4.370E-03	6.973E-01	Half-Life too short		
		529.87	*	-3.980E-06	6.973E-01	Half-Life too short		
		706.58		-1.450E-03	6.973E-01	Half-Life too short		
		856.28		-4.652E-03	6.973E-01	Half-Life too short		
		875.33		6.807E-04	6.973E-01	Half-Life too short		
		1236.41		3.648E-03	6.973E-01	Half-Life too short		
		1298.22		6.717E-04	6.973E-01	Half-Life too short		
CS-134		475.35		3.323E+00	5.007E+00	8.440E+00	7.282E-01	0.394
		563.23		4.363E-02	7.383E-01	1.199E+00	1.039E-01	0.036
		569.32		-9.598E-02	4.195E-01	6.715E-01	5.831E-02	-0.143
		604.70		2.215E-02	8.613E-02	1.225E-01	1.040E-02	0.181
		795.84	*	8.958E-02	1.056E-01	1.849E-01	1.657E-02	0.485
		801.93		6.514E-01	8.945E-01	1.558E+00	1.399E-01	0.418
		1038.57		5.378E+00	1.069E+01	1.809E+01	1.617E+00	0.297
		1167.94		8.095E+00	6.613E+00	1.046E+01	8.559E-01	0.774
		1365.15		-7.293E-01	1.653E+00	2.537E+00	2.533E-01	-0.287
CS-135		268.24	*	1.088E-01	3.251E-01	5.514E-01	6.616E-02	0.197
I-135		288.45		-2.358E+02	3.251E-01	Half-Life too short		
		417.63		-1.901E+02	3.251E-01	Half-Life too short		
		546.56		1.393E+01	3.251E-01	Half-Life too short		
		836.80		1.215E+02	3.251E-01	Half-Life too short		
		1038.76		2.341E+02	3.251E-01	Half-Life too short		
		1124.00		-7.561E+02	3.251E-01	Half-Life too short		
		1131.51		-5.170E+01	3.251E-01	Half-Life too short		
		1260.41	*	-2.933E+00	3.251E-01	Half-Life too short		
		1457.56		6.944E+01	3.251E-01	Half-Life too short		
		1678.03		-1.001E+00	3.251E-01	Half-Life too short		
		1706.46		4.226E+01	3.251E-01	Half-Life too short		
		1791.20		-4.755E+01	3.251E-01	Half-Life too short		
CS-136		66.91		-3.598E-01	1.259E+00	2.049E+00	3.513E-01	-0.176
		86.29		1.578E+01	3.216E+00	3.819E+00	5.925E-01	4.131
		153.22		7.867E-01	8.700E-01	1.452E+00	1.628E-01	0.542
		163.89		7.158E-01	1.431E+00	2.352E+00	2.698E-01	0.304
		176.55		5.041E-02	4.880E-01	7.873E-01	8.779E-02	0.064
		273.65		-1.117E-01	6.432E-01	1.066E+00	1.206E-01	-0.105
		340.57		3.981E-01	2.190E-01	3.470E-01	3.478E-02	1.147
		818.51		1.952E-02	1.291E-01	2.163E-01	1.948E-02	0.090
		1048.07	*	-3.339E-02	1.818E-01	2.931E-01	2.710E-02	-0.114
		1235.34		5.711E-01	6.037E-01	1.074E+00	1.279E-01	0.532
CE-139		165.85	*	1.185E-02	5.718E-02	9.284E-02	9.910E-03	0.128

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140		162.64		4.852E-01	9.970E-01	1.638E+00	1.802E-01	0.296
		304.84		-4.891E-01	1.931E+00	3.166E+00	9.071E-01	-0.154
		423.70		3.048E+00	3.340E+00	5.489E+00	1.778E+00	0.555
		537.32	*	-2.738E-01	4.068E-01	6.122E-01	2.029E-01	-0.447
LA-140		328.77		3.797E-01	4.196E-01	7.235E-01	7.581E-02	0.525
		432.53		-2.251E-01	3.422E+00	5.587E+00	5.014E-01	-0.040
		487.03		-8.830E-02	2.220E-01	3.526E-01	3.233E-02	-0.250
		751.79		1.229E-01	2.575E+00	4.307E+00	4.138E-01	0.029
		815.85		-2.362E-01	5.575E-01	8.985E-01	8.939E-02	-0.263
		867.82		-4.260E-01	2.307E+00	3.765E+00	3.629E-01	-0.113
		919.63		-4.816E-01	5.675E+00	8.868E+00	9.932E-01	-0.054
		925.24		-1.523E+00	2.202E+00	3.457E+00	3.384E-01	-0.441
		1596.49	*	3.022E-02	9.064E-02	1.588E-01	1.489E-02	0.190
CE-141		145.44	*	-5.962E-03	1.023E-01	1.658E-01	1.713E-02	-0.036
CE-143		57.37		5.799E+02	1.499E+02	2.226E+02	2.833E+01	2.605
		231.56		1.767E+01	1.294E+02	2.067E+02	6.679E+01	0.085
		293.26	*	1.570E+01	8.256E+00	1.224E+01	2.733E+00	1.283
	+	350.59		3.662E+02	1.656E+02	1.838E+02	5.750E+01	1.993
		490.36		5.832E+01	1.572E+02	2.601E+02	8.211E+01	0.224
		664.57		1.708E+03	5.681E+02	3.070E+02	9.884E+01	5.565
		721.93		-9.408E+01	7.513E+01	1.058E+02	3.082E+01	-0.889
CE-144		80.11		-2.291E+00	5.102E+00	7.177E+00	8.435E-01	-0.319
		133.54	*	-1.082E-03	3.817E-01	6.184E-01	1.014E-01	-0.002
PM-144		476.78		5.401E-02	1.733E-01	2.873E-01	2.710E-02	0.188
		618.01		2.217E-02	7.019E-02	1.155E-01	1.000E-02	0.192
		696.49	*	8.697E-02	7.113E-02	1.280E-01	1.076E-02	0.680
		778.57		-6.115E-01	4.598E+00	7.570E+00	6.679E-01	-0.081
PR-144		696.49	*	5.870E+00	4.801E+00	8.637E+00	7.264E-01	0.680
		1489.15		-4.677E+00	1.734E+01	2.731E+01	2.616E+00	-0.171
PM-146		453.90	*	-4.264E-02	1.109E-01	1.768E-01	1.894E-02	-0.241
		633.02		1.355E+00	2.935E+00	4.820E+00	1.798E+00	0.281
		735.90		7.104E-02	3.001E-01	5.087E-01	1.455E-01	0.140
		747.13		4.943E-02	2.089E-01	3.537E-01	4.976E-02	0.140
ND-147	+	91.11		4.931E-01	4.416E-01	6.101E-01	7.552E-02	0.808
		319.41		6.304E+00	4.553E+00	7.998E+00	8.191E-01	0.788
		439.89		4.717E-01	9.088E+00	1.492E+01	1.279E+00	0.032
		531.02	*	8.291E-03	8.201E-01	1.331E+00	1.990E-01	0.006
PM-149		285.90	*	-3.020E+00	1.875E+01	3.101E+01	5.208E+00	-0.097
EU-152	+	121.78		7.263E-01	2.132E-01	3.088E-01	3.461E-02	2.352
		244.69		-2.083E-01	7.883E-01	1.132E+00	1.247E-01	-0.184
		344.27	*	1.301E-01	2.240E-01	3.499E-01	3.562E-02	0.372
		443.98		-6.809E-01	2.385E+00	3.840E+00	3.295E-01	-0.177
		778.89		-1.113E-01	5.511E-01	9.027E-01	7.965E-02	-0.123
		867.32		-4.489E-01	2.041E+00	3.323E+00	3.060E-01	-0.135
		964.01		6.321E-02	9.349E-01	1.327E+00	1.220E-01	0.048
		1085.78		-5.038E-01	1.054E+00	1.656E+00	1.442E-01	-0.304
		1112.02		-6.287E-01	7.886E-01	1.200E+00	1.027E-01	-0.524
		1407.95		6.132E-02	2.237E-01	3.928E-01	3.785E-02	0.156
GD-153		69.67		4.055E+00	3.613E+00	6.176E+00	7.050E-01	0.657

---- Non-Identified Nuclides ----

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		83.37		1.550E+01	3.402E+01	5.025E+01	6.023E+00	0.308
		97.43	*	-4.677E-02	1.590E-01	2.234E-01	2.465E-02	-0.209
		103.18		-5.064E-02	1.916E-01	3.091E-01	3.268E-02	-0.164
EU-154	+	123.07		5.096E-01	1.522E-01	2.122E-01	2.650E-02	2.402
		247.94		-6.454E-01	7.770E-01	1.246E+00	1.666E-01	-0.518
		591.81		1.458E-01	1.394E+00	2.265E+00	2.625E-01	0.064
		723.30		-5.421E-01	3.886E-01	5.817E-01	5.506E-02	-0.932
		756.87		2.686E-01	1.594E+00	2.689E+00	3.239E-01	0.100
		873.19		8.322E-01	7.668E-01	1.348E+00	1.710E-01	0.617
		996.32		-4.261E-01	9.156E-01	1.443E+00	2.598E-01	-0.295
		1004.76		1.143E-01	5.302E-01	8.834E-01	1.058E-01	0.129
		1274.45	*	6.205E-02	1.552E-01	2.673E-01	3.117E-02	0.232
EU-155		48.70		3.206E+00	1.352E+01	2.267E+01	3.042E+00	0.141
	+	60.01		4.468E+02	6.197E+01	5.968E+01	6.739E+00	7.487
		86.54		2.583E+00	4.383E-01	5.580E-01	6.882E-02	4.628
		105.31	*	9.626E-02	1.998E-01	3.326E-01	3.505E-02	0.289
TB-160	+	86.79		9.491E+00	1.425E+00	1.474E+00	1.813E-01	6.437
		197.04		-1.542E+00	1.093E+00	1.608E+00	1.753E-01	-0.959
		215.65		-9.029E-01	1.396E+00	2.284E+00	2.512E-01	-0.395
		298.57		1.098E-02	2.707E-01	3.925E-01	4.152E-02	0.028
		879.36	*	-3.015E-01	3.264E-01	5.009E-01	4.636E-02	-0.602
		962.29		7.652E-01	1.583E+00	2.325E+00	2.139E-01	0.329
		966.15		5.667E-01	6.281E-01	9.474E-01	8.709E-02	0.598
		1177.93		1.138E+00	7.172E-01	1.210E+00	9.904E-02	0.940
		1271.85		-1.175E-01	8.905E-01	1.408E+00	1.274E-01	-0.083
HO-166M		80.57		-7.140E-01	6.666E-01	8.996E-01	1.060E-01	-0.794
		184.41		7.136E-02	7.308E-02	1.113E-01	1.204E-02	0.641
		280.46		9.200E-02	1.854E-01	3.158E-01	3.411E-02	0.291
		410.95		1.779E-01	5.719E-01	9.544E-01	8.101E-02	0.186
		711.68	*	5.092E-02	1.221E-01	2.101E-01	1.784E-02	0.242
		752.31		2.233E-01	6.043E-01	1.033E+00	8.980E-02	0.216
		810.29		-6.813E-04	1.342E-01	2.228E-01	1.998E-02	-0.003
TM-171		51.35		-3.912E+00	1.523E+02	2.528E+02	3.407E+01	-0.015
		52.39		-9.536E+01	7.877E+01	1.233E+02	1.636E+01	-0.773
	+	59.40		2.339E+03	3.244E+02	3.320E+02	3.743E+01	7.047
		66.72	*	-4.214E+01	6.802E+01	1.090E+02	1.245E+01	-0.386
LU-176	+	88.36		7.515E+00	1.129E+00	1.187E+00	1.466E-01	6.330
		201.83		5.848E-02	6.051E-02	1.004E-01	1.098E-02	0.583
		306.84	*	-2.205E-02	5.484E-02	8.931E-02	9.338E-03	-0.247
		401.10		-6.140E+00	1.472E+01	2.359E+01	1.994E+00	-0.260
LU-177		112.95		1.289E-01	1.410E+00	2.306E+00	2.344E-01	0.056
		208.36	*	1.821E-01	1.001E+00	1.610E+00	1.766E-01	0.113
LU-177M		52.97		-7.530E+00	7.801E+00	1.193E+01	1.564E+00	-0.631
		54.07		-1.096E+00	4.307E+00	6.198E+00	7.934E-01	-0.177
		61.30		9.101E+01	1.254E+01	1.436E+01	1.632E+00	6.336
	+	121.62		3.611E+00	1.045E+00	1.540E+00	1.550E-01	2.345
		147.16		-4.815E-01	1.220E+00	1.933E+00	1.979E-01	-0.249
		171.86		-6.662E-02	8.945E-01	1.432E+00	1.535E-01	-0.047
		218.09		-3.614E-01	1.675E+00	2.796E+00	3.078E-01	-0.129

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		268.79		1.127E+00	1.590E+00	2.735E+00	2.982E-01	0.412
		319.02		6.089E-01	5.571E-01	9.684E-01	9.925E-02	0.629
		367.43		-4.877E-01	2.022E+00	3.294E+00	3.008E-01	-0.148
		413.65	*	1.802E-01	4.020E-01	6.754E-01	5.739E-02	0.267
HF-181		56.28		5.001E+00	4.051E+00	6.179E+00	7.501E-01	0.809
		57.53		1.557E+01	3.090E+00	4.430E+00	5.216E-01	3.515
		65.20		-2.588E+00	2.399E+00	3.240E+00	3.700E-01	-0.799
		133.02		-9.383E-03	1.104E-01	1.783E-01	1.791E-02	-0.053
		136.25		-5.607E-02	7.705E-01	1.244E+00	1.253E-01	-0.045
		345.85		-1.130E-01	3.984E-01	5.867E-01	5.683E-02	-0.193
		482.03	*	-1.081E-02	9.171E-02	1.484E-01	1.281E-02	-0.073
W-181		56.28		2.121E+00	1.716E+00	2.618E+00	3.177E-01	0.810
		57.53		6.577E+00	1.308E+00	1.876E+00	2.210E-01	3.505
		65.20	*	-1.089E+00	1.009E+00	1.363E+00	1.556E-01	-0.799
TA-182		67.75		-2.097E-02	2.481E-01	4.075E-01	4.651E-02	-0.051
		100.10		1.550E-01	3.346E-01	5.184E-01	5.595E-02	0.299
		152.43		4.212E-01	6.295E-01	1.043E+00	1.079E-01	0.404
		222.10		1.326E-01	6.876E-01	1.166E+00	1.285E-01	0.114
		1001.68		-2.458E+00	4.801E+00	7.618E+00	6.919E-01	-0.323
		1121.28		2.794E-01	3.118E-01	5.419E-01	4.606E-02	0.516
		1189.05		2.318E-01	5.166E-01	8.780E-01	7.274E-02	0.264
		1221.42	*	1.273E-01	2.563E-01	4.422E-01	3.795E-02	0.288
		1230.97		1.004E-01	6.266E-01	1.036E+00	8.984E-02	0.097
RE-183		57.98		1.155E+01	1.759E+00	2.157E+00	2.512E-01	5.358
	+	59.32		8.971E+00	1.244E+00	1.283E+00	1.449E-01	6.993
		67.20		-1.052E-01	4.408E-01	7.193E-01	8.209E-02	-0.146
		162.32	*	4.352E-02	2.033E-01	3.305E-01	3.496E-02	0.132
		208.81		2.207E-01	1.834E+00	2.942E+00	3.228E-01	0.075
		291.72		2.304E+00	1.998E+00	3.106E+00	3.315E-01	0.742
RE-184		57.98		4.445E+01	6.766E+00	8.297E+00	9.666E-01	5.358
	+	59.32		3.449E+01	4.783E+00	4.932E+00	5.570E-01	6.993
		67.20		-4.047E-01	1.695E+00	2.767E+00	3.158E-01	-0.146
		161.27		2.373E-02	6.828E-01	1.101E+00	1.162E-01	0.022
		216.55		-1.643E-01	5.110E-01	8.488E-01	9.340E-02	-0.194
		252.85	*	4.094E-01	4.855E-01	8.397E-01	9.234E-02	0.488
		318.01		3.280E-01	9.568E-01	1.615E+00	1.658E-01	0.203
		792.07		-7.178E-01	2.172E+00	3.527E+00	3.134E-01	-0.203
		903.28		-6.375E-01	2.711E+00	4.061E+00	3.784E-01	-0.157
		920.93		-6.316E-01	1.270E+00	2.025E+00	1.881E-01	-0.312
OS-185	+	59.72		2.493E+01	3.458E+00	3.426E+00	3.861E-01	7.277
	+	61.14		1.438E+01	1.995E+00	1.617E+00	1.836E-01	8.897
		69.30		8.071E-01	6.357E-01	1.090E+00	1.244E-01	0.740
		592.07		-3.650E-01	5.439E+00	8.730E+00	7.427E-01	-0.042
		646.12	*	-4.707E-02	9.371E-02	1.446E-01	1.200E-02	-0.326
		717.42		9.171E-02	1.716E+00	2.878E+00	2.452E-01	0.032
		874.81		1.686E+00	1.405E+00	2.497E+00	2.307E-01	0.675
		880.27		-1.709E+00	1.841E+00	2.822E+00	2.613E-01	-0.606
RE-188		155.03	*	8.221E-02	3.167E-01	5.163E-01	5.370E-02	0.159
		477.96		-1.053E+00	7.304E+00	1.181E+01	1.019E+00	-0.089

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		633.10		2.047E+00	5.473E+00	9.051E+00	7.565E-01	0.226
W-188		63.58		-8.143E+01	1.386E+02	1.959E+02	2.236E+01	-0.416
		227.08		6.867E+00	2.476E+01	4.210E+01	4.644E+00	0.163
		290.67	*	9.130E+00	1.594E+01	2.398E+01	2.562E+00	0.381
IR-192	+	295.96		4.991E-01	2.797E-01	4.160E-01	4.437E-02	1.200
		308.46		6.686E-02	1.952E-01	3.299E-01	3.453E-02	0.203
		316.51	*	-1.616E-02	7.000E-02	1.149E-01	1.184E-02	-0.141
		468.07		-2.847E-02	1.646E-01	2.662E-01	2.460E-02	-0.107
		604.41		6.131E-01	1.056E+00	1.547E+00	1.998E-01	0.396
		612.46		6.645E-01	1.636E+00	2.360E+00	2.300E-01	0.282
AU-195		65.12		-5.141E-01	4.753E-01	6.418E-01	7.328E-02	-0.801
		66.83		-6.516E-02	2.179E-01	3.546E-01	4.047E-02	-0.184
		75.70		1.493E+00	4.893E-01	7.596E-01	8.761E-02	1.965
		98.88	*	3.556E-01	4.373E-01	6.569E-01	7.159E-02	0.541
		129.76		2.175E+00	5.116E+00	8.448E+00	8.477E-01	0.258
TL-200		367.94	*	-1.814E+00	9.005E+00	1.469E+01	1.340E+00	-0.123
		579.30		1.411E+01	7.885E+01	1.117E+02	9.540E+00	0.126
		828.27		1.429E+01	1.019E+02	1.706E+02	1.543E+01	0.084
		1205.75		-7.692E+00	3.109E+01	4.876E+01	4.115E+00	-0.158
TL-201		68.90		2.608E+00	1.998E+00	3.430E+00	3.914E-01	0.760
		70.82		-1.396E+00	1.141E+00	1.774E+00	2.026E-01	-0.787
		80.30		-1.813E+00	2.279E+00	3.138E+00	3.691E-01	-0.578
		135.34		-2.827E+00	8.962E+00	1.430E+01	1.440E+00	-0.198
		167.43	*	4.522E-01	2.527E+00	4.098E+00	4.378E-01	0.110
TL-202		68.90		8.384E-01	6.422E-01	1.103E+00	1.258E-01	0.760
		70.82		-4.475E-01	3.658E-01	5.686E-01	6.495E-02	-0.787
		80.30		-5.815E-01	7.308E-01	1.006E+00	1.184E-01	-0.578
		439.56	*	6.369E-02	1.126E-01	1.897E-01	1.626E-02	0.336
HG-203		70.83		-2.648E+00	2.182E+00	3.363E+00	5.224E-01	-0.788
		72.87		-1.319E+00	1.386E+00	1.882E+00	2.862E-01	-0.701
		82.60		-2.056E+00	2.636E+00	3.344E+00	5.358E-01	-0.615
		279.20	*	7.260E-02	7.957E-02	1.375E-01	1.514E-02	0.528
BI-207		72.80		-5.728E-01	4.347E-01	6.149E-01	7.041E-02	-0.932
		74.97		4.167E-01	2.601E-01	3.995E-01	4.597E-02	1.043
		84.90		6.062E-01	4.438E-01	6.756E-01	8.186E-02	0.897
		569.67		-9.153E-03	6.590E-02	1.062E-01	9.095E-03	-0.086
		1063.62	*	3.312E-02	1.258E-01	2.099E-01	1.852E-02	0.158
		1770.23		-1.902E+00	9.646E-01	8.600E-01	7.518E-02	-2.212
TL-207		81.07		-9.252E-01	5.474E-01	7.038E-01	8.316E-02	-1.315
		83.78		1.728E-01	2.954E-01	4.385E-01	5.271E-02	0.394
		94.90		3.600E-01	4.513E-01	6.764E-01	7.655E-02	0.532
	+	122.32		1.731E+01	5.045E+00	7.313E+00	7.758E-01	2.368
		144.24		-2.926E-01	1.296E+00	2.084E+00	2.305E-01	-0.140
		154.21		9.189E-02	7.871E-01	1.276E+00	1.417E-01	0.072
		269.46		3.670E-01	3.866E-01	6.701E-01	7.398E-02	0.548
		323.87	*	-1.677E+00	1.514E+00	2.320E+00	4.292E-01	-0.723
	+	338.28		5.211E+00	2.911E+00	4.291E+00	5.668E-01	1.215
		445.03		9.858E-01	5.707E+00	9.422E+00	1.136E+00	0.105
PO-209		260.50		1.764E+01	2.040E+01	3.531E+01	3.870E+00	0.499

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		262.80		-1.396E+01	5.644E+01	9.331E+01	1.021E+01	-0.150
		896.60	*	-8.634E+00	2.008E+01	3.217E+01	2.998E+00	-0.268
BI-210		46.50	*	-3.465E+01	2.246E+01	3.428E+01	4.221E+00	-1.011
PB-210		46.50	*	-3.465E+01	2.246E+01	3.428E+01	4.221E+00	-1.011
PO-210		46.50	*	-3.465E+01	2.242E+01	3.428E+01	3.998E+00	-1.011
PB-211		404.84	*	-1.226E+00	2.202E+00	3.274E+00	2.051E+00	-0.375
		427.08		-1.073E+00	5.292E+00	8.513E+00	5.289E+00	-0.126
		831.96		1.212E+00	2.929E+00	4.828E+00	3.029E+00	0.251
BI-212		727.18	*	1.098E+00	6.420E-01	1.174E+00	1.170E-01	0.935
		785.46		-1.543E-01	3.901E+00	6.469E+00	5.728E-01	-0.024
		1620.62		8.237E-01	1.977E+00	3.522E+00	3.278E-01	0.234
BI-214	+	609.31	*	6.789E-01	2.572E-01	3.476E-01	3.447E-02	1.953
		1120.29		8.677E-01	6.997E-01	1.237E+00	1.334E-01	0.701
		1764.49		4.149E-01	4.525E-01	8.798E-01	7.714E-02	0.472
PO-215		81.07		-9.252E-01	5.474E-01	7.038E-01	8.316E-02	-1.315
		83.78		1.728E-01	2.954E-01	4.385E-01	5.271E-02	0.394
		94.90		3.600E-01	4.513E-01	6.764E-01	7.655E-02	0.532
	+	122.32		1.731E+01	5.045E+00	7.313E+00	7.758E-01	2.368
		144.24		-2.926E-01	1.296E+00	2.084E+00	2.305E-01	-0.140
		154.21		9.189E-02	7.871E-01	1.276E+00	1.417E-01	0.072
		269.46		3.670E-01	3.866E-01	6.701E-01	7.398E-02	0.548
		323.87	*	-1.677E+00	1.514E+00	2.320E+00	4.292E-01	-0.723
	+	338.28		5.211E+00	2.911E+00	4.291E+00	5.668E-01	1.215
		445.03		9.858E-01	5.707E+00	9.422E+00	1.136E+00	0.105
RN-219		271.23		1.523E-01	5.149E-01	8.697E-01	1.067E-01	0.175
		401.81	*	-4.450E-01	9.139E-01	1.456E+00	2.174E-01	-0.306
RN-220		549.76	*	-3.601E+00	5.789E+01	9.332E+01	8.029E+00	-0.039
RA-223		81.07		-9.252E-01	5.474E-01	7.038E-01	8.316E-02	-1.315
		83.78		1.728E-01	2.954E-01	4.385E-01	5.271E-02	0.394
		94.90		3.600E-01	4.513E-01	6.764E-01	7.655E-02	0.532
	+	122.32		1.731E+01	5.045E+00	7.313E+00	7.758E-01	2.368
		144.24		-2.926E-01	1.296E+00	2.084E+00	2.305E-01	-0.140
		154.21		9.189E-02	7.871E-01	1.276E+00	1.417E-01	0.072
		269.46		3.670E-01	3.866E-01	6.701E-01	7.398E-02	0.548
		323.87	*	-1.677E+00	1.514E+00	2.320E+00	4.292E-01	-0.723
	+	338.28		5.211E+00	2.911E+00	4.291E+00	5.668E-01	1.215
		445.03		9.858E-01	5.707E+00	9.422E+00	1.136E+00	0.105
RA-224		240.98	*	1.089E+01	2.168E+00	3.349E+00	3.694E-01	3.250
RA-226	+	609.31	*	6.789E-01	2.572E-01	3.476E-01	3.447E-02	1.953
		1120.29		8.677E-01	6.997E-01	1.237E+00	1.334E-01	0.701
		1764.49		4.149E-01	4.525E-01	8.798E-01	7.714E-02	0.472
AC-227		79.80		-1.177E+00	4.061E+00	5.757E+00	1.320E+00	-0.204
		236.00		5.915E-01	5.358E-01	8.232E-01	1.157E-01	0.719
		256.20	*	-3.024E-01	8.346E-01	1.373E+00	2.305E-01	-0.220
		286.10		-1.659E+00	3.286E+00	5.331E+00	7.823E-01	-0.311
		299.80		1.928E+00	3.655E+00	5.439E+00	1.007E+00	0.355
		304.40		-2.918E-01	4.176E+00	6.924E+00	1.342E+00	-0.042
		334.20		1.528E+00	5.738E+00	8.397E+00	1.682E+00	0.182
TH-227		79.80		-1.177E+00	4.061E+00	5.757E+00	1.335E+00	-0.204

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	94.00		6.061E+00	5.557E+00	6.094E+00	1.404E+00	0.995
		236.00		5.915E-01	5.349E-01	8.232E-01	1.074E-01	0.719
		256.20	*	-3.024E-01	8.351E-01	1.373E+00	2.650E-01	-0.220
		286.10		-1.659E+00	3.678E+00	5.331E+00	5.362E+00	-0.311
		299.80		1.928E+00	3.655E+00	5.439E+00	1.007E+00	0.355
		304.40		-2.918E-01	4.176E+00	6.924E+00	1.342E+00	-0.042
		334.20		1.528E+00	5.738E+00	8.397E+00	1.682E+00	0.182
TH-229		85.43		1.112E+00	4.651E-01	7.171E-01	8.724E-02	1.551
	+	88.47		4.326E+00	6.497E-01	6.824E-01	8.411E-02	6.339
		100.00		1.730E-01	3.637E-01	5.637E-01	6.090E-02	0.307
		193.63	*	-1.975E-01	1.055E+00	1.673E+00	1.821E-01	-0.118
		210.97		2.072E+00	1.486E+00	2.615E+00	2.872E-01	0.793
TH-230	+	609.31	*	6.789E-01	2.572E-01	3.476E-01	3.447E-02	1.953
		1120.29		8.677E-01	6.997E-01	1.237E+00	1.333E-01	0.701
		1764.49		4.149E-01	4.525E-01	8.798E-01	7.714E-02	0.472
PA-231		283.67	*	-8.472E-01	3.298E+00	5.429E+00	8.956E-01	-0.156
		301.29		8.540E-01	1.327E+00	2.148E+00	2.935E-01	0.398
TH-231		81.07		-9.252E-01	5.474E-01	7.038E-01	8.316E-02	-1.315
		83.78		1.728E-01	2.954E-01	4.385E-01	5.271E-02	0.394
		94.90		3.600E-01	4.513E-01	6.764E-01	7.655E-02	0.532
	+	122.32		1.731E+01	5.045E+00	7.313E+00	7.758E-01	2.368
		144.24		-2.926E-01	1.296E+00	2.084E+00	2.305E-01	-0.140
		154.21		9.189E-02	7.871E-01	1.276E+00	1.417E-01	0.072
		269.46		3.670E-01	3.866E-01	6.701E-01	7.398E-02	0.548
		323.87	*	-1.677E+00	1.514E+00	2.320E+00	4.292E-01	-0.723
	+	338.28		5.211E+00	2.911E+00	4.291E+00	5.668E-01	1.215
		445.03		9.858E-01	5.707E+00	9.422E+00	1.136E+00	0.105
U-231		84.21		3.271E+00	3.681E+00	5.527E+00	6.663E-01	0.592
	+	92.29		1.751E+00	1.567E+00	1.917E+00	2.237E-01	0.913
		95.87	*	-2.051E-01	6.246E-01	8.758E-01	9.812E-02	-0.234
		108.00		-2.123E-01	1.104E+00	1.784E+00	1.842E-01	-0.119
PA-233		75.28		1.727E+01	8.053E+00	1.202E+01	2.061E+00	1.437
		86.59		4.388E+01	1.333E+01	9.214E+00	2.599E+00	4.763
		300.12		8.243E-01	1.004E+00	1.516E+00	2.437E-01	0.544
		311.98	*	3.199E-03	1.363E-01	2.268E-01	2.399E-02	0.014
		340.50		3.041E+00	1.720E+00	2.517E+00	6.115E-01	1.208
		398.62		5.222E+00	4.698E+00	7.868E+00	2.091E+00	0.664
		415.76		-1.467E+00	3.892E+00	6.232E+00	1.340E+00	-0.235
PA-234		63.00		-2.522E-02	4.478E+00	6.564E+00	1.130E+00	-0.004
		94.67		-2.673E-01	3.191E-01	5.007E-01	7.225E-02	-0.534
		98.44		5.985E-02	1.868E-01	2.688E-01	1.511E-01	0.223
		99.86		4.543E-01	9.220E-01	1.430E+00	1.547E-01	0.318
		111.00		-1.656E-01	3.439E-01	5.471E-01	7.262E-02	-0.303
		131.20		4.011E-02	1.981E-01	3.240E-01	3.252E-02	0.124
		152.70		4.481E-01	6.411E-01	1.058E+00	1.902E-01	0.424
	+	186.00		4.333E+00	4.145E+00	4.264E+00	1.360E+00	1.016
		226.40		-1.001E-01	8.425E-01	1.410E+00	2.100E-01	-0.071
		227.20		2.738E-01	9.022E-01	1.535E+00	1.694E-01	0.178
		248.90		-5.734E-03	1.724E+00	2.890E+00	6.772E-01	-0.002

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	293.70		3.368E+00	1.954E+00	2.712E+00	4.988E-01	1.242
		369.80		-7.213E-01	1.948E+00	3.138E+00	6.891E-01	-0.230
		568.70		3.729E-01	2.116E+00	3.464E+00	2.968E-01	0.108
		569.50		2.145E-03	5.788E-01	9.425E-01	8.073E-02	0.002
		574.00		-2.254E+00	3.419E+00	5.260E+00	4.500E-01	-0.429
		699.00		2.279E-01	1.458E+00	2.465E+00	4.681E-01	0.092
		706.10		-1.857E+00	2.200E+00	3.172E+00	1.414E+00	-0.586
		733.00		-9.712E-01	8.165E-01	1.192E+00	2.645E-01	-0.815
		742.81		7.710E-01	3.010E+00	5.036E+00	3.386E+00	0.153
		796.30		2.540E+00	2.190E+00	3.729E+00	1.012E+00	0.681
		805.60		-1.326E+00	2.218E+00	3.453E+00	1.061E+00	-0.384
		819.60		3.150E+00	3.332E+00	5.498E+00	2.096E+00	0.573
		826.30		-2.804E+00	2.394E+00	3.046E+00	1.365E+00	-0.921
		831.60		2.999E-01	1.472E+00	2.471E+00	7.407E-01	0.121
		876.40		-4.781E-01	2.200E+00	3.489E+00	3.589E+00	-0.137
		880.51		-4.055E-01	7.017E-01	1.109E+00	1.027E-01	-0.366
		883.24		1.036E-01	7.177E-01	1.193E+00	8.027E-01	0.087
		899.00		-4.001E-01	2.197E+00	3.569E+00	1.565E+00	-0.112
		925.00		-7.317E-01	3.357E+00	5.453E+00	5.062E-01	-0.134
		926.50		1.114E-02	5.071E-01	8.368E-01	2.135E-01	0.013
		946.00	*	4.369E-02	8.647E-01	1.428E+00	2.721E-01	0.031
		949.00		9.082E-01	1.291E+00	2.213E+00	2.044E-01	0.410
		980.50		1.228E+00	1.987E+00	3.397E+00	3.108E-01	0.361
		1394.10		-4.068E-02	1.442E+00	2.394E+00	1.561E+00	-0.017
PA-234M		766.42		2.829E+01	2.615E+01	3.978E+01	2.019E+01	0.711
		1001.03	*	-7.107E+00	1.118E+01	1.754E+01	1.818E+00	-0.405
TH-234		63.29	*	-1.288E+00	3.729E+00	5.346E+00	1.042E+00	-0.241
	+	92.38		1.569E+00	1.425E+00	1.706E+00	3.362E-01	0.920
U-234	+	609.31	*	6.789E-01	2.572E-01	3.476E-01	3.447E-02	1.953
		1120.29		8.677E-01	6.997E-01	1.237E+00	1.333E-01	0.701
		1764.49		4.149E-01	4.525E-01	8.798E-01	7.714E-02	0.472
U-235		89.95		2.843E+01	9.546E+00	5.883E+00	1.882E+00	4.832
	+	93.35		1.886E+00	1.761E+00	1.958E+00	5.687E-01	0.963
		105.00		1.073E+00	1.985E+00	3.273E+00	9.960E-01	0.328
		143.76	*	1.192E-02	4.043E-01	6.576E-01	1.205E-01	0.018
		163.35		6.697E-01	9.461E-01	1.556E+00	3.120E-01	0.430
	+	185.71		1.605E-01	1.458E-01	1.571E-01	1.700E-02	1.022
		205.31		-1.092E+00	1.094E+00	1.626E+00	3.292E-01	-0.671
NP-236		94.67		-2.005E-01	2.414E-01	3.801E-01	4.312E-02	-0.528
		98.44		4.517E-02	1.390E-01	2.032E-01	2.223E-02	0.222
		111.00		-1.253E-01	2.599E-01	4.138E-01	4.228E-02	-0.303
		160.31	*	-2.456E-02	1.573E-01	2.516E-01	2.649E-02	-0.098
NP-237		86.50	*	6.101E+00	1.637E+00	1.350E+00	3.241E-01	4.518
		95.87		-6.187E-01	1.890E+00	2.642E+00	6.778E-01	-0.234
U-238		63.29	*	-1.288E+00	3.729E+00	5.346E+00	1.042E+00	-0.241
	+	92.38		1.569E+00	1.404E+00	1.706E+00	1.988E-01	0.920
NP-239		99.55		1.615E-01	3.241E-01	4.781E-01	5.182E-02	0.338
		117.00	*	-1.753E-01	4.258E-01	5.904E-01	5.960E-02	-0.297
		209.75		1.051E+00	1.560E+00	2.561E+00	2.810E-01	0.410

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	228.18		4.139E-02	4.706E-01	7.943E-01	8.762E-02	0.052
	277.60		2.193E-01	3.803E-01	6.502E-01	7.040E-02	0.337
	334.30		2.085E+00	3.168E+00	4.765E+00	4.739E-01	0.438
AM-243	74.67	*	1.076E-01	1.455E-01	2.177E-01	2.503E-02	0.494
	86.72		2.728E+02	4.393E+01	5.349E+01	6.573E+00	5.100
	117.66		-3.712E+00	8.546E+00	1.183E+01	1.193E+00	-0.314
	142.18		4.477E+00	3.368E+01	5.478E+01	5.560E+00	0.082
CM-243	99.55		1.661E-01	3.334E-01	4.917E-01	5.330E-02	0.338
	103.76	*	-1.238E-02	1.816E-01	2.956E-01	3.114E-02	-0.042
	117.00		-1.802E-01	4.379E-01	6.071E-01	6.129E-02	-0.297
	209.75		1.035E+00	1.537E+00	2.523E+00	2.769E-01	0.410
	228.18		4.180E-02	4.753E-01	8.022E-01	8.849E-02	0.052
	277.60		2.210E-01	3.832E-01	6.552E-01	7.094E-02	0.337
AM-246	798.80		-1.586E-01	3.346E-01	5.377E-01	4.794E-02	-0.295
	1036.00		4.545E-02	8.313E-01	1.366E+00	1.223E-01	0.033
	1062.04		-2.238E-01	5.637E-01	8.913E-01	7.870E-02	-0.251
	1078.86	*	1.592E-01	3.629E-01	6.120E-01	5.352E-02	0.260
CM-247	278.00		1.302E+00	1.601E+00	2.759E+00	2.986E-01	0.472
	287.40		-2.503E+00	2.617E+00	4.133E+00	4.432E-01	-0.606
	402.60	*	-5.068E-02	8.124E-02	1.285E-01	1.087E-02	-0.394
CF-249	252.85		1.584E+00	1.878E+00	3.249E+00	3.572E-01	0.488
	333.44		-8.766E-02	4.281E-01	6.063E-01	6.042E-02	-0.145
	387.95	*	-3.752E-02	9.220E-02	1.483E-01	1.266E-02	-0.253
CF-251	176.60	*	5.182E-02	2.481E-01	4.022E-01	4.325E-02	0.129
	227.00		-1.432E-01	8.132E-01	1.358E+00	1.498E-01	-0.105
	285.00		3.628E-01	3.751E+00	6.285E+00	6.757E-01	0.058

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032512		
Acquisition date	: 12-FEB-2010 16:33:11	Detector SN#	:
Detector ID	: GAM15	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 01:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 01:00:01.29	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 5-FEB-2010 00:00:00	Nuclide Library	: SOLID
Sample ID	: G1202032512	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.5544E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

Standard Weight	: 0.00000		
CALIB. DATE/TIME	: 3-FEB-2010 11:04:32	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.458E-01	6.972E-02	8.317E-02	0.000E+00
CO-60	6.423E+00	7.056E-01	8.790E-02	0.000E+00
CD-109	3.188E+01	4.692E+00	2.713E+00	0.000E+00
SN-126	3.169E+00	4.663E-01	3.121E-01	0.000E+00
BA-137M	5.390E+00	5.262E-01	1.295E-01	0.000E+00
CS-137	5.697E+00	5.571E-01	1.368E-01	0.000E+00
TL-208	3.682E-01	1.260E-01	1.376E-01	0.000E+00
BI-211	1.974E+00	6.600E-01	7.040E-01	0.000E+00
PB-212	1.086E+00	2.718E-01	2.020E-01	0.000E+00
PO-212	1.086E+00	2.718E-01	2.020E-01	0.000E+00
PB-214	6.865E-01	2.322E-01	2.643E-01	0.000E+00
PO-214	6.865E-01	2.322E-01	2.643E-01	0.000E+00
PO-216	1.086E+00	2.718E-01	2.020E-01	0.000E+00
PO-218	6.865E-01	2.322E-01	2.643E-01	0.000E+00
AC-228	1.333E+00	5.763E-01	6.256E-01	0.000E+00
RA-228	1.333E+00	5.763E-01	6.256E-01	0.000E+00
TH-228	1.094E+00	2.738E-01	2.036E-01	0.000E+00
TH-232	1.333E+00	5.763E-01	6.256E-01	0.000E+00
AM-241	1.378E+01	1.926E+00	9.896E-01	0.000E+00
ANH-511	1.659E-01	1.410E-01	1.107E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	
BE-7	5.603E-02		7.324E-01	1.273E+00	0.000E+00 NOT IDENT.
NA-22	2.278E-02		5.432E-02	9.684E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00		2.503E+02	0.000E+00	0.000E+00 SHORT HLIF
AL-26	1.742E-02		4.366E-02	8.034E-02	0.000E+00 NOT IDENT.
K-40	3.613E-01		5.655E-01	1.105E+00	0.000E+00 NOT IDENT.
TI-44	0.000E+00		9.558E-02	1.595E-01	0.000E+00 FAIL ABUN
SC-46	2.219E-03		9.887E-02	1.706E-01	0.000E+00 NOT IDENT.

V-48	8.091E-02	1.375E-01	2.438E-01	0.000E+00	NOT IDENT.
CR-51	6.659E-01	6.747E-01	1.251E+00	0.000E+00	NOT IDENT.
MN-52	-4.815E-02	1.178E-01	1.851E-01	0.000E+00	NOT IDENT.
MN-54	-2.114E-03	8.187E-02	1.416E-01	0.000E+00	NOT IDENT.
CO-56	-4.532E-02	8.889E-02	1.482E-01	0.000E+00	NOT IDENT.
CO-58	1.008E-02	8.291E-02	1.452E-01	0.000E+00	NOT IDENT.
FE-59	4.968E-02	1.947E-01	3.360E-01	0.000E+00	NOT IDENT.
ZN-65	-1.479E-01	2.077E-01	3.310E-01	0.000E+00	NOT IDENT.
GE-68	-2.809E+00	3.116E+00	4.898E+00	0.000E+00	NOT IDENT.
AS-73	-2.212E+00	3.878E+00	6.507E+00	0.000E+00	NOT IDENT.
AS-74	-5.902E-02	1.454E-01	2.398E-01	0.000E+00	NOT IDENT.
SE-75	-7.049E-03	8.433E-02	1.514E-01	0.000E+00	FAIL ABUN
BR-77	5.063E-01	2.837E+00	4.652E+00	0.000E+00	FAIL ABUN
SR-82	-1.861E-01	6.051E-01	1.029E+00	0.000E+00	NOT IDENT.
RB-83	-8.020E-03	1.615E-01	2.504E-01	0.000E+00	NOT IDENT.
RB-84	3.717E-02	1.453E-01	2.550E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	1.703E+01	2.871E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	8.073E-02	1.361E-01	0.000E+00	NOT IDENT.
RB-86	-2.088E+00	1.574E+00	2.380E+00	0.000E+00	NOT IDENT.
Y-88	5.441E-02	4.938E-02	1.020E-01	0.000E+00	NOT IDENT.
ZR-88	-1.815E-02	6.397E-02	1.105E-01	0.000E+00	NOT IDENT.
Y-91	-1.607E+01	2.448E+01	3.742E+01	0.000E+00	NOT IDENT.
NB-94	-1.736E-02	6.435E-02	1.108E-01	0.000E+00	NOT IDENT.
NB-95	6.298E-02	7.505E-02	1.384E-01	0.000E+00	NOT IDENT.
NB-95M	1.039E-01	2.521E-01	4.078E-01	0.000E+00	NOT IDENT.
ZR-95	4.003E-02	1.355E-01	2.415E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.355E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.870E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-6.467E-01	3.662E+00	6.324E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.250E+07	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.822E-02	6.728E-02	1.135E-01	0.000E+00	NOT IDENT.
RH-102	4.247E-02	7.624E-02	1.356E-01	0.000E+00	NOT IDENT.
RU-103	-1.876E-02	7.708E-02	1.307E-01	0.000E+00	FAIL ABUN
RH-106	2.062E-01	6.877E-01	1.190E+00	0.000E+00	FAIL ABUN
RU-106	2.062E-01	6.874E-01	1.190E+00	0.000E+00	FAIL ABUN
AG-108M	-9.874E-02	8.079E-02	1.306E-01	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.157E-01	2.092E-01	0.000E+00	NOT IDENT.
IN-111	8.078E-02	3.871E-01	6.183E-01	0.000E+00	NOT IDENT.
IN-113M	7.766E-02	9.323E-02	1.706E-01	0.000E+00	NOT IDENT.
SN-113	7.766E-02	9.323E-02	1.706E-01	0.000E+00	NOT IDENT.
IN-114M	8.213E-02	3.831E-01	5.888E-01	0.000E+00	NOT IDENT.
CD-115	-9.385E-01	2.471E+00	4.137E+00	0.000E+00	NOT IDENT.
SN-117M	-6.345E-02	7.356E-02	1.239E-01	0.000E+00	NOT IDENT.
SB-122	-9.711E-02	6.254E-01	1.056E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.954E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-3.669E-02	5.310E-02	9.026E-02	0.000E+00	NOT IDENT.
I-124	1.586E-01	4.714E-01	7.131E-01	0.000E+00	NOT IDENT.
SB-124	-3.561E-02	1.149E-01	1.815E-01	0.000E+00	NOT IDENT.
SB-125	-6.879E-02	2.298E-01	3.946E-01	0.000E+00	NOT IDENT.
TE-125M	-7.371E+00	1.545E+01	2.714E+01	0.000E+00	NOT IDENT.
I-126	1.914E-01	2.783E-01	4.515E-01	0.000E+00	NOT IDENT.
SB-126	-3.339E-03	1.913E-01	3.350E-01	0.000E+00	FAIL ABUN
SB-127	-1.187E-01	6.904E-01	1.200E+00	0.000E+00	FAIL ABUN
XE-127	4.317E-02	8.250E-02	1.462E-01	0.000E+00	NOT IDENT.
I-131	-2.467E-02	1.388E-01	2.426E-01	0.000E+00	NOT IDENT.
TE-132	2.781E-02	2.892E-01	5.282E-01	0.000E+00	NOT IDENT.
BA-133	4.644E-03	1.089E-01	1.675E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.541E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.958E-02	1.035E-01	1.896E-01	0.000E+00	NOT IDENT.
CS-135	1.088E-01	3.186E-01	5.822E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.450E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.339E-02	1.782E-01	2.984E-01	0.000E+00	NOT IDENT.
CE-139	1.185E-02	5.604E-02	9.923E-02	0.000E+00	NOT IDENT.
BA-140	-2.738E-01	3.986E-01	6.346E-01	0.000E+00	NOT IDENT.
LA-140	3.022E-02	8.882E-02	1.598E-01	0.000E+00	NOT IDENT.
CE-141	-5.962E-03	1.003E-01	1.777E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	8.091E+00	1.289E+01	0.000E+00	FAIL ABUN
CE-144	-1.082E-03	3.740E-01	6.645E-01	0.000E+00	NOT IDENT.
PM-144	8.697E-02	6.971E-02	1.317E-01	0.000E+00	NOT IDENT.
PR-144	5.870E+00	4.705E+00	8.892E+00	0.000E+00	NOT IDENT.
PM-146	-4.264E-02	1.087E-01	1.841E-01	0.000E+00	NOT IDENT.
ND-147	8.291E-03	8.037E-01	1.380E+00	0.000E+00	FAIL ABUN
PM-149	-3.020E+00	1.837E+01	3.268E+01	0.000E+00	NOT IDENT.
EU-152	1.301E-01	2.195E-01	3.670E-01	0.000E+00	FAIL ABUN
GD-153	-4.677E-02	1.558E-01	2.419E-01	0.000E+00	NOT IDENT.
EU-154	6.205E-02	1.521E-01	2.706E-01	0.000E+00	FAIL ABUN
EU-155	9.626E-02	1.958E-01	3.596E-01	0.000E+00	FAIL ABUN
TB-160	-3.015E-01	3.199E-01	5.124E-01	0.000E+00	FAIL ABUN

HO-166M	5.092E-02	1.196E-01	2.162E-01	0.000E+00	NOT IDENT.
TM-171	-4.214E+01	6.666E+01	1.192E+02	0.000E+00	FAIL ABUN
LU-176	-2.205E-02	5.374E-02	9.396E-02	0.000E+00	FAIL ABUN
LU-177	1.821E-01	9.808E-01	1.711E+00	0.000E+00	NOT IDENT.
LU-177M	1.802E-01	3.940E-01	7.050E-01	0.000E+00	FAIL ABUN
HF-181	-1.081E-02	8.987E-02	1.543E-01	0.000E+00	NOT IDENT.
W-181	-1.089E+00	9.889E-01	1.490E+00	0.000E+00	NOT IDENT.
TA-182	1.273E-01	2.512E-01	4.482E-01	0.000E+00	NOT IDENT.
RE-183	4.352E-02	1.993E-01	3.534E-01	0.000E+00	FAIL ABUN
RE-184	4.094E-01	4.758E-01	8.879E-01	0.000E+00	FAIL ABUN
OS-185	-4.707E-02	9.183E-02	1.491E-01	0.000E+00	FAIL ABUN
RE-188	8.221E-02	3.103E-01	5.528E-01	0.000E+00	NOT IDENT.
W-188	9.130E+00	1.562E+01	2.527E+01	0.000E+00	NOT IDENT.
IR-192	-1.616E-02	6.860E-02	1.207E-01	0.000E+00	FAIL ABUN
AU-195	3.556E-01	4.286E-01	7.112E-01	0.000E+00	NOT IDENT.
TL-200	-1.814E+00	8.824E+00	1.539E+01	0.000E+00	NOT IDENT.
TL-201	4.522E-01	2.477E+00	4.379E+00	0.000E+00	NOT IDENT.
TL-202	6.369E-02	1.103E-01	1.977E-01	0.000E+00	NOT IDENT.
HG-203	7.260E-02	7.798E-02	1.450E-01	0.000E+00	NOT IDENT.
BI-207	3.312E-02	1.233E-01	2.136E-01	0.000E+00	NOT IDENT.
TL-207	-1.677E+00	1.484E+00	2.437E+00	0.000E+00	FAIL ABUN
PO-209	-8.634E+00	1.968E+01	3.289E+01	0.000E+00	NOT IDENT.
BI-210	-3.465E+01	2.201E+01	3.780E+01	0.000E+00	NOT IDENT.
PB-210	-3.465E+01	2.201E+01	3.780E+01	0.000E+00	NOT IDENT.
PO-210	-3.465E+01	2.197E+01	3.780E+01	0.000E+00	NOT IDENT.
PB-211	-1.226E+00	2.157E+00	3.420E+00	0.000E+00	NOT IDENT.
BI-212	1.098E+00	6.292E-01	1.207E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	2.521E-01	3.592E-01	0.000E+00	FAIL ABUN
PO-215	-1.677E+00	1.484E+00	2.437E+00	0.000E+00	FAIL ABUN
RN-219	-4.450E-01	8.956E-01	1.521E+00	0.000E+00	NOT IDENT.
RN-220	-3.601E+00	5.673E+01	9.668E+01	0.000E+00	NOT IDENT.
RA-223	-1.677E+00	1.484E+00	2.437E+00	0.000E+00	FAIL ABUN
RA-224	0.000E+00	2.124E+00	3.546E+00	0.000E+00	NOT IDENT.
RA-226	0.000E+00	2.521E-01	3.592E-01	0.000E+00	FAIL ABUN
AC-227	-3.024E-01	8.180E-01	1.451E+00	0.000E+00	NOT IDENT.
TH-227	-3.024E-01	8.184E-01	1.451E+00	0.000E+00	FAIL ABUN
TH-229	-1.975E-01	1.034E+00	1.782E+00	0.000E+00	FAIL ABUN
TH-230	0.000E+00	2.521E-01	3.592E-01	0.000E+00	FAIL ABUN
PA-231	-8.472E-01	3.232E+00	5.724E+00	0.000E+00	NOT IDENT.
TH-231	-1.677E+00	1.484E+00	2.437E+00	0.000E+00	FAIL ABUN
U-231	-2.051E-01	6.121E-01	9.489E-01	0.000E+00	FAIL ABUN
PA-233	3.199E-03	1.336E-01	2.385E-01	0.000E+00	NOT IDENT.
PA-234	4.369E-02	8.474E-01	1.458E+00	0.000E+00	FAIL ABUN
PA-234M	-7.107E+00	1.096E+01	1.787E+01	0.000E+00	NOT IDENT.
TH-234	-1.288E+00	3.654E+00	5.851E+00	0.000E+00	FAIL ABUN
U-234	0.000E+00	2.521E-01	3.592E-01	0.000E+00	FAIL ABUN
U-235	1.192E-02	3.962E-01	7.054E-01	0.000E+00	FAIL ABUN
NP-236	-2.456E-02	1.542E-01	2.691E-01	0.000E+00	NOT IDENT.
NP-237	0.000E+00	1.604E+00	1.467E+00	0.000E+00	NOT IDENT.
U-238	-1.288E+00	3.654E+00	5.851E+00	0.000E+00	FAIL ABUN
NP-239	-1.753E-01	4.173E-01	6.365E-01	0.000E+00	NOT IDENT.
AM-243	1.076E-01	1.426E-01	2.373E-01	0.000E+00	NOT IDENT.
CM-243	-1.238E-02	1.779E-01	3.196E-01	0.000E+00	NOT IDENT.
AM-246	1.592E-01	3.557E-01	6.225E-01	0.000E+00	NOT IDENT.
CM-247	-5.068E-02	7.962E-02	1.342E-01	0.000E+00	NOT IDENT.
CF-249	-3.752E-02	9.036E-02	1.551E-01	0.000E+00	NOT IDENT.
CF-251	5.182E-02	2.432E-01	4.292E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:33:45.25

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032512.CNF;1
Sample date : 5-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 16:33:11
Sample ID : G1202032512 Sample quantity : 1.55440E+02 GRAM
Detector name : GAM15 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.29 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID : 948717 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	240	85.51*	5.635E+00	2.410E-01	2.458E-01	28.95
	136.48	------	10.60	5.583E+00	------ Line Not Found		------
CO-60	1173.22	1581	100.00	1.174E+00	6.506E+00	6.524E+00	9.76
	1332.49	1385	100.00*	1.044E+00	6.405E+00	6.423E+00	11.21
CD-109	88.03	1097	3.72*	4.518E+00	3.152E+01	3.188E+01	15.02
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	1097	8.90	4.518E+00	1.317E+01	1.317E+01	43.15
	87.57	1097	37.00*	4.518E+00	3.169E+00	3.169E+00	15.02
BA-137M	661.65	1989	89.98*	1.982E+00	5.387E+00	5.390E+00	9.96
CS-137	661.65	1989	85.12*	1.982E+00	5.695E+00	5.697E+00	9.98
TL-208	277.35	------	6.80	3.705E+00	------ Line Not Found		------
	510.84	83	21.60	2.419E+00	7.683E-01	7.683E-01	87.11
	583.14	141	84.20*	2.190E+00	3.682E-01	3.682E-01	34.93
	860.37	------	12.46	1.576E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.001E+00	------ Line Not Found		------
	351.07	166	12.94*	3.141E+00	1.974E+00	1.974E+00	34.12
PB-212	74.81	------	10.70	3.227E+00	------ Line Not Found		------
	77.11	127	18.00	3.536E+00	9.635E-01	9.635E-01	54.87
	87.30	1097	8.00	4.518E+00	1.465E+01	1.465E+01	18.04
	238.63	412	44.60*	4.113E+00	1.086E+00	1.086E+00	25.55
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
PO-212	74.81	------	10.70	3.227E+00	------ Line Not Found		------
	77.11	127	18.00	3.536E+00	9.635E-01	9.635E-01	54.87
	87.30	1097	8.00	4.518E+00	1.465E+01	1.465E+01	18.04
	115.19	------	0.60	5.586E+00	------ Line Not Found		------
	238.63	412	44.60*	4.113E+00	1.086E+00	1.086E+00	25.55
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
PB-214	74.81	------	6.21	3.227E+00	------ Line Not Found		------
	77.11	127	10.50	3.536E+00	1.652E+00	1.652E+00	55.40
	87.30	1097	4.67	4.518E+00	2.510E+01	2.510E+01	16.88
	241.98	------	7.49	4.076E+00	------ Line Not Found		------
	295.21	99	19.20	3.548E+00	7.018E-01	7.018E-01	56.38

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	166	37.20*	3.141E+00	6.865E-01	6.865E-01	34.52
PO-214	74.81	------	6.21	3.227E+00	------ Line Not Found		------
	77.11	127	10.50	3.536E+00	1.652E+00	1.652E+00	55.40
	87.30	1097	4.67	4.518E+00	2.510E+01	2.510E+01	16.88
	241.98	------	7.49	4.076E+00	------ Line Not Found		------
	295.21	99	19.20	3.548E+00	7.018E-01	7.018E-01	56.38
	351.92	166	37.20*	3.141E+00	6.865E-01	6.865E-01	34.52
PO-216	74.81	------	10.70	3.227E+00	------ Line Not Found		------
	77.11	127	18.00	3.536E+00	9.635E-01	9.635E-01	54.87
	87.30	1097	8.00	4.518E+00	1.465E+01	1.465E+01	18.04
	238.63	412	44.60*	4.113E+00	1.086E+00	1.086E+00	25.55
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
PO-218	74.81	------	6.21	3.227E+00	------ Line Not Found		------
	77.11	127	10.50	3.536E+00	1.652E+00	1.652E+00	55.40
	87.30	1097	4.67	4.518E+00	2.510E+01	2.510E+01	16.88
	241.98	------	7.49	4.076E+00	------ Line Not Found		------
	295.21	99	19.20	3.548E+00	7.018E-01	7.018E-01	56.38
	351.92	166	37.20*	3.141E+00	6.865E-01	6.865E-01	34.52
AC-228	338.32	95	11.40	3.226E+00	1.248E+00	1.248E+00	68.34
	911.07	114	27.70*	1.494E+00	1.333E+00	1.333E+00	44.13
	969.11	46	16.60	1.409E+00	9.582E-01	9.582E-01	104.71
RA-228	338.32	95	11.40	3.226E+00	1.248E+00	1.248E+00	68.34
	911.07	114	27.70*	1.494E+00	1.333E+00	1.333E+00	44.13
	969.11	46	16.60	1.409E+00	9.582E-01	9.582E-01	104.71
TH-228	74.81	------	10.70	3.227E+00	------ Line Not Found		------
	77.11	127	18.00	3.536E+00	9.635E-01	9.709E-01	54.87
	87.30	1097	8.00	4.518E+00	1.465E+01	1.477E+01	15.02
	238.63	412	44.60*	4.113E+00	1.086E+00	1.094E+00	25.55
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
TH-232	338.32	95	11.40	3.226E+00	1.248E+00	1.248E+00	55.16
	911.07	114	27.70*	1.494E+00	1.333E+00	1.333E+00	44.13
	969.11	46	16.60	1.409E+00	9.582E-01	9.582E-01	104.71
AM-241	59.54	1427	35.90*	1.393E+00	1.377E+01	1.378E+01	14.27
ANH-511	511.00	83	100.00*	2.419E+00	1.659E-01	1.659E-01	86.71

Flag: "*" = Keyline

Sample ID : G1202032512 Acquisition date : 12-FEB-2010 16:33:11

Total number of lines in spectrum 18
Number of unidentified lines 0
Number of lines tentatively identified by NID 18 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	270.90D	1.02	2.410E-01	2.458E-01	0.711E-01	28.95	
CO-60	5.27Y	1.00	6.405E+00	6.423E+00	0.720E+00	11.21	
CD-109	464.00D	1.01	3.152E+01	3.188E+01	0.479E+01	15.02	
SN-126	1.00E+05Y	1.00	3.169E+00	3.169E+00	0.476E+00	15.02	
BA-137M	30.17Y	1.00	5.387E+00	5.390E+00	0.537E+00	9.96	
CS-137	30.17Y	1.00	5.695E+00	5.697E+00	0.568E+00	9.98	
TL-208	1.41E+10Y	1.00	3.682E-01	3.682E-01	1.286E-01	34.93	
BI-211	7.04E+08Y	1.00	1.974E+00	1.974E+00	0.673E+00	34.12	
PB-212	1.41E+10Y	1.00	1.086E+00	1.086E+00	0.277E+00	25.55	
PO-212	1.41E+10Y	1.00	1.086E+00	1.086E+00	0.277E+00	25.55	
PB-214	1600.00Y	1.00	6.865E-01	6.865E-01	2.370E-01	34.52	
PO-214	1600.00Y	1.00	6.865E-01	6.865E-01	2.370E-01	34.52	
PO-216	1.41E+10Y	1.00	1.086E+00	1.086E+00	0.277E+00	25.55	
PO-218	1600.00Y	1.00	6.865E-01	6.865E-01	2.370E-01	34.52	
AC-228	1.41E+10Y	1.00	1.333E+00	1.333E+00	0.588E+00	44.13	
RA-228	1.41E+10Y	1.00	1.333E+00	1.333E+00	0.588E+00	44.13	
TH-228	1.91Y	1.01	1.086E+00	1.094E+00	0.279E+00	25.55	
TH-232	1.41E+10Y	1.00	1.333E+00	1.333E+00	0.588E+00	44.13	
AM-241	432.20Y	1.00	1.377E+01	1.378E+01	0.197E+01	14.27	
ANH-511	1.00E+09Y	1.00	1.659E-01	1.659E-01	1.439E-01	86.71	
	Total Activity :		7.909E+01	7.950E+01			

Grand Total Activity : 7.909E+01 7.950E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202032512 Acquisition date : 12-FEB-2010 16:33:11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	92.56	85	287	1.72	184.05	171	22	2.35E-02	88.7	4.81E+00	T
0	185.99	87	333	1.70	370.89	365	13	2.42E-02	90.2	4.86E+00	T
0	609.18	138	112	1.89	1217.28	1210	13	3.83E-02	36.6	2.12E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:33:50.23

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032512.CNF;1		
Acquisition date	: 12-FEB-2010 16:33:11	Detector SN#	:
Detector ID	: GAM15	Sensitivity	: 5.00000
Geometry	: CAN	Energy tolerance	: 1.50000
Elapsed live time	: 0 01:00:00.00	Abundance limit	: 75.00000
Elapsed real time	: 0 01:00:01.29	Half life ratio	: 8.00000

SAMPLE DATA

Sample date	: 5-FEB-2010 00:00:00.	Nuclide Library	: SOLID
Sample ID	: G1202032512	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.55440E+02 GRAM

QC DATA

CALIB. DATE/TIME	: 3-FEB-2010 11:04:32.11	MS Isotope	:
MSD ID	:	MSD Isotope	:
LCS ID	: 1032-A	LCS Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.458E-01	7.114E-02	7.722E-02	7.779E-03	3.182
CO-60	6.423E+00	7.200E-01	8.693E-02	8.357E-03	73.883
CD-109	3.188E+01	4.788E+00	2.499E+00	3.102E-01	12.758
SN-126	3.169E+00	4.758E-01	2.874E-01	3.557E-02	11.024
BA-137M	5.390E+00	5.370E-01	1.256E-01	1.032E-02	42.919
CS-137	5.697E+00	5.684E-01	1.327E-01	1.094E-02	42.919
TL-208	3.682E-01	1.286E-01	1.330E-01	1.218E-02	2.768
BI-211	1.974E+00	6.734E-01	6.715E-01	6.686E-02	2.939
PB-212	1.086E+00	2.773E-01	1.908E-01	2.272E-02	5.690
PO-212	1.086E+00	2.773E-01	1.908E-01	2.272E-02	5.690
PB-214	6.865E-01	2.370E-01	2.521E-01	2.830E-02	2.723
PO-214	6.865E-01	2.370E-01	2.521E-01	2.830E-02	2.723
PO-216	1.086E+00	2.773E-01	1.908E-01	2.272E-02	5.690
PO-218	6.865E-01	2.370E-01	2.521E-01	2.830E-02	2.723
AC-228	1.333E+00	5.881E-01	6.122E-01	7.212E-02	2.177
RA-228	1.333E+00	5.881E-01	6.122E-01	7.212E-02	2.177
TH-228	1.094E+00	2.794E-01	1.922E-01	2.289E-02	5.690
TH-232	1.333E+00	5.881E-01	6.122E-01	7.212E-02	2.177

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.378E+01	1.965E+00	9.029E-01	1.060E-01	15.257
ANH-511	1.659E-01	1.439E-01	1.067E-01	9.216E-03	1.556

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	5.603E-02		7.474E-01	1.224E+00	1.138E-01	0.046
NA-22	2.278E-02		5.543E-02	9.566E-02	8.690E-03	0.238
NA-24	-8.776E-05		1.277E-04	Half-Life too short		
AL-26	1.742E-02		4.455E-02	8.015E-02	6.857E-03	0.217
K-40	3.613E-01		5.770E-01	1.096E+00	1.077E-01	0.330
TI-44	1.778E-01	+	9.753E-02	1.464E-01	1.707E-02	1.214
SC-46	2.219E-03		1.009E-01	1.669E-01	1.551E-02	0.013
V-48	8.091E-02		1.403E-01	2.391E-01	2.186E-02	0.338
CR-51	6.659E-01		6.884E-01	1.191E+00	1.264E-01	0.559
MN-52	-4.815E-02		1.202E-01	1.834E-01	1.765E-02	-0.263
MN-54	-2.114E-03		8.354E-02	1.382E-01	1.254E-02	-0.015
CO-56	-4.532E-02		9.070E-02	1.448E-01	1.321E-02	-0.313
CO-58	1.008E-02		8.460E-02	1.416E-01	1.273E-02	0.071
FE-59	4.968E-02		1.987E-01	3.305E-01	3.084E-02	0.150
ZN-65	-1.479E-01		2.120E-01	3.257E-01	2.783E-02	-0.454
GE-68	-2.809E+00		3.180E+00	4.815E+00	4.215E-01	-0.583
AS-73	-2.212E+00		3.957E+00	5.921E+00	7.688E-01	-0.373
AS-74	-5.902E-02		1.484E-01	2.320E-01	1.971E-02	-0.254
SE-75	-7.049E-03		8.605E-02	1.434E-01	1.572E-02	-0.049
BR-77	5.063E-01		2.895E+00	4.484E+00	3.872E-01	0.113
SR-82	-1.861E-01		6.174E-01	1.002E+00	8.833E-02	-0.186
RB-83	-8.020E-03		1.648E-01	2.413E-01	2.084E-02	-0.033
RB-84	3.717E-02		1.483E-01	2.493E-01	2.310E-02	0.149
KR-85	2.876E+01		1.738E+01	2.766E+01	2.390E+00	1.040
SR-85	1.364E-01		8.238E-02	1.311E-01	1.133E-02	1.040
RB-86	-2.088E+00		1.606E+00	2.340E+00	2.049E-01	-0.892
Y-88	5.441E-02		5.039E-02	1.018E-01	8.573E-03	0.534
ZR-88	-1.815E-02		6.527E-02	1.057E-01	8.898E-03	-0.172
Y-91	-1.607E+01		2.498E+01	3.690E+01	3.111E+00	-0.435
NB-94	-1.736E-02		6.566E-02	1.077E-01	9.091E-03	-0.161
NB-95	6.298E-02		7.658E-02	1.348E-01	1.181E-02	0.467
NB-95M	1.039E-01		2.573E-01	3.849E-01	4.632E-02	0.270
ZR-95	4.003E-02		1.382E-01	2.351E-01	2.252E-02	0.170
NB-97	1.080E-03		1.202E-04	Half-Life too short		
ZR-97	4.612E-03		1.464E-03	Half-Life too short		
MO-99	-6.467E-01		3.737E+00	6.153E+00	9.347E-01	-0.105
TC-99M	-1.836E+00		4.209E+01	Half-Life too short		
RH-101	-3.822E-02		6.866E-02	1.067E-01	1.164E-02	-0.358
RH-102	4.247E-02		7.780E-02	1.304E-01	1.125E-02	0.326
RU-103	-1.876E-02		7.865E-02	1.259E-01	1.784E-02	-0.149
RH-106	2.062E-01		7.018E-01	1.152E+00	1.523E-01	0.179

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RU-106	2.062E-01		7.015E-01	1.152E+00	9.685E-02	0.179
AG-108M	-9.874E-02		8.244E-02	1.252E-01	1.115E-02	-0.789
AG-110M	4.194E-01		1.181E-01	2.029E-01	1.726E-02	2.067
IN-111	8.078E-02		3.950E-01	5.843E-01	6.439E-02	0.138
IN-113M	7.766E-02		9.514E-02	1.632E-01	1.417E-02	0.476
SN-113	7.766E-02		9.514E-02	1.632E-01	1.417E-02	0.476
IN-114M	8.213E-02		3.909E-01	5.528E-01	6.002E-02	0.149
CD-115	-9.385E-01		2.521E+00	3.989E+00	3.443E-01	-0.235
SN-117M	-6.345E-02		7.506E-02	1.157E-01	1.214E-02	-0.548
SB-122	-9.711E-02		6.382E-01	1.020E+00	8.751E-02	-0.095
I-123	-6.186E-04		4.568E-04	Half-Life too short		
TE-123M	-3.669E-02		5.419E-02	8.436E-02	8.889E-03	-0.435
I-124	1.586E-01		4.810E-01	6.900E-01	5.847E-02	0.230
SB-124	-3.561E-02		1.173E-01	1.808E-01	1.699E-02	-0.197
SB-125	-6.879E-02		2.345E-01	3.784E-01	3.295E-02	-0.182
TE-125M	-7.371E+00		1.577E+01	2.513E+01	2.948E+00	-0.293
I-126	1.914E-01		2.840E-01	4.381E-01	3.613E-02	0.437
SB-126	-3.339E-03		1.952E-01	3.258E-01	2.780E-02	-0.010
SB-127	-1.187E-01		7.045E-01	1.165E+00	1.091E-01	-0.102
XE-127	4.317E-02		8.419E-02	1.375E-01	1.504E-02	0.314
I-131	-2.467E-02		1.416E-01	2.316E-01	2.227E-02	-0.107
TE-132	2.781E-02		2.951E-01	4.983E-01	8.066E-02	0.056
BA-133	4.644E-03		1.111E-01	1.598E-01	2.197E-02	0.029
I-133	-3.980E-06		1.806E-05	Half-Life too short		
CS-134	8.958E-02		1.056E-01	1.849E-01	1.657E-02	0.485
CS-135	1.088E-01		3.251E-01	5.514E-01	6.616E-02	0.197
I-135	-2.933E+00		2.781E+01	Half-Life too short		
CS-136	-3.339E-02		1.818E-01	2.931E-01	2.710E-02	-0.114
CE-139	1.185E-02		5.718E-02	9.284E-02	9.910E-03	0.128
BA-140	-2.738E-01		4.068E-01	6.122E-01	2.029E-01	-0.447
LA-140	3.022E-02		9.064E-02	1.588E-01	1.489E-02	0.190
CE-141	-5.962E-03		1.023E-01	1.658E-01	1.713E-02	-0.036
CE-143	1.570E+01		8.256E+00	1.224E+01	2.733E+00	1.283
CE-144	-1.082E-03		3.817E-01	6.184E-01	1.014E-01	-0.002
PM-144	8.697E-02		7.113E-02	1.280E-01	1.076E-02	0.680
PR-144	5.870E+00		4.801E+00	8.637E+00	7.264E-01	0.680
PM-146	-4.264E-02		1.109E-01	1.768E-01	1.894E-02	-0.241
ND-147	8.291E-03		8.201E-01	1.331E+00	1.990E-01	0.006
PM-149	-3.020E+00		1.875E+01	3.101E+01	5.208E+00	-0.097
EU-152	1.301E-01		2.240E-01	3.499E-01	3.562E-02	0.372
GD-153	-4.677E-02		1.590E-01	2.234E-01	2.465E-02	-0.209
EU-154	6.205E-02		1.552E-01	2.673E-01	3.117E-02	0.232
EU-155	9.626E-02		1.998E-01	3.326E-01	3.505E-02	0.289
TB-160	-3.015E-01		3.264E-01	5.009E-01	4.636E-02	-0.602
HO-166M	5.092E-02		1.221E-01	2.101E-01	1.784E-02	0.242
TM-171	-4.214E+01		6.802E+01	1.090E+02	1.245E+01	-0.386
LU-176	-2.205E-02		5.484E-02	8.931E-02	9.338E-03	-0.247
LU-177	1.821E-01		1.001E+00	1.610E+00	1.766E-01	0.113

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
LU-177M	1.802E-01		4.020E-01	6.754E-01	5.739E-02	0.267
HF-181	-1.081E-02		9.171E-02	1.484E-01	1.281E-02	-0.073
W-181	-1.089E+00		1.009E+00	1.363E+00	1.556E-01	-0.799
TA-182	1.273E-01		2.563E-01	4.422E-01	3.795E-02	0.288
RE-183	4.352E-02		2.033E-01	3.305E-01	3.496E-02	0.132
RE-184	4.094E-01		4.855E-01	8.397E-01	9.234E-02	0.488
OS-185	-4.707E-02		9.371E-02	1.446E-01	1.200E-02	-0.326
RE-188	8.221E-02		3.167E-01	5.163E-01	5.370E-02	0.159
W-188	9.130E+00		1.594E+01	2.398E+01	2.562E+00	0.381
IR-192	-1.616E-02		7.000E-02	1.149E-01	1.184E-02	-0.141
AU-195	3.556E-01		4.373E-01	6.569E-01	7.159E-02	0.541
TL-200	-1.814E+00		9.005E+00	1.469E+01	1.340E+00	-0.123
TL-201	4.522E-01		2.527E+00	4.098E+00	4.378E-01	0.110
TL-202	6.369E-02		1.126E-01	1.897E-01	1.626E-02	0.336
HG-203	7.260E-02		7.957E-02	1.375E-01	1.514E-02	0.528
BI-207	3.312E-02		1.258E-01	2.099E-01	1.852E-02	0.158
TL-207	-1.677E+00		1.514E+00	2.320E+00	4.292E-01	-0.723
PO-209	-8.634E+00		2.008E+01	3.217E+01	2.998E+00	-0.268
BI-210	-3.465E+01		2.246E+01	3.428E+01	4.221E+00	-1.011
PB-210	-3.465E+01		2.246E+01	3.428E+01	4.221E+00	-1.011
PO-210	-3.465E+01		2.242E+01	3.428E+01	3.998E+00	-1.011
PB-211	-1.226E+00		2.202E+00	3.274E+00	2.051E+00	-0.375
BI-212	1.098E+00		6.420E-01	1.174E+00	1.170E-01	0.935
BI-214	6.789E-01	+	2.572E-01	3.476E-01	3.447E-02	1.953
PO-215	-1.677E+00		1.514E+00	2.320E+00	4.292E-01	-0.723
RN-219	-4.450E-01		9.139E-01	1.456E+00	2.174E-01	-0.306
RN-220	-3.601E+00		5.789E+01	9.332E+01	8.029E+00	-0.039
RA-223	-1.677E+00		1.514E+00	2.320E+00	4.292E-01	-0.723
RA-224	1.089E+01		2.168E+00	3.349E+00	3.694E-01	3.250
RA-226	6.789E-01	+	2.572E-01	3.476E-01	3.447E-02	1.953
AC-227	-3.024E-01		8.346E-01	1.373E+00	2.305E-01	-0.220
TH-227	-3.024E-01		8.351E-01	1.373E+00	2.650E-01	-0.220
TH-229	-1.975E-01		1.055E+00	1.673E+00	1.821E-01	-0.118
TH-230	6.789E-01	+	2.572E-01	3.476E-01	3.447E-02	1.953
PA-231	-8.472E-01		3.298E+00	5.429E+00	8.956E-01	-0.156
TH-231	-1.677E+00		1.514E+00	2.320E+00	4.292E-01	-0.723
U-231	-2.051E-01		6.246E-01	8.758E-01	9.812E-02	-0.234
PA-233	3.199E-03		1.363E-01	2.268E-01	2.399E-02	0.014
PA-234	4.369E-02		8.647E-01	1.428E+00	2.721E-01	0.031
PA-234M	-7.107E+00		1.118E+01	1.754E+01	1.818E+00	-0.405
TH-234	-1.288E+00		3.729E+00	5.346E+00	1.042E+00	-0.241
U-234	6.789E-01	+	2.572E-01	3.476E-01	3.447E-02	1.953
U-235	1.192E-02		4.043E-01	6.576E-01	1.205E-01	0.018
NP-236	-2.456E-02		1.573E-01	2.516E-01	2.649E-02	-0.098
NP-237	6.101E+00		1.637E+00	1.350E+00	3.241E-01	4.518
U-238	-1.288E+00		3.729E+00	5.346E+00	1.042E+00	-0.241
NP-239	-1.753E-01		4.258E-01	5.904E-01	5.960E-02	-0.297
AM-243	1.076E-01		1.455E-01	2.177E-01	2.503E-02	0.494

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.238E-02		1.816E-01	2.956E-01	3.114E-02	-0.042
AM-246	1.592E-01		3.629E-01	6.120E-01	5.352E-02	0.260
CM-247	-5.068E-02		8.124E-02	1.285E-01	1.087E-02	-0.394
CF-249	-3.752E-02		9.220E-02	1.483E-01	1.266E-02	-0.253
CF-251	5.182E-02		2.481E-01	4.022E-01	4.325E-02	0.129

VAX/VMS Nuclide Identification Report Generated

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29414

DETECTOR DATA

Configuration	: SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032512		
Acquisition date	: 12-FEB-2010 16:33:11	Detector SN#	:
Detector ID	: GAM15	Sensitivity	: 5.000
Geometry	: CAN	Energy tolerance	: 1.500
Elapsed live time	: 0 01:00:00.00	Abundance limit	: 75.000
Elapsed real time	: 0 01:00:01.29	Half life ratio	: 8.000

SAMPLE DATA

Sample date	: 5-FEB-2010 00:00:00	Nuclide Library	: SOLID
Sample ID	: G1202032512	Analyst initials	: MXR1
Batch Number	: 948717	Sample Quantity	: 1.5544E+02 GRAM
Recovery	: 1.00000	Carrier Weight	: 0.00000

QC DATA

CALIB. DATE/TIME	: 3-FEB-2010 11:04:32	MS Isotope	:
MSD DPM	: 0.000	MSD Isotope	:
LCS DPM	: 0.000	LCS Isotope	:
LCSD DPM	: 0.000	LCSD Isotope	:

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.458E-01	6.972E-02	4.161E-02	3.557E-02
CO-60	6.423E+00	7.056E-01	4.398E-02	3.600E-01
CD-109	3.188E+01	4.692E+00	1.357E+00	2.394E+00
SN-126	3.169E+00	4.663E-01	1.561E-01	2.379E-01
BA-137M	5.390E+00	5.262E-01	6.477E-02	2.685E-01
CS-137	5.697E+00	5.571E-01	6.846E-02	2.842E-01
TL-208	3.682E-01	1.260E-01	6.883E-02	6.431E-02
BI-211	1.974E+00	6.600E-01	3.522E-01	3.367E-01
PB-212	1.086E+00	2.718E-01	1.011E-01	1.387E-01
PO-212	1.086E+00	2.718E-01	1.011E-01	1.387E-01
PB-214	6.865E-01	2.322E-01	1.322E-01	1.185E-01
PO-214	6.865E-01	2.322E-01	1.322E-01	1.185E-01
PO-216	1.086E+00	2.718E-01	1.011E-01	1.387E-01
PO-218	6.865E-01	2.322E-01	1.322E-01	1.185E-01
AC-228	1.333E+00	5.763E-01	3.130E-01	2.940E-01
RA-228	1.333E+00	5.763E-01	3.130E-01	2.940E-01
TH-228	1.094E+00	2.738E-01	1.018E-01	1.397E-01
TH-232	1.333E+00	5.763E-01	3.130E-01	2.940E-01
AM-241	1.378E+01	1.926E+00	4.951E-01	9.826E-01
ANH-511	1.659E-01	1.410E-01	5.539E-02	7.194E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	5.603E-02	7.324E-01	6.366E-01	3.737E-01	NOT IDENT.
NA-22	2.278E-02	5.432E-02	4.845E-02	2.771E-02	NOT IDENT.
NA-24	-8.776E+01	2.503E+02	0.000E+00	1.277E+02	SHORT HLIF
AL-26	1.742E-02	4.366E-02	4.020E-02	2.228E-02	NOT IDENT.
K-40	3.613E-01	5.655E-01	5.529E-01	2.885E-01	NOT IDENT.
TI-44	1.778E-01	9.558E-02	7.977E-02	4.877E-02	FAIL ABUN
SC-46	2.219E-03	9.887E-02	8.537E-02	5.044E-02	NOT IDENT.

V-48	8.091E-02	1.375E-01	1.220E-01	7.014E-02 NOT IDENT.
CR-51	6.659E-01	6.747E-01	6.261E-01	3.442E-01 NOT IDENT.
MN-52	-4.815E-02	1.178E-01	9.258E-02	6.012E-02 NOT IDENT.
MN-54	-2.114E-03	8.187E-02	7.084E-02	4.177E-02 NOT IDENT.
CO-56	-4.532E-02	8.889E-02	7.417E-02	4.535E-02 NOT IDENT.
CO-58	1.008E-02	8.291E-02	7.265E-02	4.230E-02 NOT IDENT.
FE-59	4.968E-02	1.947E-01	1.681E-01	9.936E-02 NOT IDENT.
ZN-65	-1.479E-01	2.077E-01	1.656E-01	1.060E-01 NOT IDENT.
GE-68	-2.809E+00	3.116E+00	2.451E+00	1.590E+00 NOT IDENT.
AS-73	-2.212E+00	3.878E+00	3.255E+00	1.979E+00 NOT IDENT.
AS-74	-5.902E-02	1.454E-01	1.200E-01	7.420E-02 NOT IDENT.
SE-75	-7.049E-03	8.433E-02	7.575E-02	4.302E-02 FAIL ABUN
BR-77	5.063E-01	2.837E+00	2.327E+00	1.447E+00 FAIL ABUN
SR-82	-1.861E-01	6.051E-01	5.147E-01	3.087E-01 NOT IDENT.
RB-83	-8.020E-03	1.615E-01	1.253E-01	8.241E-02 NOT IDENT.
RB-84	3.717E-02	1.453E-01	1.276E-01	7.413E-02 NOT IDENT.
KR-85	2.876E+01	1.703E+01	1.436E+01	8.688E+00 NOT IDENT.
SR-85	1.364E-01	8.073E-02	6.809E-02	4.119E-02 NOT IDENT.
RB-86	-2.088E+00	1.574E+00	1.191E+00	8.030E-01 NOT IDENT.
Y-88	5.441E-02	4.938E-02	5.103E-02	2.520E-02 NOT IDENT.
ZR-88	-1.815E-02	6.397E-02	5.528E-02	3.264E-02 NOT IDENT.
Y-91	-1.607E+01	2.448E+01	1.872E+01	1.249E+01 NOT IDENT.
NB-94	-1.736E-02	6.435E-02	5.545E-02	3.283E-02 NOT IDENT.
NB-95	6.298E-02	7.505E-02	6.925E-02	3.829E-02 NOT IDENT.
NB-95M	1.039E-01	2.521E-01	2.040E-01	1.286E-01 NOT IDENT.
ZR-95	4.003E-02	1.355E-01	1.208E-01	6.911E-02 NOT IDENT.
NB-97	1.080E+03	2.355E+02	0.000E+00	1.202E+02 SHORT HLIF
ZR-97	4.612E+03	2.870E+03	0.000E+00	1.464E+03 SHORT HLIF
MO-99	-6.467E-01	3.662E+00	3.164E+00	1.868E+00 NOT IDENT.
TC-99M	-1.836E+06	8.250E+07	0.000E+00	4.209E+07 SHORT HLIF
RH-101	-3.822E-02	6.728E-02	5.679E-02	3.433E-02 NOT IDENT.
RH-102	4.247E-02	7.624E-02	6.784E-02	3.890E-02 NOT IDENT.
RU-103	-1.876E-02	7.708E-02	6.541E-02	3.933E-02 FAIL ABUN
RH-106	2.062E-01	6.877E-01	5.954E-01	3.509E-01 FAIL ABUN
RU-106	2.062E-01	6.874E-01	5.954E-01	3.507E-01 FAIL ABUN
AG-108M	-9.874E-02	8.079E-02	6.532E-02	4.122E-02 NOT IDENT.
AG-110M	4.194E-01	1.157E-01	1.046E-01	5.904E-02 NOT IDENT.
IN-111	8.078E-02	3.871E-01	3.093E-01	1.975E-01 NOT IDENT.
IN-113M	7.766E-02	9.323E-02	8.535E-02	4.757E-02 NOT IDENT.
SN-113	7.766E-02	9.323E-02	8.535E-02	4.757E-02 NOT IDENT.
IN-114M	8.213E-02	3.831E-01	2.946E-01	1.955E-01 NOT IDENT.
CD-115	-9.385E-01	2.471E+00	2.070E+00	1.261E+00 NOT IDENT.
SN-117M	-6.345E-02	7.356E-02	6.196E-02	3.753E-02 NOT IDENT.
SB-122	-9.711E-02	6.254E-01	5.284E-01	3.191E-01 NOT IDENT.
I-123	-6.186E+02	8.954E+02	0.000E+00	4.568E+02 SHORT HLIF
TE-123M	-3.669E-02	5.310E-02	4.515E-02	2.709E-02 NOT IDENT.
I-124	1.586E-01	4.714E-01	3.568E-01	2.405E-01 NOT IDENT.
SB-124	-3.561E-02	1.149E-01	9.083E-02	5.865E-02 NOT IDENT.
SB-125	-6.879E-02	2.298E-01	1.974E-01	1.173E-01 NOT IDENT.
TE-125M	-7.371E+00	1.545E+01	1.358E+01	7.885E+00 NOT IDENT.
I-126	1.914E-01	2.783E-01	2.259E-01	1.420E-01 NOT IDENT.
SB-126	-3.339E-03	1.913E-01	1.676E-01	9.761E-02 FAIL ABUN
SB-127	-1.187E-01	6.904E-01	6.003E-01	3.522E-01 FAIL ABUN
XE-127	4.317E-02	8.250E-02	7.314E-02	4.209E-02 NOT IDENT.
I-131	-2.467E-02	1.388E-01	1.214E-01	7.080E-02 NOT IDENT.
TE-132	2.781E-02	2.892E-01	2.643E-01	1.476E-01 NOT IDENT.
BA-133	4.644E-03	1.089E-01	8.378E-02	5.557E-02 NOT IDENT.
I-133	-3.980E+00	3.541E+01	0.000E+00	1.806E+01 SHORT HLIF
CS-134	8.958E-02	1.035E-01	9.487E-02	5.281E-02 NOT IDENT.
CS-135	1.088E-01	3.186E-01	2.913E-01	1.626E-01 NOT IDENT.
I-135	-2.933E+06	5.450E+07	0.000E+00	2.781E+07 SHORT HLIF
CS-136	-3.339E-02	1.782E-01	1.493E-01	9.092E-02 NOT IDENT.
CE-139	1.185E-02	5.604E-02	4.965E-02	2.859E-02 NOT IDENT.
BA-140	-2.738E-01	3.986E-01	3.175E-01	2.034E-01 NOT IDENT.
LA-140	3.022E-02	8.882E-02	7.994E-02	4.532E-02 NOT IDENT.
CE-141	-5.962E-03	1.003E-01	8.892E-02	5.116E-02 NOT IDENT.
CE-143	1.570E+01	8.091E+00	6.450E+00	4.128E+00 FAIL ABUN
CE-144	-1.082E-03	3.740E-01	3.325E-01	1.908E-01 NOT IDENT.
PM-144	8.697E-02	6.971E-02	6.591E-02	3.557E-02 NOT IDENT.
PR-144	5.870E+00	4.705E+00	4.449E+00	2.401E+00 NOT IDENT.
PM-146	-4.264E-02	1.087E-01	9.213E-02	5.543E-02 NOT IDENT.
ND-147	8.291E-03	8.037E-01	6.905E-01	4.100E-01 FAIL ABUN
PM-149	-3.020E+00	1.837E+01	1.635E+01	9.373E+00 NOT IDENT.
EU-152	1.301E-01	2.195E-01	1.836E-01	1.120E-01 FAIL ABUN
GD-153	-4.677E-02	1.558E-01	1.210E-01	7.949E-02 NOT IDENT.
EU-154	6.205E-02	1.521E-01	1.354E-01	7.759E-02 FAIL ABUN
EU-155	9.626E-02	1.958E-01	1.799E-01	9.989E-02 FAIL ABUN
TB-160	-3.015E-01	3.199E-01	2.563E-01	1.632E-01 FAIL ABUN

HO-166M	5.092E-02	1.196E-01	1.081E-01	6.104E-02	NOT IDENT.
TM-171	-4.214E+01	6.666E+01	5.963E+01	3.401E+01	FAIL ABUN
LU-176	-2.205E-02	5.374E-02	4.701E-02	2.742E-02	FAIL ABUN
LU-177	1.821E-01	9.808E-01	8.561E-01	5.004E-01	NOT IDENT.
LU-177M	1.802E-01	3.940E-01	3.527E-01	2.010E-01	FAIL ABUN
HF-181	-1.081E-02	8.987E-02	7.719E-02	4.585E-02	NOT IDENT.
W-181	-1.089E+00	9.889E-01	7.457E-01	5.046E-01	NOT IDENT.
TA-182	1.273E-01	2.512E-01	2.242E-01	1.281E-01	NOT IDENT.
RE-183	4.352E-02	1.993E-01	1.768E-01	1.017E-01	FAIL ABUN
RE-184	4.094E-01	4.758E-01	4.442E-01	2.427E-01	FAIL ABUN
OS-185	-4.707E-02	9.183E-02	7.462E-02	4.685E-02	FAIL ABUN
RE-188	8.221E-02	3.103E-01	2.766E-01	1.583E-01	NOT IDENT.
W-188	9.130E+00	1.562E+01	1.264E+01	7.971E+00	NOT IDENT.
IR-192	-1.616E-02	6.860E-02	6.041E-02	3.500E-02	FAIL ABUN
AU-195	3.556E-01	4.286E-01	3.558E-01	2.187E-01	NOT IDENT.
TL-200	-1.814E+00	8.824E+00	7.698E+00	4.502E+00	NOT IDENT.
TL-201	4.522E-01	2.477E+00	2.191E+00	1.264E+00	NOT IDENT.
TL-202	6.369E-02	1.103E-01	9.890E-02	5.628E-02	NOT IDENT.
HG-203	7.260E-02	7.798E-02	7.256E-02	3.979E-02	NOT IDENT.
BI-207	3.312E-02	1.233E-01	1.068E-01	6.289E-02	NOT IDENT.
TL-207	-1.677E+00	1.484E+00	1.219E+00	7.572E-01	FAIL ABUN
PO-209	-8.634E+00	1.968E+01	1.646E+01	1.004E+01	NOT IDENT.
BI-210	-3.465E+01	2.201E+01	1.891E+01	1.123E+01	NOT IDENT.
PB-210	-3.465E+01	2.201E+01	1.891E+01	1.123E+01	NOT IDENT.
PO-210	-3.465E+01	2.197E+01	1.891E+01	1.121E+01	NOT IDENT.
PB-211	-1.226E+00	2.157E+00	1.711E+00	1.101E+00	NOT IDENT.
BI-212	1.098E+00	6.292E-01	6.040E-01	3.210E-01	NOT IDENT.
BI-214	6.789E-01	2.521E-01	1.797E-01	1.286E-01	FAIL ABUN
PO-215	-1.677E+00	1.484E+00	1.219E+00	7.572E-01	FAIL ABUN
RN-219	-4.450E-01	8.956E-01	7.610E-01	4.570E-01	NOT IDENT.
RN-220	-3.601E+00	5.673E+01	4.837E+01	2.895E+01	NOT IDENT.
RA-223	-1.677E+00	1.484E+00	1.219E+00	7.572E-01	FAIL ABUN
RA-224	1.089E+01	2.124E+00	1.774E+00	1.084E+00	NOT IDENT.
RA-226	6.789E-01	2.521E-01	1.797E-01	1.286E-01	FAIL ABUN
AC-227	-3.024E-01	8.180E-01	7.261E-01	4.173E-01	NOT IDENT.
TH-227	-3.024E-01	8.184E-01	7.261E-01	4.176E-01	FAIL ABUN
TH-229	-1.975E-01	1.034E+00	8.913E-01	5.277E-01	FAIL ABUN
TH-230	6.789E-01	2.521E-01	1.797E-01	1.286E-01	FAIL ABUN
PA-231	-8.472E-01	3.232E+00	2.864E+00	1.649E+00	NOT IDENT.
TH-231	-1.677E+00	1.484E+00	1.219E+00	7.572E-01	FAIL ABUN
U-231	-2.051E-01	6.121E-01	4.747E-01	3.123E-01	FAIL ABUN
PA-233	3.199E-03	1.336E-01	1.193E-01	6.815E-02	NOT IDENT.
PA-234	4.369E-02	8.474E-01	7.292E-01	4.324E-01	FAIL ABUN
PA-234M	-7.107E+00	1.096E+01	8.942E+00	5.591E+00	NOT IDENT.
TH-234	-1.288E+00	3.654E+00	2.927E+00	1.864E+00	FAIL ABUN
U-234	6.789E-01	2.521E-01	1.797E-01	1.286E-01	FAIL ABUN
U-235	1.192E-02	3.962E-01	3.529E-01	2.021E-01	FAIL ABUN
NP-236	-2.456E-02	1.542E-01	1.346E-01	7.867E-02	NOT IDENT.
NP-237	6.101E+00	1.604E+00	7.338E-01	8.185E-01	NOT IDENT.
U-238	-1.288E+00	3.654E+00	2.927E+00	1.864E+00	FAIL ABUN
NP-239	-1.753E-01	4.173E-01	3.184E-01	2.129E-01	NOT IDENT.
AM-243	1.076E-01	1.426E-01	1.187E-01	7.275E-02	NOT IDENT.
CM-243	-1.238E-02	1.779E-01	1.599E-01	9.078E-02	NOT IDENT.
AM-246	1.592E-01	3.557E-01	3.114E-01	1.815E-01	NOT IDENT.
CM-247	-5.068E-02	7.962E-02	6.715E-02	4.062E-02	NOT IDENT.
CF-249	-3.752E-02	9.036E-02	7.761E-02	4.610E-02	NOT IDENT.
CF-251	5.182E-02	2.432E-01	2.147E-01	1.241E-01	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	330.0566
46.50	330.0566
46.50	330.0566
48.70	301.7119
49.72	293.6241
51.35	338.5363
52.39	406.3604
52.97	390.1215
53.15	390.2352
53.44	387.4851
54.07	383.7668
56.28	368.0945
56.28	368.0967
57.37	405.9017
57.53	406.0021
57.53	406.0033
57.60	406.0457
57.98	417.1380
57.98	417.1380
59.32	391.3809
59.32	391.3809
59.40	391.4286
59.54	391.5108
59.72	391.6177
60.01	391.7883
61.10	282.0027
61.14	282.0193
61.30	282.0867
63.00	274.9820
63.29	275.0980
63.29	275.0980
63.58	289.2878
64.28	273.9280
65.12	327.5438
65.20	327.5817
65.20	327.5817
66.05	320.5807
66.72	318.0797
66.83	306.3472
66.91	306.3823
67.20	306.5073
67.20	306.5073
67.75	301.8272
67.85	287.1212
68.90	266.8618
68.90	266.8618
69.30	269.9644
69.67	271.0892
70.82	369.2605
70.82	369.2605
70.83	369.2662
72.80	395.9900
72.87	380.1863
72.87	380.1863
74.67	368.3949
74.81	341.4634
74.81	341.4634
74.81	341.4634
74.81	341.4634
74.81	341.4634
74.81	341.4634
74.81	341.4634
74.97	341.5356
75.28	335.3180
75.70	335.5021
77.11	351.4514
77.11	351.4514

77.11	351.4514
77.11	351.4514
77.11	351.4514
77.11	351.4514
77.11	351.4514
78.38	331.8834
79.62	359.5770
79.80	391.6292
79.80	391.6292
80.11	391.7832
80.18	391.8176
80.30	407.8724
80.30	407.8724
80.57	408.0109
81.00	441.8510
81.07	441.8897
81.07	441.8897
81.07	441.8897
81.07	441.8897
82.60	417.0696
83.37	353.2407
83.78	353.4207
83.78	353.4207
83.78	353.4207
83.78	353.4207
84.21	342.3575
84.90	336.2120
85.43	338.0392
86.29	364.1753
86.50	396.5038
86.54	396.5219
86.59	396.5459
86.72	396.6089
86.79	396.6405
86.94	412.8406
87.30	413.0188
87.30	413.0188
87.30	413.0188
87.30	413.0188
87.30	413.0188
87.30	413.0188
87.30	413.0188
87.30	413.0188
87.57	447.0446
87.88	339.0403
88.03	339.1018
88.36	339.2351
88.47	339.2800
89.95	339.8760
91.11	340.3400
92.29	340.8091
92.38	340.8450
92.38	340.8450
93.35	341.2269
94.00	341.4833
94.67	341.7435
94.67	341.7460
94.90	237.6572
94.90	237.6572
94.90	237.6572
94.90	237.6572
95.87	250.9568
95.87	250.9568
96.73	257.7269
97.43	254.6645
98.44	227.1688
98.44	227.1696
98.88	214.1999
99.55	237.2685
99.55	237.2685
99.86	238.7140
100.00	238.7513
100.10	238.7780
103.18	264.9120
103.76	264.0518
105.00	245.8862
105.31	249.0557
108.00	262.1545
109.28	272.8432

111.00	274.3680
111.00	274.3680
111.76	278.7290
112.95	266.6214
115.19	256.8340
116.30	280.3710
117.00	290.0131
117.00	290.0131
117.66	291.8732
121.11	259.4036
121.62	272.9285
121.78	257.4806
122.06	263.8336
122.32	262.8528
122.32	262.8528
122.32	262.8528
122.32	262.8528
123.07	256.5477
127.23	281.1484
129.76	257.3535
131.20	264.0400
133.02	271.8939
133.54	267.7914
135.34	280.9580
136.00	262.0323
136.25	267.3982
136.48	270.6379
140.51	272.6914
140.51	0.0000
142.18	277.3668
142.65	270.0112
143.76	272.4141
144.24	271.4602
144.24	271.4602
144.24	271.4602
144.24	271.4602
145.22	262.0677
145.44	266.3976
147.16	287.1586
152.43	261.5561
152.70	263.7686
153.22	255.2697
154.21	283.5108
154.21	283.5108
154.21	283.5108
154.21	283.5108
155.03	279.3925
156.02	260.1922
158.56	294.2855
159.00	0.0000
159.00	287.8974
160.31	273.0410
161.27	270.0052
162.32	269.1517
162.64	260.5371
163.35	255.2581
163.89	257.5444
165.85	264.4835
167.43	256.1025
171.28	237.2130
171.86	239.5095
172.10	238.4608
176.55	246.9761
176.60	242.5955
181.06	246.7346
184.41	217.3265
185.71	250.9224
186.00	250.9760
190.27	271.5190
192.34	238.1641
193.63	271.3018
197.04	300.9567
198.01	286.6682
198.60	265.5874
200.40	250.2876
201.83	248.3069
202.84	249.6041
205.31	289.2855

208.36	249.4536
208.81	258.5237
209.75	244.0704
209.75	244.0704
210.97	226.9415
215.65	267.4262
216.55	253.1262
218.09	259.7259
222.10	256.7986
223.80	262.5413
226.40	263.9046
227.00	271.2920
227.08	252.1894
227.20	252.2080
228.16	254.1907
228.18	254.1941
228.18	254.1941
231.56	245.3968
235.69	247.2006
236.00	247.2501
236.00	247.2501
238.63	243.0806
238.63	243.0806
238.63	243.0806
238.63	243.0806
239.00	243.1372
240.98	215.8847
241.98	225.2149
241.98	225.2149
241.98	225.2149
244.69	245.5518
245.39	213.4164
247.94	250.0498
248.90	222.5014
249.79	226.3199
252.40	216.5086
252.85	208.2390
252.85	208.2390
254.15	0.0000
256.20	242.9801
256.20	242.9801
260.50	196.1950
260.90	199.9615
262.80	216.9500
264.65	198.5486
268.24	208.3139
268.79	200.9064
269.46	196.3110
269.46	196.3110
269.46	196.3110
269.46	196.3110
271.23	220.8467
273.65	231.4690
276.40	241.2261
277.35	218.8186
277.60	204.7635
277.60	204.7635
278.00	204.8088
278.60	196.4222
279.20	204.0123
279.53	207.8107
280.46	209.8056
281.68	234.4314
283.67	209.2469
284.30	194.2365
285.00	199.0308
285.90	198.1901
286.10	209.5369
286.10	209.5369
287.40	214.4141
288.45	0.0000
290.67	175.0657
290.80	175.0793
291.72	160.9667
293.26	180.0593
293.70	199.0616
295.21	222.9459
295.21	222.9459

295.21	222.9459
295.96	235.6924
296.50	237.3474
297.23	250.1056
298.57	237.6190
299.80	218.7555
299.80	218.7555
300.09	204.5229
300.09	204.5229
300.09	204.5229
300.09	204.5229
300.12	204.5256
301.29	208.2264
302.84	227.6948
303.76	221.1392
303.91	221.1562
304.40	211.6805
304.40	211.6805
304.84	220.3157
306.84	204.3214
308.46	181.5669
311.98	176.1656
316.51	186.1898
318.01	178.6526
319.02	166.2549
319.41	154.7561
320.08	170.1940
323.87	222.5603
323.87	222.5603
323.87	222.5603
323.87	222.5603
325.23	212.1125
328.77	170.0037
333.44	195.2636
334.20	184.0393
334.20	184.0393
334.30	167.9040
338.28	192.1871
338.28	192.1871
338.28	192.1871
338.28	192.1871
338.32	192.1920
338.32	192.1920
338.32	192.1920
340.50	171.6720
340.57	171.6785
344.27	150.2101
345.85	169.8158
350.59	143.2417
351.07	148.1601
351.92	172.0039
351.92	172.0039
351.92	172.0039
355.39	0.0000
356.01	174.6348
364.48	180.9296
366.43	172.2400
367.43	177.2468
367.94	170.3961
369.80	175.4773
374.96	166.0251
383.85	161.7584
387.95	178.9695
388.63	186.9810
391.69	143.4217
391.69	143.4217
392.90	166.4231
398.62	124.8932
400.65	147.0090
401.10	160.0430
401.81	163.0955
402.60	163.1552
404.84	166.3262
410.95	168.7895
411.60	158.7888
413.65	162.9571
414.70	168.0641
415.30	166.0957

415.76	172.1710
417.63	0.0000
418.52	193.5492
423.70	165.6976
427.08	191.2379
427.89	193.3292
432.53	174.4461
433.93	197.8922
439.47	159.7061
439.56	159.7119
439.89	171.9418
443.98	175.2985
444.90	168.2287
445.03	168.2388
445.03	168.2388
445.03	168.2388
445.03	168.2388
453.90	180.1207
463.38	164.3887
468.07	193.5262
473.00	181.5365
475.06	174.4607
475.35	167.2543
476.78	169.4173
477.59	167.4046
477.96	170.5309
482.03	152.1751
484.57	134.7115
487.03	152.4766
490.36	127.7506
492.35	126.8118
497.08	122.8802
507.63	0.0000
510.53	0.0000
510.84	131.9116
511.00	131.9193
511.85	131.9616
511.85	131.9616
513.99	103.0705
513.99	103.0705
520.41	124.5868
520.65	120.8455
527.90	134.8719
528.96	0.0000
529.64	126.5273
529.87	0.0000
531.02	125.5369
537.32	131.1173
543.00	118.6773
546.56	0.0000
549.76	111.5343
552.65	109.5255
555.20	107.4974
563.23	98.2015
563.90	103.5622
568.70	101.6008
569.32	105.9029
569.50	100.5612
569.67	104.8452
573.80	134.9978
574.00	128.5781
574.64	114.3177
578.91	118.0674
579.30	116.2943
583.14	119.3169
585.48	109.3736
591.81	107.8174
592.07	112.1402
593.00	106.7827
595.88	109.0484
600.56	117.7547
602.52	0.0000
602.71	104.6152
602.71	104.6152
603.60	102.8417
604.41	104.6742
604.70	117.3206
609.31	94.0024

609.31	94.0024
609.31	94.0024
609.31	94.0024
610.33	104.8866
612.46	106.7719
614.37	101.4066
618.01	100.0814
621.84	98.0310
621.84	98.0310
631.29	88.5048
633.02	80.9014
633.10	83.0897
634.78	95.1690
635.90	107.2425
636.97	100.7104
645.85	117.4727
646.12	111.9908
656.30	111.7324
657.75	116.5077
657.90	0.0000
661.65	99.3120
661.65	99.3120
664.57	83.6258
666.33	83.6721
666.33	83.6721
675.00	77.5691
677.61	95.1941
685.20	83.3771
692.80	104.0020
695.00	88.2759
696.49	79.0200
696.49	79.0200
697.00	92.0491
697.49	95.7830
698.33	91.1572
698.50	89.3008
699.00	91.1752
702.63	88.4827
706.10	95.1041
706.58	0.0000
706.67	91.3905
709.31	71.8632
711.68	78.4526
713.82	90.6533
717.42	82.3317
720.50	88.0275
721.93	119.9193
722.20	128.3595
722.78	125.5705
722.78	125.5705
722.89	125.5759
722.95	125.5787
723.30	128.4013
724.18	100.3125
727.18	72.2517
733.00	104.3358
735.90	75.2620
739.58	86.6449
742.81	86.7273
744.21	88.6490
747.13	96.2766
751.79	96.4073
752.31	87.9141
753.82	81.3319
755.35	83.2609
756.15	81.3879
756.87	79.5105
763.93	88.2092
765.79	72.1236
766.42	65.4933
766.84	68.3481
776.49	78.0562
778.00	80.9465
778.57	78.1029
778.89	82.8723
783.80	94.4339
785.46	95.4325
792.07	104.2166

795.84	89.0115
796.30	85.1957
798.80	113.9908
801.93	82.4517
805.60	92.1328
810.29	88.4100
810.76	90.3434
815.85	117.4181
817.79	129.9985
818.51	106.9102
819.60	89.5999
826.30	121.6139
828.27	92.7090
831.60	94.7262
831.96	90.8674
834.83	96.7428
836.80	0.0000
846.75	106.7594
848.13	100.0013
856.28	0.0000
856.80	126.5088
860.37	84.7432
867.32	98.5609
867.82	99.5492
871.10	111.3560
873.19	84.0509
874.81	80.1766
875.33	0.0000
876.40	103.6860
879.36	108.6604
880.27	107.7061
880.51	102.8168
881.50	90.1095
883.24	92.1105
884.67	99.0068
889.25	112.8639
896.60	117.0099
898.02	114.1025
899.00	107.2437
903.28	109.0028
911.07	127.3124
911.07	127.3124
911.07	127.3124
919.63	125.8077
920.93	130.5981
925.00	121.8188
925.24	133.7119
926.50	121.8639
935.52	120.1532
937.48	104.3143
944.10	121.4031
946.00	119.4678
949.00	111.5876
962.29	131.9409
964.01	142.2828
966.15	142.3552
968.20	166.4515
969.11	130.1587
969.11	130.1587
969.11	130.1587
977.42	118.1969
980.50	93.3690
983.50	95.4445
989.30	92.5596
996.32	94.7306
1001.03	91.8091
1001.68	93.8420
1004.76	85.8318
1021.30	0.0000
1024.50	0.0000
1034.80	109.8237
1036.00	102.7343
1037.82	98.7051
1038.57	96.6892
1038.76	0.0000
1045.16	106.0101
1046.59	104.0046
1048.07	86.6982

1050.47	89.8083
1050.47	89.8083
1062.04	86.9749
1063.62	74.7228
1076.63	112.9273
1077.35	101.6506
1078.86	81.1409
1085.78	99.7826
1099.22	78.4152
1112.02	98.2935
1112.84	102.4523
1115.52	97.3353
1120.29	66.3385
1120.29	66.3385
1120.29	66.3385
1120.29	66.3385
1120.51	69.4509
1121.28	69.4645
1124.00	0.0000
1129.67	52.9714
1131.51	0.0000
1147.95	0.0000
1167.94	61.0368
1173.22	68.1421
1175.09	52.1377
1177.93	34.1804
1189.05	41.0217
1204.90	36.9354
1205.75	33.7747
1213.00	30.6544
1221.42	25.4131
1230.97	29.7056
1235.34	31.8555
1236.41	0.0000
1238.25	23.3750
1246.25	17.0273
1260.41	0.0000
1271.85	21.3932
1274.45	16.0529
1274.54	16.0535
1291.56	19.3286
1298.22	0.0000
1312.09	25.8740
1325.50	20.3825
1325.50	20.3825
1332.49	16.2354
1333.61	16.2384
1360.21	10.2588
1362.66	0.0000
1365.15	16.8028
1368.21	14.9442
1368.53	0.0000
1376.25	18.7081
1384.27	14.9888
1394.10	11.2621
1395.20	13.1421
1407.95	10.3501
1434.06	13.2354
1436.60	9.4584
1457.56	0.0000
1460.81	10.4495
1489.15	14.3209
1509.49	16.2879
1596.49	12.6414
1620.62	10.7395
1678.03	0.0000
1691.02	12.8377
1691.02	12.8377
1706.46	0.0000
1750.46	0.0000
1764.49	9.9895
1764.49	9.9895
1764.49	9.9895
1764.49	9.9895
1770.23	27.9951
1771.40	16.0000
1791.20	0.0000
1808.65	6.0341

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032512

Total Uranium Activity	-3.8251E+00	ug/g
Total Uranium Counting Unc.	1.0872E+01	ug/g
Total Uranium Tpu	5.5470E-06	ug/g
Total Uranium Mda	8.7106E+00	ug/g

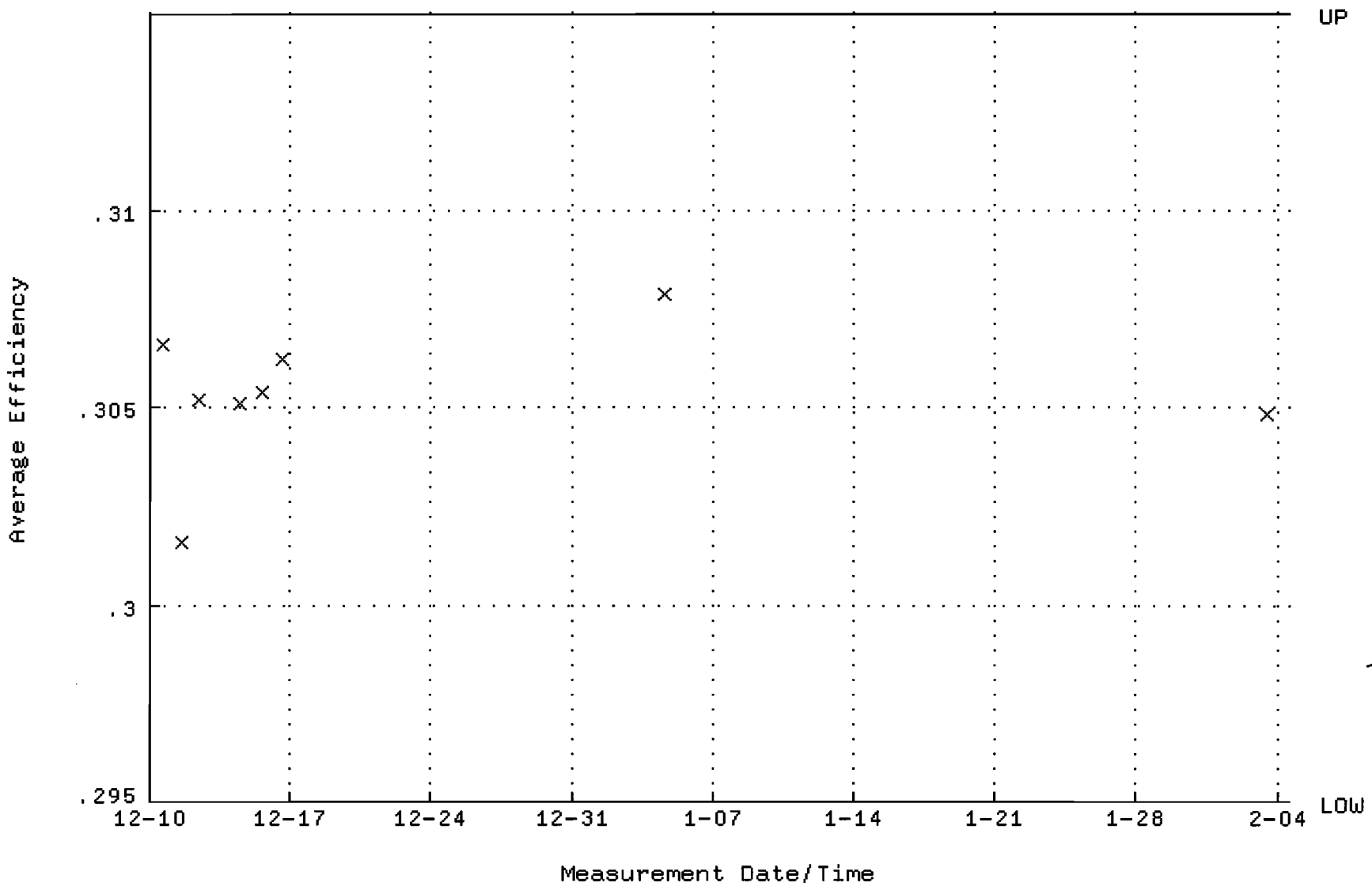
GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948717	SAMPLE ID	: G1202032512
ANALYST	: MXR1	DETECTOR	: GAM15
SAMPLE DATE	: 5-FEB-2010 00:00:00.00	COUNT TIME	: 0 01:00:00.00
ANALYSIS DATE	: 12-FEB-2010 16:33:11.71	SAMPLE ALQT	: 155.440 GRAM

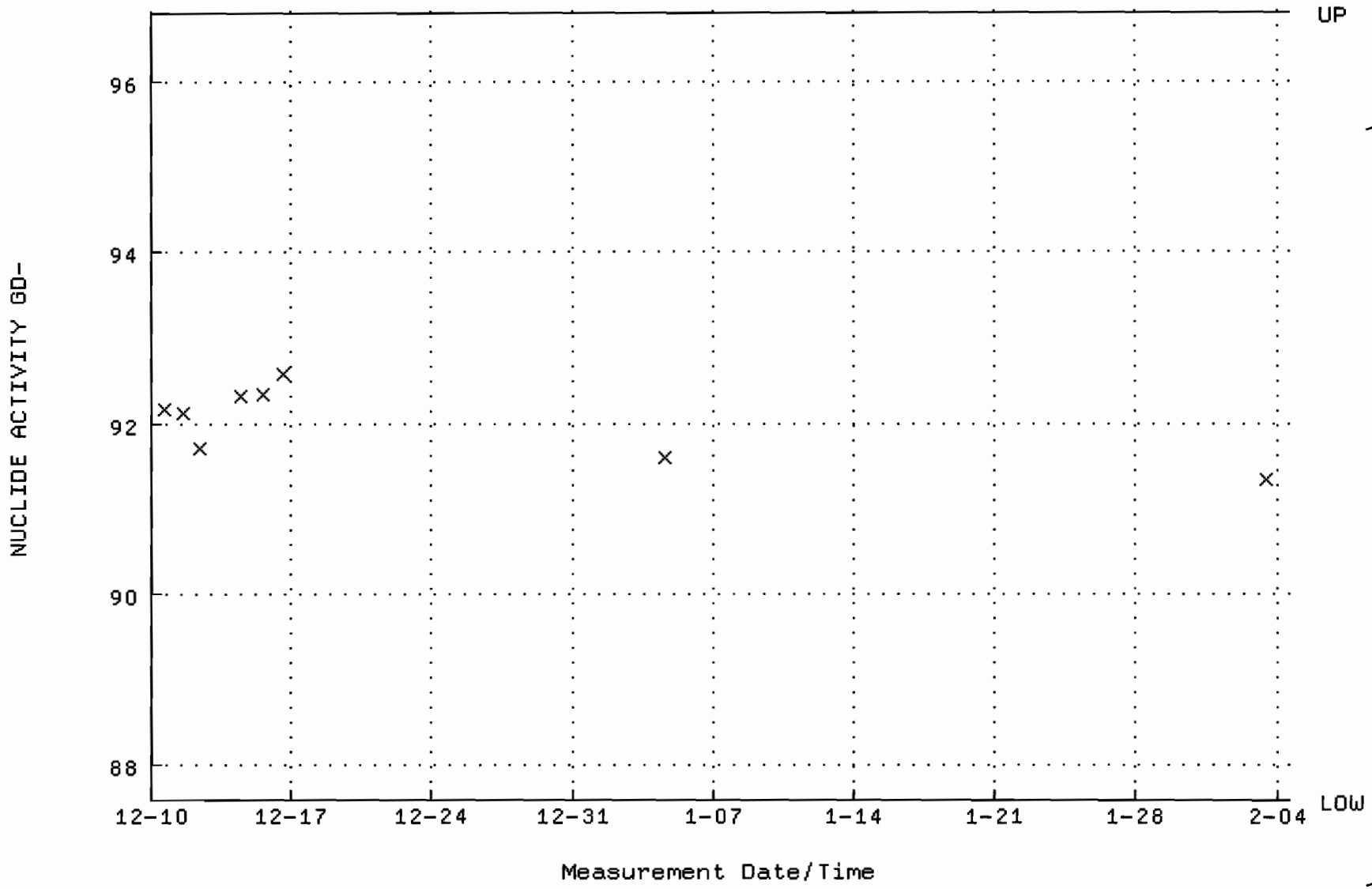
GROSS GAMMA ACTIVITY	(pCi/GRAM)	: 2.676E+01
GROSS GAMMA ERROR	(pCi/GRAM)	: 3.058E+00
GROSS GAMMA MDA	(pCi/GRAM)	: 3.610E+00
GROSS GAMMA DLC	(pCi/GRAM)	: 1.754E+00

BACKGROUND AND EFFICIENCY DATA

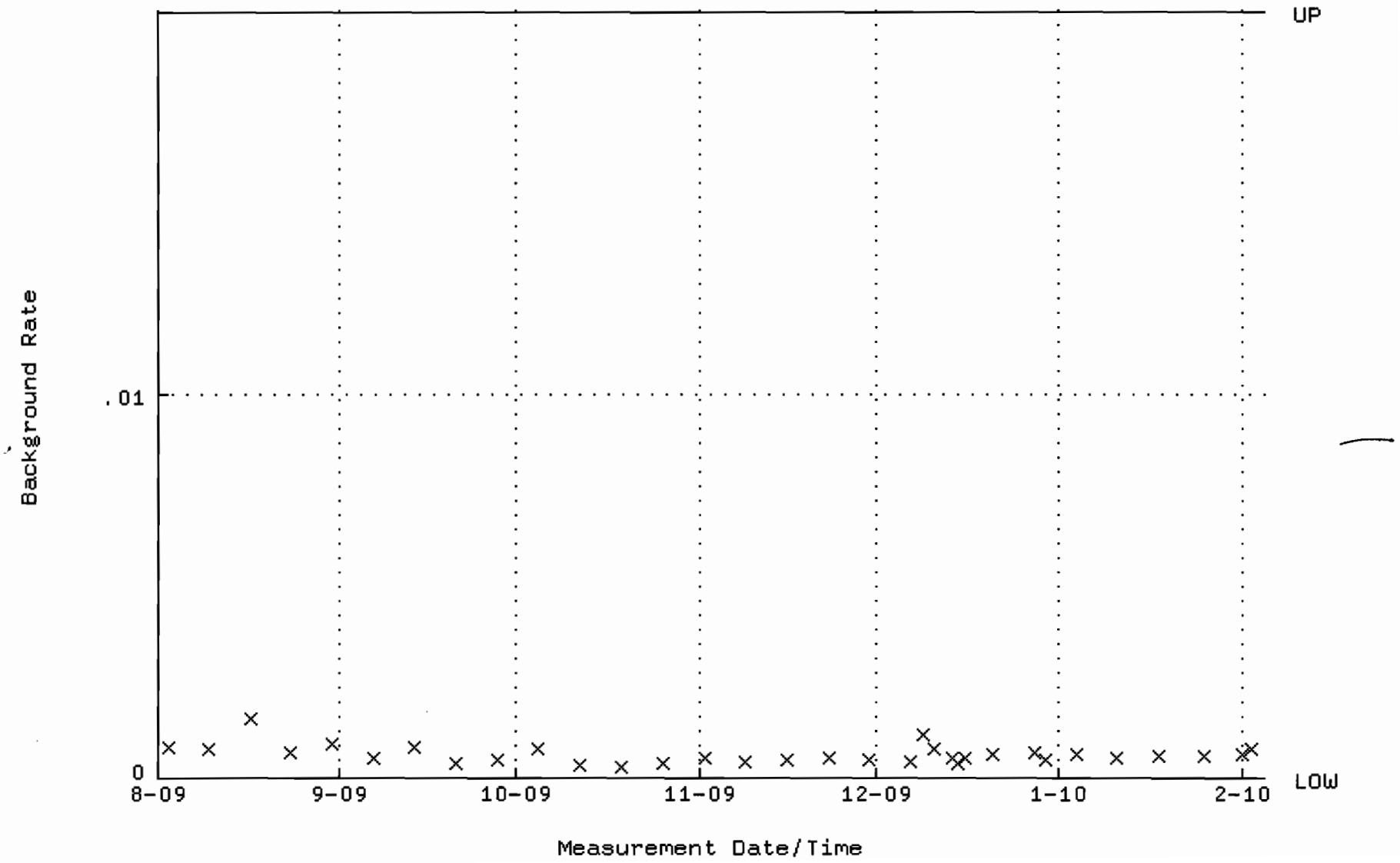
QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-DEC-2009 15:29:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.294995 through 0.314995



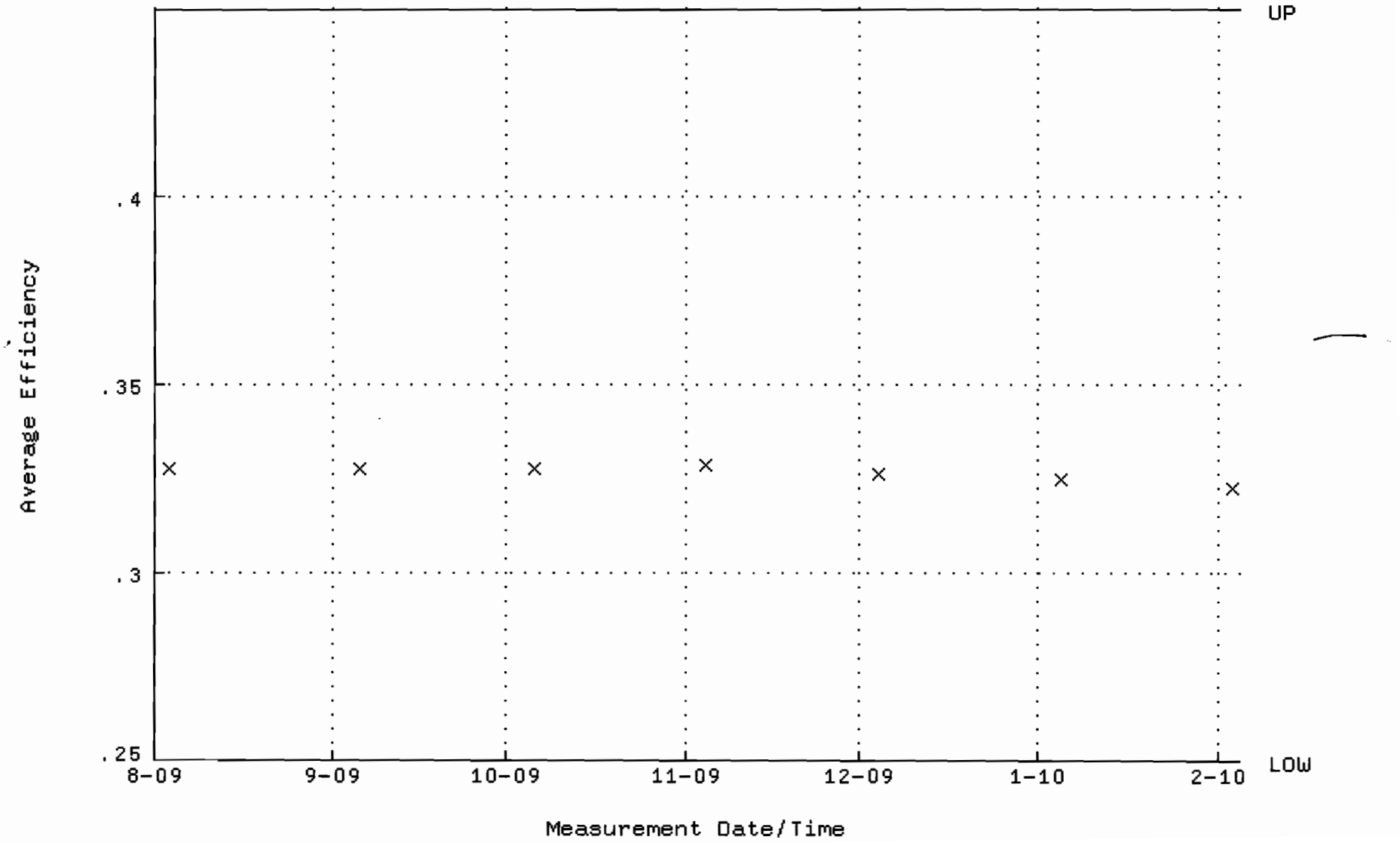
QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-DEC-2009 15:29:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.5863 through 96.8059



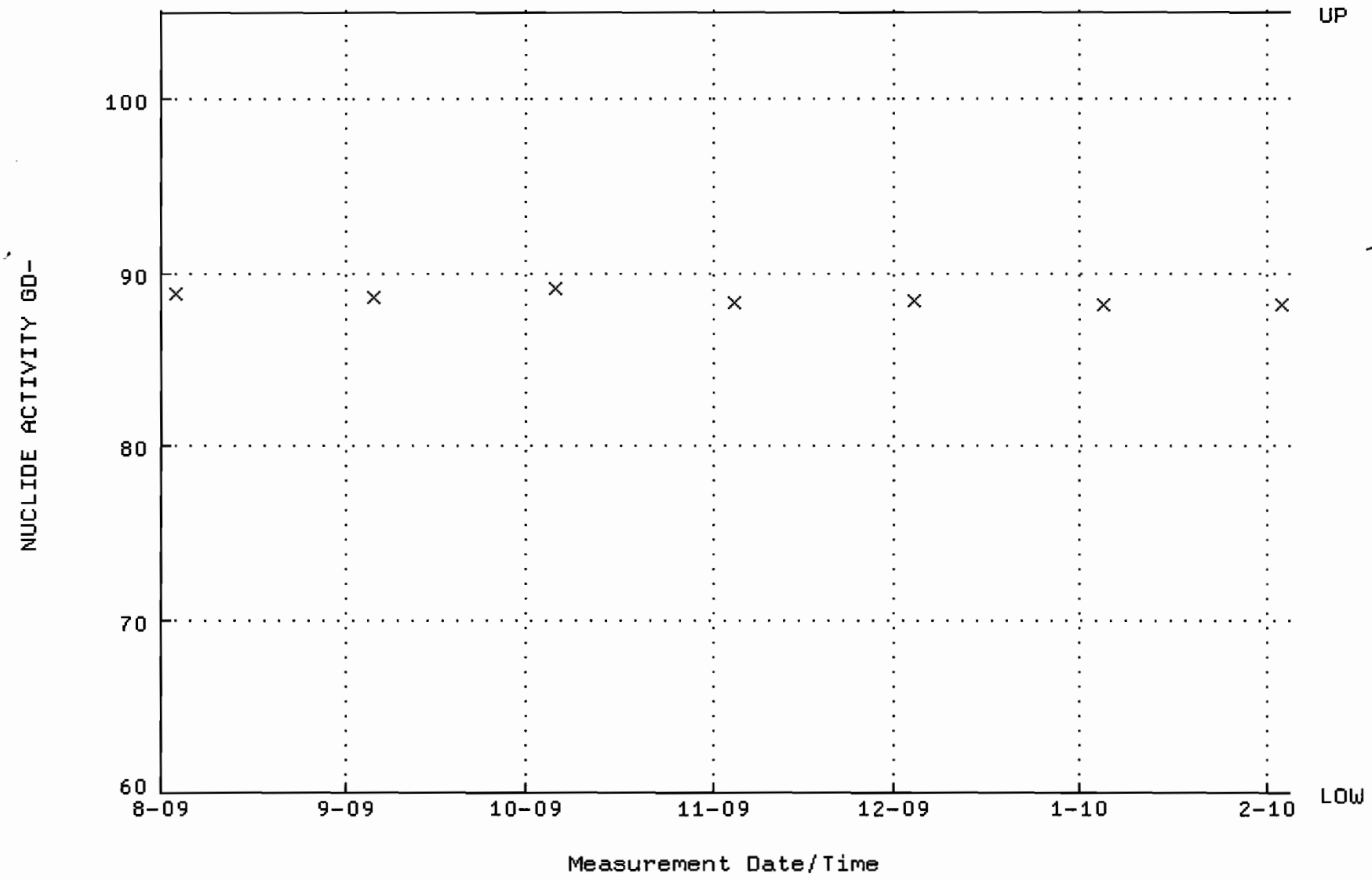
QA filename : DKA100:[ENV_ALPHA.QA.B]B004.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



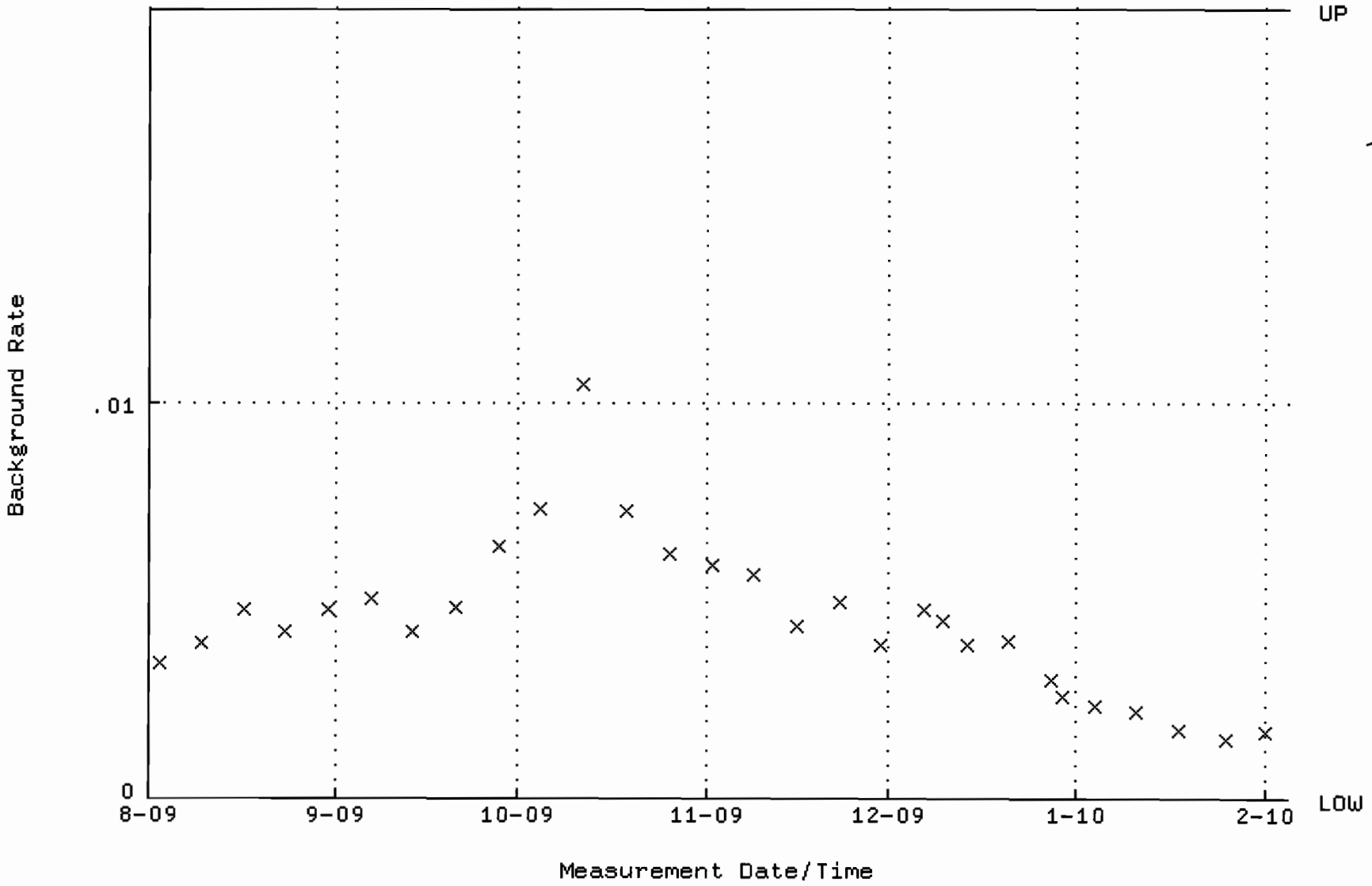
QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000



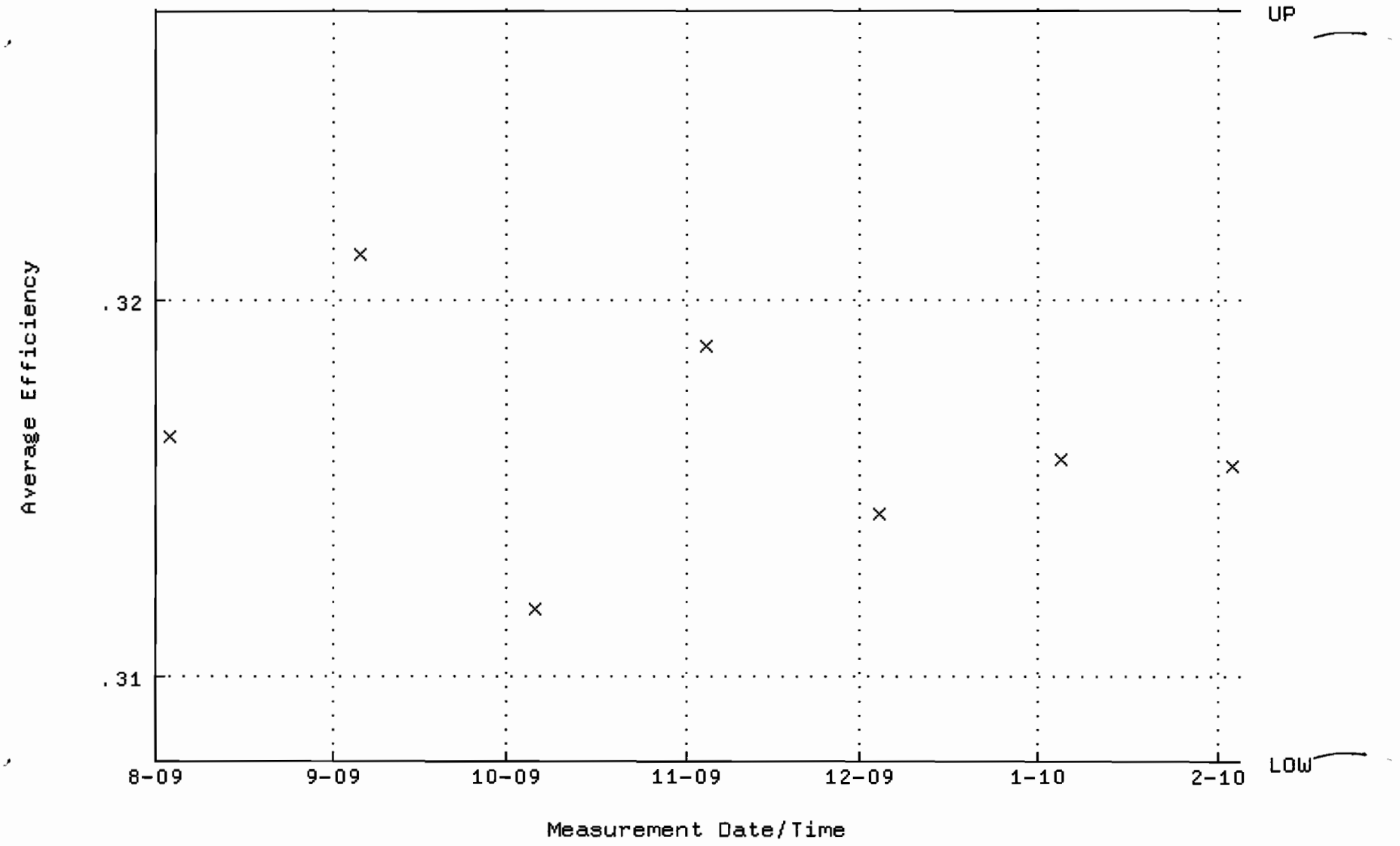
QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000



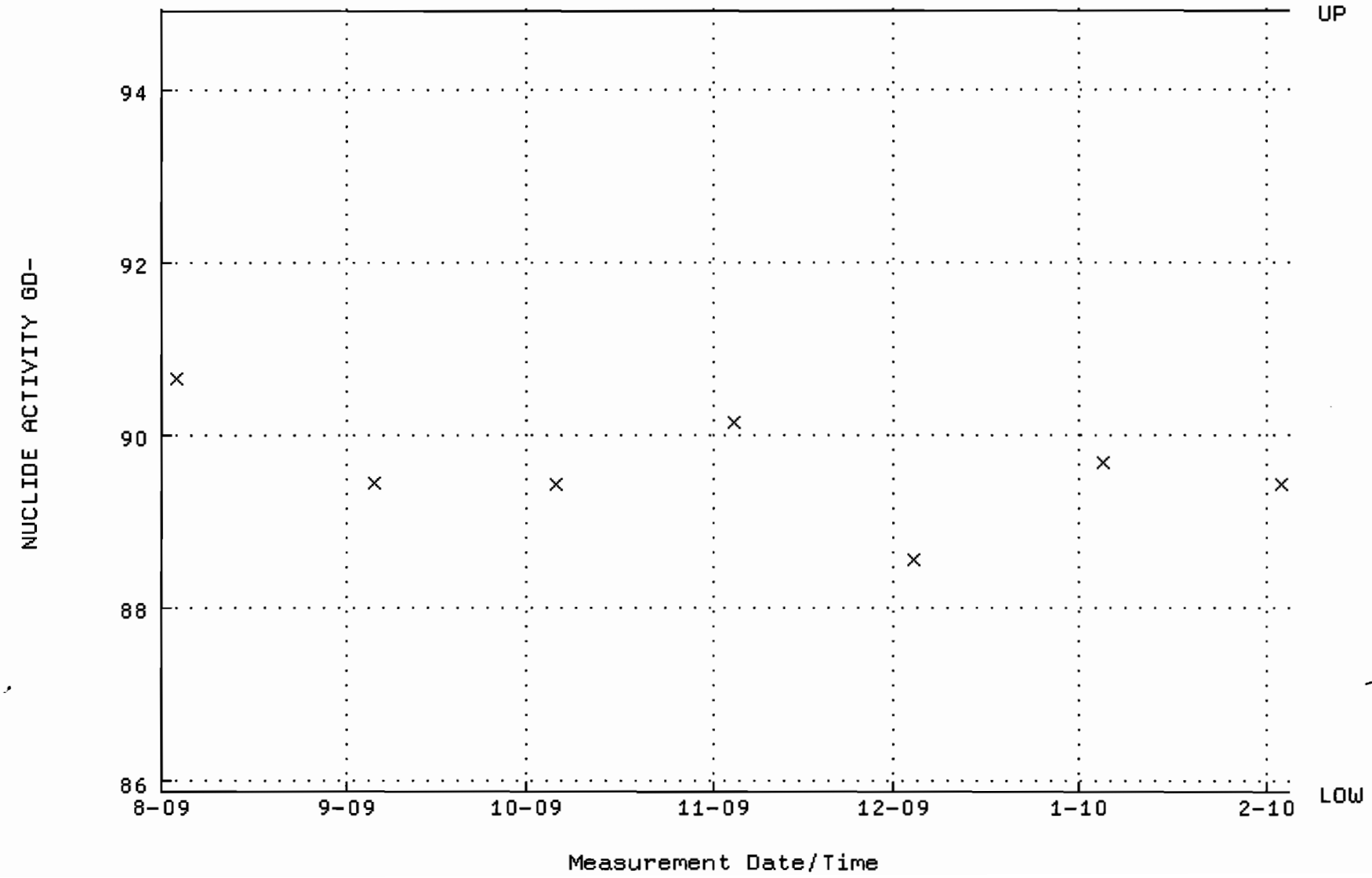
QA filename : DKA100:[ENV_ALPHA.QA.B]B025.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



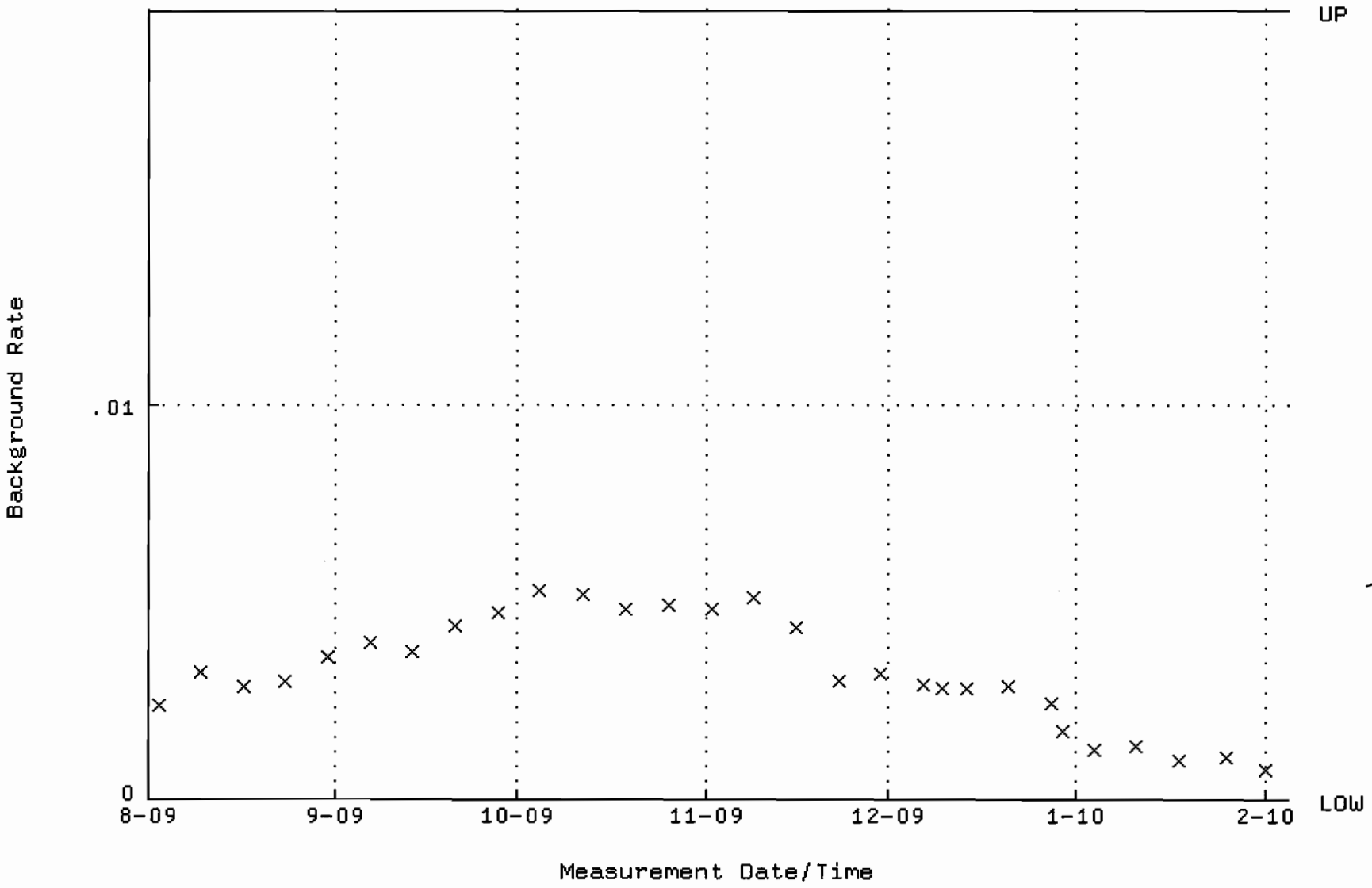
QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.307728 through 0.327728



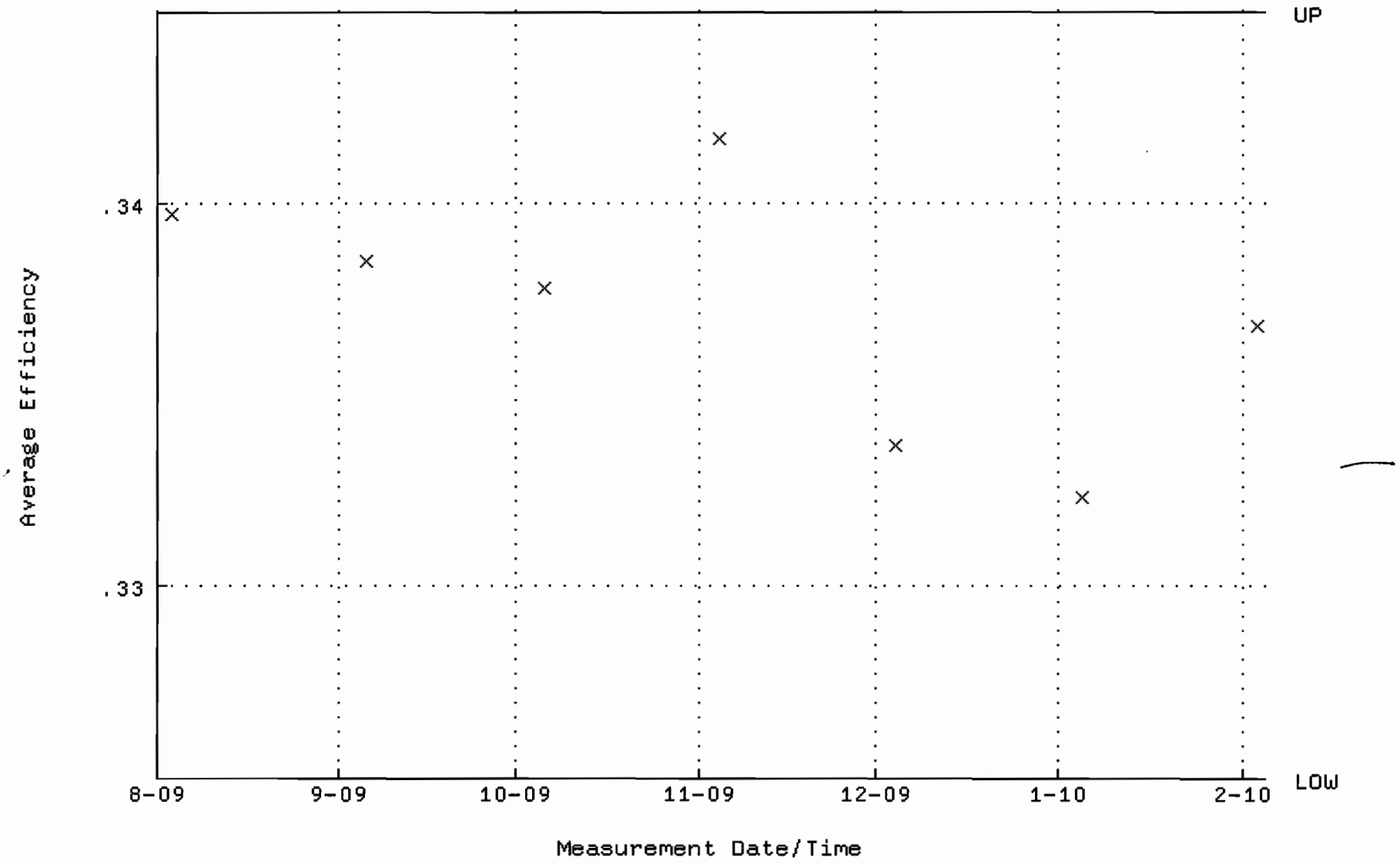
QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8763 through 94.9159



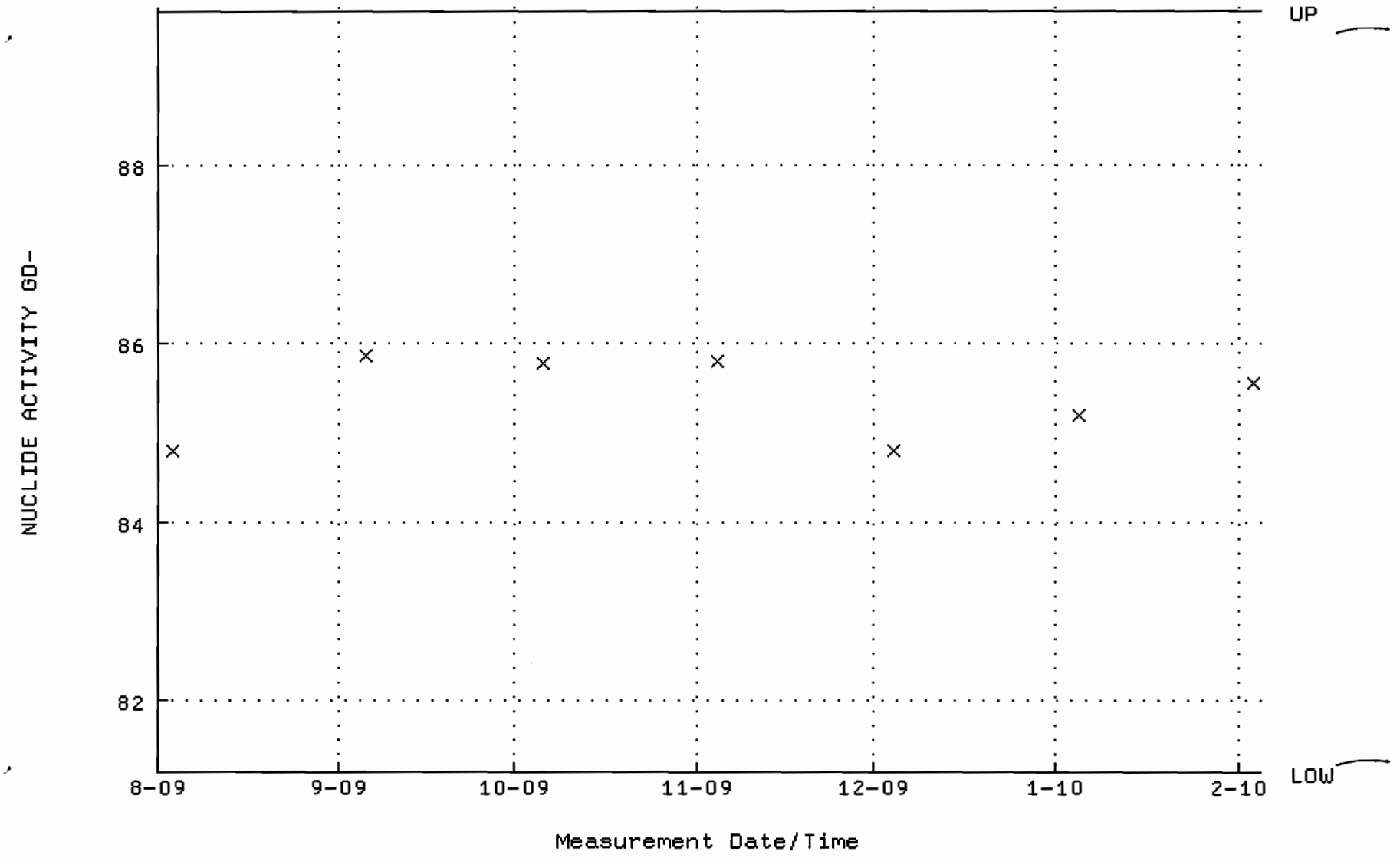
QA filename : DKA100:[ENV_ALPHA.QA.B]B026.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



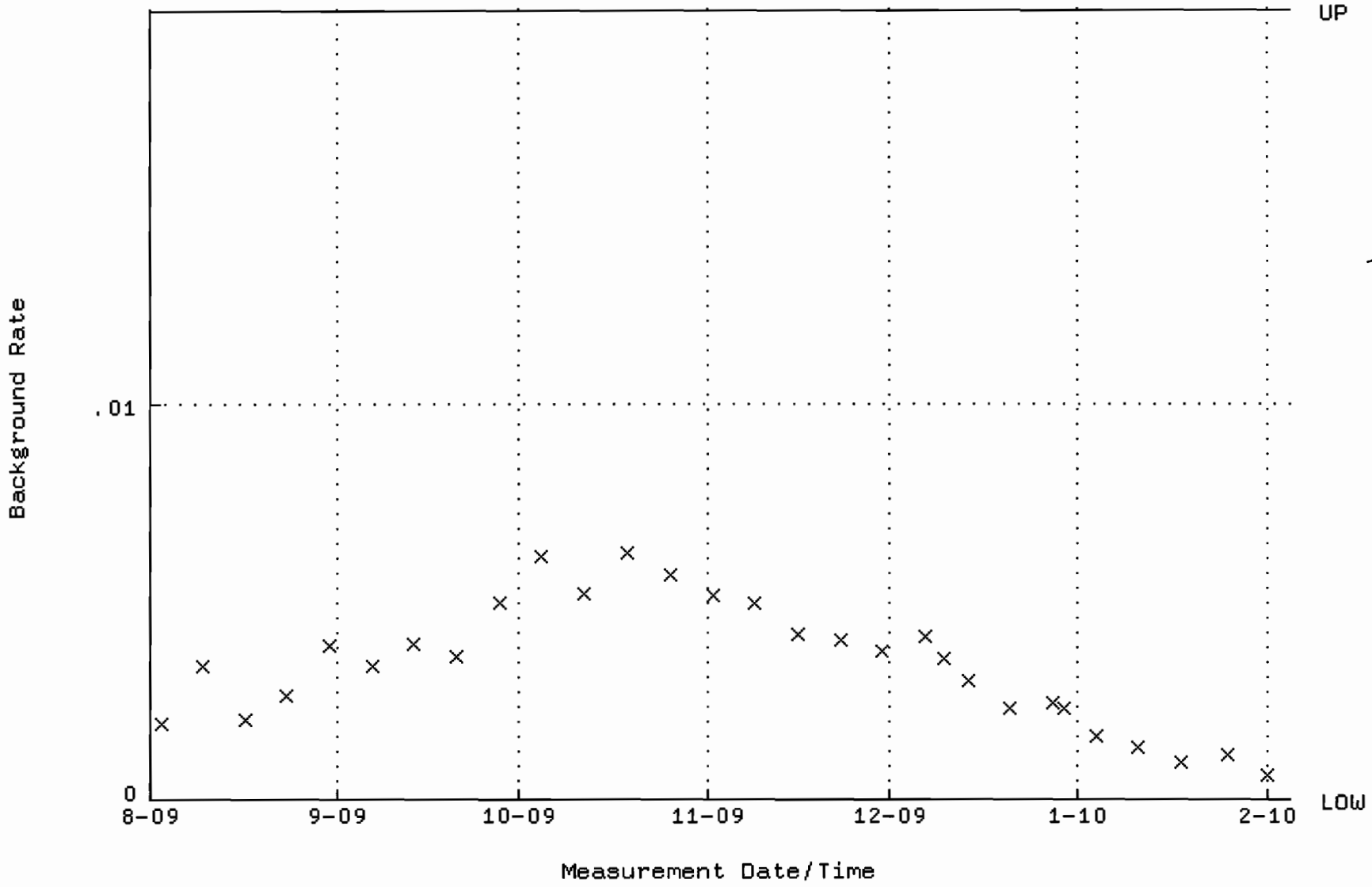
QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.324980 through 0.344980



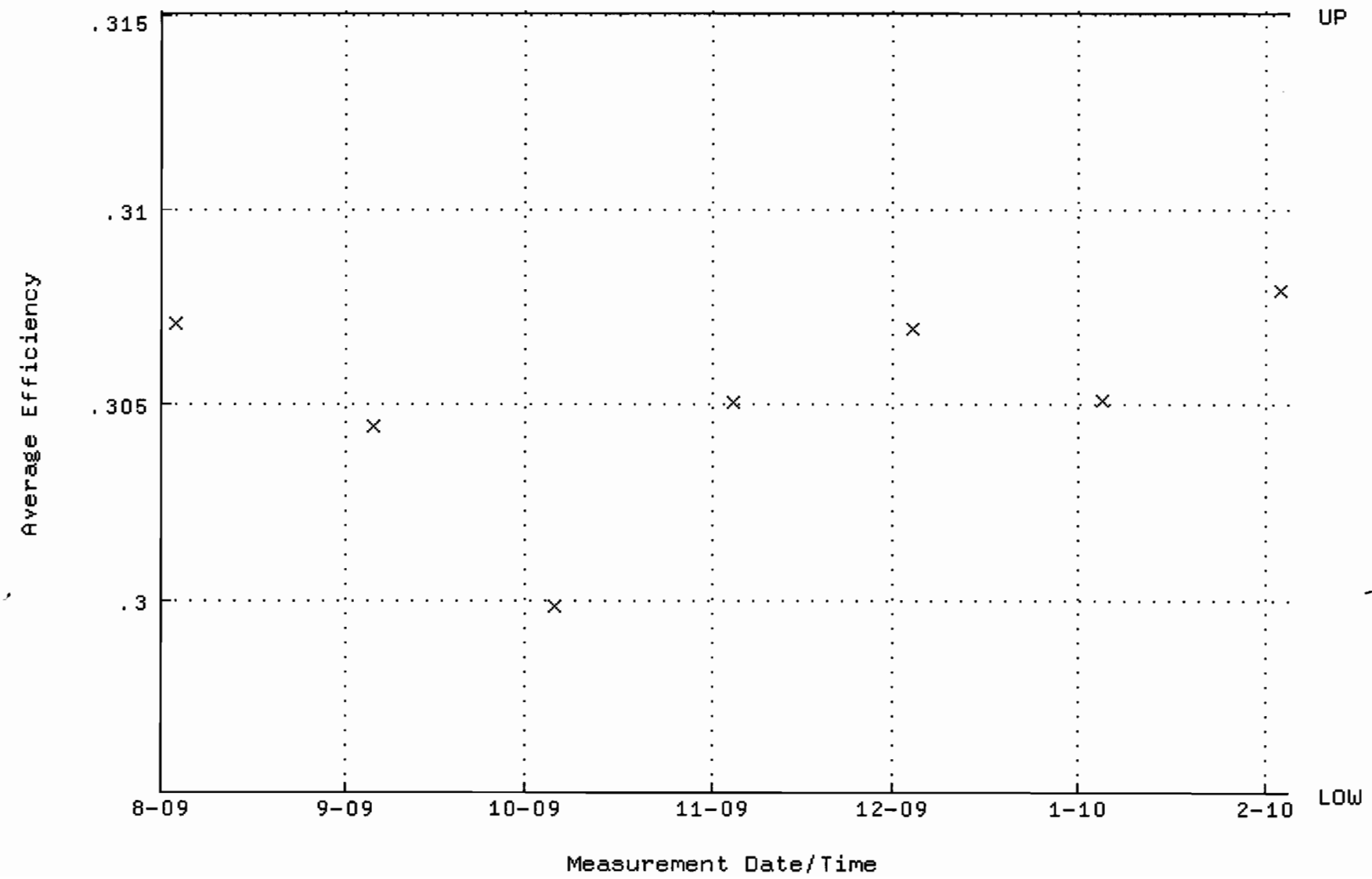
QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 81.2030 through 89.7506



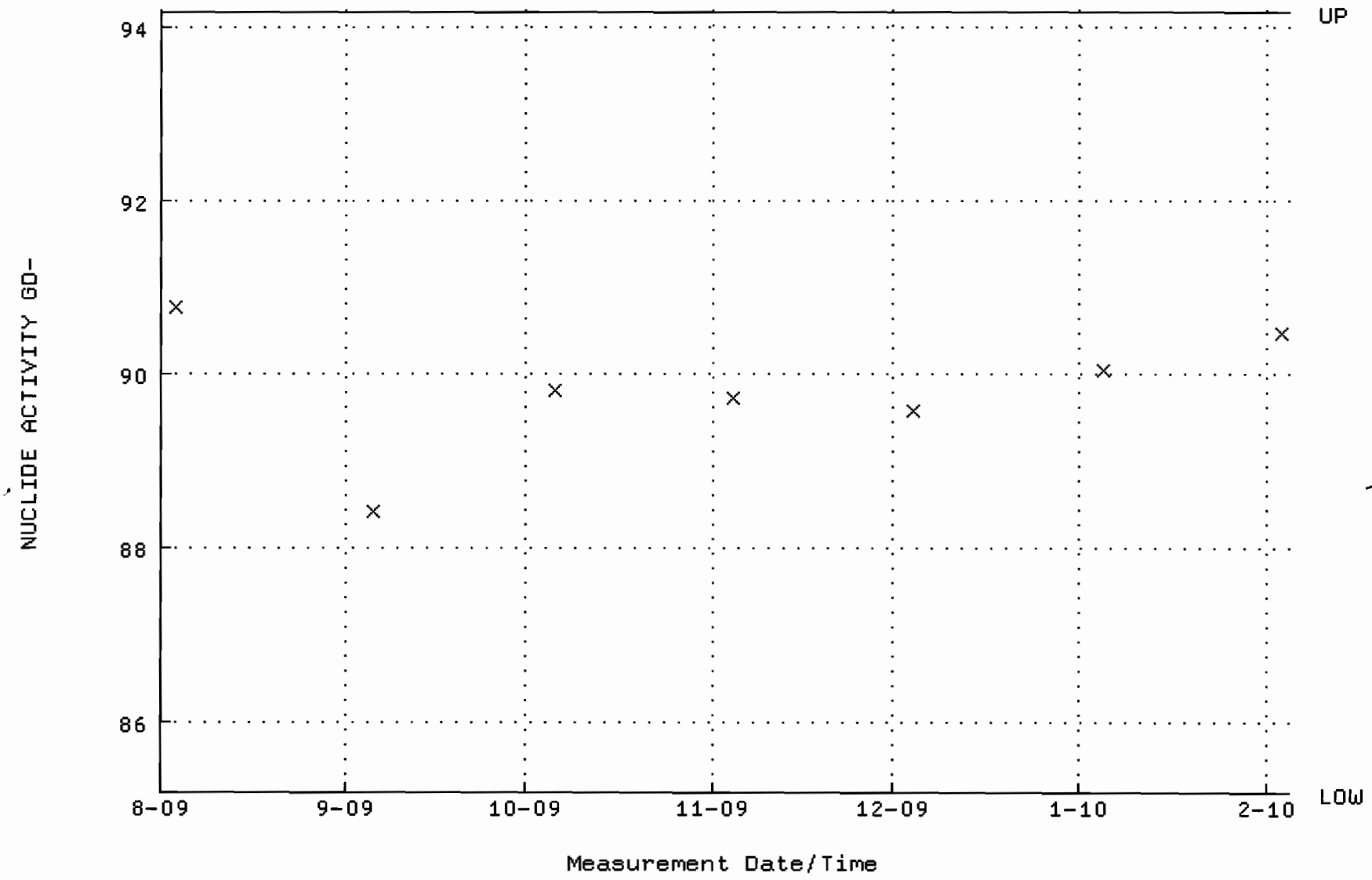
QA filename : DKA100:[ENV_ALPHA.QA.B]B027.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



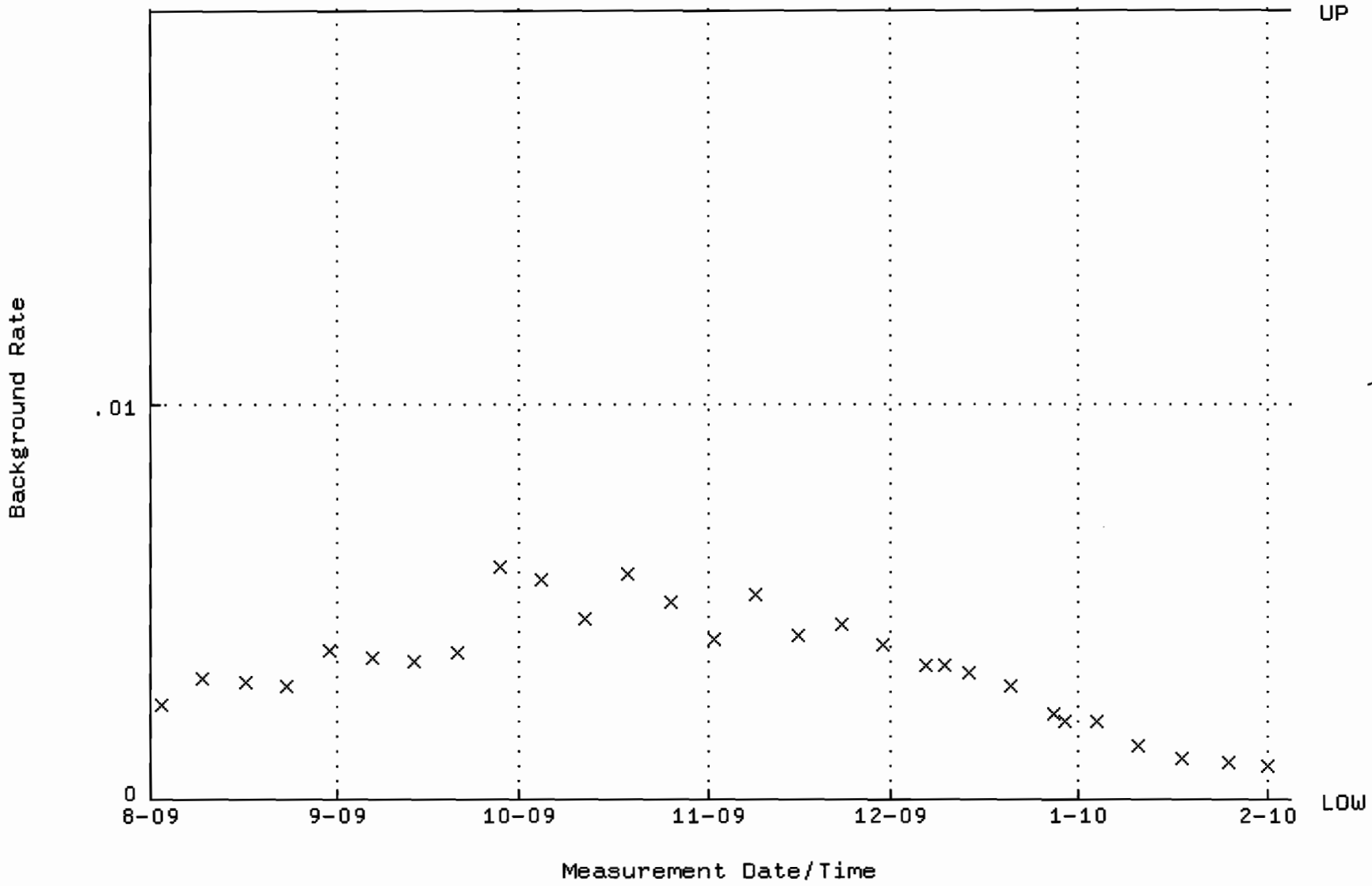
QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295040 through 0.315040



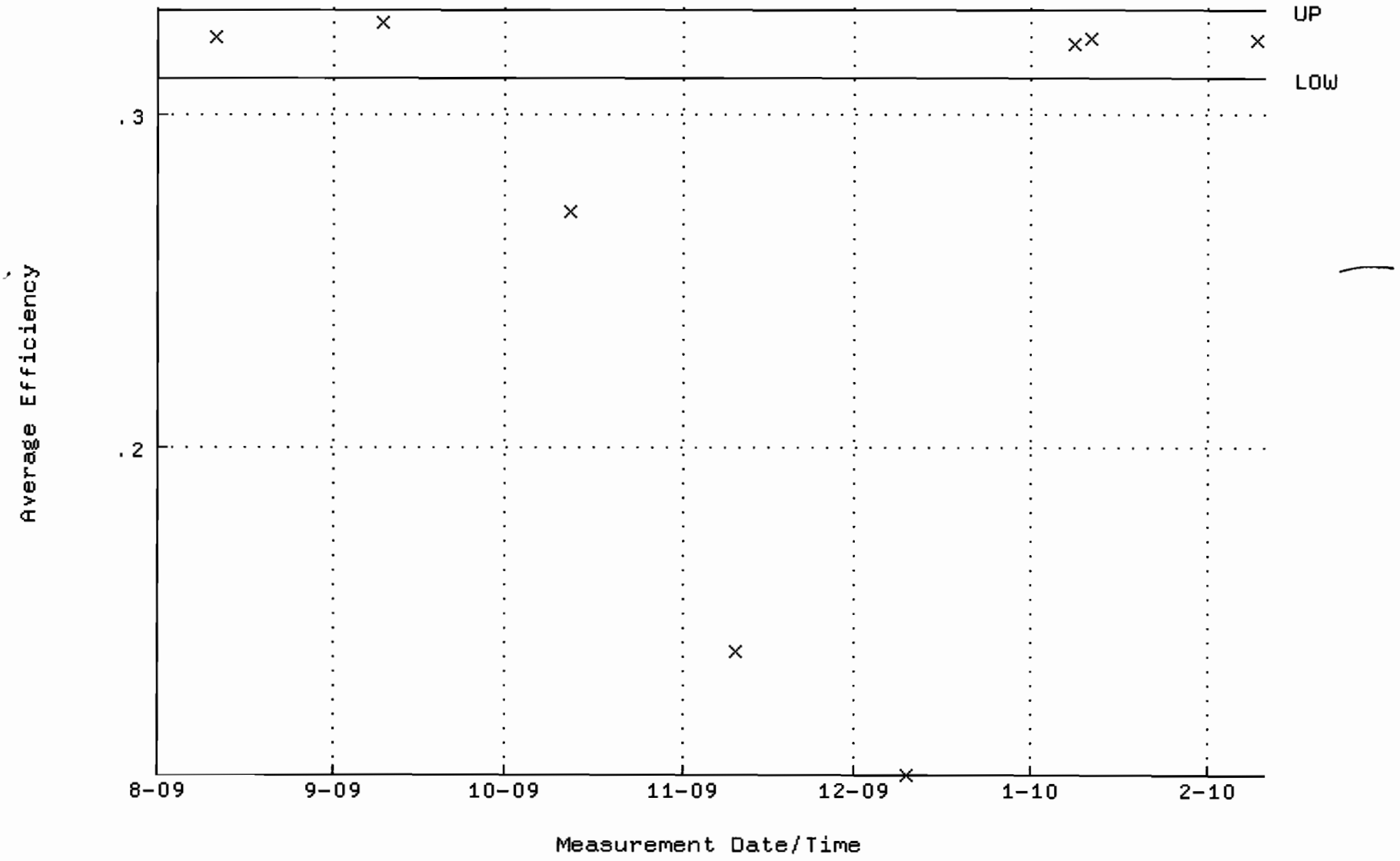
QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.1965 through 94.1645



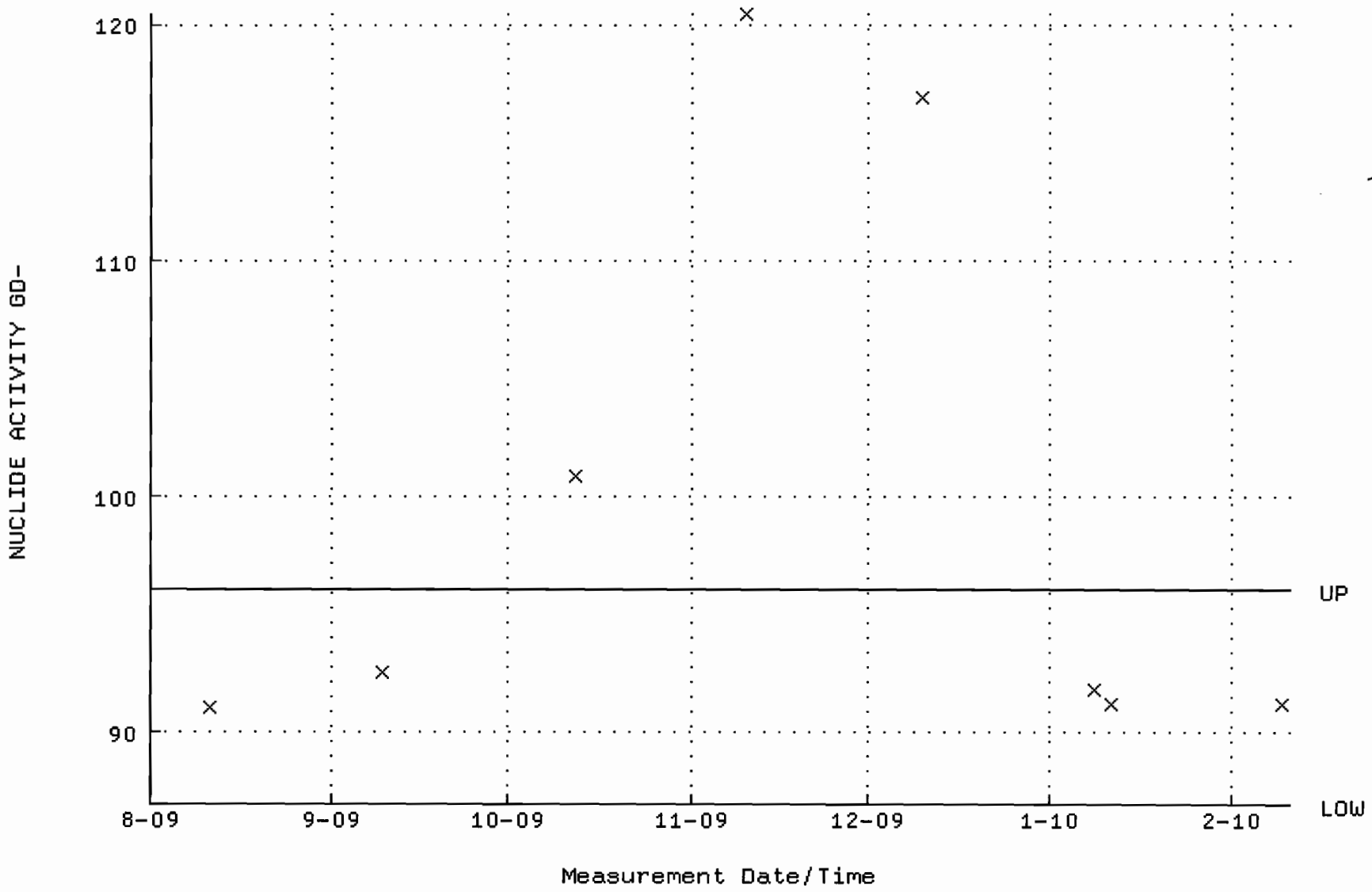
QA filename : DKA100:[ENV_ALPHA.QA.B]B028.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



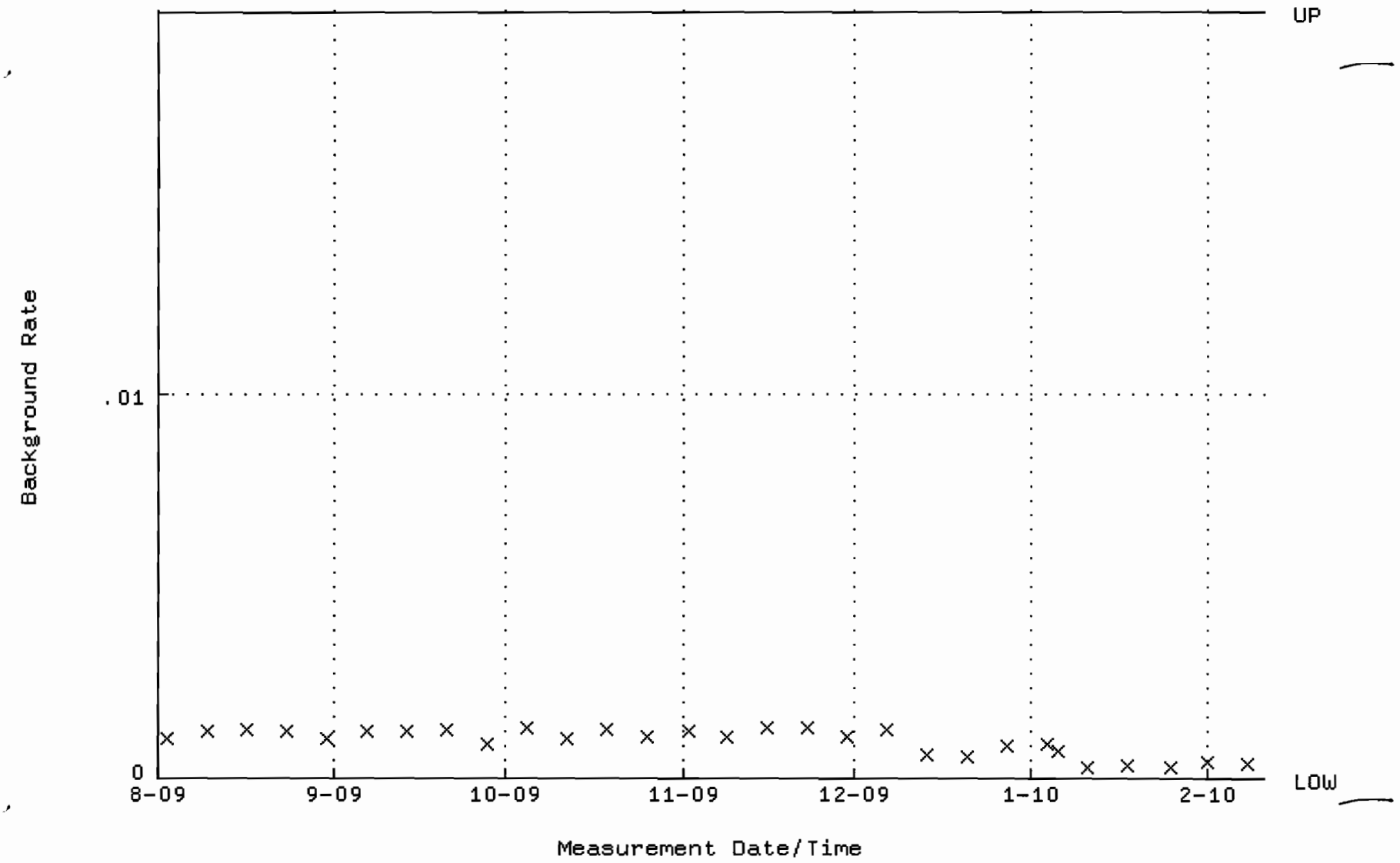
QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.311357 through 0.331357



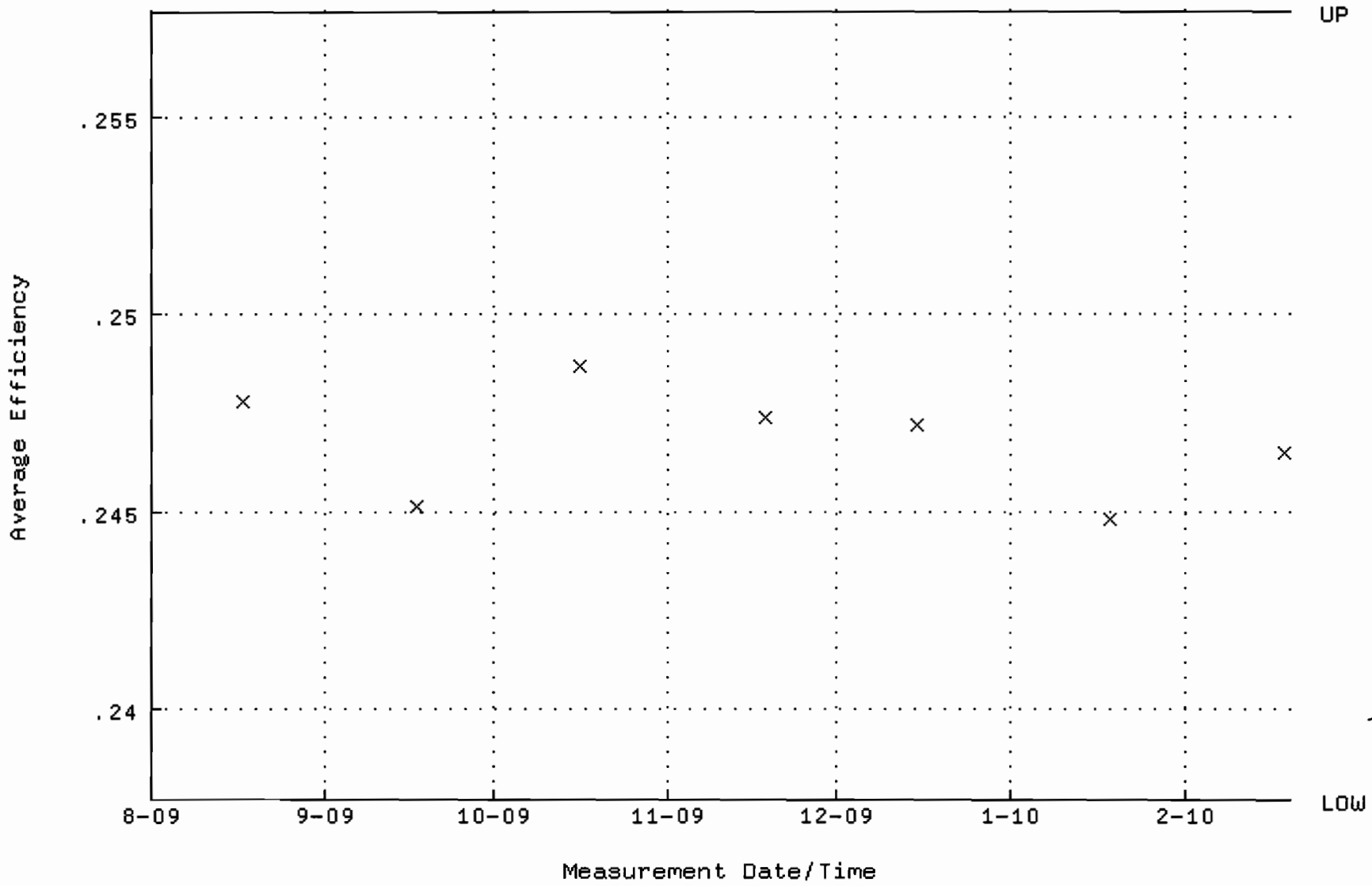
QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.9094 through 96.0578



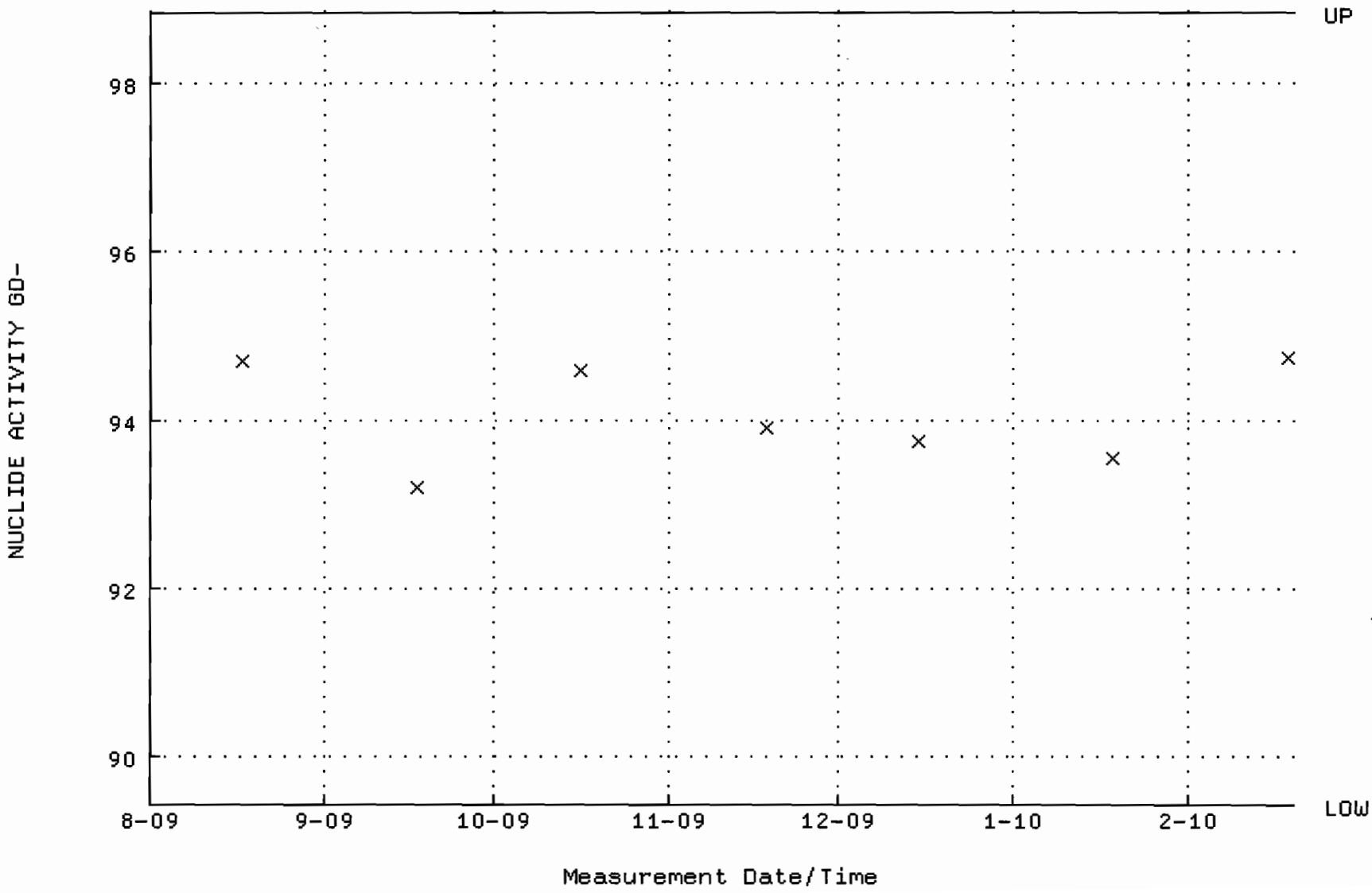
QA filename : DKA100:[ENV_ALPHA.QA.B]B082.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



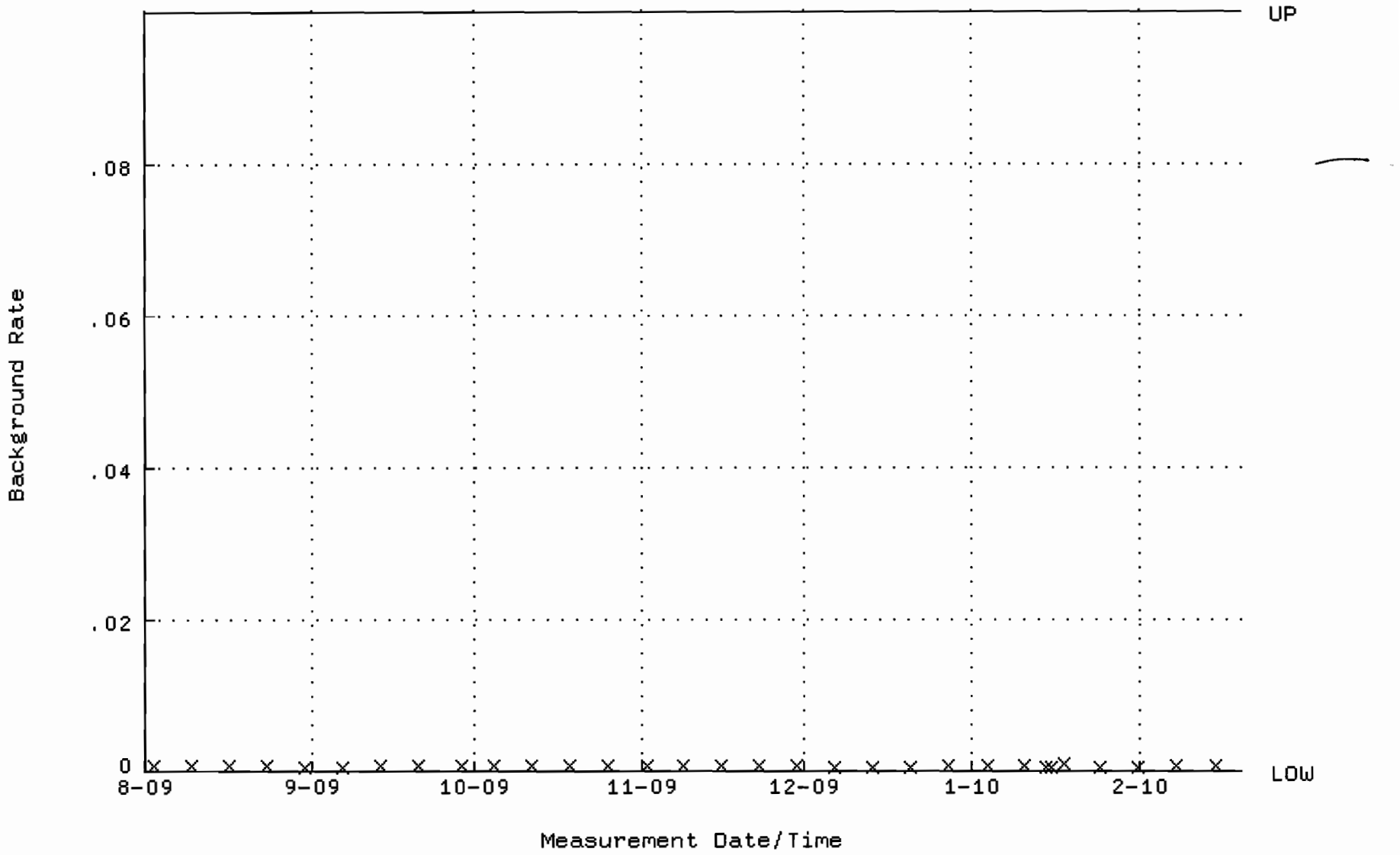
QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:25 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237686 through 0.257686



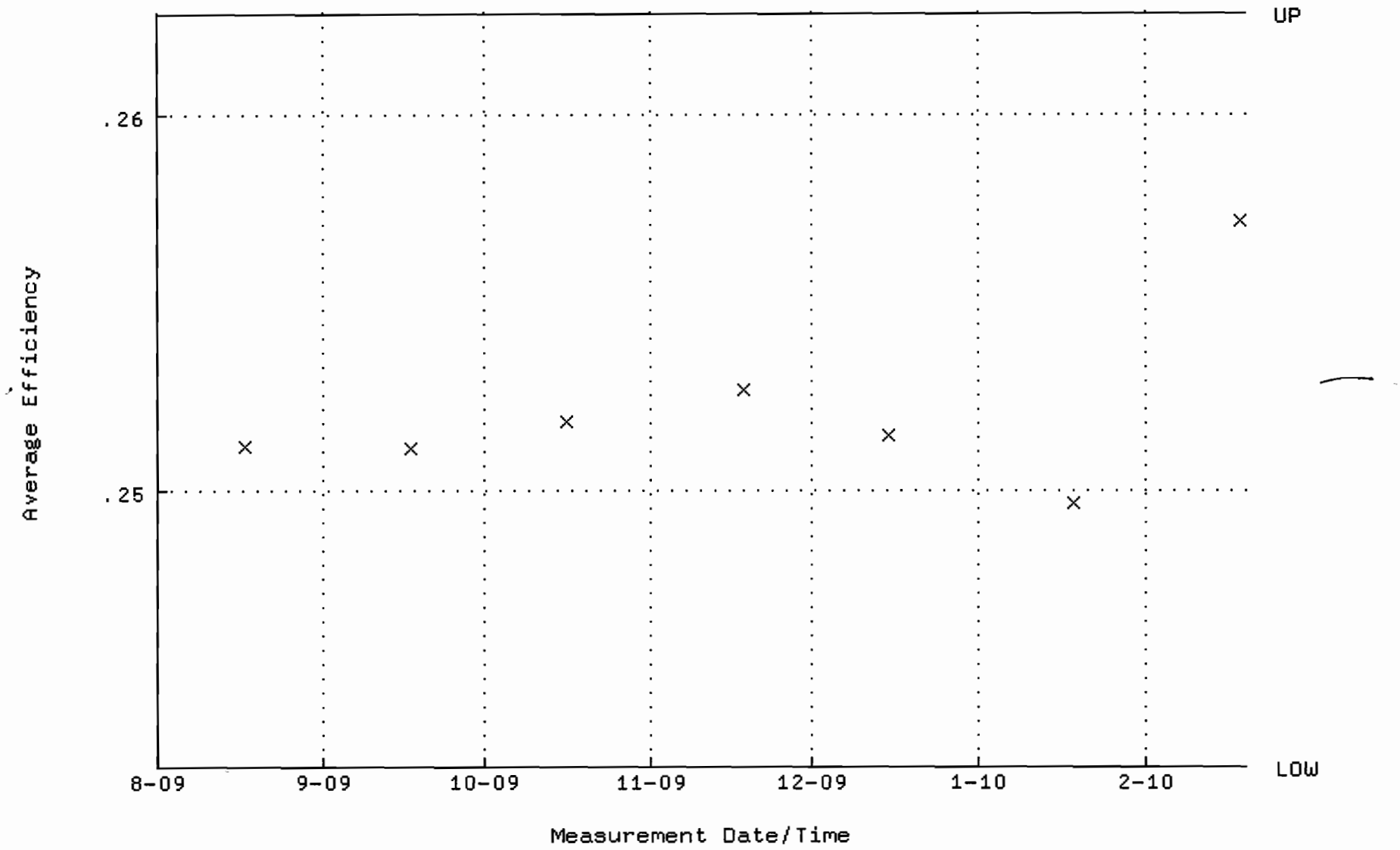
QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:25 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 89.4263 through 98.8395



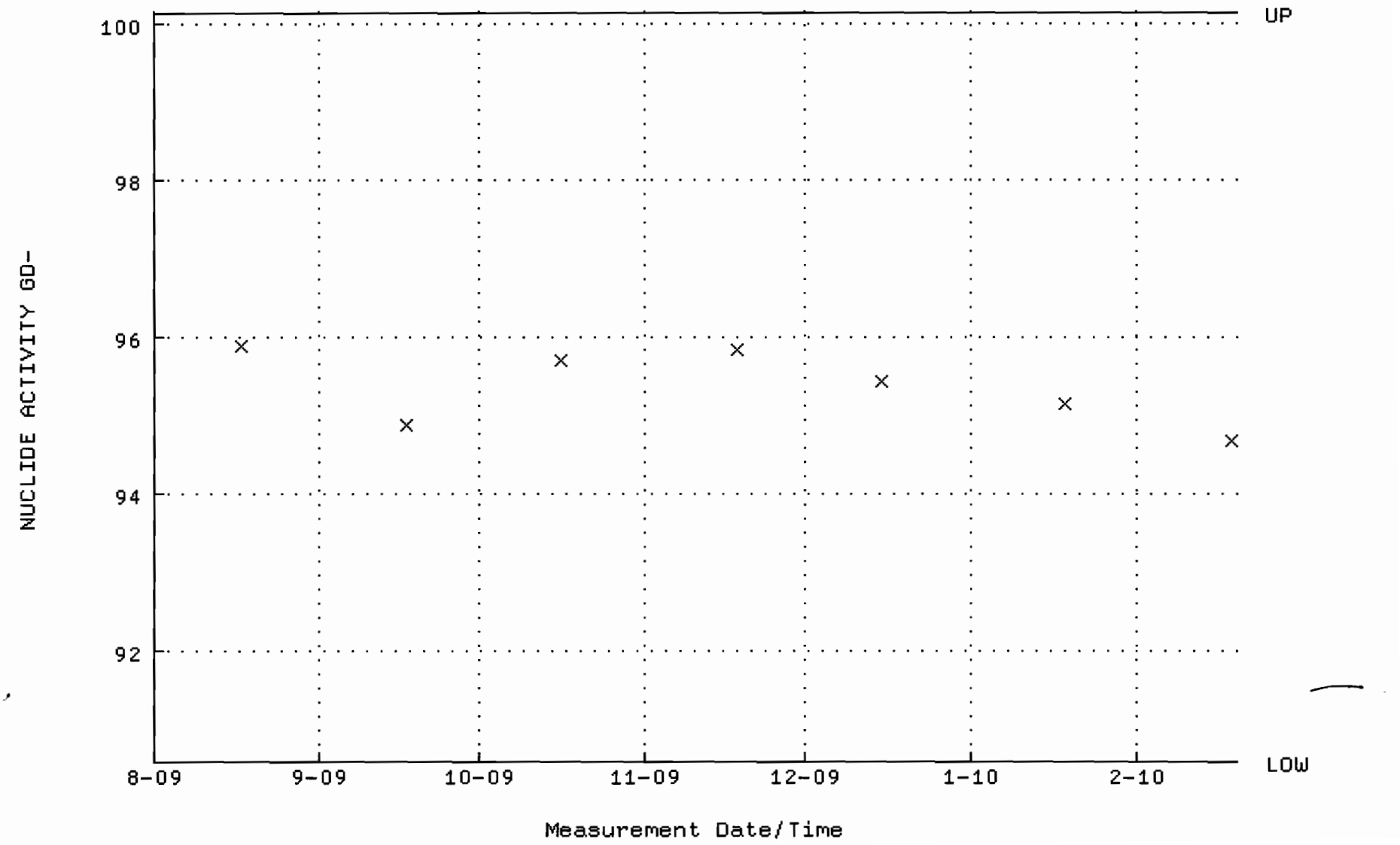
QA filename : DKA100:[ENV_ALPHA.QA.B]B121.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:33 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



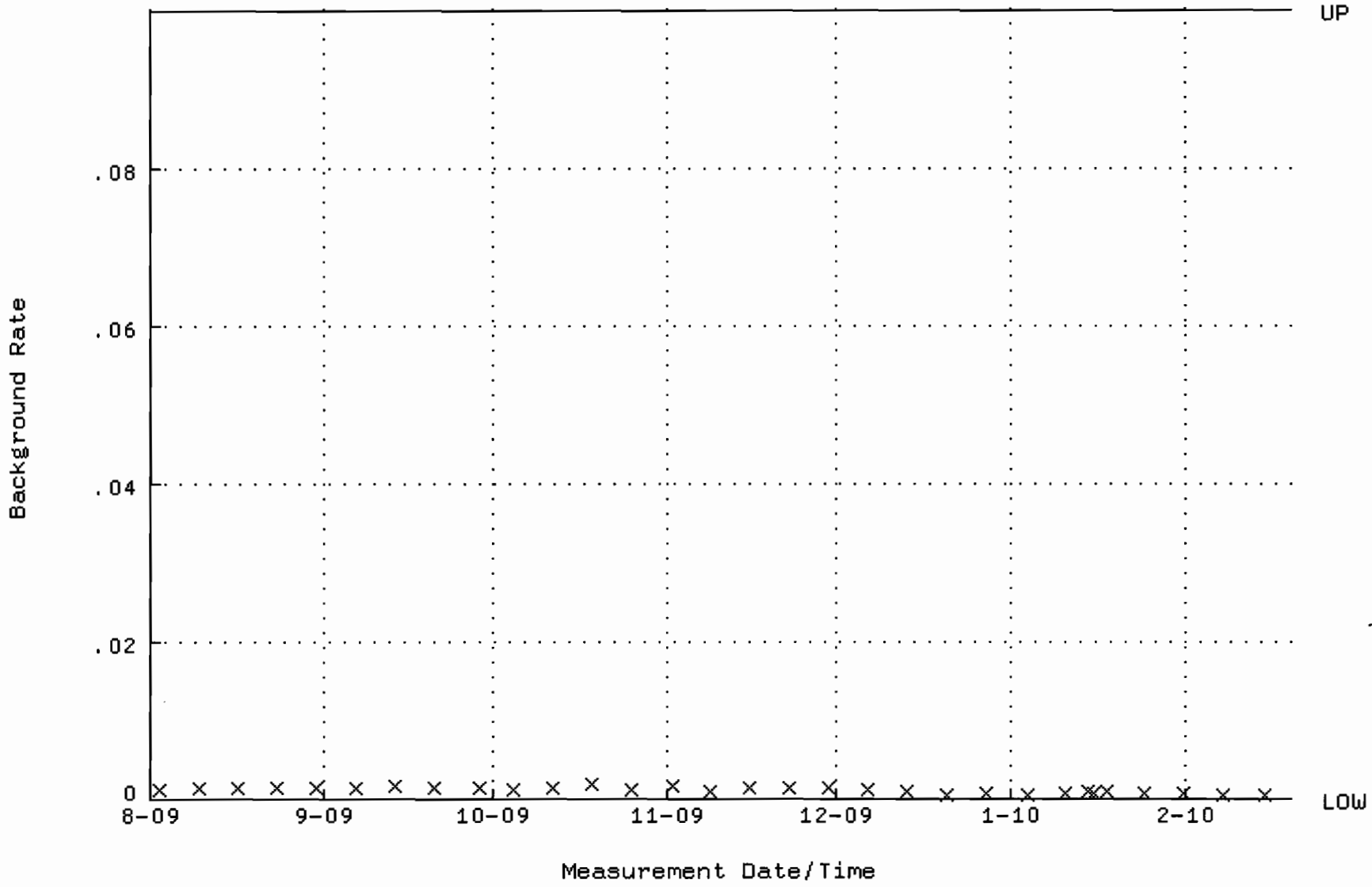
QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242659 through 0.262659



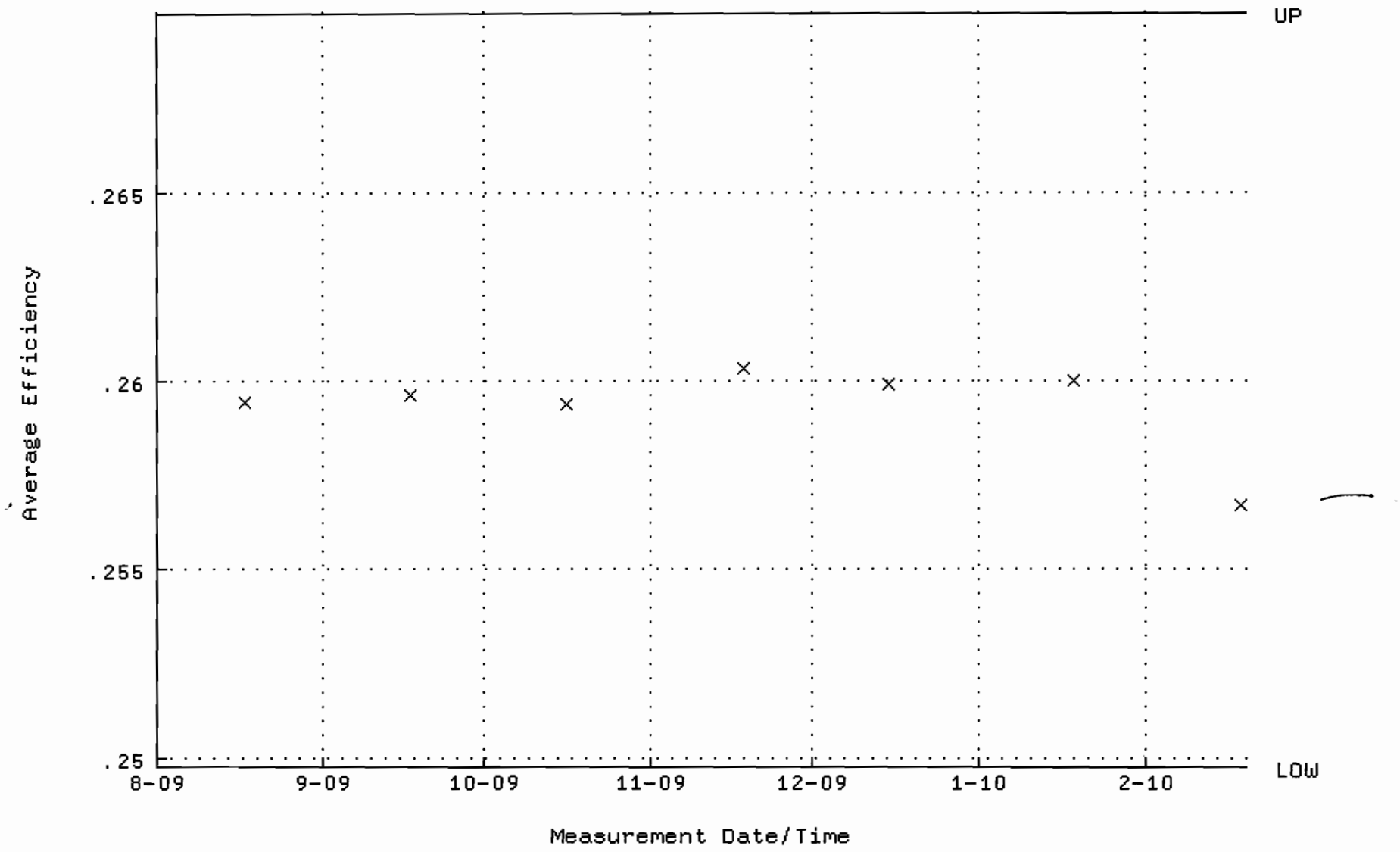
QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.5949 through 100.131



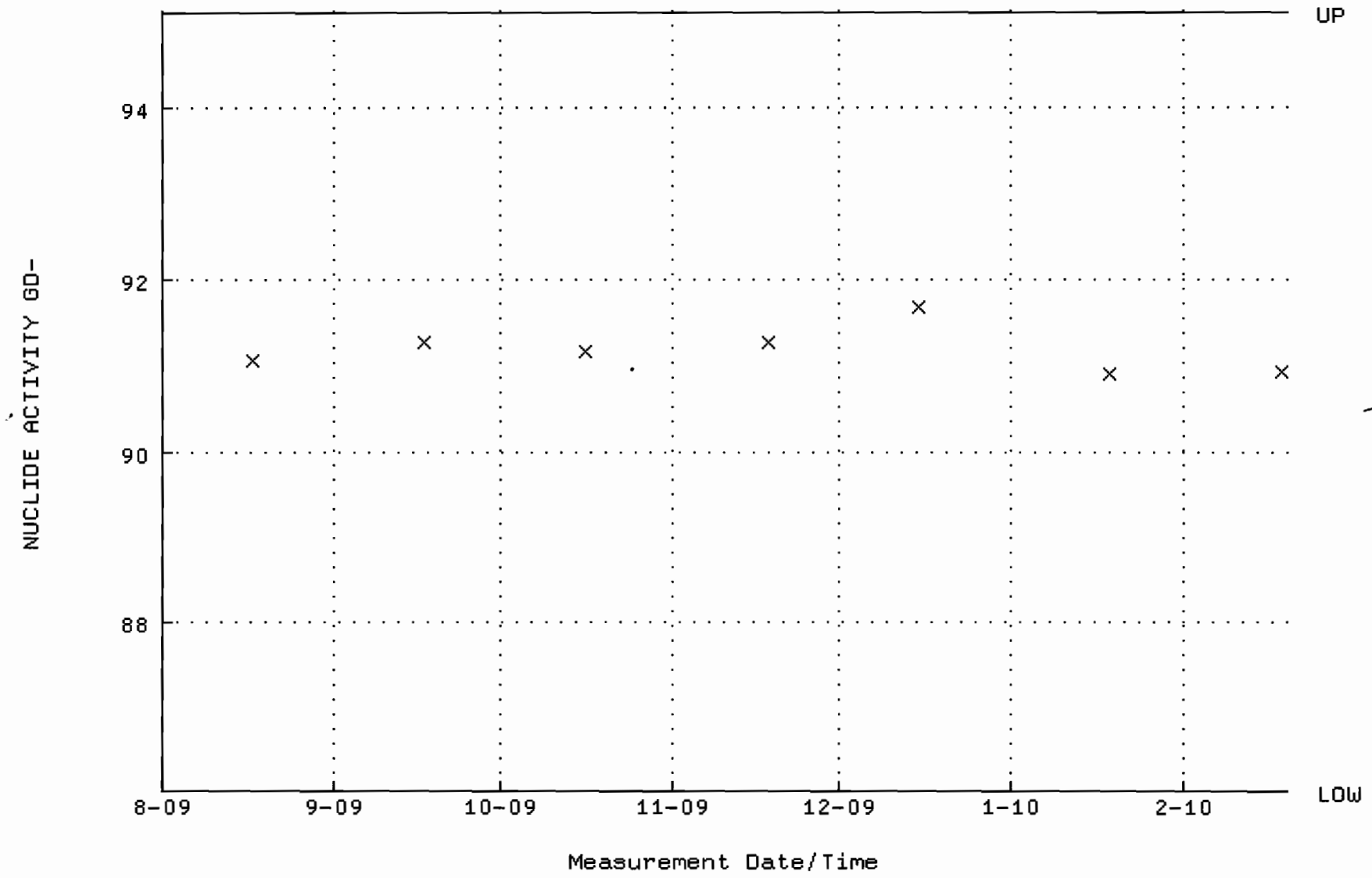
QA filename : DKA100:[ENV_ALPHA.QA.B]B122.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:37 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



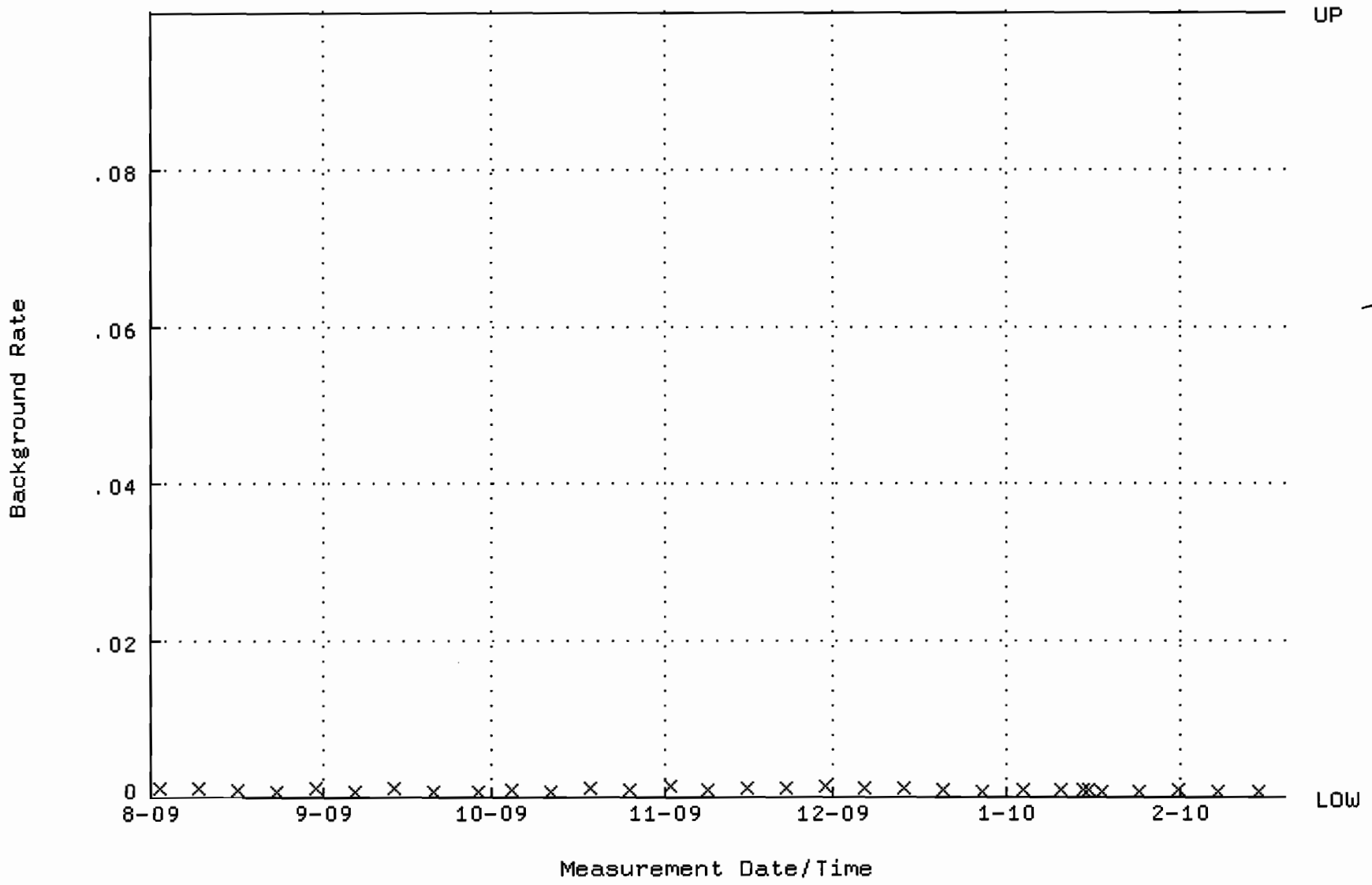
QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.249752 through 0.269752



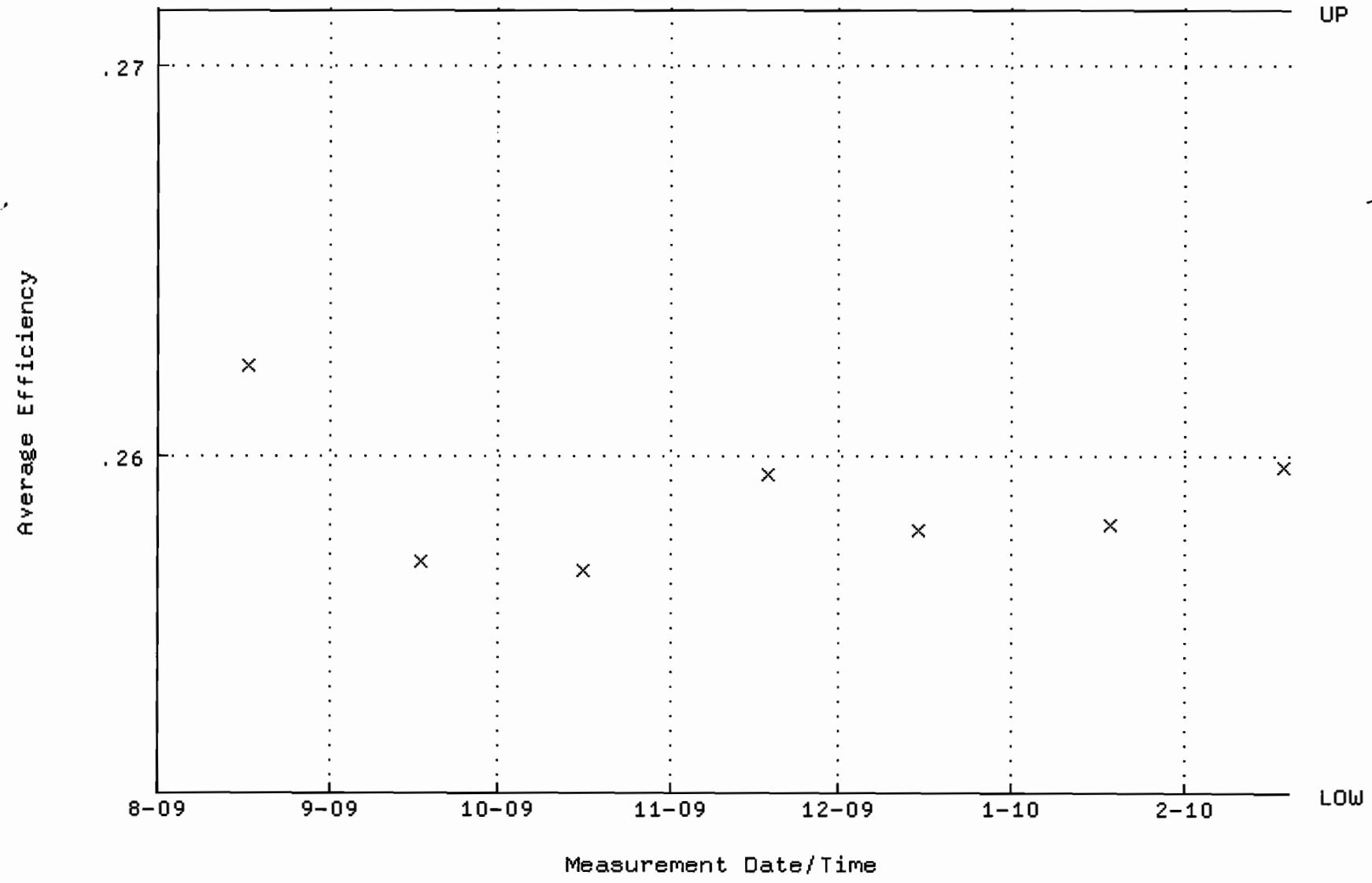
QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0496 through 95.1074



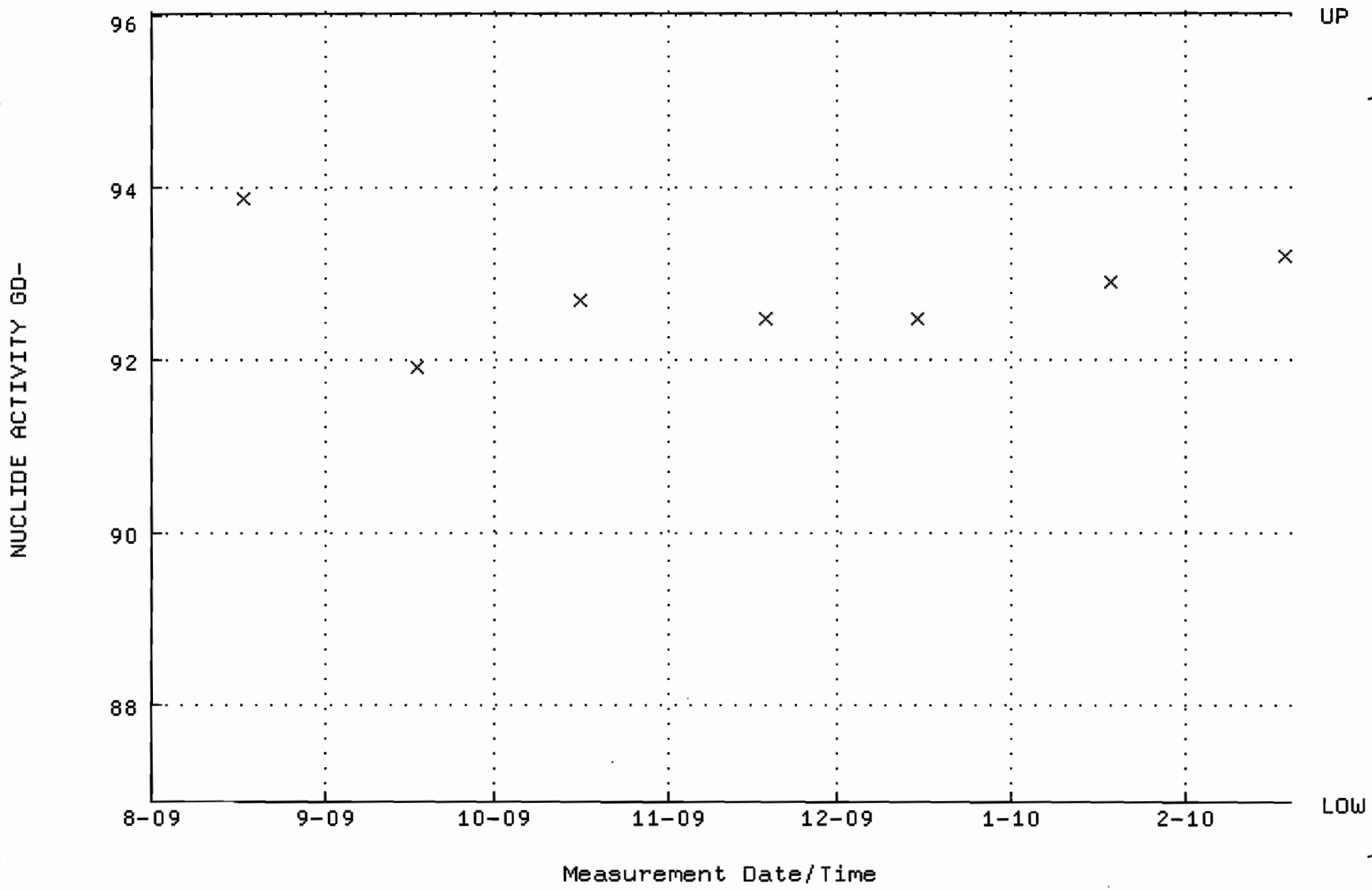
QA filename : DKA100:[ENV_ALPHA.QA.B]B123.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:42 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



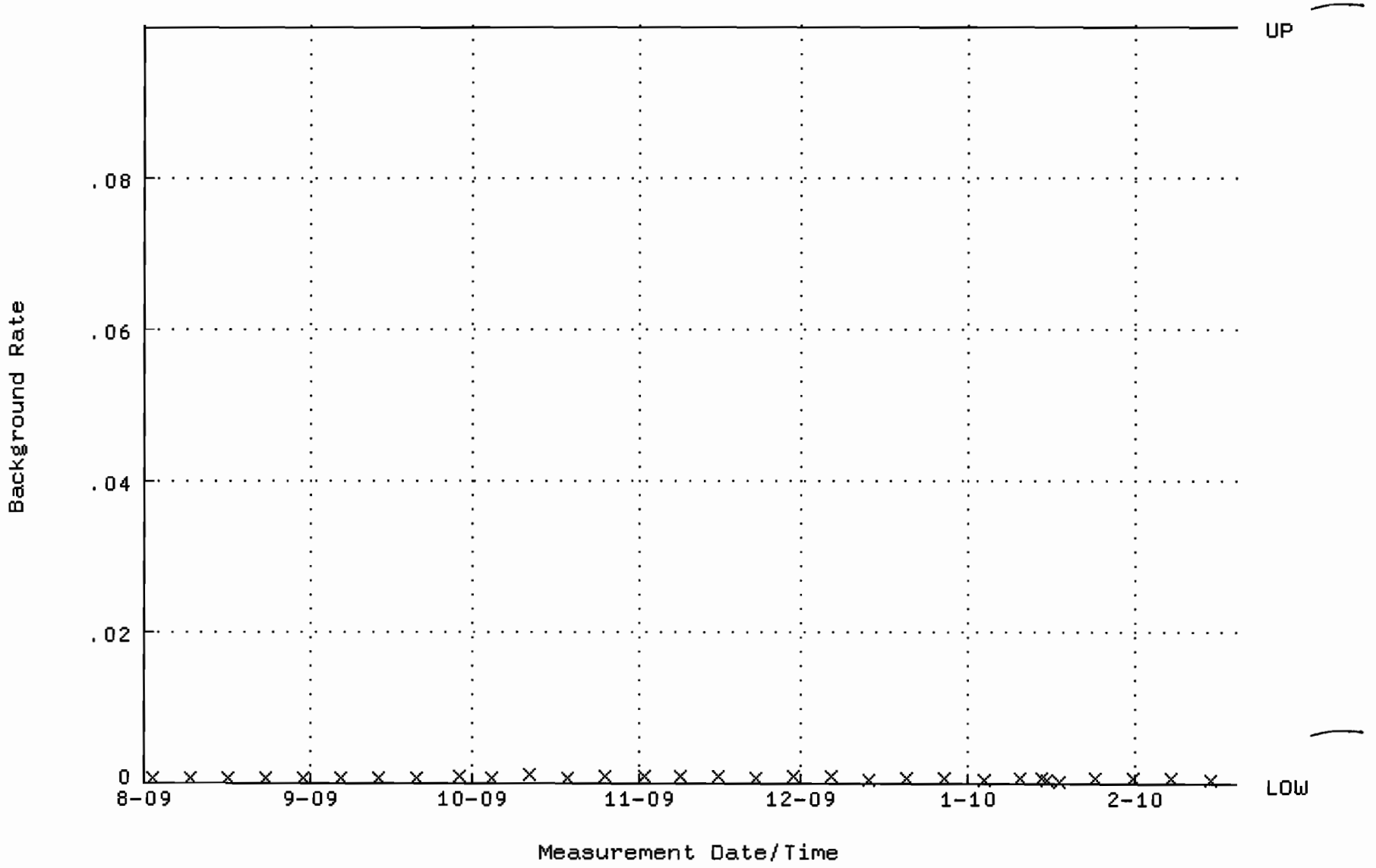
QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:39 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.251398 through 0.271398



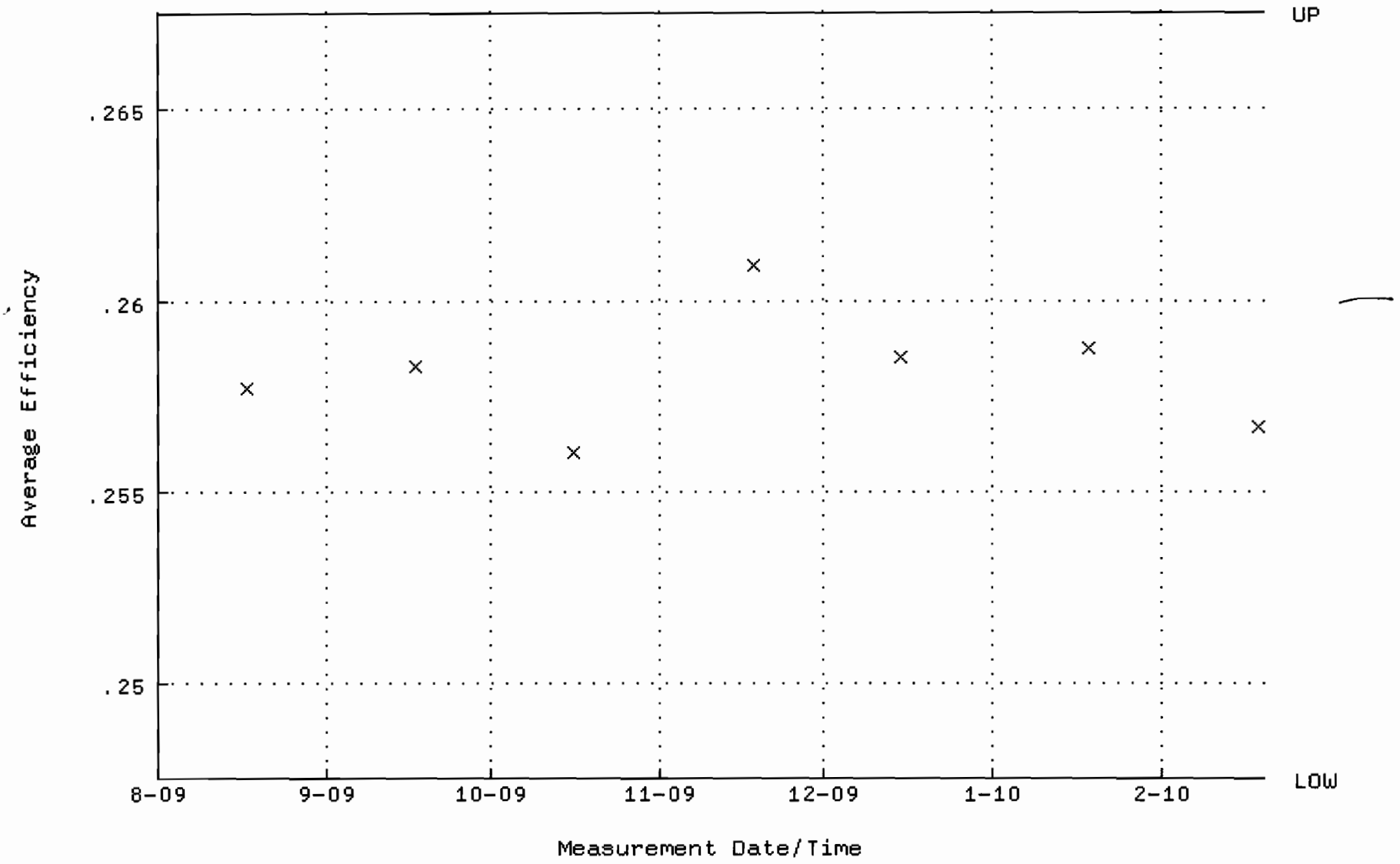
QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:39 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8862 through 96.0322



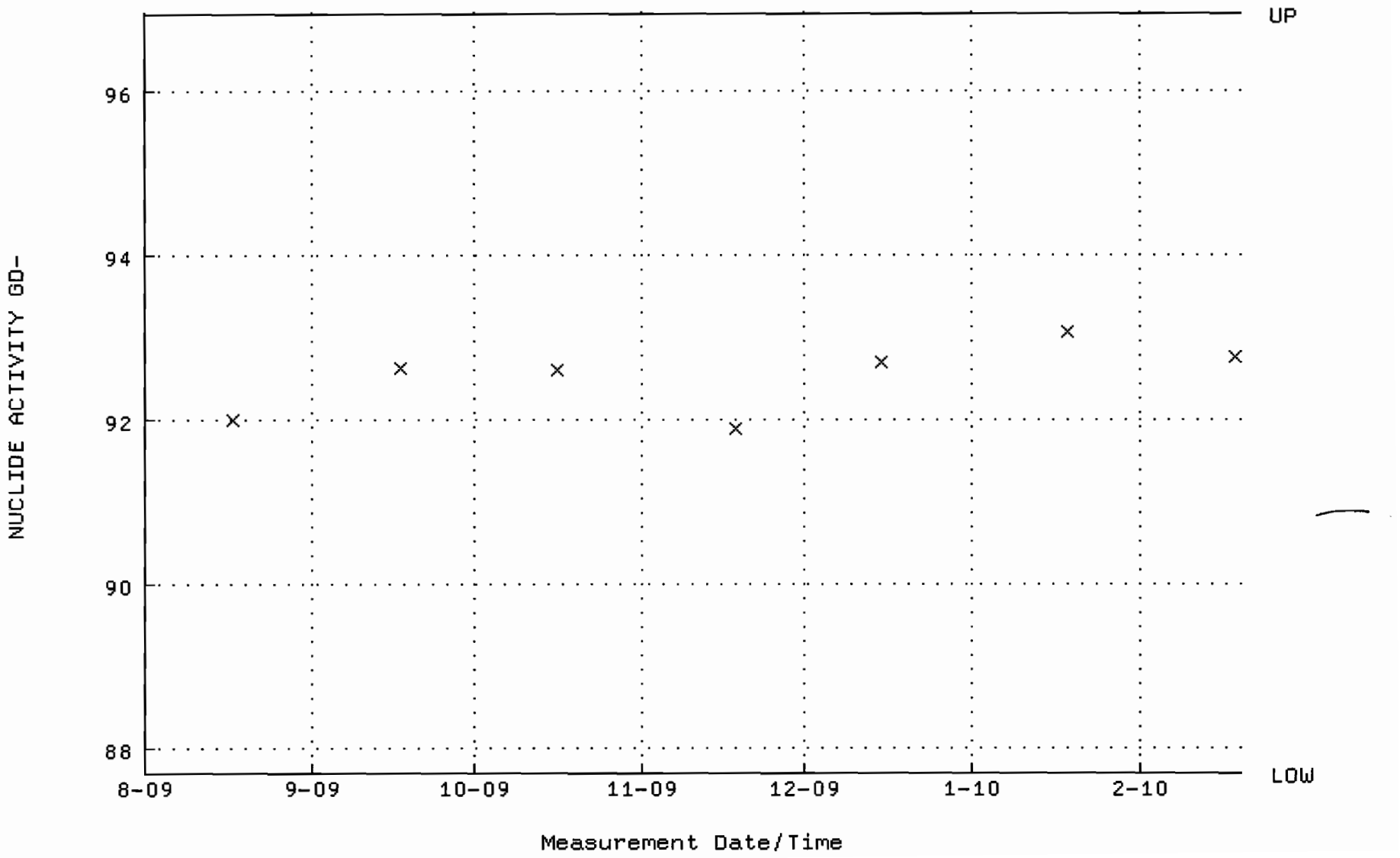
QA filename : DKA100:[ENV_ALPHA.QA.B]B124.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:47 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



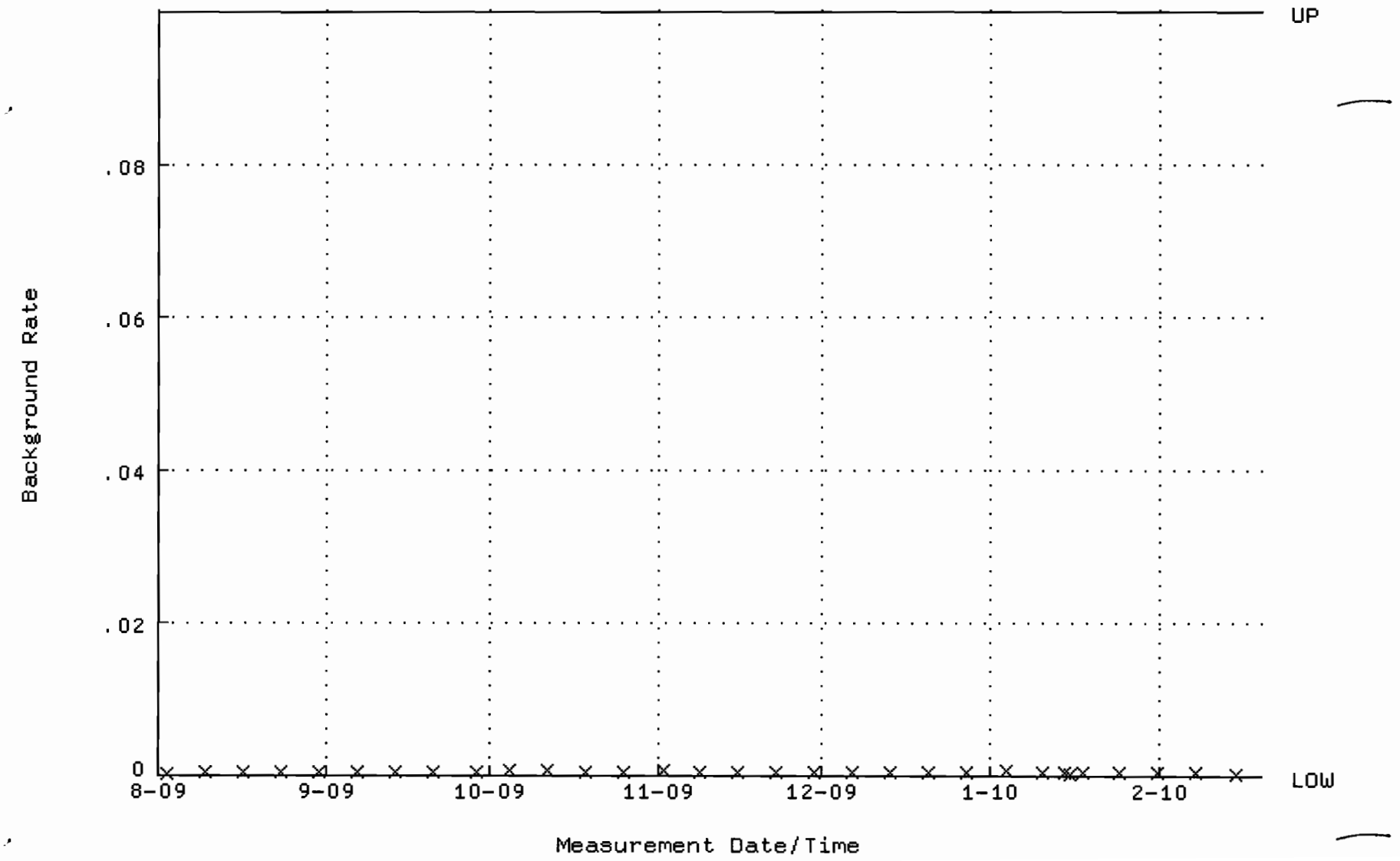
QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:44 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.247512 through 0.267512



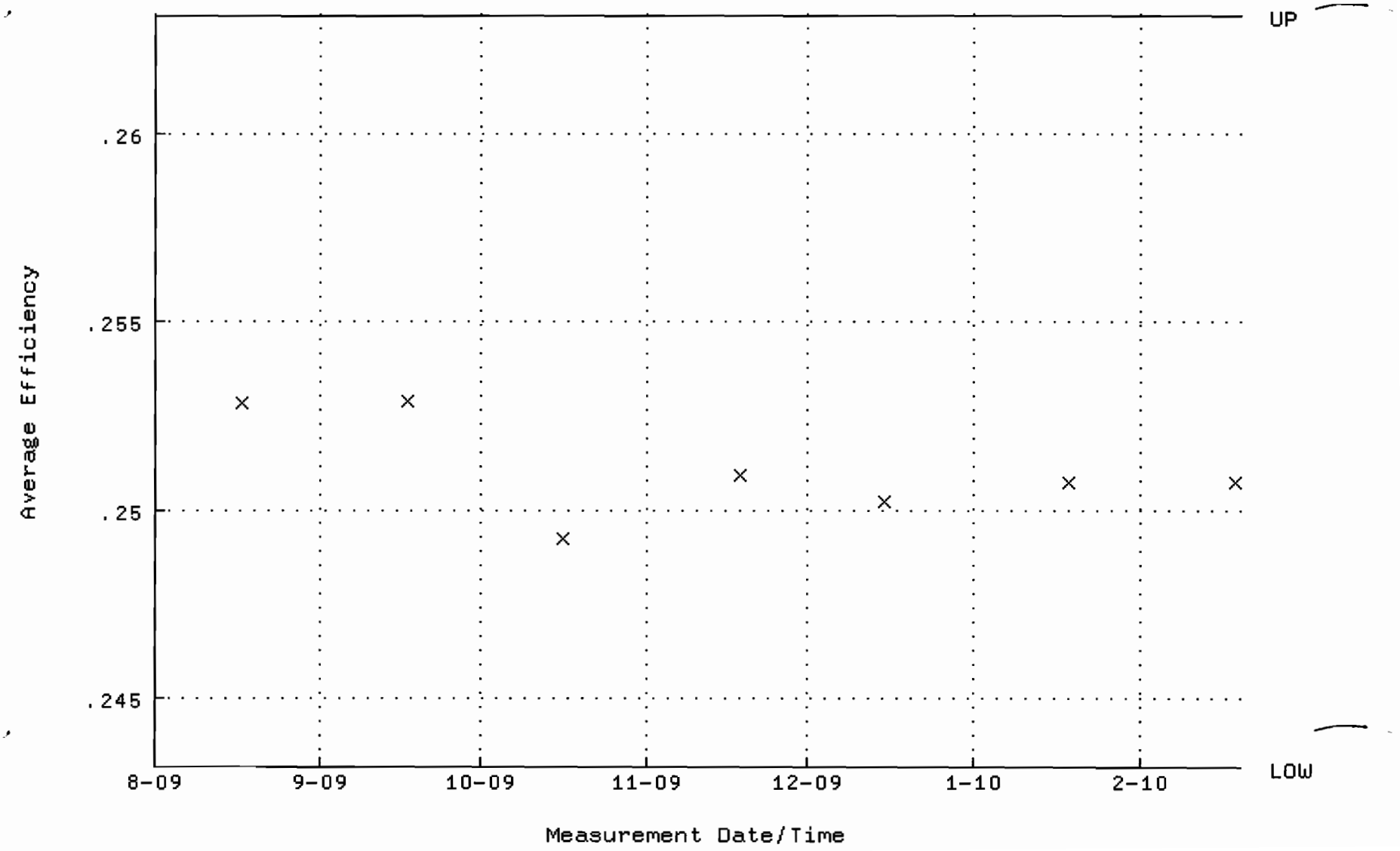
QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:44 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.6956 through 96.9268



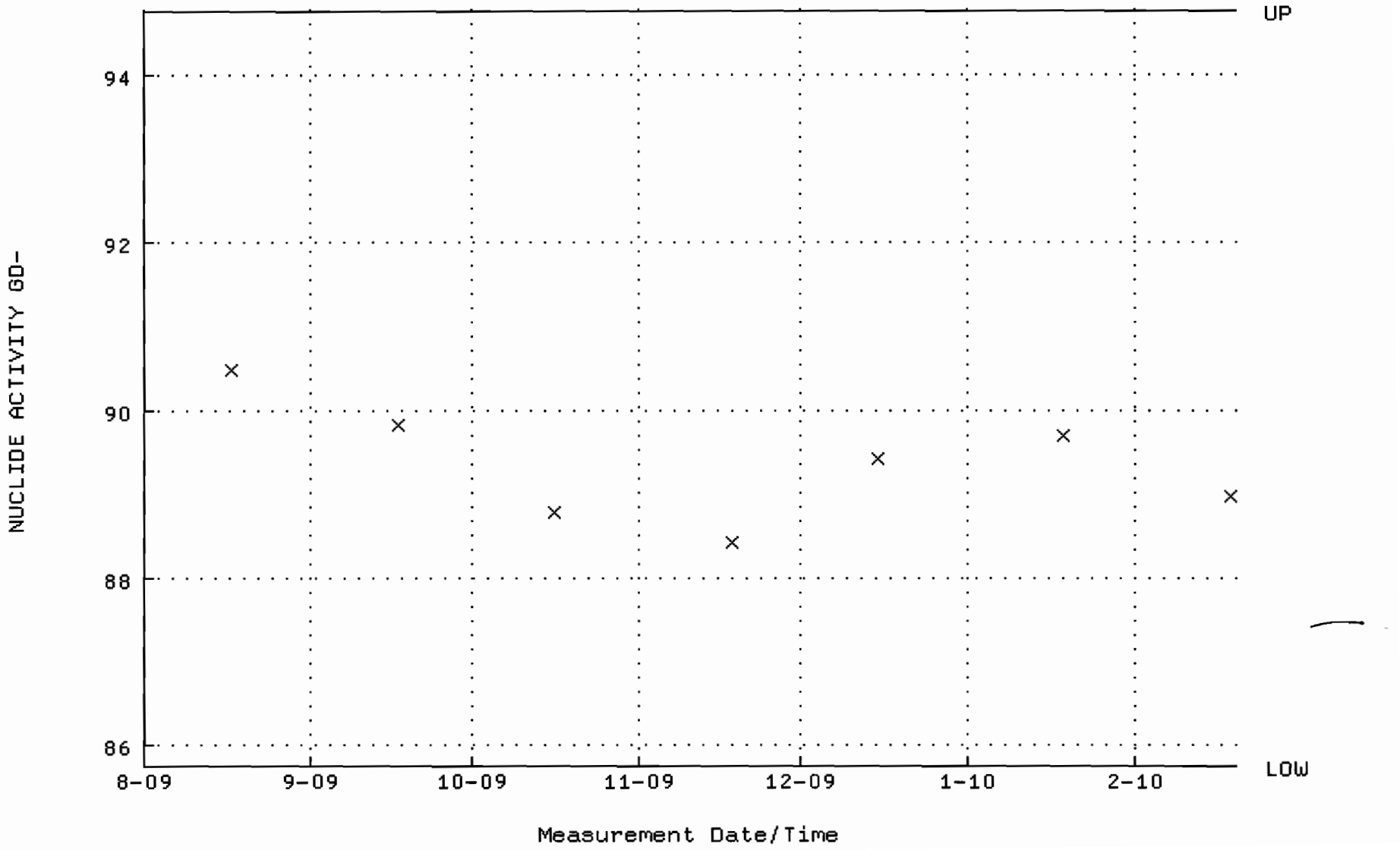
QA filename : DKA100:[ENV_ALPHA.QA.B]B125.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:51 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



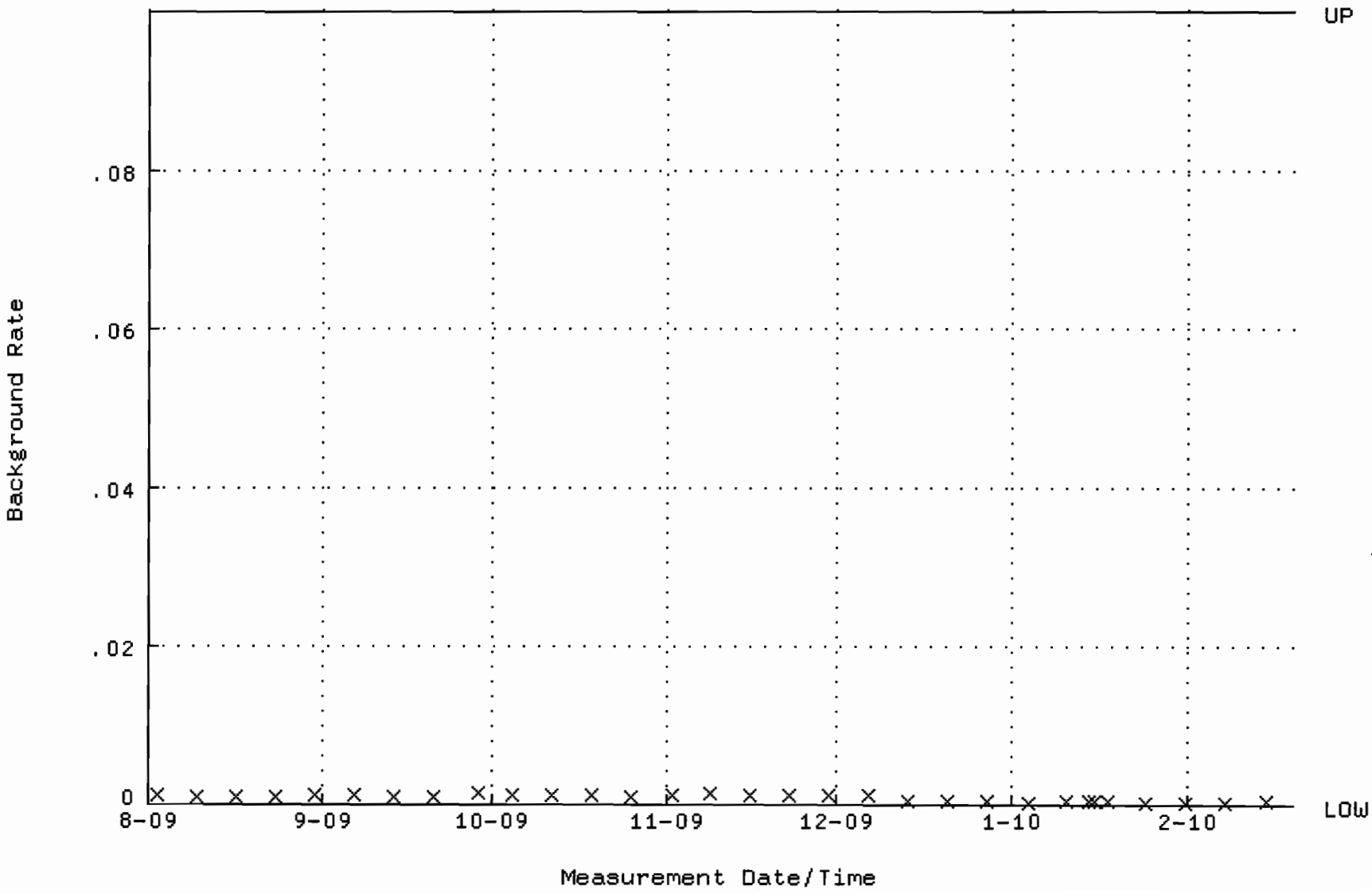
QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.243156 through 0.263156



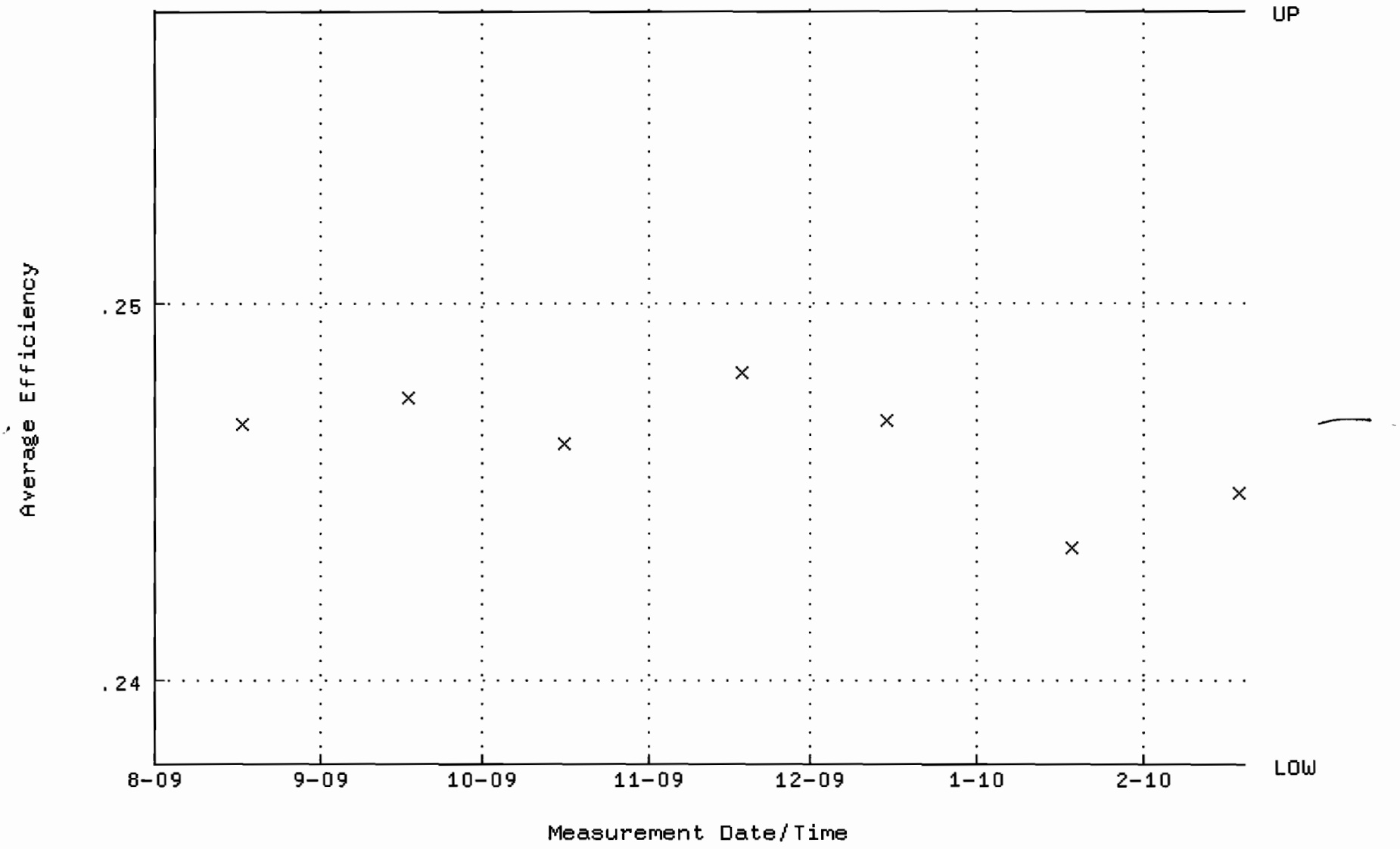
QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 85.7449 through 94.7707



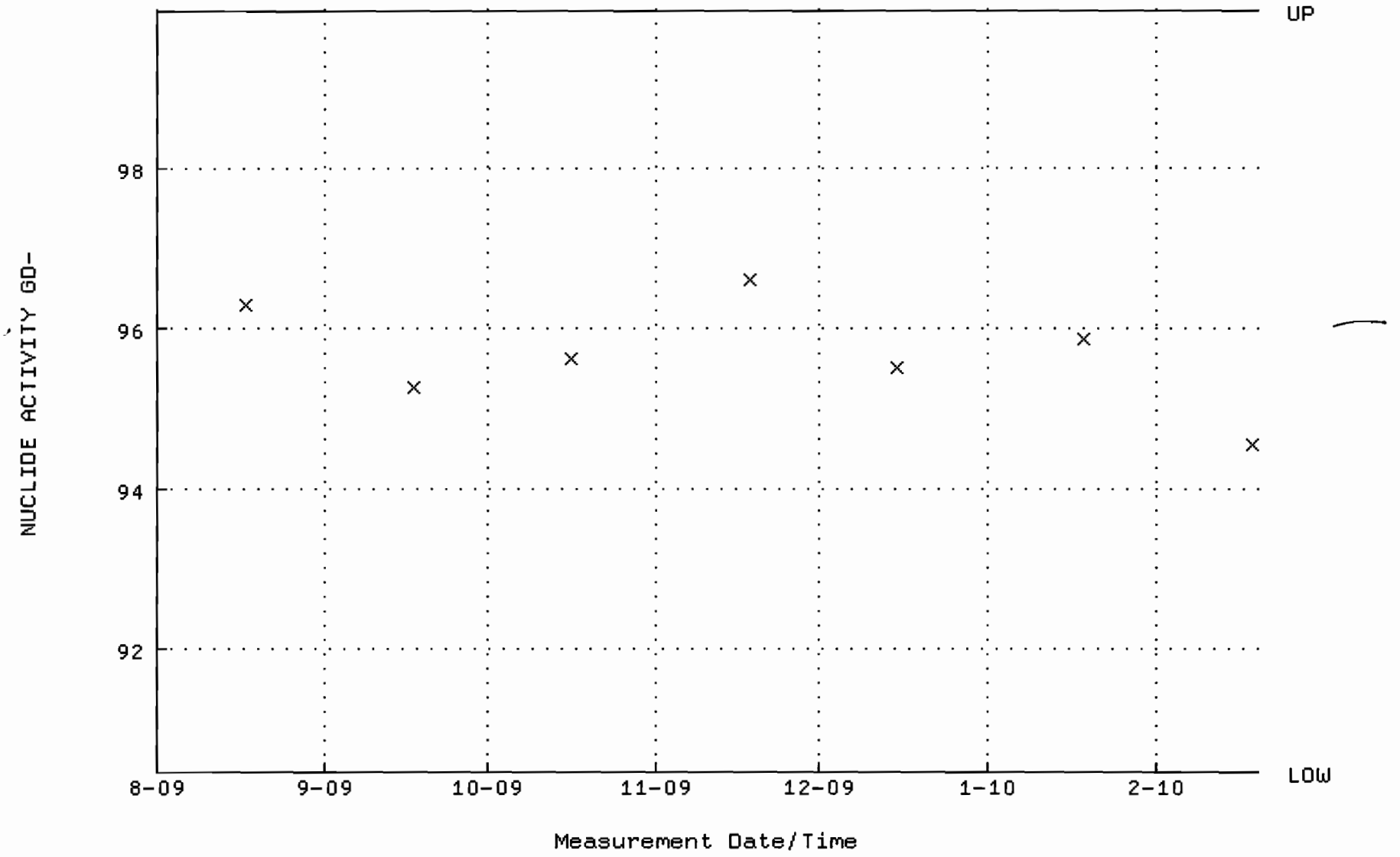
QA filename : DKA100:[ENV_ALPHA.QA.B]B126.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:55 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



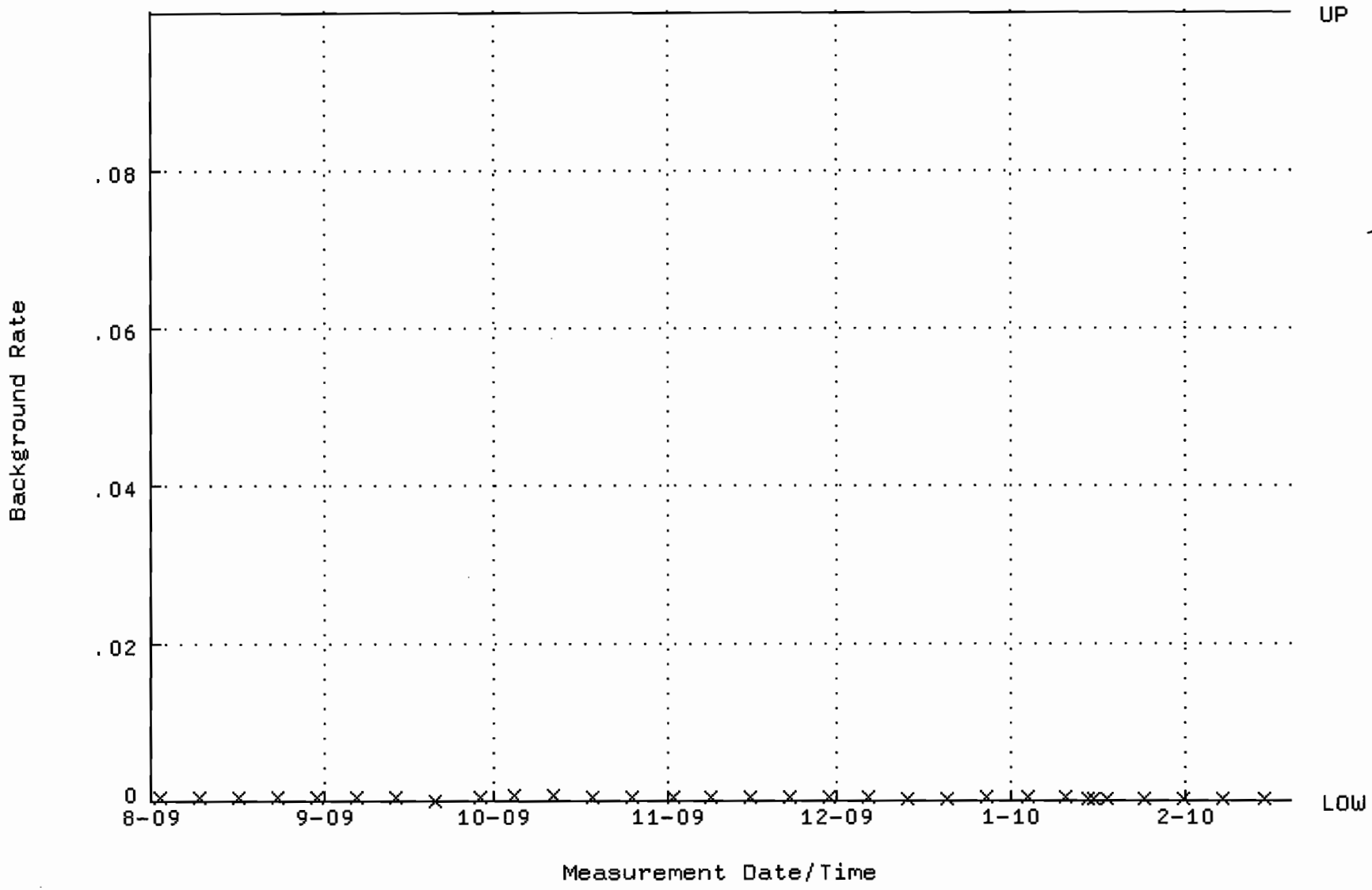
QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:53 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237773 through 0.257773



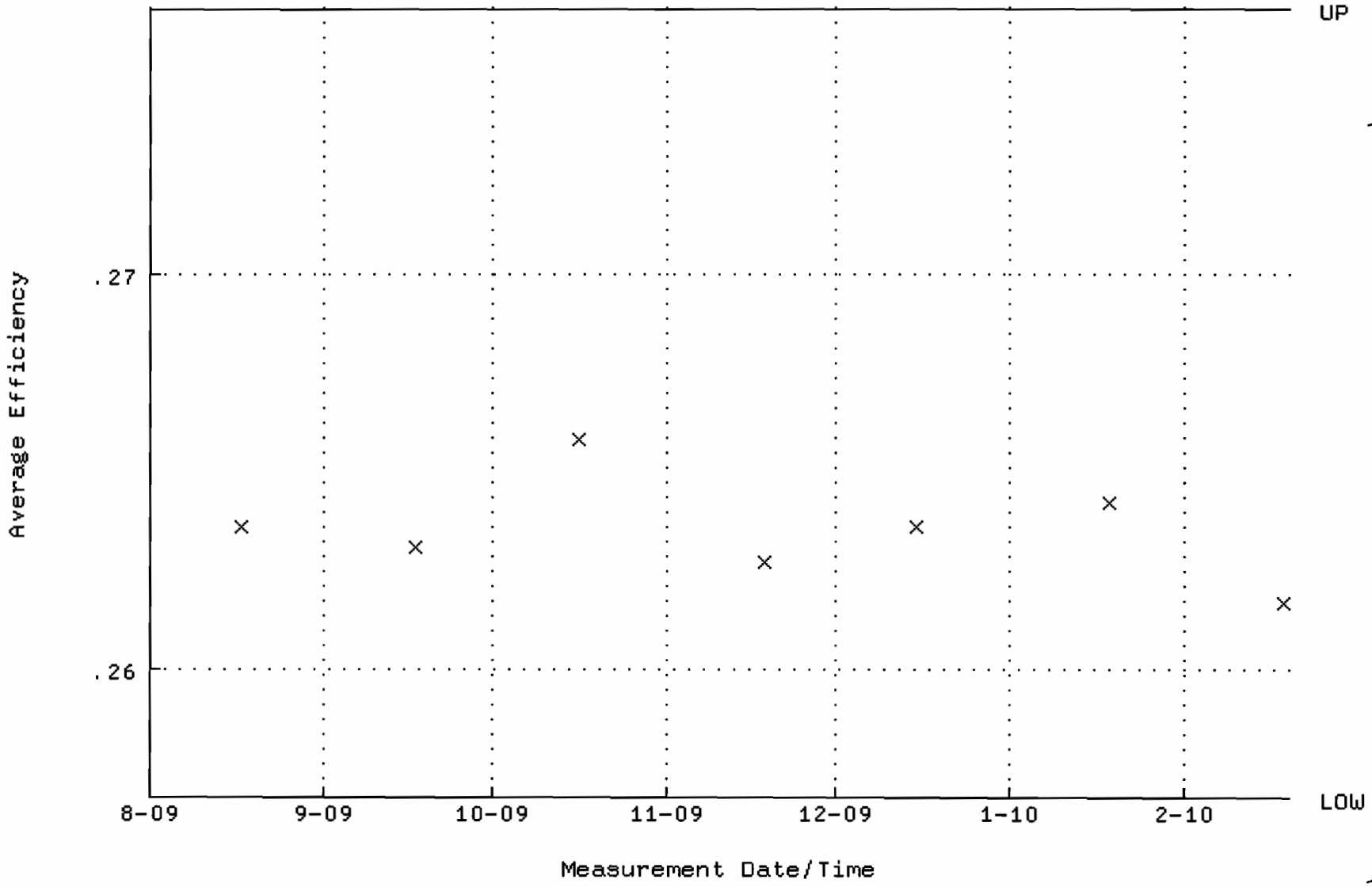
QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:53 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.4503 through 99.9713



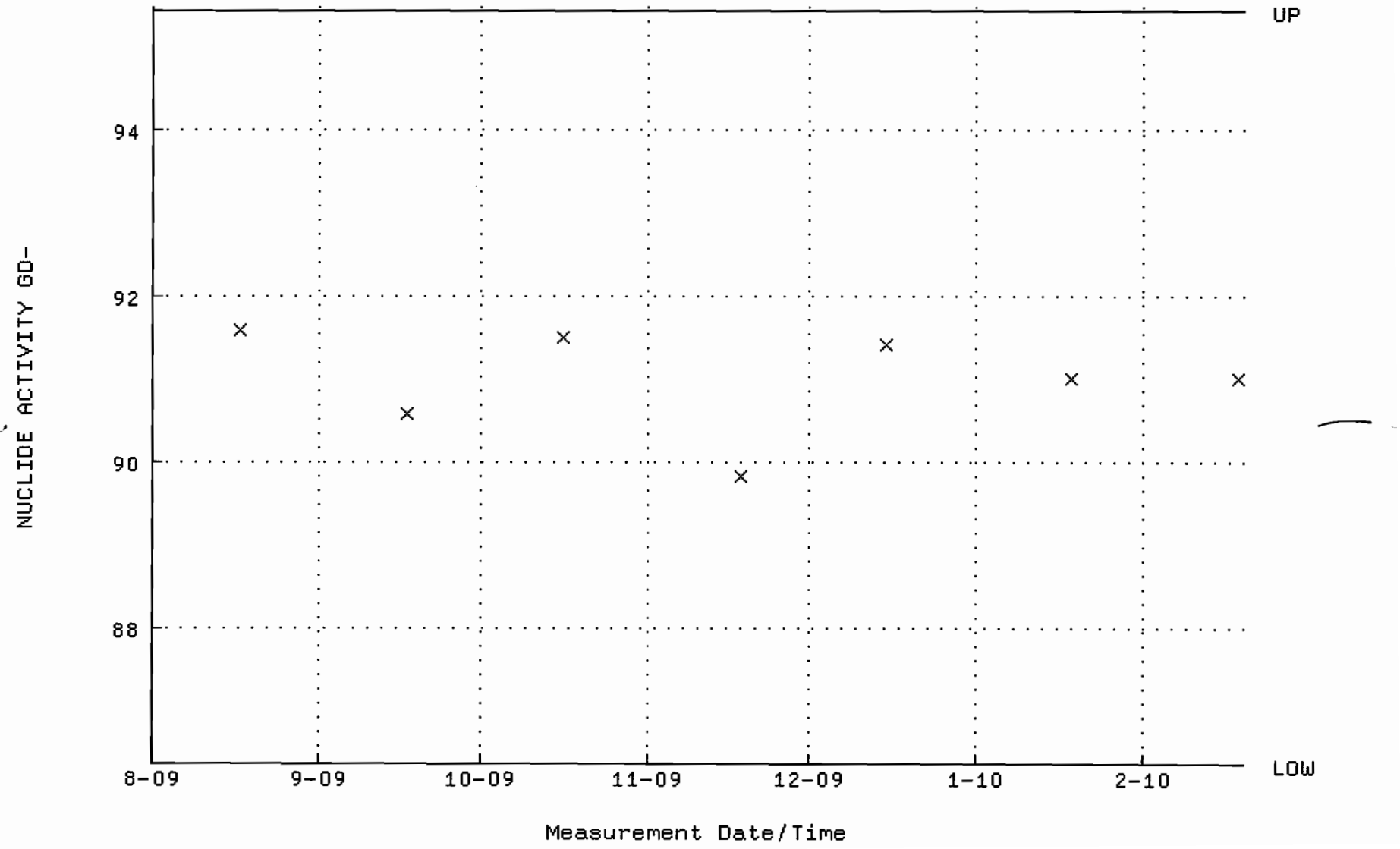
QA filename : DKA100:[ENV_ALPHA.QA.B]B127.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:00 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



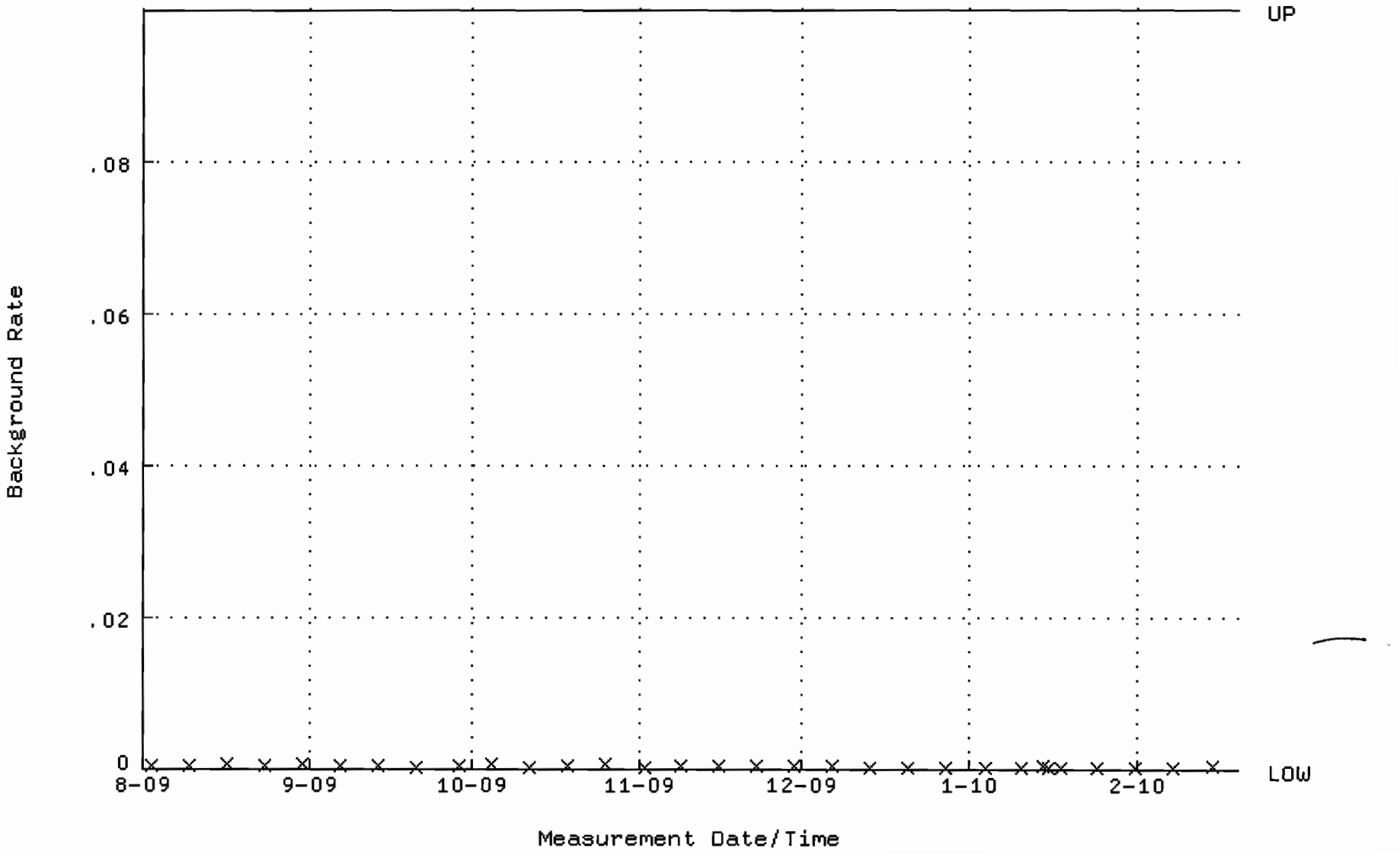
QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:42:03 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.256741 through 0.276741



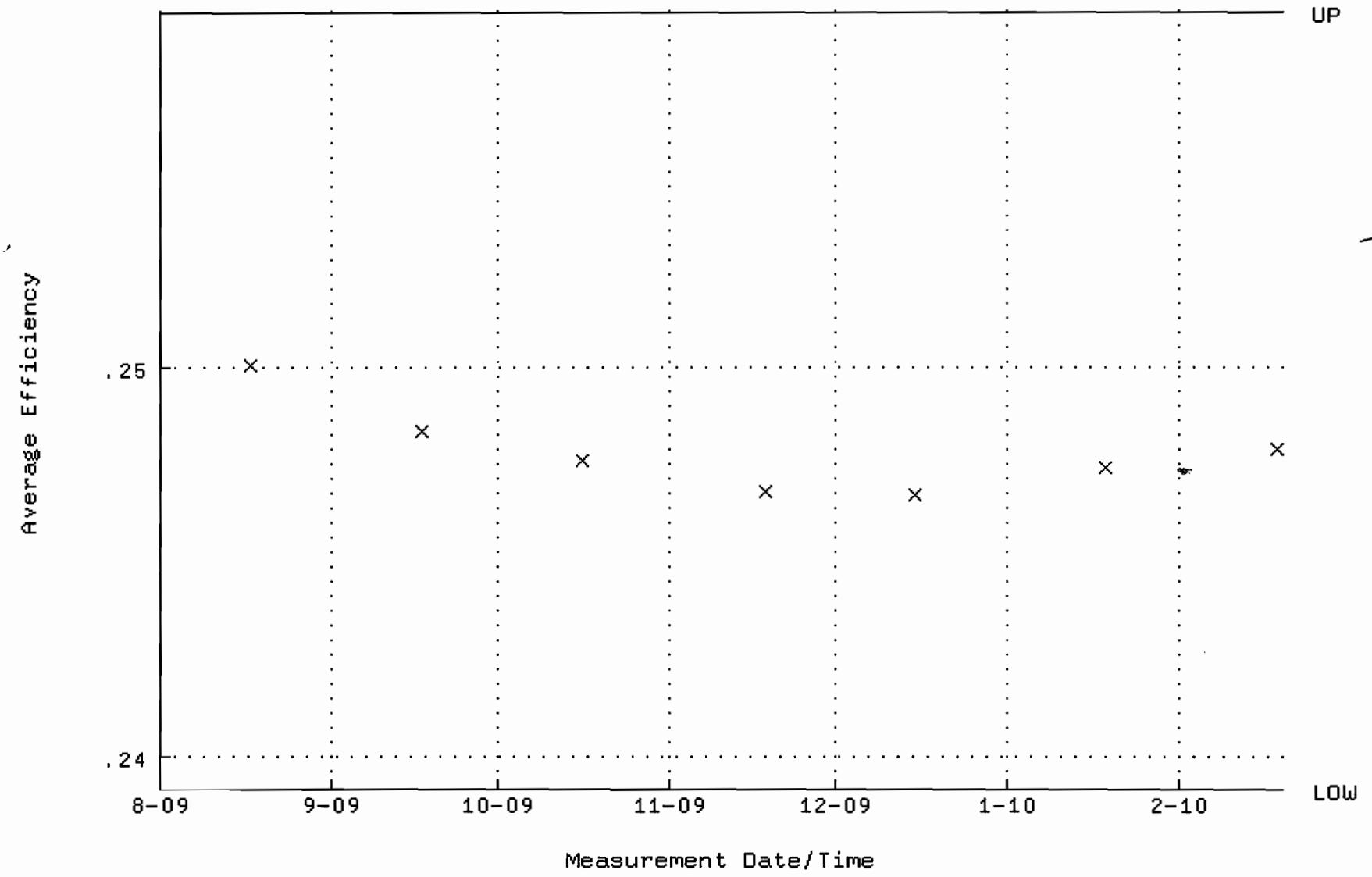
QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:42:03 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.3646 through 95.4556



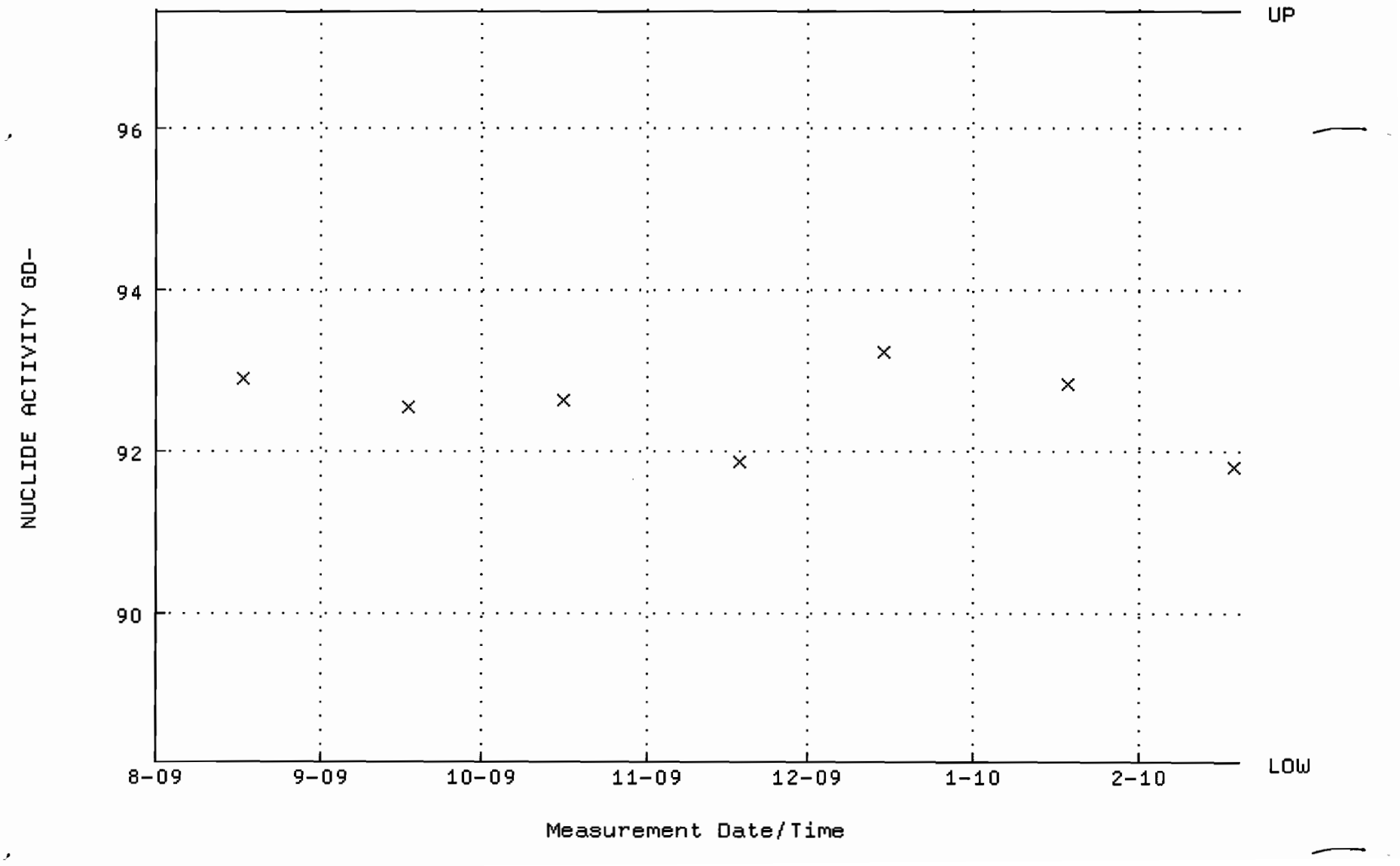
QA filename : DKA100:[ENV_ALPHA.QA.B]B129.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:09 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



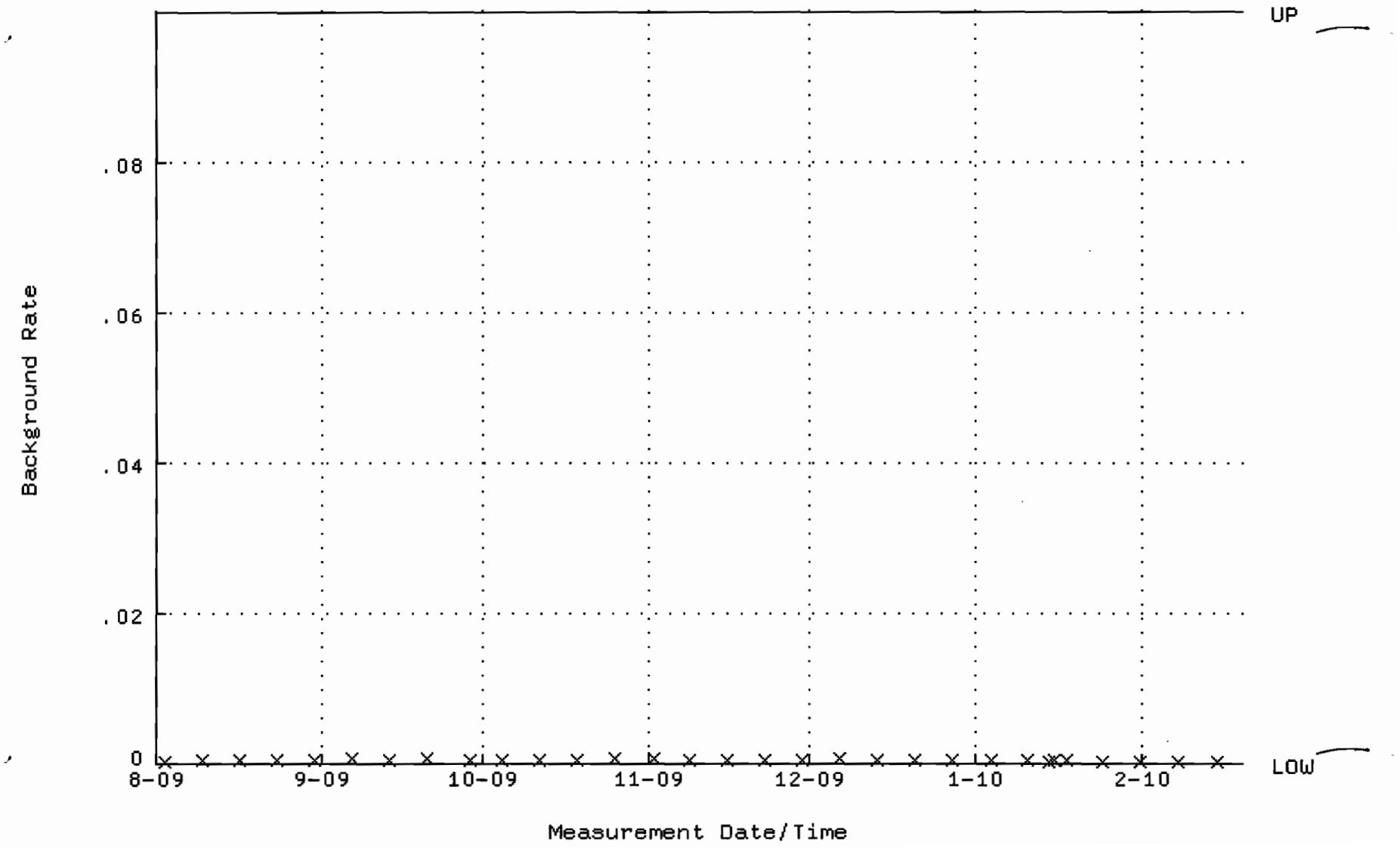
QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:42:09 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.239131 through 0.259131



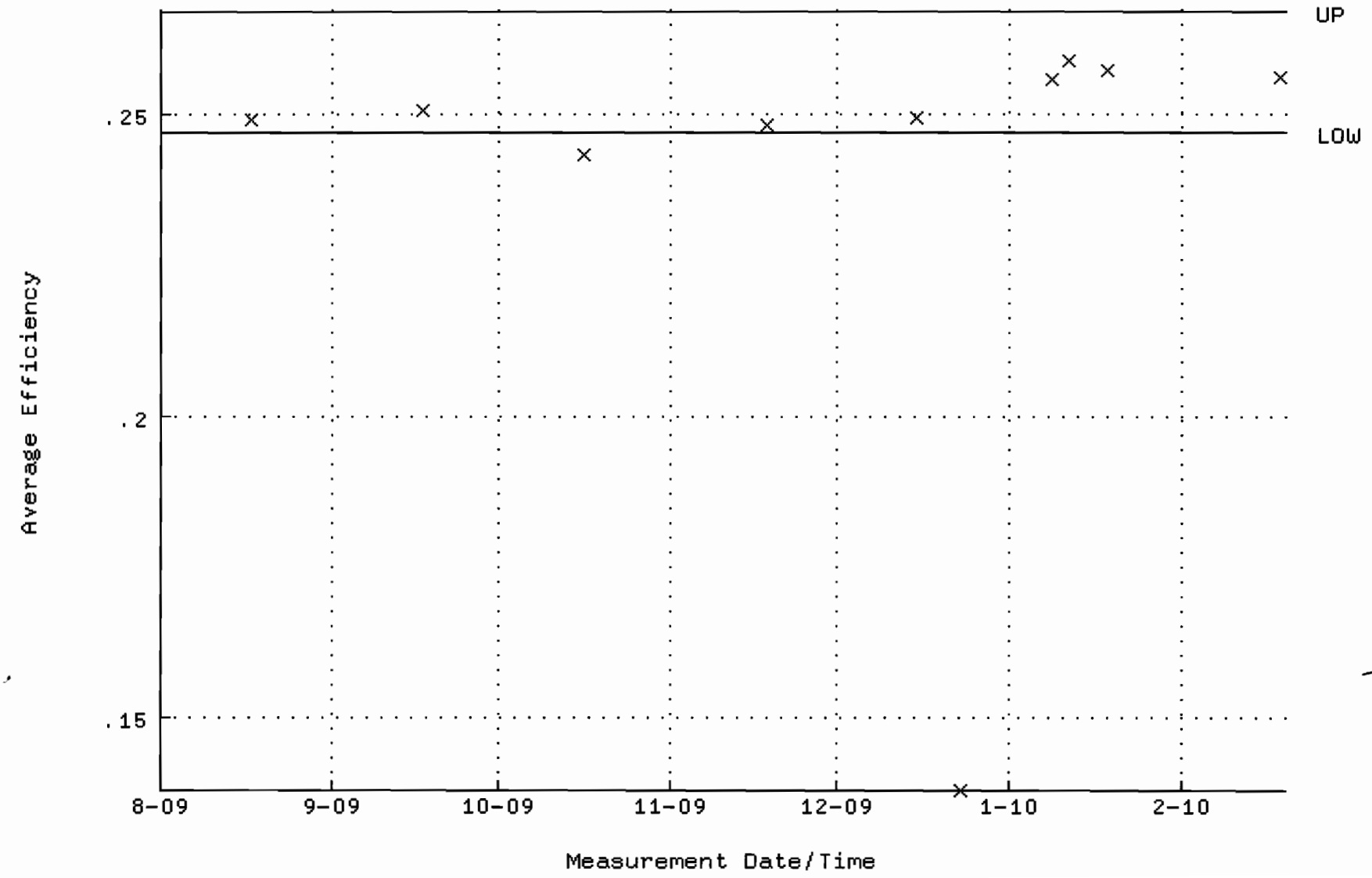
QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:42:09 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 88.1614 through 97.4416



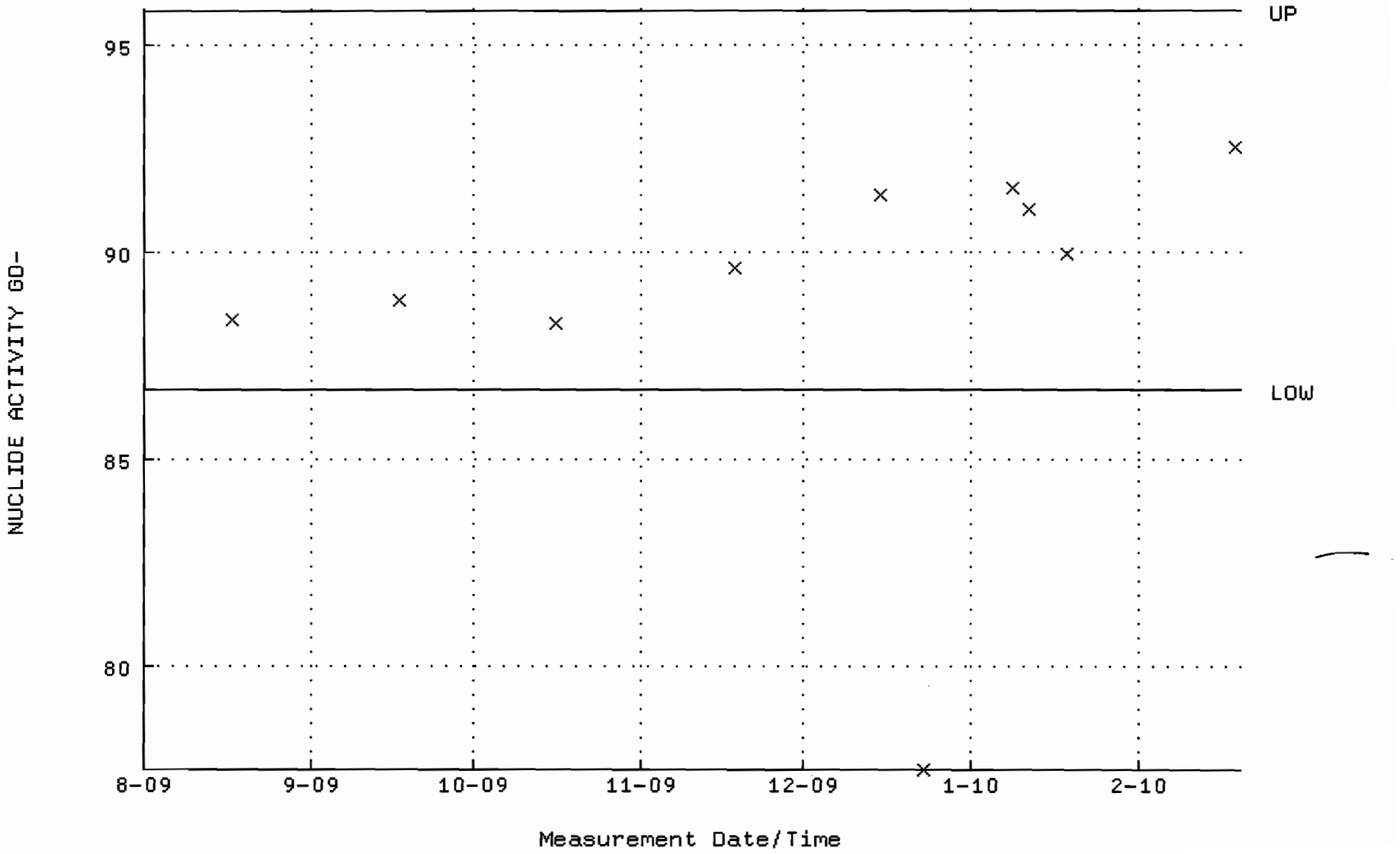
QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:13 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



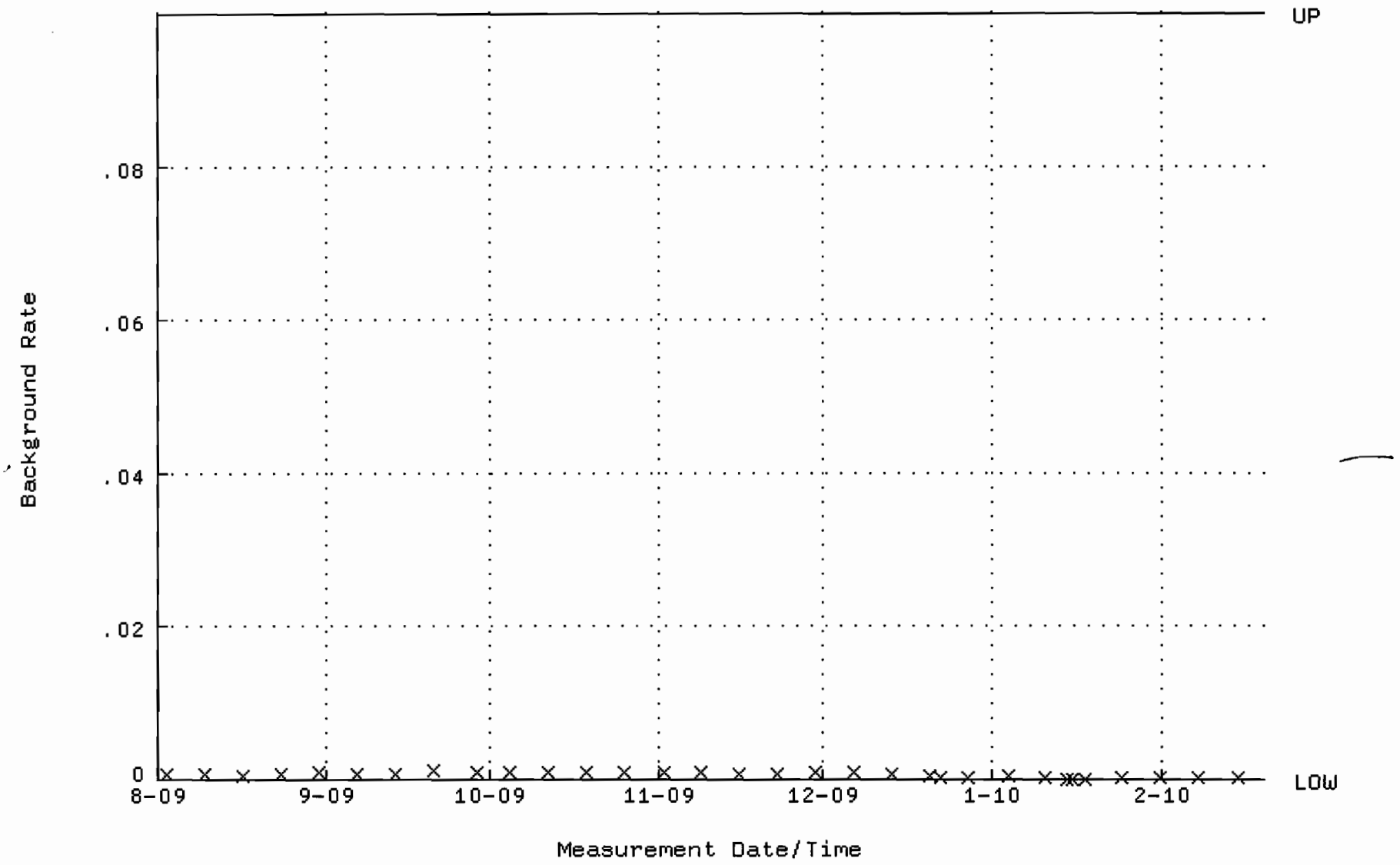
QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:42:13 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.246955 through 0.266955



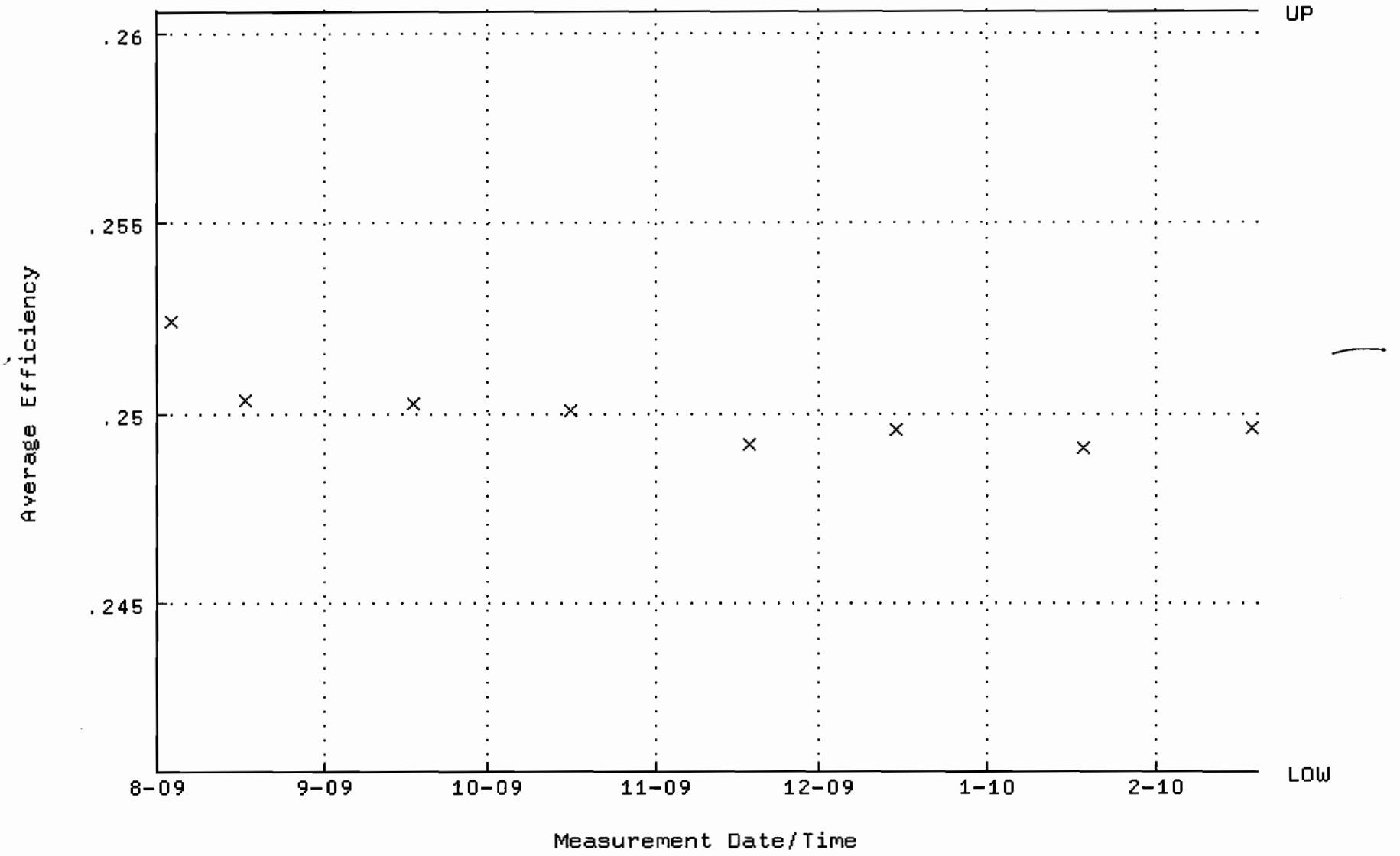
QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:42:13 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.7058 through 95.8328



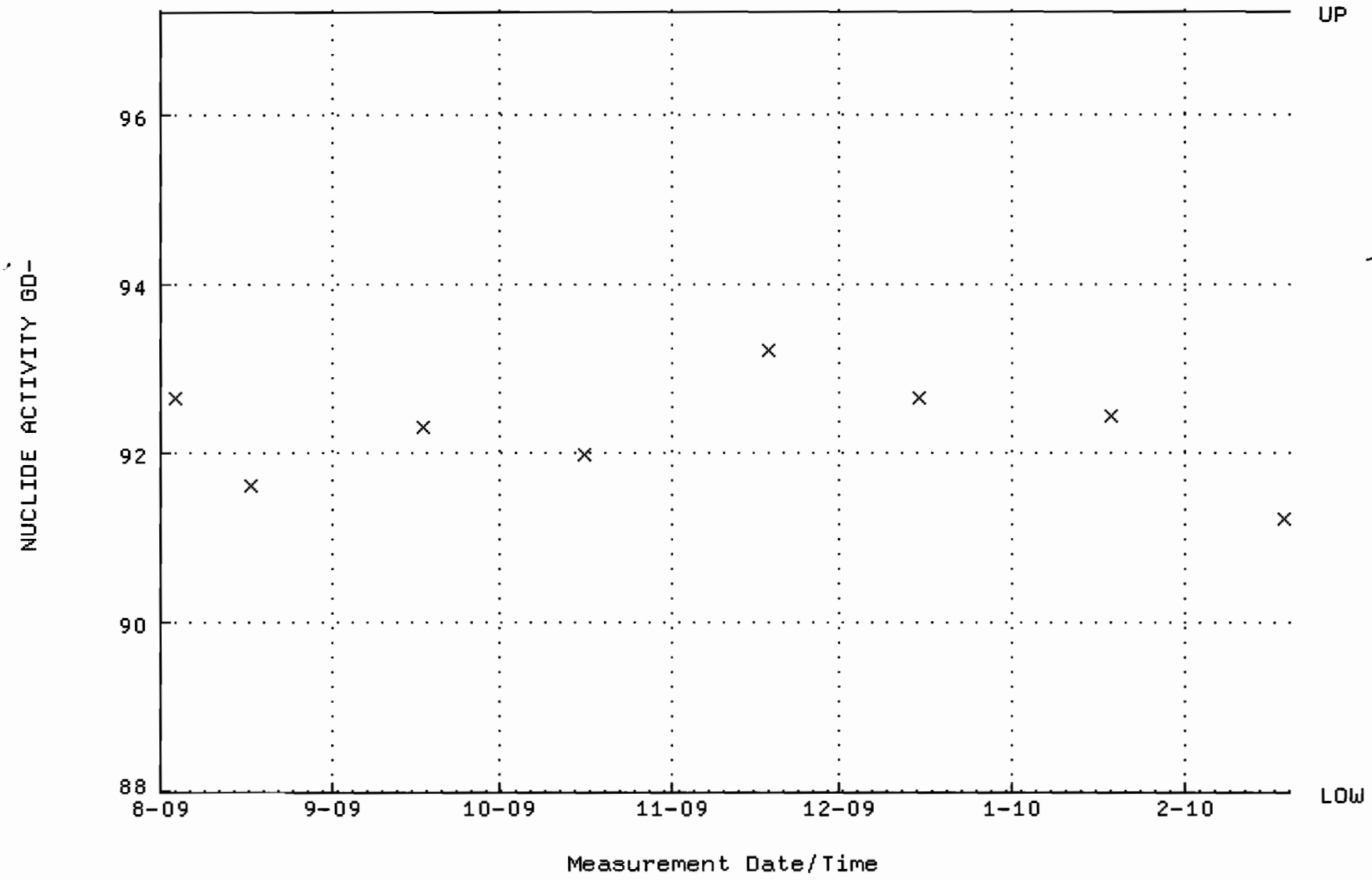
QA filename : DKA100:[ENV_ALPHA.QA.B]B131.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:18 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



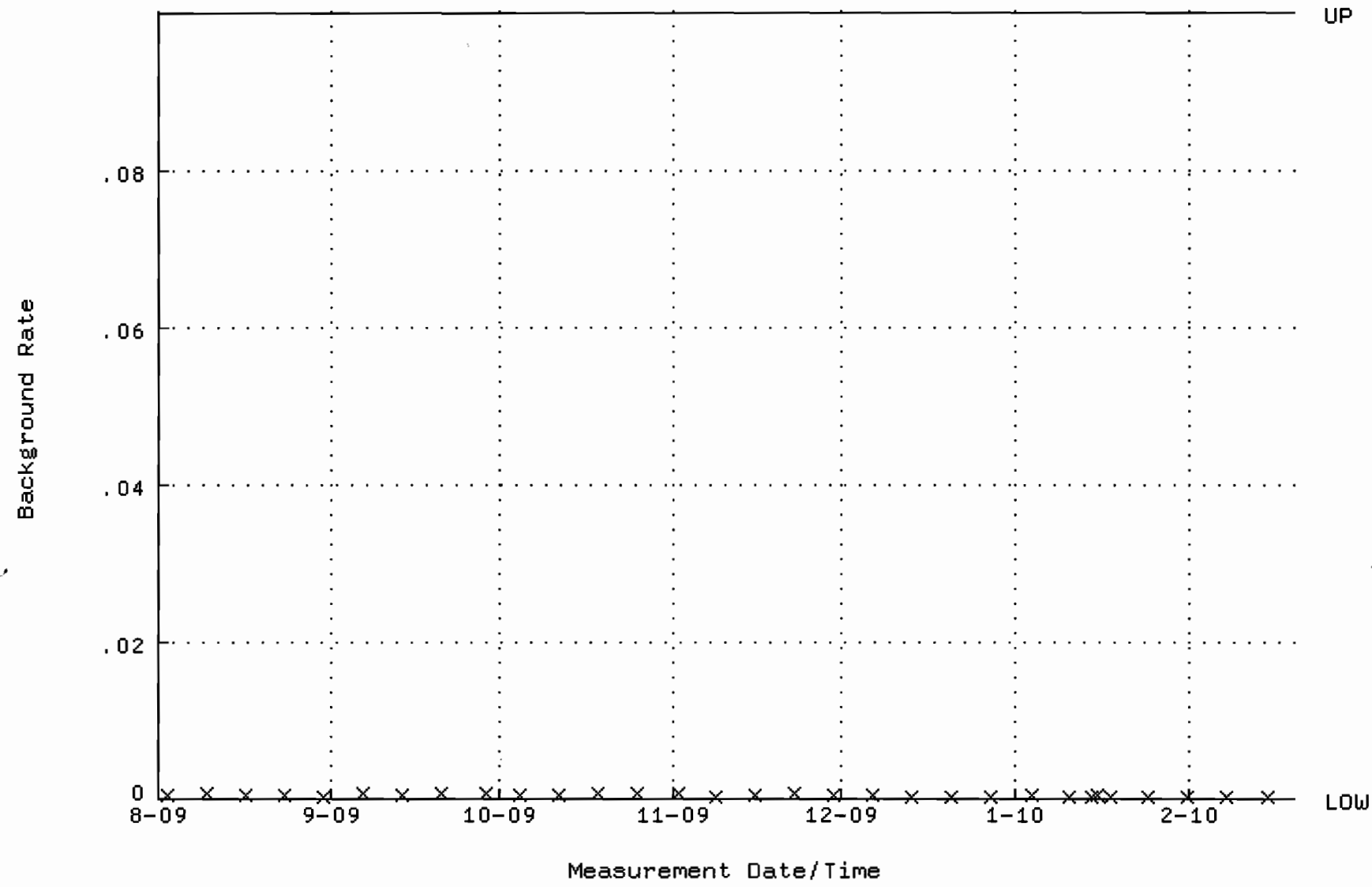
QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 15:01:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.240573 through 0.260573



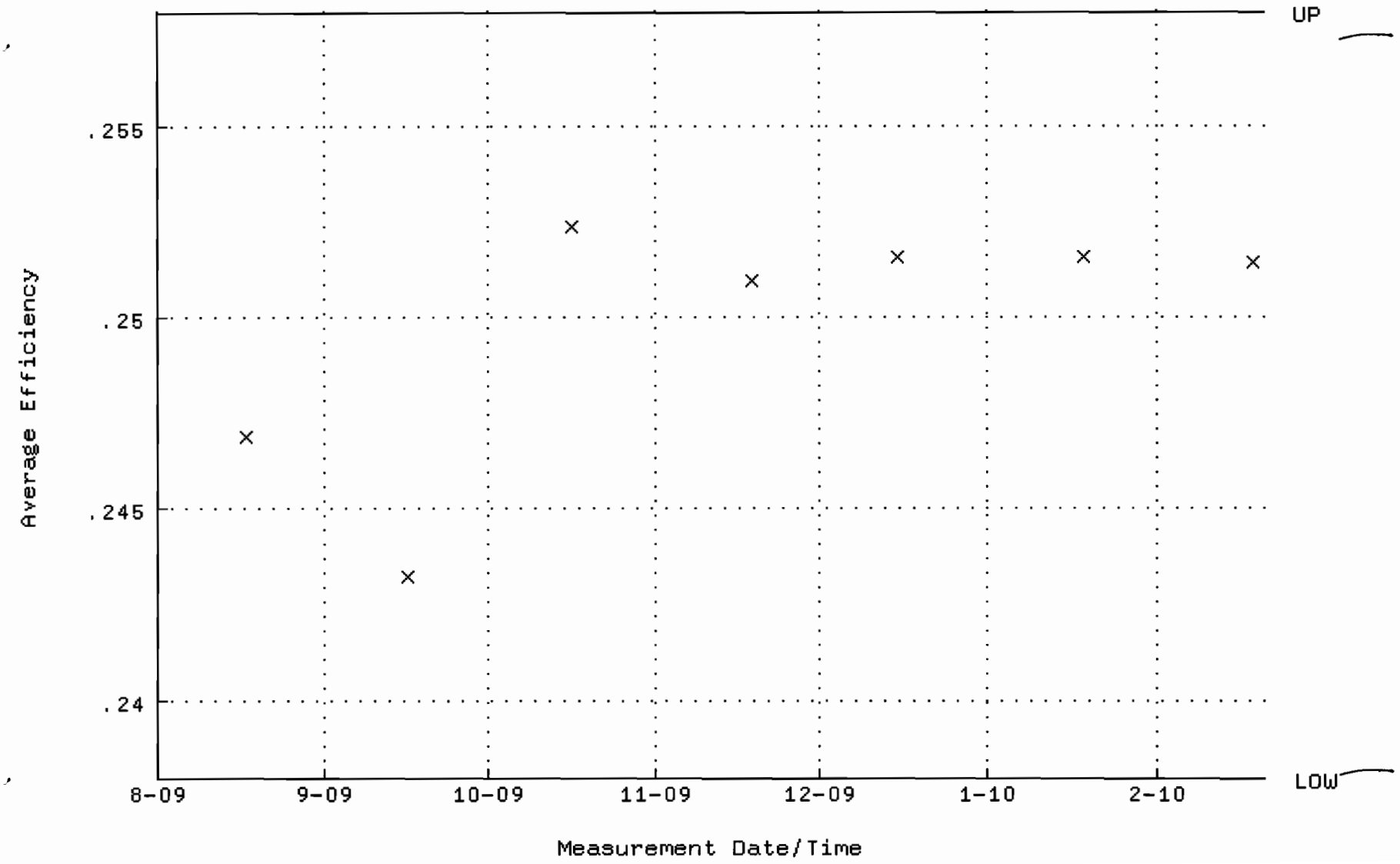
QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 15:01:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.9674 through 97.2272



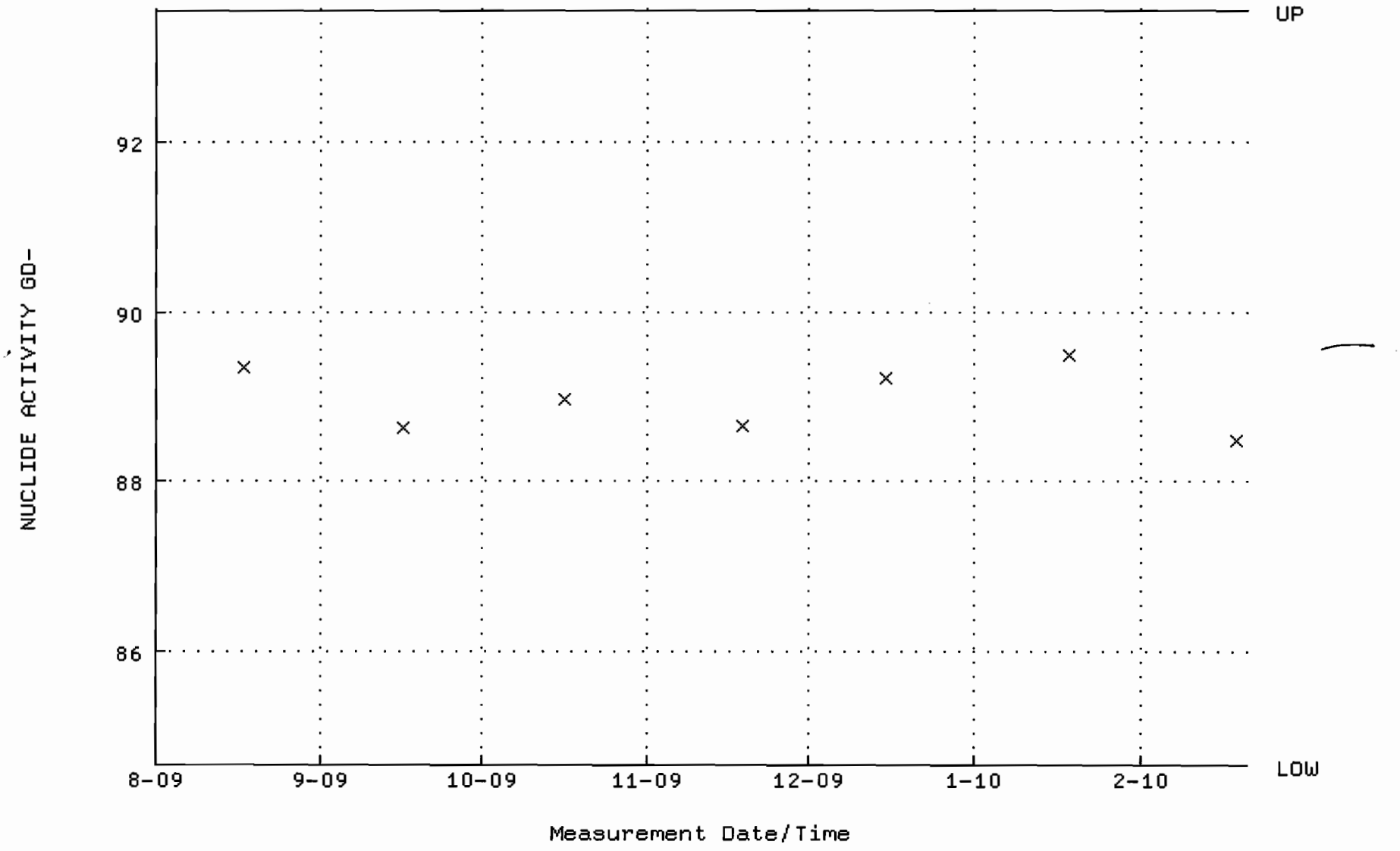
QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:22 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



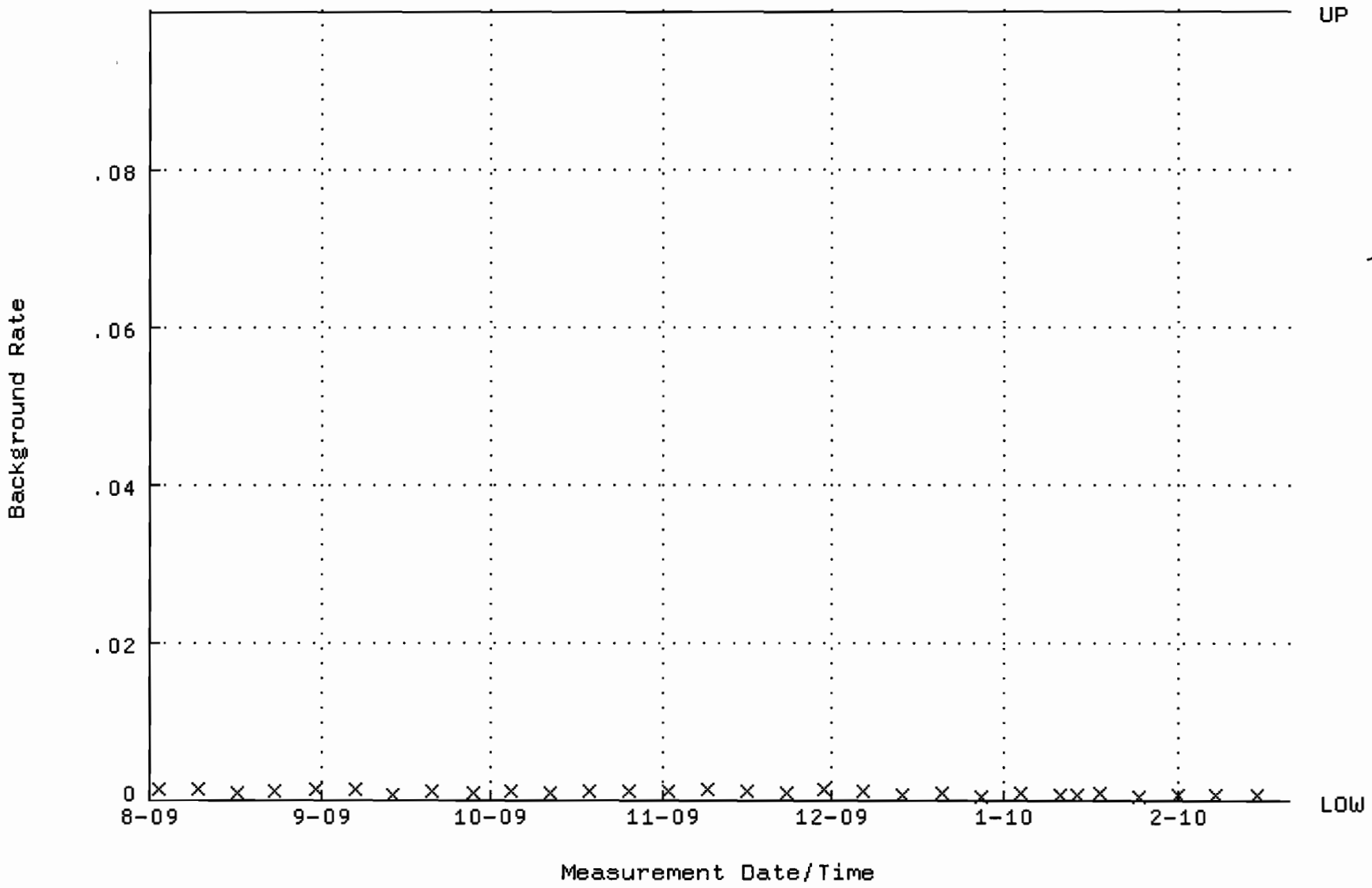
QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:42 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237963 through 0.257963



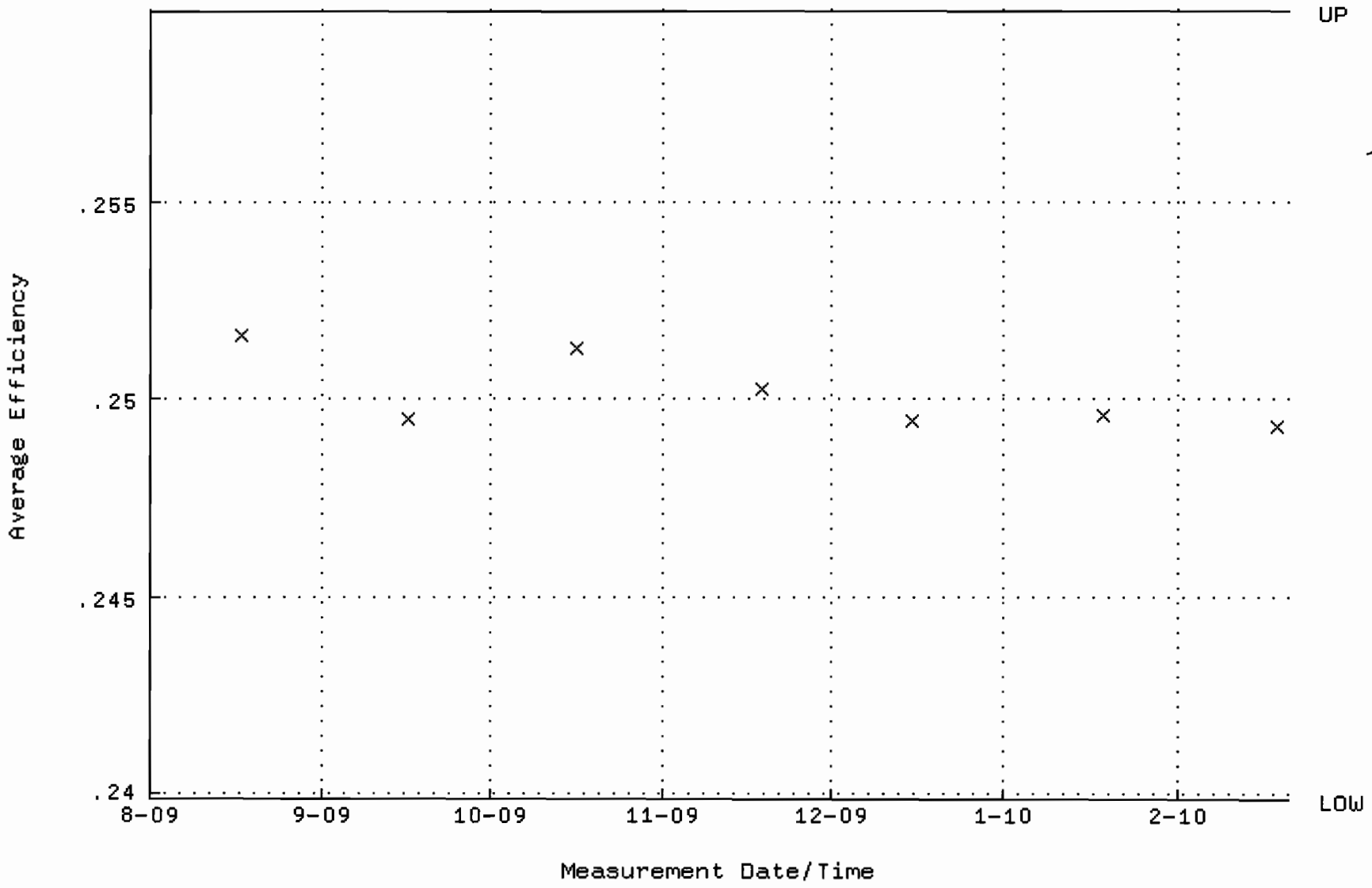
QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:42 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.6507 through 93.5613



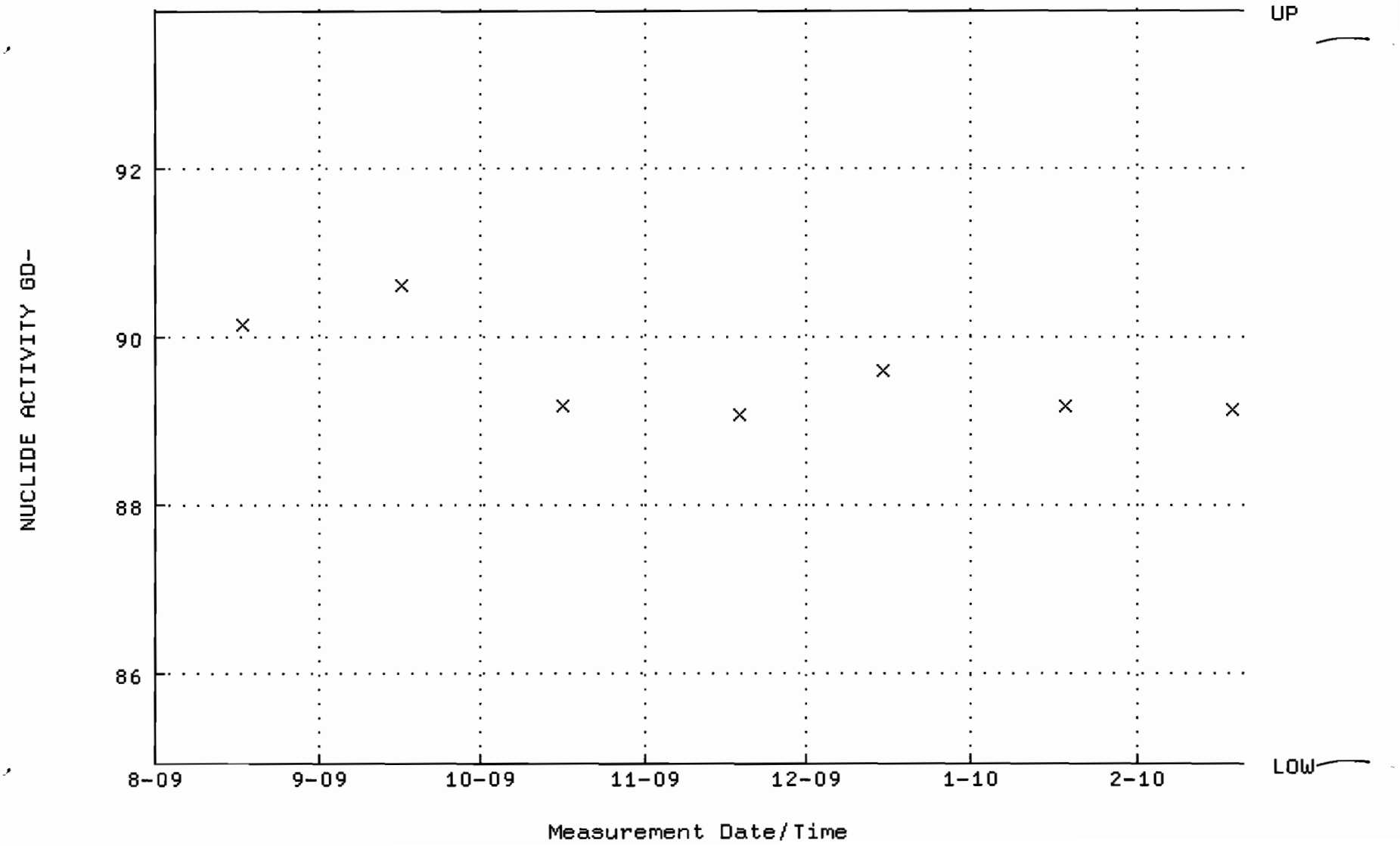
QA filename : DKA100:[ENV_ALPHA.QA.B]B144.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:12 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



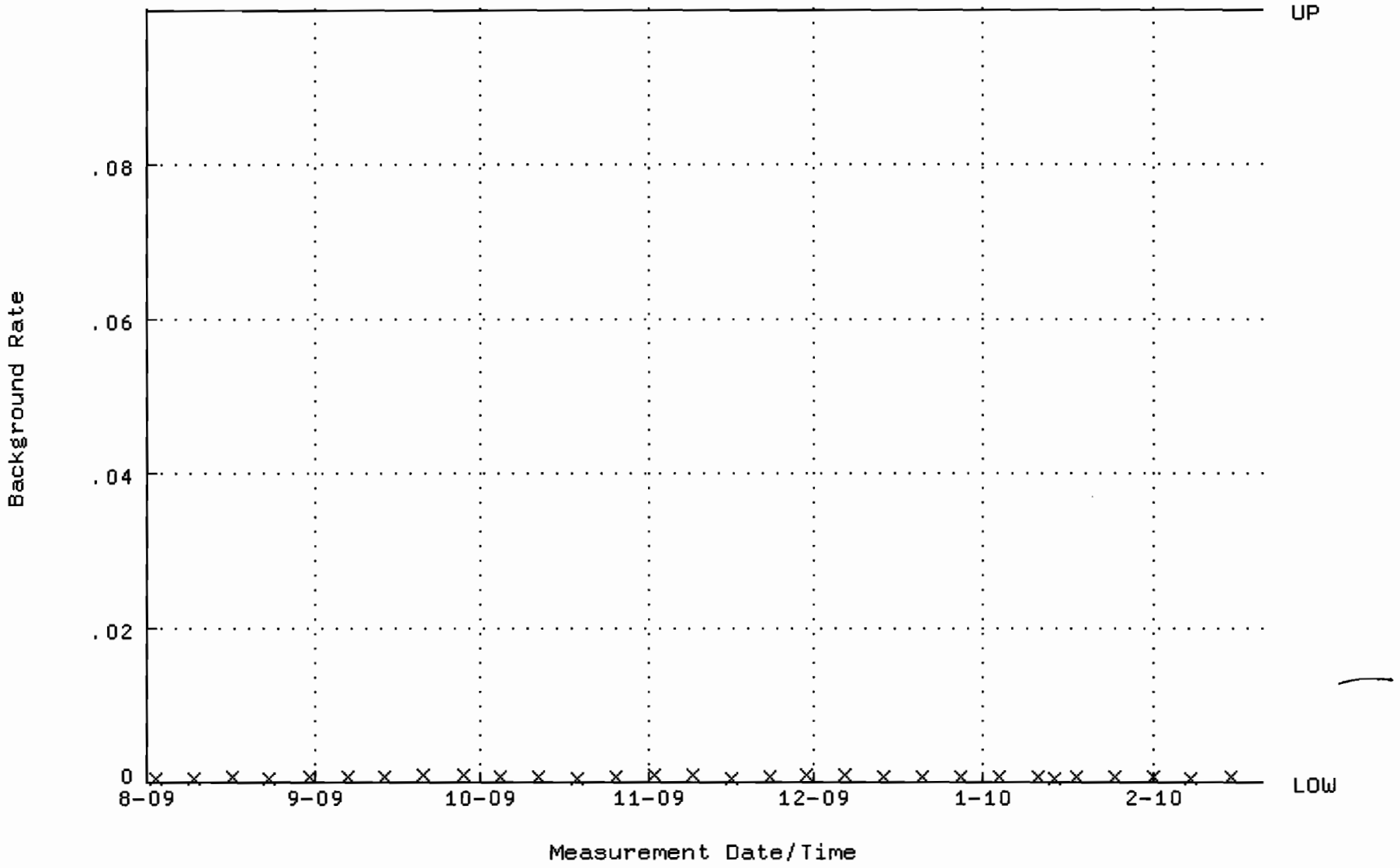
QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:50 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.239850 through 0.259850



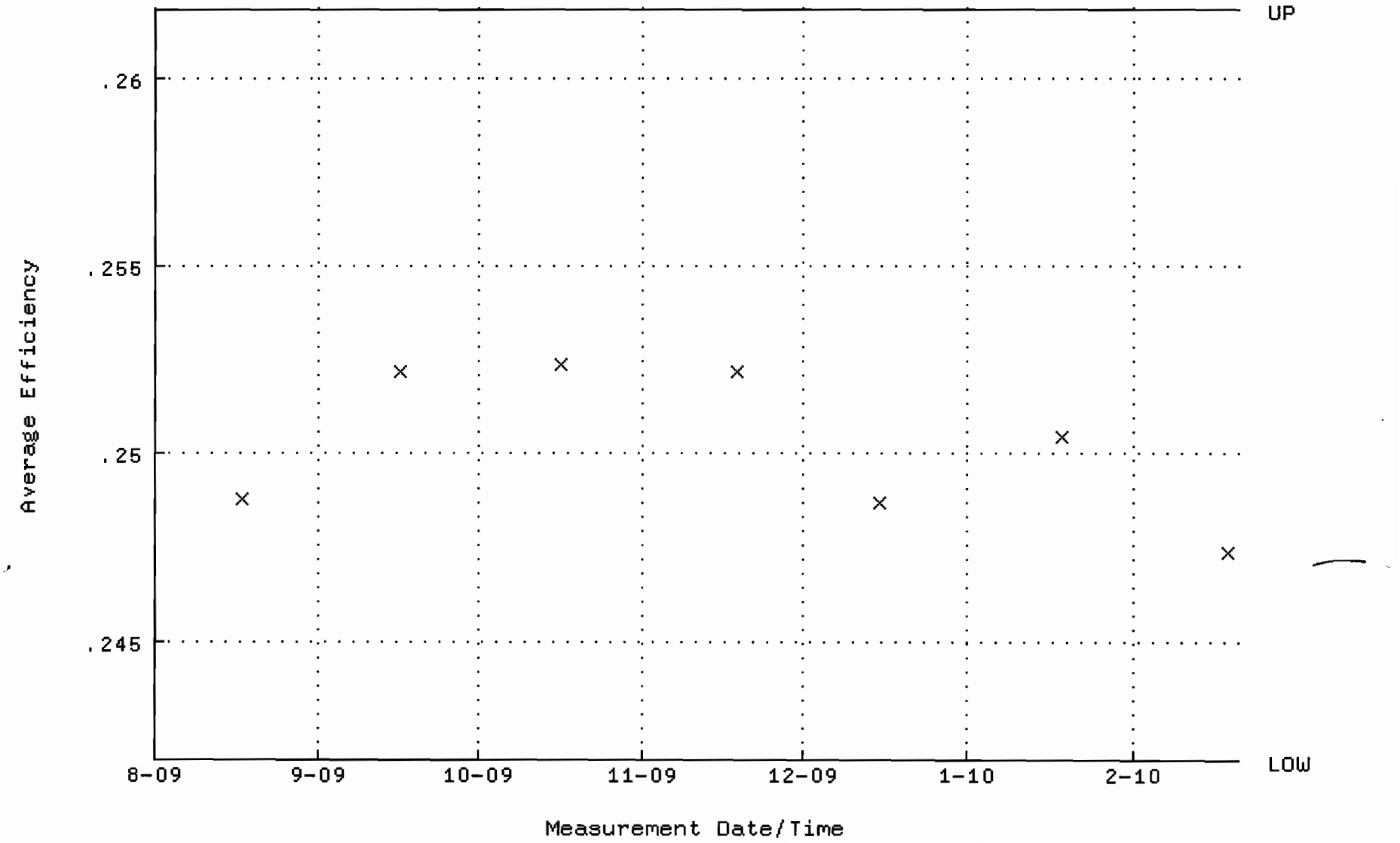
QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:50 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.9354 through 93.8760



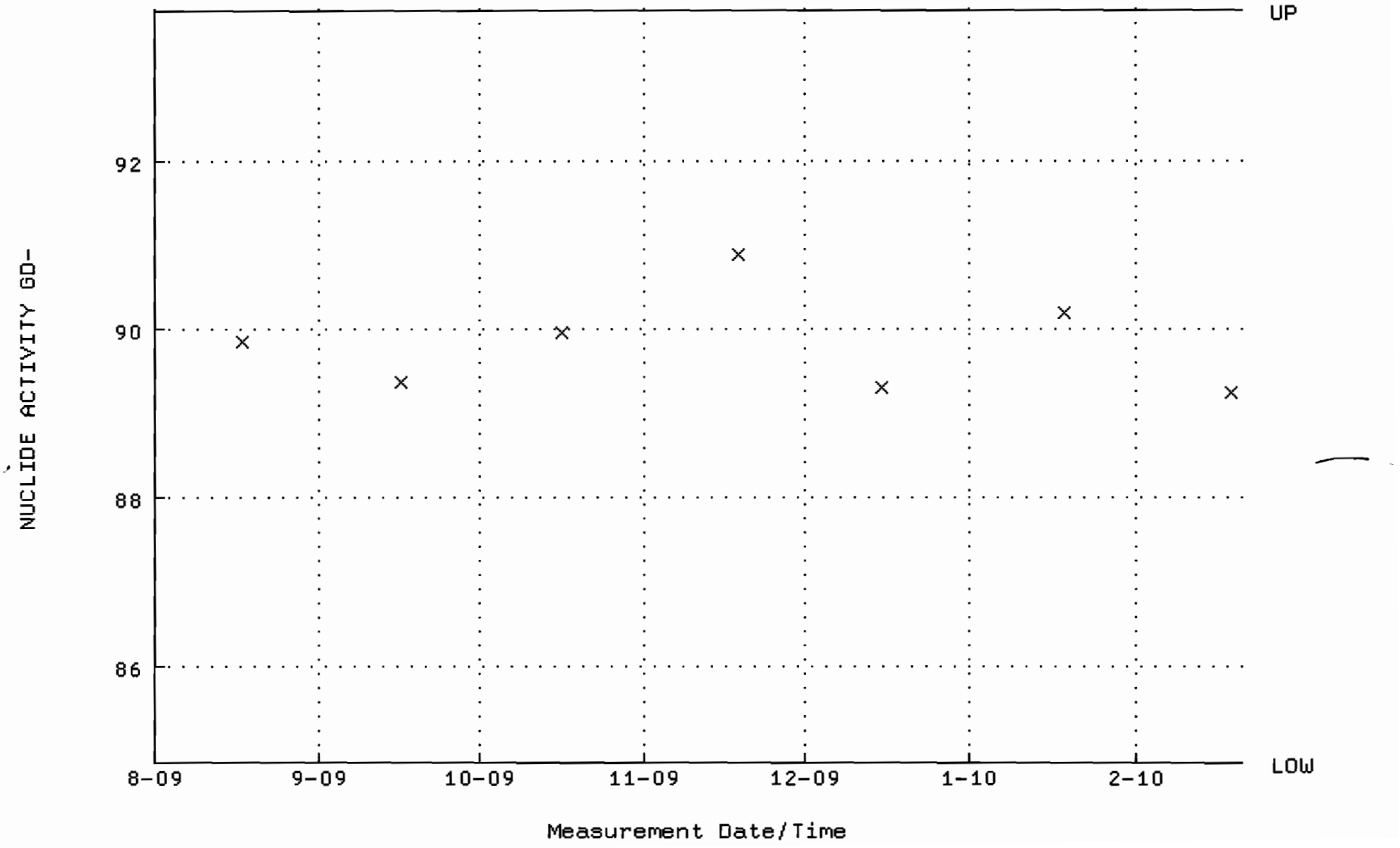
QA filename : DKA100:[ENV_ALPHA.QA.B]B145.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:16 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



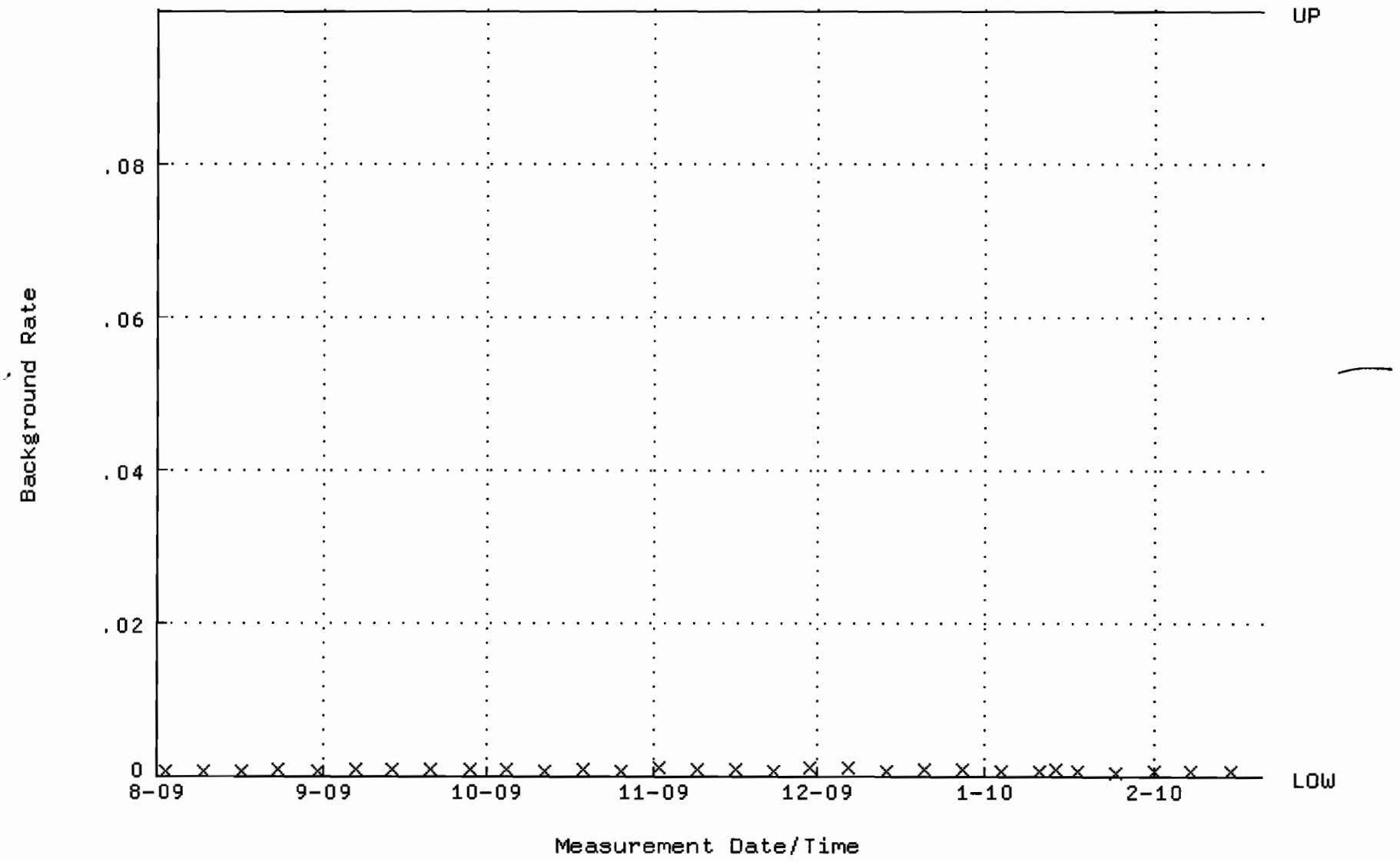
QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:56 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.241831 through 0.261831



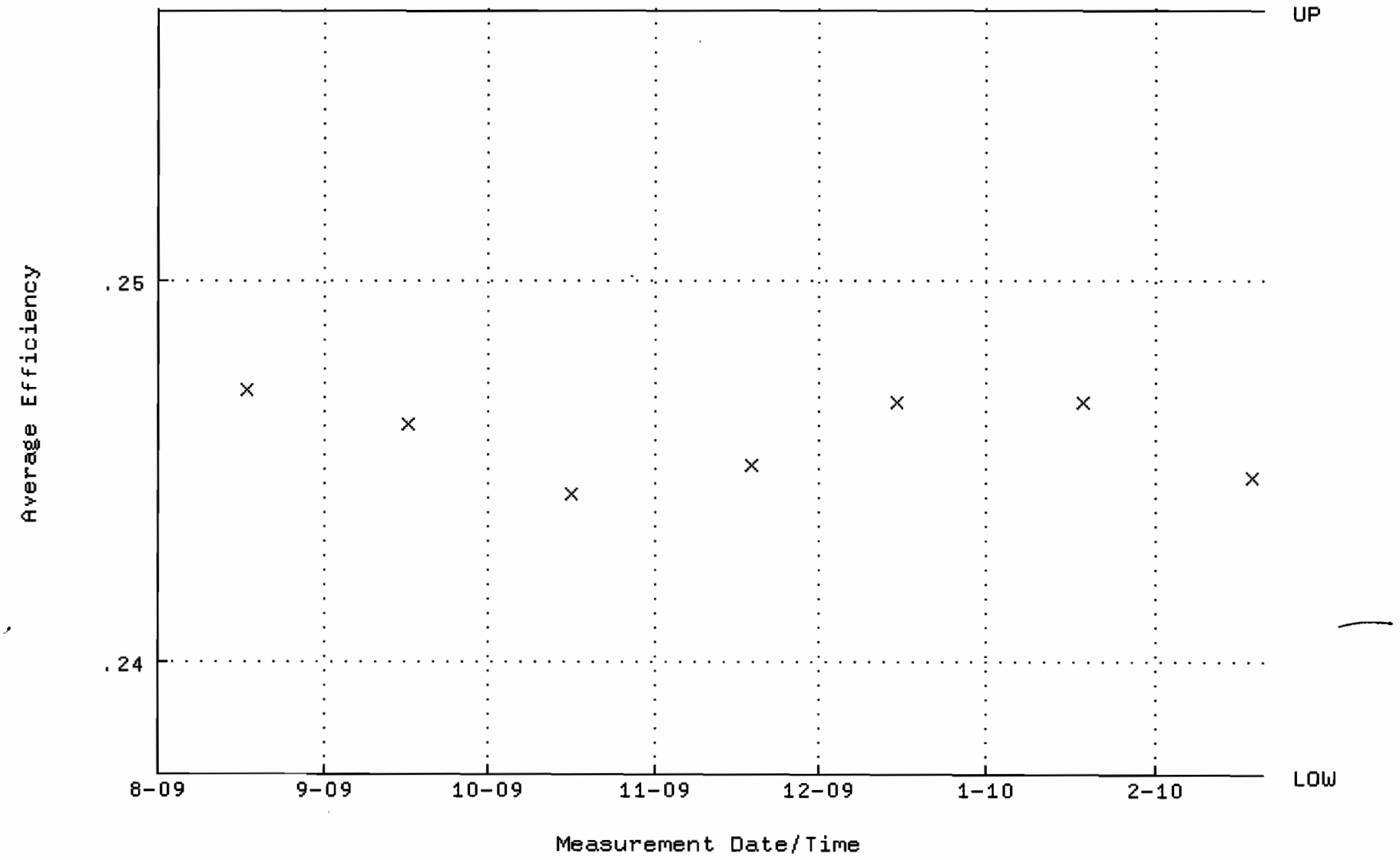
QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:56 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.8578 through 93.7902



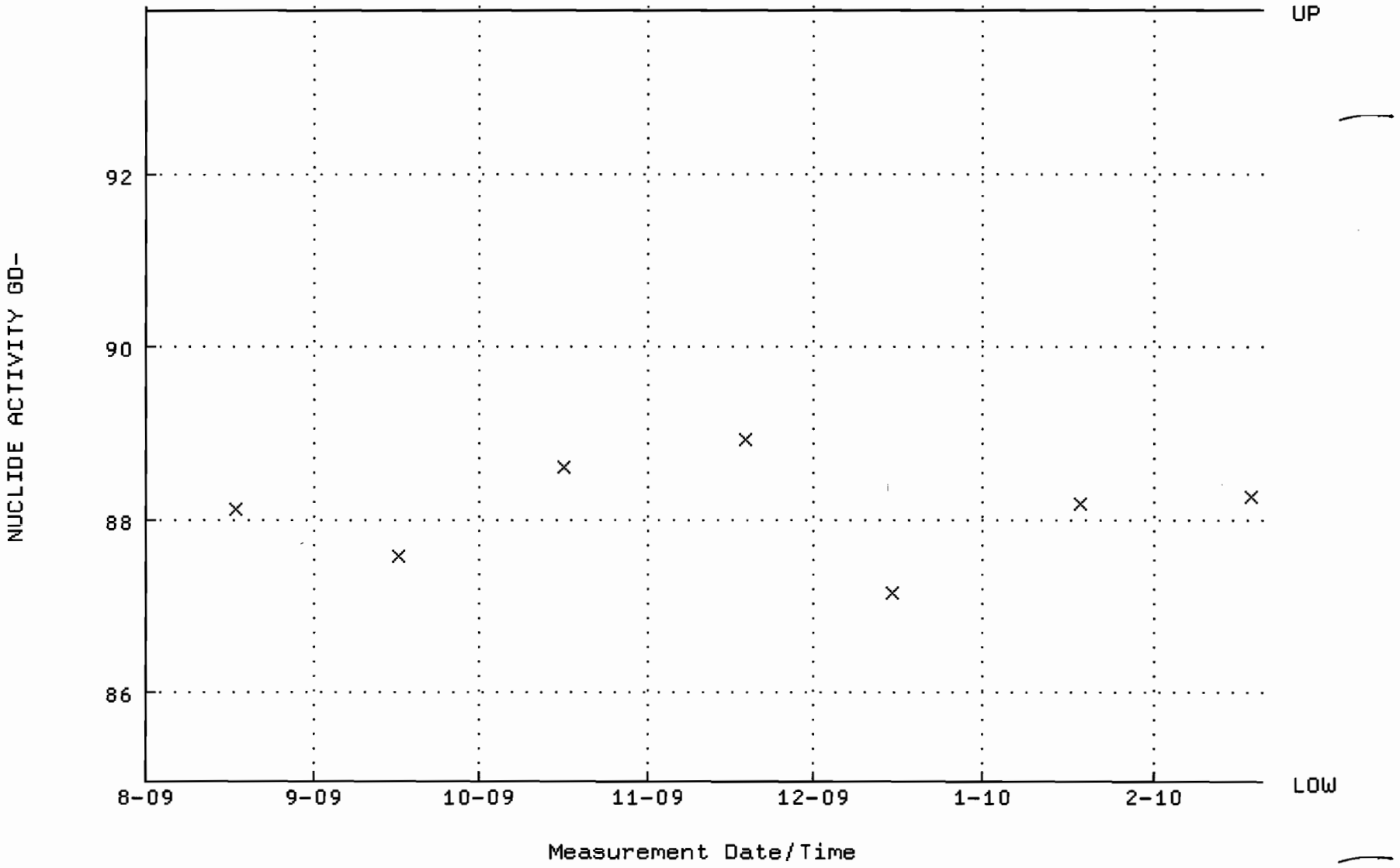
QA filename : DKA100:[ENV_ALPHA.QA.B]B146.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:20 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



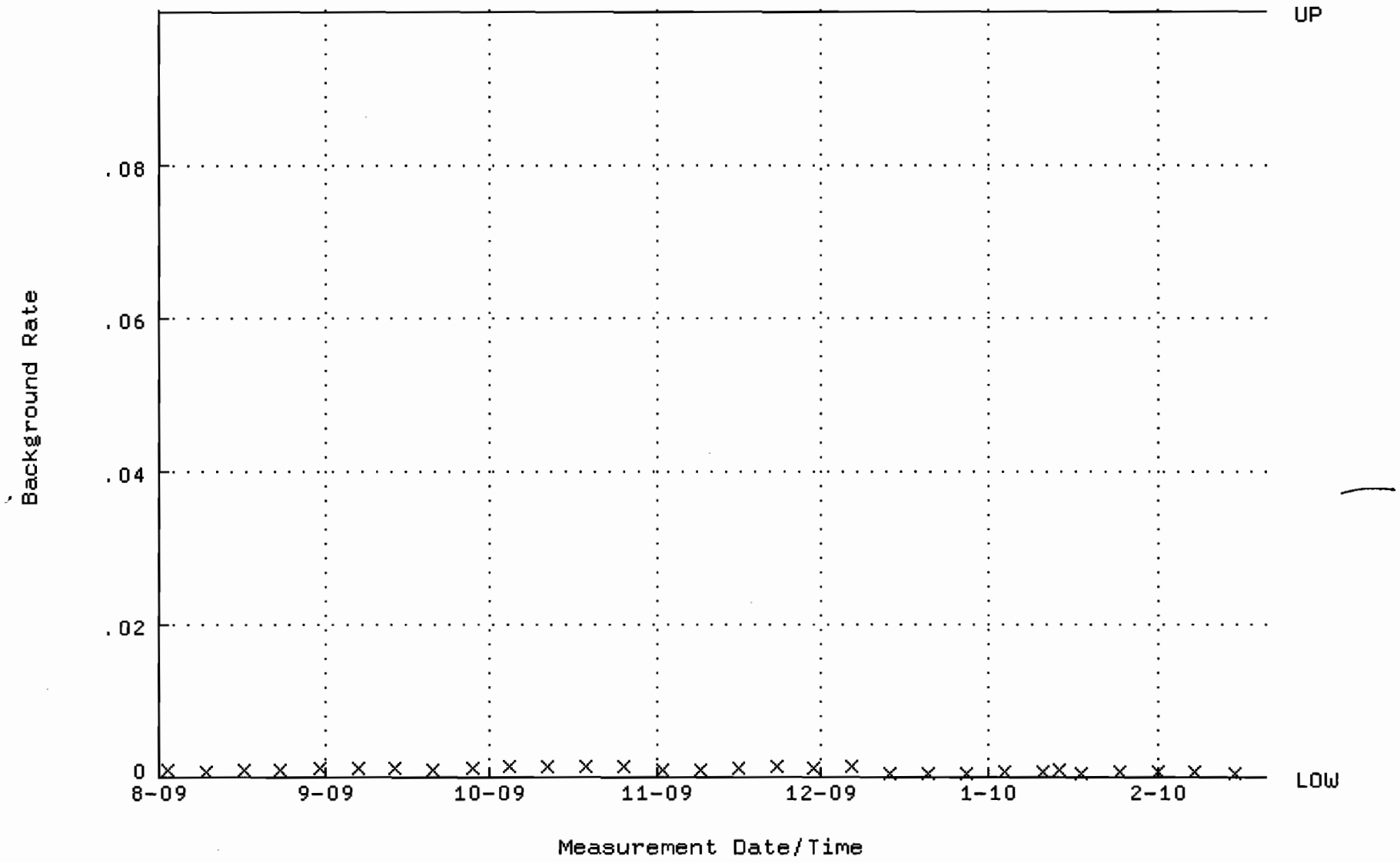
QA filename : DKA100:[ENV_ALPHA.QA.W]W147.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:07:03 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237046 through 0.257046



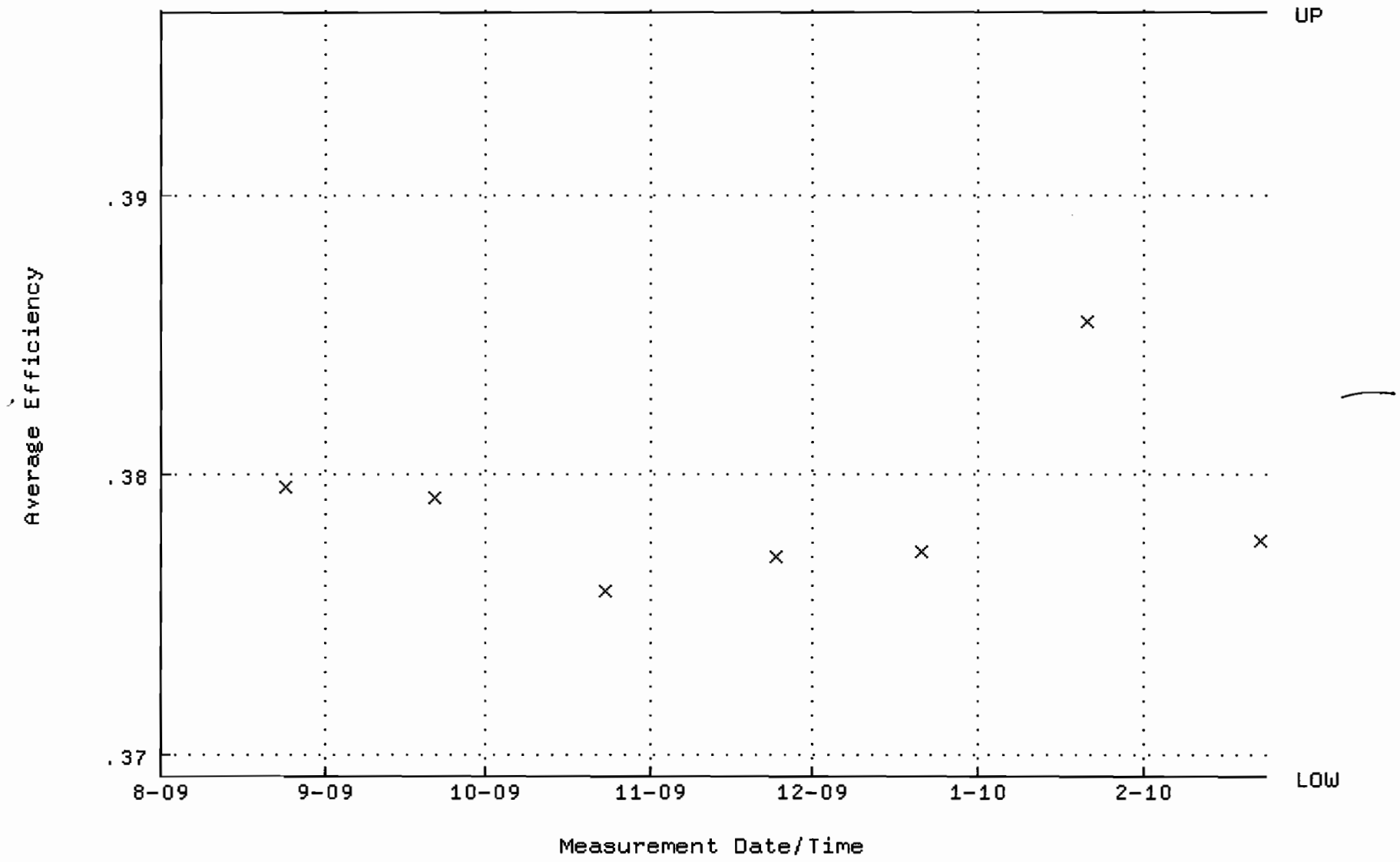
QA filename : DKA100:[ENV_ALPHA.QA.W]W147.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:07:03 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.9777 through 93.9227



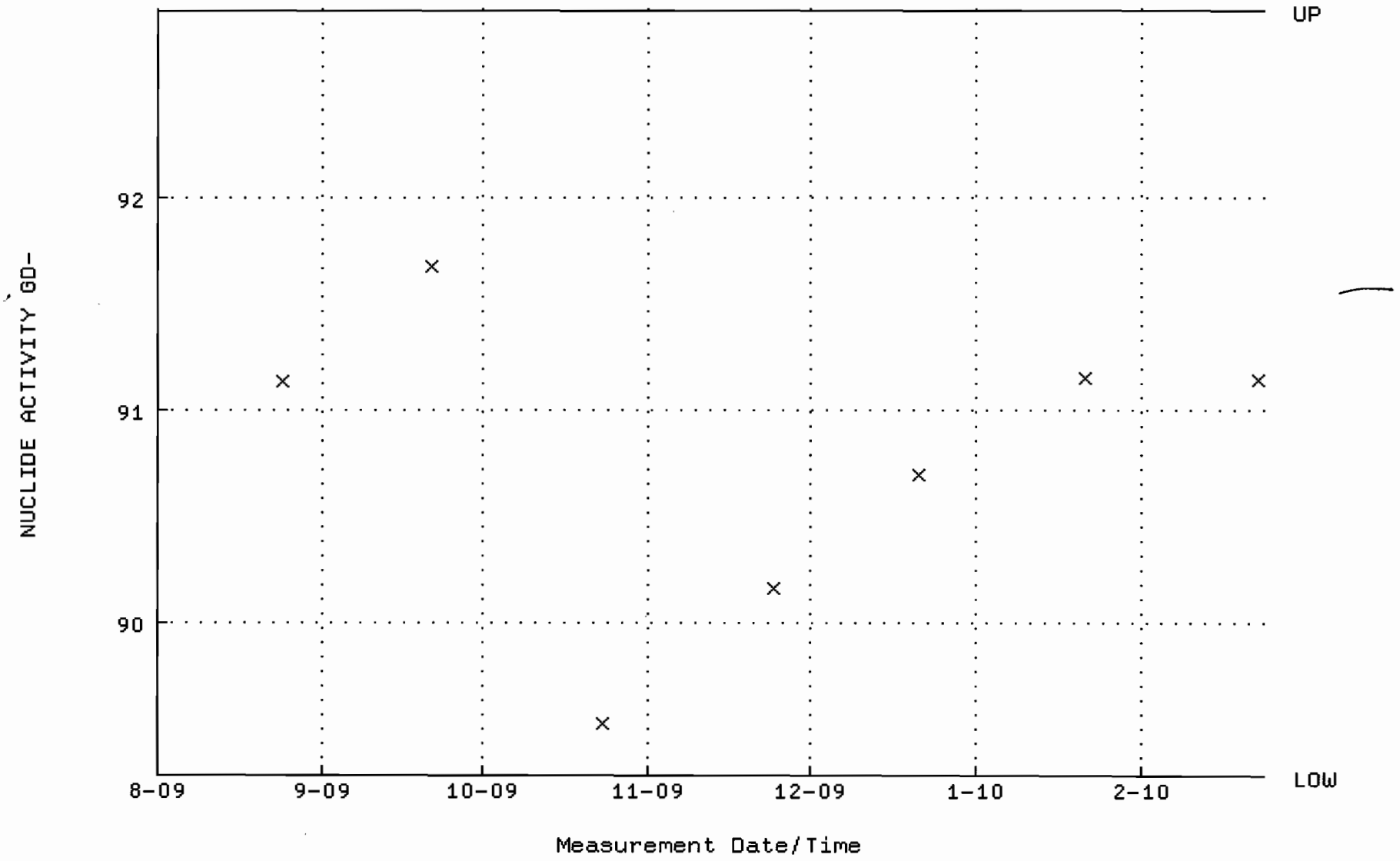
QA filename : DKA100:[ENV_ALPHA.QA.B]B147.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:24 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



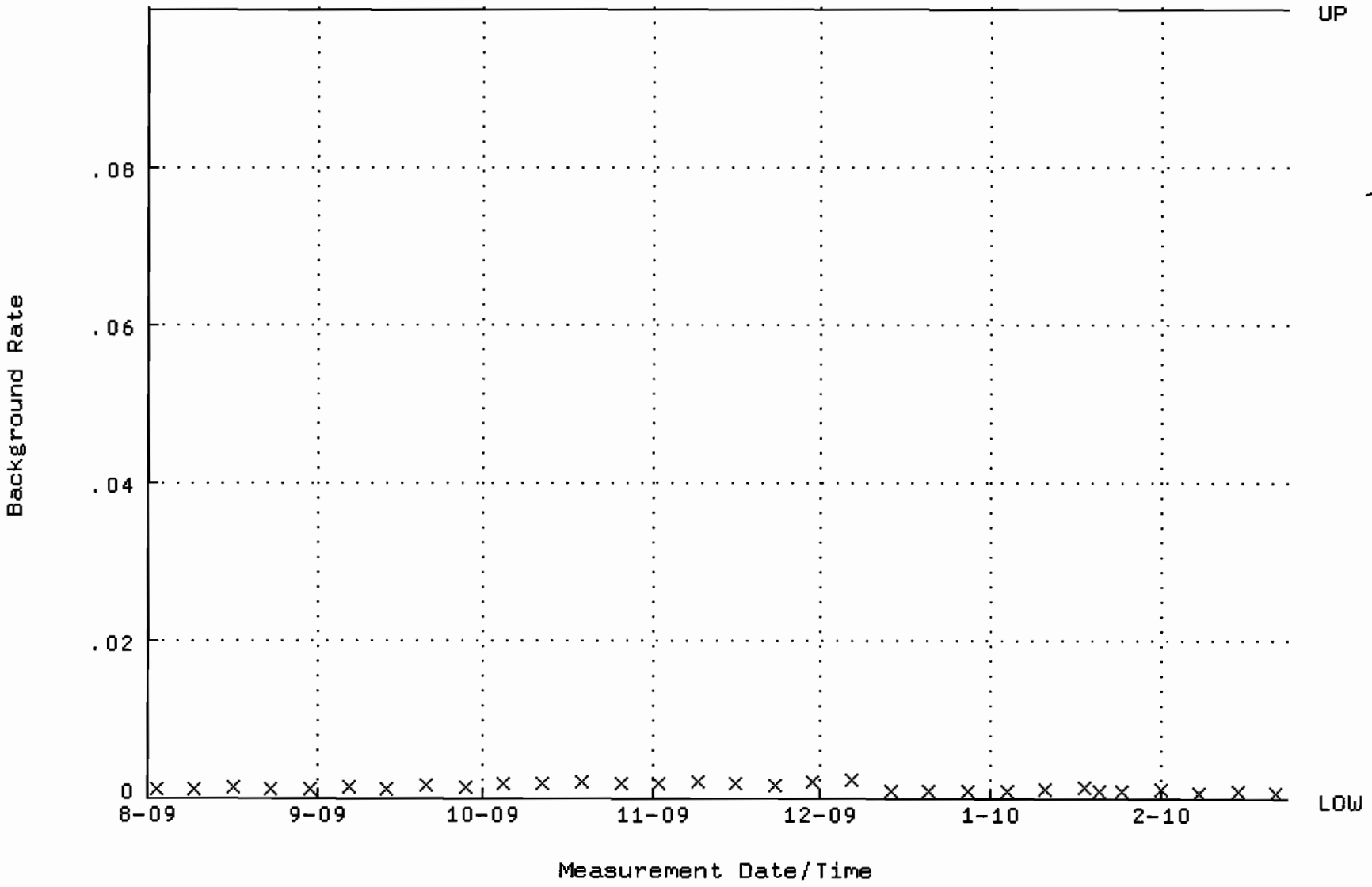
QA filename : DKA100:[ENV_ALPHA.QA.W]W164.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:40:07 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.369199 through 0.396555



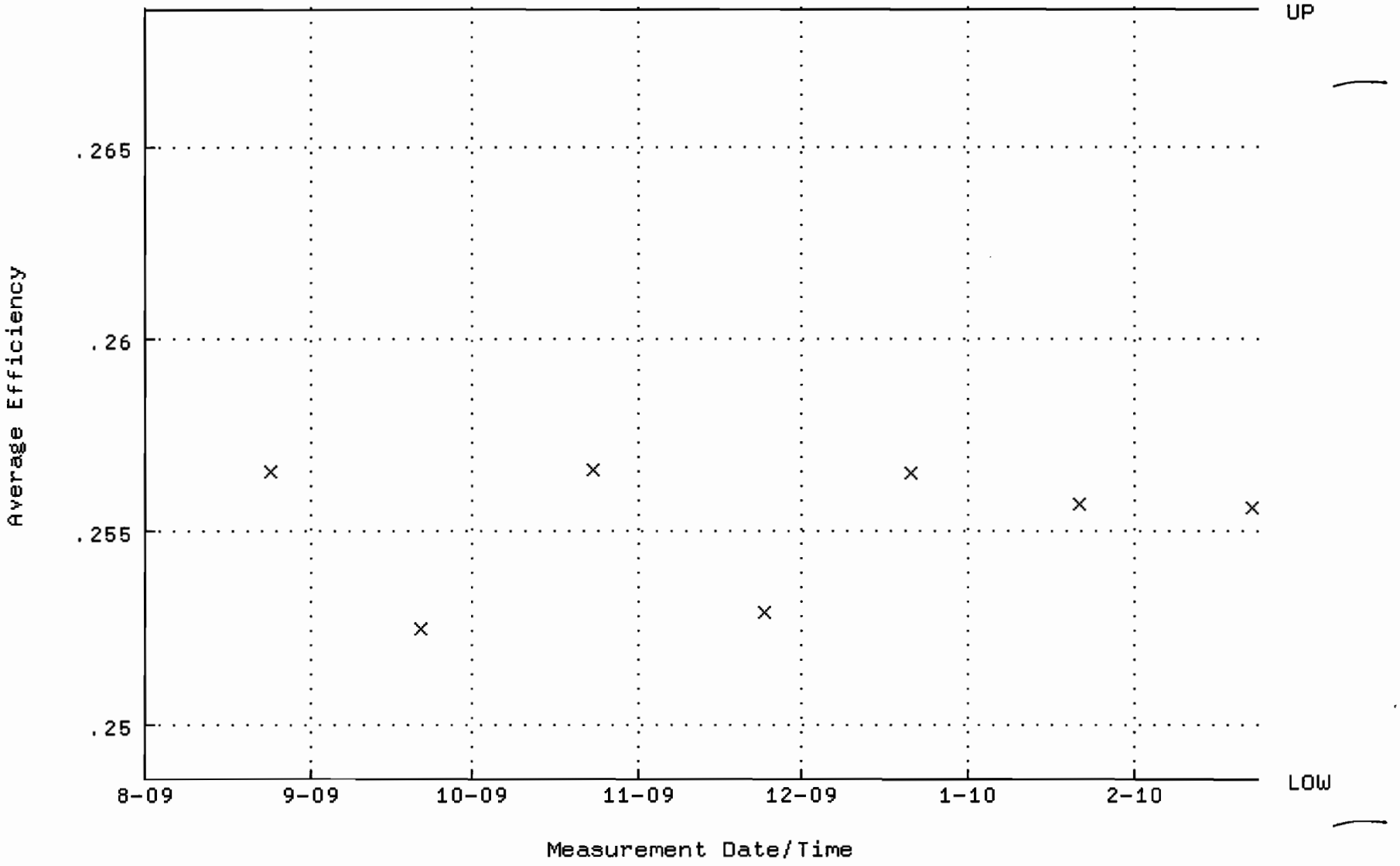
QA filename : DKA100:[ENV_ALPHA.QA.W]W164.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:40:07 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 89.2764 through 92.8786



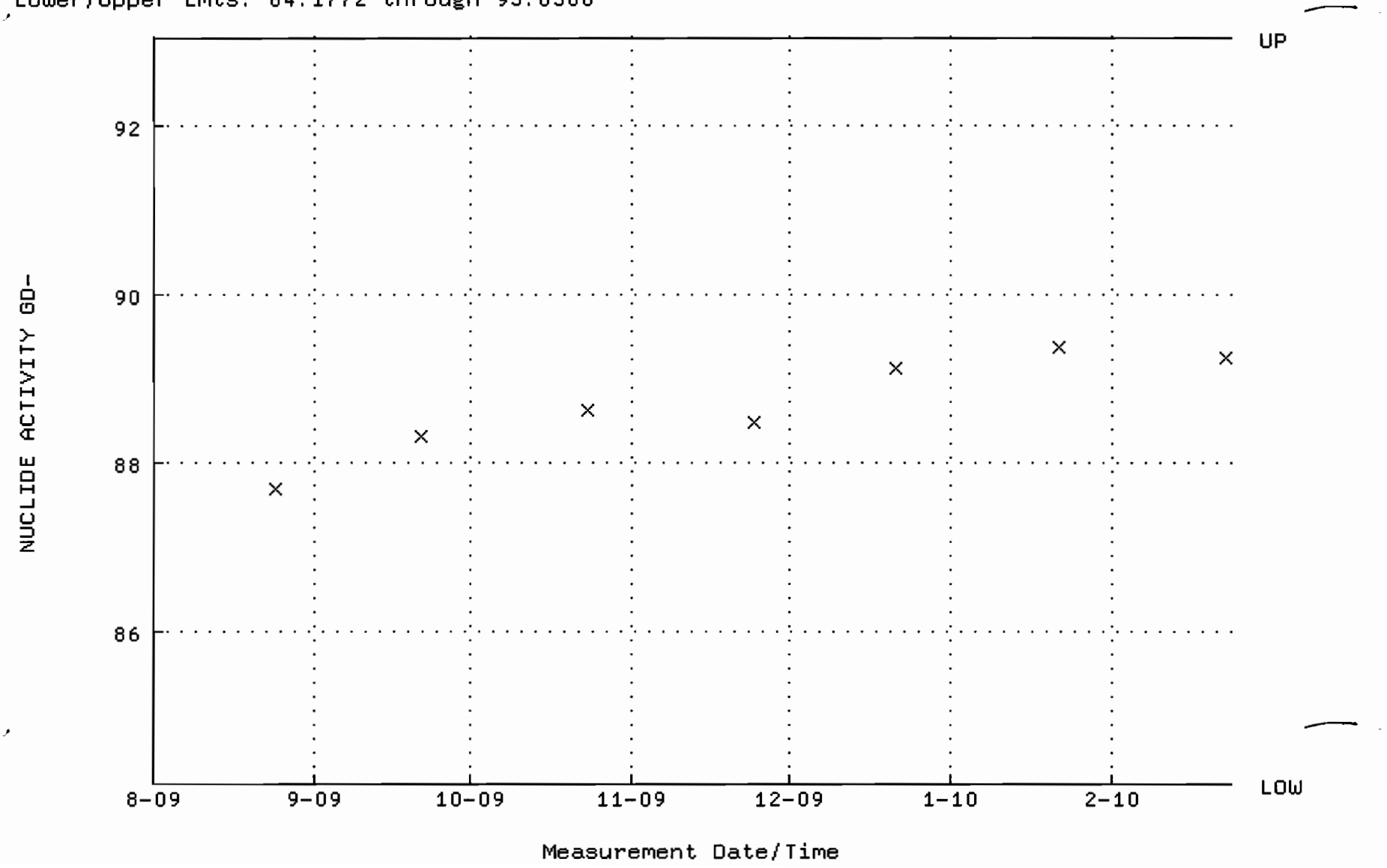
QA filename : DKA100:[ENV_ALPHA.QA.B]B164.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:21:49 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



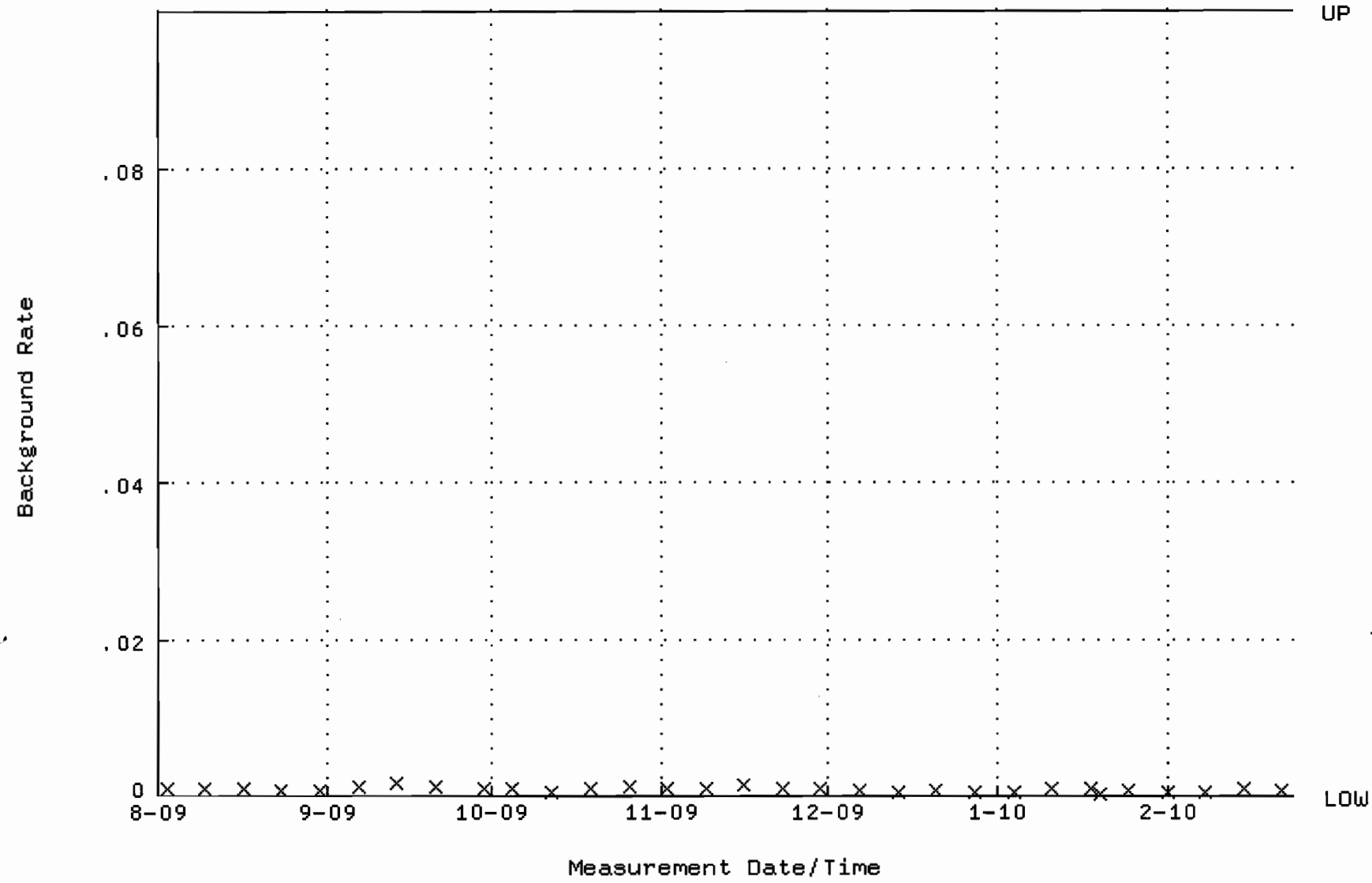
QA filename : DKA100:[ENV_ALPHA.QA.W]W197.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:43:12 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.248572 through 0.268572



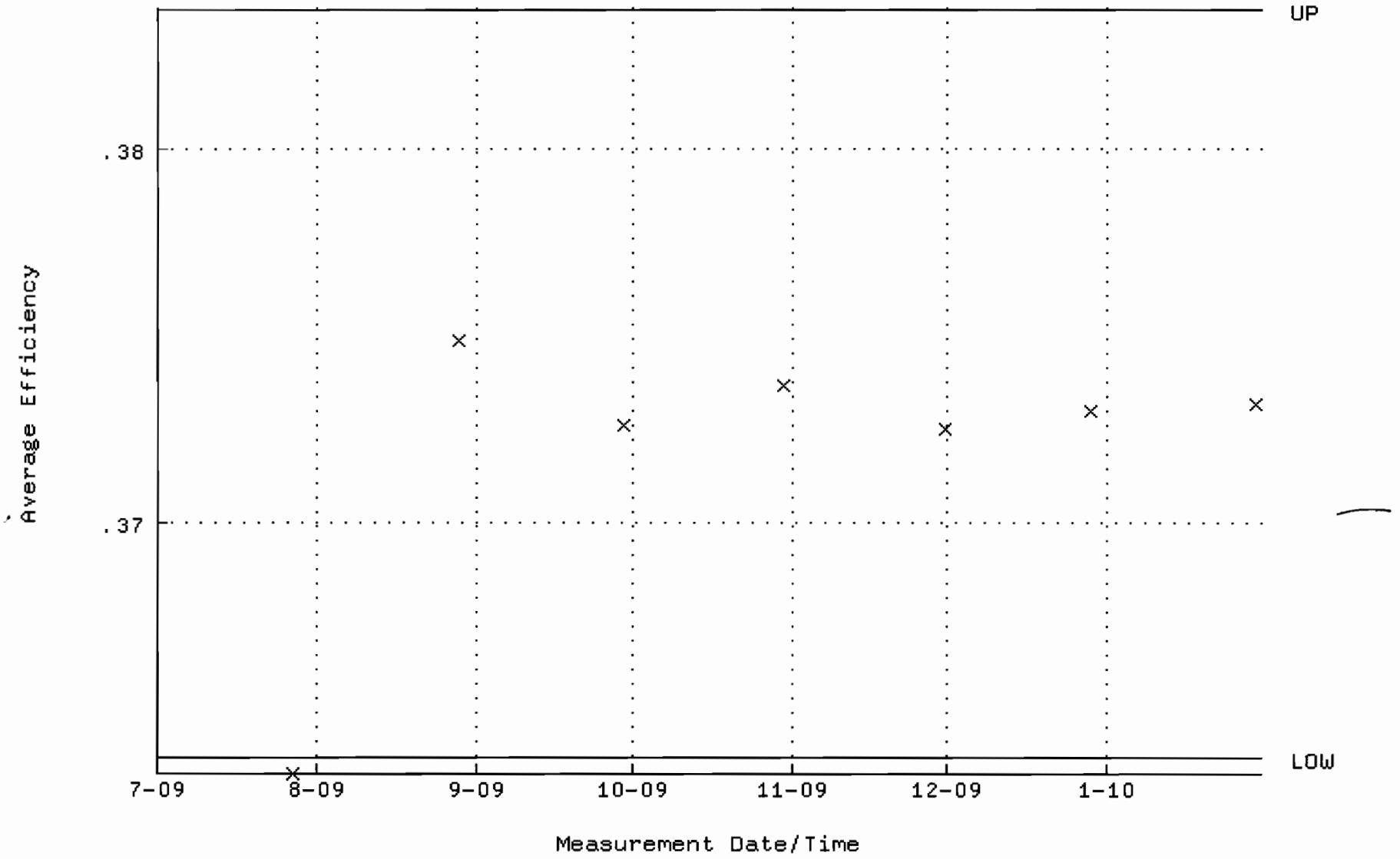
QA filename : DKA100:[ENV_ALPHA.QA.W]W197.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:43:12 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 84.1772 through 93.0380



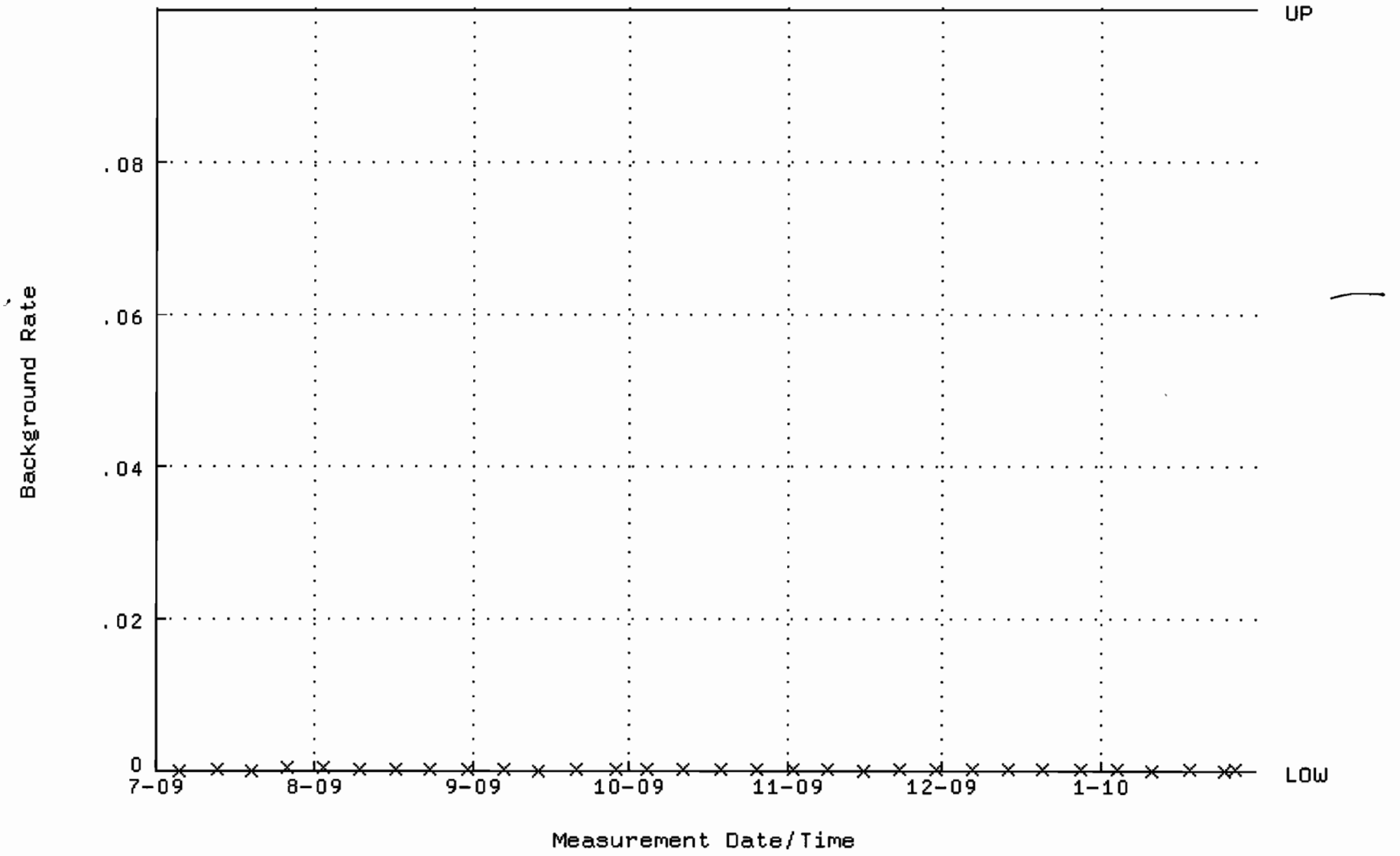
QA filename : DKA100:[ENV_ALPHA.QA.B]B197.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:24:16 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



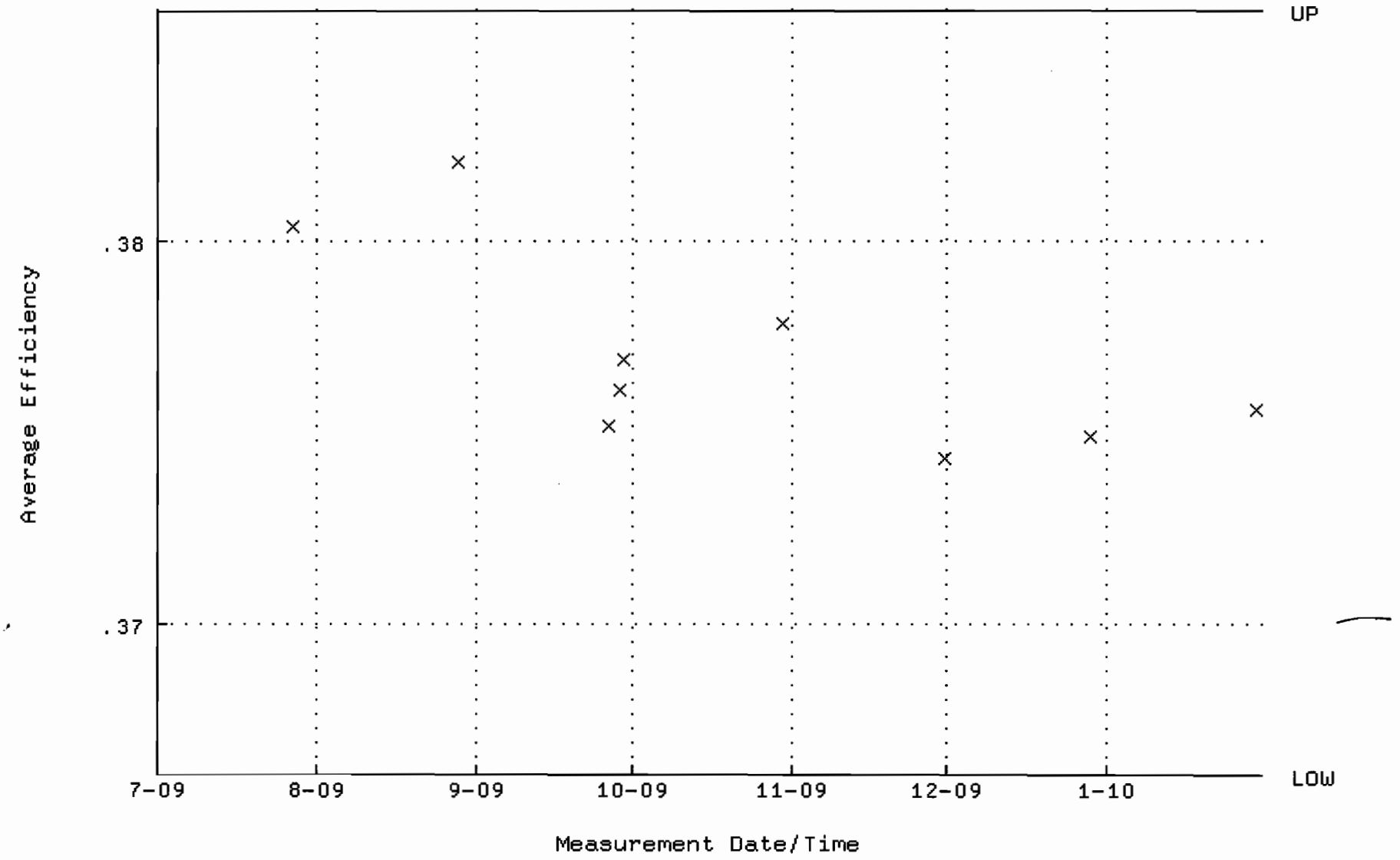
QA filename : DKA100:[ENV_ALPHA.QA.W]W213.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:47:39 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.363706 through 0.383706



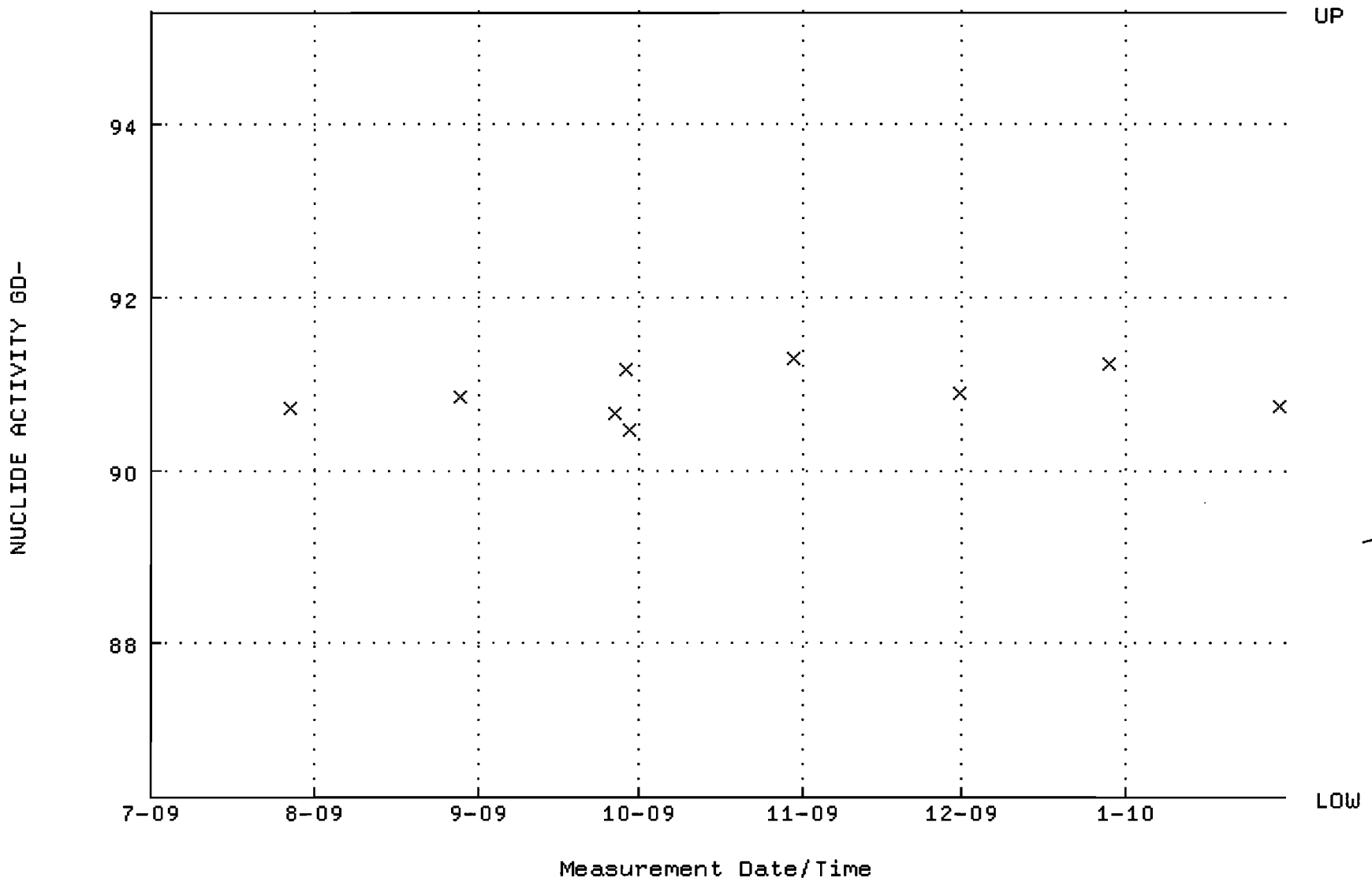
QA filename : DKA100:[ENV_ALPHA.QA.B]B213.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:38 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



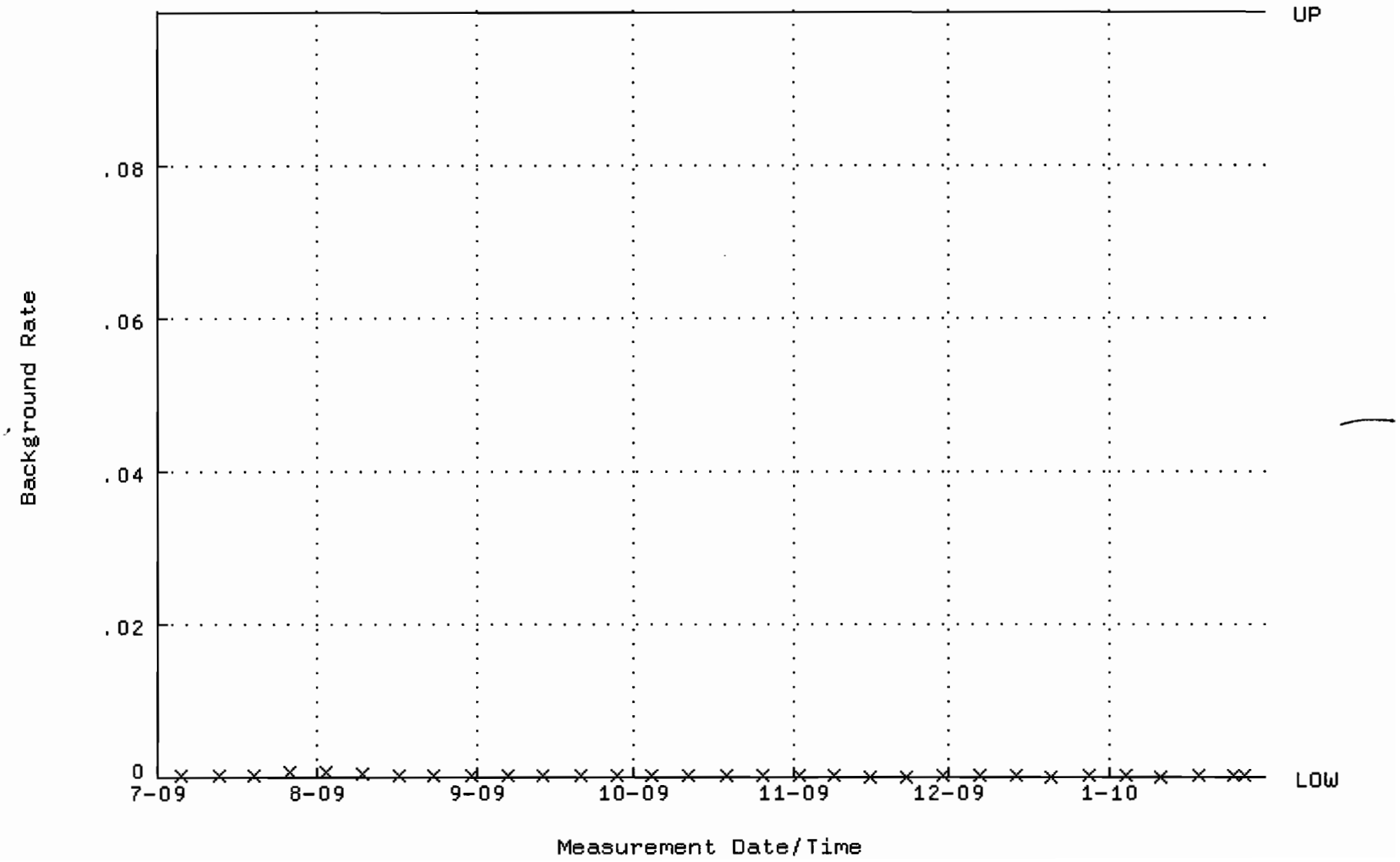
QA filename : DKA100:[ENV_ALPHA.QA.W]W215.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:47:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.366025 through 0.386025



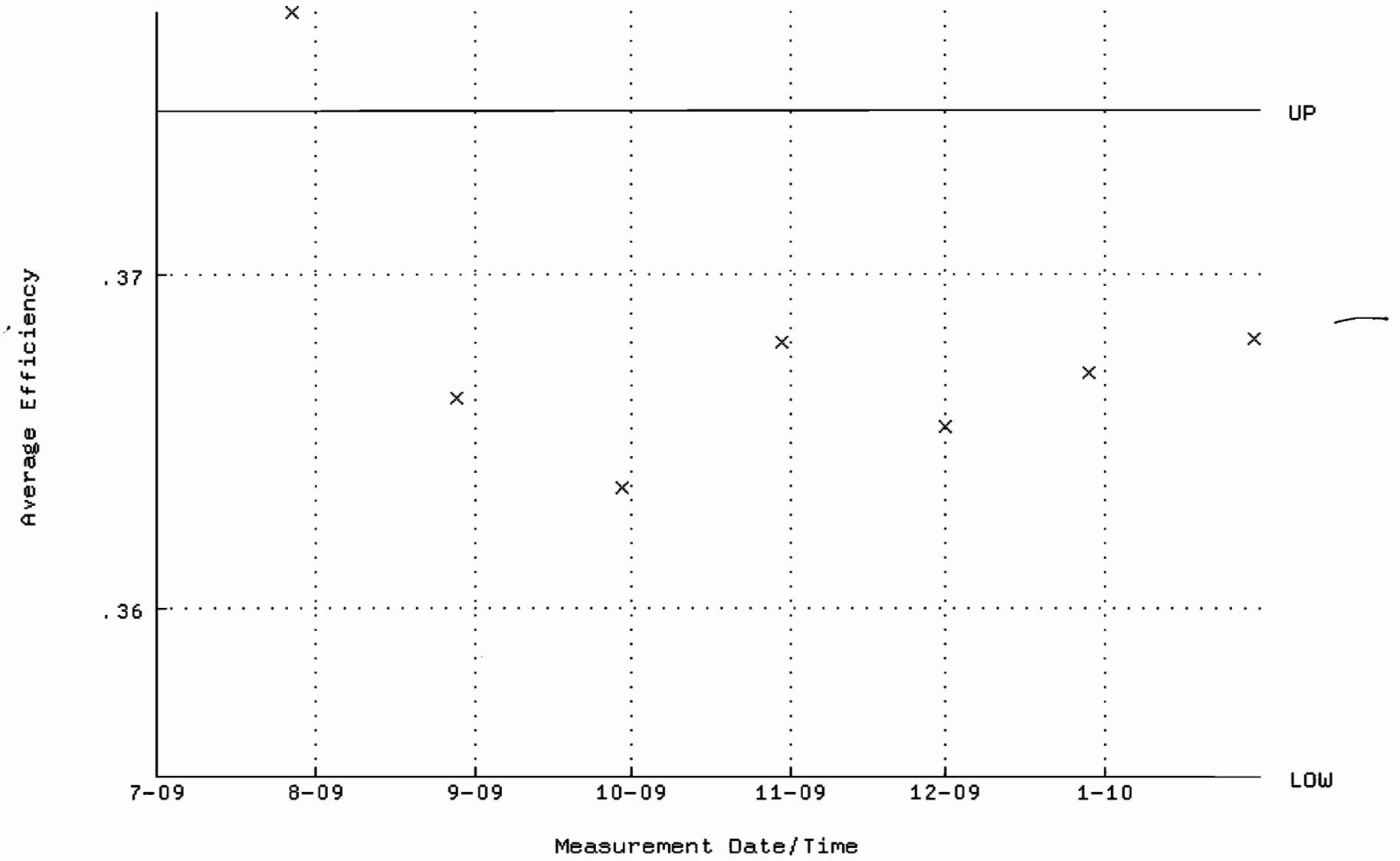
QA filename : DKA100:[ENV_ALPHA.QA.W]W215.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:47:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 86.2153 through 95.2905



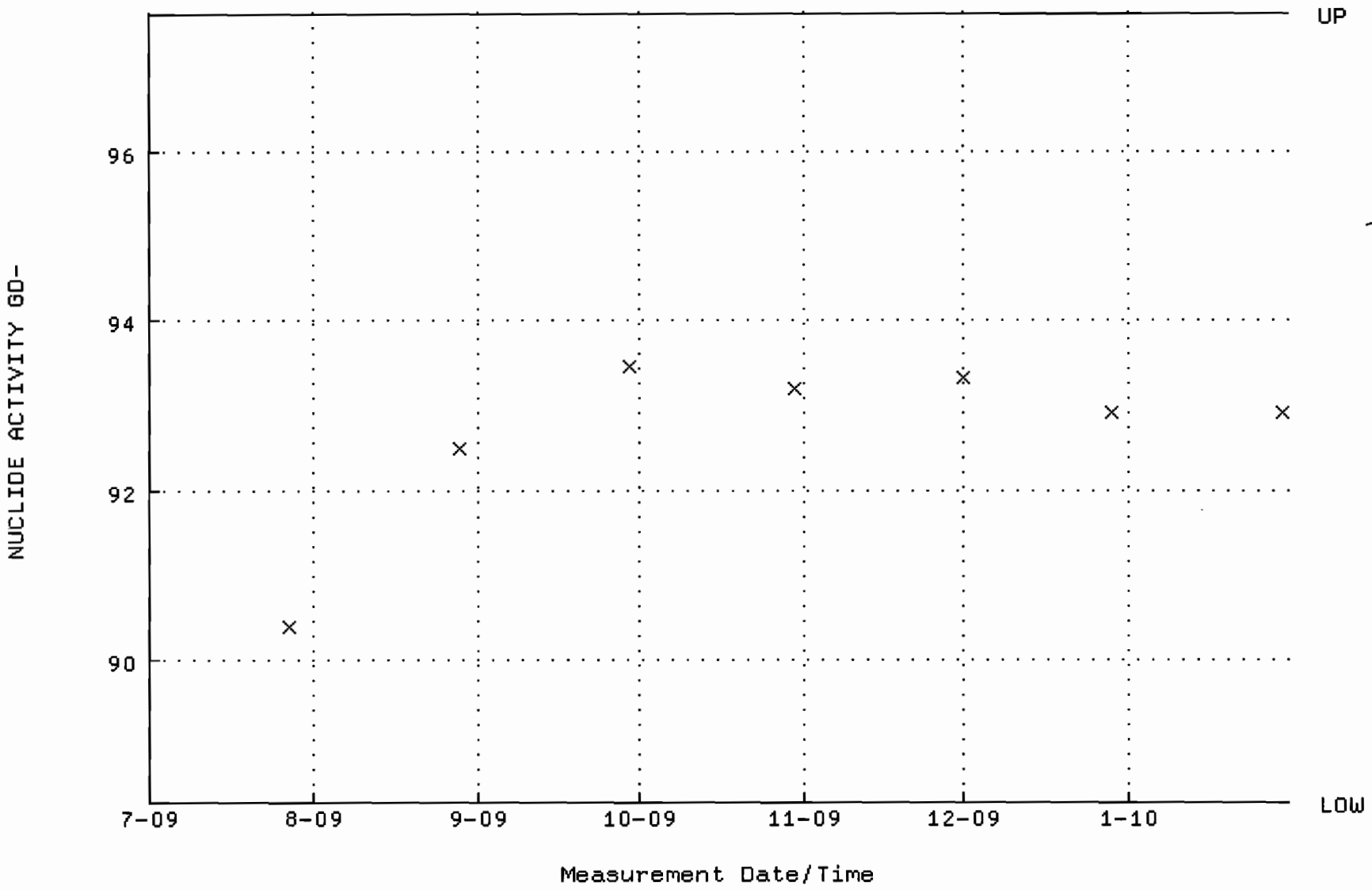
QA filename : DKA100:[ENV_ALPHA.QA.B]B215.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:47 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



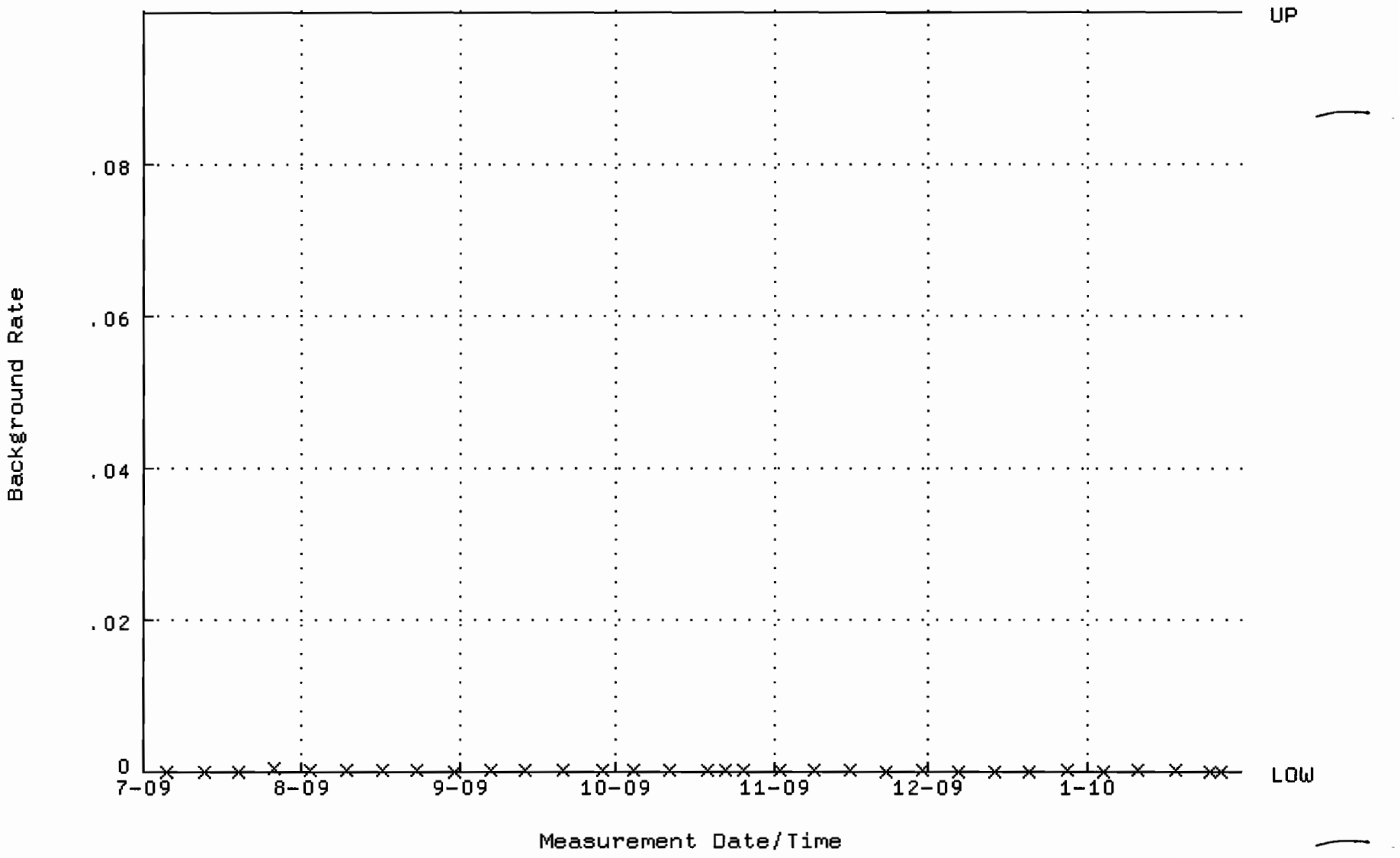
QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.354934 through 0.374934



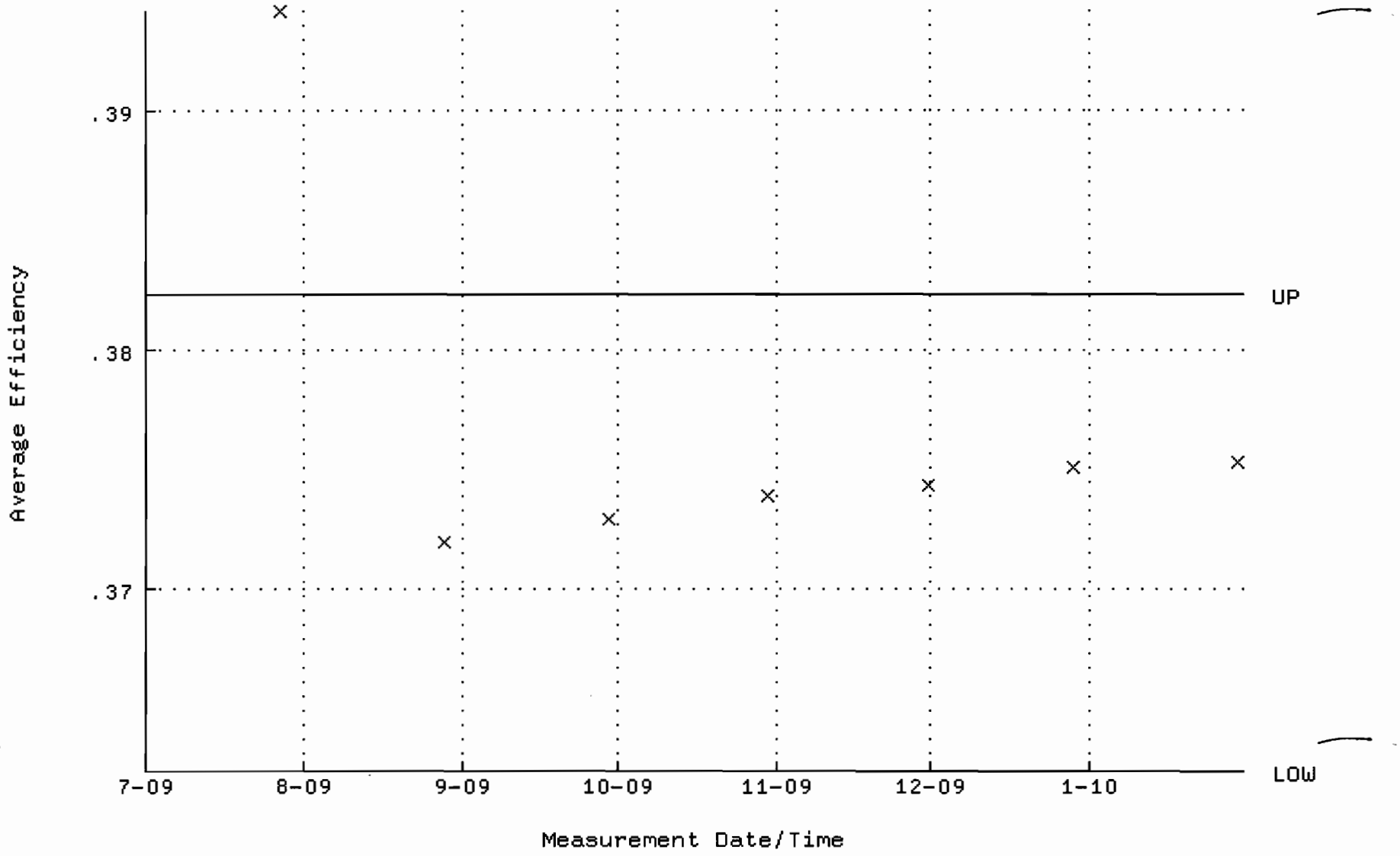
QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 88.3174 through 97.6140



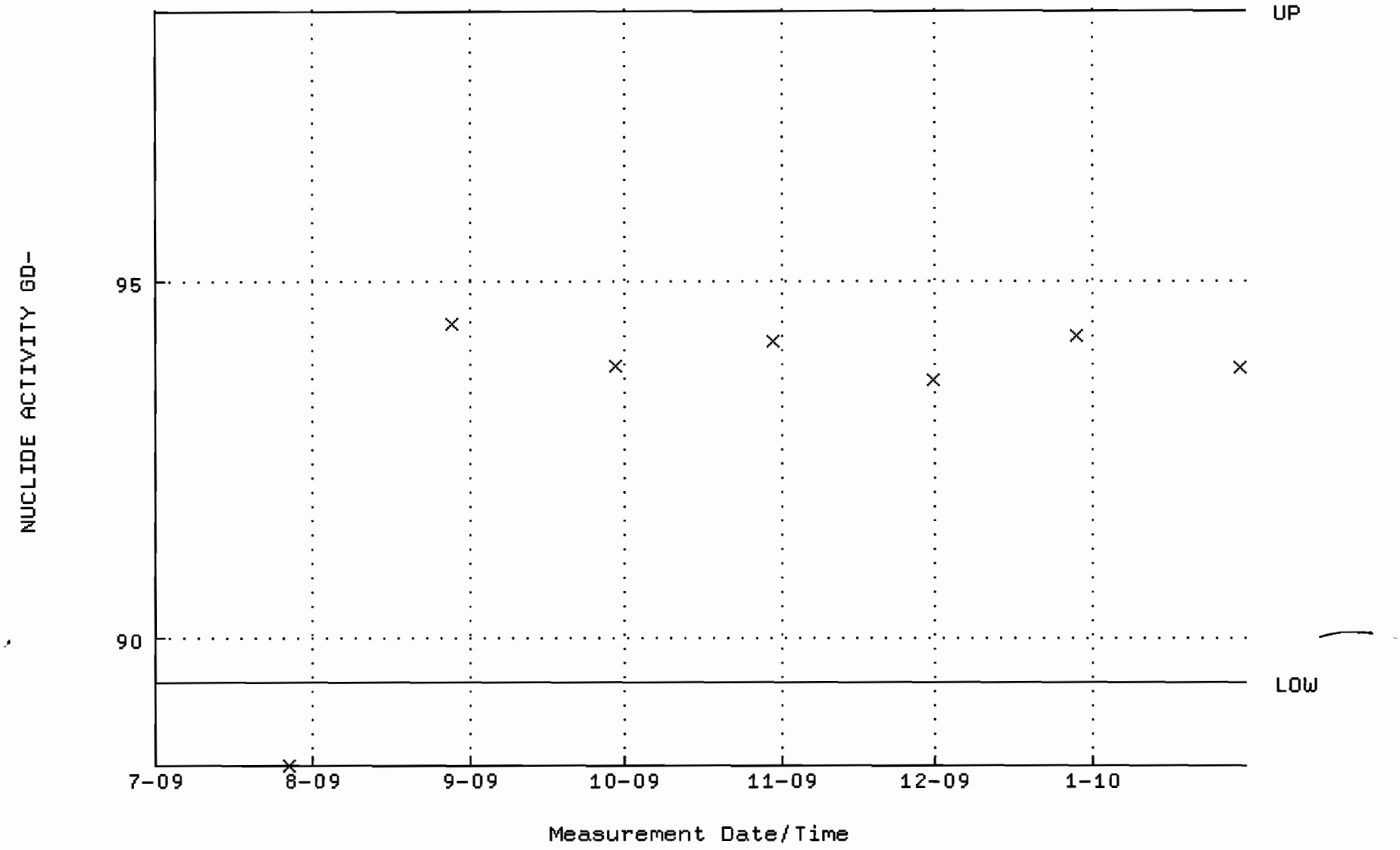
QA filename : DKA100:[ENV_ALPHA.QA.B]B217.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:56 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



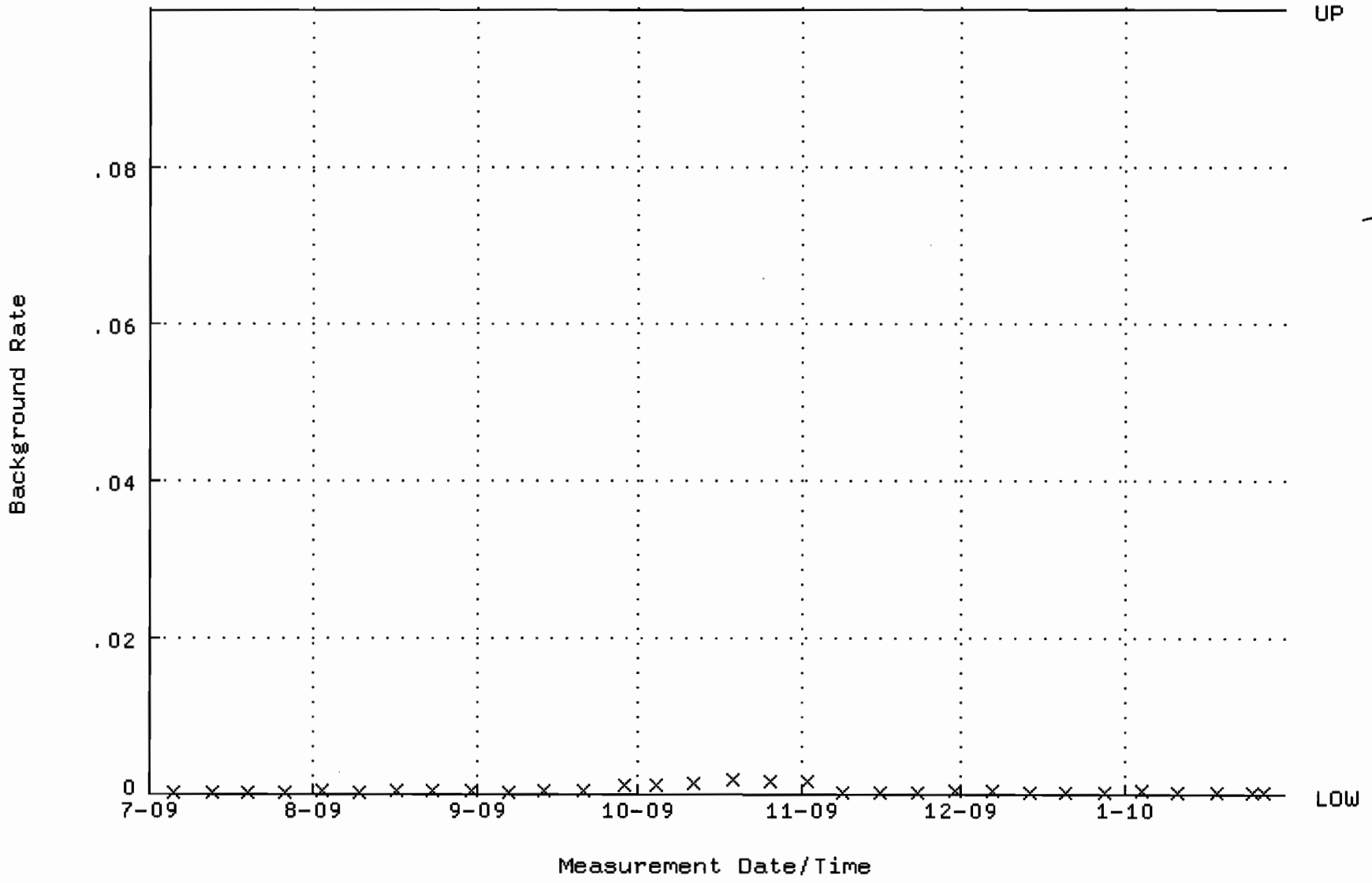
QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.362380 through 0.382380



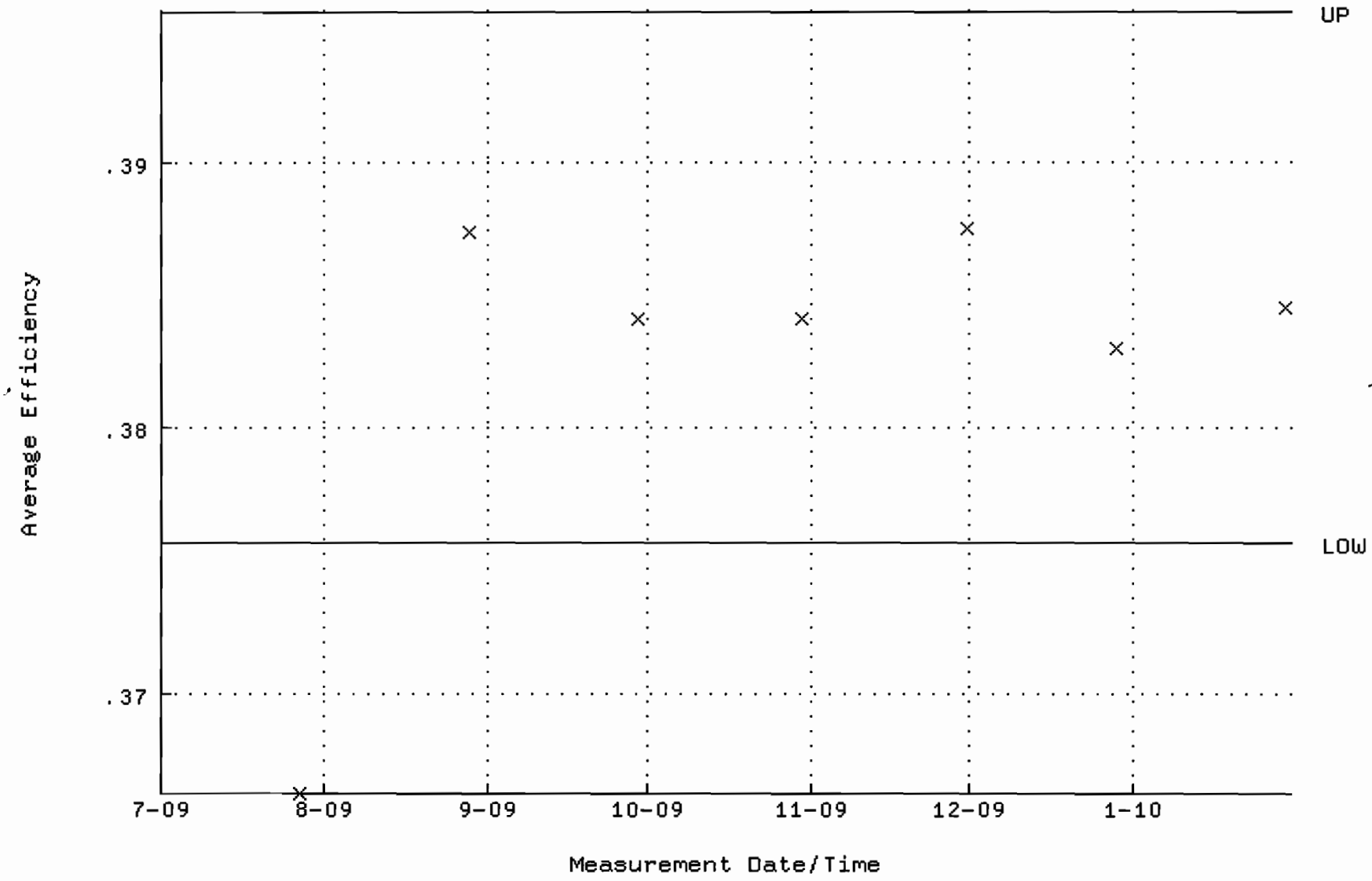
QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 89.3892 through 98.7986



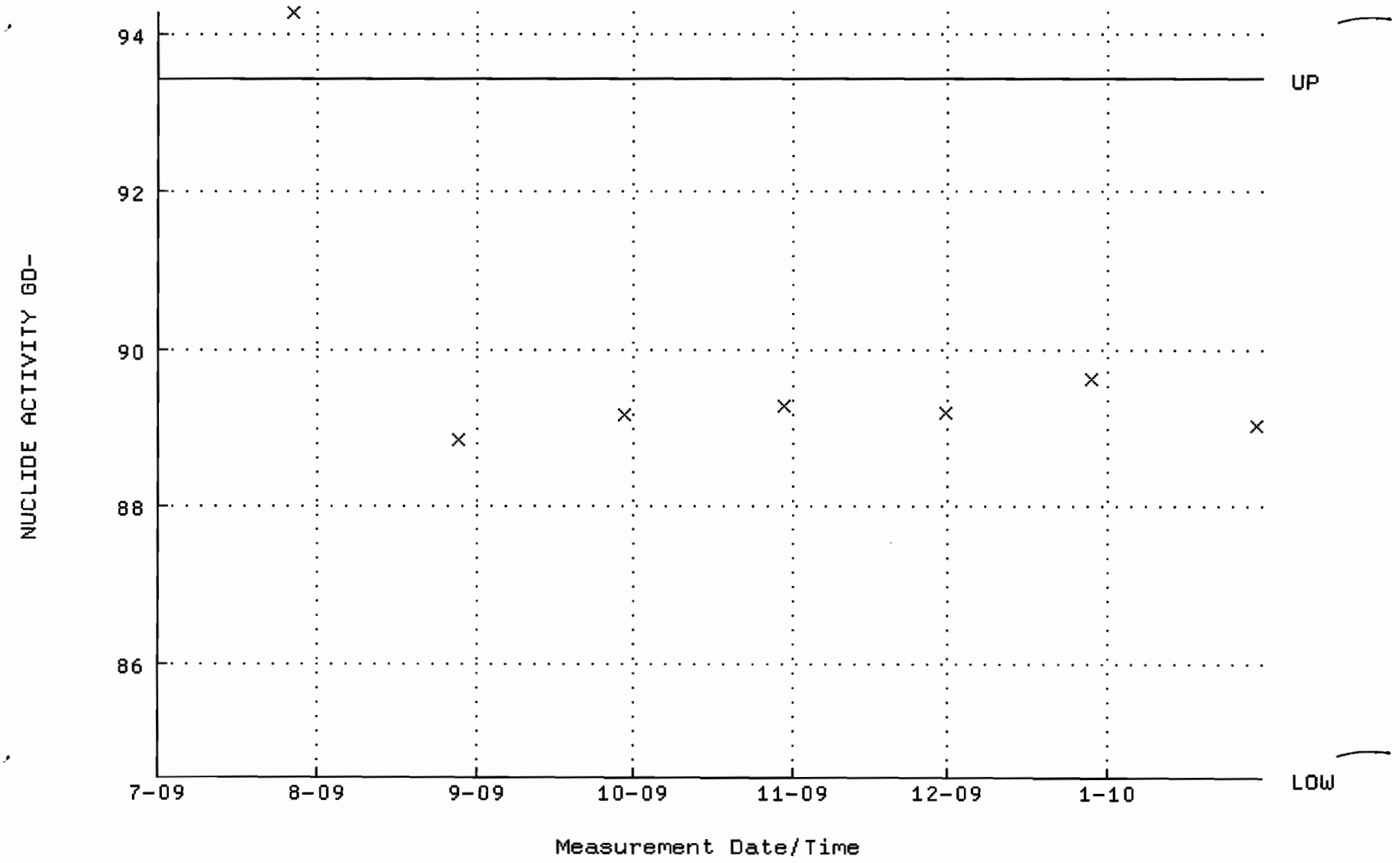
QA filename : DKA100:[ENV_ALPHA.QA.B]B218.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



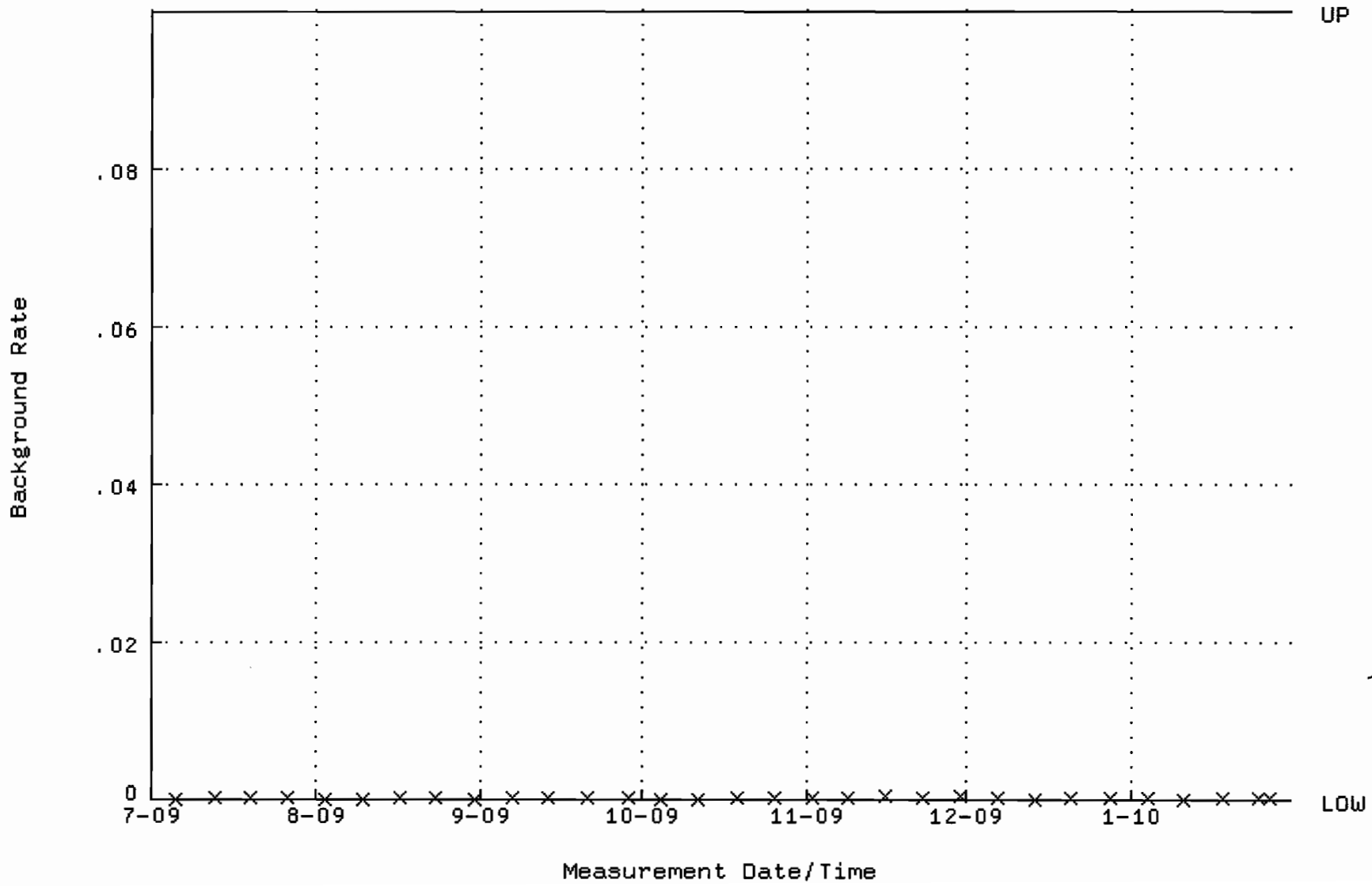
QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:16 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.375667 through 0.395667



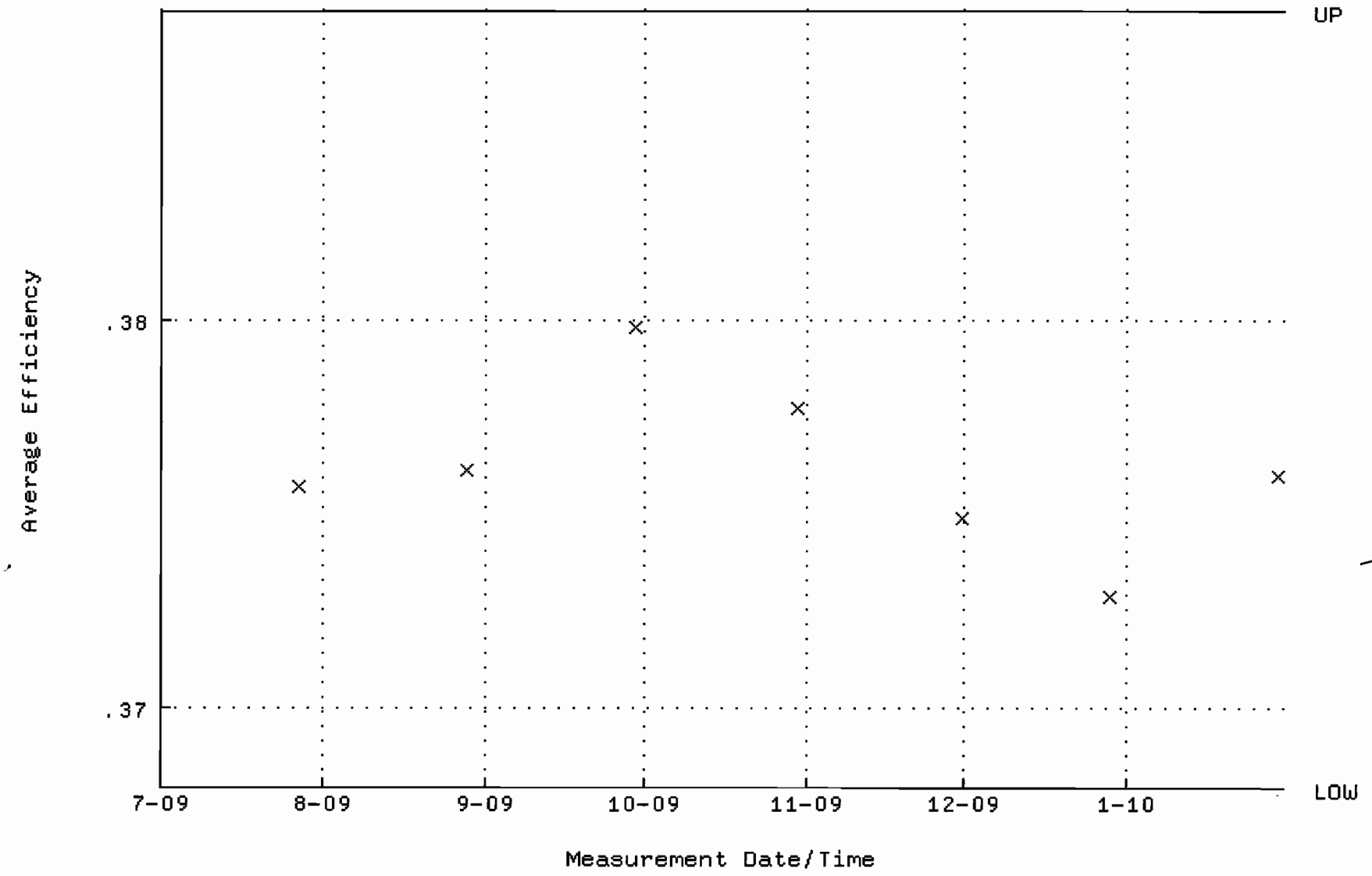
QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:16 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.5518 through 93.4520



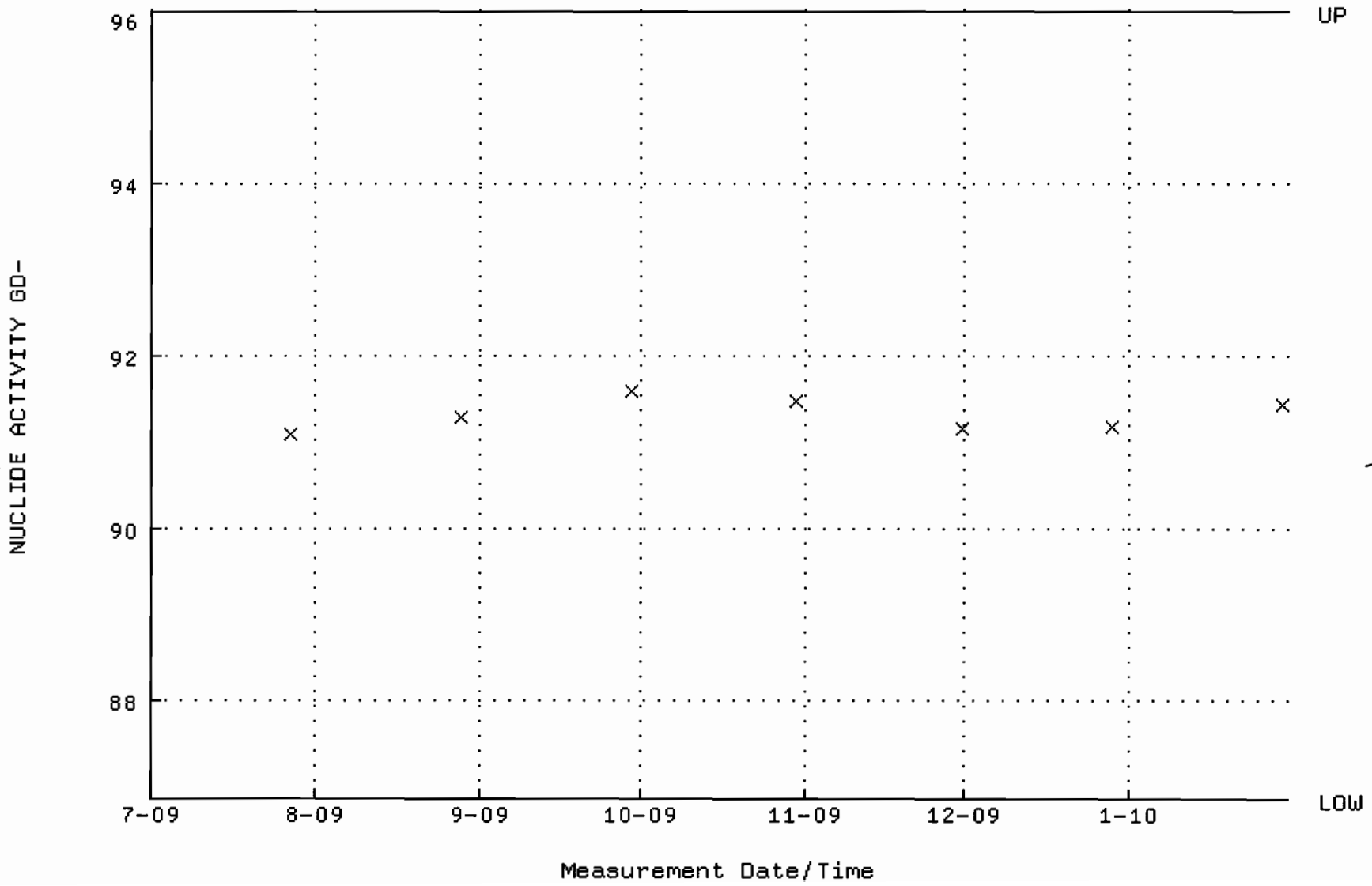
QA filename : DKA100:[ENV_ALPHA.QA.B]B219.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:06 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



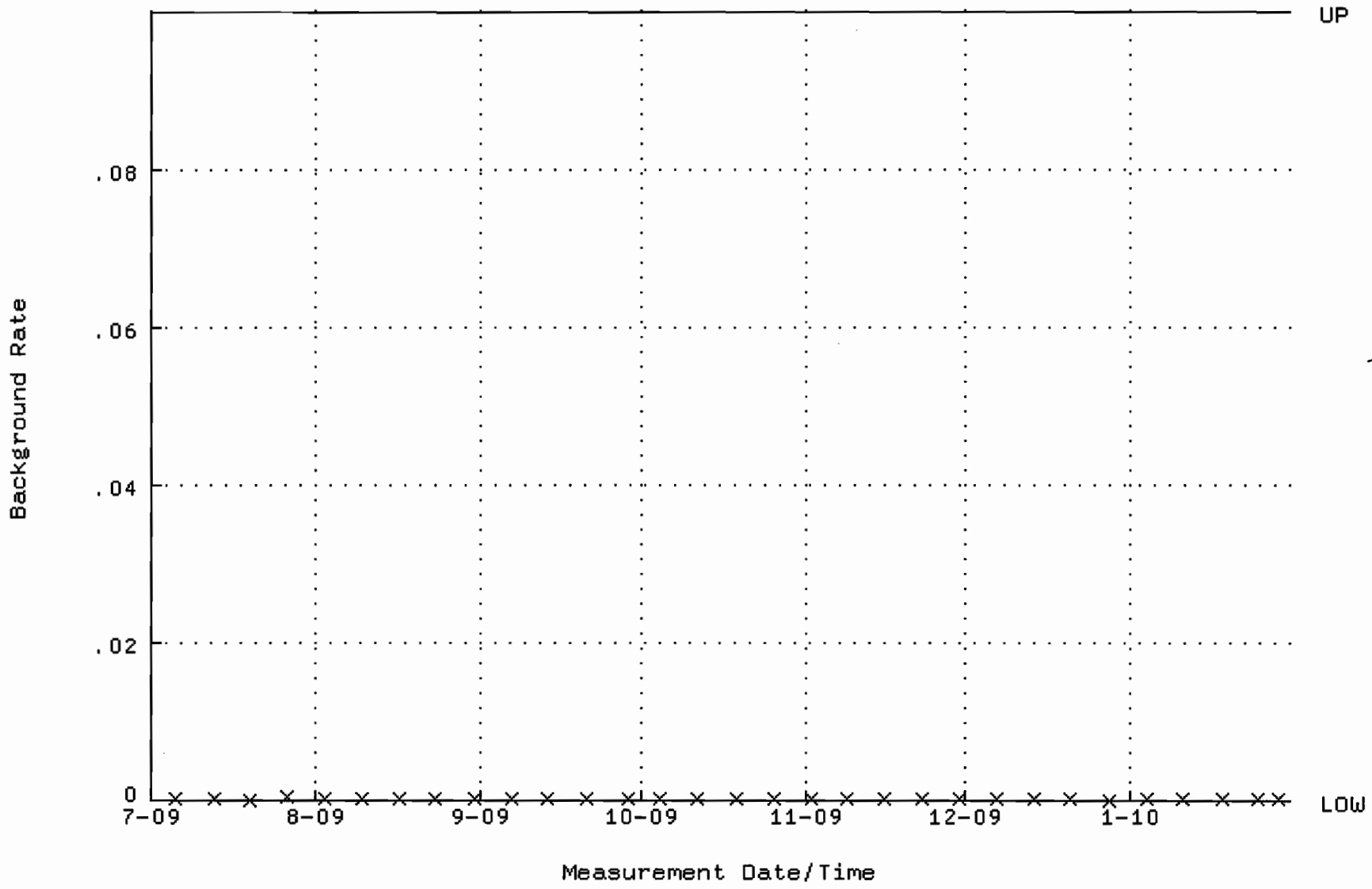
QA filename : DKA100:[ENV_ALPHA.QA.W]W221.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.367948 through 0.387948



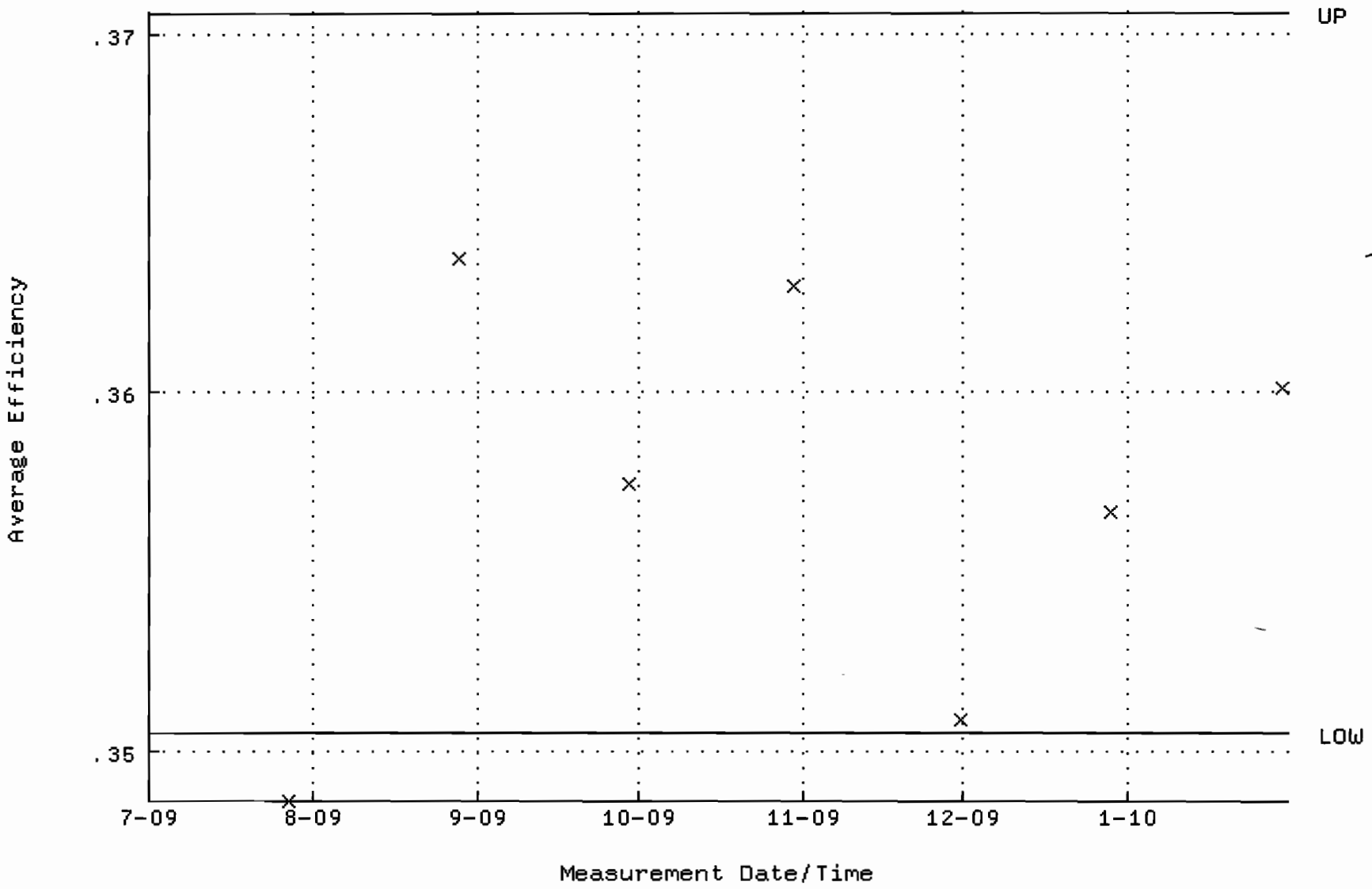
QA filename : DKA100:[ENV_ALPHA.QA.W]W221.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 86.8591 through 96.0021



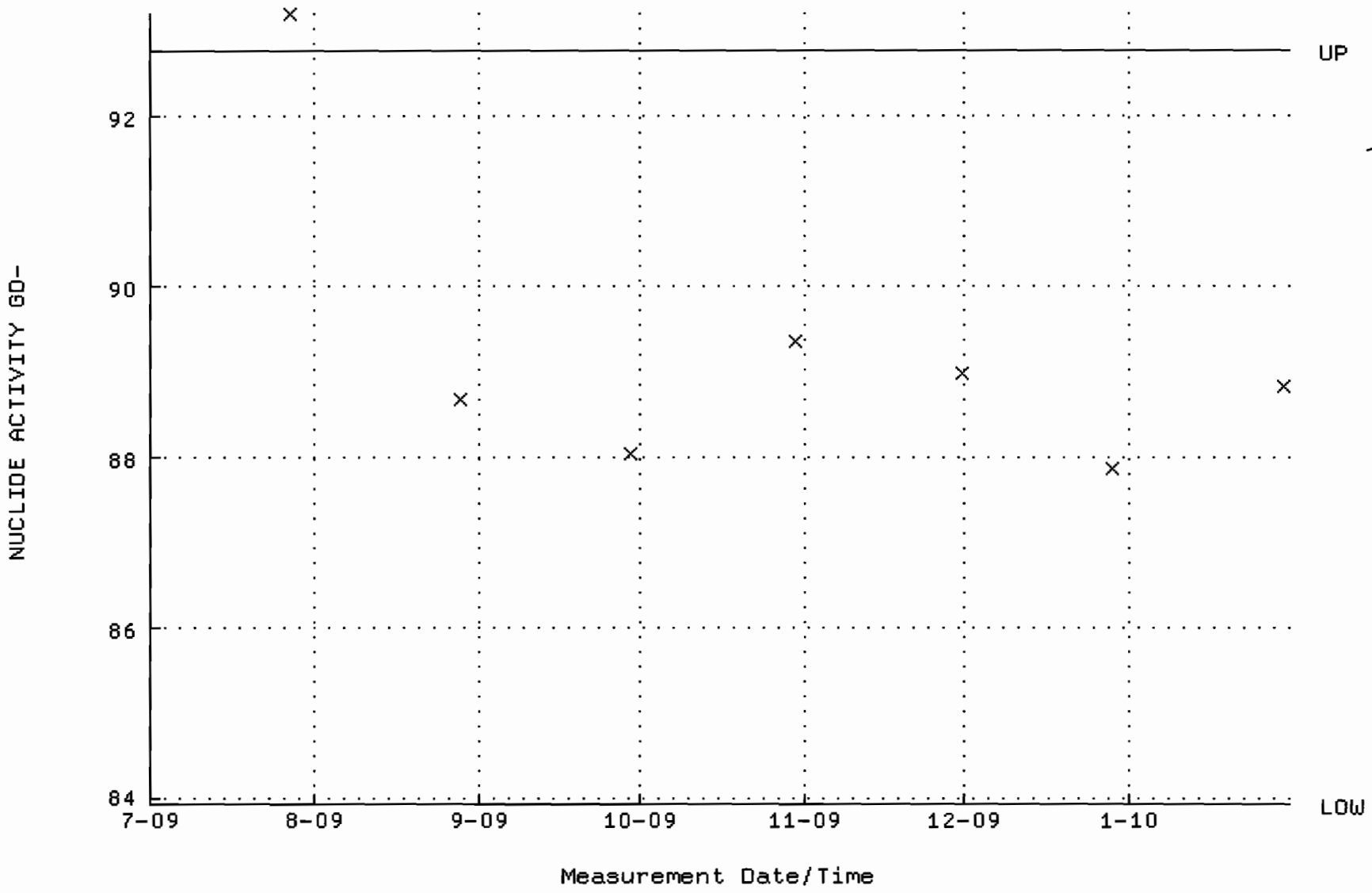
QA filename : DKA100:[ENV_ALPHA.QA.B]B221.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:15 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



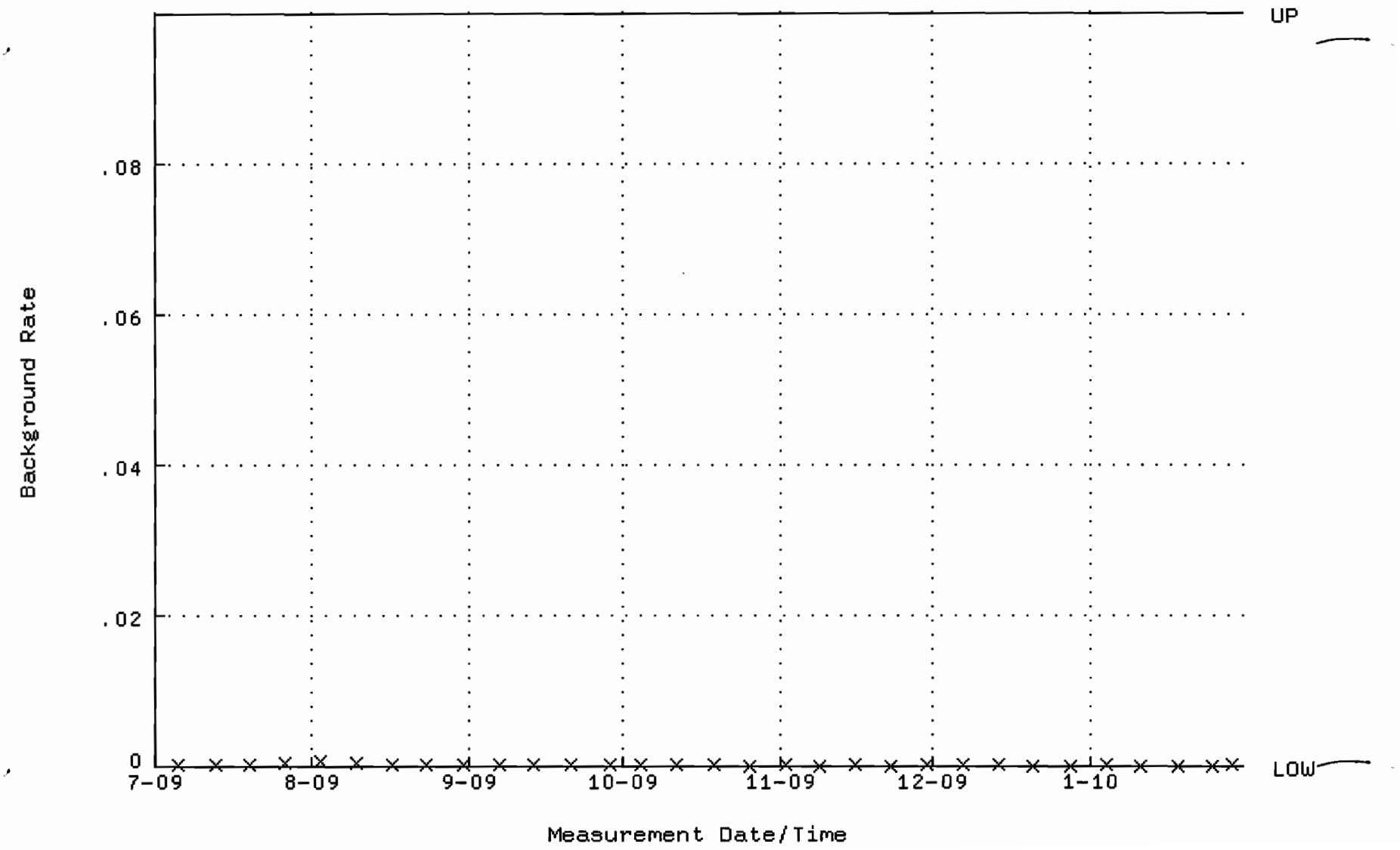
QA filename : DKA100:[ENV_ALPHA.QA.W]W222.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:37 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.350566 through 0.370566



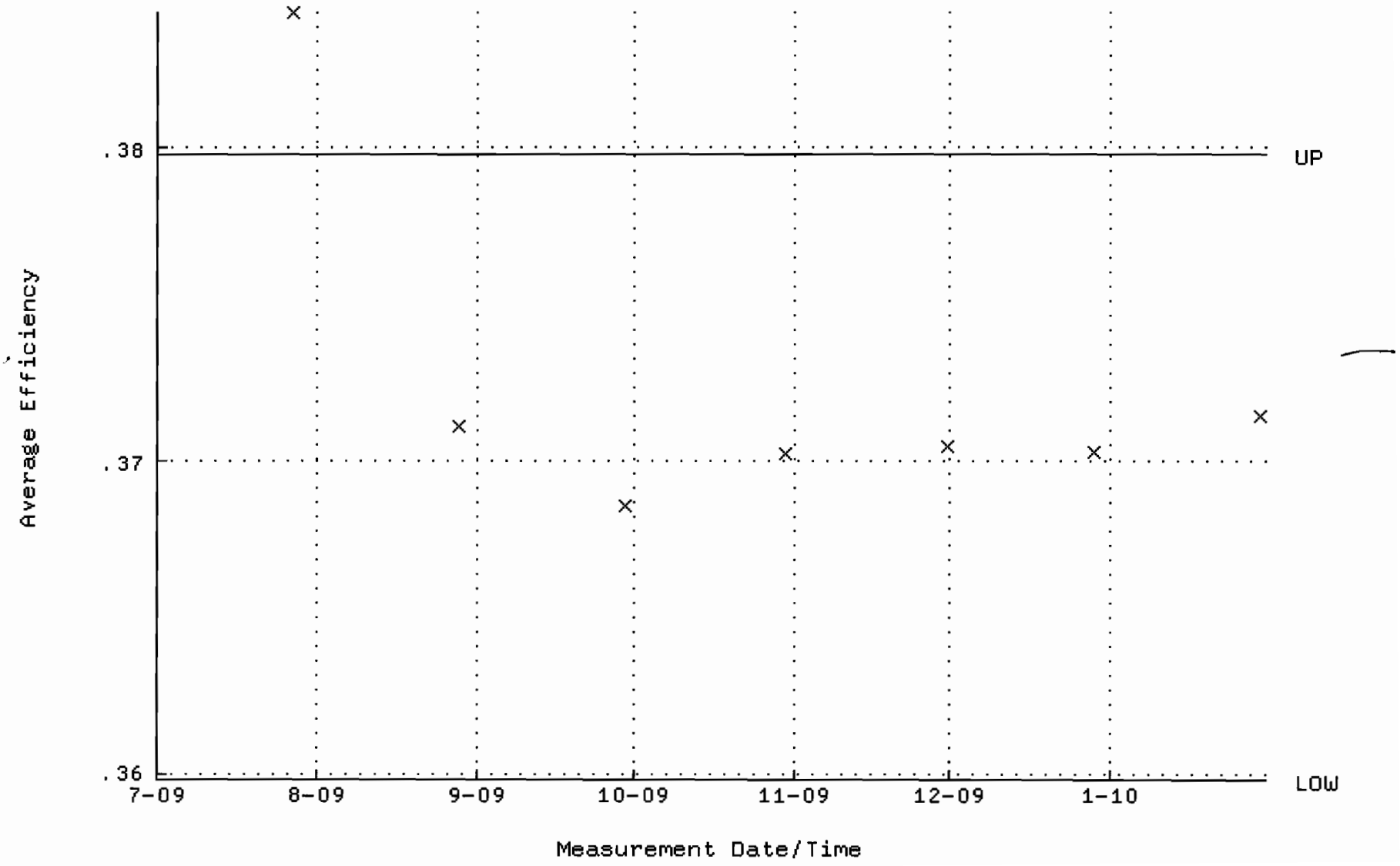
QA filename : DKA100:[ENV_ALPHA.QA.W]W222.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:37 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.9445 through 92.7807



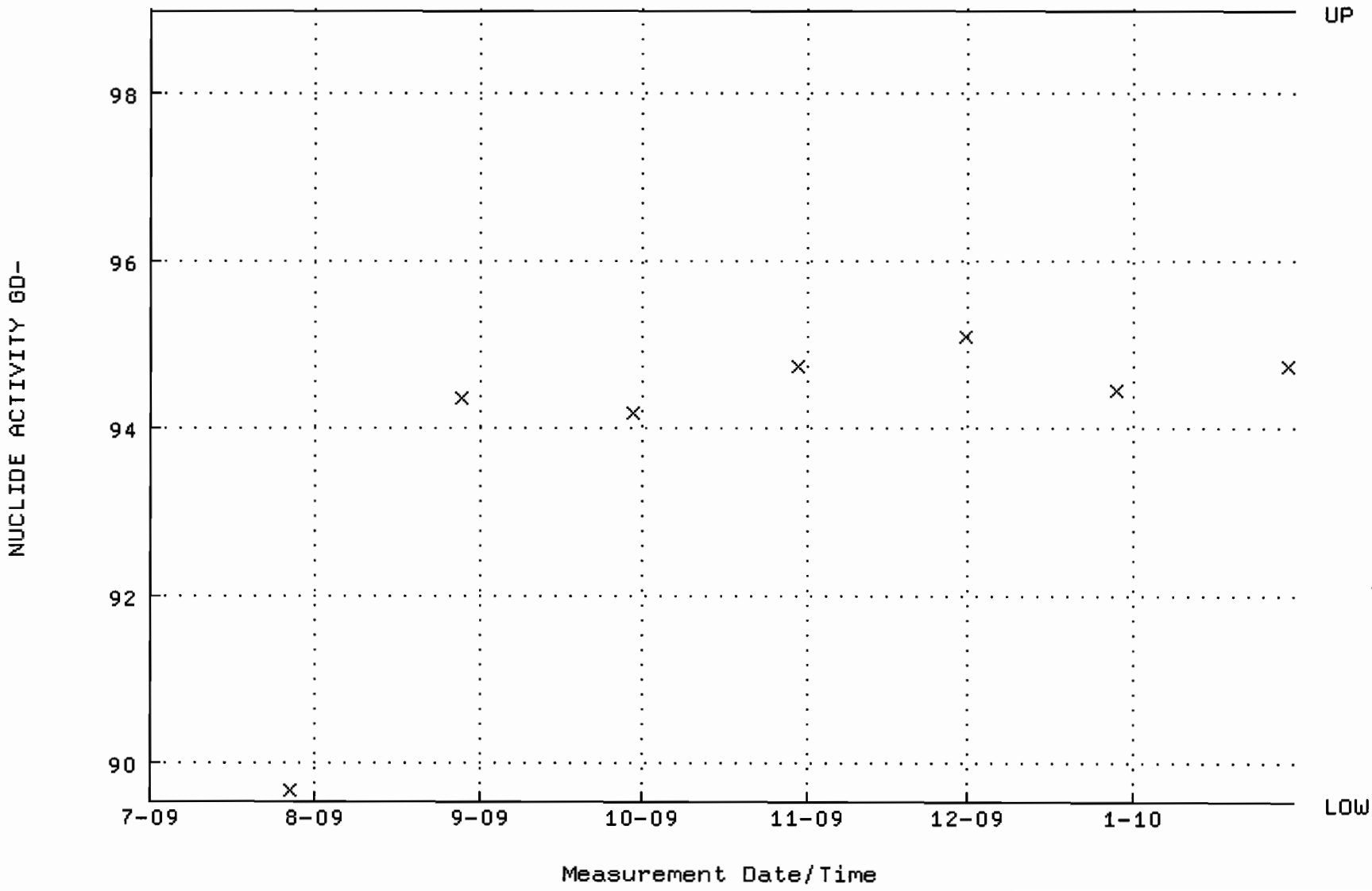
QA filename : DKA100:[ENV_ALPHA.QA.B]B222.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:20 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



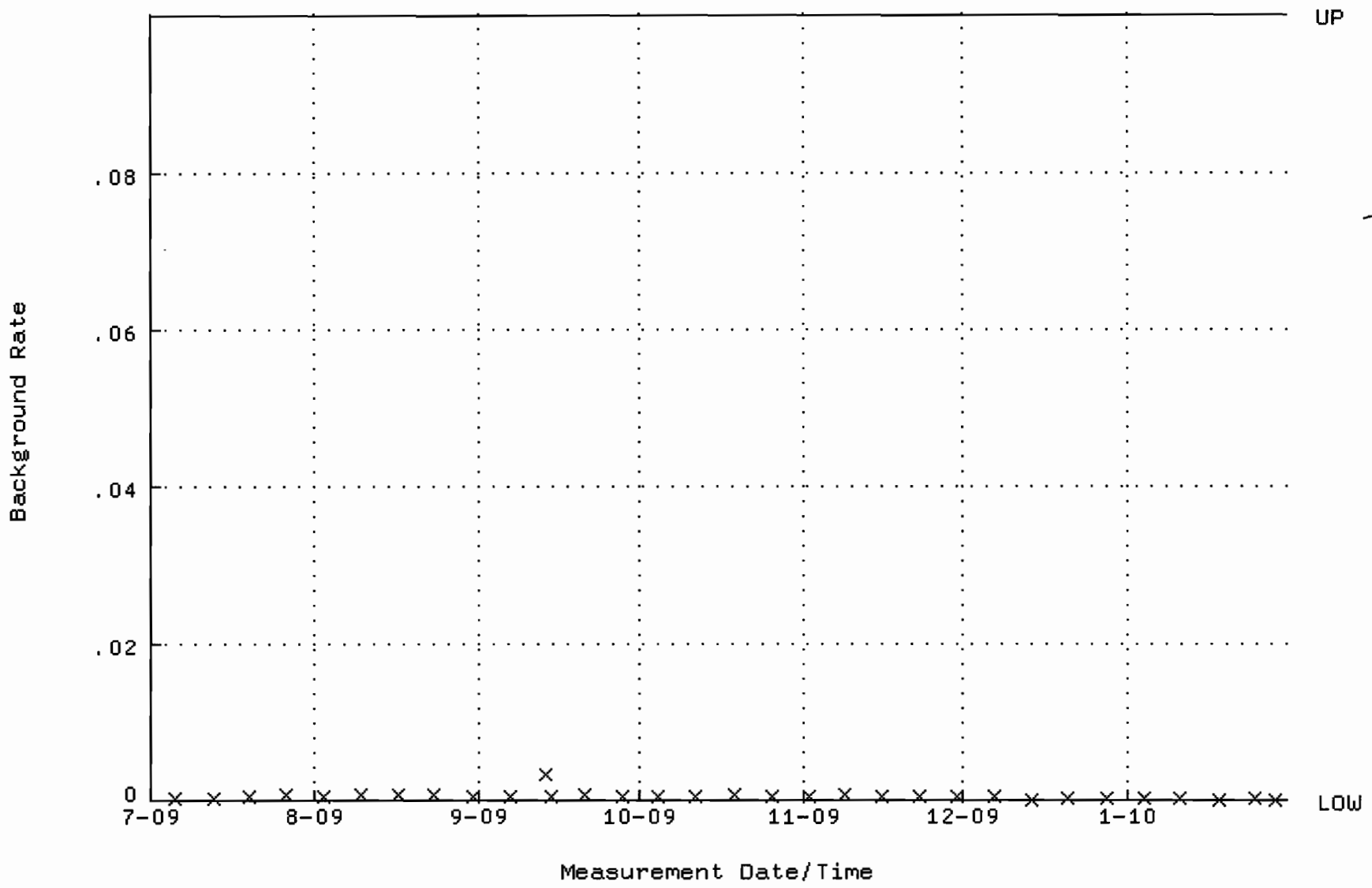
QA filename : DKA100:[ENV_ALPHA.QA.W]W223.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.359804 through 0.379804



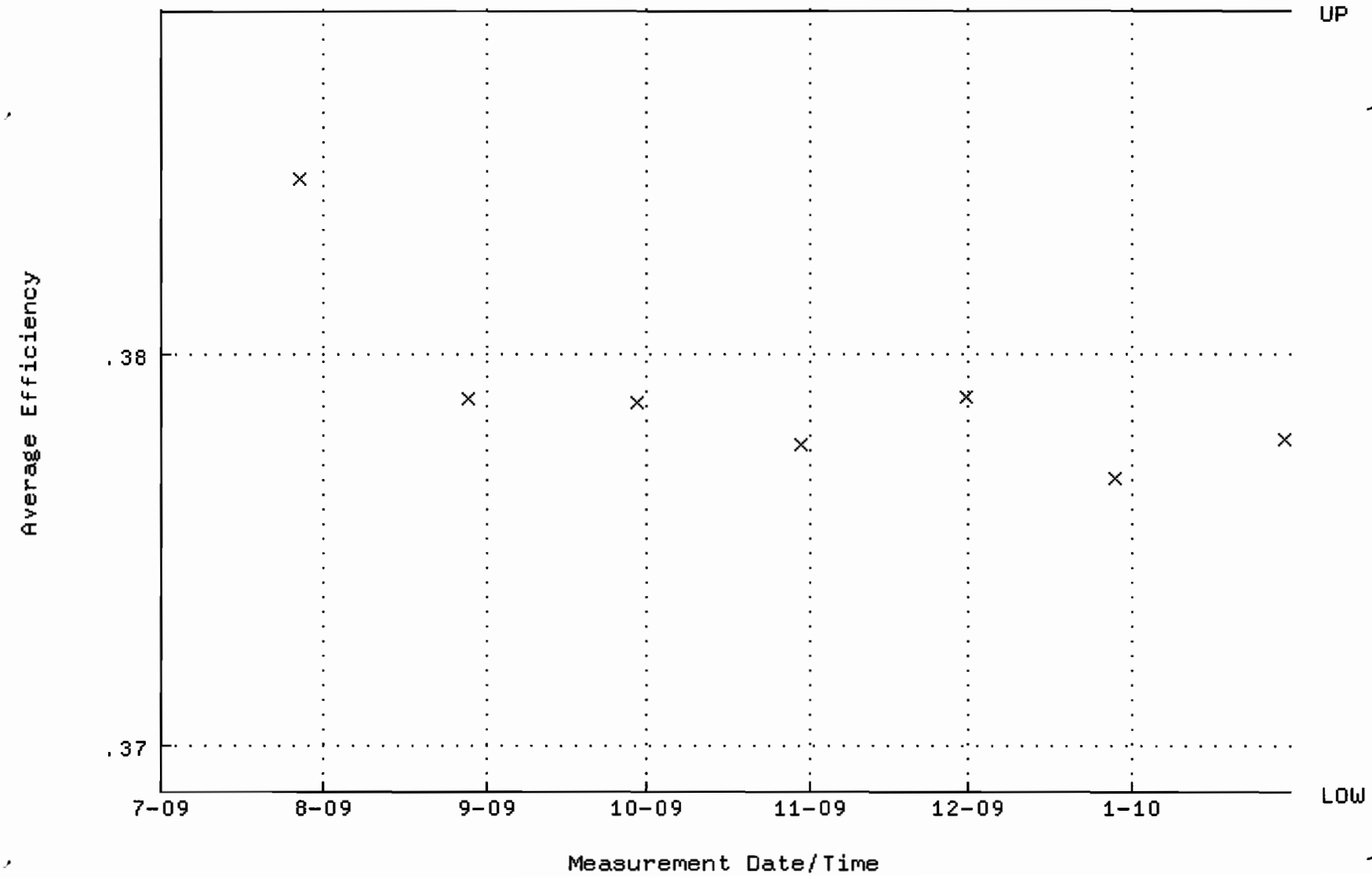
QA filename : DKA100:[ENV_ALPHA.QA.W]W223.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 89.5441 through 98.9697



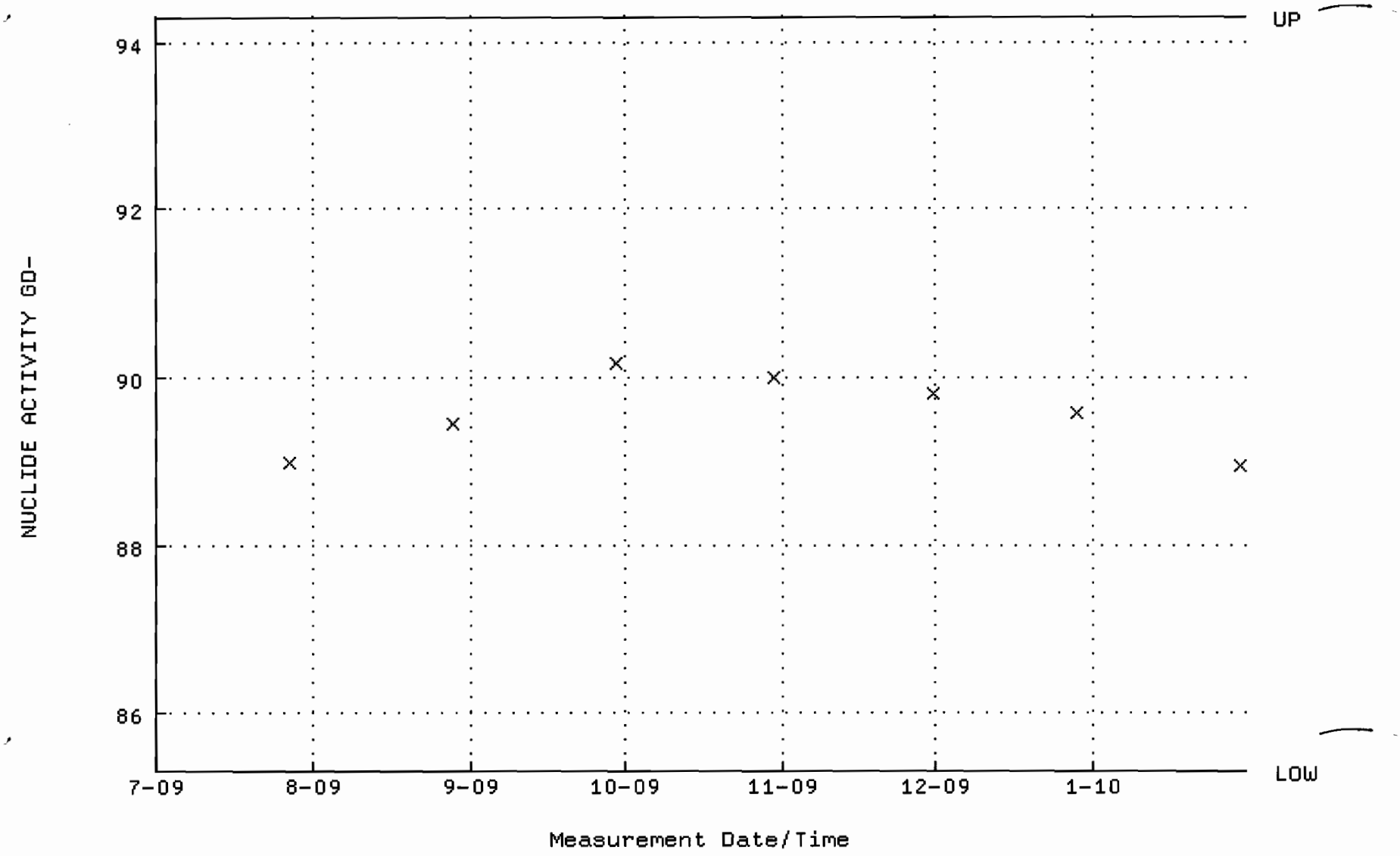
QA filename : DKA100:[ENV_ALPHA.QA.B]B223.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:24 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



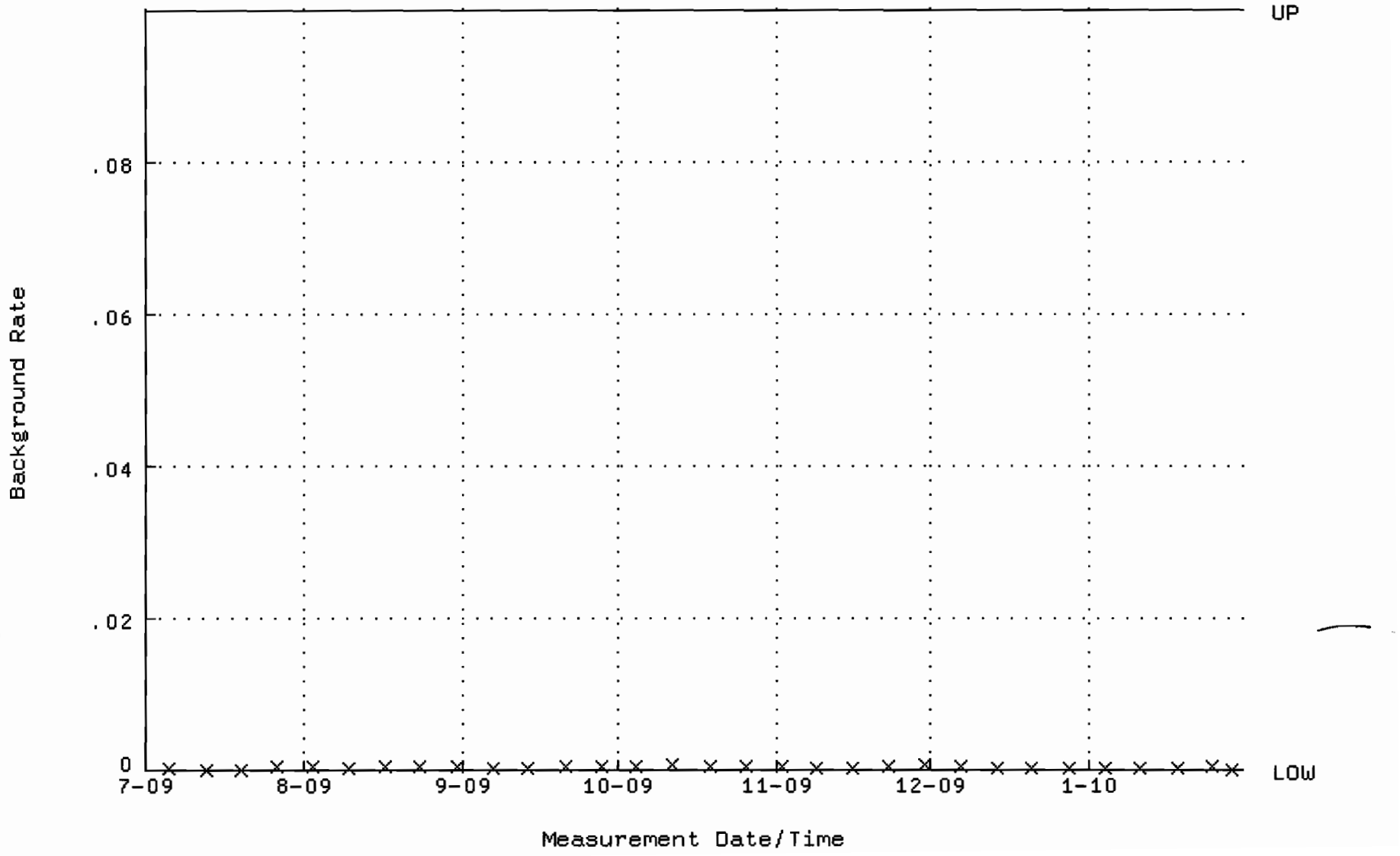
QA filename : DKA100:[ENV_ALPHA.QA.W]W224.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.368812 through 0.388812



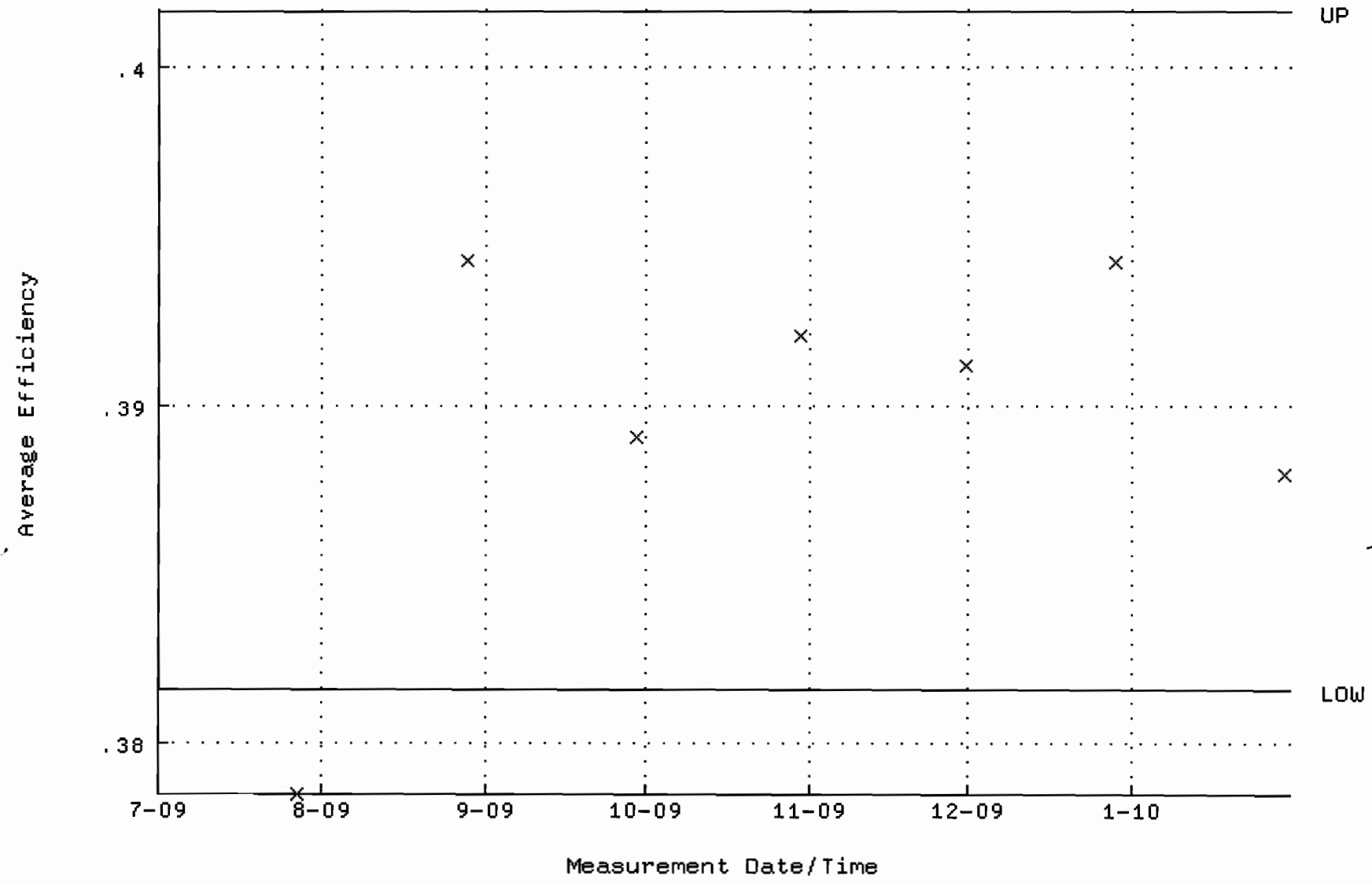
QA filename : DKA100:[ENV_ALPHA.QA.W]W224.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 85.3066 through 94.2862



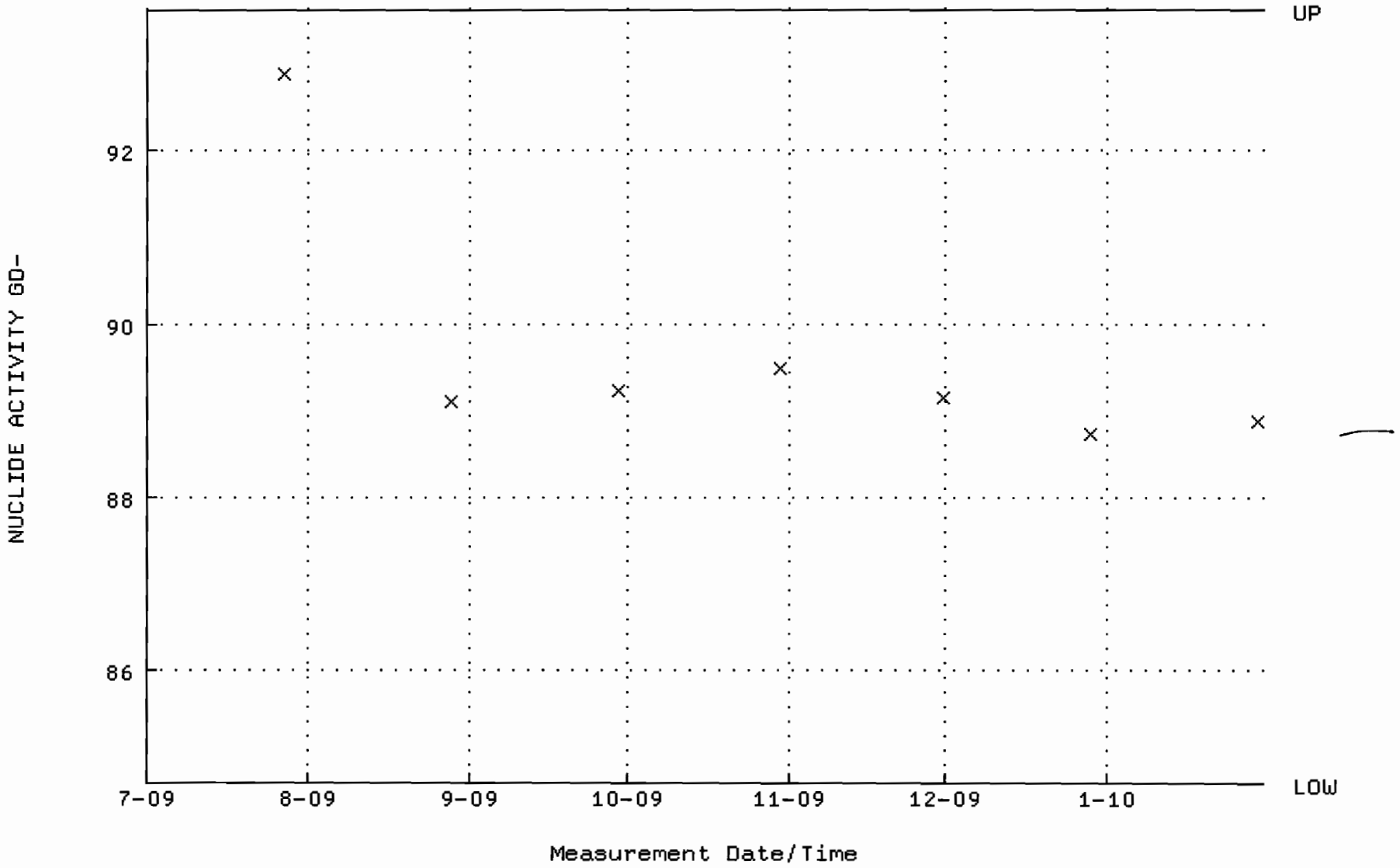
QA filename : DKA100:[ENV_ALPHA.QA.B]B224.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



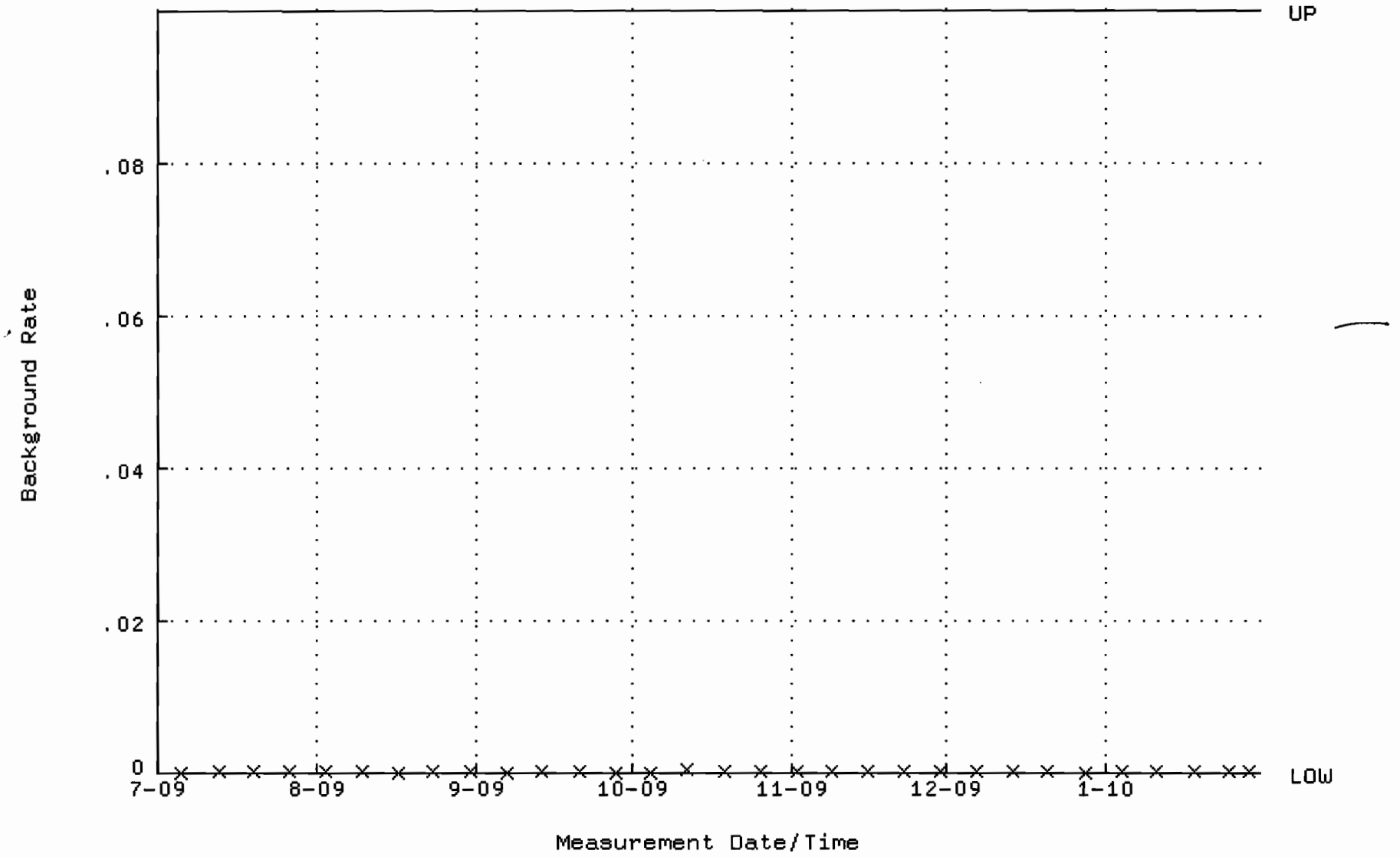
QA filename : DKA100:[ENV_ALPHA.QA.W]W225.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.381631 through 0.401631



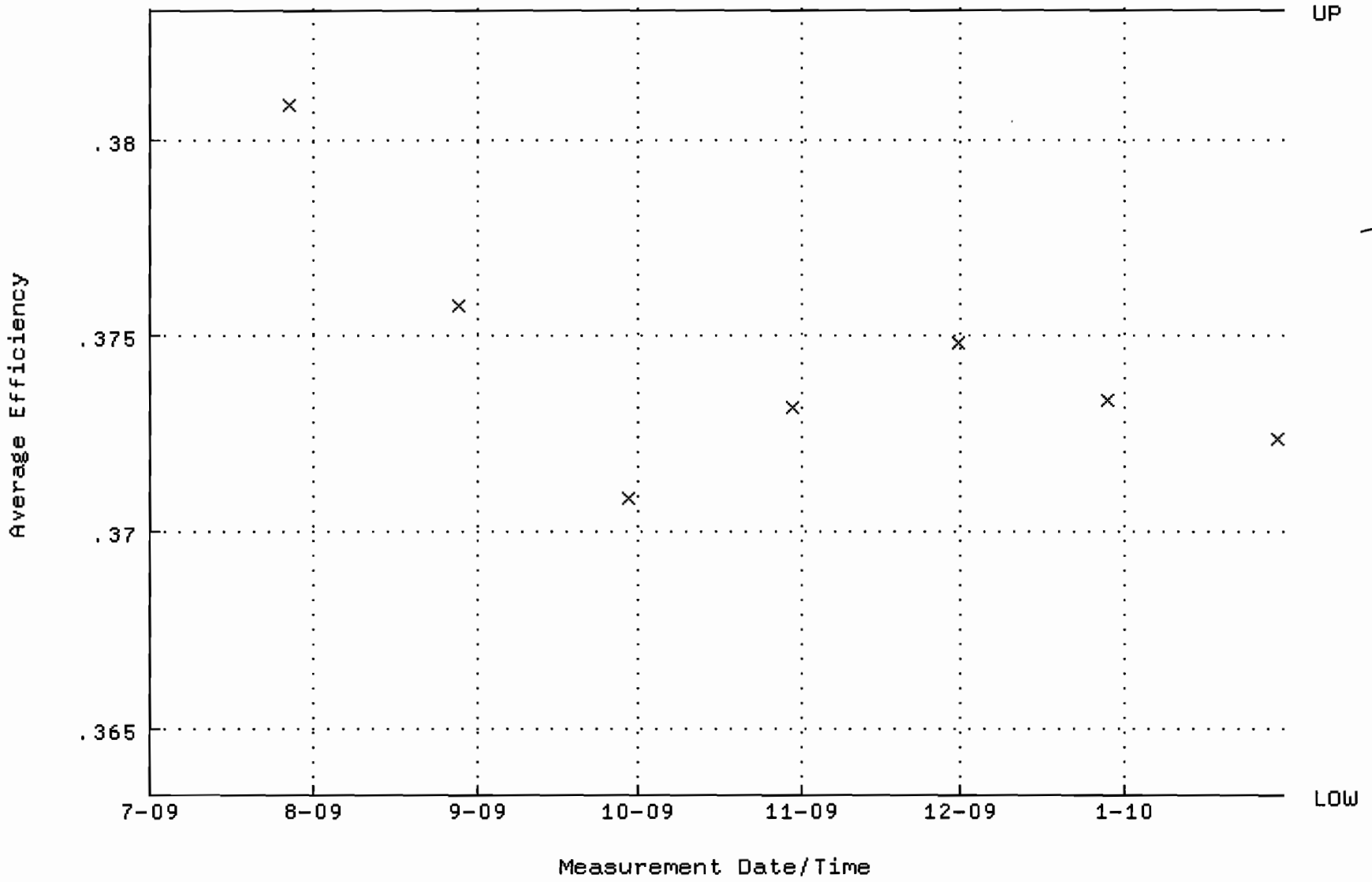
QA filename : DKA100:[ENV_ALPHA.QA.W]W225.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.7082 through 93.6248



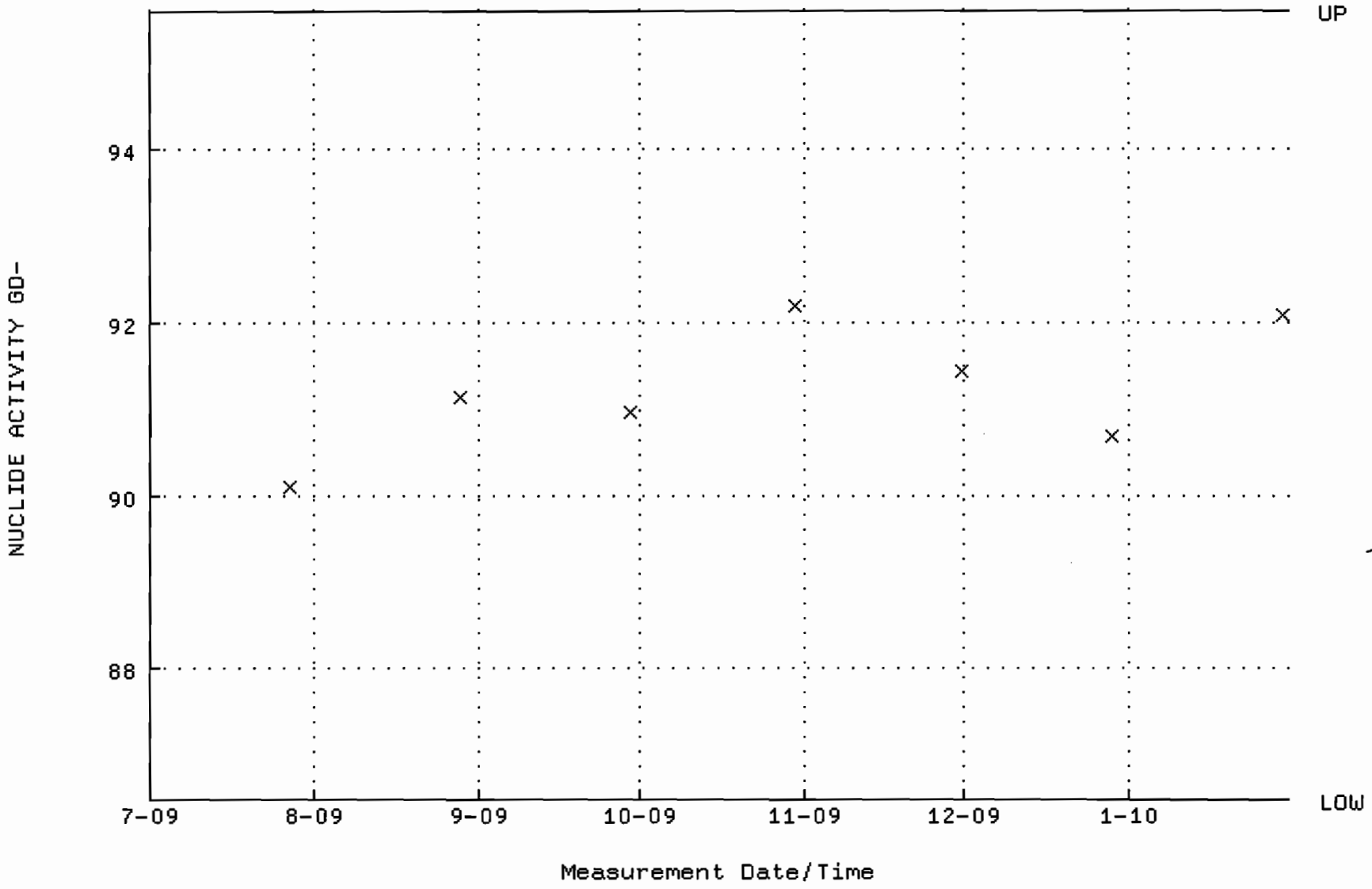
QA filename : DKA100:[ENV_ALPHA.QA.B]B225.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:34 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



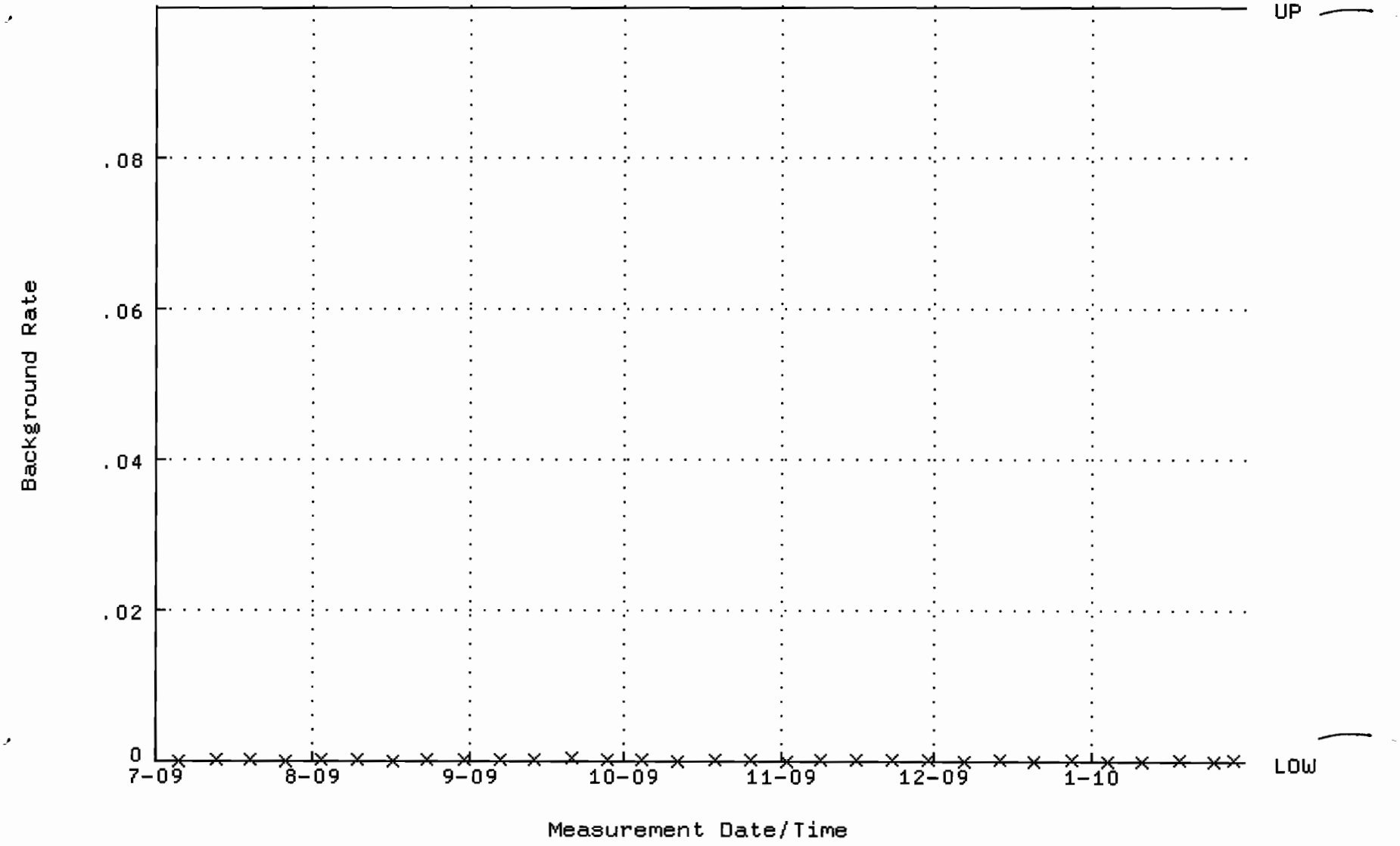
QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.363285 through 0.383285



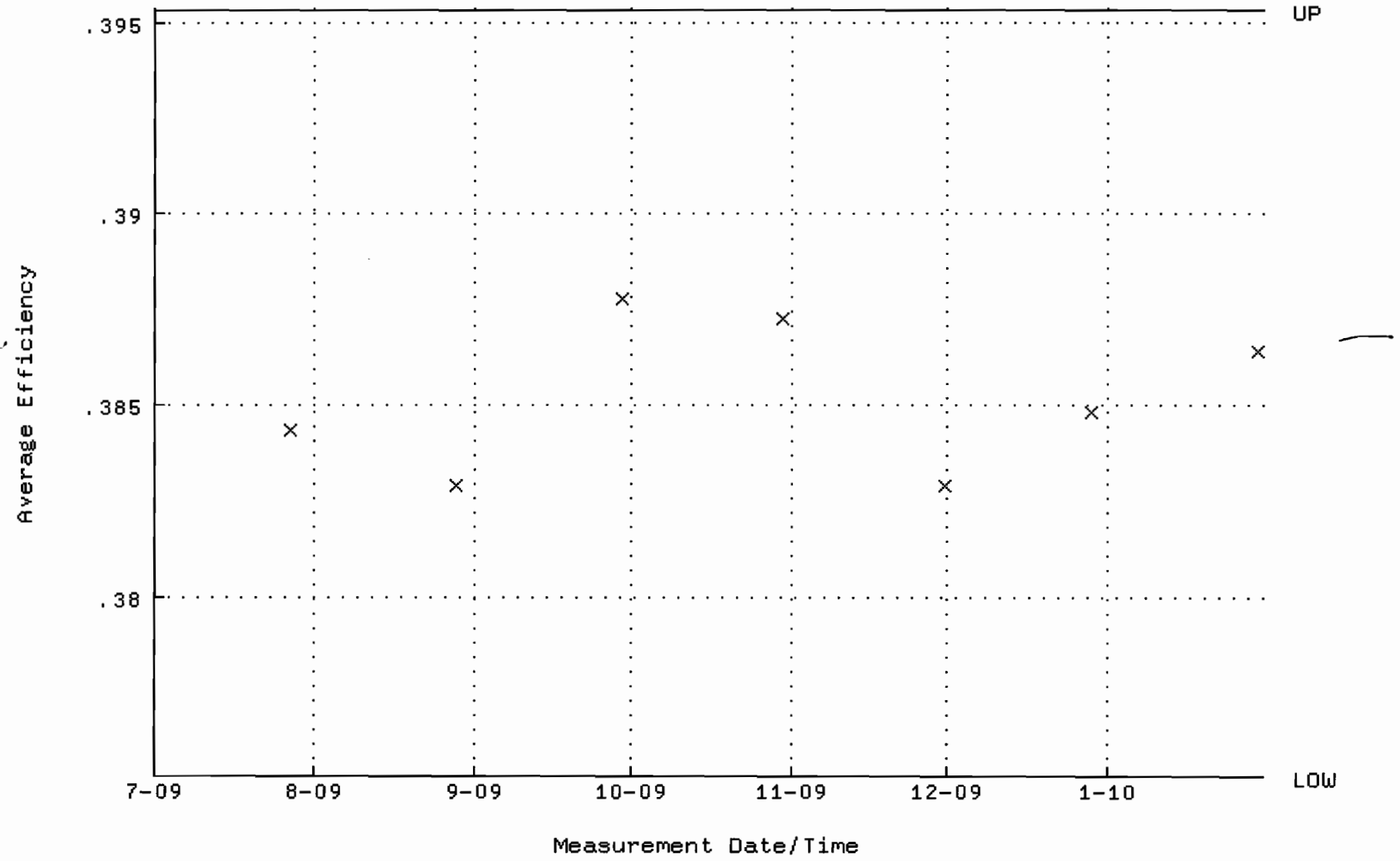
QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 86.4888 through 95.5928



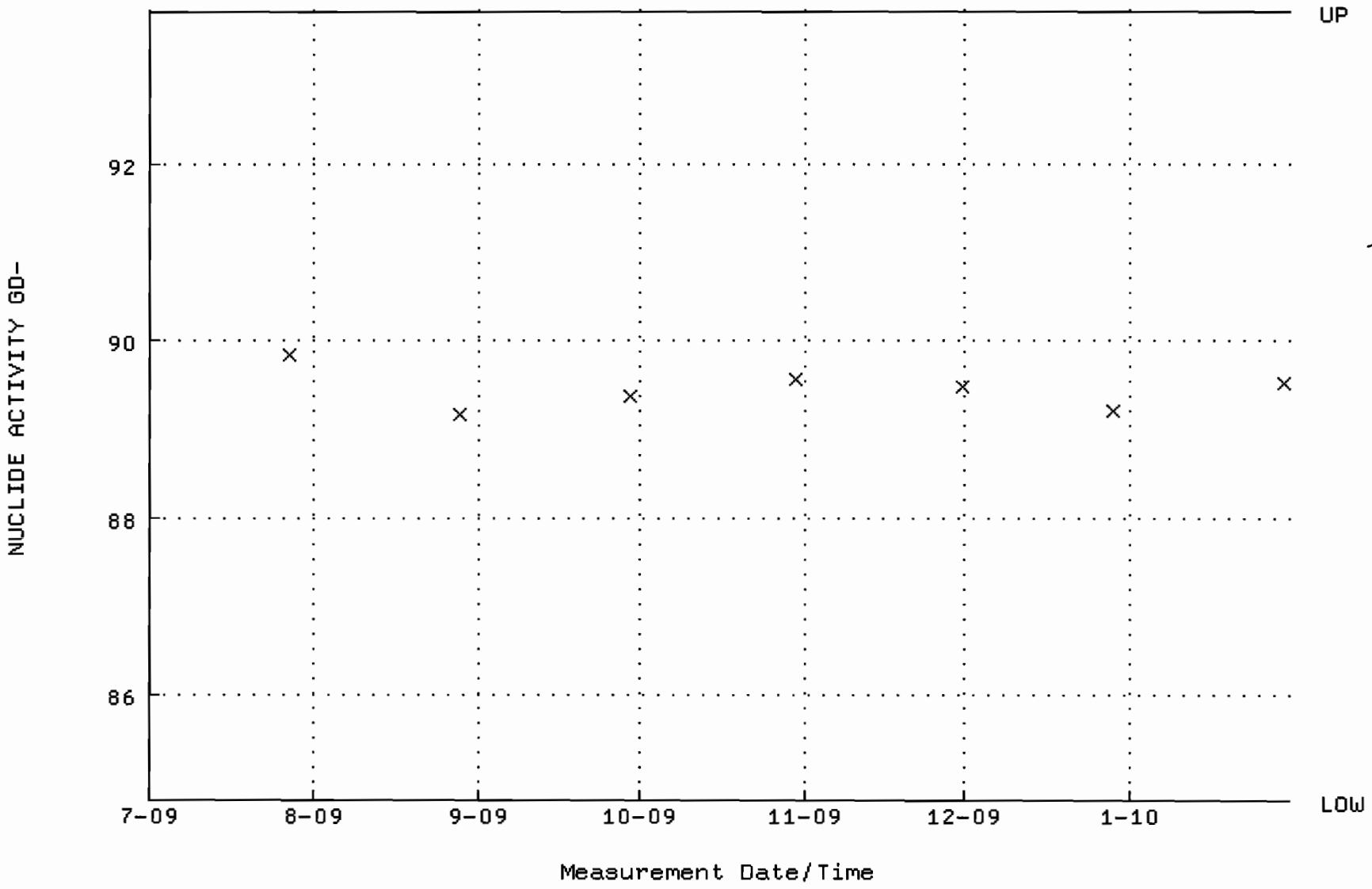
QA filename : DKA100:[ENV_ALPHA.QA.B]B226.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:39 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



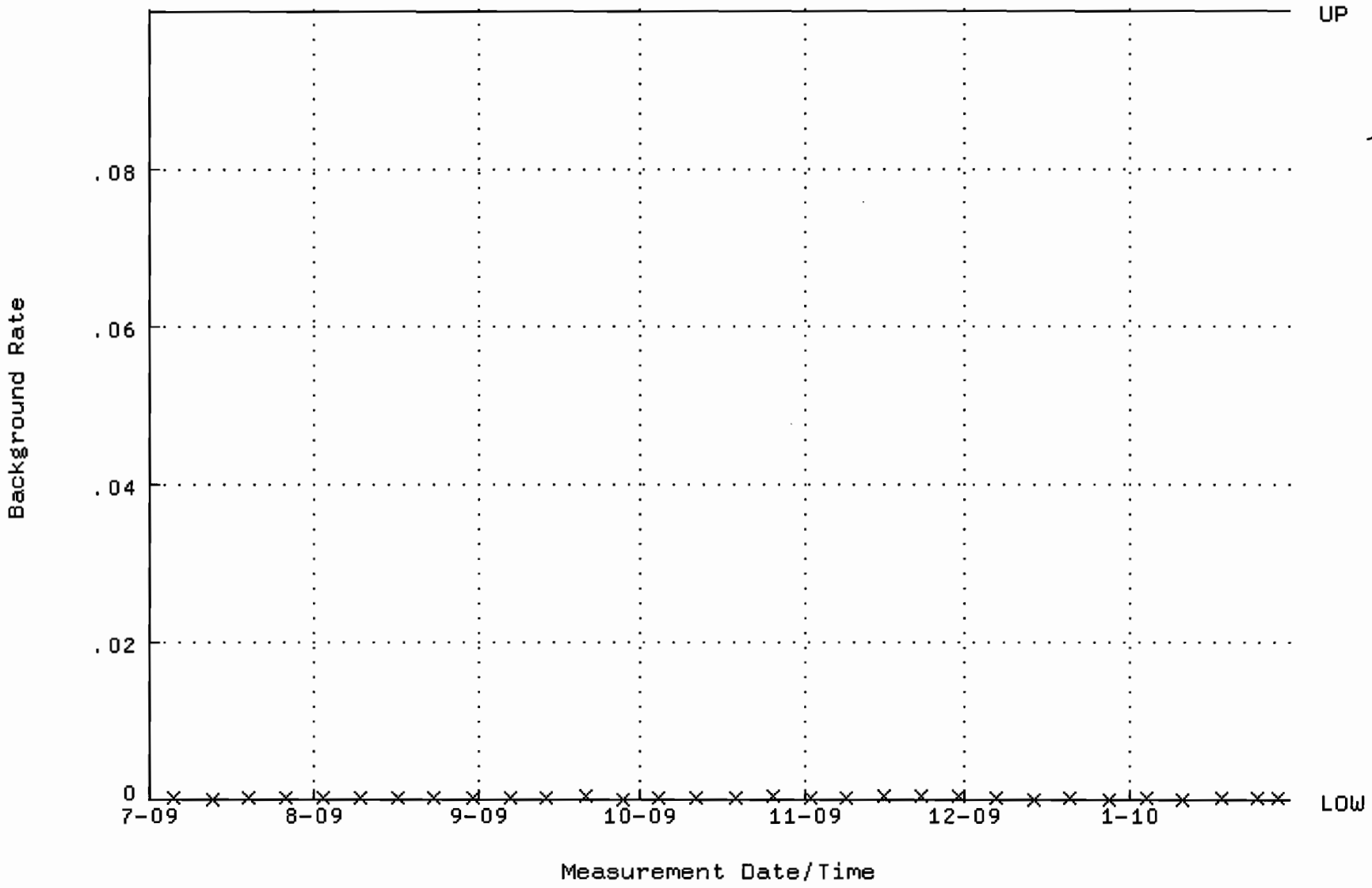
QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.375328 through 0.395328



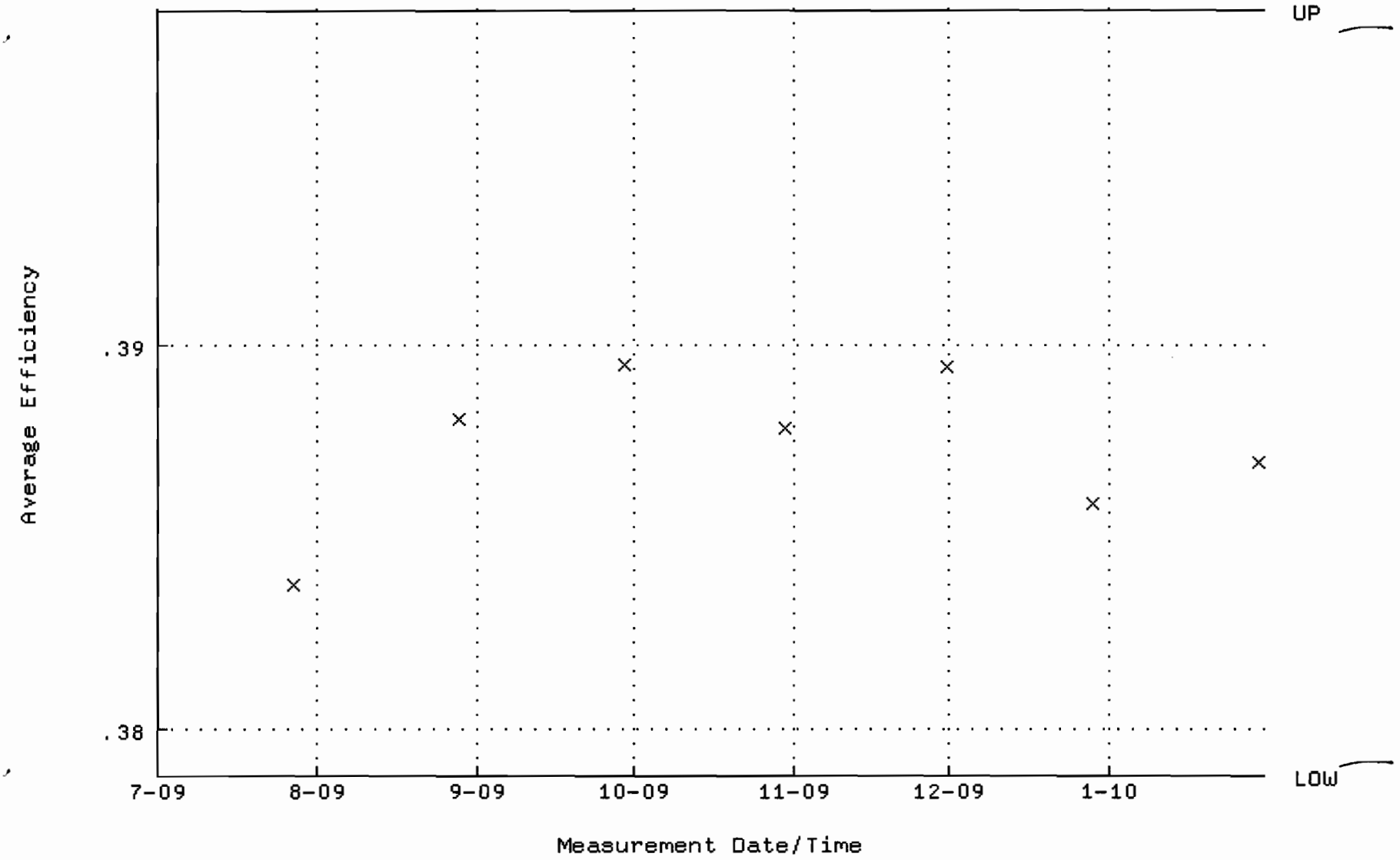
QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.8011 through 93.7275



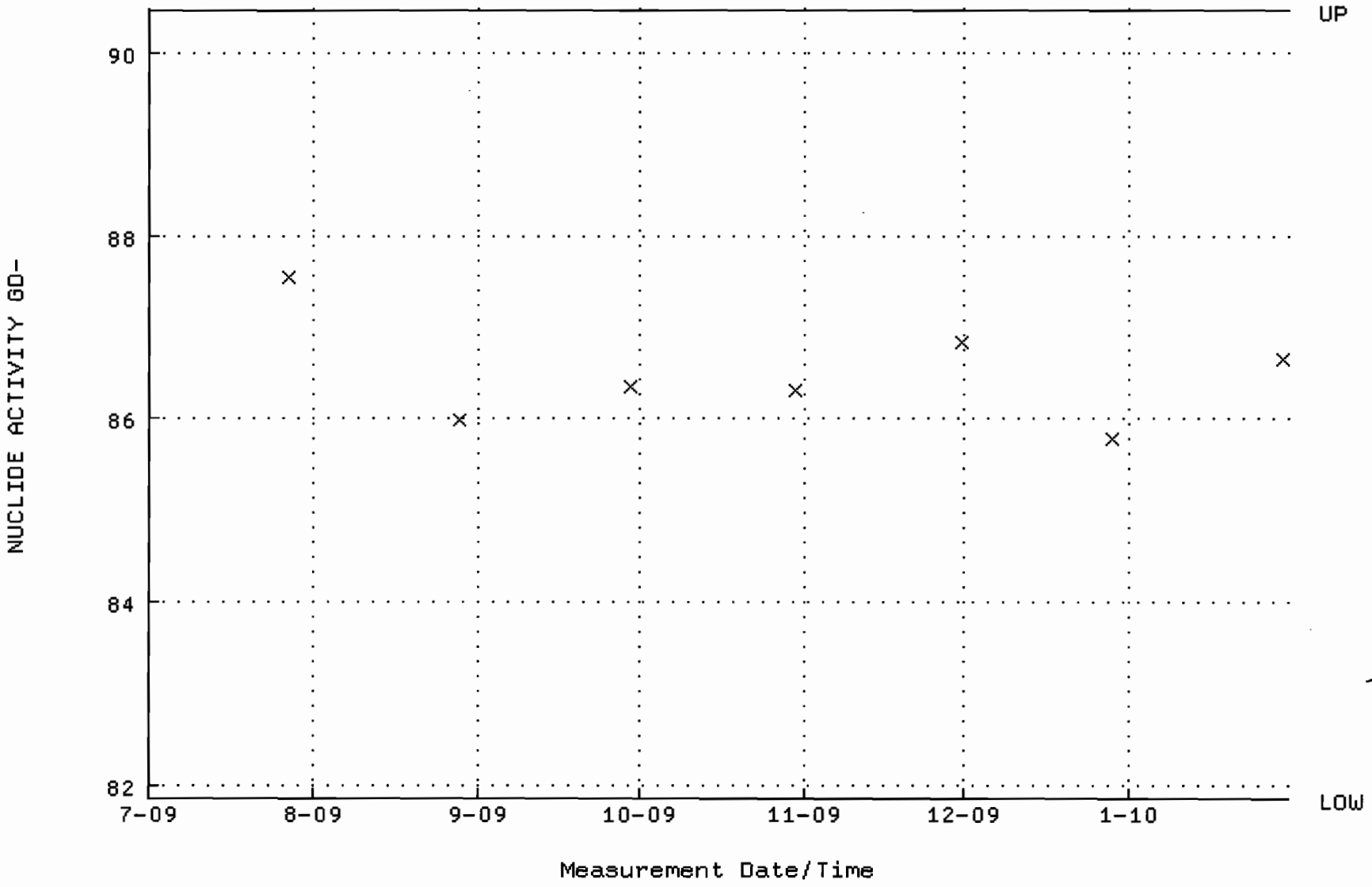
QA filename : DKA100:[ENV_ALPHA.QA.B]B227.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



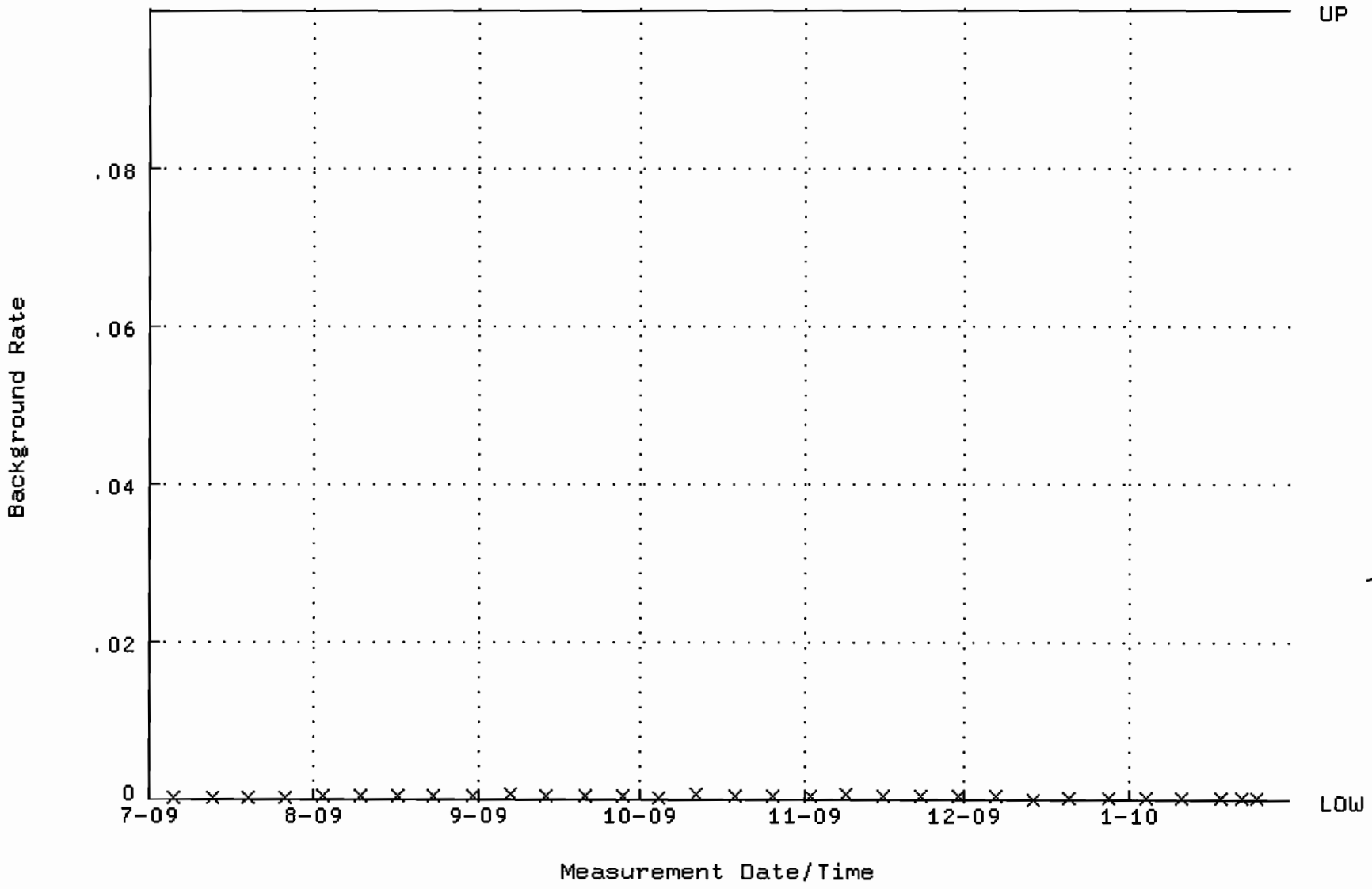
QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:07 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.378766 through 0.398766



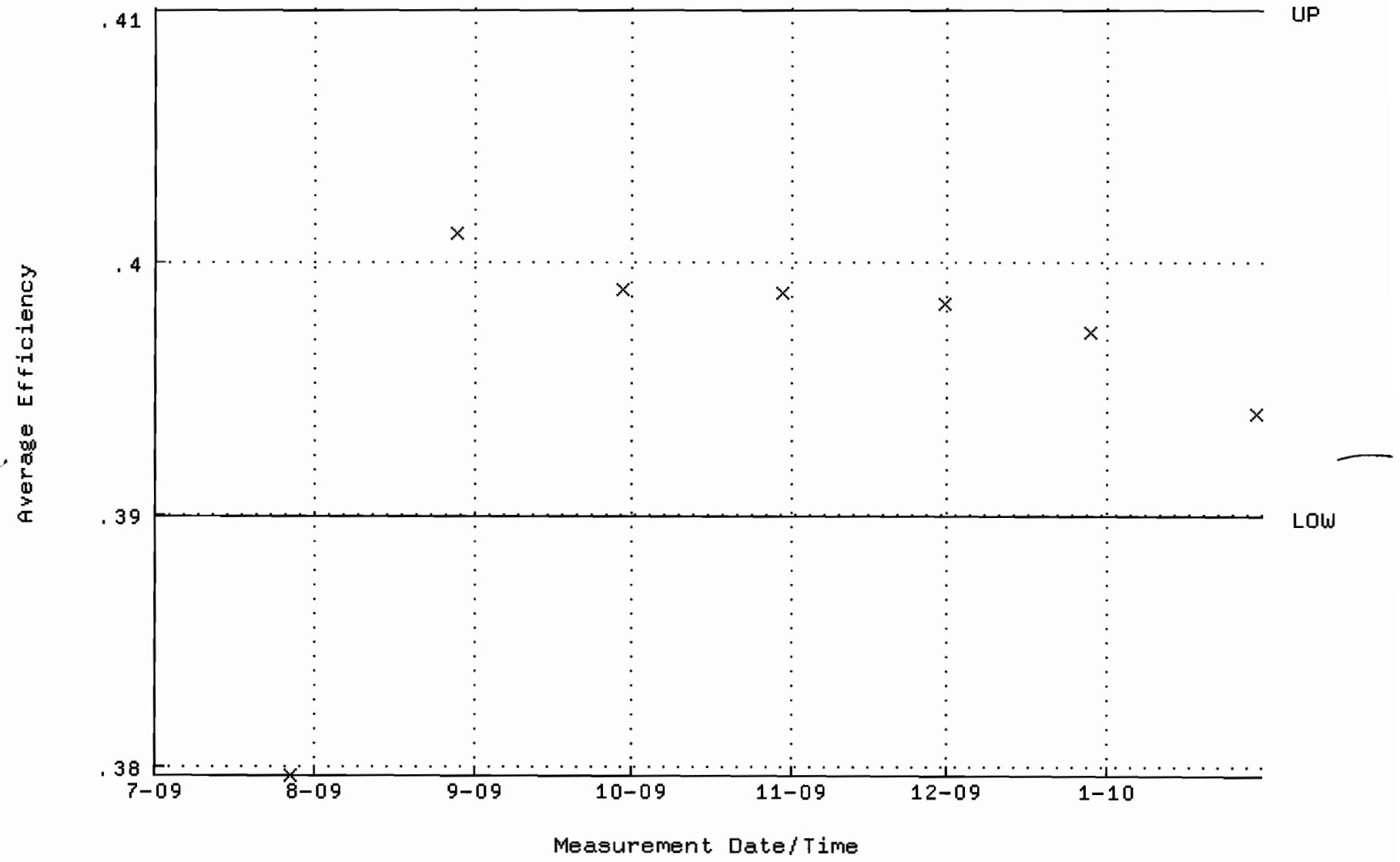
QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:07 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 81.8490 through 90.4646



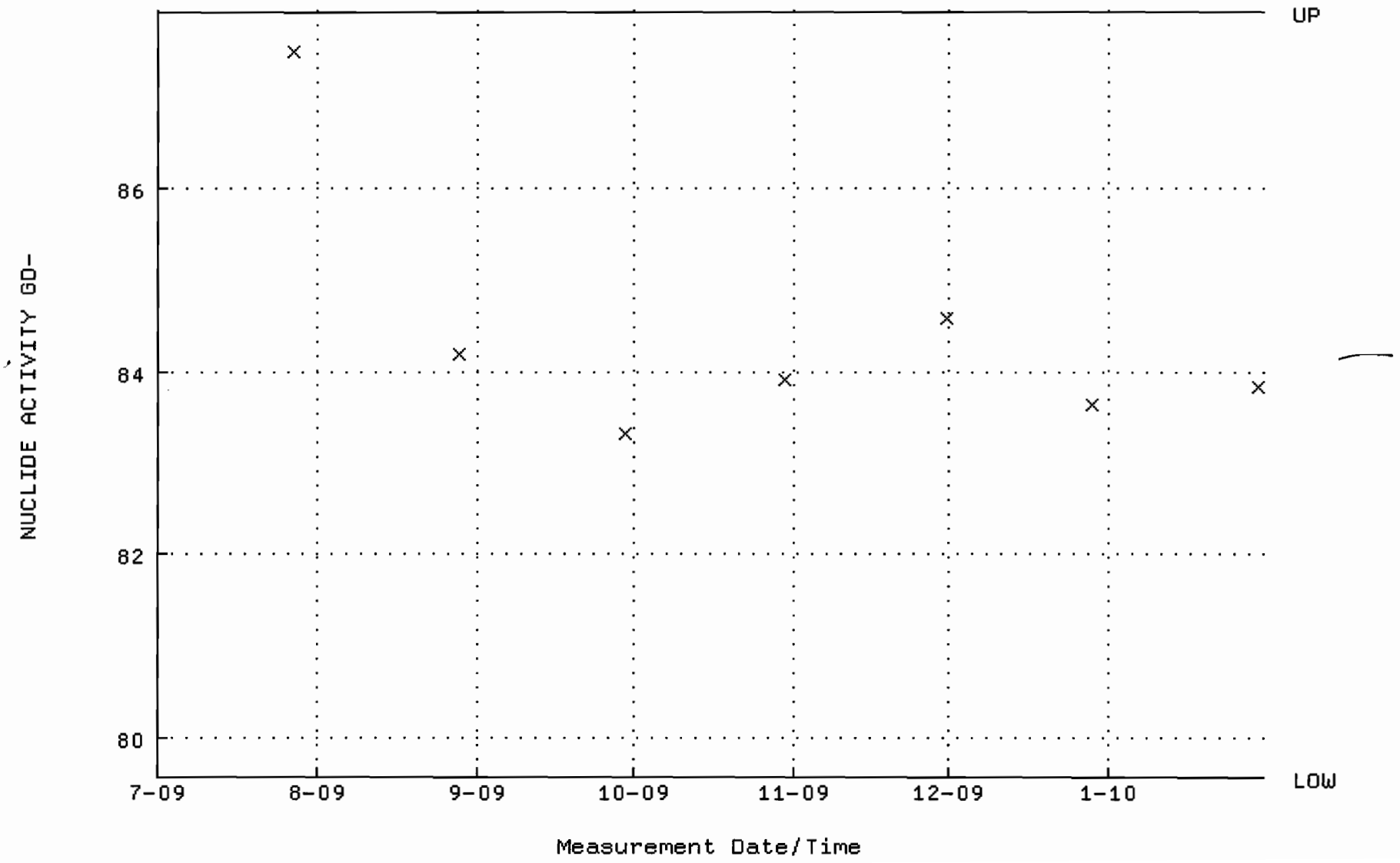
QA filename : DKA100:[ENV_ALPHA.QA.B]B236.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:24 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



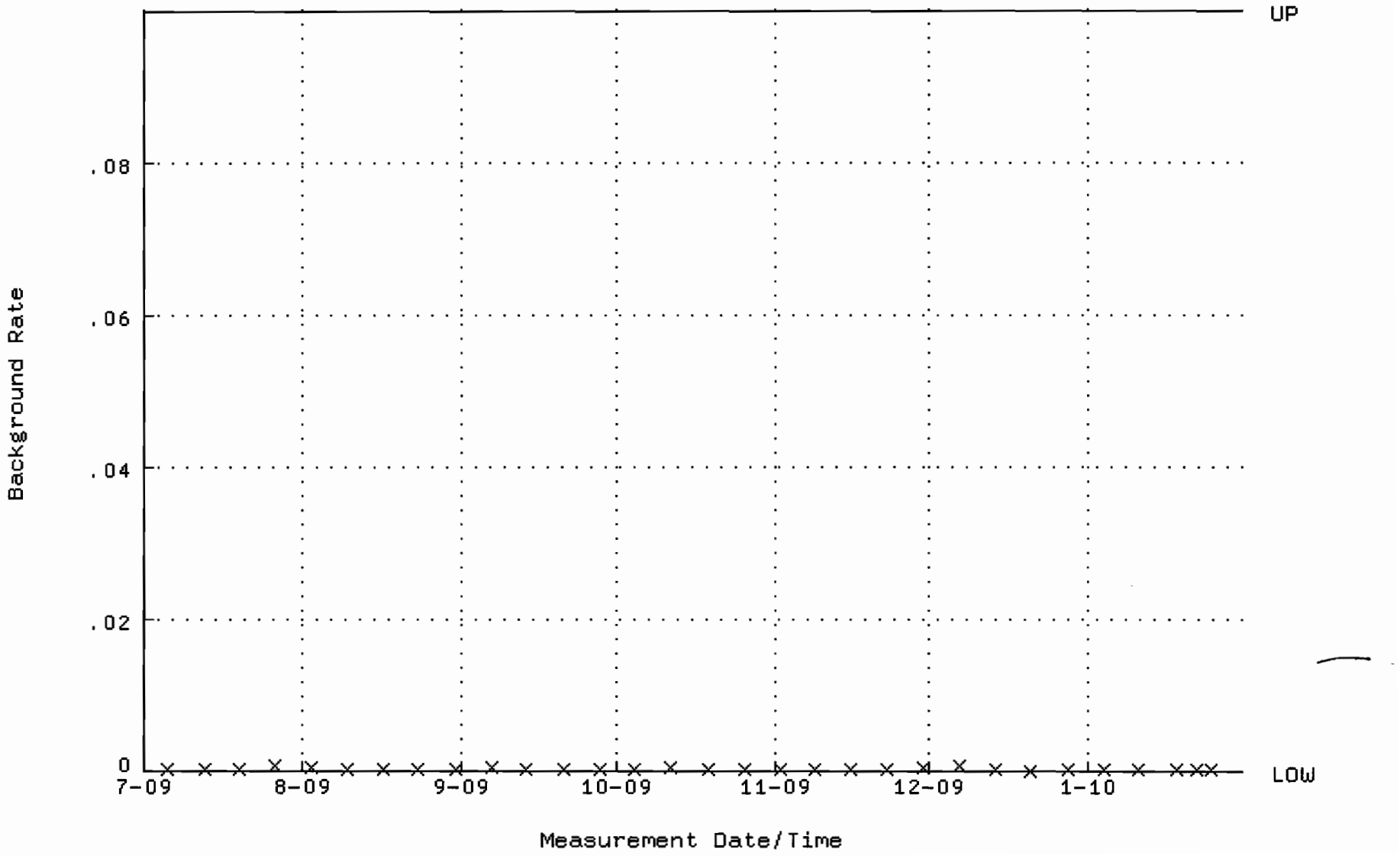
QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:14 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.390000 through 0.410000



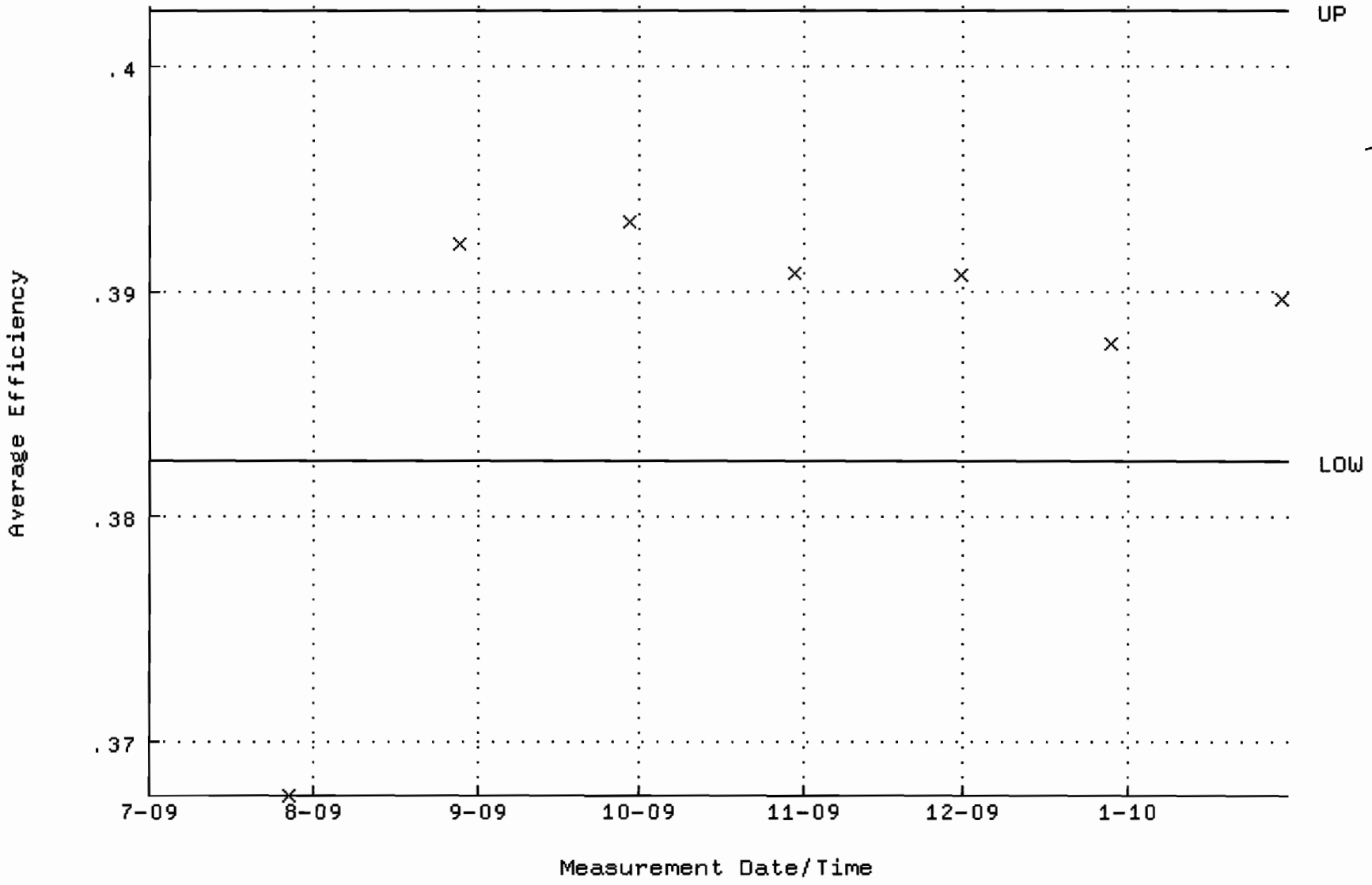
QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:14 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 79.5642 through 87.9394



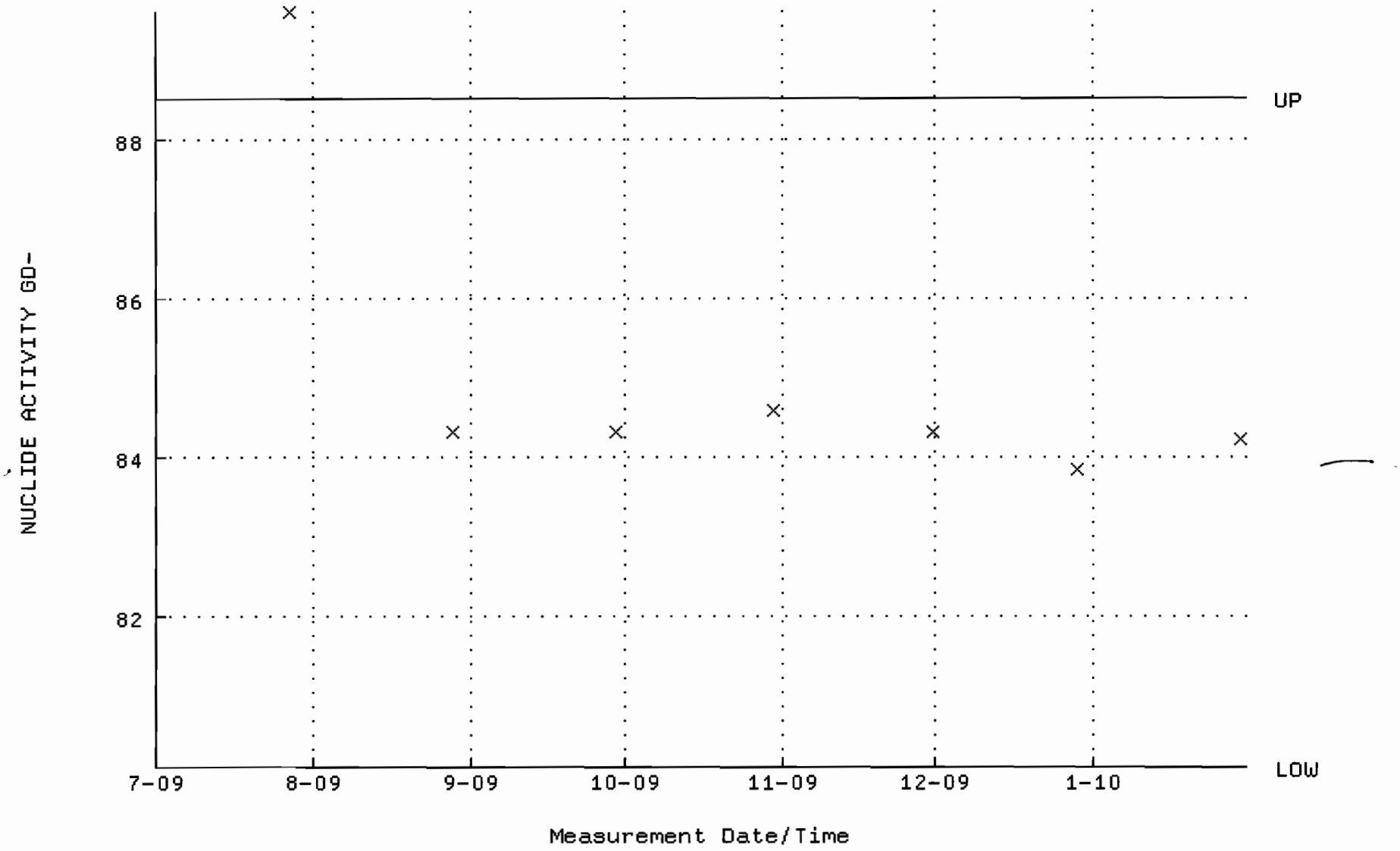
QA filename : DKA100:[ENV_ALPHA.QA.B]B237.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



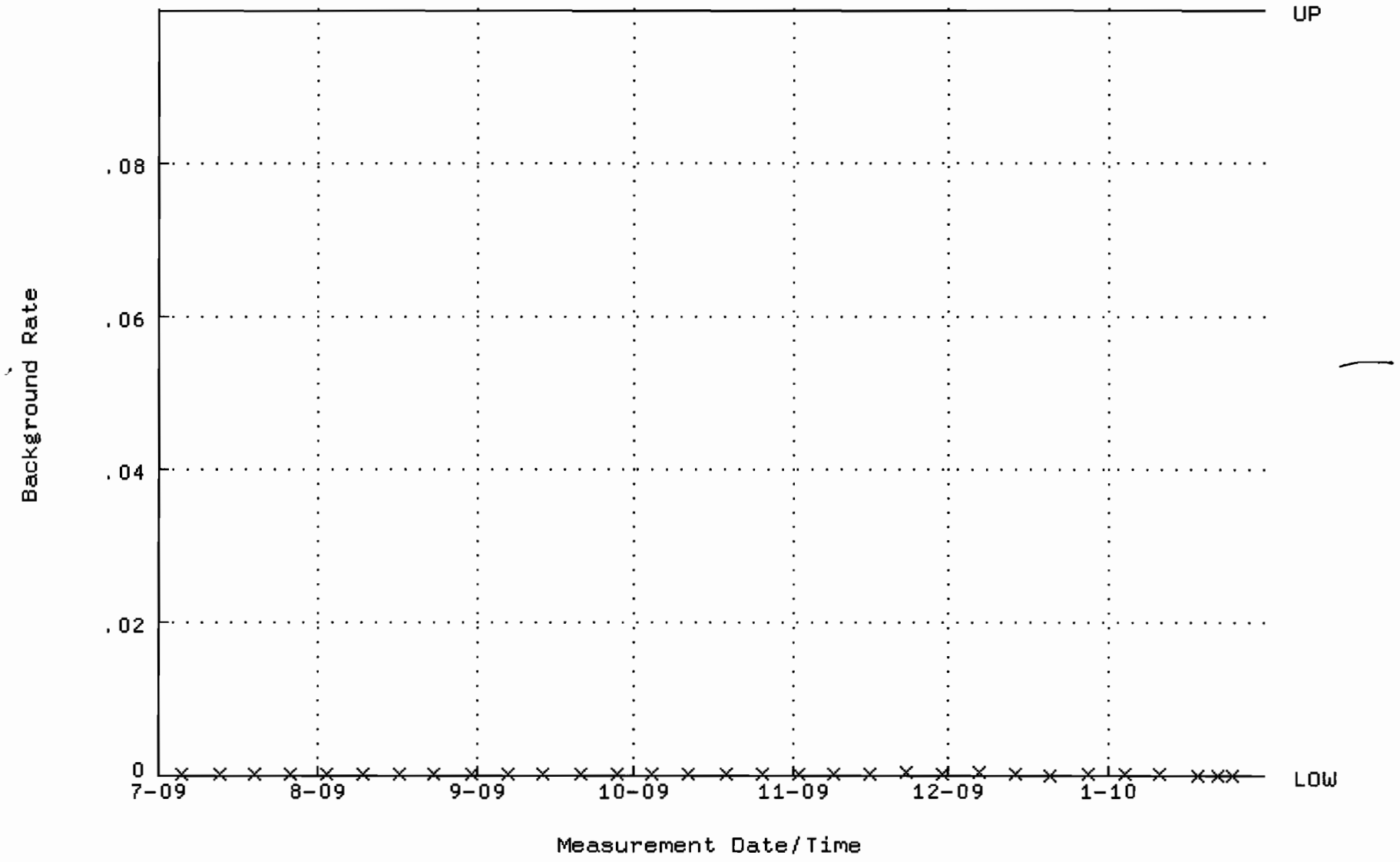
QA filename : DKA100:[ENV_ALPHA.QA.W]W249.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:24 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.382546 through 0.402546



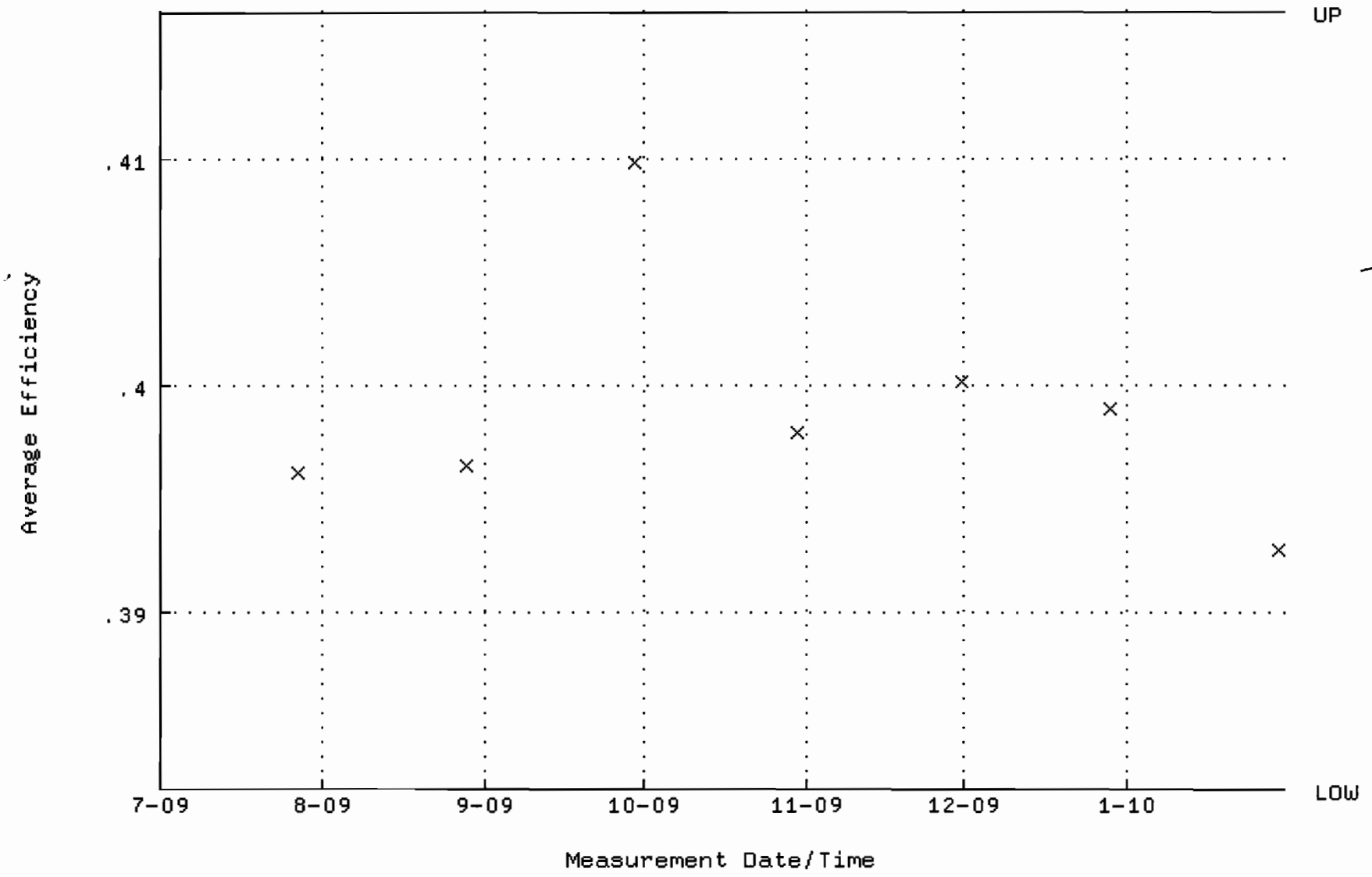
QA filename : DKA100:[ENV_ALPHA.QA.W]W249.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:24 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 80.0964 through 88.5276



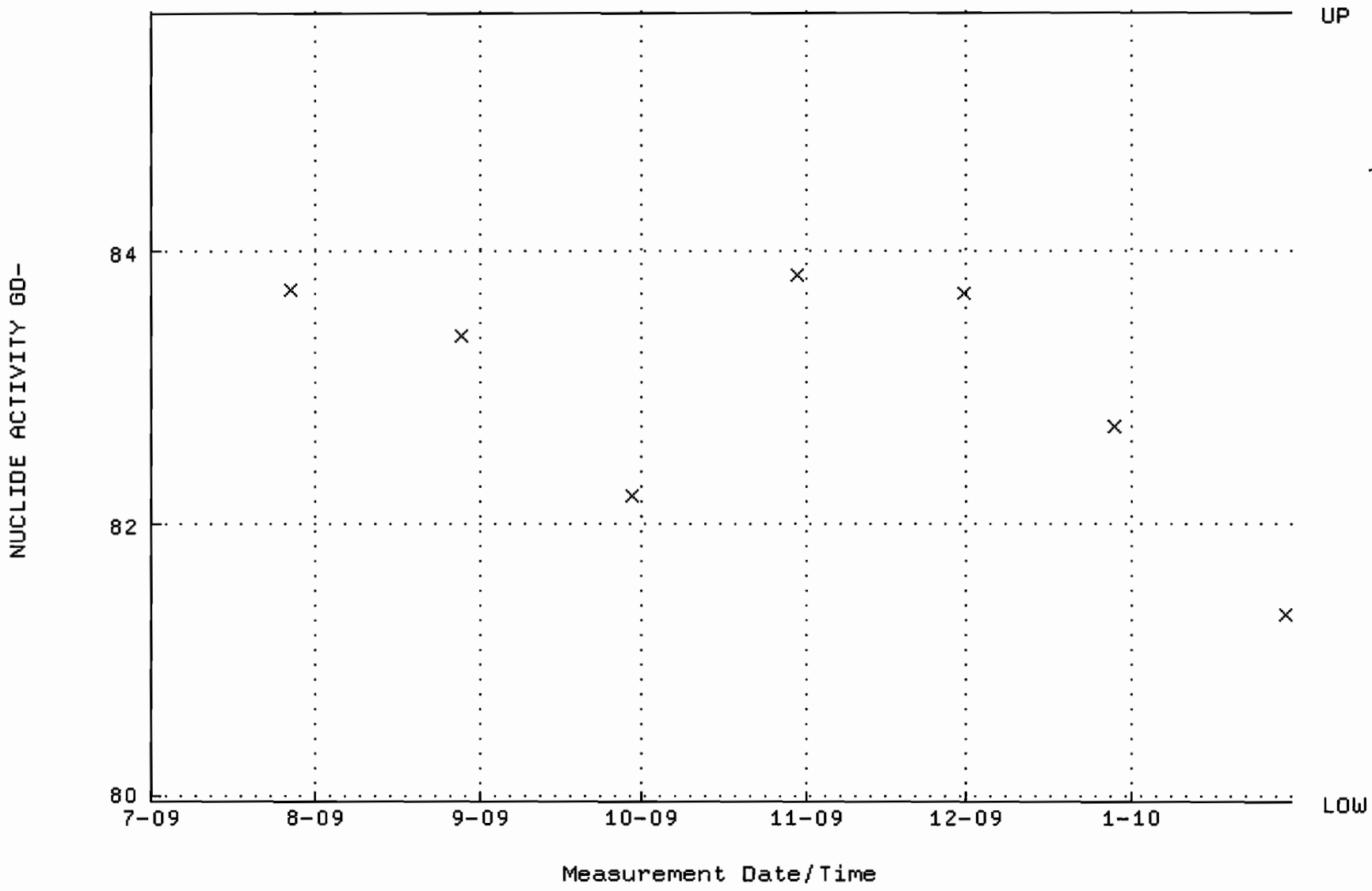
QA filename : DKA100:[ENV_ALPHA.QA.B]B249.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:26 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



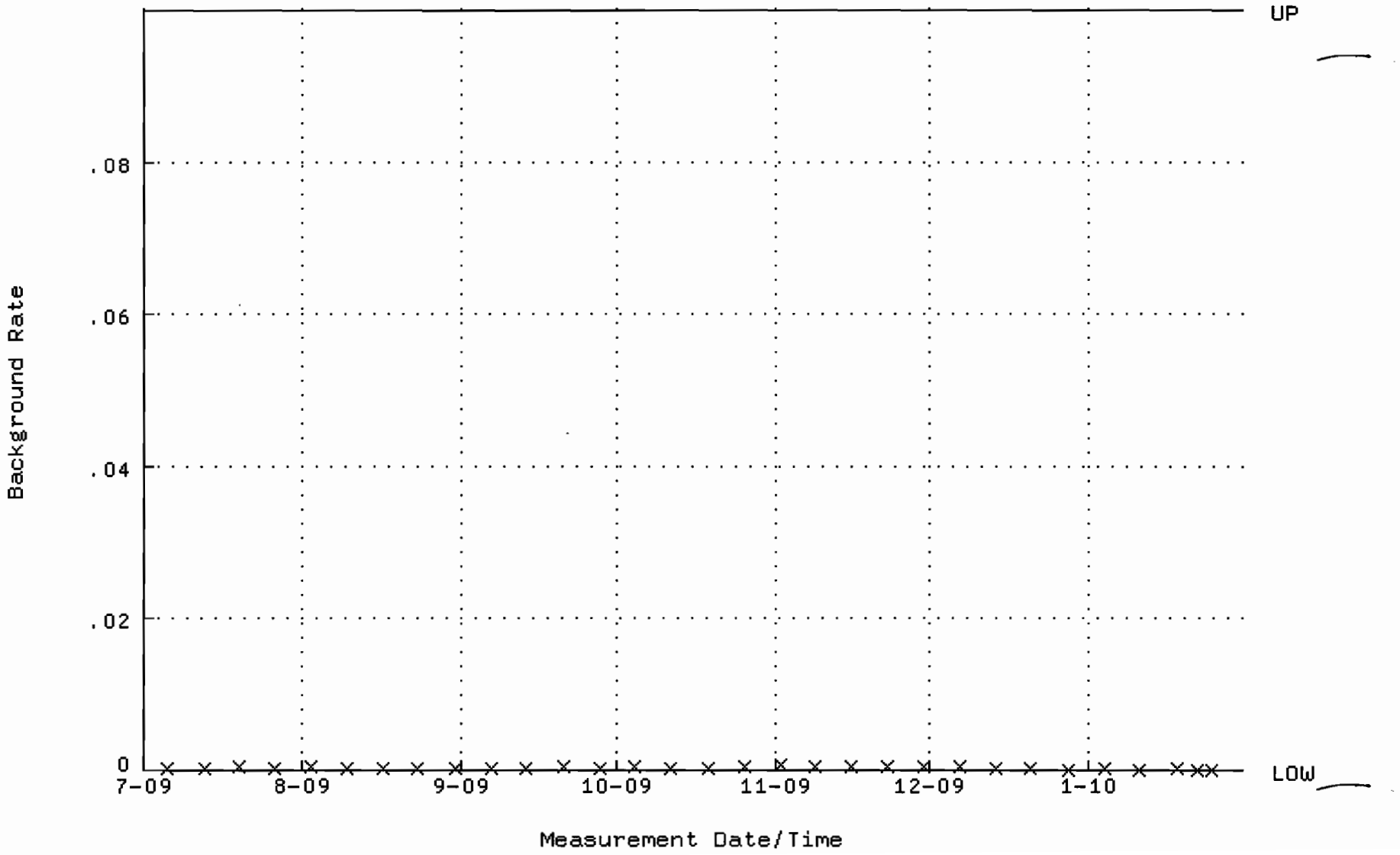
QA filename : DKA100:[ENV_ALPHA.QA.W]W250.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:30 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.382119 through 0.416507



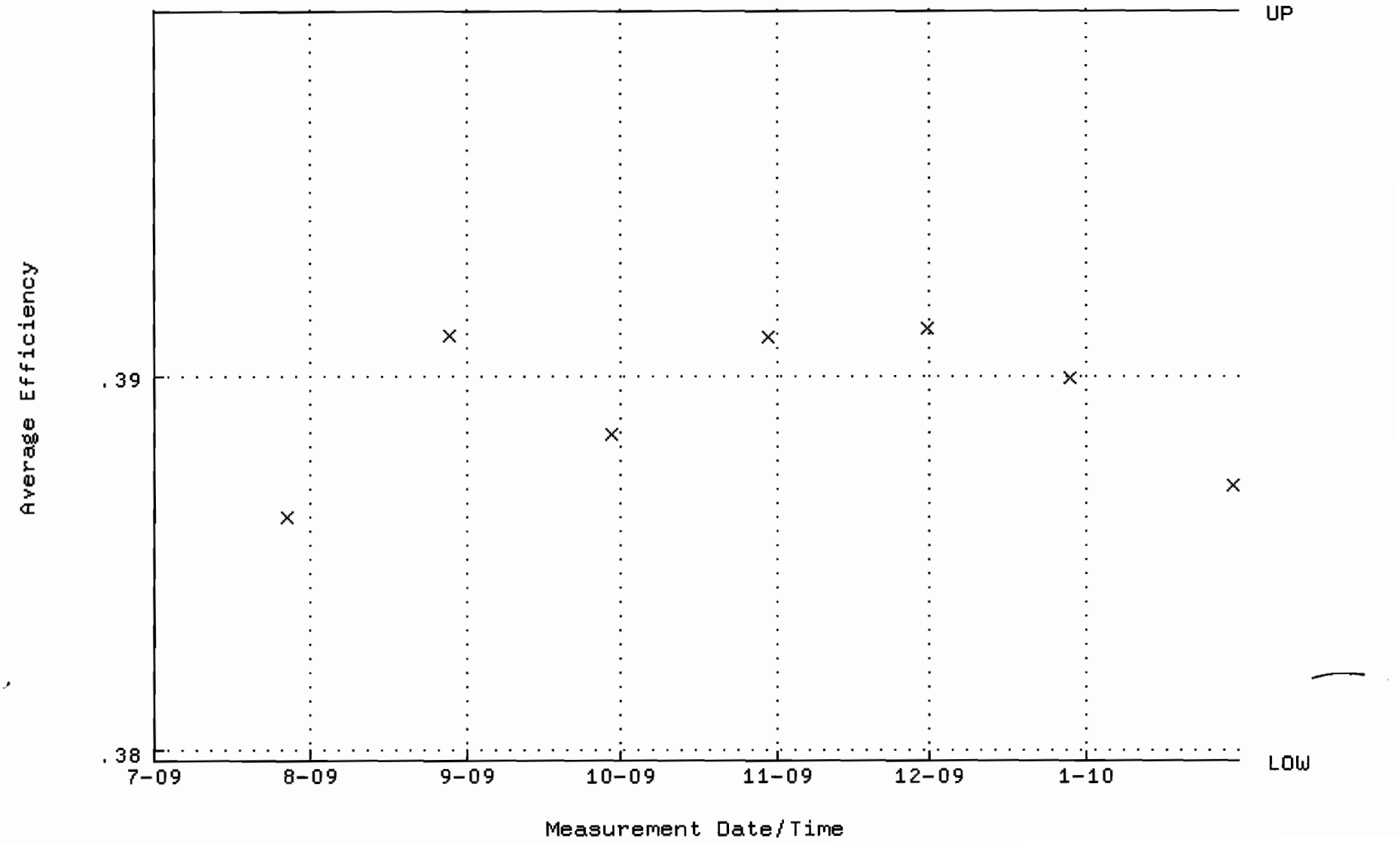
QA filename : DKA100:[ENV_ALPHA.QA.W]W250.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:30 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 79.9626 through 85.7308



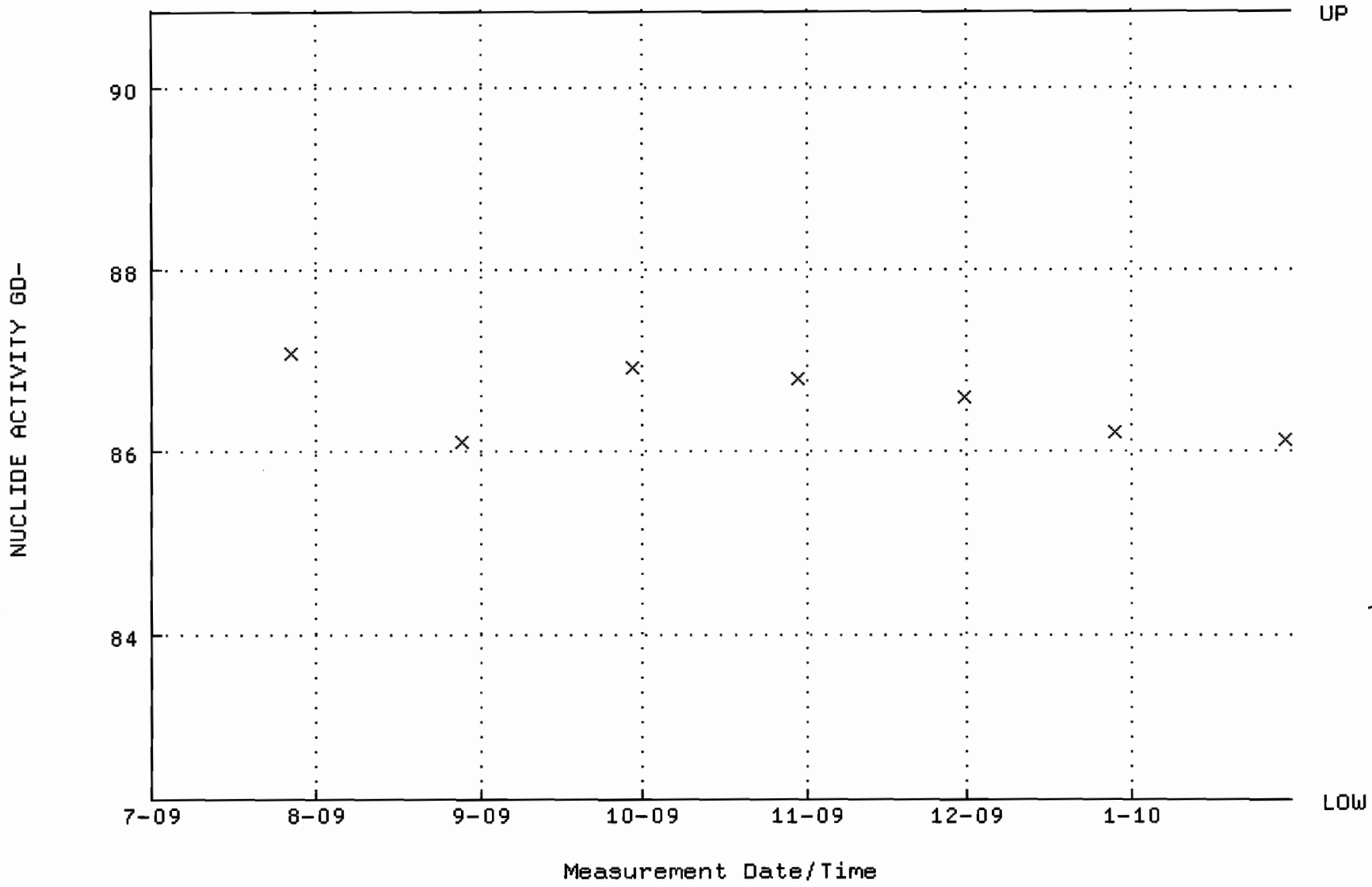
QA filename : DKA100:[ENV_ALPHA.QA.B]B250.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:31 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



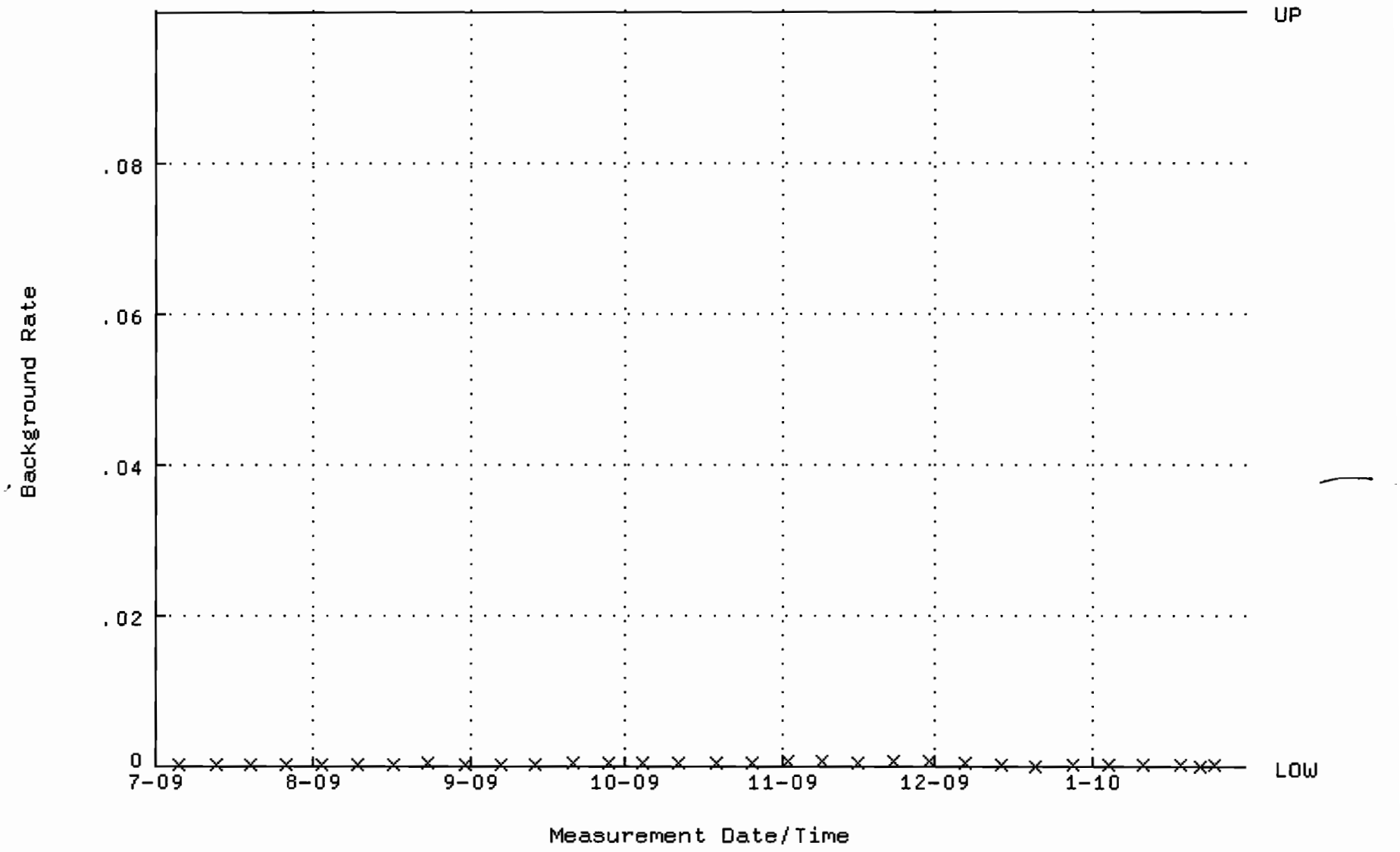
QA filename : DKA100:[ENV_ALPHA.QA.W]W251.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:36 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.379733 through 0.399733



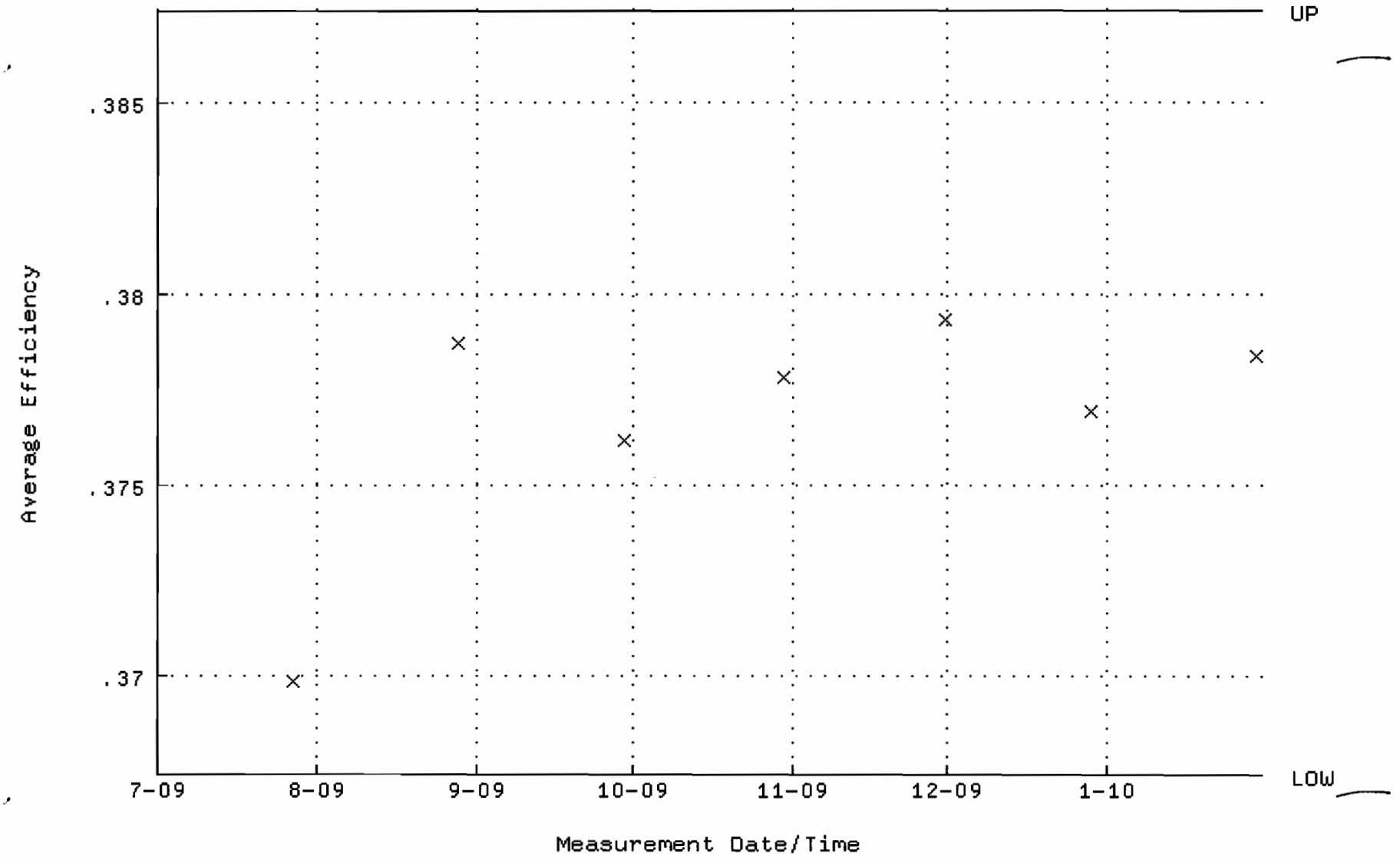
QA filename : DKA100:[ENV_ALPHA.QA.W]W251.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:36 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 82.1799 through 90.8305



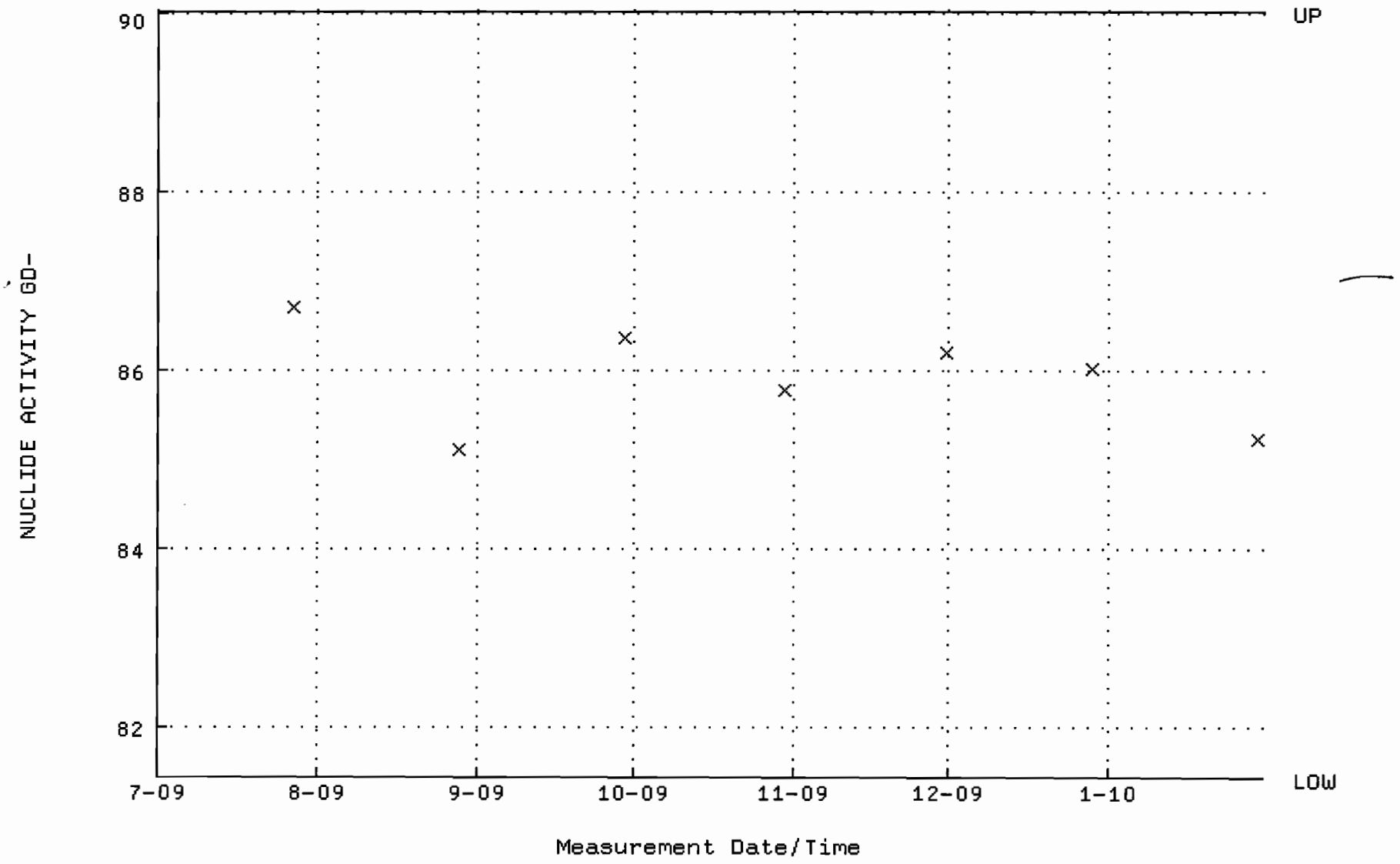
QA filename : DKA100:[ENV_ALPHA.QA.B]B251.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:36 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



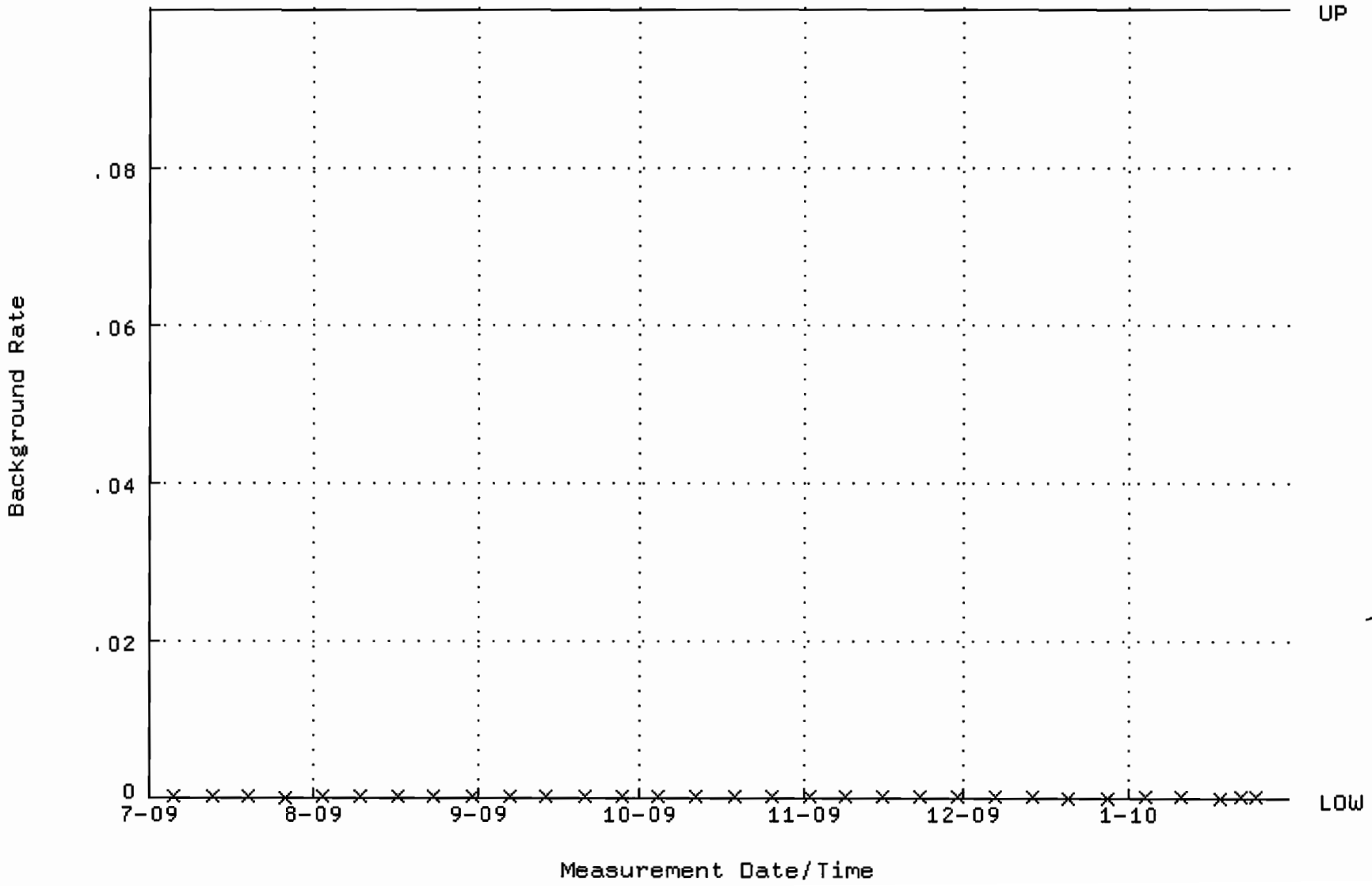
QA filename : DKA100:[ENV_ALPHA.QA.W]W252.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.367415 through 0.387415



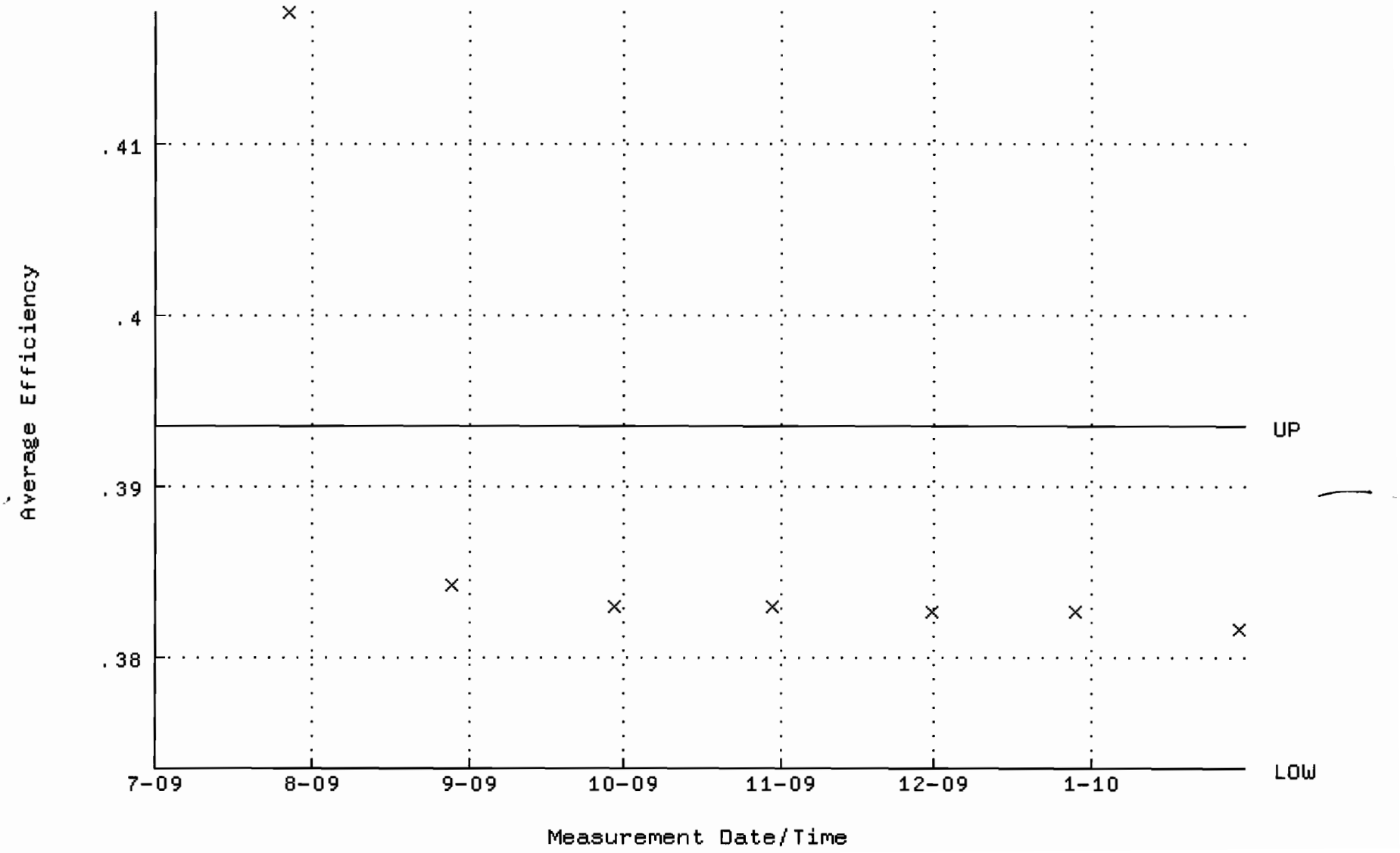
QA filename : DKA100:[ENV_ALPHA.QA.W]W252.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 81.4437 through 90.0167



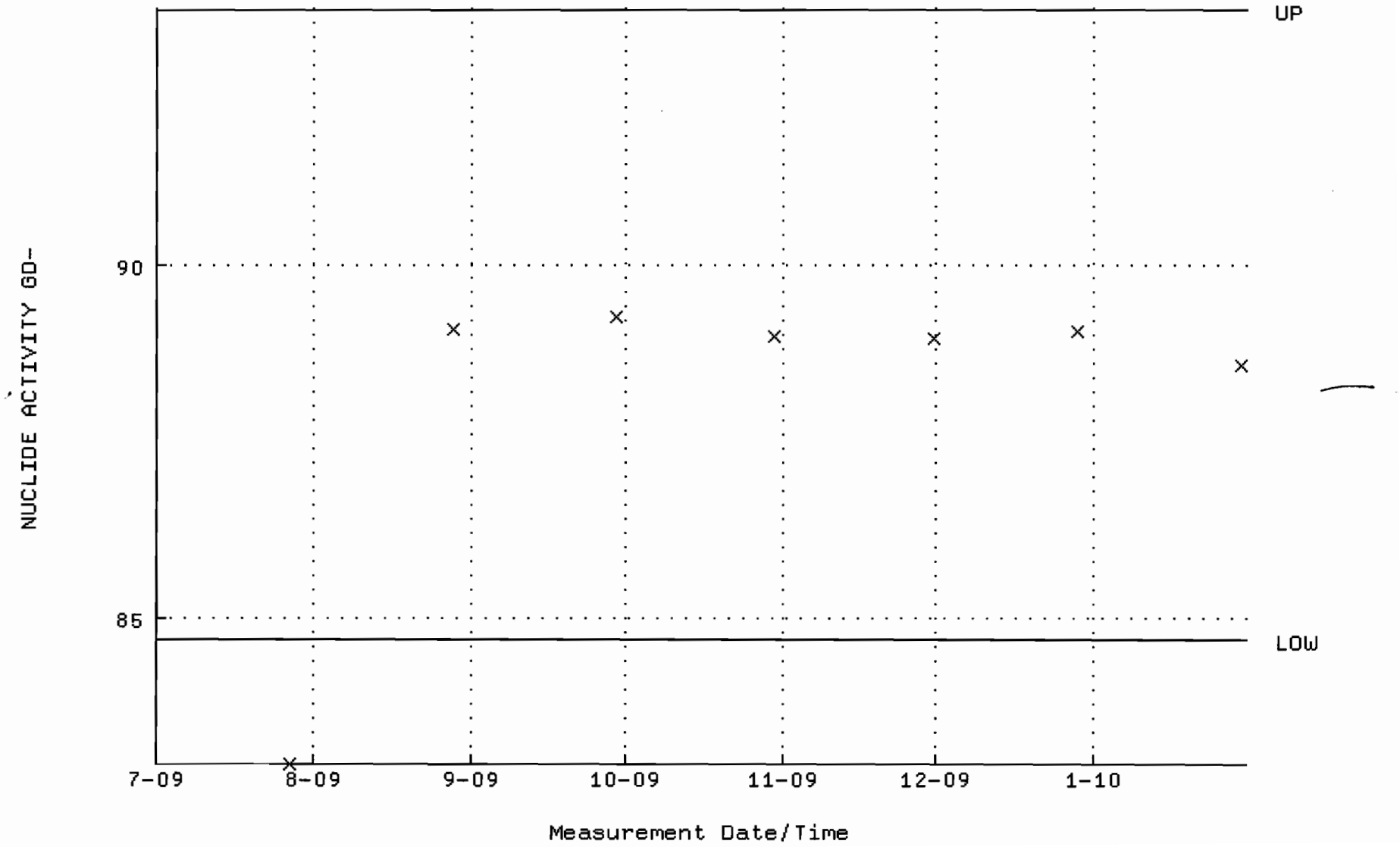
QA filename : DKA100:[ENV_ALPHA.QA.B]B252.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:41 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



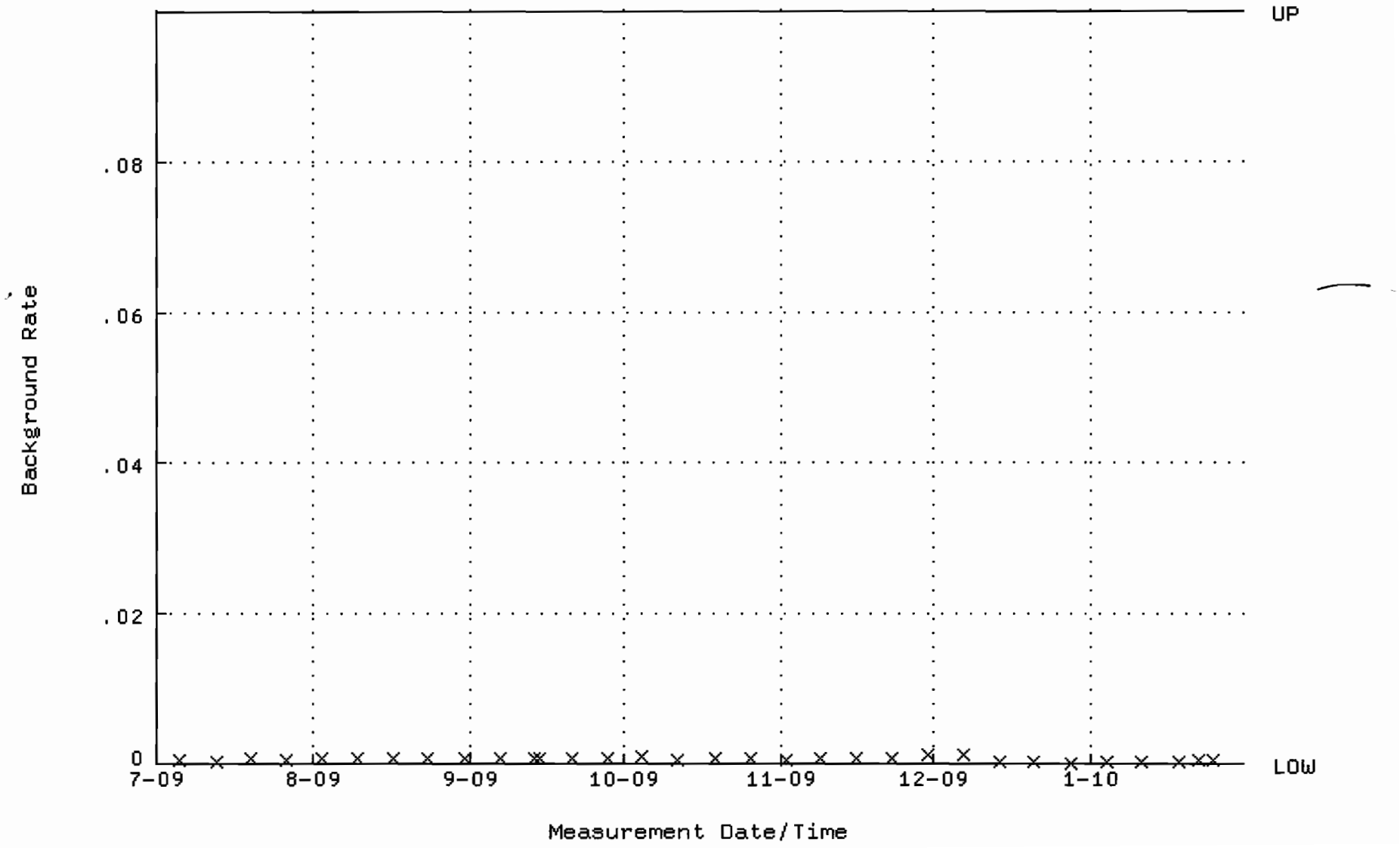
QA filename : DKA100:[ENV_ALPHA.QA.W]W253.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:49 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.373633 through 0.393633



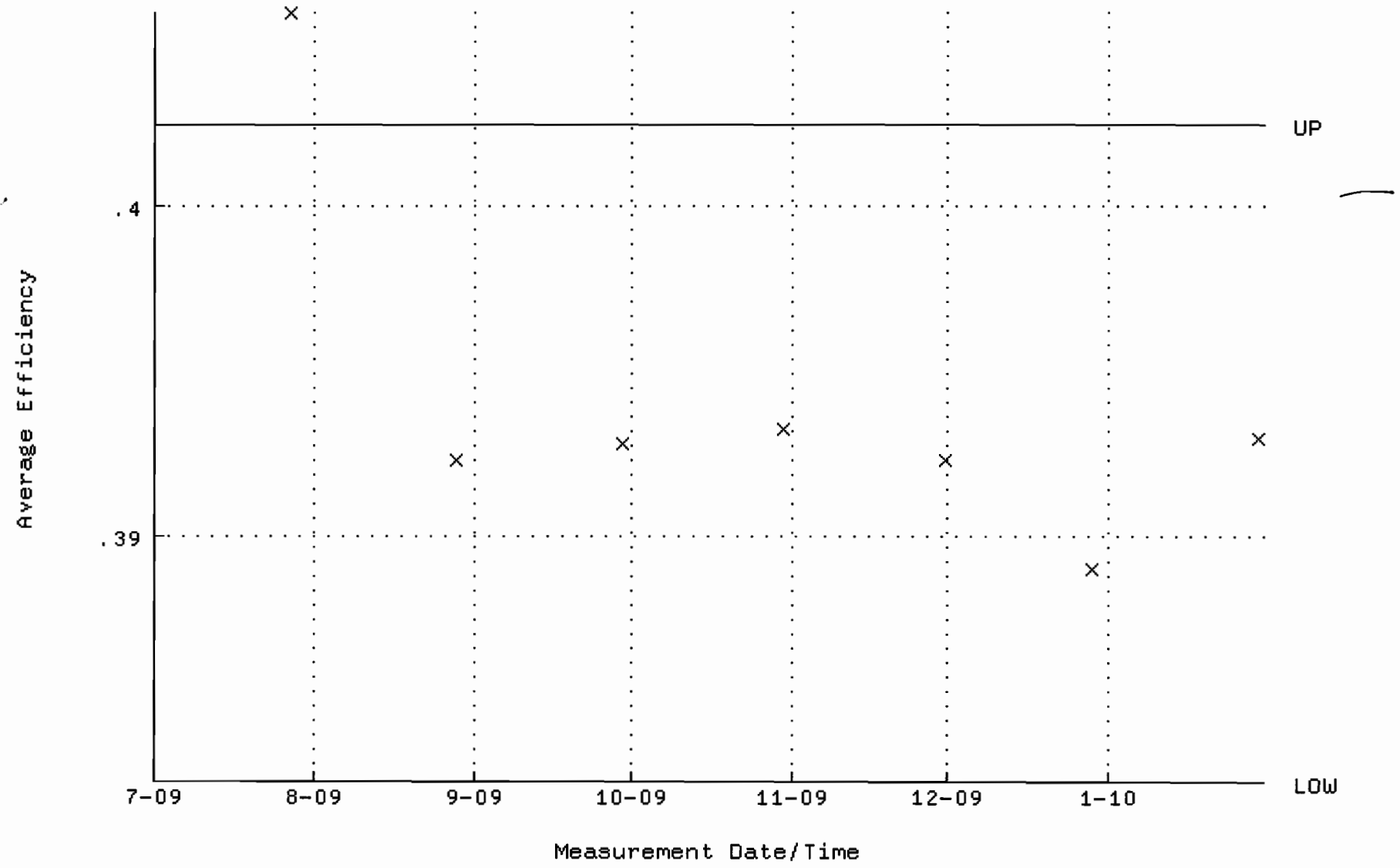
QA filename : DKA100:[ENV_ALPHA.QA.W]W253.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:49 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.7115 through 93.6285



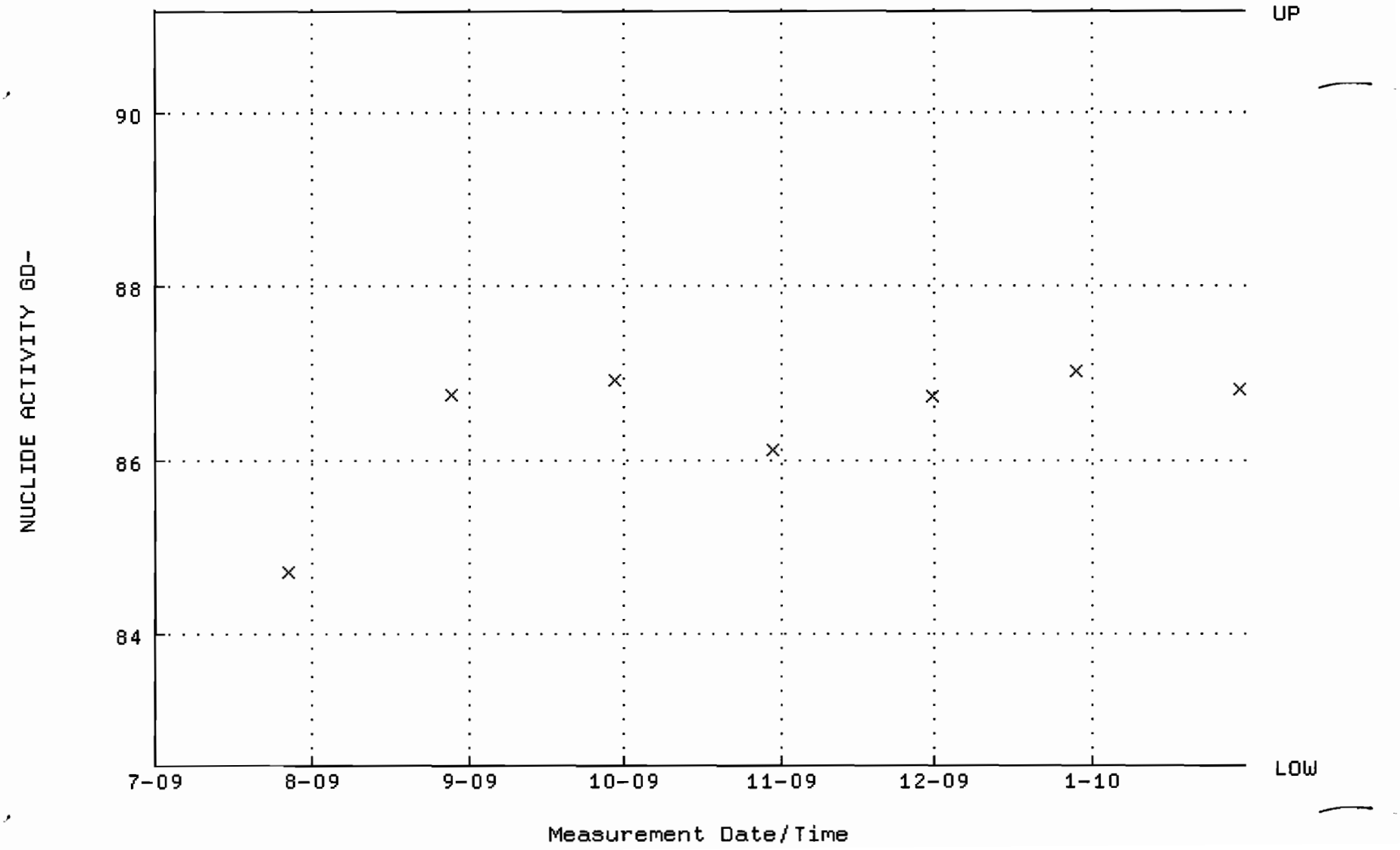
QA filename : DKA100:[ENV_ALPHA.QA.B]B253.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:46 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



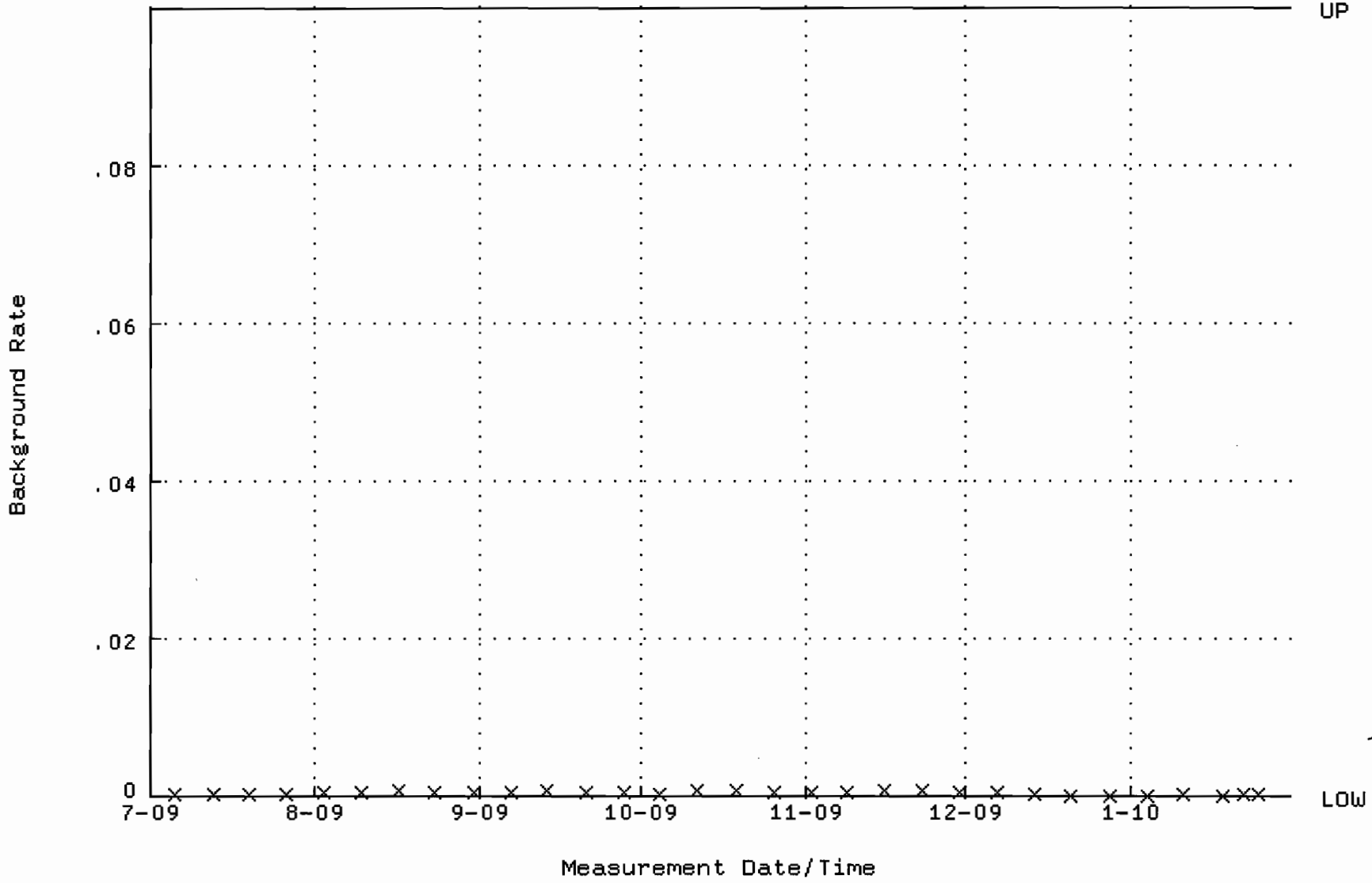
QA filename : DKA100:[ENV_ALPHA.QA.W]W254.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:54 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.382510 through 0.402510



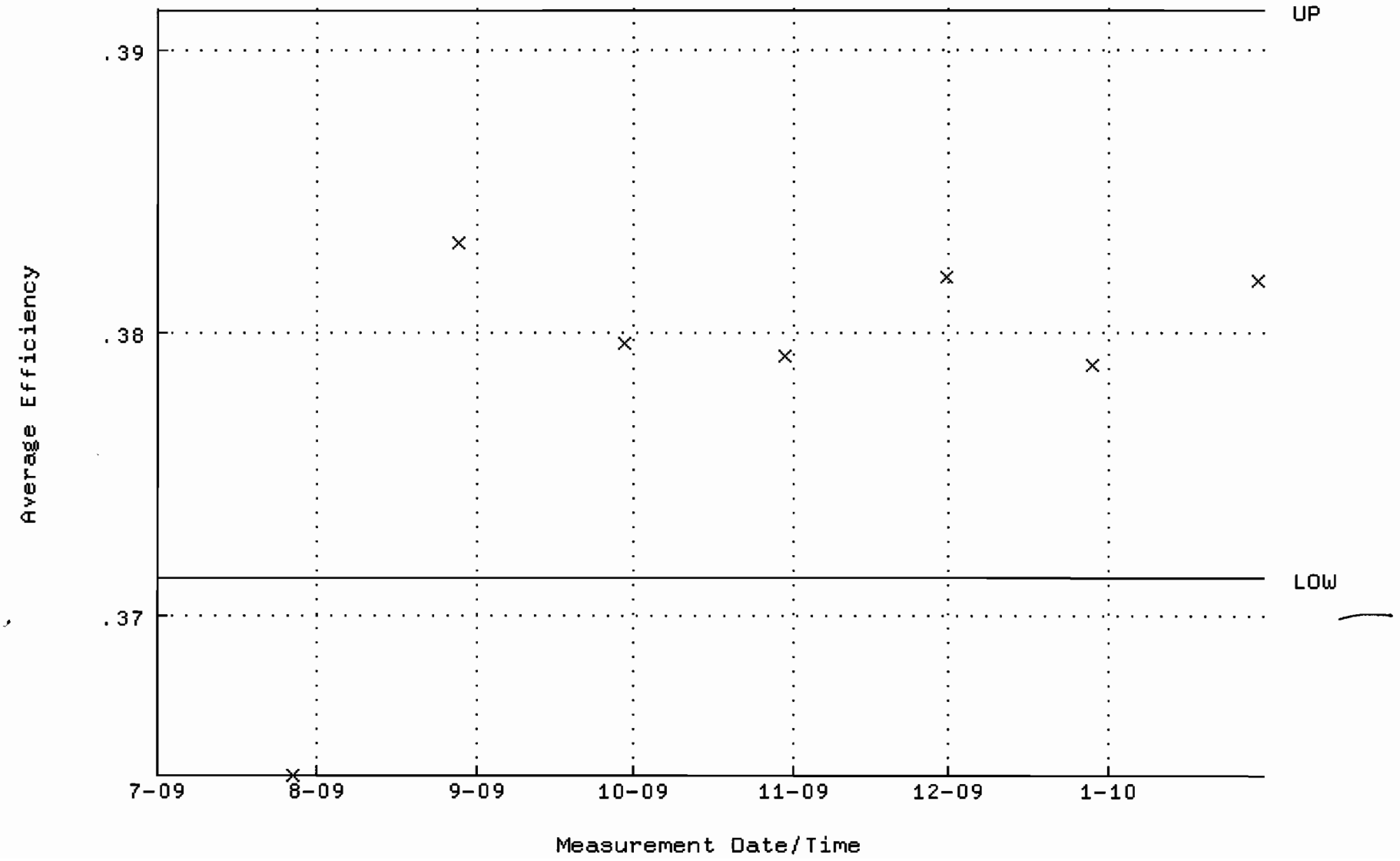
QA filename : DKA100:[ENV_ALPHA.QA.W]W254.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:54 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 82.4795 through 91.1615



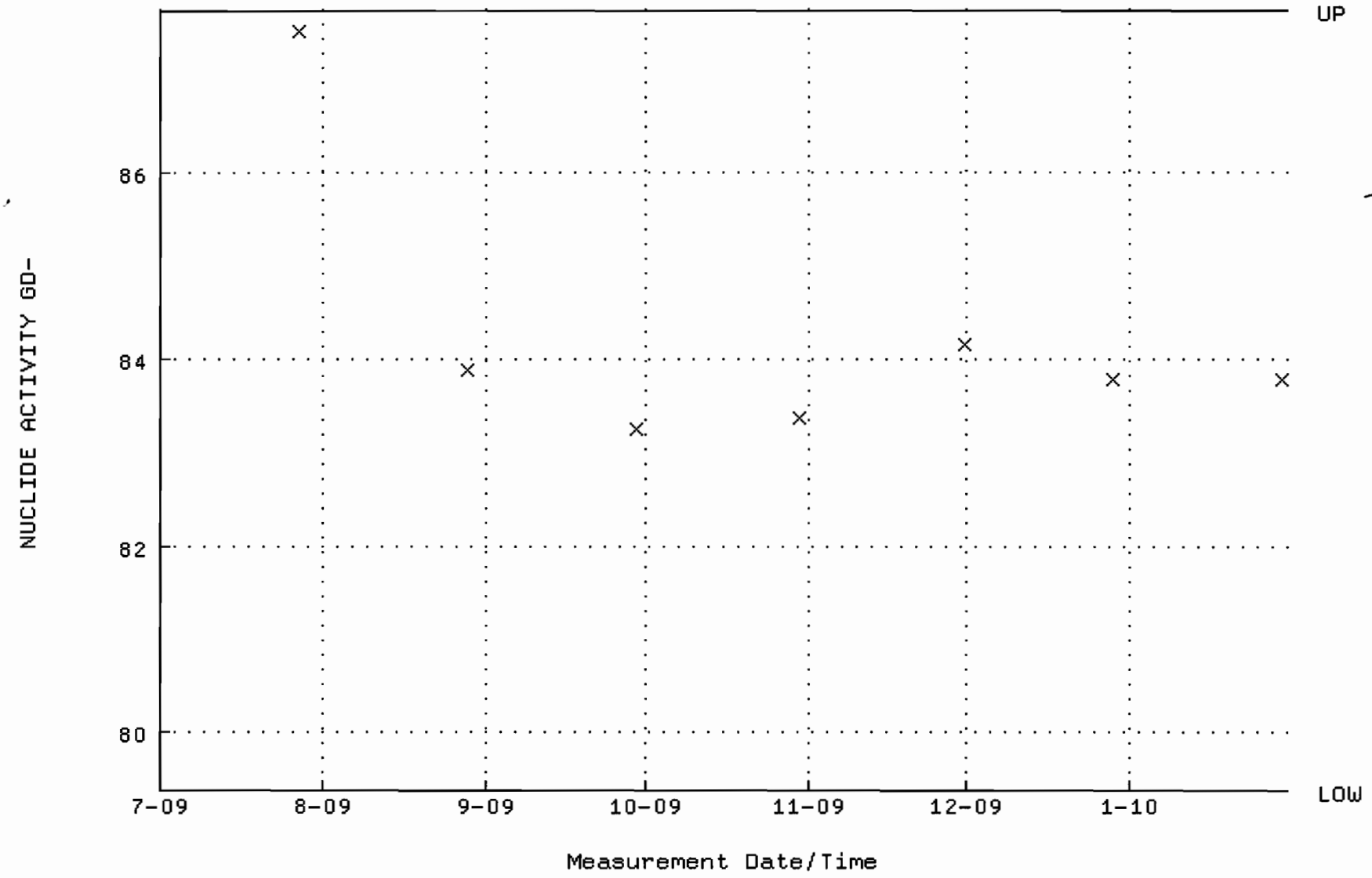
QA filename : DKA100:[ENV_ALPHA.QA.B]B254.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



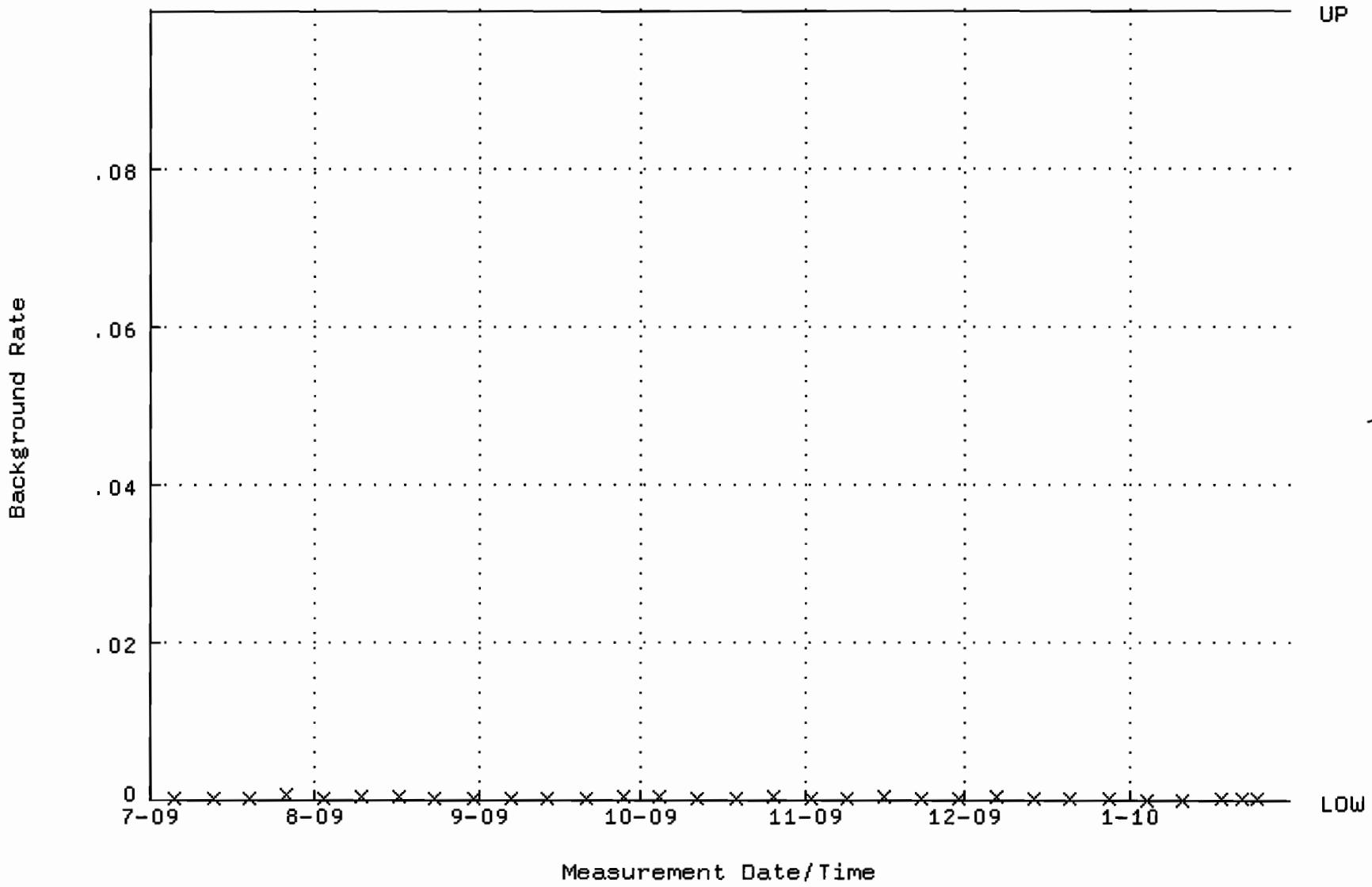
QA filename : DKA100:[ENV_ALPHA.QA.W]W255.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:52:00 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.371403 through 0.391403



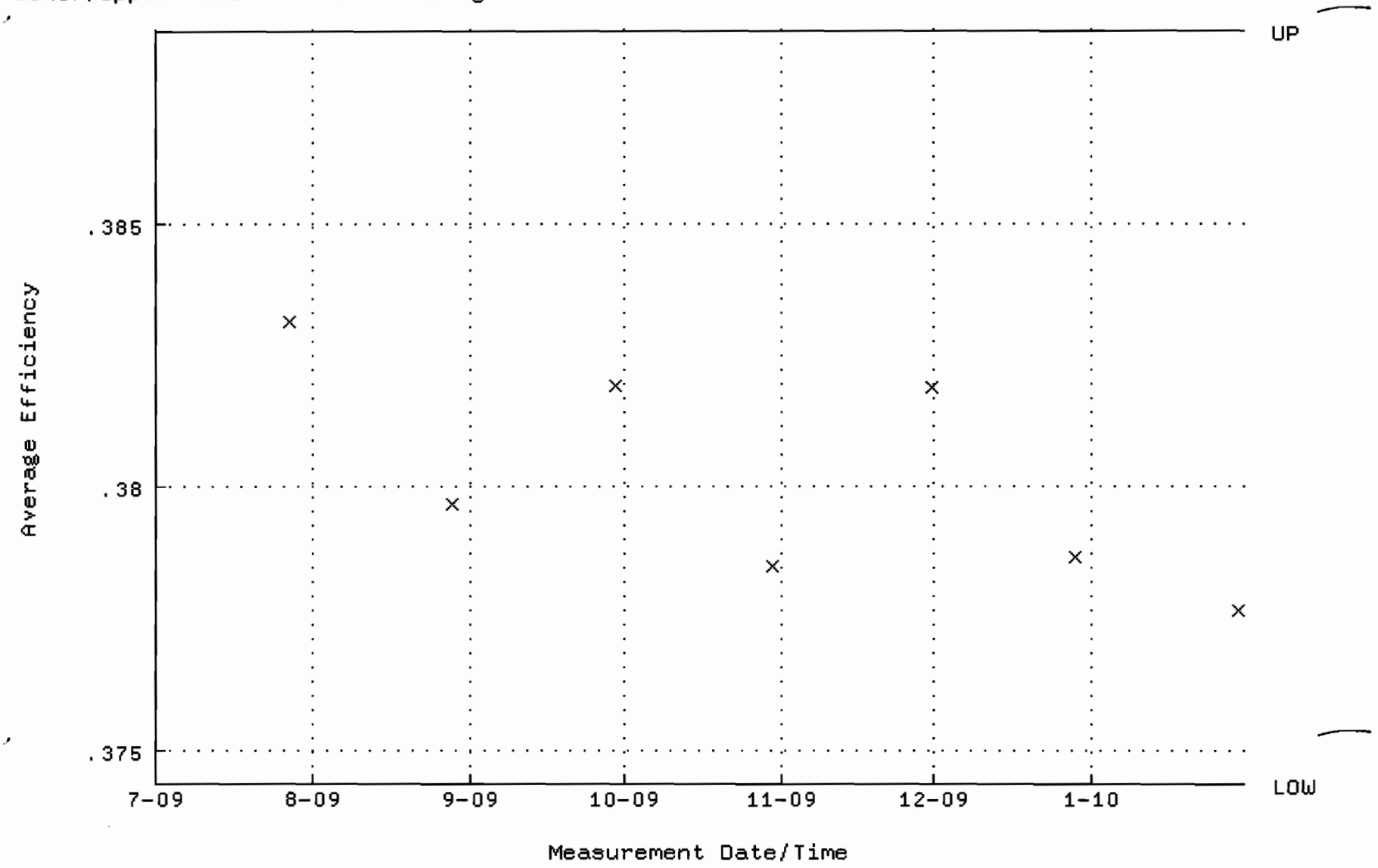
QA filename : DKA100:[ENV_ALPHA.QA.W]W255.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:52:00 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 79.3783 through 87.7339



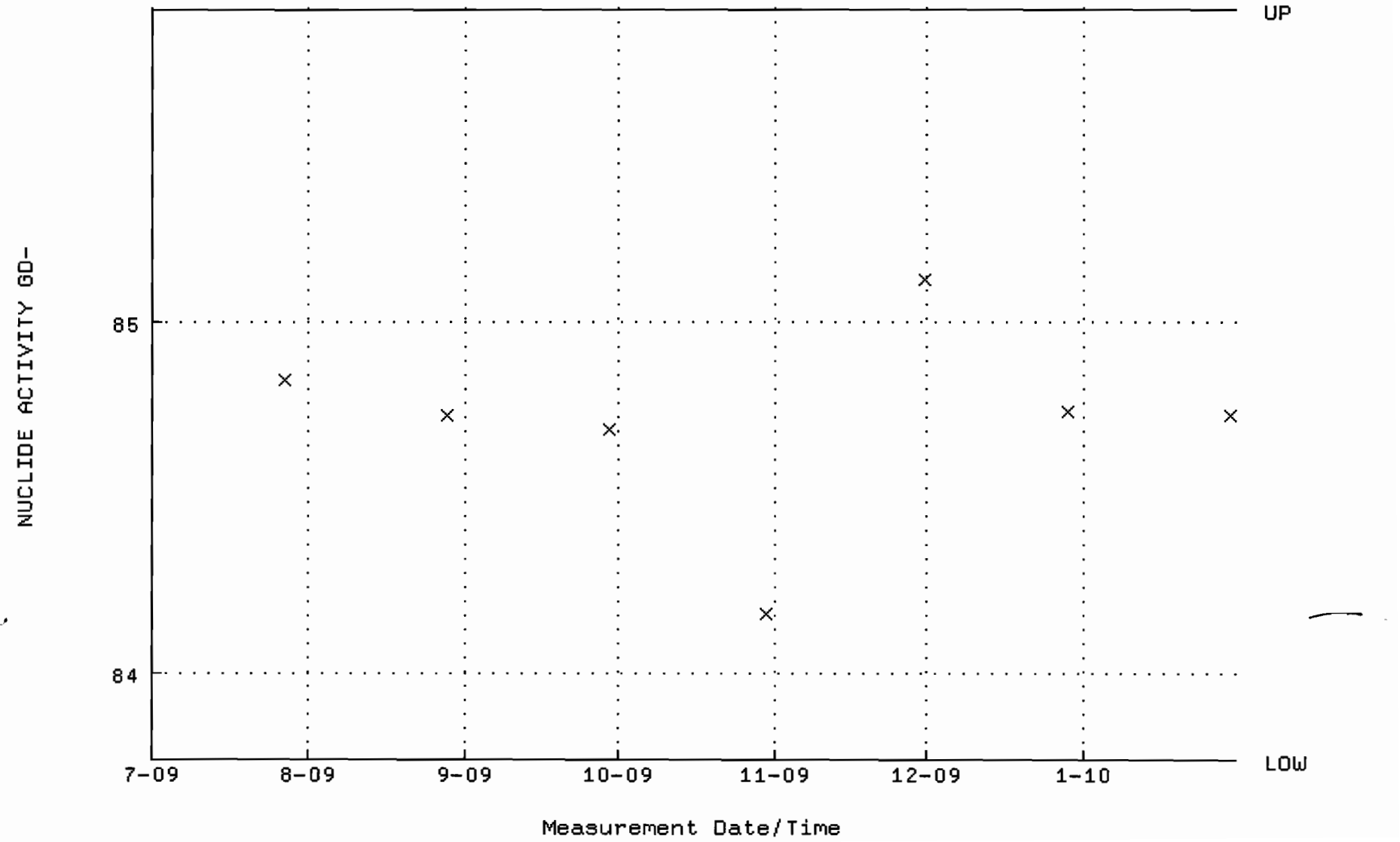
QA filename : DKA100:[ENV_ALPHA.QA.B]B255.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:55 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



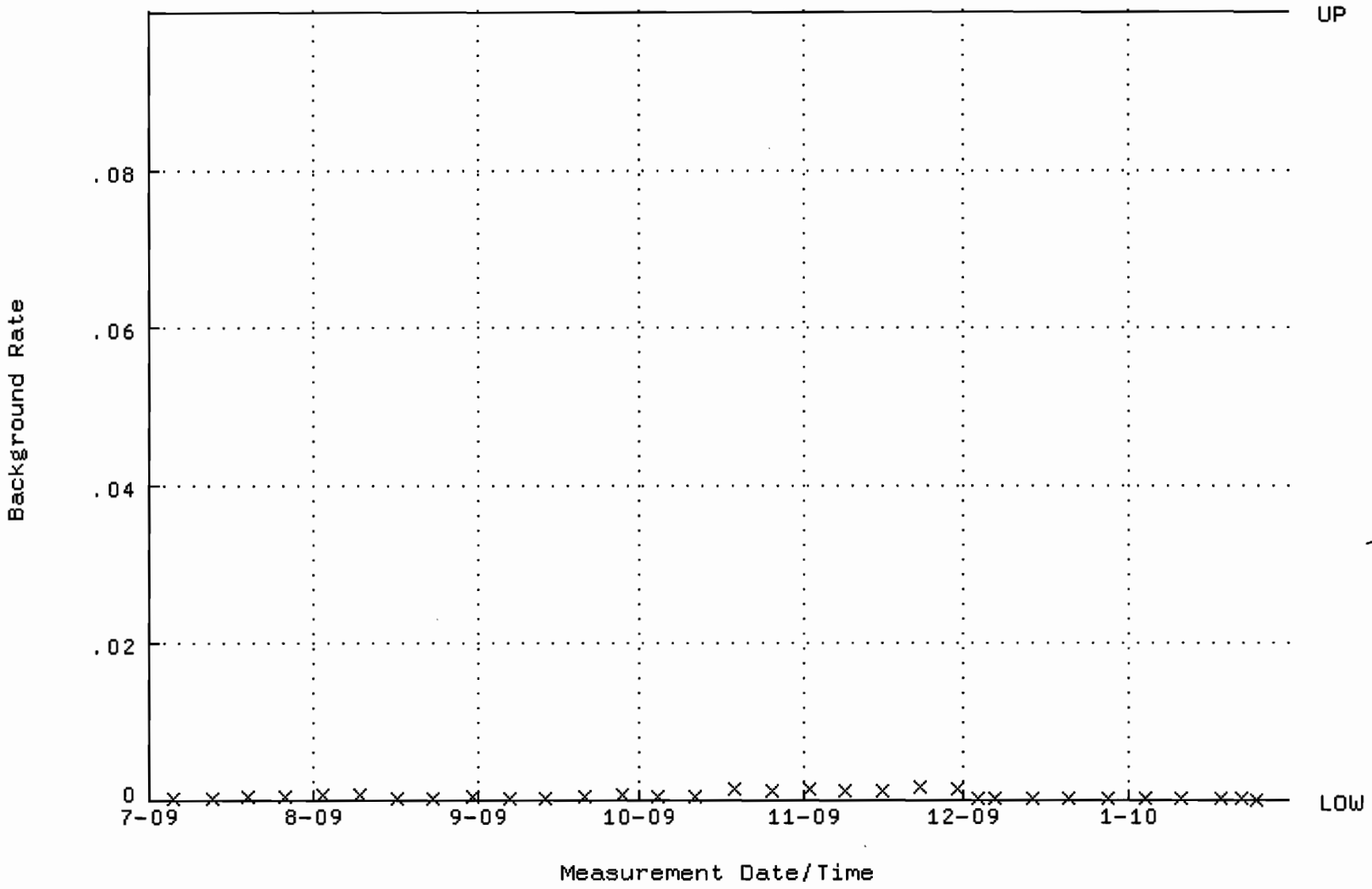
QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:52:06 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.374371 through 0.388647



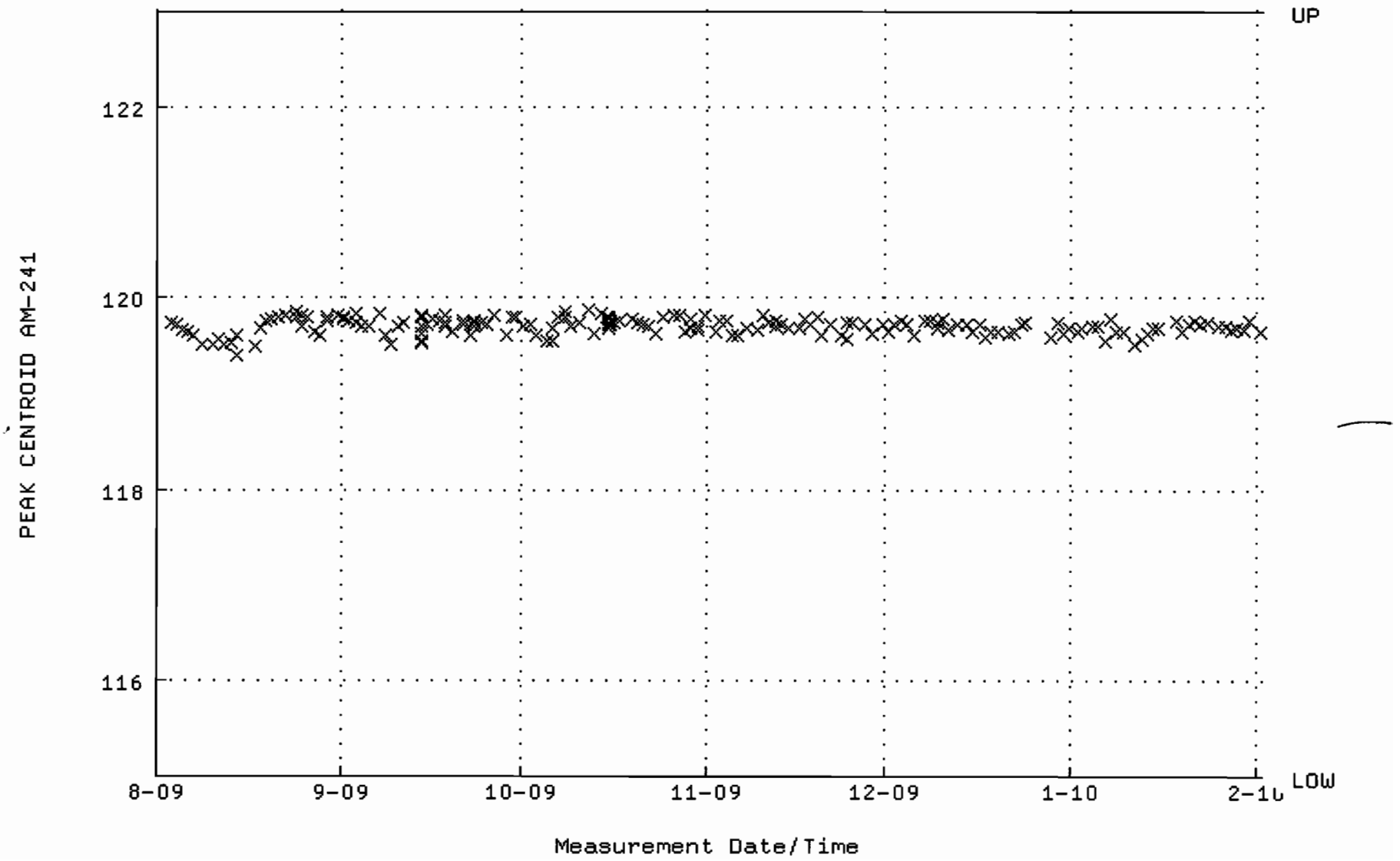
QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:52:06 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.7553 through 85.8901



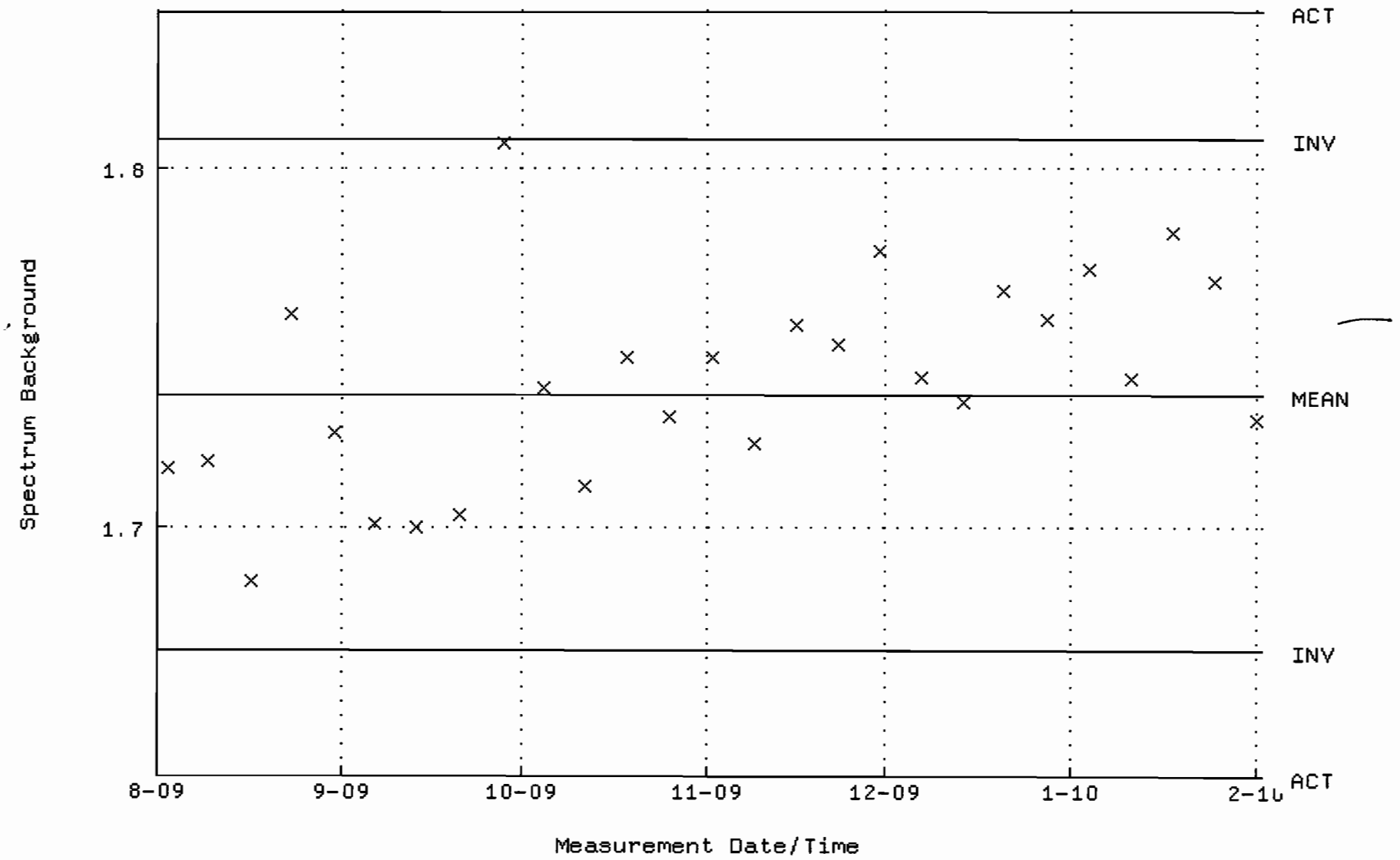
QA filename : DKA100:[ENV_ALPHA.QA.B]B256.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:59 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



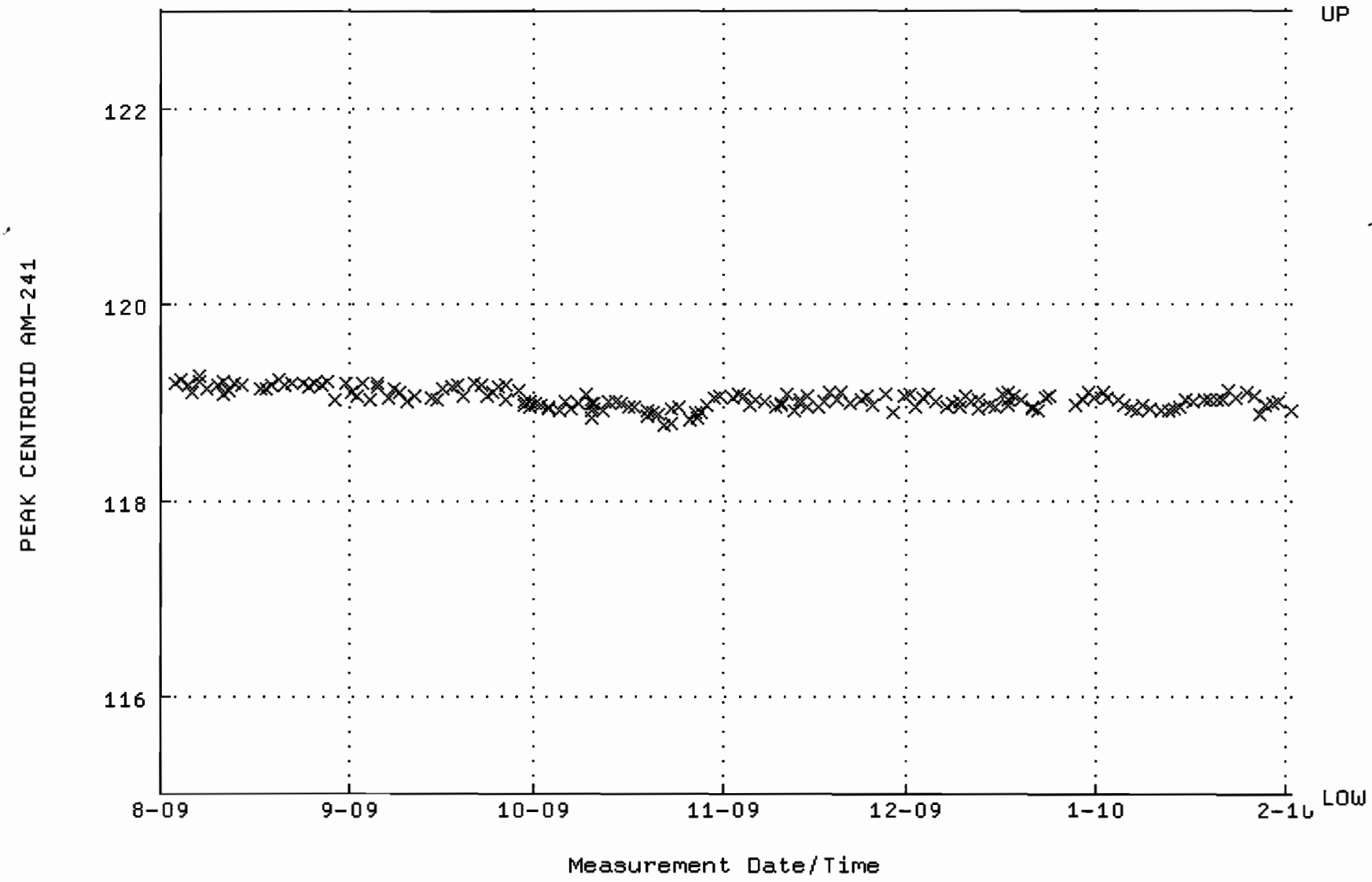
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:08:48 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



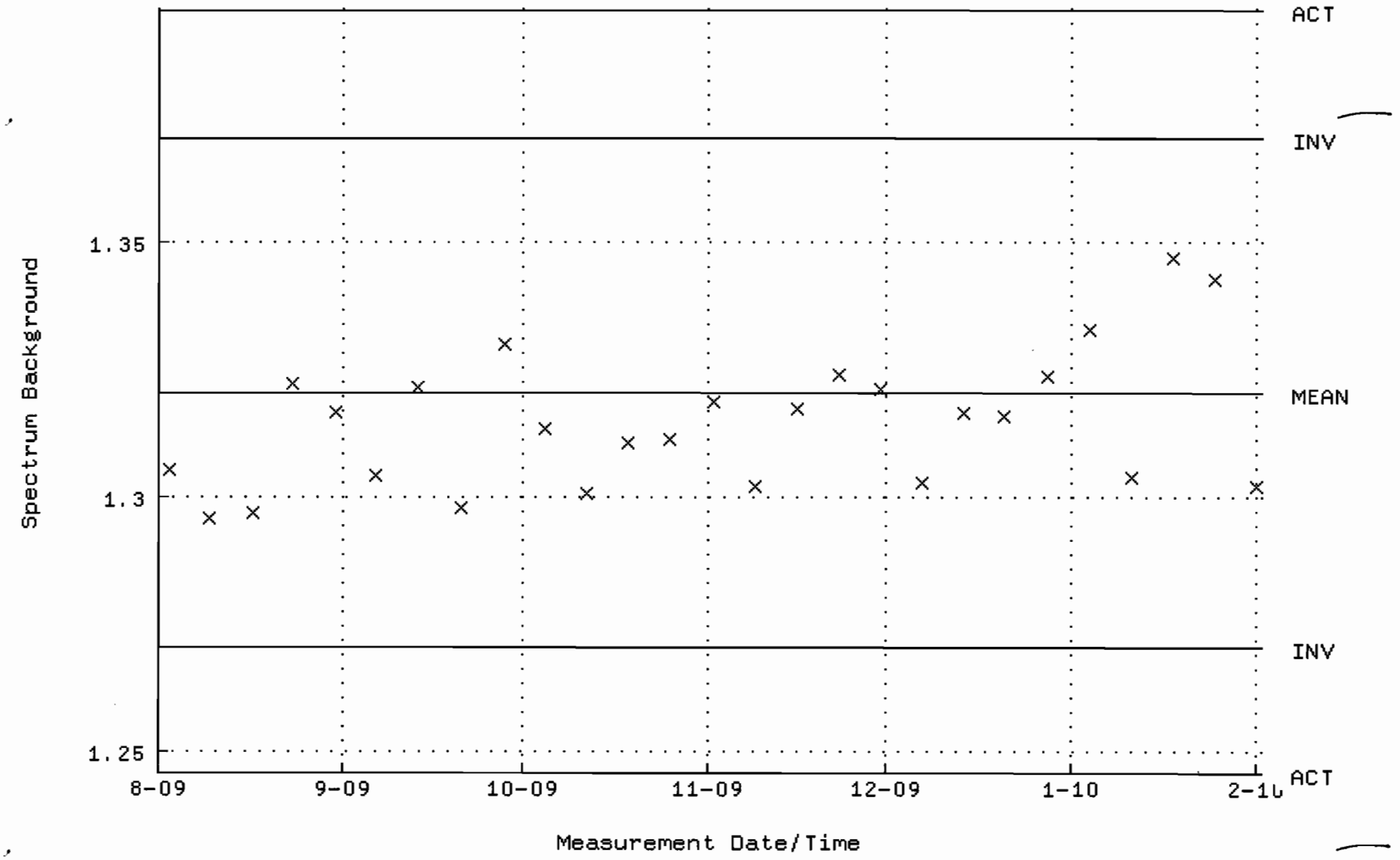
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:21:01 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)



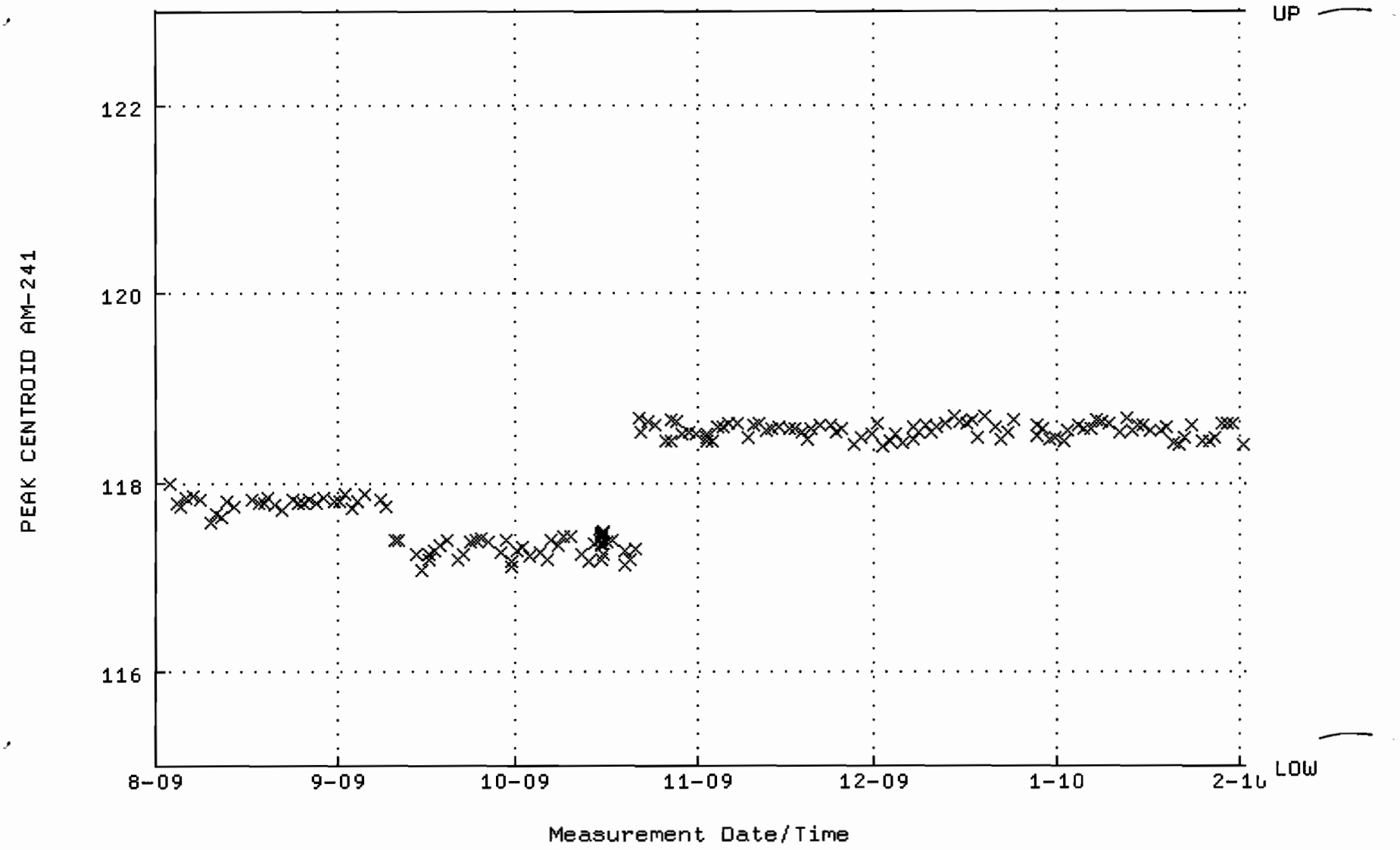
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:11:46 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



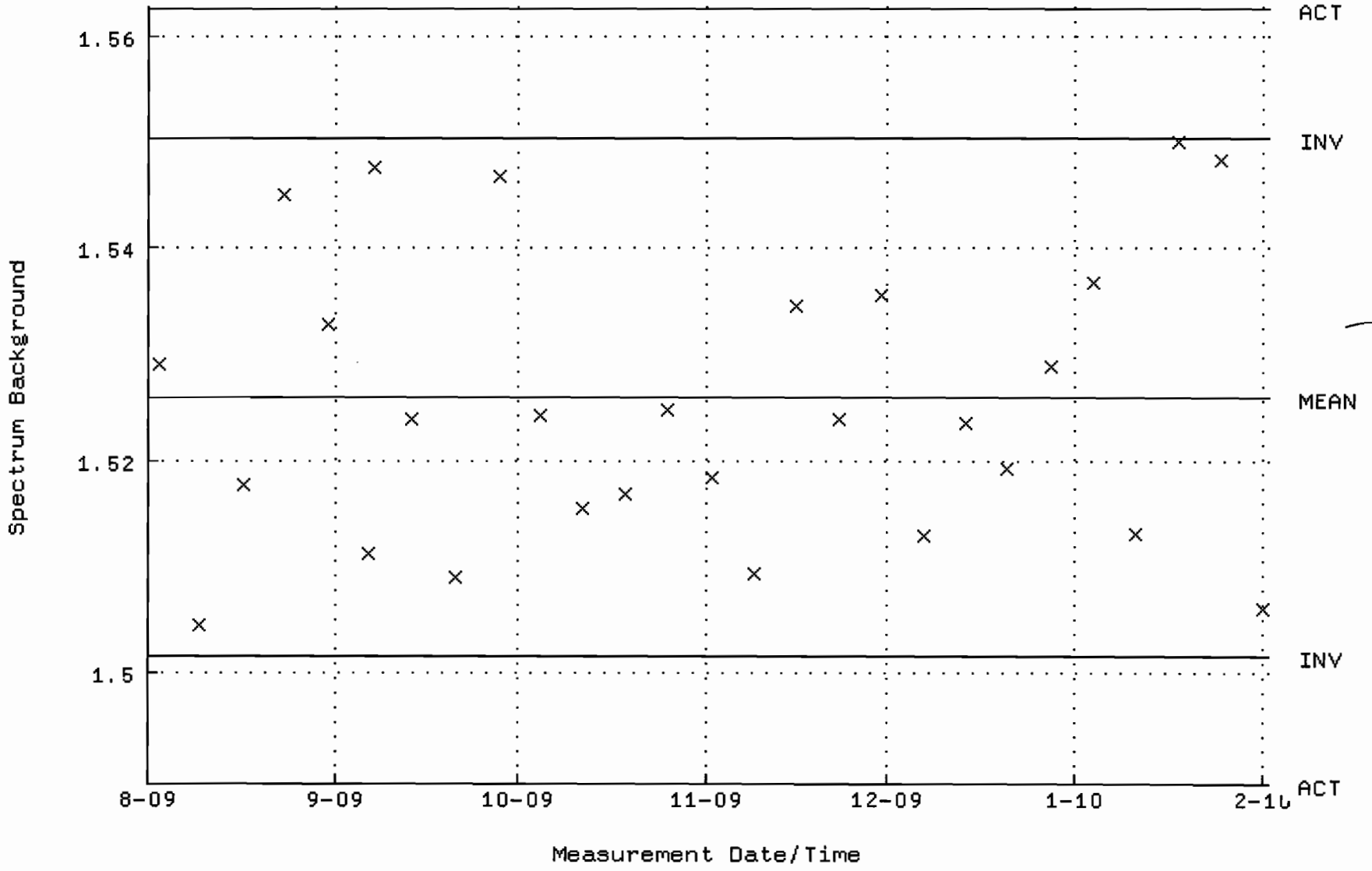
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:22:48 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)



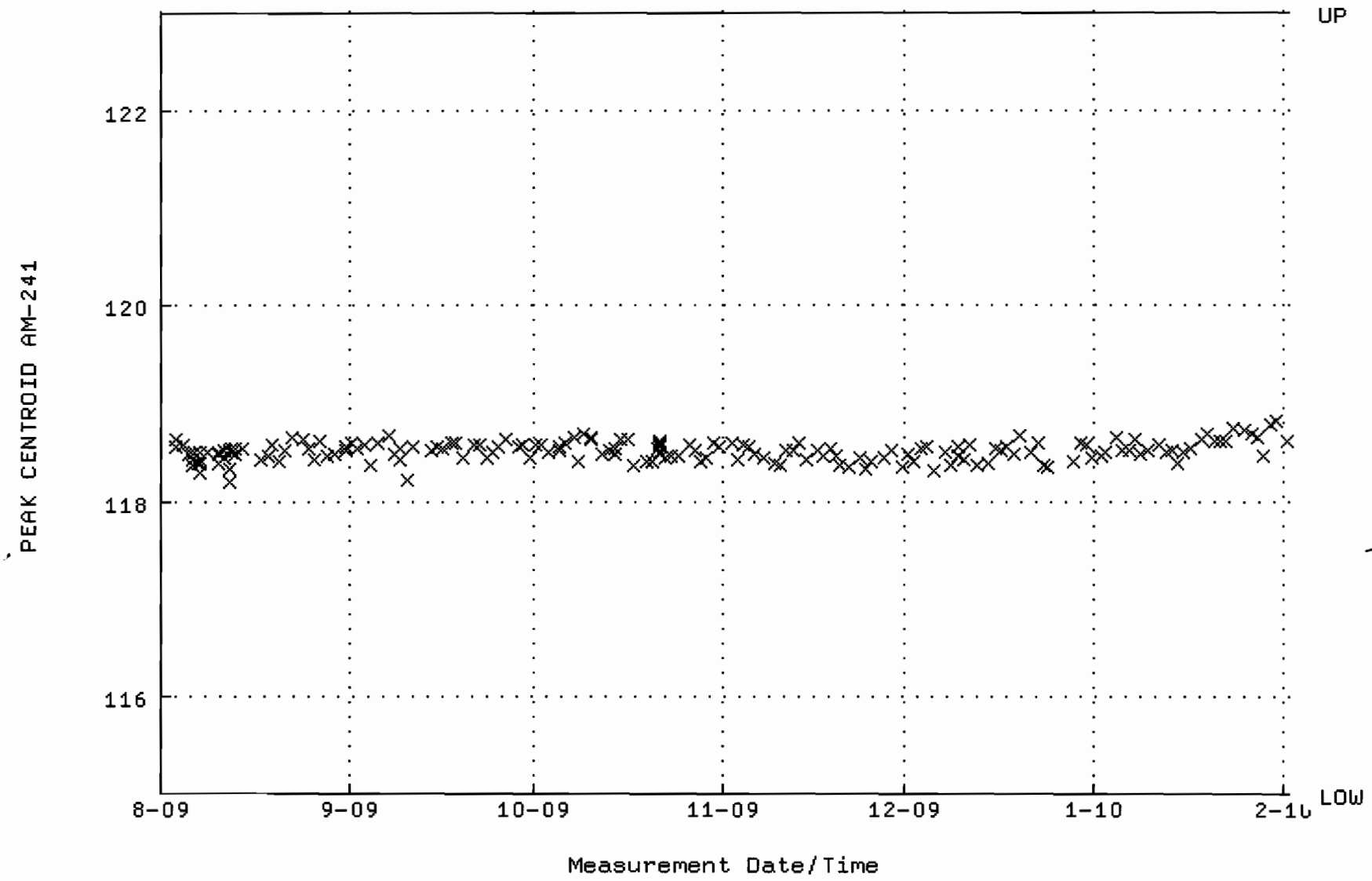
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:13:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



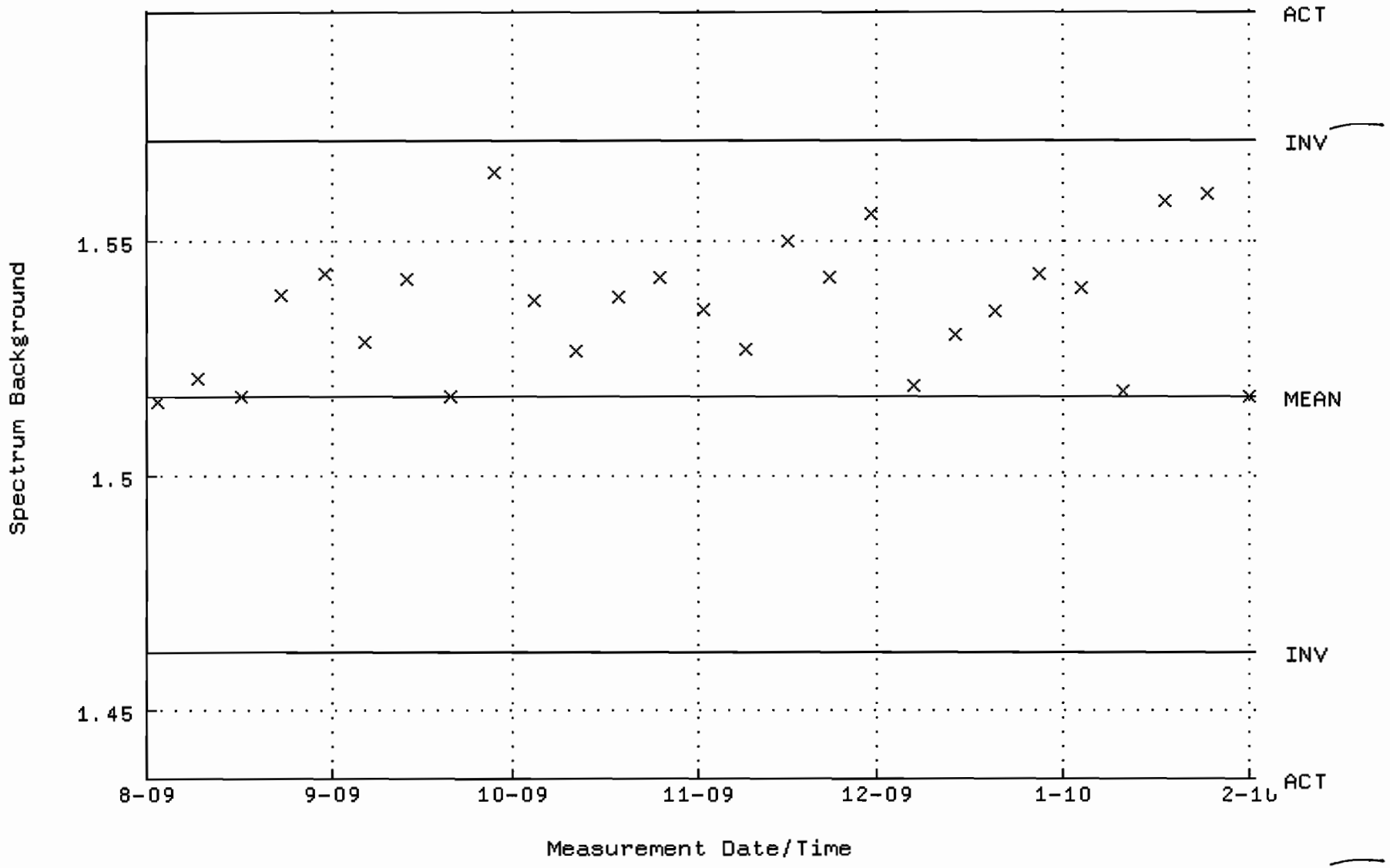
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:13 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)



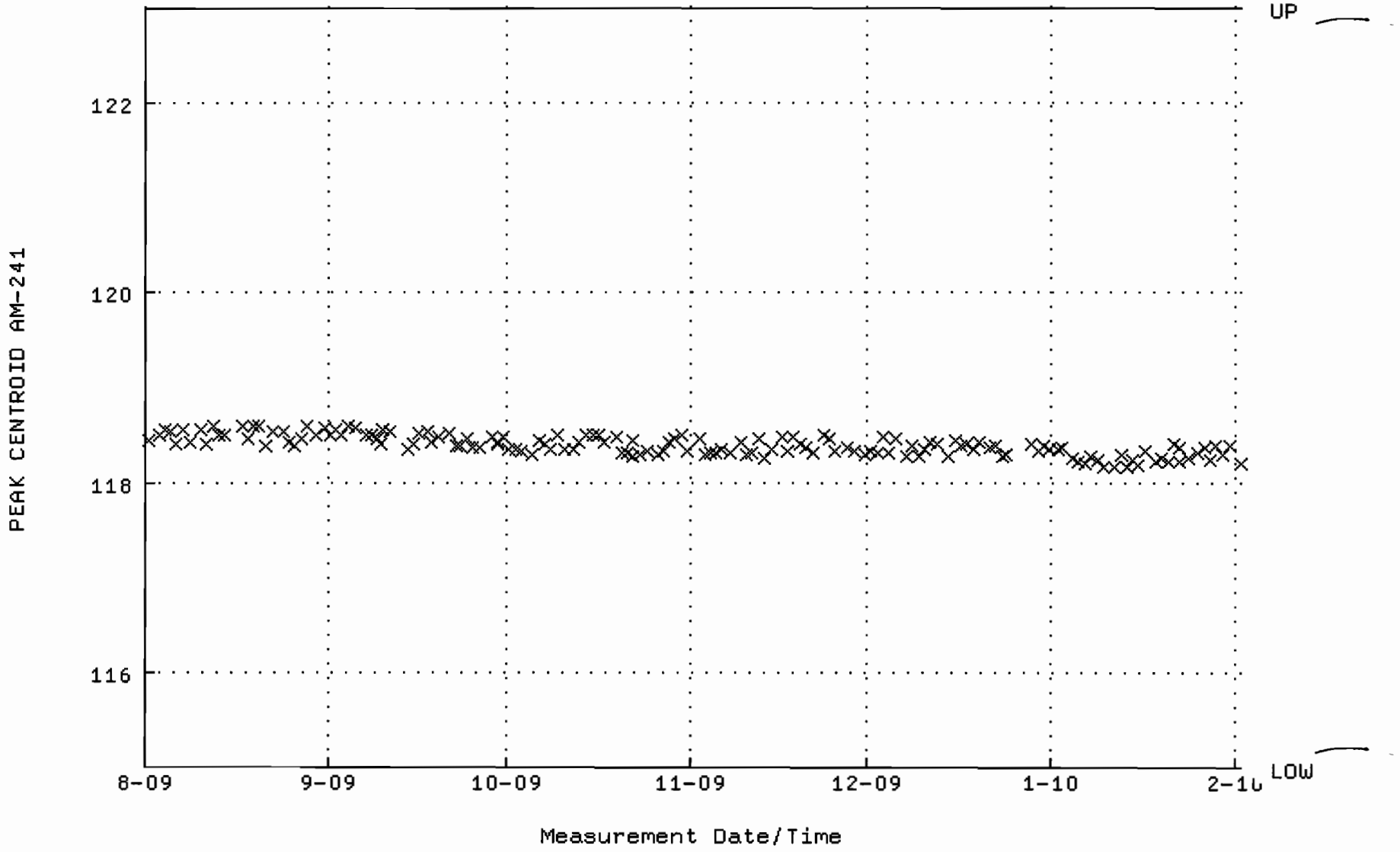
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:13:52 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



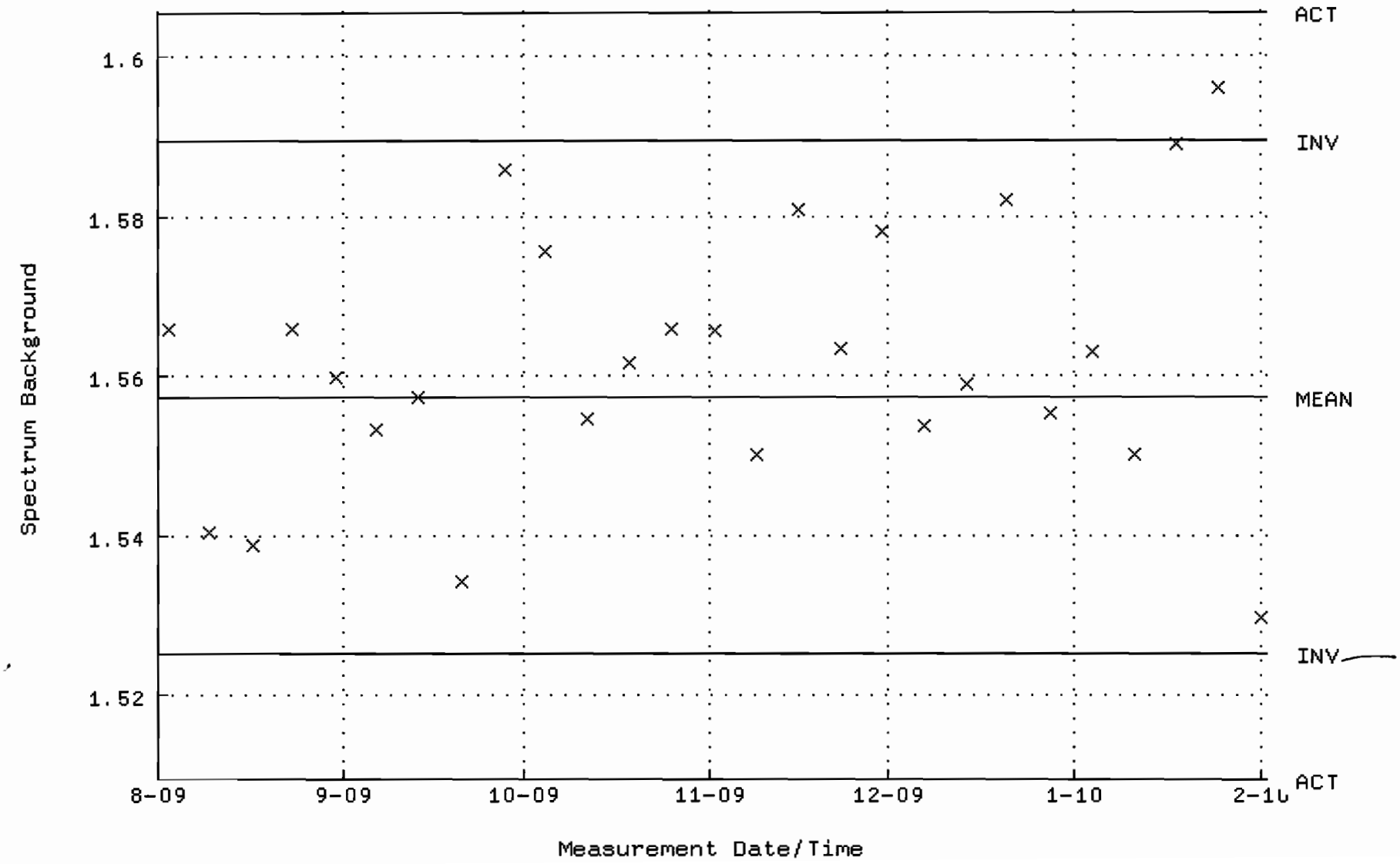
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:26 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)



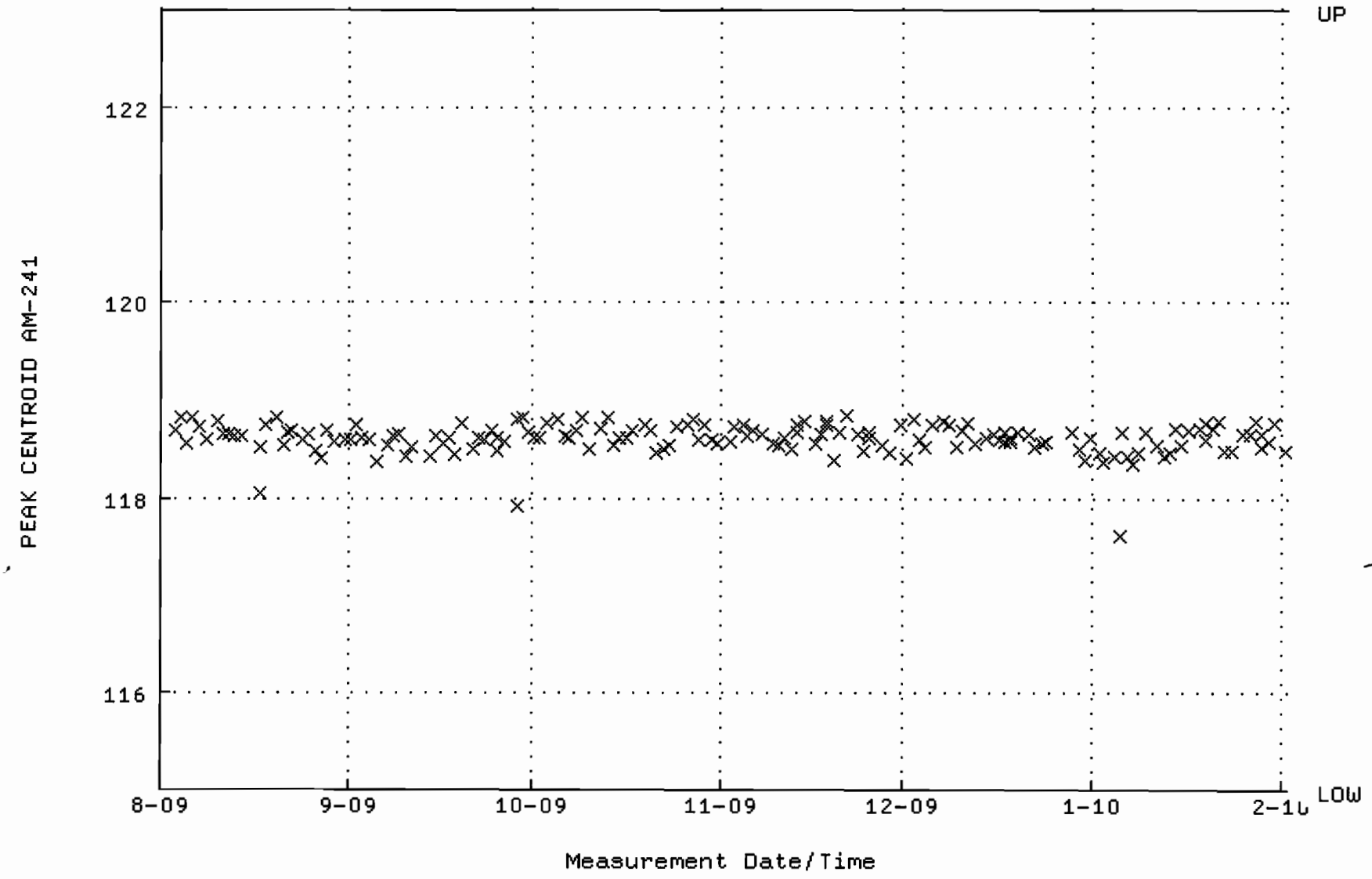
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:58:23 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



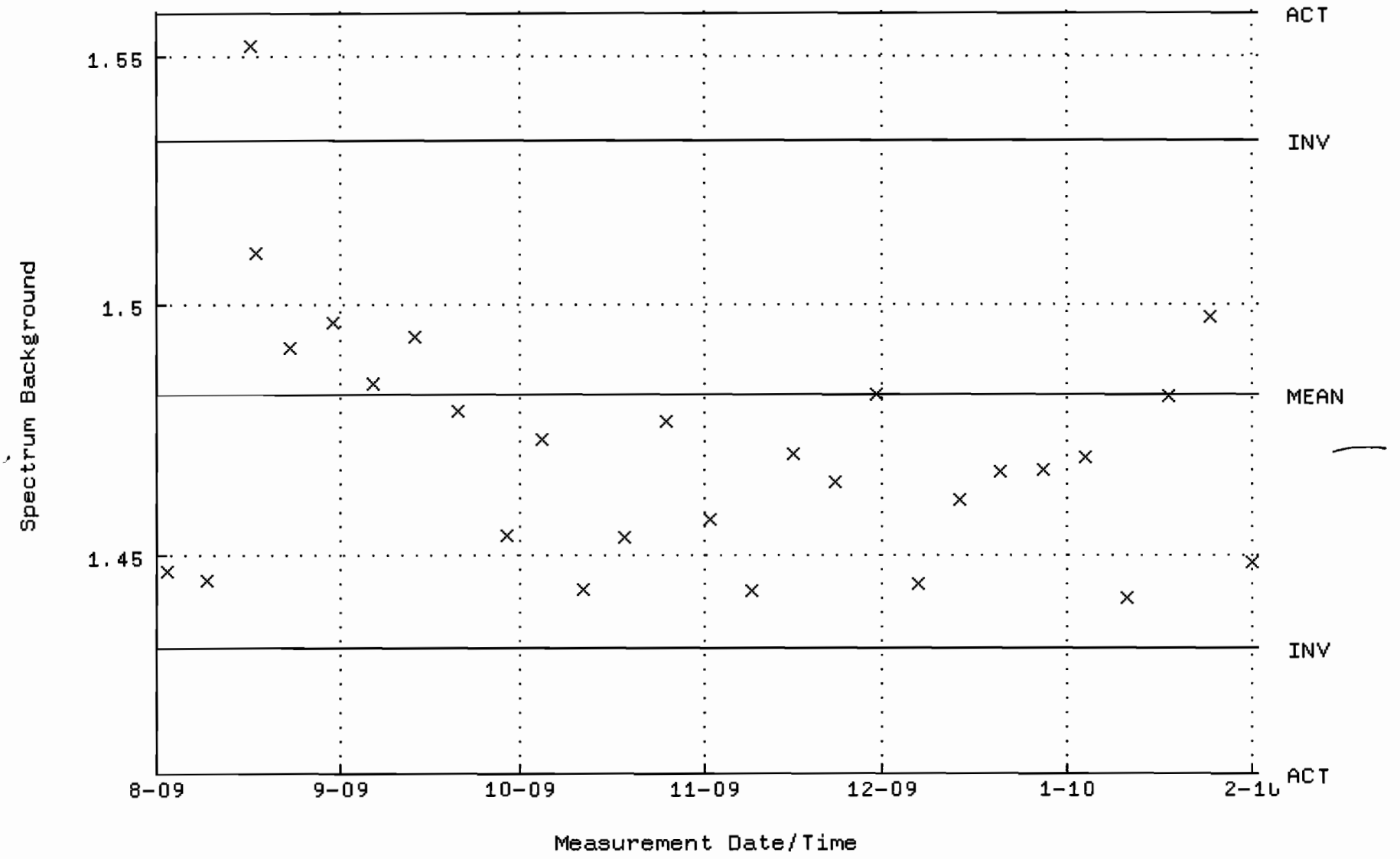
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM12.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:08 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.55746 +- 1.601675E-02 (1.03 %)



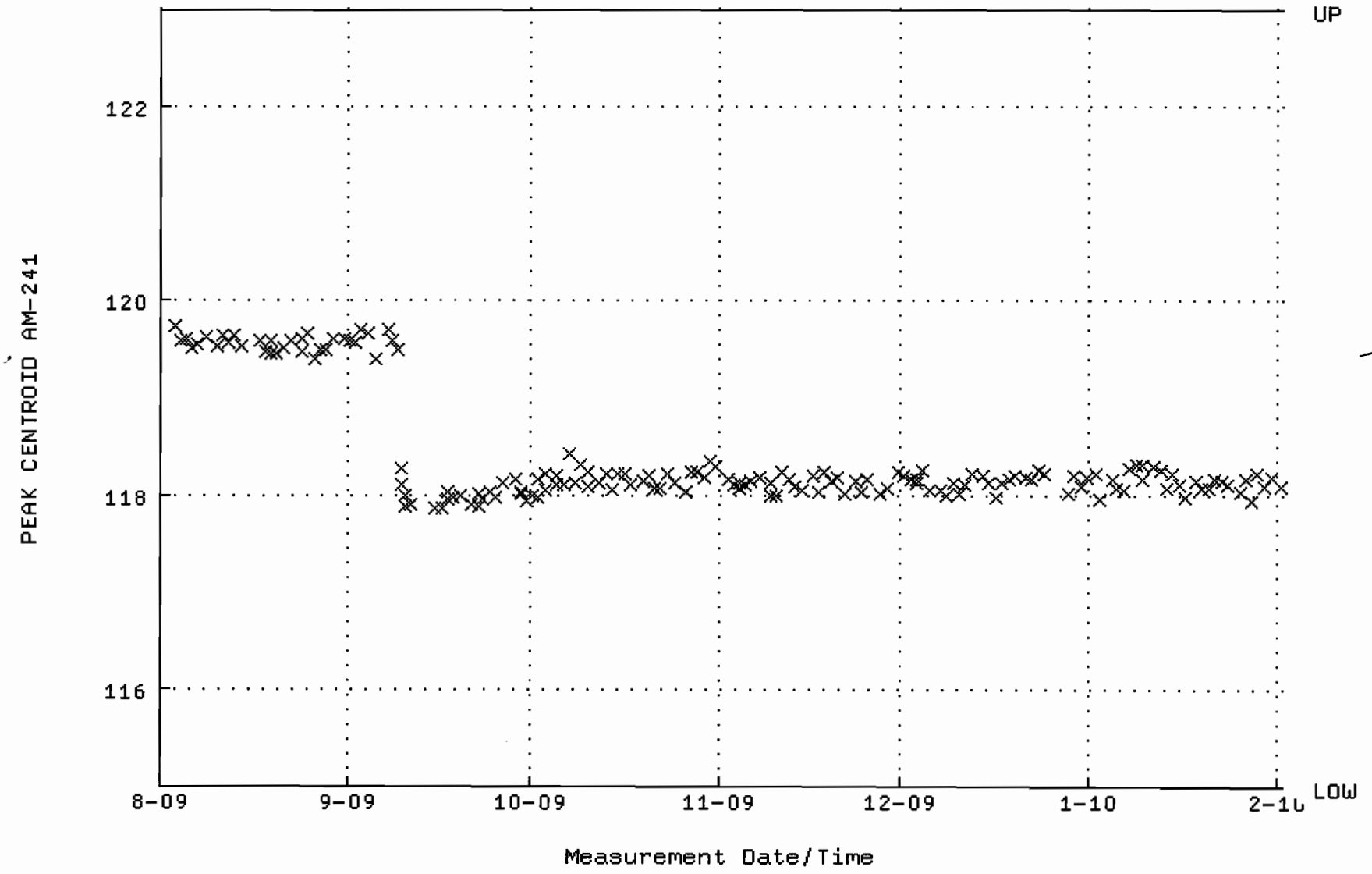
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:15:54 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



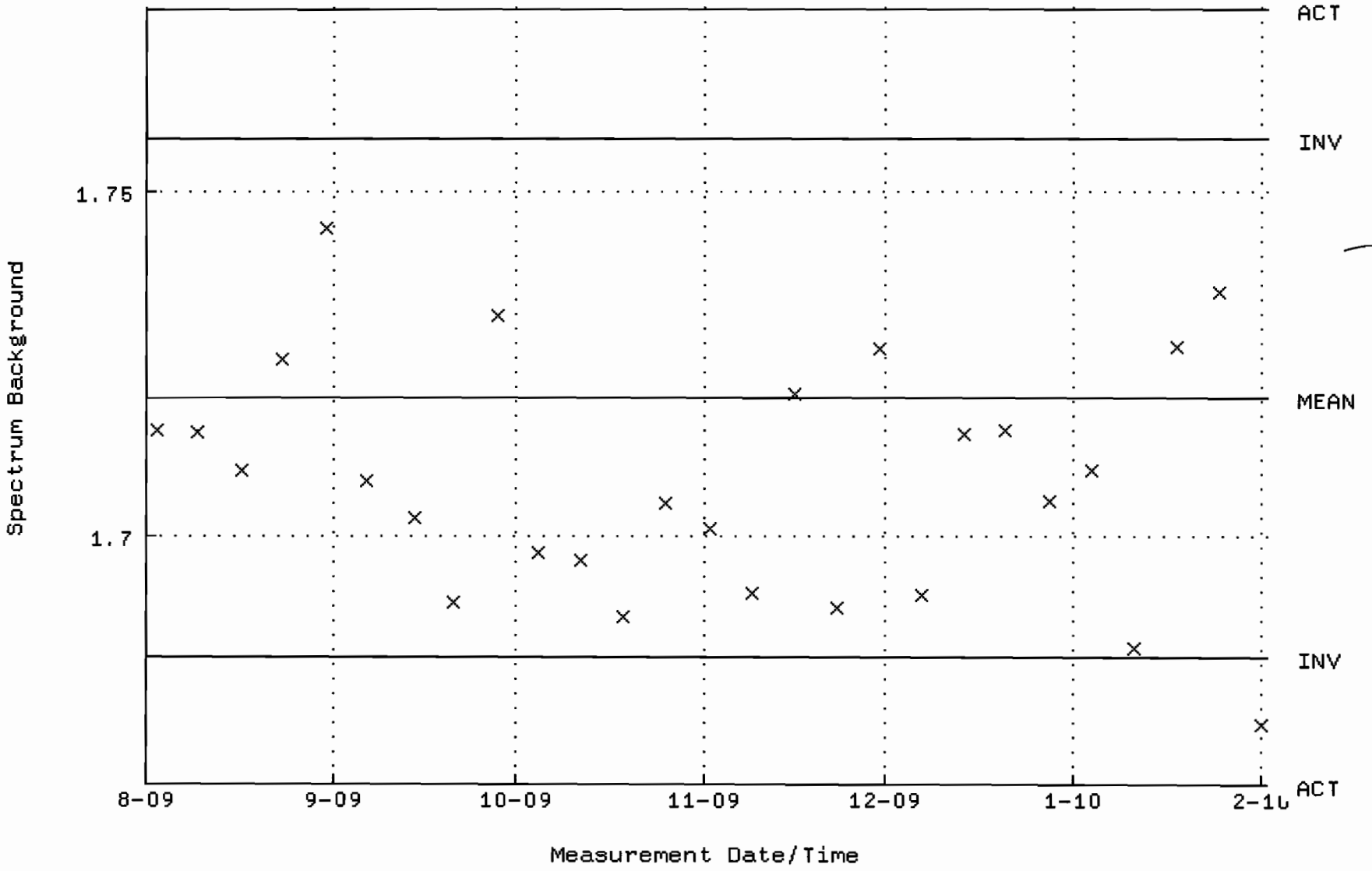
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM14.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:33 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)



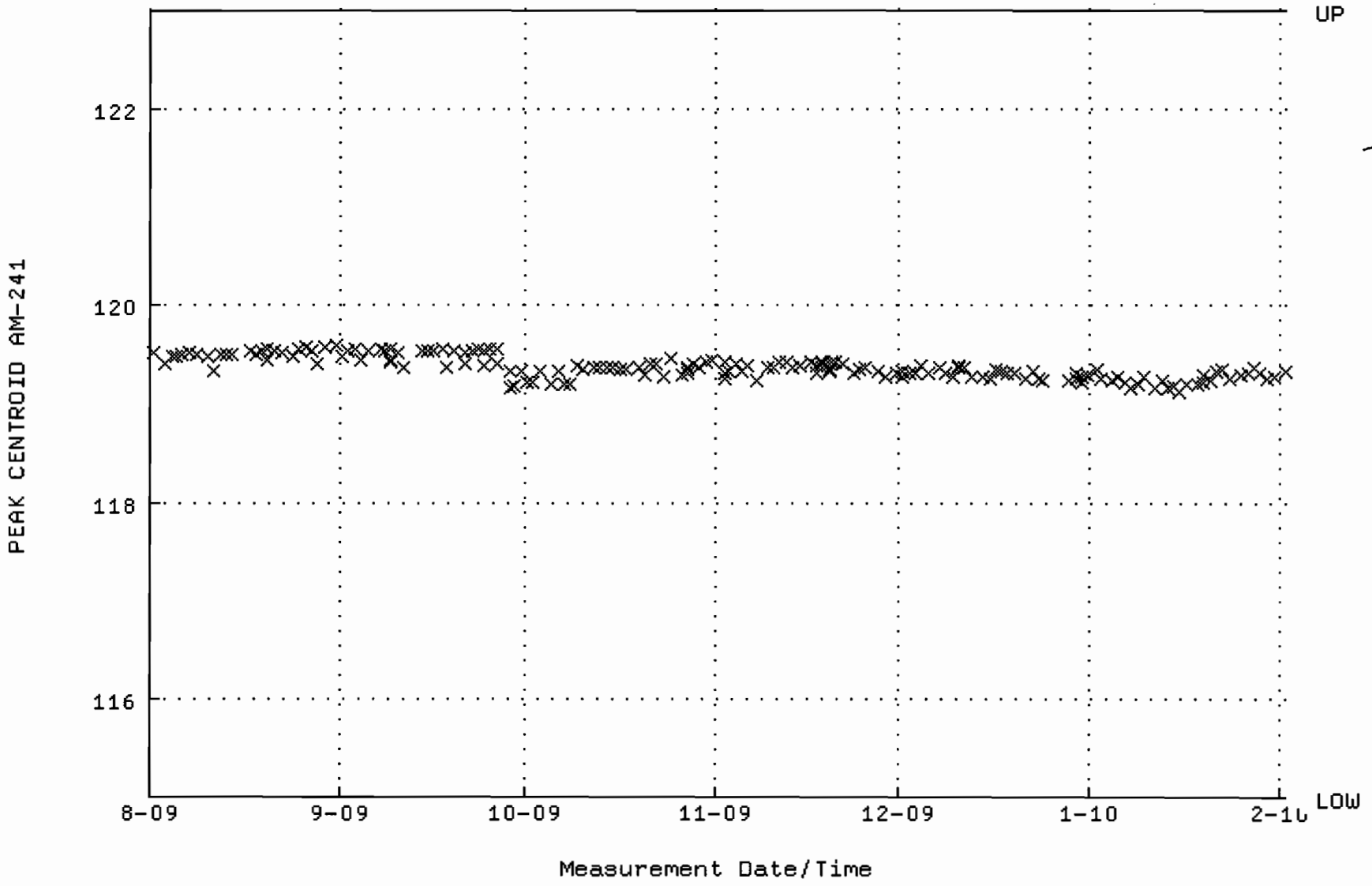
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:53:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



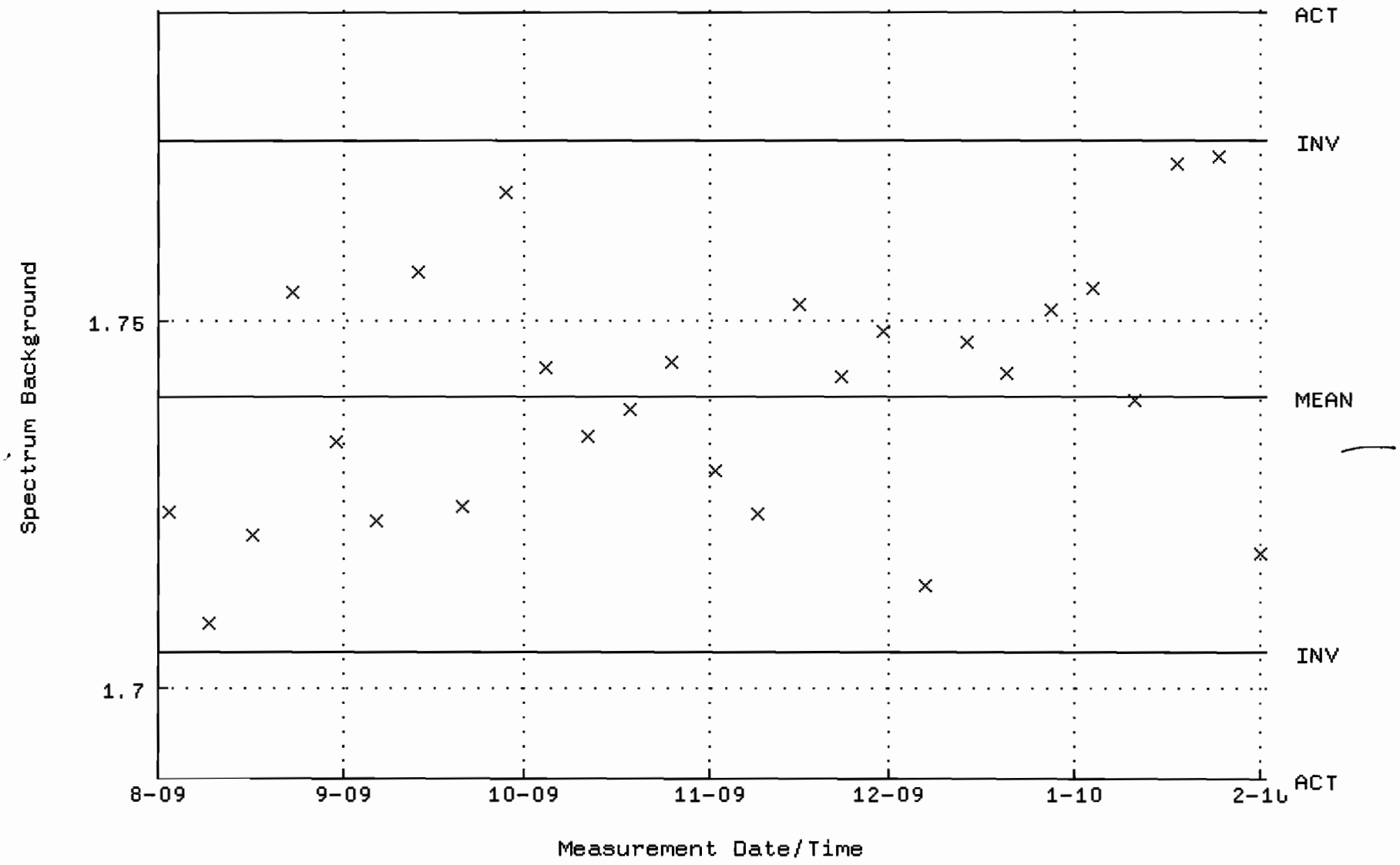
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:46 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)



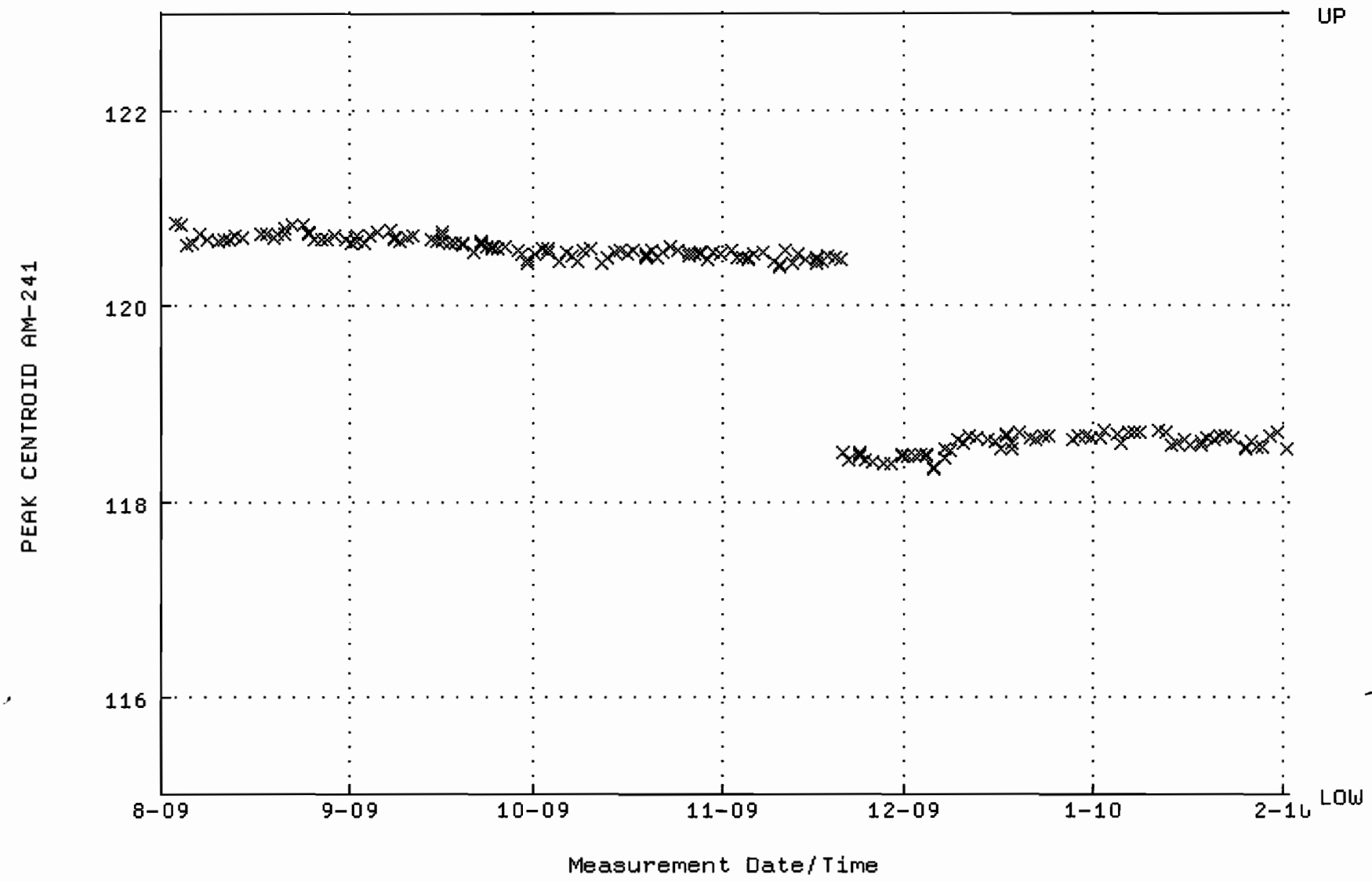
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:30 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



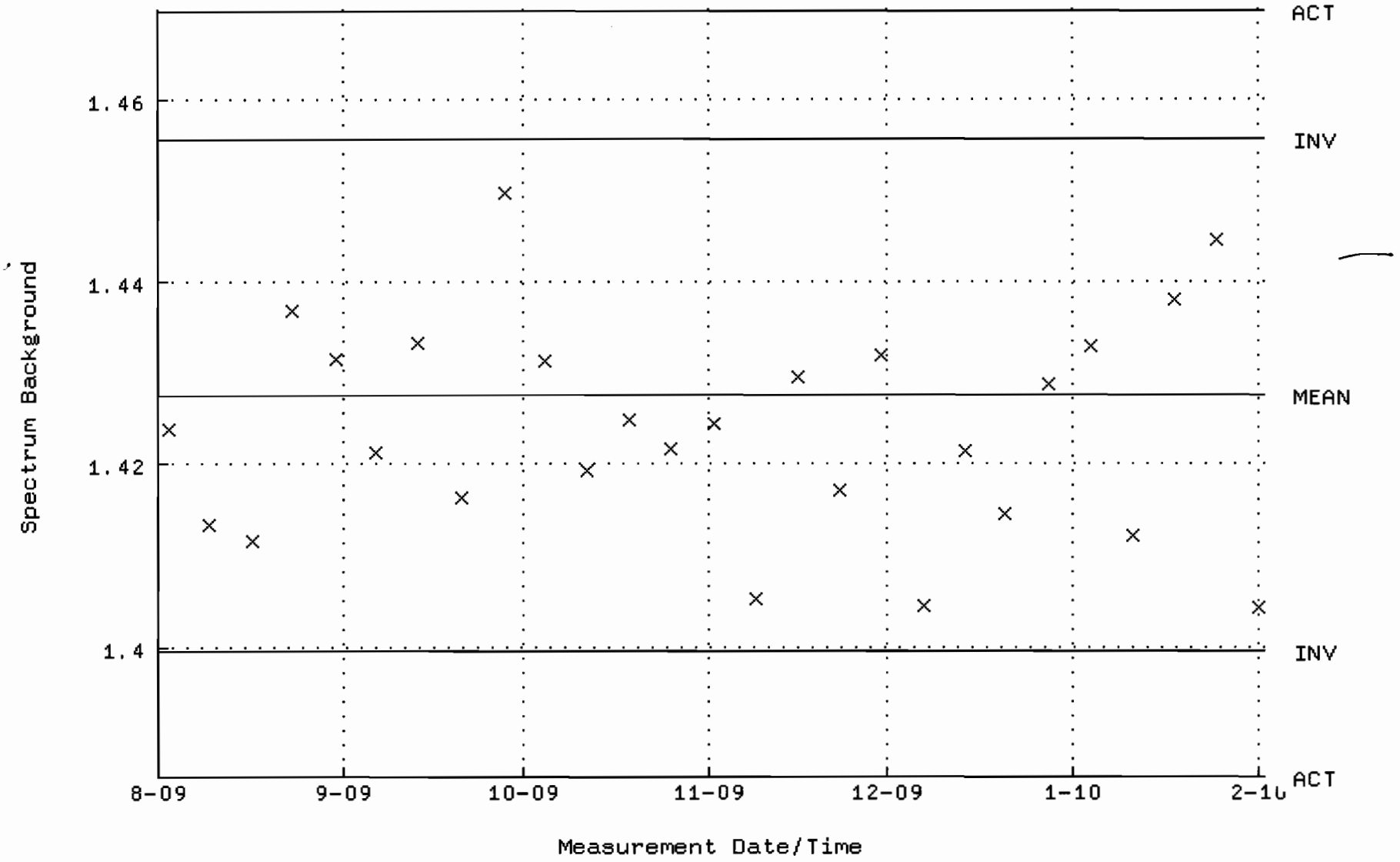
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:58 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)



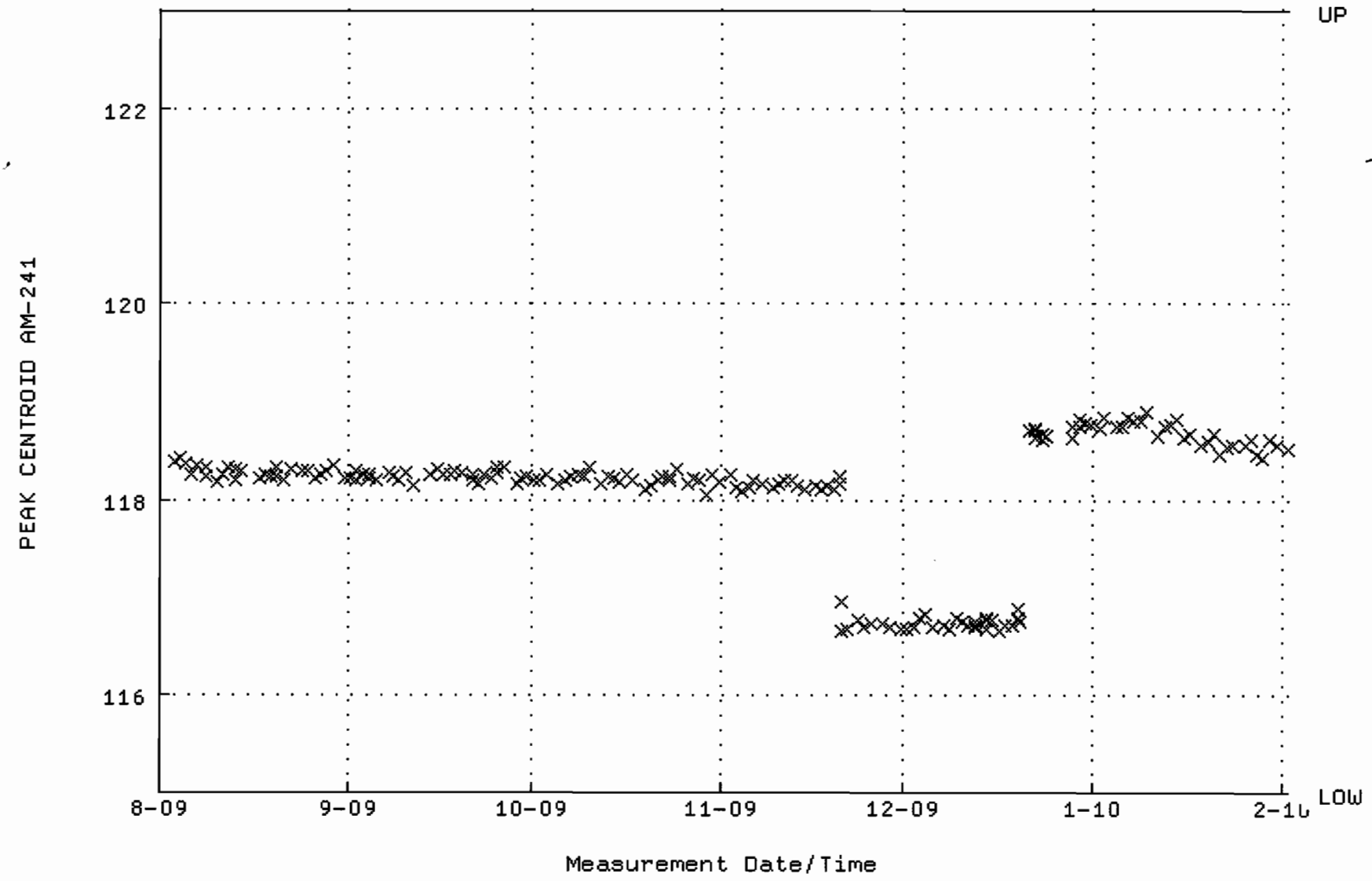
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:55:06 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



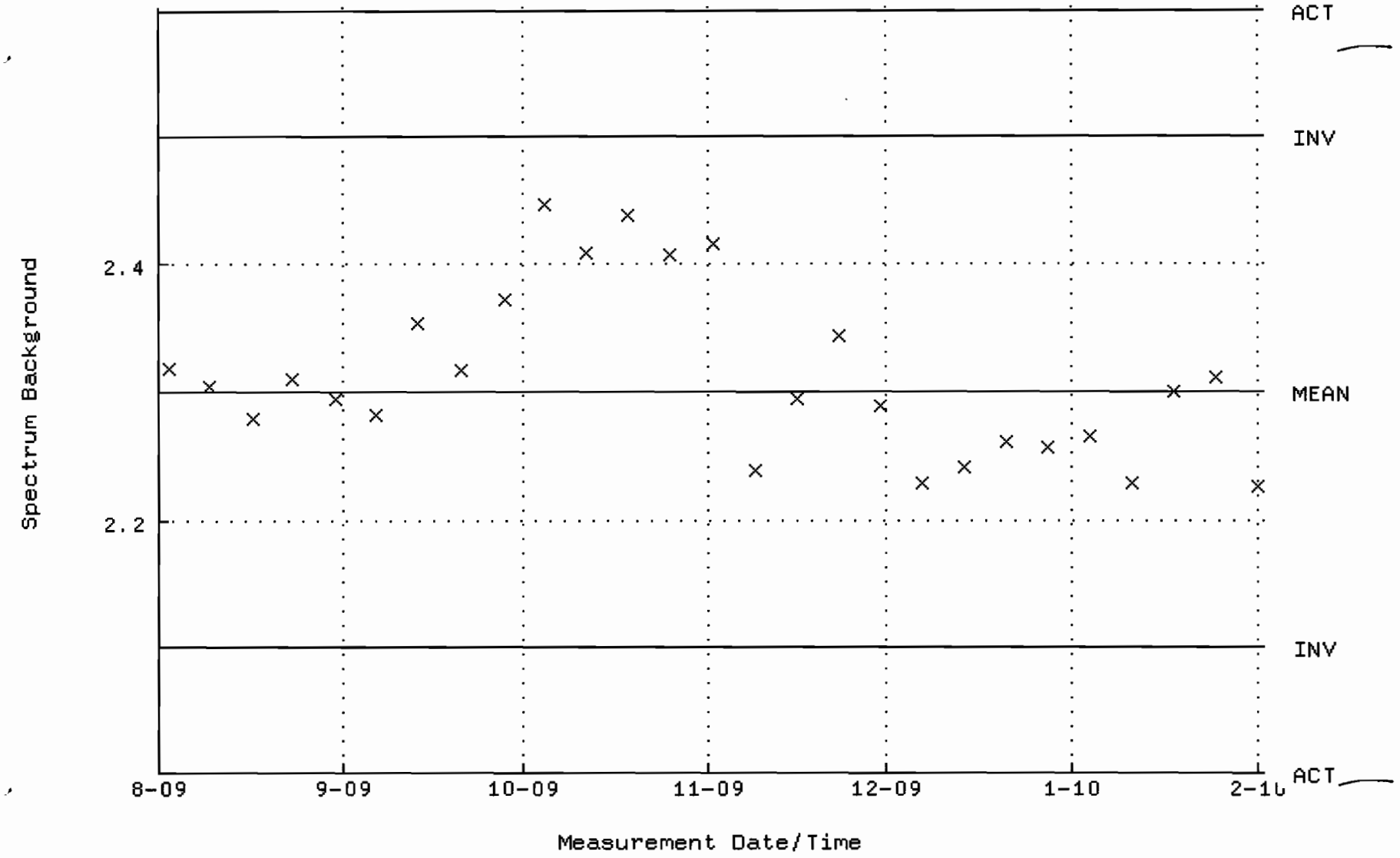
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:10 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)



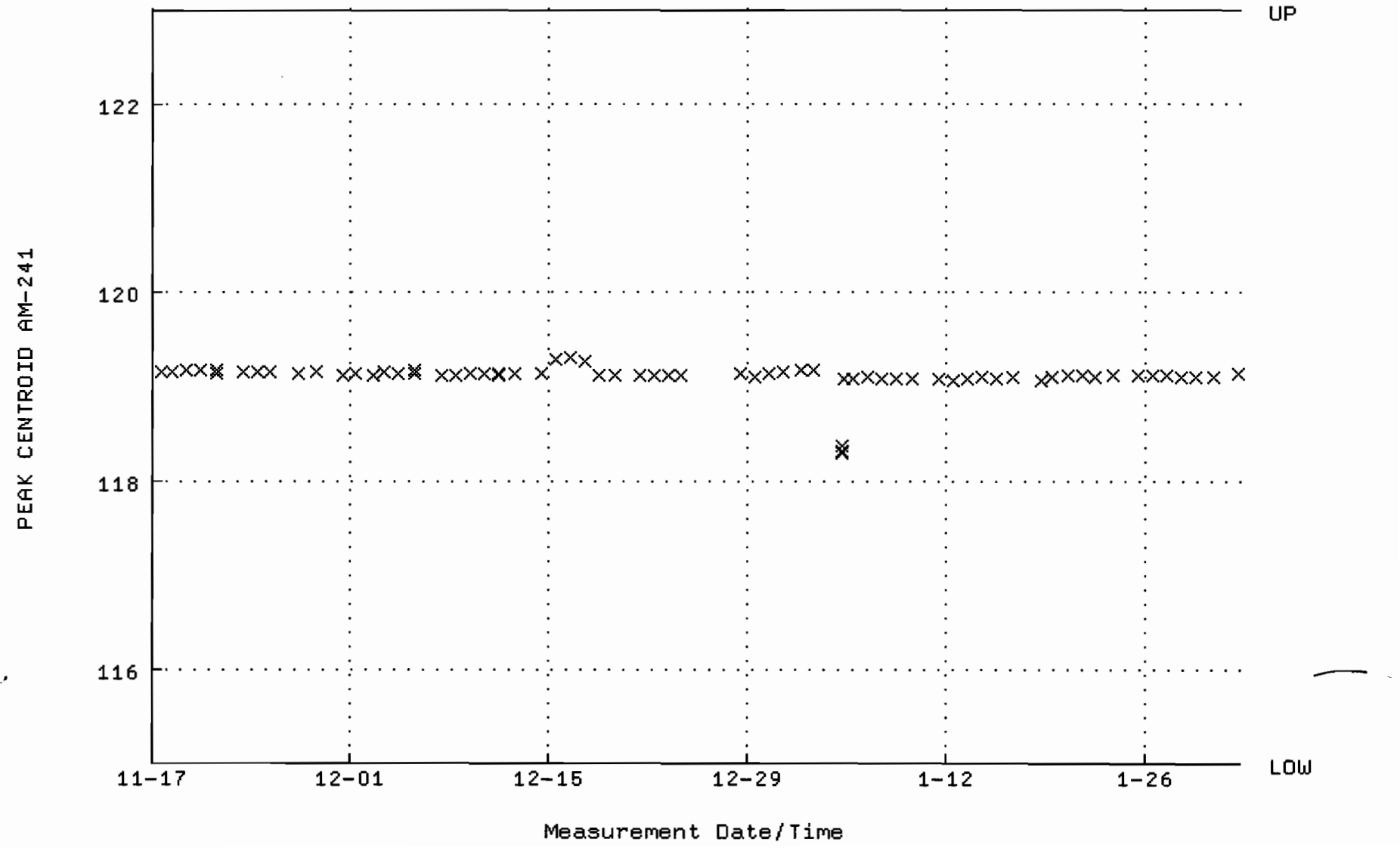
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:02:47 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



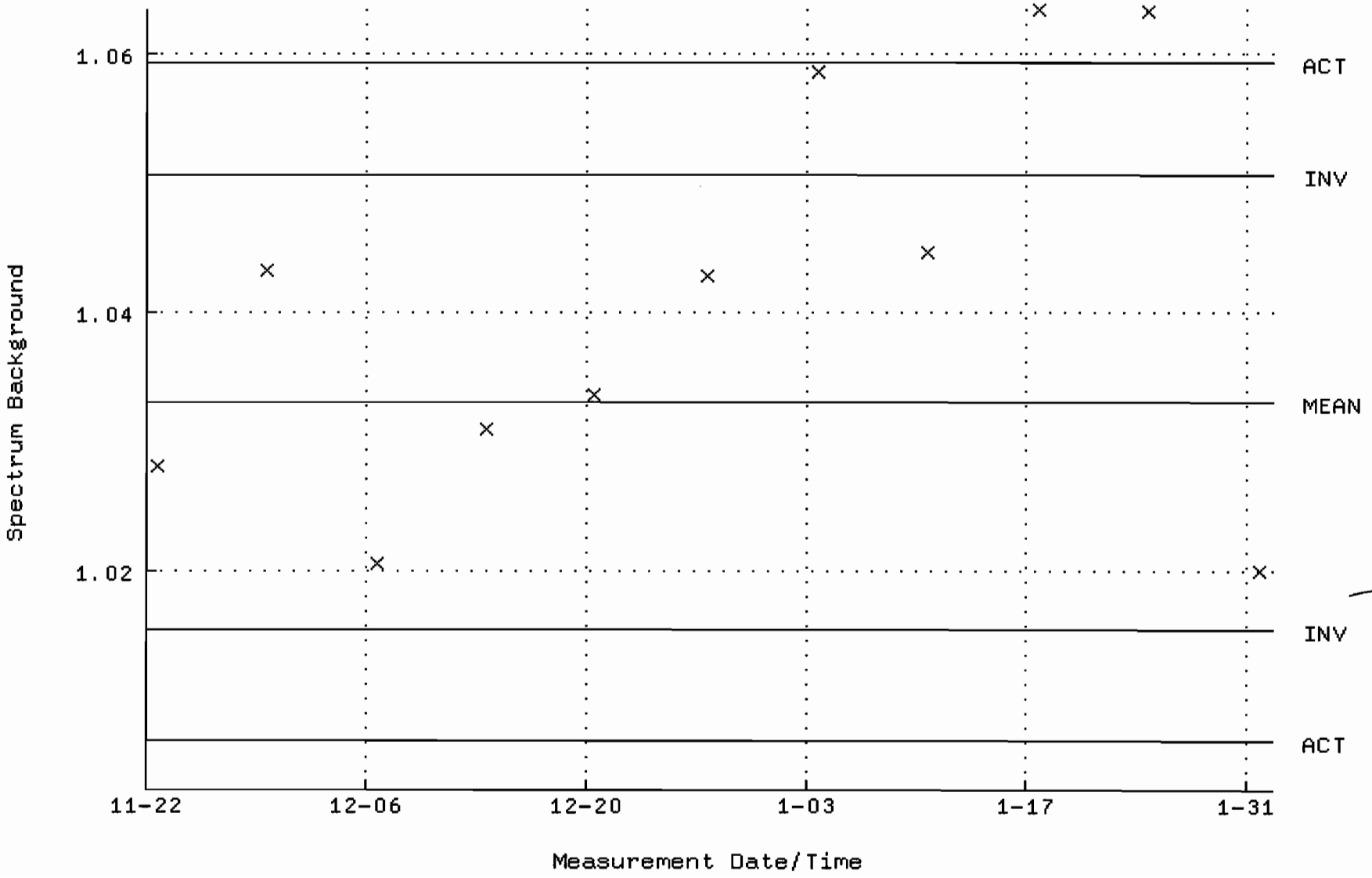
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:23 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)



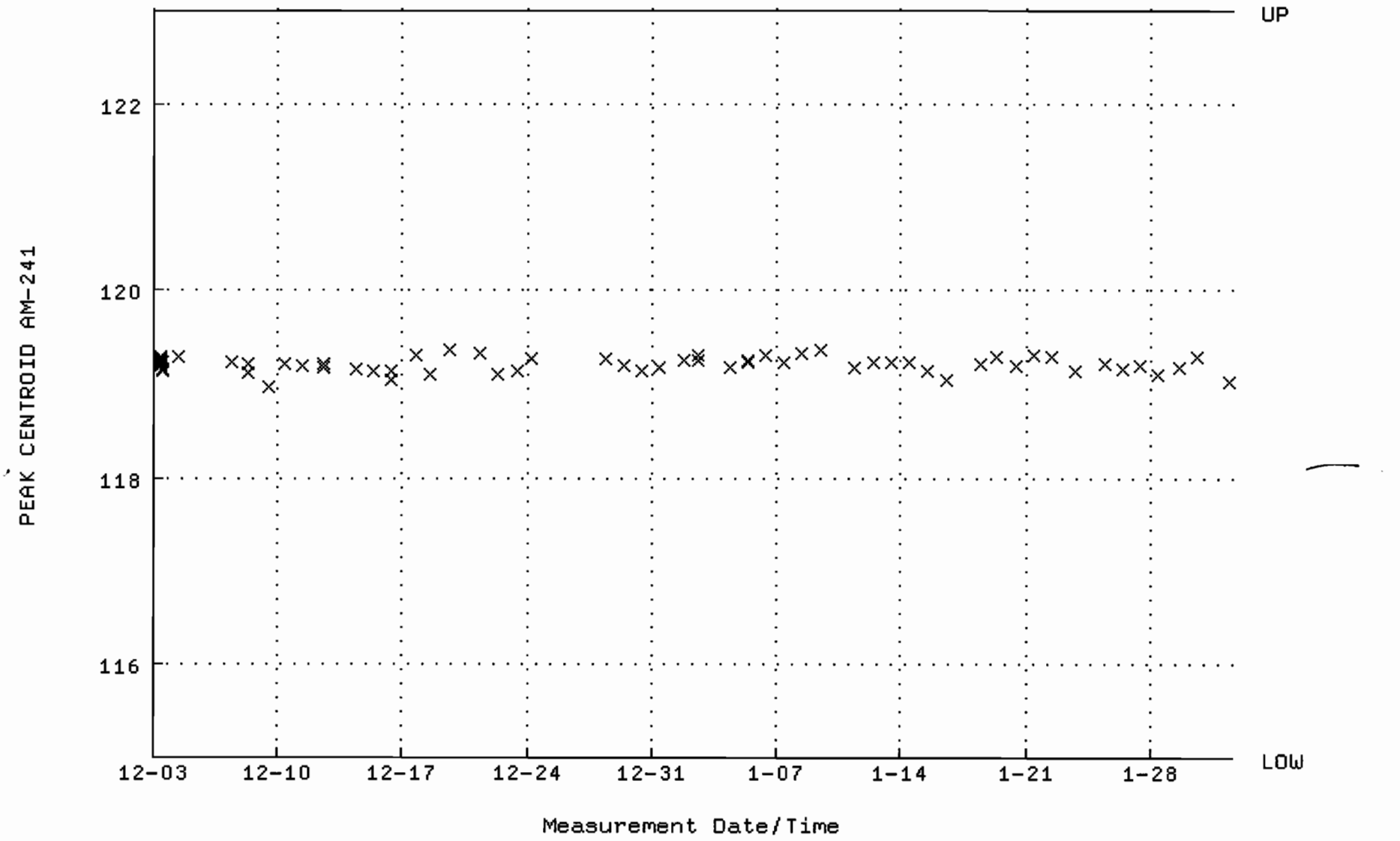
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 17-NOV-2009 15:50:12 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



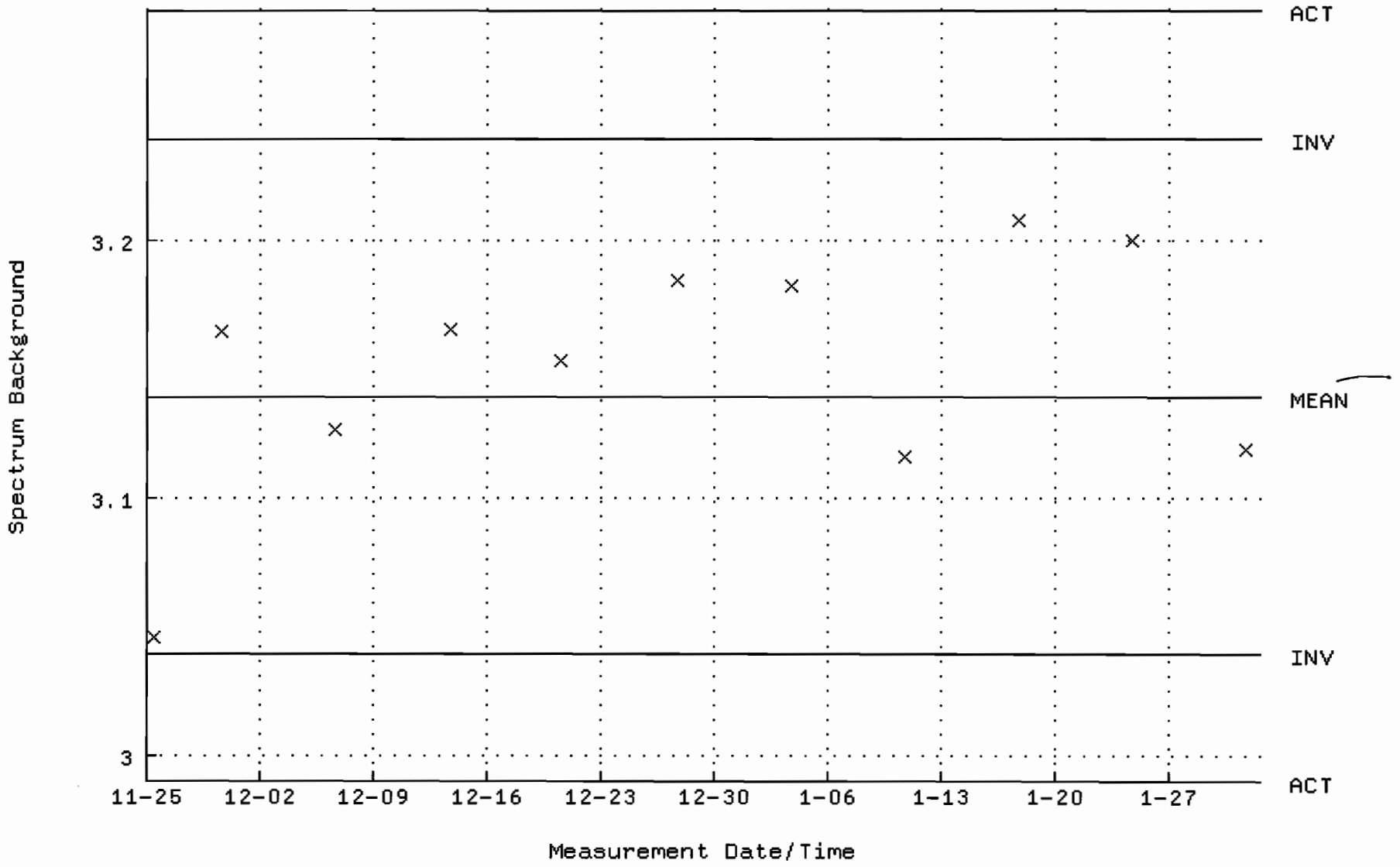
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM21.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 22-NOV-2009 17:05:16 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.03312 +- 8.784250E-03 (0.85 %)



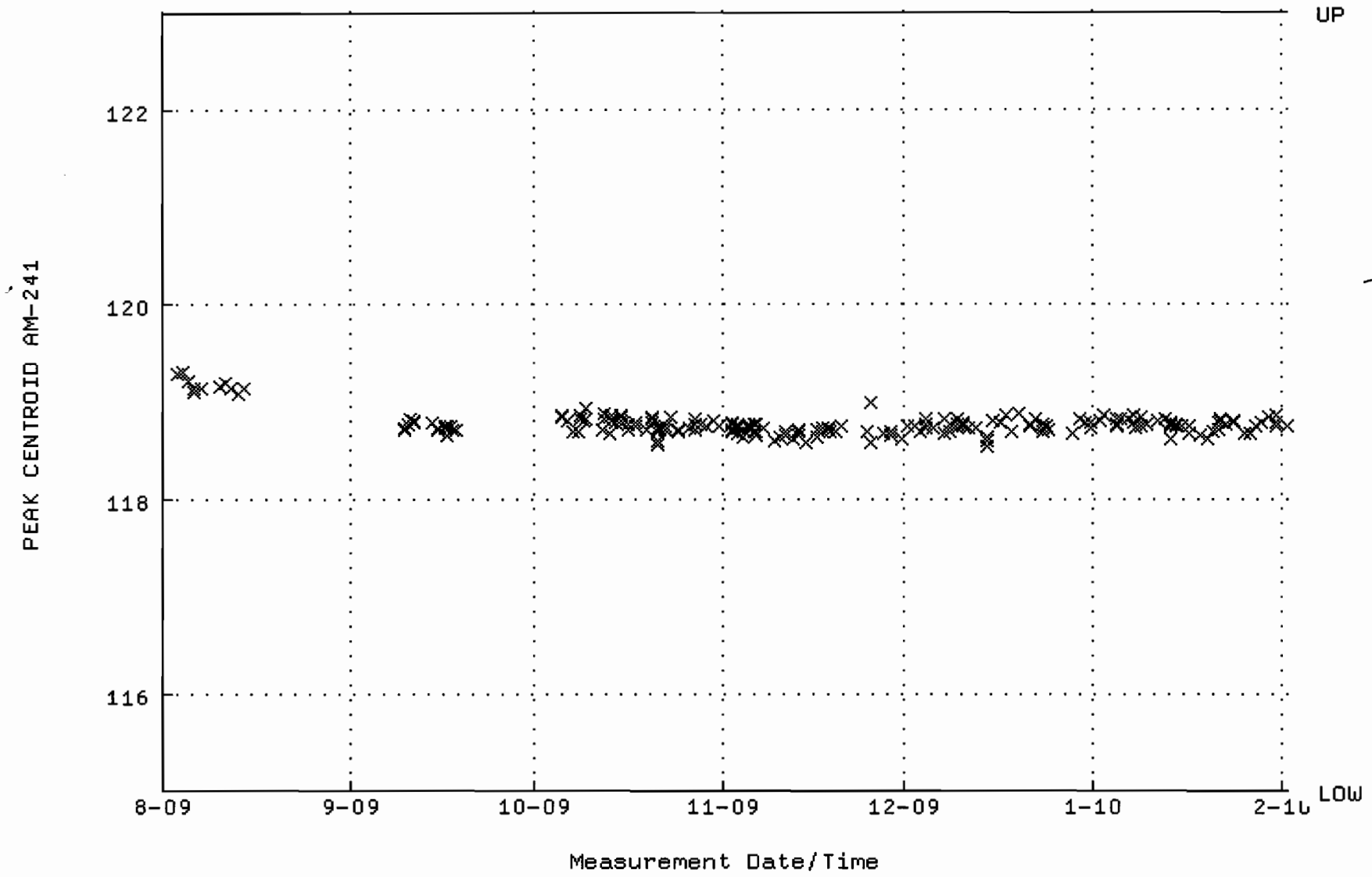
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



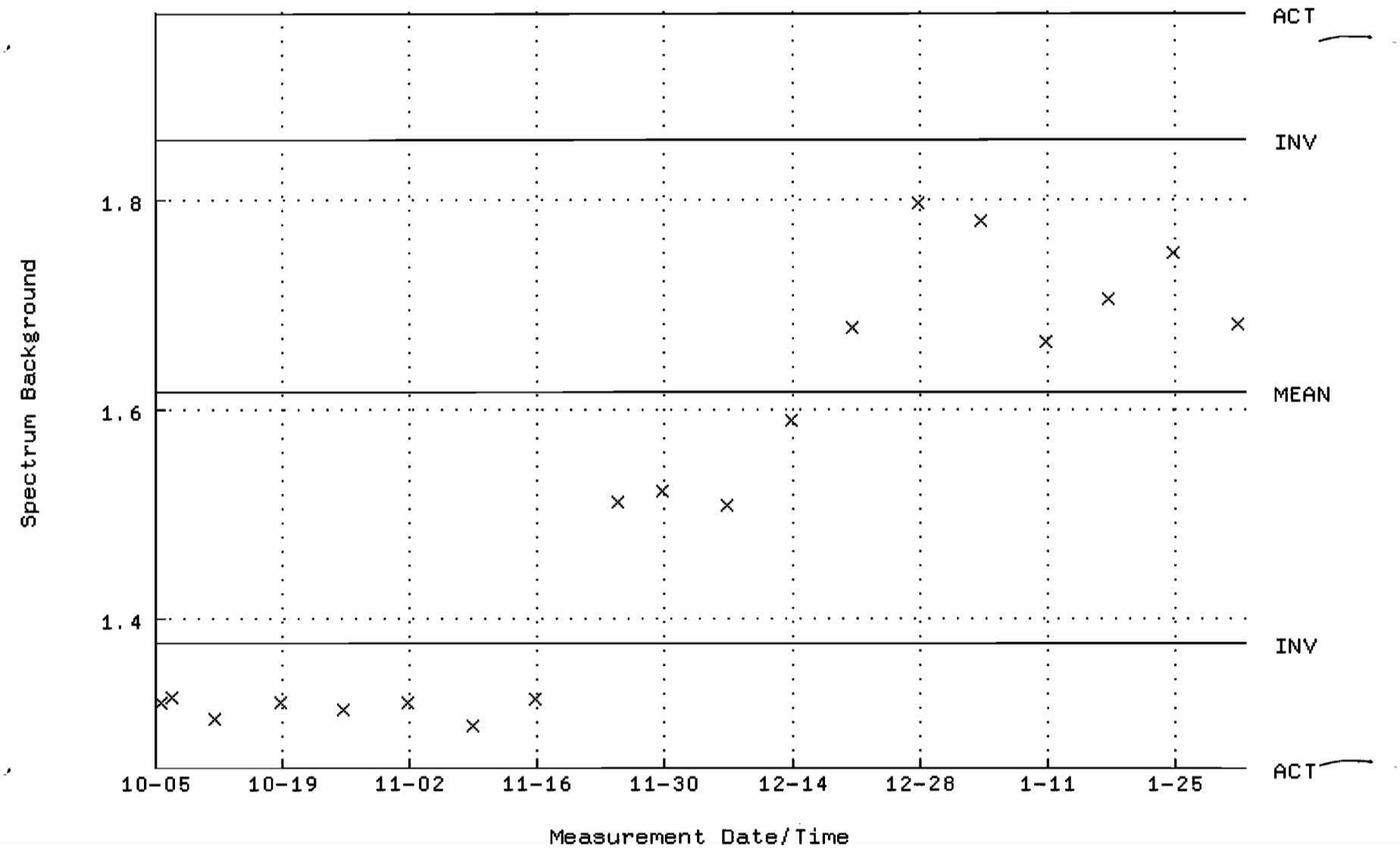
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)



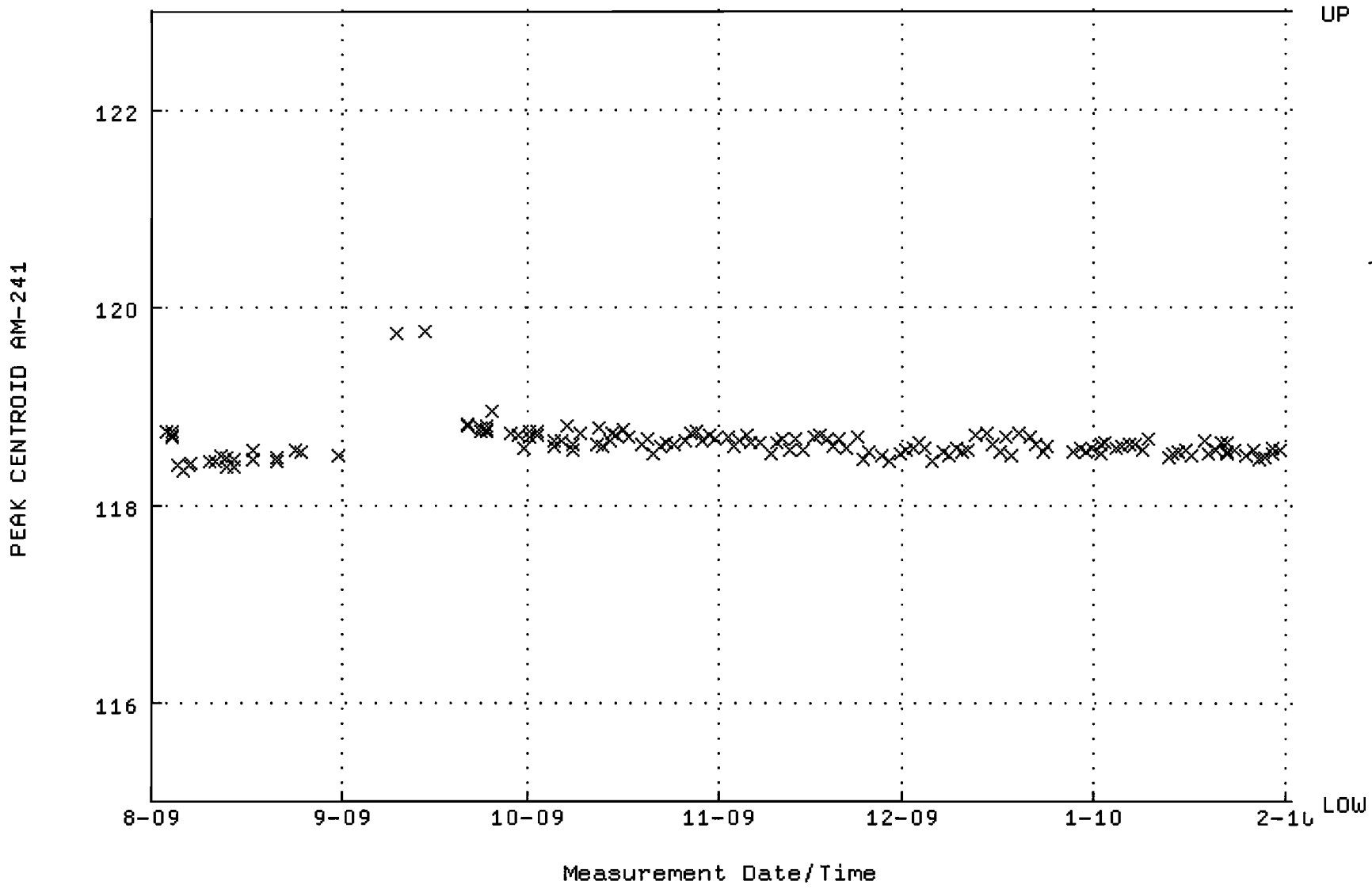
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:16:07 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



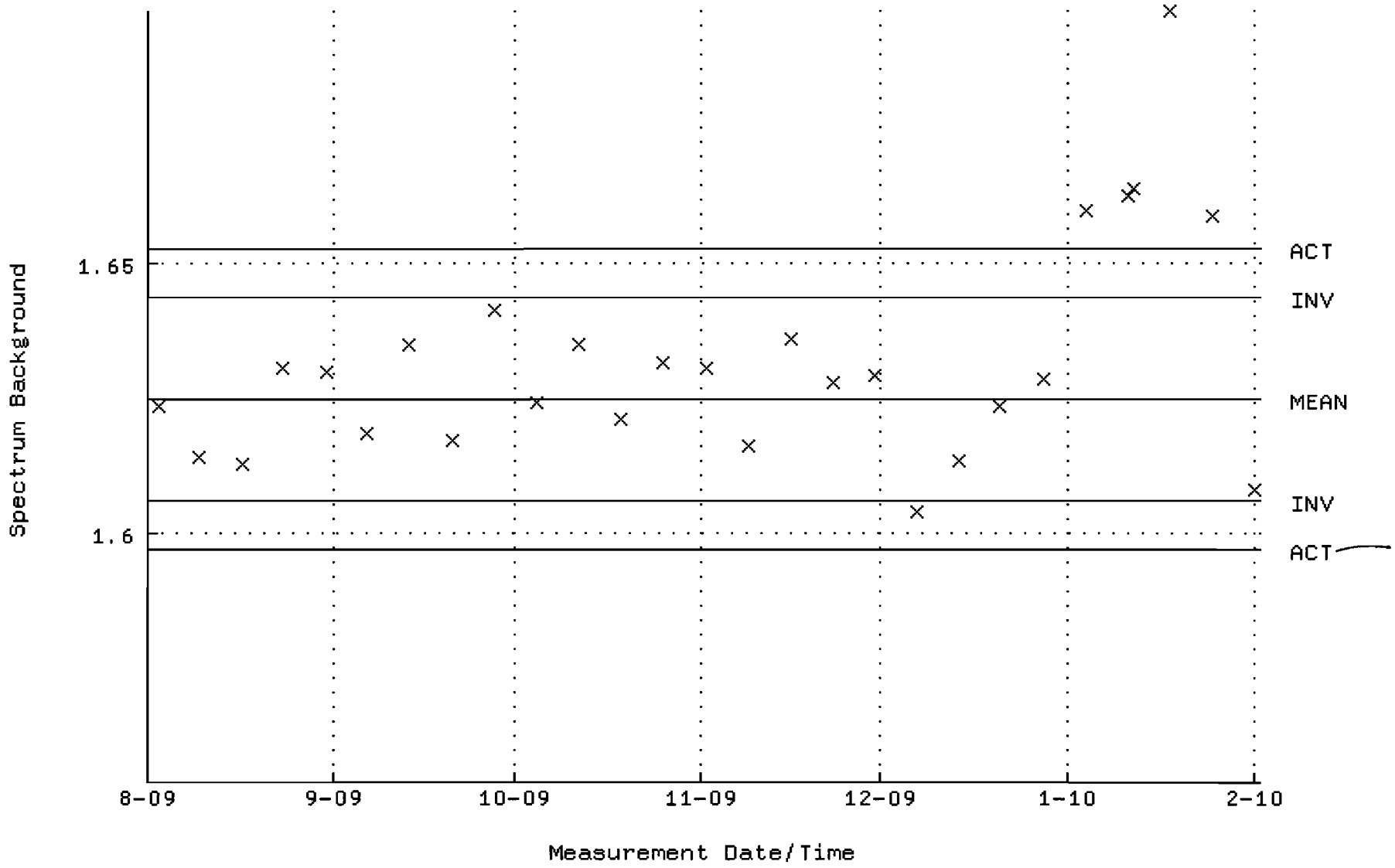
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)



QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM25_2LMB.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:11:17 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM25.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:26:41 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.62502 +- 9.370414E-03 (0.58 %)



STANDARDS DATA

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
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www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 witness/Initials 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAB-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAB-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAB-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 independent verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 reviewed D. Stevens 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Jeff C Reid 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples MIXTH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log In

9911627-01 -> 05

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 952647494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location
Tech Area VI
Building N/A
Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Reference LOV (available at SMO): Sample Matrix	Container: Type	Container: Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE: Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐ Yes ☒ No Ref. No.
Sample Disposal ☐ Return to Client ☒ Disposal by lab
Turnaround Time ☒ Normal ☐ Rush Required Report Date

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by
QC Initial

Special Instructions/QC Requirements
EDD ☐ Yes ☒ No
Raw data package ☐ Yes ☒ No
These "samples" are soil characterization mud materials being sent to GEL on behalf of Hack Minteer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) | 1st Copy To Accompany Samples, Return to SMO (Blue) | 2nd Copy SMO Suspense Copy (Yellow) | 3rd Copy Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATE 4/14/2000

Amanda L. Fehr 4/30/04
Just a check 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 05

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 7926794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI
Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Reference LOV (available at SMO): Sample Matrix	Container: Type	Container: Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE: Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking LAB/SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are quality characterization and materials being sent to GEL on behalf of Hank Meister
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org.	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution:	5.3739 g (in a 5 ml Flame Sealed Ampoule)	
b. Chemical form:	Am(NO3)3 in 2N HNO3	
c. Carrier content:	None added	
d. Density:	1.0651	g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under:	228, 278	keV.
Branching ratio(s) used:	0.108, 0.1420	gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration:	±3.0%
b. Random uncertainty in assay:	±0.4%
c. Random uncertainty in weighing(s):	±0.0%
d. Total uncertainty at the 99% confidence level:	±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Klein
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

LC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST – BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590
Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**
Target =	1.314		
Lower Limit =	1.252822021		
Upper Limit =	1.427177979		
Rule 1 Pass/Fail	**Pass**		
Two sigma =	0.087177979		
10 % of Mean =	0.134		
Rule 2 (Pass/Fail)	**Pass**		

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

M. Aders 5/15/09

05/20/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-08

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	Serial #	Value		Uncertainty	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

Drochter AMD 12/14/09

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 7/2/01

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 Bq·g^{-1}**
Relative expanded uncertainty (k=2)	**0.72%** [d] [e]
Solution density	**(1.105 ± 0.002) g·mL^{-1} at 20 °C** [f]

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration (mol·L^{-1})	Mass Fraction (g·g^{-1})
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) Bq·g^{-1} [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three 4πα liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	--	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	$^{239}Pu + ^{240}Pu$ <0.000 001 [u]	$^{239}Pu + ^{240}Pu$ 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	$^{238}Pu + ^{241}Am$ <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 s−1•g−1 for energies less than 3.1 MeV,
0.03 s−1•g−1 for energies between 3.1 and 4.4 MeV, and
0.003 s−1•g−1 for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5 × 10-5 s−1•g−1 for energies between 19 and 39 keV,
7 × 10-5 s−1•g−1 for energies between 49 and 92 keV,
2 × 10-5 s−1•g−1 for energies between 106 and 507 keV,
1 × 10-5 s−1•g−1 for energies between 515 and 1456 keV, and
5 × 10-6 s−1•g−1 for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i|\cdot(x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i|\cdot(x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i|\cdot u(x_i)/y = |\partial y/\partial x_i|\cdot(x_i/y)\cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i|\cdot(x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}·{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	Isotope	Value	Uncertainty
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480

Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.48
Upper Limit =	1.68
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.1
10 % of Mean =	0.158
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10
1/12/10

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 948717**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245955001	SAMPLE	MXR1	GAM10	12-FEB-10 14:44	DONE	CAN	16-MAR-09 00:00
245955002	SAMPLE	MXR1	GAM11	12-FEB-10 14:44	DONE	CAN	18-NOV-09 00:00
245960001	SAMPLE	MXR1	GAM21	12-FEB-10 14:44	DONE	CAN	28-JUL-09 00:00
245960002	SAMPLE	MXR1	GAM23	12-FEB-10 14:45	DONE	CAN	02-JUN-09 00:00
245960003	SAMPLE	MXR1	GAM22	12-FEB-10 15:47	DONE	CAN	02-DEC-09 00:00
245960004	SAMPLE	MXR1	GAM25	12-FEB-10 15:47	DONE	CAN	07-OCT-09 00:00
245960005	SAMPLE	MXR1	GAM12	12-FEB-10 15:48	DONE	CAN	10-FEB-09 00:00
245960006	SAMPLE	MXR1	GAM17	12-FEB-10 15:48	DONE	CAN	06-JAN-10 00:00
245960007	SAMPLE	MXR1	GAM18	12-FEB-10 15:49	DONE	CAN	23-APR-09 00:00
245960008	SAMPLE	MXR1	GAM01	12-FEB-10 15:53	DONE	CAN	12-JAN-10 00:00
245960009	SAMPLE	MXR1	GAM06	12-FEB-10 15:54	DONE	CAN	04-FEB-09 00:00
245960010	SAMPLE	MXR1	GAM07	12-FEB-10 16:24	DONE	CAN	20-JUL-09 00:00
245960011	SAMPLE	MXR1	GAM04	12-FEB-10 16:31	DONE	CAN	05-MAY-09 00:00
1202032510	MB	MXR1	GAM14	12-FEB-10 16:32	DONE	CAN	06-MAR-09 00:00
1202032512	LCS	MXR1	GAM15	12-FEB-10 16:33	DONE	CAN	03-FEB-10 00:00
1202032511	DUP	MXR1	GAM16	12-FEB-10 16:38	DONE	CAN	16-NOV-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949823**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245955001	SAMPLE	HAKB	1246	15-FEB-10 07:39	DONE		
245955002	SAMPLE	HAKB	1248	15-FEB-10 07:39	DONE		
245960001	SAMPLE	HAKB	1250	15-FEB-10 07:39	DONE		
245960002	SAMPLE	HAKB	1252	15-FEB-10 07:39	DONE		
245960003	SAMPLE	HAKB	1254	15-FEB-10 07:39	DONE		
245960004	SAMPLE	HAKB	1256	15-FEB-10 07:39	DONE		
245960005	SAMPLE	HAKB	1213	15-FEB-10 07:41	DONE		
245960006	SAMPLE	HAKB	1214	15-FEB-10 07:41	DUSE		
245960007	SAMPLE	HAKB	1215	15-FEB-10 07:41	DONE		
245960008	SAMPLE	HAKB	1216	15-FEB-10 07:41	DUSE		
245960009	SAMPLE	HAKB	1217	15-FEB-10 07:41	DONE		
1202034998	MB	HAKB	1218	15-FEB-10 07:41	DONE		
1202034999	DUP	HAKB	1219	15-FEB-10 07:41	DONE		
245960010	SAMPLE	HAKB	1224	15-FEB-10 07:41	DONE		
245960011	SAMPLE	HAKB	1225	15-FEB-10 07:41	DONE		
245978001	SAMPLE	HAKB	1226	15-FEB-10 07:41	DONE		
245978002	SAMPLE	HAKB	1227	15-FEB-10 07:41	DONE		
245978003	SAMPLE	HAKB	1228	15-FEB-10 07:41	DONE		
245978004	SAMPLE	HAKB	1229	15-FEB-10 07:41	DUSE		
245978005	SAMPLE	HAKB	1230	15-FEB-10 07:41	DONE		
245978006	SAMPLE	HAKB	1231	15-FEB-10 07:42	DONE		
245978007	SAMPLE	HAKB	1232	15-FEB-10 07:42	DUSE		
245960006	SAMPLE	HAKB	1233	18-FEB-10 18:42	DUSE		
245960008	SAMPLE	HAKB	1234	18-FEB-10 18:42	DUSE		
245978004	SAMPLE	HAKB	1235	18-FEB-10 18:42	DONE		
1202035000	LCS	HAKB	1236	18-FEB-10 18:42	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949824**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245955001	SAMPLE	HAKB	1247	13-FEB-10 21:34	DONE		
245955002	SAMPLE	HAKB	1248	13-FEB-10 21:34	DONE		
245960001	SAMPLE	HAKB	1249	13-FEB-10 21:34	DONE		
245960002	SAMPLE	HAKB	1250	13-FEB-10 21:35	DONE		
245960003	SAMPLE	HAKB	1251	13-FEB-10 21:35	DONE		
245960004	SAMPLE	HAKB	1252	13-FEB-10 21:35	DUSE		
245960005	SAMPLE	HAKB	1253	13-FEB-10 21:35	DONE		
245960006	SAMPLE	HAKB	1254	13-FEB-10 21:35	DONE		
245960007	SAMPLE	HAKB	1255	13-FEB-10 21:35	DONE		
245960008	SAMPLE	HAKB	1256	13-FEB-10 21:35	DONE		
245960009	SAMPLE	HAKB	1025	13-FEB-10 21:40	DONE		
245960010	SAMPLE	HAKB	1026	13-FEB-10 21:40	DONE		
245960011	SAMPLE	HAKB	1027	13-FEB-10 21:40	DONE		
245978001	SAMPLE	HAKB	1028	13-FEB-10 21:40	DONE		
245978002	SAMPLE	HAKB	1029	13-FEB-10 21:40	DUSE		
245978003	SAMPLE	HAKB	1030	13-FEB-10 21:40	DONE		
245978004	SAMPLE	HAKB	1077	13-FEB-10 21:40	DUSE		
245978005	SAMPLE	HAKB	1079	13-FEB-10 21:40	DONE		
245978006	SAMPLE	HAKB	1080	13-FEB-10 21:40	DONE		
245978007	SAMPLE	HAKB	1081	13-FEB-10 21:40	DONE		
1202035001	MB	HAKB	1082	13-FEB-10 21:40	DONE		
245960004	SAMPLE	HAKB	1223	18-FEB-10 18:42	DONE		
245978002	SAMPLE	HAKB	1213	18-FEB-10 18:42	DONE		
245978004	SAMPLE	HAKB	1214	18-FEB-10 18:43	DONE		
1202035002	DUP	HAKB	1221	18-FEB-10 18:43	DONE		
1202035003	LCS	HAKB	1222	18-FEB-10 18:43	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949825**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245955001	SAMPLE	HAKB	1119	13-FEB-10 21:24	DONE		
245955002	SAMPLE	HAKB	1120	13-FEB-10 21:24	DONE		
245960001	SAMPLE	HAKB	1121	13-FEB-10 21:24	DONE		
245960002	SAMPLE	HAKB	1122	13-FEB-10 21:24	DONE		
245960003	SAMPLE	HAKB	1123	13-FEB-10 21:24	DONE		
245960004	SAMPLE	HAKB	1124	13-FEB-10 21:24	DONE		
245960005	SAMPLE	HAKB	1125	13-FEB-10 21:24	DONE		
245960006	SAMPLE	HAKB	1126	13-FEB-10 21:24	DONE		
245960007	SAMPLE	HAKB	1127	13-FEB-10 21:24	DONE		
245960008	SAMPLE	HAKB	1128	13-FEB-10 21:24	DUSE		
245960009	SAMPLE	HAKB	1129	13-FEB-10 21:24	DONE		
245960010	SAMPLE	HAKB	1130	13-FEB-10 21:24	DONE		
245960011	SAMPLE	HAKB	1131	13-FEB-10 21:24	DONE		
245978001	SAMPLE	HAKB	1132	13-FEB-10 21:24	DONE		
245978002	SAMPLE	HAKB	1133	13-FEB-10 21:24	DUSE		
245978003	SAMPLE	HAKB	1138	13-FEB-10 21:25	DONE		
245978004	SAMPLE	HAKB	1139	13-FEB-10 21:25	DUSE		
245978005	SAMPLE	HAKB	1140	13-FEB-10 21:25	DONE		
245978006	SAMPLE	HAKB	1141	13-FEB-10 21:25	DONE		
245978007	SAMPLE	HAKB	1142	13-FEB-10 21:25	DONE		
1202035005	MB	HAKB	1143	13-FEB-10 21:25	DUSE		
1202035006	DUP	HAKB	1144	13-FEB-10 21:25	DONE		
1202035007	LCS	HAKB	1145	13-FEB-10 21:25	DONE		
245960008	SAMPLE	HAKB	1003	15-FEB-10 21:17	DUSE		
1202035005	MB	HAKB	1004	15-FEB-10 21:17	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 954007**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202045181	MB	HAKB	1164	23-FEB-10 10:41	DONE		
245960008	SAMPLE	HAKB	1145	23-FEB-10 21:17	DONE		
1202045182	DUP	HAKB	1146	23-FEB-10 21:17	DONE		
1202045183	LCS	HAKB	1147	23-FEB-10 21:17	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 955380**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245617007	SAMPLE	CXM2	1223	20-FEB-10 13:36	DONE		
245785015	SAMPLE	CXM2	1224	20-FEB-10 13:37	DONE		
245960006	SAMPLE	CXM2	1225	20-FEB-10 13:37	DONE		
245960008	SAMPLE	CXM2	1226	20-FEB-10 13:37	DONE		
1202048271	DUP	CXM2	1227	20-FEB-10 13:37	DONE		
1202048270	MB	CXM2	1237	20-FEB-10 13:37	DONE		
1202048272	LCS	CXM2	1197	20-FEB-10 13:39	DONE		