

Wednesday, December 23, 2009

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: 10-1073
Per Agreement Number: 126310011
Project Cost Code: MR3A05529E00

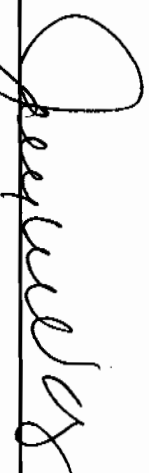
Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/23/2009
TURNAROUND/REPORT DUE: 1/22/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Received
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	HASL-300:ISOPU	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	HASL-300:ISOU	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	

Wednesday, December 23, 2009

REQUEST NUMBER: 10-1073

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:8082	SW-846:8321A_MOD	1	RE12-10-7563	R	12/21/2009	
		1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
		1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
SW-846:9012A		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	

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Wednesday, December 23, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1073

LOS ALAMOS

REQUEST NUMBER: 10-1073

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/22/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE12-10-7559	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7559	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7560	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7560	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7557	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7557	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7557	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7558	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7558	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7558	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7555	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7555	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7555	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7556	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7556	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7556	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7562	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE12-10-7562	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7562	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7561	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE12-10-7561	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7561	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7563	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE12-10-7563	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7563	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7559	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7560	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:

Date Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2486

EVENT NAME: 4th Qtr. FY09 - AOC C-12-001 - Threemile Canyon

SAMPLE ID: RE12-10-7555

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/21/2009	MEDIA:		OBT3
TIME COLLECTED (HH:MM)		0928	SUB-MEDIA:		TUFF 1
PRS ID:	C-12-001	OK	SAMPLE TECH CODE:		HA
LOCATION ID:	12-610626	↓	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	5	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	AM241+GS+ISO PU+ISOU	1 LITER POLY Tam 12/15/09	None	Y	
1	↓	Met+U+CLO4+C N	1 GAL POLY 1 Liter	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, moist, roots

SAMPLE COMMENTS: NA

LOCATION DESC: 1-5, center of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 33$ dpm
 $\beta \leq 2470$ dpmPIP $\frac{\text{reading}}{\text{ambient}} = \frac{0.0}{0.0}$ pm
HE negative

COLLECTED BY (PRINT)

TLMcFarlane

REVIEWED BY (PRINT)

Nicholas Gallegos

RELINQUISHED BY (Printed Name) TLMcFarlane (Signature) Tracy	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) (Signature) [Signature]	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2486

EVENT NAME: 4th Qtr. FY09 - AOC C-12-001 - Threemile Canyon

SAMPLE ID: RE12-10-7556

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/21/2009	MEDIA:		QBT3
TIME COLLECTED (HH:MM)		0935	SUB-MEDIA:		TUFF 1
PRS ID:	C-12-001	ok	SAMPLE TECH CODE:		HA
LOCATION ID:	12-610626	↓	FIELD QC TYPE:		NA
LOCATION TYPE:	GENERIC	↓	FIELD PREP:		NA
TOP DEPTH:	0	2.1	SAMPLE USAGE:		INV
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	ok	EXCAVATED: YES/NO/NA		
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA	WATER FLOWING: YES/NO/NA		
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA	BOREHOLE DIRECTION: NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		Met+U+CLO4+C N	1 GAL POLY 1 Liter	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Pinkish gray tuff, dry

SAMPLE COMMENTS:

NA

LOCATION DESC:

1-5, center of AOC

FIELD SCREENING/MEASUREMENT RESULTS:




 $\alpha \leq 27$ dpm $\beta \leq 2410$ dpmPID ambient reading $\frac{0.0}{0.0}$ ppm

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

Nicholas Hellegar

RELINQUISHED BY (Printed Name) TL McFarland (Signature) 	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name)  (Signature) 	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2486

EVENT NAME: 4th Qtr. FY09 - AOC C-12-001 - Threemile Canyon

SAMPLE ID: RE12-10-7557

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/2009		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		0944		SUB-MEDIA:		TUFF 1	
PRS ID:	C-12-001	ok		SAMPLE TECH CODE:		HA	
LOCATION ID:	12-610627	↓		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	AM241+GS+ISO PU+ISOU	1 LITER POLY 12m 12/15/09	None	Y	
1	↓	Met+U+CLO4+C N	1-GAL POLY 1 Liter	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, slightly moist, roots and rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 1-4, west side of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 60 dpm

βγ ≤ 2070 dpm

HE negative

PID reading
ambient 0.0
0.0 ppm

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Nicholas Gallegos

RELINQUISHED BY (Printed Name) TLMcFarland (Signature)	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) (Signature)	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2486

EVENT NAME: 4th Qtr. FY09 - AOC C-12-001 - Threemile Canyon

SAMPLE ID: RE12-10-7558

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/2009		MEDIA:		QBT3	
TIME COLLECTED(HH:MM)		0952		SUB-MEDIA:		TUFF 1	
PRS ID: C-12-001		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: 12-610627		↓		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		↓		FIELD PREP:		NA	
TOP DEPTH: 0		2.4		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		3.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX: B		OK		EXCAVATED: YES/NO/NA		NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NO/NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY 72m 12/15/09	None	Y	
1		Met+U+CLO4+C N	1 GAL POLY 1 Liter	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Pinkish gray dry, stiff

FR RE12-10-7558 72m 12/22/09

SAMPLE COMMENTS:

9923

NA

LOCATION DESC:

1-4, west side of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 33$ dpm $\text{BY} \leq 2390$ dpmPID $\frac{\text{reading}}{\text{ambient}} = \frac{0.0}{0.0}$ ppm

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

Nikolai Gallegos

RELINQUISHED BY (Printed Name) TL McFarland (Signature) <i>TL McFarland</i>	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) (Signature) <i>[Signature]</i>	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2486

EVENT NAME: 4th Qtr. FY09 - AOC C-12-001 - Threemile Canyon

SAMPLE ID: RE12-10-7561

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/2009		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		0909		SUB-MEDIA:		TUFF 1	
PRS ID: C-12-001		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: UNK		12-610628		FIELD QC TYPE: NA		NA	
LOCATION TYPE: GENERIC		OK		FIELD PREP: NA		↓	
TOP DEPTH: 0		0.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		1.0		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	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY 12m 12/25/09	None	Y	
1	↓	Met+U+CLO4+C N	1 GAL POLY 1 liter	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, moist, some roots
FD RE12-10-7563

SAMPLE COMMENTS: NA

LOCATION DESC: 1-3, south side of AOC, downslope

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 16$ dpm
 $\beta \leq 2030$ dpm
 PID $\frac{\text{ambient}}{\text{reading}} = \frac{0.0}{0.0}$ ppm
 HE negative

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Nikolas Gallegos

RELINQUISHED BY (Printed Name) TLMcFarland (Signature)	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) (Signature)	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2486

EVENT NAME: 4th Qtr. FY09 - AOC C-12-001 - Threemile Canyon

SAMPLE ID: RE12-10-7562

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/2009		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		0919		SUB-MEDIA:		TUFF 1	
PRS ID:	C-12-001	OK		SAMPLE TECH CODE:		HA	
LOCATION ID:	UNK	12-G10628		FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC	OK		FIELD PREP:		NA	
TOP DEPTH:	0	2.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	3.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	OK		EXCAVATED: YES/NO/NA		NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA		NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY 72m 12/15/09	None	Y	
1		Met+U+CLO4+C N	1 GAL POLY 1 Liter	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Pinkish gray dry stuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

1-3

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 22 \text{ dpm}$ $\text{Bx} \leq 3360 \text{ dpm}$ PID $\frac{\text{reading}}{\text{ambient}} = \frac{0.0}{0.0} \text{ ppm}$

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Nicholas Gallagos

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) Tray 2	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) [Signature] (Signature) [Signature]	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2486

EVENT NAME: 4th Qtr. FY09 - AOC C-12-001 - Threemile Canyon

SAMPLE ID: RE12-10-7563

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/2009		MEDIA:	OBT3		A11h
TIME COLLECTED (HH:MM)		0909		SUB-MEDIA:	TUFF 1		NA
PRS ID:	C-12-001	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	UNK	12-G10628		FIELD QC TYPE:	ED		
LOCATION TYPE:	GENERIC	OK		FIELD PREP:	NA		
TOP DEPTH:	0	0.0		SAMPLE USAGE:	QC		
BOTTOM DEPTH:	0	1.0		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	8082+NMED-HEXP	250 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 1 Liter	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 12-10-7561

Brown silty sand, moist, some roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

1-3. south side of AOC, downslope

FIELD SCREENING/MEASUREMENT RESULTS:

α & 16 dpm

BY ≤ 2036 dpm

PID ambient reading 0.0 / 0.0 ppm

HE negative

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Nickolas Gallegos

RELINQUISHED BY (Printed Name) TLMcFarland (Signature)	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) (Signature)	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Rad Screening Data Release Form

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

RE12-10-75 55

56

57

58

61

62

63

96

97

98

99

RE12-10-7600

7603

7606

7601

7608

7602

7607

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

.....

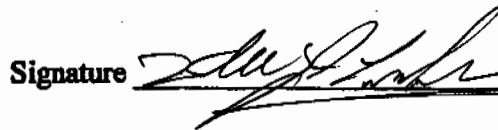
The following samples do not require rad screening data for the reasons stated (list sample numbers):

Reason:


.....

Print Last Name Henderson

Signature

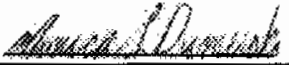



Date 12/21/09

DATA VALIDATION COVER SHEET	
5121-1 <div style="text-align: center;">Data Validation Cover Sheet</div>	Records Use only 


Section I.			
REQUEST NUMBER: <u>10-1073</u>	VALIDATION DATE: <u>02/01/10</u>	LAB CODE: <u>GEL</u>	
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>			
VALIDATOR: <u>Monica Dymerski</u>		ORGANIZATION: <u>Analytical Quality Associates, Inc.</u>	
ANALYTICAL SUITE (CHECK ALL THAT APPLY):			
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS	<input checked="" type="checkbox"/> LCMSMS PERCHLORATES
<input type="checkbox"/> TPH-DRO	<input type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS	<input type="checkbox"/> ORGANOCHLORINE
<input type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY	<input type="checkbox"/> LCMSMS HIGH EXPLOSIVES	<input type="checkbox"/> PESTICIDES/POLYCHLORINATED BIPHENYLS
<input type="checkbox"/> OTHER (DESCRIBE): _____			

Section II. Completeness Check							
YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. CHAIN-OF-CUSTODY FORM(S)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. RAW/BSS DATA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. CASE NARRATIVE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. QUALITY CONTROL FORMS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. SAMPLE RESULT FORMS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. QUANTITATION REPORTS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. SAMPLE CHROMATOGRAMS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. TICS FORMS
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. STANDARD CHROMATOGRAMS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. TICS MASS SPECTRA
Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact): <ol style="list-style-type: none"> It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN, and the parent sample raw data were not included in the data package. No sample data were qualified as a result. It should be noted that samples RE12-10-7559 and -7560 were not received by the laboratory and were subsequently cancelled for analysis. 							
Reviewed by: <u>ETM</u>				Level: <u>1</u>		Date: <u>2/2/10</u>	


VALIDATOR'S SIGNATURE: <u></u>	DATE: <u>02/01/10</u>
Form 5121-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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

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

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

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

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

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 936771
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7557
 Date Received: 24-DEC-02
 GEL Job No (SDG): 10-1073
 GEL Sample ID: 243517003
 Date Filtered: 04-JAN-10
 Injection Volume (uL): 20
 %Solids: 86

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.582	2.33	0.582	ug/kg	U	1	05-JAN-10 15:40	per0105015a
	Perchlorate Isotope Ratio						1	05-JAN-10 15:40	per0105015a
14797-73-0	Perchlorate-101	.582	2.33	0.582	ug/kg	U	1	05-JAN-10 15:40	per0105015a
	Perchlorate-O(18)			5.77	ug/kg		1	05-JAN-10 15:40	per0105015a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X ¹
 Aliquot %Solids

MLD 02/01/10

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 236771
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7558
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1073
 GEL Sample ID: 243517004
 Date Filtered: 04-JAN-10
 Injection Volume (uL): 20
 %Solids: 92

CAS No.	Analyte ^A	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.544	2.17	2.41	ug/kg		1	05-JAN-10 15:46	per0105016a
	Perchlorate Isotope Ratio			2.99			1	05-JAN-10 15:46	per0105016a
14797-73-0	Perchlorate-101	.544	2.17	2.39	ug/kg		1	05-JAN-10 15:46	per0105016a
	Perchlorate-O(18)			5.78	ug/kg		1	05-JAN-10 15:46	per0105016a

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

*Concentration =

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

MLD 02/01/10

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 936771
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7555
 Date Received: 24-DEC-02
 GEL Job No (SDG): 10-1073
 GEL Sample ID: 243517005
 Date Filtered: 04-JAN-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	0.587	ug/kg	U	1	05-JAN-10 15:52	per0105017a
	Perchlorate Isotope Ratio						1	05-JAN-10 15:52	per0105017a
14797-73-0	Perchlorate-101	.587	2.35	0.587	ug/kg	U	1	05-JAN-10 15:52	per0105017a
	Perchlorate-O(18)			5.64	ug/kg		1	05-JAN-10 15:52	per0105017a

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

MLD 02/01/10

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 936711
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7556
 Date Received: 24-DEC-02
 GEL Job No (SDG): 10-1073
 GEL Sample ID: 243517006
 Date Filtered: 04-JAN-10
 Injection Volume (uL): 20
 %Solids: 91.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.545	2.18	0.545	ug/kg	U	1	05-JAN-10 15:58	per0105018a
	Perchlorate Isotope Ratio						1	05-JAN-10 15:58	per0105018a
14797-73-0	Perchlorate-101	.545	2.18	0.545	ug/kg	U	1	05-JAN-10 15:58	per0105018a
	Perchlorate-O(18)			5.41	ug/kg		1	05-JAN-10 15:58	per0105018a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
 Aliquot %Solids

MLD 02/01/10

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936771

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7562

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1073

GEL Sample ID: 243517007

Date Filtered: 04-JAN-10

Injection Volume (uL): 20

%Solids: 90.1

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.555	2.22	0.555	ug/kg	U	1	05-JAN-10 16:04	per0105019a
	Perchlorate Isotope Ratio						1	05-JAN-10 16:04	per0105019a
14797-73-0	Perchlorate-101	.555	2.22	0.555	ug/kg	U	1	05-JAN-10 16:04	per0105019a
	Perchlorate-O(18)			5.60	ug/kg		1	05-JAN-10 16:04	per0105019a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

MLD 02/01/10

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 236771

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7561

Date Received: 24-DEC-02

GEL Job No (SDG): 10-1073

GEL Sample ID: 243517008

Date Filtered: 04-JAN-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.566	2.26	0.566	ug/kg	U	1	05-JAN-10 16:10	per0105020a
	Perchlorate Isotope Ratio						1	05-JAN-10 16:10	per0105020a
14797-73-0	Perchlorate-101	.566	2.26	0.566	ug/kg	U	1	05-JAN-10 16:10	per0105020a
	Perchlorate-O(18)			5.72	ug/kg		1	05-JAN-10 16:10	per0105020a

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

*Concentration =

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

MLD 02/01/10

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 936771
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7563
 Date Received: 24-DEC-02
 GEL Job No (SDG): 10-1073
 GEL Sample ID: 243517009
 Date Filtered: 04-JAN-10
 Injection Volume (uL): 20
 % Solids: 88


CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.57	2.28	0.570	ug/kg	U	1	05-JAN-10 16:17	per0105021a
	Perchlorate Isotope Ratio						1	05-JAN-10 16:17	per0105021a
14797-73-0	Perchlorate-101	.57	2.28	0.570	ug/kg	U	1	05-JAN-10 16:17	per0105021a
	Perchlorate-O(18)			5.83	ug/kg		1	05-JAN-10 16:17	per0105021a

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

*Concentration =

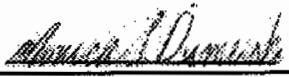
Instrument Value X Concentrated Extract Volume X 1
 Aliquot %Solids

MLD 02/01/10

DATA VALIDATION COVER SHEET	
5122-1 <p style="text-align: center;">Data Validation Cover Sheet</p>	Records Use only 

Section I.		
REQUEST NUMBER: <u>10-1073</u>	VALIDATION DATE: <u>02/01/10</u>	LAB CODE: <u>GEL</u>
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>		
VALIDATOR: <u>Monica Dymerski</u> ORGANIZATION: <u>Analytical Quality Associates, Inc.</u>		
ANALYTICAL SUITE (CHECK ALL THAT APPLY):		
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS
<input type="checkbox"/> TPH-DRO	<input type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS
<input type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY	<input checked="" type="checkbox"/> LCMSMS HIGH EXPLOSIVES
		<input type="checkbox"/> LCMSMS PERCHLORATES
		<input type="checkbox"/> ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
<input type="checkbox"/> OTHER (DESCRIBE): _____		

Section II. Completeness Check							
YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. CHAIN-OF-CUSTODY FORM(S)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. RAW/BSS DATA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. CASE NARRATIVE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. QUALITY CONTROL FORMS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. SAMPLE RESULT FORMS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. QUANTITATION REPORTS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. SAMPLE CHROMATOGRAMS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. TICS FORMS
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. STANDARD CHROMATOGRAMS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. TICS MASS SPECTRA
Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):							
1. The CCV %Ds were >20% but ≤40% with negative bias for PETN; tetryl; and 2,6-diamino-4-nitrotoluene. The associated sample results were NDs and, thus, were qualified UJ,HE7c.							
2. The LCS %R was > the laboratory UAL for TATB. The associated sample results were NDs and, thus, were not qualified.							
3. The MS and MSD %Rs were > the laboratory UAL for TATB. The associated sample results were NDs and, thus, were not qualified.							
4. It should be noted that samples RE12-10-7559 and -7560 were not received by the laboratory and were subsequently cancelled for analysis.							
Reviewed by: <u>ETM</u> Level: <u>1</u> Date: <u>2/2/10</u>							

VALIDATOR'S SIGNATURE: <u></u>	DATE: <u>02/01/10</u>
Form 5122-1, Revision 0.0	
LOS ALAMOS Environmental Restoration Project	

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST


5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist


Records Use only



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

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only 

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

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only _____ 

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	34. 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, HE15	R, HE15
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST**5122-2****LC/MS/MS High Explosive Analytical Data Validation Checklist**

Records Use only _____



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

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7557

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517003

Sample Amount 2

Moisture: 14.1

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105098a

Date Analyzed: 07-JAN-10 18:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE7c	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN UJ,HE7c	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7557

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517003

Sample Amount 2

Moisture: 14.1

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050042.wiff

Date Analyzed: 06-JAN-10 01:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

Instrument Value	X	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7558

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517004

Sample Amount 2

Moisture: 8.0

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105099a

Date Analyzed: 07-JAN-10 19:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	UJ,HE7c 500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	UJ,HE7c 1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7558

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517004

Sample Amount 2

Moisture: 8.0

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050043.wiff

Date Analyzed: 06-JAN-10 01:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

Instrument Value	X	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RB12-10-7555

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517005

Sample Amount 2

Molsture: 14.9

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105100a

Date Analyzed: 07-JAN-10 19:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE7c	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN UJ,HE7c	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7555

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517005

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050044.wiff

Date Analyzed: 06-JAN-10 01:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

Instrument Value	X	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7556

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517006

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105101a

Date Analyzed: 07-JAN-10 20:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	UJ,HE7c 500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	UJ,HE7c 1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7556

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517006

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050045.wiff

Date Analyzed: 06-JAN-10 02:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7562

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517007

Sample Amount 2

Moisture: 2.2

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105102a

Date Analyzed: 07-JAN-10 20:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	UJ,HE7c 500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	UJ,HE7c 1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

Instrument X Concentrated Extract Volume X Dilution
Value Sample Amount Factor

MLD 02/01/10

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7562

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SQL

GEL Sample ID: 243517007

Sample Amount 2

Molsture: 2.2

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050046.wiff

Date Analyzed: 06-JAN-10 02:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

Instrument	X	Concentrated Extract Volume	X	Dilution
Value		Sample Amount		Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7561

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517008

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105103a

Date Analyzed: 07-JAN-10 21:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	UJ,HE7c 500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	UJ,HE7c 1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7561

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517008

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050047.wiff

Date Analyzed: 06-JAN-10 02:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7563

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517009

Sample Amount 2

Moisture: 12.3

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105109a

Date Analyzed: 08-JAN-10 00:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	UJ,HE7c 500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	UJ,HE7c 1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

MLD 02/01/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7563

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517009

Sample Amount 2

Moisture: 12.3

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050053.wiff

Date Analyzed: 06-JAN-10 04:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1073 VALIDATION DATE: 02/01/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN, and the parent sample raw data were not included in the data package. No sample data were qualified as a result.

Reviewed by: ETMLevel: 1Date: 2/2/10VALIDATOR'S SIGNATURE: *Monica Dymerski*DATE: 02/01/10

**ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB)
ANALYTICAL DATA VALIDATION CHECKLIST**

5116-2

**Organochlorine Pesticide (PEST) and Polychlorinated
Biphenyl (PCB) Analytical Data Validation Checklist**

Records Use only



Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST


5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The sample result is $\leq 5X$ the concentration of the related analyte in the method blank.	U, P4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15. The sample result is $\leq 5X$ the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	16. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20. The surrogate is $<10\%R$. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only _____ 

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21. The surrogate is < the Lower Acceptance Level (LAL) but $\geq 10\%R$. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

**ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB)
ANALYTICAL DATA VALIDATION CHECKLIST**

5116-2

**Organochlorine Pesticide (PEST) and Polychlorinated
Biphenyl (PCB) Analytical Data Validation Checklist**

Records Use only



Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	32. The affected analytes have elevated detection limits and may not meet project DQOs 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, P15	R, P15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

Page 1 of 1

SDG Number: 10-1073
Lab Sample ID: 243517008

Date Collected: 12/21/2009 12:00
Date Received: 12/24/2009 09:30
Client: LANL010
Method: SW846 8082
Inst: ECD2AJ
Analyst: JAOC
Aliquot: 30.15 g
Column: 1 CLP1
2 CLP2

Matrix: R
%Moisture: 11.6
Project: LANL01004
SOP Ref: GL-OA-E-040
Dilution: 1
Inj. Vol: 1 uL
Final Volume: 1 mL
Level: LOW

Client ID: RE12-10-7561
Batch ID: 937093
Run Date: 12/29/2009 12:02
Prep Date: 12/28/2009 20:43
Data File: 026f2601.d
026b2601.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.75	ug/kg	1.25	3.75	1
11104-28-2	Aroclor-1221	U	3.75	ug/kg	1.25	3.75	1
11141-16-5	Aroclor-1232	U	3.75	ug/kg	1.25	3.75	1
53469-21-9	Aroclor-1242		114	ug/kg	1.25	3.75	1
12672-29-6	Aroclor-1248	U	3.75	ug/kg	1.25	3.75	1
11097-69-1	Aroclor-1254		109	ug/kg	1.25	3.75	1
11096-82-5	Aroclor-1260	P	47.7	ug/kg	1.25	3.75	2

PCB
Certificate of Analysis
Sample Summary

Page 1 of 1

SDG Number: 10-1073
Lab Sample ID: 243517007

Date Collected: 12/21/2009 12:00
Date Received: 12/24/2009 09:30
Client: LANL010
Method: SW846 8082
Inst: ECD2AJ
Analyst: JAOC
Aliquot: 30.14 g
Column: 1 CLP1
2 CLP2

Matrix: R
%Moisture: 9.9
Project: LANL01004
SOP Ref: GL-OA-E-040
Dilution: 1
Inj. Vol: 1 uL
Final Volume: 1 mL
Level: LOW

Client ID: RE12-10-7562
Batch ID: 937093
Run Date: 12/29/2009 11:51
Prep Date: 12/28/2009 20:43
Data File: 025f2501.d
025b2501.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.68	ug/kg	1.23	3.68	1
11104-28-2	Aroclor-1221	U	3.68	ug/kg	1.23	3.68	1
11141-16-5	Aroclor-1232	U	3.68	ug/kg	1.23	3.68	1
53469-21-9	Aroclor-1242	U	3.68	ug/kg	1.23	3.68	1
12672-29-6	Aroclor-1248	U	3.68	ug/kg	1.23	3.68	1
11097-69-1	Aroclor-1254	U	3.68	ug/kg	1.23	3.68	1
11096-82-5	Aroclor-1260	U	3.68	ug/kg	1.23	3.68	1

MLD 02/01/10

PCB
Certificate of Analysis
Sample Summary


SDG Number: 10-1073
Lab Sample ID: 243517009

Date Collected: 12/21/2009 12:00
Date Received: 12/24/2009 09:30
Client: LANL010
Method: SW846 8082
Inst: ECD2AJ
Analyst: JAOC
Aliquot: 30.01 g
Column: 1 CLP1
2 CLP2

Matrix: R
%Moisture: 12.3
Project: LANL01004
SOP Ref: GL-OA-E-040
Dilution: 1
Inj. Vol: 1 uL
Final Volume: 1 mL
Level: LOW


CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.80	ug/kg	1.26	3.80	1
11104-28-2	Aroclor-1221	U	3.80	ug/kg	1.26	3.80	1
11141-16-5	Aroclor-1232	U	3.80	ug/kg	1.26	3.80	1
53469-21-9	Aroclor-1242	U	3.80	ug/kg	1.26	3.80	1
12672-29-6	Aroclor-1248	U	3.80	ug/kg	1.26	3.80	1
11097-69-1	Aroclor-1254	U	3.80	ug/kg	1.26	3.80	1
11096-82-5	Aroclor-1260	U	3.80	ug/kg	1.26	3.80	1

MLD 02/01/10

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

Section I.			
REQUEST NUMBER: <u>10-1073</u>	VALIDATION DATE: <u>02/01/10</u>	LAB CODE: <u>GEL</u>	
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>			
VALIDATOR: <u>Monica Dymerski</u>		ORGANIZATION: <u>Analytical Quality Associates, Inc.</u>	
ANALYTICAL SUITE (CHECK ALL THAT APPLY):			
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS	<input type="checkbox"/> LCMSMS PERCHLORATES
<input type="checkbox"/> TPH-DRO	<input checked="" type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS	<input type="checkbox"/> ORGANOCHLORINE
<input type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY	<input type="checkbox"/> LCMSMS HIGH EXPLOSIVES	<input type="checkbox"/> PESTICIDES/POLYCHLORINATED BIPHENYLS
<input type="checkbox"/> OTHER (DESCRIBE): _____			

Section II. Completeness Check							
YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. CHAIN-OF-CUSTODY FORM(S)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. RAW/BSS DATA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. CASE NARRATIVE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. QUALITY CONTROL FORMS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. SAMPLE RESULT FORMS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	8. QUANTITATION REPORTS
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. SAMPLE CHROMATOGRAMS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. TICS FORMS
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. STANDARD CHROMATOGRAMS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. TICS MASS SPECTRA
Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):							
1. Target analytes Mn and Zn were detected in the MB. All associated sample results were detects >50X the MB concentration and, thus, were not qualified, based on professional judgment.							
2. Target analytes Sb and Mg were detected in the ICB/CCBs. All associated sample results were either detects >5X the greatest ICB/CCB concentration or NDs and, thus, were not qualified.							
3. Target analytes K and Na were detected in FR blank sample RE12-10-9923 (from RN 10-1104), which was associated with all samples in this RN. All associated sample results were detects >5X the FR blank concentrations and, thus, were not qualified.							
4. The MS %Rs were > the laboratory UAL for Al, Fe, and Mg. The associated Mg sample results were detects and, thus, were qualified J+, I6b. The Al and Fe parent sample concentrations were >4X the spike concentrations; thus, those sample results were not qualified, based on professional judgment.							
5. It should be noted that the matrix QC analyses were performed on a LANL sample from another RN for ICP-AES and ICP-MS, and parent sample raw data were not included in the data package. No sample data were qualified as a result.							
6. It should be noted that samples RE12-10-7559 and -7560 were not received by the laboratory and were subsequently cancelled for analysis.							
Reviewed by: <u>ETM</u>				Level: <u>1</u>		Date: <u>2/2/10</u>	

DATA VALIDATION COVER SHEET	
5118-1	Records Use only
Data Validation Cover Sheet	 Los Alamos NATIONAL LABORATORY EST. 1943
VALIDATOR'S SIGNATURE: <u><i>[Signature]</i></u> DATE: <u>02/01/10</u>	
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST


5118-2

Metals Analytical Data Validation Checklist


Records Use only




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

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

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

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 Metals Analytical Data Validation Checklist	Records Use only _____  Los Alamos <small>NATIONAL LABORATORY</small> <small>EST. 1943</small>

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

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

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

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517003

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7557

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7200000	ug/Kg		7450	21900	21900	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-36-0	Antimony	1100	ug/Kg	U	362	1100	1100	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-38-2	Arsenic	2.09	mg/kg		0.227	1.13	1.13	2	MS	SKJ	01/12/10 17:45	100112-6	936773
7440-39-3	Barium	81500	ug/Kg		110	548	548	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-41-7	Beryllium	0.804	mg/kg		0.0227	0.113	0.113	2	MS	SKJ	01/12/10 15:24	100112-4	936773
7440-43-9	Cadmium	548	ug/Kg	U	110	548	548	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-70-2	Calcium	1530000	ug/Kg		8770	27400	27400	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-47-3	Chromium	8490	ug/Kg		164	548	548	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-48-4	Cobalt	5020	ug/Kg		164	548	548	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-50-8	Copper	5500	ug/Kg		329	1100	1100	1	P	HSC	01/07/10 07:28	010610A-1	936768
7439-89-6	Iron	11600000	ug/Kg		8770	27400	27400	1	P	HSC	01/07/10 07:28	010610A-1	936768
7439-92-1	Lead	11800	ug/Kg		274	1100	1100	1	P	HSC	01/07/10 07:28	010610A-1	936768
7439-95-4	Magnesium J+,16b	1440000	ug/Kg		9310	32900	32900	1	P	HSC	01/07/10 07:28	010610A-1	936768
7439-96-5	Manganese	295000	ug/Kg		219	1100	1100	1	P	HSC	01/07/10 07:28	010610A-1	936768
7439-97-6	Mercury	12.8	ug/kg		4.29	12.6	12.6	1	AV	JXL	01/07/10 13:13	010710S2-7	937611
7440-02-0	Nickel	5.64	mg/kg		0.113	0.454	0.454	2	MS	SKJ	01/07/10 21:53	100107-2	936773
7440-09-7	Potassium	1380000	ug/Kg		7010	27400	27400	1	P	HSC	01/07/10 07:28	010610A-1	936768
7782-49-2	Selenium	1.13	mg/kg	U	0.567	1.13	1.13	2	MS	SKJ	01/07/10 21:53	100107-2	936773
7440-22-4	Silver	318	ug/Kg	J	110	548	548	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-23-5	Sodium	73100	ug/Kg		7670	27400	27400	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-28-0	Thallium	0.244	mg/kg		0.0681	0.227	0.227	2	MS	SKJ	01/07/10 21:53	100107-2	936773
7440-61-1	Uranium	1.69	mg/kg		0.015	0.0454	0.0454	2	MS	SKJ	01/07/10 21:53	100107-2	936773
7440-62-2	Vanadium	23900	ug/Kg		110	548	548	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-66-6	Zinc	23900	ug/Kg		362	1100	1100	1	P	HSC	01/07/10 07:28	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.531	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.513	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.553	g	30	mL	01/06/10	TXB3

MLD 02/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517004

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7558

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 92

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8840000	ug/Kg		7070	20800	20800	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-36-0	Antimony	1040	ug/Kg	U	343	1040	1040	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-38-2	Arsenic	2.3	mg/kg		0.208	1.04	1.04	2	MS	SKJ	01/12/10 17:47	100112-6	936773
7440-39-3	Barium	161000	ug/Kg		104	520	520	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-41-7	Beryllium	0.882	mg/kg		0.0208	0.104	0.104	2	MS	SKJ	01/12/10 15:25	100112-4	936773
7440-43-9	Cadmium	520	ug/Kg	U	104	520	520	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-70-2	Calcium	4530000	ug/Kg		8320	26000	26000	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-47-3	Chromium	6880	ug/Kg		156	520	520	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-48-4	Cobalt	3020	ug/Kg		156	520	520	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-50-8	Copper	4460	ug/Kg		312	1040	1040	1	P	HSC	01/07/10 07:35	010610A-1	936768
7439-89-6	Iron	12700000	ug/Kg		8320	26000	26000	1	P	HSC	01/07/10 07:35	010610A-1	936768
7439-92-1	Lead	5450	ug/Kg		260	1040	1040	1	P	HSC	01/07/10 07:35	010610A-1	936768
7439-95-4	Magnesium J+, 16b	1860000	ug/Kg		8840	31200	31200	1	P	HSC	01/07/10 07:35	010610A-1	936768
7439-96-5	Manganese	233000	ug/Kg		208	1040	1040	1	P	HSC	01/07/10 07:35	010610A-1	936768
7439-97-6	Mercury	14.8	ug/kg		4.06	12	12	1	AV	JXL1	01/07/10 13:23	010710S2-7	937611
7440-02-0	Nickel	6.46	mg/kg		0.104	0.416	0.416	2	MS	SKJ	01/07/10 21:59	100107-2	936773
7440-09-7	Potassium	1460000	ug/Kg		6650	26000	26000	1	P	HSC	01/07/10 07:35	010610A-1	936768
7782-49-2	Selenium	1.04	mg/kg	U	0.52	1.04	1.04	2	MS	SKJ	01/07/10 21:59	100107-2	936773
7440-22-4	Silver	394	ug/Kg	J	104	520	520	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-23-5	Sodium	294000	ug/Kg		7280	26000	26000	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-28-0	Thallium	0.196	mg/kg	J	0.0624	0.208	0.208	2	MS	SKJ	01/07/10 21:59	100107-2	936773
7440-61-1	Uranium	0.631	mg/kg		0.0137	0.0416	0.0416	2	MS	SKJ	01/07/10 21:59	100107-2	936773
7440-62-2	Vanadium	15600	ug/Kg		104	520	520	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-66-6	Zinc	31000	ug/Kg		343	1040	1040	1	P	HSC	01/07/10 07:35	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.523	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.523	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.546	g	30	mL	01/06/10	TXB3

MLD 02/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517005

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7555

LEVEL: Low

DATE RECEIVED 24-DEC-09

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	8280000	ug/Kg		7660	22500	22500	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-36-0	Antimony	1130	ug/Kg	U	372	1130	1130	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-38-2	Arsenic	1.88	mg/kg		0.227	1.13	1.13	2	MS	SKJ	01/12/10 17:53	100112-6	936773
7440-39-3	Barium	107000	ug/Kg		113	564	564	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-41-7	Beryllium	0.950	mg/kg		0.0227	0.113	0.113	2	MS	SKJ	01/12/10 15:30	100112-4	936773
7440-43-9	Cadmium	564	ug/Kg	U	113	564	564	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-70-2	Calcium	1520000	ug/Kg		9020	28200	28200	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-47-3	Chromium	9110	ug/Kg		169	564	564	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-48-4	Cobalt	5200	ug/Kg		169	564	564	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-50-8	Copper	4110	ug/Kg		338	1130	1130	1	P	HSC	01/07/10 07:42	010610A-1	936768
7439-89-6	Iron	11200000	ug/Kg		9020	28200	28200	1	P	HSC	01/07/10 07:42	010610A-1	936768
7439-92-1	Lead	11200	ug/Kg		282	1130	1130	1	P	HSC	01/07/10 07:42	010610A-1	936768
7439-95-4	Magnesium J+,16b	1350000	ug/Kg		9580	33800	33800	1	P	HSC	01/07/10 07:42	010610A-1	936768
7439-96-5	Manganese	323000	ug/Kg		225	1130	1130	1	P	HSC	01/07/10 07:42	010610A-1	936768
7439-97-6	Mercury	13.8	ug/kg	U	4.69	13.8	13.8	1	AV	JXL1	01/07/10 13:25	010710S2-7	937611
7440-02-0	Nickel	5.88	mg/kg		0.113	0.453	0.453	2	MS	SKJ	01/07/10 22:05	100107-2	936773
7440-09-7	Potassium	1300000	ug/Kg		7210	28200	28200	1	P	HSC	01/07/10 07:42	010610A-1	936768
7782-49-2	Selenium	1.13	mg/kg	U	0.567	1.13	1.13	2	MS	SKJ	01/07/10 22:05	100107-2	936773
7440-22-4	Silver	322	ug/Kg	J	113	564	564	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-23-5	Sodium	71100	ug/Kg		7890	28200	28200	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-28-0	Thallium	0.212	mg/kg	J	0.068	0.227	0.227	2	MS	SKJ	01/07/10 22:05	100107-2	936773
7440-61-1	Uranium	1.29	mg/kg		0.015	0.0453	0.0453	2	MS	SKJ	01/07/10 22:05	100107-2	936773
7440-62-2	Vanadium	23500	ug/Kg		113	564	564	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-66-6	Zinc	20200	ug/Kg		372	1130	1130	1	P	HSC	01/07/10 07:42	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.521	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.518	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.511	g	30	mL	01/06/10	TXB3

MLD 02/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517006

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7556

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 91.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8220000	ug/Kg		7320	21500	21500	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-36-0	Antimony	1080	ug/Kg	U	355	1080	1080	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-38-2	Arsenic	1.89	mg/kg		0.206	1.03	1.03	2	MS	SKJ	01/12/10 17:56	100112-6	936773
7440-39-3	Barium	92400	ug/Kg		108	538	538	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-41-7	Beryllium	0.781	mg/kg		0.0206	0.103	0.103	2	MS	SKJ	01/12/10 15:32	100112-4	936773
7440-43-9	Cadmium	538	ug/Kg	U	108	538	538	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-70-2	Calcium	1740000	ug/Kg		8610	26900	26900	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-47-3	Chromium	6730	ug/Kg		161	538	538	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-48-4	Cobalt	3160	ug/Kg		161	538	538	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-50-8	Copper	3770	ug/Kg		323	1080	1080	1	P	HSC	01/07/10 07:49	010610A-1	936768
7439-89-6	Iron	12100000	ug/Kg		8610	26900	26900	1	P	HSC	01/07/10 07:49	010610A-1	936768
7439-92-1	Lead	5360	ug/Kg		269	1080	1080	1	P	HSC	01/07/10 07:49	010610A-1	936768
7439-95-4	Magnesium J+,16b	1480000	ug/Kg		9130	32300	32300	1	P	HSC	01/07/10 07:49	010610A-1	936768
7439-96-5	Manganese	219000	ug/Kg		215	1080	1080	1	P	HSC	01/07/10 07:49	010610A-1	936768
7439-97-6	Mercury	8.47	ug/kg	J	4.2	12.4	12.4	1	AV	JXLI	01/07/10 13:31	010710S2-7	937611
7440-02-0	Nickel	5.23	mg/kg		0.103	0.413	0.413	2	MS	SKJ	01/07/10 22:11	100107-2	936773
7440-09-7	Potassium	1340000	ug/Kg		6890	26900	26900	1	P	HSC	01/07/10 07:49	010610A-1	936768
7782-49-2	Selenium	1.03	mg/kg	U	0.516	1.03	1.03	2	MS	SKJ	01/07/10 22:11	100107-2	936773
7440-22-4	Silver	465	ug/Kg	J	108	538	538	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-23-5	Sodium	182000	ug/Kg		7540	26900	26900	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-28-0	Thallium	0.141	mg/kg	J	0.0619	0.206	0.206	2	MS	SKJ	01/07/10 22:11	100107-2	936773
7440-61-1	Uranium	0.489	mg/kg		0.0136	0.0413	0.0413	2	MS	SKJ	01/07/10 22:11	100107-2	936773
7440-62-2	Vanadium	14300	ug/Kg		108	538	538	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-66-6	Zinc	28500	ug/Kg		355	1080	1080	1	P	HSC	01/07/10 07:49	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.506	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.528	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.529	g	30	mL	01/06/10	TXB3

MLD 02/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517007

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7562

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 90.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10800000	ug/Kg		7410	21800	21800	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-36-0	Antimony	1090	ug/Kg	U	360	1090	1090	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-38-2	Arsenic	2.26	mg/kg		0.217	1.09	1.09	2	MS	SKJ	01/12/10 17:58	100112-6	936773
7440-39-3	Barium	144000	ug/Kg		109	545	545	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-41-7	Beryllium	1.21	mg/kg		0.0217	0.109	0.109	2	MS	SKJ	01/12/10 15:34	100112-4	936773
7440-43-9	Cadmium	545	ug/Kg	U	109	545	545	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-70-2	Calcium	2300000	ug/Kg		8720	27300	27300	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-47-3	Chromium	8050	ug/Kg		164	545	545	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-48-4	Cobalt	3560	ug/Kg		164	545	545	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-50-8	Copper	5360	ug/Kg		327	1090	1090	1	P	HSC	01/07/10 07:56	010610A-1	936768
7439-89-6	Iron	13800000	ug/Kg		8720	27300	27300	1	P	HSC	01/07/10 07:56	010610A-1	936768
7439-92-1	Lead	6060	ug/Kg		273	1090	1090	1	P	HSC	01/07/10 07:56	010610A-1	936768
7439-95-4	Magnesium J+, I6b	2100000	ug/Kg		9270	32700	32700	1	P	HSC	01/07/10 07:56	010610A-1	936768
7439-96-5	Manganesec	226000	ug/Kg		218	1090	1090	1	P	HSC	01/07/10 07:56	010610A-1	936768
7439-97-6	Mercury	24.7	ug/kg		4.03	11.8	11.8	1	AV	JXLI	01/07/10 13:33	010710S2-7	937611
7440-02-0	Nickel	9.26	mg/kg		0.543	2.17	2.17	10	MS	SKJ	01/11/10 17:00	100111-3	936773
7440-09-7	Potassium	1540000	ug/Kg		6980	27300	27300	1	P	HSC	01/07/10 07:56	010610A-1	936768
7782-49-2	Selenium	1.09	mg/kg	U	0.543	1.09	1.09	2	MS	SKJ	01/07/10 22:18	100107-2	936773
7440-22-4	Silver	364	ug/Kg	J	109	545	545	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-23-5	Sodium	204000	ug/Kg		7630	27300	27300	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-28-0	Thallium	0.169	mg/kg	J	0.0651	0.217	0.217	2	MS	SKJ	01/07/10 22:18	100107-2	936773
7440-61-1	Uranium	0.627	mg/kg		0.0143	0.0434	0.0434	2	MS	SKJ	01/07/10 22:18	100107-2	936773
7440-62-2	Vanadium	16900	ug/Kg		109	545	545	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-66-6	Zinc	33300	ug/Kg		360	1090	1090	1	P	HSC	01/07/10 07:56	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.509	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.511	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.562	g	30	mL	01/06/10	TXB3

MLD 02/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517008

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7561

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9240000	ug/Kg		7590	22300	22300	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-36-0	Antimony	1120	ug/Kg	U	368	1120	1120	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-38-2	Arsenic	2.3	mg/kg		0.221	1.1	1.1	2	MS	SKJ	01/12/10 18:00	100112-6	936773
7440-39-3	Barium	107000	ug/Kg		112	558	558	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-41-7	Beryllium	1.04	mg/kg		0.0221	0.11	0.11	2	MS	SKJ	01/12/10 15:35	100112-4	936773
7440-43-9	Cadmium	558	ug/Kg	U	112	558	558	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-70-2	Calcium	1710000	ug/Kg		8930	27900	27900	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-47-3	Chromium	9700	ug/Kg		167	558	558	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-48-4	Cobalt	6260	ug/Kg		167	558	558	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-50-8	Copper	5610	ug/Kg		335	1120	1120	1	P	HSC	01/07/10 04:40	010610A-1	936768
7439-89-6	Iron	11500000	ug/Kg		8930	27900	27900	1	P	HSC	01/07/10 04:40	010610A-1	936768
7439-92-1	Lead	14200	ug/Kg		279	1120	1120	1	P	HSC	01/07/10 04:40	010610A-1	936768
7439-95-4	Magnesium J+,16b	1490000	ug/Kg		9480	33500	33500	1	P	HSC	01/07/10 04:40	010610A-1	936768
7439-96-5	Manganese	354000	ug/Kg		223	1120	1120	1	P	HSC	01/07/10 04:40	010610A-1	936768
7439-97-6	Mercury	12.1	ug/kg	J	4.57	13.4	13.4	1	AV	JXLI	01/07/10 13:35	010710S2-7	937611
7440-02-0	Nickel	6.94	mg/kg		0.11	0.442	0.442	2	MS	SKJ	01/07/10 22:36	100107-2	936773
7440-09-7	Potassium	1410000	ug/Kg		7140	27900	27900	1	P	HSC	01/07/10 04:40	010610A-1	936768
7782-49-2	Selenium	1.1	mg/kg	U	0.552	1.1	1.1	2	MS	SKJ	01/07/10 22:36	100107-2	936773
7440-22-4	Silver	184	ug/Kg	J	112	558	558	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-23-5	Sodium	76700	ug/Kg		7810	27900	27900	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-28-0	Thallium	0.258	mg/kg		0.0663	0.221	0.221	2	MS	SKJ	01/07/10 22:36	100107-2	936773
7440-61-1	Uranium	2	mg/kg		0.0146	0.0442	0.0442	2	MS	SKJ	01/07/10 22:36	100107-2	936773
7440-62-2	Vanadium	23900	ug/Kg		112	558	558	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-66-6	Zinc	22600	ug/Kg		368	1120	1120	1	P	HSC	01/07/10 04:40	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.507	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.512	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.505	g	30	mL	01/06/10	TXB3

MLD 02/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517009

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7563

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8070000	ug/Kg		7690	22600	22600	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-36-0	Antimony	1130	ug/Kg	U	373	1130	1130	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-38-2	Arsenic	2.63	mg/kg		0.217	1.09	1.09	2	MS	SKJ	01/12/10 18:03	100112-6	936773
7440-39-3	Barium	93000	ug/Kg		113	565	565	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-41-7	Beryllium	1.13	mg/kg		0.0217	0.109	0.109	2	MS	SKJ	01/12/10 15:37	100112-4	936773
7440-43-9	Cadmium	565	ug/Kg	U	113	565	565	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-70-2	Calcium	1530000	ug/Kg		9050	28300	28300	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-47-3	Chromium	9520	ug/Kg		170	565	565	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-48-4	Cobalt	5510	ug/Kg		170	565	565	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-50-8	Copper	5570	ug/Kg		339	1130	1130	1	P	HSC	01/07/10 04:47	010610A-1	936768
7439-89-6	Iron	11800000	ug/Kg		9050	28300	28300	1	P	HSC	01/07/10 04:47	010610A-1	936768
7439-92-1	Lead	12000	ug/Kg		283	1130	1130	1	P	HSC	01/07/10 04:47	010610A-1	936768
7439-95-4	Magnesium J+,16b	1540000	ug/Kg		9610	33900	33900	1	P	HSC	01/07/10 04:47	010610A-1	936768
7439-96-5	Manganese	302000	ug/Kg		226	1130	1130	1	P	HSC	01/07/10 04:47	010610A-1	936768
7439-97-6	Mercury	12.4	ug/kg	J	4.24	12.5	12.5	1	AV	JXL1	01/07/10 13:37	010710S2-7	937611
7440-02-0	Nickel	6.72	mg/kg		0.109	0.434	0.434	2	MS	SKJ	01/07/10 22:43	100107-2	936773
7440-09-7	Potassium	1420000	ug/Kg		7240	28300	28300	1	P	HSC	01/07/10 04:47	010610A-1	936768
7782-49-2	Selenium	1.09	mg/kg	U	0.543	1.09	1.09	2	MS	SKJ	01/07/10 22:43	100107-2	936773
7440-22-4	Silver	267	ug/Kg	J	113	565	565	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-23-5	Sodium	80400	ug/Kg		7910	28300	28300	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-28-0	Thallium	0.206	mg/kg	J	0.0651	0.217	0.217	2	MS	SKJ	01/07/10 22:43	100107-2	936773
7440-61-1	Uranium	1.56	mg/kg		0.0143	0.0434	0.0434	2	MS	SKJ	01/07/10 22:43	100107-2	936773
7440-62-2	Vanadium	24200	ug/Kg		113	565	565	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-66-6	Zinc	23400	ug/Kg		373	1130	1130	1	P	HSC	01/07/10 04:47	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.504	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.525	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.548	g	30	mL	01/06/10	TXB3

MLD 02/01/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1073 VALIDATION DATE: 02/01/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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


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

1. It should be noted that the matrix QC analyses associated with all samples except RE12-10-7561 and -7563 were performed on LANL samples from other RNs. No sample data were qualified as a result.
2. It should be noted that samples -7559 and -7560 were not received by the laboratory and were subsequently cancelled for analysis.


Reviewed by: ETM Level: 1 Date: 2/2/10

VALIDATOR'S SIGNATURE: Monica Dymerski


DATE: 02/01/10

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

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

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

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

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

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

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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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7557
Sample ID: 243517003
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 14.1%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	74.7	274	ug/kg	1	AXC2	12/29/09	1043	936839	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/28/09	1555	936838

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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7558
Sample ID: 243517004
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 8.04%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	68.5	252	ug/kg	1	AXC2	12/29/09	1044	936839	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/28/09	1555	936838

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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7555
Sample ID: 243517005
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 14.9%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	79.9	294	ug/kg	1	AXC2	12/29/09	1045	936839	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/28/09	1555	936838

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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7556
Sample ID: 243517006
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 8.21%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	68.6	252	ug/kg	1	AXC2	12/29/09	1046	936839	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/28/09	1555	936838

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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7561
Sample ID: 243517008
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 11.6%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	74.0	272	ug/kg	1	AXC2	01/04/10	1108	936843	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7563
Sample ID: 243517009
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 12.3%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	76.0	279	ug/kg	1	AXC2	01/04/10	1111	936843	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7562
Sample ID: 243517007
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 9.88%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	68.6	252	ug/kg	1	AXC2	12/29/09	1046	936839	1
----------------	---	----	------	-----	-------	---	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/28/09	1555	936838

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1073 VALIDATION DATE: 02/01/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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


Section II. Completeness Check

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


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

1. The gamma spec sample results that were rejected by the laboratory due to interference or low abundance were qualified R,R5a. Some gamma spec results were also rejected by the laboratory in QC samples. No sample data were qualified as a result.
2. The matrix QC analyses were performed on LANL samples from other RNs for all analytical methods. No sample data were qualified as a result.
3. It should be noted that samples RE12-10-7559 and -7560 were not received by the laboratory and were subsequently cancelled for analysis.


Reviewed by: ETM Level: 1 Date: 2/2/10VALIDATOR'S SIGNATURE: Monica DymerskiDATE: 01/27/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only 

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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	Records Use only	
Rad Analytical Data Validation Checklist		

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. The tracer is < the Lower Acceptance Level (LAL) but $\geq 10\%R$. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: RE12-10-7557
Sample ID: 243517003
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 14.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00432	0.0174	+/-0.00212	0.050	pCi/g		MXA1	01/06/10	2215	936978	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00107	0.0176	+/-0.00107	0.050	pCi/g		MXA1	01/05/10	2008	936982	3
Plutonium-239/240	U	0.0117	0.0202	+/-0.00359	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.20	0.135	+/-0.113	0.100	pCi/g		MXA1	01/07/10	1757	936984	4
Uranium-235/236	U	0.0485	0.0839	+/-0.0197	0.100	pCi/g						
Uranium-238		1.41	0.0784	+/-0.128	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0952	0.112	+/-0.0348	0.200	pCi/g		MXR1	01/07/10	0852	937069	5
Bismuth-211	UI	4.33	R,R5a	0.345	+/-0.326	pCi/g						
Bismuth-214		1.26		0.137	+/-0.110	pCi/g						
Cadmium-109	UI	3.38	R,R5a	0.952	+/-0.417	pCi/g						
Cerium-139	U	0.00978		0.0553	+/-0.0163	pCi/g						
Cesium-134	UI	0.117	R,R5a	0.106	+/-0.0278	pCi/g						
Cesium-137		0.202		0.0752	+/-0.0366	pCi/g						
Cobalt-60	U	-0.00714		0.058	+/-0.0185	pCi/g						
Europium-152	U	0.0281		0.171	+/-0.072	pCi/g						
Lanthanum-140	U	0.107		0.193	+/-0.0566	pCi/g						
Lead-212		1.52		0.099	+/-0.0998	pCi/g						
Lead-214		1.51		0.120	+/-0.120	pCi/g						
Mercury-203	U	0.0175		0.0771	+/-0.022	pCi/g						
Potassium-40		21.5		0.591	+/-1.07	pCi/g						
Radium-223	U	0.0293		1.19	+/-0.399	pCi/g						
Radium-224	UI	4.28	R,R5a	1.13	+/-0.596	pCi/g						
Radium-226		1.26		0.137	+/-0.110	pCi/g						
Radium-228		1.55		0.237	+/-0.183	pCi/g						
Ruthenium-106	U	0.0674		0.594	+/-0.179	pCi/g						
Sodium-22	U	0.0264		0.0779	+/-0.0224	pCi/g						

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

Report Date: January 11, 2010

Client Sample ID: RE12-10-7557
Sample ID: 243517003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
Rad Gamma Spec Analysis											
<i>GAMMA SPEC "Dry Weight Corrected"</i>											
Strontium-85	UI	0.116	R,R5a	0.0829	+/-0.024	pCi/g					
Thallium-208		0.443		0.0723	+/-0.0484	pCi/g	0.080				
Thorium-227	U	-0.238		0.656	+/-0.197	pCi/g					
Thorium-231	U	0.0293		1.19	+/-0.399	pCi/g					
Thorium-234		1.55		1.08	+/-0.425	pCi/g	2.00				
Tin-113	U	0.0121		0.0814	+/-0.0237	pCi/g	0.100				
Uranium-235	U	0.235		0.400	+/-0.119	pCi/g	0.500				
Yttrium-88	U	-0.00765		0.0535	+/-0.0172	pCi/g	0.100				

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"	91.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	81.0	(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 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

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

Report Date: January 11, 2010

Client Sample ID: RE12-10-7558
Sample ID: 243517004
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 8.04%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.000262	0.0175	+/-0.00155	0.050	pCi/g		MXA1	01/06/10	2215	936978	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00109	0.018	+/-0.00109	0.050	pCi/g		MXA1	01/05/10	2008	936982	3
Plutonium-239/240	U	0.00436	0.0206	+/-0.00268	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		0.656	0.218	+/-0.0844	0.100	pCi/g		MXA1	01/07/10	1757	936984	4
Uranium-235/236	U	0.0347	0.135	+/-0.0176	0.100	pCi/g						
Uranium-238		0.632	0.126	+/-0.0829	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	-0.239	0.341	+/-0.103	0.200	pCi/g		MXR1	01/07/10	0853	937069	5
Bismuth-211	UI	3.24	R,R5a	0.368	+/-0.254	pCi/g						
Bismuth-214		0.928		0.131	+/-0.0929	pCi/g						
Cadmium-109	UI	2.28	R,R5a	1.49	+/-0.588	pCi/g						
Cerium-139	U	-0.02		0.0571	+/-0.0176	pCi/g						
Cesium-134	U	0.0767		0.109	+/-0.0296	pCi/g						
Cesium-137	U	0.0263		0.0819	+/-0.0241	pCi/g						
Cobalt-60	U	-0.0222		0.0705	+/-0.0233	pCi/g						
Europium-152	U	0.0742		0.188	+/-0.0684	pCi/g						
Lanthanum-140	U	-0.119		0.143	+/-0.0537	pCi/g						
Lead-212		1.57		0.108	+/-0.0844	pCi/g						
Lead-214		1.13		0.136	+/-0.0932	pCi/g						
Mercury-203	U	0.0386		0.087	+/-0.0245	pCi/g						
Potassium-40		30.9		0.507	+/-1.46	pCi/g						
Radium-223	U	-1.12		1.36	+/-0.437	pCi/g						
Radium-224	UI	4.07	R,R5a	1.22	+/-0.781	pCi/g						
Radium-226		0.928		0.131	+/-0.0929	pCi/g						
Radium-228		1.63		0.231	+/-0.182	pCi/g						
Ruthenium-106	U	-0.0477		0.590	+/-0.182	pCi/g						
Sodium-22	U	-0.0125		0.094	+/-0.0295	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: RE12-10-7558
Sample ID: 243517004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
Rad Gamma Spec Analysis											
<i>GAMMA SPEC "Dry Weight Corrected"</i>											
Strontium-85	U	0.0453	0.0826	+/-0.0267		pCi/g					
Thallium-208		0.472	0.0672	+/-0.0501	0.080	pCi/g					
Thorium-227	U	-0.478	0.708	+/-0.235		pCi/g					
Thorium-231	U	-1.12	1.36	+/-0.437		pCi/g					
Thorium-234	U	1.85	3.03	+/-0.868	2.00	pCi/g					
Tin-113	U	0.0457	0.0961	+/-0.0272	0.100	pCi/g					
Uranium-235	U	0.311	0.428	+/-0.124	0.500	pCi/g					
Yttrium-88	U	-0.0412	0.056	+/-0.0215	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"	91.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	50.8	(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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- 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

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: RE12-10-7555
Sample ID: 243517005
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 14.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.000379	0.0186	+/-0.0011	0.050	pCi/g		MXA1	01/06/10	2215	936978	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00143	0.0236	+/-0.00143	0.050	pCi/g		MXA1	01/05/10	2008	936982	3
Plutonium-239/240	U	0.00571	0.027	+/-0.00287	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.33	0.127	+/-0.121	0.100	pCi/g		MXA1	01/07/10	1757	936984	4
Uranium-235/236	U	0.066	0.0791	+/-0.0189	0.100	pCi/g						
Uranium-238		1.59	0.0739	+/-0.140	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	-0.0129	0.175	+/-0.057	0.200	pCi/g		MXR1	01/07/10	0853	937069	5
Bismuth-211	UI	4.66	R,R5a	0.363	+/-0.324	pCi/g						
Bismuth-214		1.42		0.0989	+/-0.105	pCi/g						
Cadmium-109	UI	2.52	R,R5a	1.12	+/-0.491	pCi/g						
Cerium-139	U	-0.0155		0.0508	+/-0.016	pCi/g						
Cesium-134	UI	0.110	R,R5a	0.102	+/-0.0274	pCi/g						
Cesium-137		0.131		0.0572	+/-0.0357	pCi/g						
Cobalt-60	U	-0.0298		0.0637	+/-0.0212	pCi/g						
Europium-152	U	-0.00804		0.165	+/-0.0514	pCi/g						
Lanthanum-140	U	0.0941		0.174	+/-0.0518	pCi/g						
Lead-212		1.72		0.0889	+/-0.101	pCi/g						
Lead-214		1.62		0.127	+/-0.120	pCi/g						
Mercury-203	U	0.0372		0.0747	+/-0.0211	pCi/g						
Potassium-40		22.2		0.522	+/-1.22	pCi/g						
Radium-223	U	0.249		1.14	+/-0.378	pCi/g						
Radium-224	UI	4.33	R,R5a	1.01	+/-0.505	pCi/g						
Radium-226		1.42		0.0989	+/-0.105	pCi/g						
Radium-228		1.72		0.219	+/-0.181	pCi/g						
Ruthenium-106	U	-0.0479		0.519	+/-0.156	pCi/g						
Sodium-22	U	0.00827		0.0737	+/-0.0219	pCi/g						

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Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID:
Sample ID:

RE12-10-7555
243517005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
Rad Gamma Spec Analysis											
<i>GAMMA SPEC "Dry Weight Corrected"</i>											
Strontium-85	U	0.0626	0.0713	+/-0.0213		pCi/g					
Thallium-208		0.510	0.058	+/-0.0431	0.080	pCi/g					
Thorium-227	U	0.127	0.657	+/-0.190		pCi/g					
Thorium-231	U	0.249	1.14	+/-0.378		pCi/g					
Thorium-234	U	0.894	1.63	+/-0.702	2.00	pCi/g					
Tin-113	U	-0.0348	0.0759	+/-0.0242	0.100	pCi/g					
Uranium-235	U	0.131	0.355	+/-0.107	0.500	pCi/g					
Yttrium-88	U	-0.0191	0.0531	+/-0.0179	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"	87.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	63.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	81.6	(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 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

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: RE12-10-7556
Sample ID: 243517006
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 8.21%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
Gravimetric Solids											
<i>"As Received"</i>											
Rad Alpha Spec Analysis											
<i>AM241 "Dry Weight Corrected"</i>											
Americium-241	U	-0.00391	0.0178	+/-0.00181	0.050	pCi/g		MXA1	01/06/10	2215 936978	2
<i>ISOPU "Dry Weight Corrected"</i>											
Plutonium-238	U	0.000994	0.0164	+/-0.000995	0.050	pCi/g		MXA1	01/05/10	2008 936982	3
Plutonium-239/240	U	0.00298	0.0188	+/-0.00173	0.050	pCi/g					
<i>ISOU "Dry Weight Corrected"</i>											
Uranium-233/234		0.453	0.182	+/-0.0628	0.100	pCi/g		MXA1	01/07/10	1757 936984	4
Uranium-235/236	U	0.0652	0.113	+/-0.0223	0.100	pCi/g					
Uranium-238		0.616	0.105	+/-0.0761	0.100	pCi/g					
Rad Gamma Spec Analysis											
<i>GAMMA SPEC "Dry Weight Corrected"</i>											
Americium-241	U	0.0339	0.225	+/-0.0764	0.200	pCi/g		MXR1	01/07/10	0854 937069	5
Bismuth-211	UI	3.54	R,R5a	0.356	+/-0.238	pCi/g					
Bismuth-214		1.11		0.119	+/-0.0905	pCi/g					
Cadmium-109	UI	4.39	R,R5a	1.28	+/-0.645	pCi/g					
Cerium-139	U	0.0299	0.0564	+/-0.0169	0.050	pCi/g					
Cesium-134	UI	0.156	R,R5a	0.108	+/-0.0485	pCi/g					
Cesium-137	U	-0.0178	0.0671	+/-0.0215	0.100	pCi/g					
Cobalt-60	U	-0.00868	0.072	+/-0.0225	0.100	pCi/g					
Europium-152	U	0.0419	0.178	+/-0.0635	0.200	pCi/g					
Lanthanum-140	U	-0.0767	0.153	+/-0.0536		pCi/g					
Lead-212		1.59	0.0978	+/-0.0822	0.100	pCi/g					
Lead-214		1.23	0.118	+/-0.0888	0.100	pCi/g					
Mercury-203	U	0.044	0.0774	+/-0.0221	0.100	pCi/g					
Potassium-40		33.6	0.667	+/-1.57	1.00	pCi/g					
Radium-223	U	-0.756	1.11	+/-0.418		pCi/g					
Radium-224	UI	4.85	R,R5a	1.11	+/-0.748	pCi/g					
Radium-226		1.11	0.119	+/-0.0905		pCi/g					
Radium-228		1.47	0.250	+/-0.160	0.500	pCi/g					
Ruthenium-106	U	-0.0647	0.526	+/-0.165	0.800	pCi/g					
Sodium-22	U	-0.00221	0.0851	+/-0.0261	0.080	pCi/g					

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: Sample ID:			RE12-10-7556 243517006		Project: Client ID:		LANL01004 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	0.0592	0.073	+/-0.0231		pCi/g						
Thallium-208		0.493	0.0634	+/-0.0464	0.080	pCi/g						
Thorium-227	U	0.123	0.664	+/-0.195		pCi/g						
Thorium-231	U	-0.756	1.11	+/-0.418		pCi/g						
Thorium-234	U	0.296	1.95	+/-0.850	2.00	pCi/g						
Tin-113	U	-0.031	0.0797	+/-0.025	0.100	pCi/g						
Uranium-235	U	0.0999	0.377	+/-0.116	0.500	pCi/g						
Yttrium-88	U	-0.0182	0.0485	+/-0.0174	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"	87.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	58.0	(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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- 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 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

Certificate of Analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: RE12-10-7562
Sample ID: 243517007
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 9.88%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
Gravimetric Solids											
<i>"As Received"</i>											
Rad Alpha Spec Analysis											
<i>AM241 "Dry Weight Corrected"</i>											
Americium-241	U	-0.000394	0.0243	+/-0.00143	0.050	pCi/g		MXA1	01/06/10	2215 936978	2
<i>ISOPU "Dry Weight Corrected"</i>											
Plutonium-238	U	0.00	0.0189	+/-0.00115	0.050	pCi/g		MXA1	01/05/10	2008 936982	3
Plutonium-239/240	U	0.00	0.0216	+/-0.00115	0.050	pCi/g					
<i>ISOU "Dry Weight Corrected"</i>											
Uranium-233/234		0.549	0.222	+/-0.0762	0.100	pCi/g		MXA1	01/07/10	1757 936984	4
Uranium-235/236	U	0.0177	0.138	+/-0.0126	0.100	pCi/g					
Uranium-238		0.545	0.129	+/-0.0752	0.100	pCi/g					
Rad Gamma Spec Analysis											
<i>GAMMA SPEC "Dry Weight Corrected"</i>											
Americium-241	U	0.0528	0.209	+/-0.0655	0.200	pCi/g		MXR1	01/07/10	0858 937069	5
Bismuth-211	UI	3.31	R,R5a	0.300	+/-0.268	pCi/g					
Bismuth-214		0.958		0.0955	+/-0.0865	pCi/g					
Cadmium-109	UI	3.06	R,R5a	1.14	+/-0.429	pCi/g					
Cerium-139	U	-0.0217		0.0442	+/-0.0133	pCi/g					
Cesium-134	UI	0.149	R,R5a	0.0824	+/-0.0289	pCi/g					
Cesium-137	U	0.00334		0.0538	+/-0.0161	pCi/g					
Cobalt-60	U	-0.00168		0.053	+/-0.0161	pCi/g					
Europium-152	U	-0.106		0.139	+/-0.0542	pCi/g					
Lanthanum-140	U	-0.102		0.114	+/-0.0402	pCi/g					
Lead-212		1.62		0.0864	+/-0.118	pCi/g					
Lead-214		1.15		0.101	+/-0.0979	pCi/g					
Mercury-203	U	0.0368		0.0693	+/-0.0205	pCi/g					
Potassium-40		32.2		0.426	+/-1.67	pCi/g					
Radium-223	U	0.259		0.979	+/-0.322	pCi/g					
Radium-224	UI	4.00	R,R5a	0.982	+/-0.626	pCi/g					
Radium-226		0.958		0.0955	+/-0.0865	pCi/g					
Radium-228		1.54		0.179	+/-0.174	pCi/g					
Ruthenium-106	U	0.275		0.485	+/-0.138	pCi/g					
Sodium-22	U	-0.0253		0.0632	+/-0.020	pCi/g					

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: January 11, 2010

Client Sample ID: RE12-10-7562
Sample ID: 243517007
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
Rad Gamma Spec Analysis											
<i>GAMMA SPEC "Dry Weight Corrected"</i>											
Strontium-85	UI	0.127	R,R5a	0.0683	+/-0.021	pCi/g					
Thallium-208		0.479		0.0474	+/-0.0407	pCi/g					
Thorium-227	U	0.0756		0.605	+/-0.182	pCi/g					
Thorium-231	U	0.259		0.979	+/-0.322	pCi/g					
Thorium-234	U	1.24		1.78	+/-0.766	pCi/g					
Tin-113	U	0.00679		0.0703	+/-0.0208	pCi/g					
Uranium-235	U	-0.0134		0.336	+/-0.0986	pCi/g					
Yttrium-88	U	-0.0194		0.0418	+/-0.0142	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"	65.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	81.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	49.9 *	(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 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

MLD 02/01/10

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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: January 11, 2010

Client Sample ID: RE12-10-7561
Sample ID: 243517008
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 11.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00514	0.0197	+/-0.00246	0.050	pCi/g		MXA1	01/06/10	1816	936978	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00	0.0186	+/-0.00113	0.050	pCi/g		MXA1	01/05/10	2008	936982	3
Plutonium-239/240	U	0.00676	0.0213	+/-0.00321	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.20	0.143	+/-0.114	0.100	pCi/g		MXA1	01/07/10	1757	936984	4
Uranium-235/236	U	0.0569	0.0885	+/-0.0184	0.100	pCi/g						
Uranium-238		1.27	0.0827	+/-0.120	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0781	0.367	+/-0.114	0.200	pCi/g		MXR1	01/07/10	0912	937069	5
Bismuth-211	UI	3.44	R,R5a	0.280	+/-0.256	pCi/g						
Bismuth-214		1.20		0.101	+/-0.0805	0.200	pCi/g					
Cadmium-109	UI	3.11	R,R5a	1.43	+/-0.611	pCi/g						
Cerium-139	U	0.000167	0.0442	+/-0.0133	0.050	pCi/g						
Cesium-134	U	0.0528	0.0815	+/-0.0224	0.100	pCi/g						
Cesium-137		0.154	0.0552	+/-0.0268	0.100	pCi/g						
Cobalt-60	U	0.000277	0.0556	+/-0.0167	0.100	pCi/g						
Europium-152	U	0.0731	0.152	+/-0.0514	0.200	pCi/g						
Lanthanum-140	U	-0.148	0.130	+/-0.0517		pCi/g						
Lead-212		1.46	0.0855	+/-0.0746	0.100	pCi/g						
Lead-214		1.20	0.0975	+/-0.0943	0.100	pCi/g						
Mercury-203	U	0.0452	0.0688	+/-0.0211	0.100	pCi/g						
Potassium-40		21.4	0.450	+/-1.20	1.00	pCi/g						
Radium-223	U	0.267	1.09	+/-0.314		pCi/g						
Radium-224	UI	4.29	R,R5a	0.972	+/-0.531	pCi/g						
Radium-226		1.20	0.101	+/-0.0805		pCi/g						
Radium-228		1.34	0.211	+/-0.173	0.500	pCi/g						
Ruthenium-106	U	0.0513	0.467	+/-0.135	0.800	pCi/g						
Sodium-22	U	-0.00685	0.0587	+/-0.018	0.080	pCi/g						

MLD 02/01/10

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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: January 11, 2010

Client Sample ID: Sample ID:			RE12-10-7561 243517008		Project: Client ID:		LANL01004 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	0.0509	0.0578	+/-0.0175		pCi/g						
Thallium-208		0.398	0.0536	+/-0.0399	0.080	pCi/g						
Thorium-227	U	0.0111	0.572	+/-0.165		pCi/g						
Thorium-231	U	0.267	1.09	+/-0.314		pCi/g						
Thorium-234	U	0.948	2.68	+/-1.06	2.00	pCi/g						
Tin-113	U	0.00254	0.0668	+/-0.0198	0.100	pCi/g						
Uranium-235	U	0.0447	0.330	+/-0.0977	0.500	pCi/g						
Yttrium-88	U	-0.00711	0.0467	+/-0.0153	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"	84.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	74.4	(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 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

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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: January 11, 2010

Client Sample ID: RE12-10-7563
Sample ID: 243517009
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 12.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00205	0.0219	+/-0.00163	0.050	pCi/g		MXA1	01/06/10	1816	936978	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00	0.0179	+/-0.00109	0.050	pCi/g		MXA1	01/05/10	2008	936982	3
Plutonium-239/240	U	0.00326	0.0205	+/-0.00243	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.10	0.138	+/-0.106	0.100	pCi/g		MXA1	01/07/10	1757	936984	4
Uranium-235/236	U	0.055	0.0857	+/-0.0178	0.100	pCi/g						
Uranium-238		1.18	0.080	+/-0.112	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0225	0.176	+/-0.0562	0.200	pCi/g		MXR1	01/07/10	0913	937069	5
Bismuth-211	UI	3.49	R,R5a	0.273	+/-0.292	pCi/g						
Bismuth-214		1.11		0.107	+/-0.100	pCi/g						
Cadmium-109	UI	3.22	R,R5a	0.893	+/-0.368	pCi/g						
Cerium-139	U	-0.00314		0.0416	+/-0.0121	pCi/g						
Cesium-134	UI	0.157	R,R5a	0.0811	+/-0.0327	pCi/g						
Cesium-137		0.142		0.0504	+/-0.0234	pCi/g						
Cobalt-60	U	-0.0273		0.0472	+/-0.0164	pCi/g						
Europium-152	U	-0.0474		0.131	+/-0.0419	pCi/g						
Lanthanum-140	U	0.0718		0.134	+/-0.0368	pCi/g						
Lead-212		1.43		0.0794	+/-0.111	pCi/g						
Lead-214		1.21		0.0948	+/-0.107	pCi/g						
Mercury-203	U	-0.0713		0.0528	+/-0.019	pCi/g						
Potassium-40		21.3		0.435	+/-1.17	pCi/g						
Radium-223	U	-0.168		0.875	+/-0.309	pCi/g						
Radium-224	UI	3.65	R,R5a	0.903	+/-0.546	pCi/g						
Radium-226		1.11		0.107	+/-0.100	pCi/g						
Radium-228		1.49		0.150	+/-0.154	pCi/g						
Ruthenium-106	U	-0.125		0.384	+/-0.122	pCi/g						
Sodium-22	U	-0.0262		0.0534	+/-0.0181	pCi/g						

MLD 02/01/10

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: January 11, 2010

Client Sample ID: Sample ID:			RE12-10-7563 243517009		Project: Client ID:		LANL01004 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	0.00407	0.0531	+/-0.0176		pCi/g					
Thallium-208		0.480	0.0459	+/-0.0468	0.080	pCi/g					
Thorium-227	U	0.178	0.536	+/-0.156		pCi/g					
Thorium-231	U	-0.168	0.875	+/-0.309		pCi/g					
Thorium-234		2.29	1.43	+/-0.721	2.00	pCi/g					
Tin-113	U	-0.0219	0.0608	+/-0.0183	0.100	pCi/g					
Uranium-235	U	-0.0383	0.282	+/-0.0829	0.500	pCi/g					
Yttrium-88	U	0.020	0.0532	+/-0.0154	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"	72.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	75.6	(50%-105%)

Notes:

TPU is calculated at the 67% confidence level (1-sigma).

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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
- 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

Wednesday, December 23, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1073

LOS ALAMOS

REQUEST NUMBER: 10-1073

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/22/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

2435177.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE12-10-7559	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7559	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7560	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7560	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7557	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7557	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7557	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7558	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7558	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7558	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7555	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7555	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7555	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7556	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7556	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7556	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7562	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE12-10-7562	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7562	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7561	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE12-10-7561	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7561	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7563	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE12-10-7563	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7563	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7559	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7560	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:

Date Time

Received By:

Date

Time

Page 5 of 1979

Printed Name _____ Signature _____

Printed Name _____ Signature _____

Date _____

Time

Remarks:

Printed Name: _____ Signature: _____

Wednesday, December 23, 2009

**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: 10-1073
Per Agreement Number: 128310011
Project Cost Code: MR3A05529E00

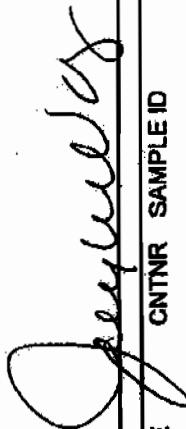
Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/23/2009
TURNAROUND/REPORT DUE: 1/22/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Received
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:801.1					
		1	RE12-10-7555	R	12/21/2008	
		1	RE12-10-7556	R	12/21/2008	
		1	RE12-10-7557	R	12/21/2008	
		1	RE12-10-7558	R	12/21/2008	
		1	RE12-10-7559	R	12/21/2008	
		1	RE12-10-7560	R	12/21/2008	
		1	RE12-10-7561	R	12/21/2008	
		1	RE12-10-7562	R	12/21/2008	
		1	RE12-10-7563	R	12/21/2008	

Wednesday, December 23, 2009

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REQUEST NUMBER: 10-1073

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	HASL-300:ISOPU	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	HASL-300:ISOU	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
		1	RE12-10-7555	R	12/21/2009	

Wednesday, December 23, 2009

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REQUEST NUMBER: 10-1073

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8020	1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	SW-846:6850	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	SW-846:7471A	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	SW-846:8082	1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
		1	RE12-10-7564	R	12/21/2009	

Wednesday, December 23, 2009

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REQUEST NUMBER: 10-1073

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE12-10-7563	R	12/21/2009	
	SW-846:8321A_MOD	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	SW-846:9012A	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	

Final Page of REQUEST NUMBER 10-1073



January 06, 2010

www.gel.com

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

Re: LANL ER Project
Work Order: 243517
SDG: 10-1073

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 24, 2009, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, 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
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1073
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 243517
SDG: 10-1073

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Standards Data.....	1943
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Case Narrative

**Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 243517
SDG # : 10-1073**

January 06, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 24, 2009 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 lab did not receive containers for samples RE12-10-7559 and 7560. Los Alamos was notified and we were instructed to cancel the analysis. Please see attached e-mail. 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 14/15C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

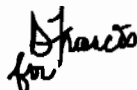
<u>Laboratory ID</u>	<u>Client ID</u>
243517003	RE12-10-7557
243517004	RE12-10-7558
243517005	RE12-10-7555
243517006	RE12-10-7556
243517007	RE12-10-7562
243517008	RE12-10-7561
243517009	RE12-10-7563

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: Explosives by LCMSMS, GC Semivolatile PCB, 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
Project Manager

List of current GEL Certifications as of 06 January 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

Wednesday, December 23, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1073

LOS ALAMOS

REQUEST NUMBER: 10-1073

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/22/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

2435177.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE12-10-7559	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7559	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7560	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7560	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7557	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7557	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7557	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7558	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7558	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7558	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7555	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7555	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7555	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7556	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7556	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7556	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7562	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE12-10-7562	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7562	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7561	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE12-10-7561	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7561	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7563	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE12-10-7563	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE12-10-7563	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7559	1	AMBER GLASS	NMED Explosives list	Ice	R
RE12-10-7560	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:

Date Time

Received By:

Date Time

Printed Name _____
Signature [Signature]

10-1073
Greg Tyler [Signature] 12-24-09 0930
Printed Name _____
Signature _____

Printed Name _____
Signature _____

Printed Name _____
Signature _____

Printed Name _____
Signature _____

Printed Name _____
Signature _____

Received for DISPOSAL By:

Date

Time

Remarks: _____

Printed Name _____
Signature _____

Wednesday, December 23, 2009

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/23/2009

TURNAROUND/REPORT DUE: 1/22/2010

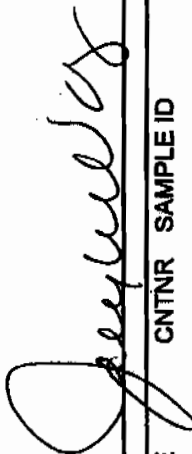
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Received

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



REQUEST NUMBER: 10-1073

These Samples are on:

LANL Request Number: 10-1073

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1					
		1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	

Wednesday, December 23, 2009

REQUEST NUMBER: 10-1073

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	HASL-300:ISOPU	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	HASL-300:ISOU	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	HASL-300:ISOPU	1	RE12-10-7555	R	12/21/2009	

Wednesday, December 23, 2009

REQUEST NUMBER: 10-1073

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	SW-846:6850	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	SW-846:7471A	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	SW-846:8082	1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	

Wednesday, December 23, 2009

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REQUEST NUMBER: 10-1073

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE12-10-7563	R	12/21/2009	
	SW-846:8321A_MOD	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	
	SW-846:9012A	1	RE12-10-7555	R	12/21/2009	
		1	RE12-10-7556	R	12/21/2009	
		1	RE12-10-7557	R	12/21/2009	
		1	RE12-10-7558	R	12/21/2009	
		1	RE12-10-7559	R	12/21/2009	
		1	RE12-10-7560	R	12/21/2009	
		1	RE12-10-7561	R	12/21/2009	
		1	RE12-10-7562	R	12/21/2009	
		1	RE12-10-7563	R	12/21/2009	

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SAMPLE RECEIPT & REVIEW FORM

Client: LANL		SDG/ARCO/Work Order: 10-1073	
Received By: Greg Tyler		Date Received: 12/24/09	
Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 60cpm
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags blue ice dry ice none other 3-SC 14,15C
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: No time on Chain of Custody.
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: RE12-10-7559, 7560. The lab did not receive the (1) container for AM241+GS+ISOPU+ISOU, Met+U+CL04+CN or NMED Explosives List as indicated on COC.
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers

7209 7849 3755 3C 7209 7849 3803 5C
 7209 7849 3788 4C 7209 7849 3825 14C
 7209 7849 3799 4C 7209 7849 3744 14C
 7209 7849 3858 4C 7209 7849 3733 15C
 7209 7849 3836 5C 7209 7849 3766 15C
 7209 7849 3771 5C
 7209 7849 3722 5C
 7209 7849 3847 5C

Issues from 12/24/09

Possible incorrect ID?

ID on containers: RE16-10-1103 (not found on COC)

8260B (125 ML amber wide-mouth)
METALS-GEL (125 ML Poly)
Anions + CL04 (125 ML poly)
8270C+NMED (500ML Amber)
AM241+GS+ISOPU+ISOU (100ML poly)

ID on COC: RE16-10-1003 (no containers found for these analyses.)

8260B
METALS-GEL
Anions + CL04
8270C+NMED
AM241+GS+ISOPU+ISOU

OUR COC SAYS 1103 SO I THINK WE ARE GOOD HERE

Other issues...

Missing Containers

Soils

WST03-10-2201	8260B 40ML (received 1 instead of 2 as indicated on COC.)
WST21-10-9930	8260B 40ML (received 1 instead of 2 as indicated on COC.)
WST21-10-9928	8260B 40ML (received 1 instead of 2 as indicated on COC.)
RE16-10-2867	8260B 40 ML (received 1 instead of 2 as indicated on COC.)
RE-10-7559	AM241+GS+ISOPU+ISOU Met+U+CL04+CN NMED Explosives list
RE-10-7560	AM241+GS+ISOPU+ISOU Met+U+CL04+CN NMED Explosives list

Cancel 7559 and 7560

Waters

RE03-10-6972	METALS-GEL TCN
RE03-10-7560	METALS-GEL TCN

We'll see if these show up if not in tomorrow's delivery then cancel

Containers Received that were not listed on COC(s)

RE03-10-9872 Perchlorate+CN+NO3+pH (500ML poly)
H3
AM241+ISOPU+ISOU (500ML poly)
8270C+8082 (250ML amber)
8260B (125ML amber)
METALS-GEL (125ML poly)

RE03-10-9874 Perchlorate+CN+NO3+pH (500ML poly)
H3
AM241+ISOPU+ISOU (500ML poly)
8270C+8082 (250ML amber)
8260B (125ML amber)
METALS-GEL (125ML poly)

These were added to 10-1086/1087 and 1088 will received revised requestes tommorrow

WSTR47-10-7140 TPH DRO (250ML amber)
WSTR47-10-7141 TPH DRO (250ML amber)

Missing bottles from 10-1000

GIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
05 ALAMOS NATL LAB
05 BLDG 1237 DPU 03

SHIP DATE: 23DEC09
ACTMGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

05 ALAMOS, NM 87545
UNITED STATES US

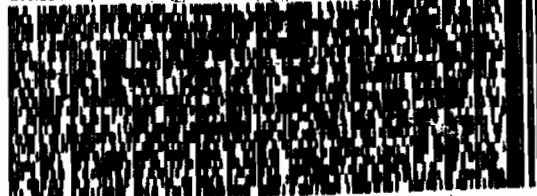
VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843)556-8171

REF: 6801AMR3A0352VA00

05 ALAMOS, NM 87545
UNITED STATES US



FedEx
Express



C90120004312224

2 of 2
SH 7209 7849 3755

itrn 7209 7849 3744 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS



GIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
05 ALAMOS NATL LAB
05 BLDG 1237 DPU 03

SHIP DATE: 23DEC09
ACTMGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

05 ALAMOS, NM 87545
UNITED STATES US

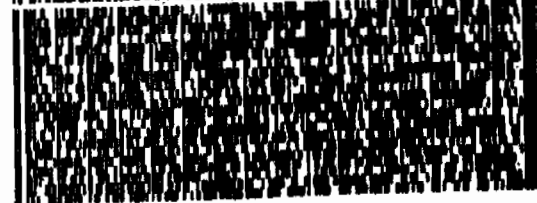
VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843)556-8171

REF: 6801AMR2A05419D0

05 ALAMOS, NM 87545
UNITED STATES US



FedEx
Express



C90120004312224

1 of 2
RKH 7209 7849 3799

MASTER NN

THU - 24DEC A1
PRIORITY OVERNIGHT

VV ALCA 14 of 1979

29407
SC-US

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

SHIP DATE: 23DEC09
ACTMGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

05 ALAMOS, NM 87545
UNITED STATES US

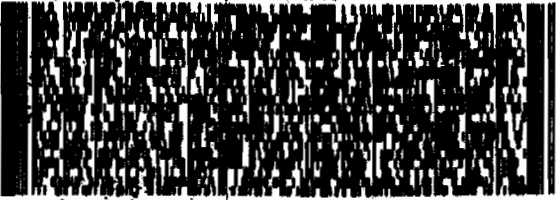
VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843)556-8171

REF: 6801AMR2A05419D0

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

SHIP DATE: 23DEC09
ACTMGT: 45.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

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VALERIE DAVIS
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ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TRAB BLDG 1237 DPU 63

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC89
ACTMGT: 82 8 LB MAN
CAD: 8814176/CAFE2434

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ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TRAB BLDG 1237 DPU 63

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC89
ACTMGT: 82 8 LB MAN
CAD: 8814176/CAFE2434

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TRAB BLDG 1237 DPU 63
LOS ALAMOS, NM 87545
UNITED STATES US

ACTMGT: 82 8 LB MAN
CAD: 8814176/CAFE2434

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ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TRAB BLDG 1237 DPU 63

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC89
ACTMGT: 82 8 LB MAN
CAD: 8814176/CAFE2434

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ORIGIN ID: SAFA (505) 866-8000
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA08 BLDG 1237 OPU 83

LOS ALAMOS NM 87545
UNITED STATES US

SHIP DATE: 23DEC88
ACTWT: 39.9 LB MAN
CRO: 8014176/CAFE2434

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

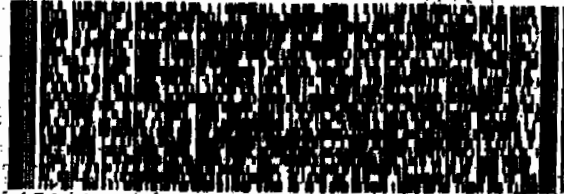
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NOTE: IF YOU ARE NOT THE ADDRESSEE, PLEASE RETURN TO THE SENDER.



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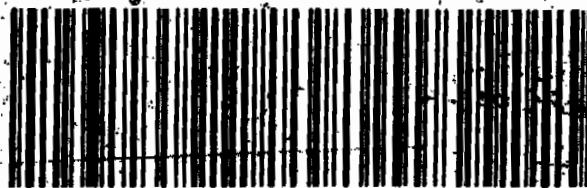
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Data Review Qualifier Flag Definition Sheet

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.

LC/MS/MS PERCHLORATE ANALYSIS

**Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1073**

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: 936774

Prep Batch Number: 936771

Sample Analysis

Sample ID	Client ID
243517003	RE12-10-7557
243517004	RE12-10-7558
243517005	RE12-10-7555
243517006	RE12-10-7556
243517007	RE12-10-7562
243517008	RE12-10-7561
243517009	RE12-10-7563
1202004354	Interference Check Sample (ICS)
1202004350	Method Blank (MB)
1202004353	Laboratory Control Sample (LCS)
1202005614	243542004(RE16-10-974) Matrix Spike (MS)
1202005615	243542004(RE16-10-974) Matrix Spike Duplicate (MSD)

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

10-1073-PERLCMS

Page 1 of 4

Preparation/Analytical Method Verification

SOP Reference

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

Calibration Information

Initial Calibration

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

CCV Requirements

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

CCB Requirements

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

CCV Requirements

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

Low Level Standard (CRI) Requirements

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

Quality Control (QC) Information

Method Blank (MB) Statement

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

Interference Check Sample (ICS)

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

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

Client sample 243542004 (RE16-10-974) from SDG 10-1079-1 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.

10-1073-PERLCMS

Page 2 of 4

Retention Time

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

Technical Information

Holding Time Specifications

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

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

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

Miscellaneous Information

Nonconformance (NCR) Documentation

Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integrations

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

Method Comments

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

Additional Comments

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

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

Perchlorate Isotope Ratio

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

System Configuration

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

Chromatographic Columns

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

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Deborah M. Mace Date: 01/08/10

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: 236771

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7557

Date Received: 24-DEC-02

GEL Job No (SDG): 10-1073

GEL Sample ID: 243517003

Date Filtered: 04-JAN-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.582	2.33	0.582	ug/kg	U	1	05-JAN-10 15:40	per0105015a
	Perchlorate Isotope Ratio						1	05-JAN-10 15:40	per0105015a
14797-73-0	Perchlorate-101	.582	2.33	0.582	ug/kg	U	1	05-JAN-10 15:40	per0105015a
	Perchlorate-O(18)			5.77	ug/kg		1	05-JAN-10 15:40	per0105015a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

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: 236771
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7558
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1073
 GEL Sample ID: 243517004
 Date Filtered: 04-JAN-10
 Injection Volume (uL): 20
 %Solids: 92

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.544	2.17	2.41	ug/kg		1	05-JAN-10 15:46	per0105016a
	Perchlorate Isotope Ratio			2.99			1	05-JAN-10 15:46	per0105016a
14797-73-0	Perchlorate-101	.544	2.17	2.39	ug/kg		1	05-JAN-10 15:46	per0105016a
	Perchlorate-O(18)			5.78	ug/kg		1	05-JAN-10 15:46	per0105016a

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

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 236771

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7555

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1073

GEL Sample ID: 243517005

Date Filtered: 04-JAN-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	0.587	ug/kg	U	1	05-JAN-10 15:52	per0105017a
	Perchlorate Isotope Ratio						1	05-JAN-10 15:52	per0105017a
14797-73-0	Perchlorate-101	.587	2.35	0.587	ug/kg	U	1	05-JAN-10 15:52	per0105017a
	Perchlorate-O(18)			5.64	ug/kg		1	05-JAN-10 15:52	per0105017a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 236771

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7556

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1073

GEL Sample ID: 243517006

Date Filtered: 04-JAN-10

Injection Volume (uL): 20

%Solids: 21.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.545	2.18	0.545	ug/kg	U	1	05-JAN-10 15:58	per0105018a
	Perchlorate Isotope Ratio						1	05-JAN-10 15:58	per0105018a
14797-73-0	Perchlorate-101	.545	2.18	0.545	ug/kg	U	1	05-JAN-10 15:58	per0105018a
	Perchlorate-O(18)			5.41	ug/kg		1	05-JAN-10 15:58	per0105018a

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

*Concentration =

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 236771

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7562

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1073

GEL Sample ID: 243517007

Date Filtered: 04-JAN-10

Injection Volume (mL): 20

%Solids: 90.1

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.555	2.22	0.555	ug/kg	U	1	05-JAN-10 16:04	per0105019a
	Perchlorate Isotope Ratio						1	05-JAN-10 16:04	per0105019a
14797-73-0	Perchlorate-101	.555	2.22	0.555	ug/kg	U	1	05-JAN-10 16:04	per0105019a
	Perchlorate-O(18)			5.60	ug/kg		1	05-JAN-10 16:04	per0105019a

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

*Concentration =

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846.6850 Modified

Matrix: SOIL

Extraction Batch ID: 236771

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7561

Date Received: 24-DEC-02

GEL Job No (SDG): 10-1073

GEL Sample ID: 243517008

Date Filtered: 04-JAN-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.566	2.26	0.566	ug/kg	U	1	05-JAN-10 16:10	per0105020a
	Perchlorate Isotope Ratio						1	05-JAN-10 16:10	per0105020a
14797-73-0	Perchlorate-101	.566	2.26	0.566	ug/kg	U	1	05-JAN-10 16:10	per0105020a
	Perchlorate-O(18)			5.72	ug/kg		1	05-JAN-10 16:10	per0105020a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 236771

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7563

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1073

GEL Sample ID: 243517009

Date Filtered: 04-JAN-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.57	2.28	0.570	ug/kg	U	1	05-JAN-10 16:17	per0105021a
	Perchlorate Isotope Ratio						1	05-JAN-10 16:17	per0105021a
14797-73-0	Perchlorate-101	.57	2.28	0.570	ug/kg	U	1	05-JAN-10 16:17	per0105021a
	Perchlorate-O(18)			5.83	ug/kg		1	05-JAN-10 16:17	per0105021a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids
Aliquot

QUALITY CONTROL SUMMARY

Form 5

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL GEL Job No. (SDG): 10-1073

Extract Batch Code: 936771 Date Filtered: 04-JAN-10

Matrix: SOIL Sample ID: 1202004353

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.95	ug/kg	97.7		70 - 130
Perchlorate Isotope Ratio		2.95				-
Perchlorate-101	2.00	1.97	ug/kg	98.4		70 - 130
Perchlorate-O(18)		4.82	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.

Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1073

Extract Batch Code: 936771

Date Filtered: 04-JAN-10

Matrix: SOIL

Sample ID: 1202004354

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.05	ug/kg	102		70 - 130
Perchlorate Isotope Ratio		3.02				
Perchlorate-101	2.00	2.01	ug/kg	101		70 - 130
Perchlorate-O(18)		5.04	ug/kg			

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105014a

Date: 05-Jan-2010

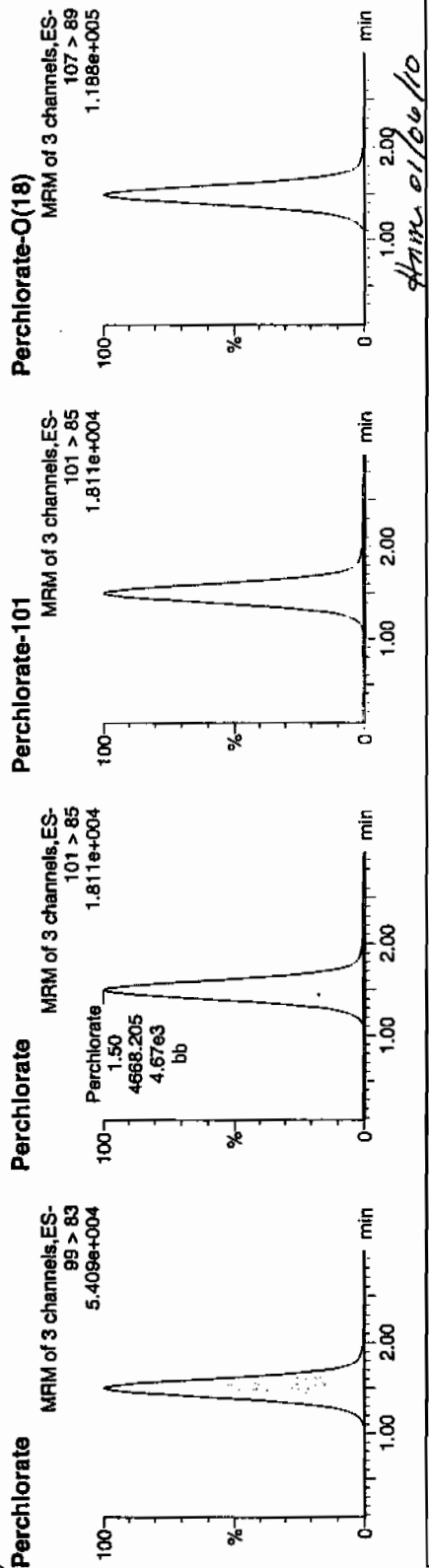
Time: 15:34:46

ID: 1202004354

Vial: 1:3,C

01-06-10

LANU | 936774 | 3020 | 7.5 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004354	Perchlorate	99 > 83	1.51	14089.209	14089.209	bb			0.2046	102.30	2.30	1695.1...	3.02
1202004354	Perchlorate-101	101 > 85	1.50	4668.205	4668.205	bb			0.2011	100.53	0.53	1549.9...	
1202004354	Perchlorate-Q(18)	107 > 89	1.50	30999.699	30999.699	bb			0.5044	100.87	0.87	6421.2...	

Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1073

Extract Batch Code: 936771

Date Extracted: 04-JAN-10

GEL MS/PS ID: 1202005614

Client ID: RE16-10-974

GEL MSD/PSD ID: 1202005615

QC Type: MS

Compound [^]	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	2.25	0.214	ug/kg	2.46	100		2.53	103		2.74		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		2.97			3			0			-
Perchlorate-101	2.25	0.214	ug/kg	2.46	100		2.5	102		1.72		30	75 - 125
Perchlorate-O(18)	0	5.82	ug/kg	5.64			5.76			2.16			-

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

Comments:

Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1073

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	05-JAN-10	per0105001a	IPB001
Perchlorate-101	0.00	0	NA	05-JAN-10	per0105001a	IPB001
Perchlorate	0.00	0	NA	05-JAN-10	per0105002a	IPB001
Perchlorate-101	0.00	0	NA	05-JAN-10	per0105002a	IPB001

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

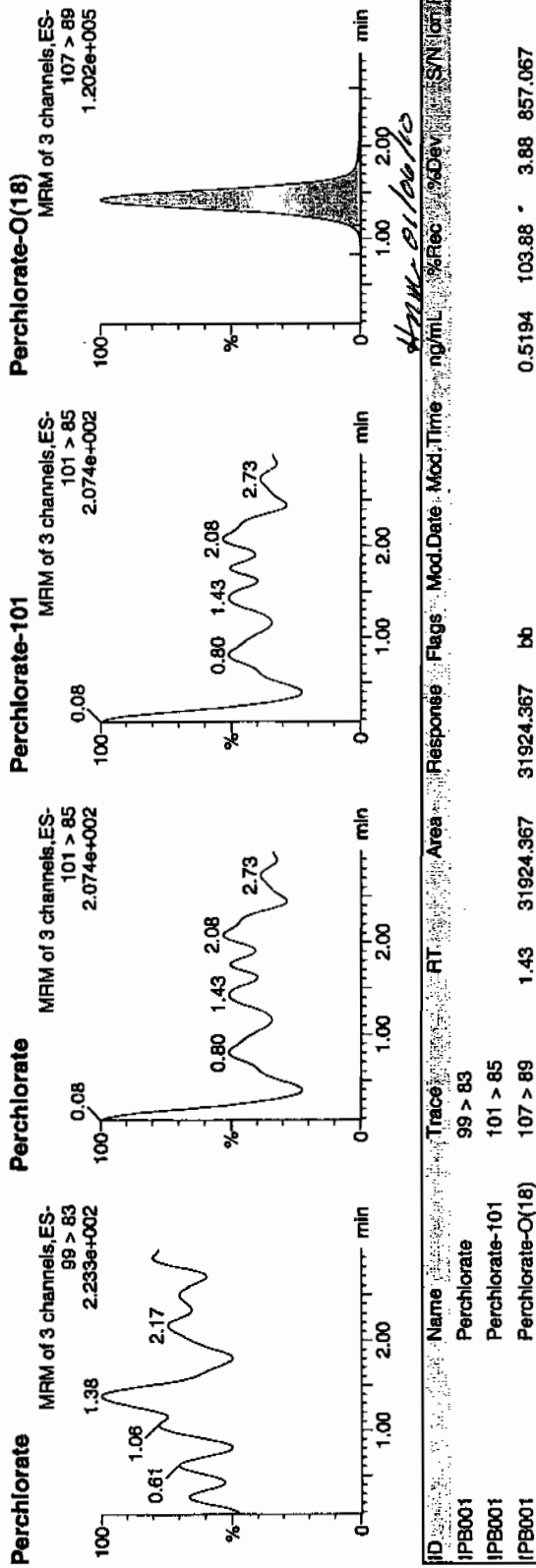
Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per010510a.mdb 05 Jan 2010 14:10:06
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per010510a.cdb 06 Jan 2010 07:55:37

Name: per0105001a
Date: 05-Jan-2010
Time: 14:16:18
ID: IPB001
Vial: 1:1,A

662
01-06-10



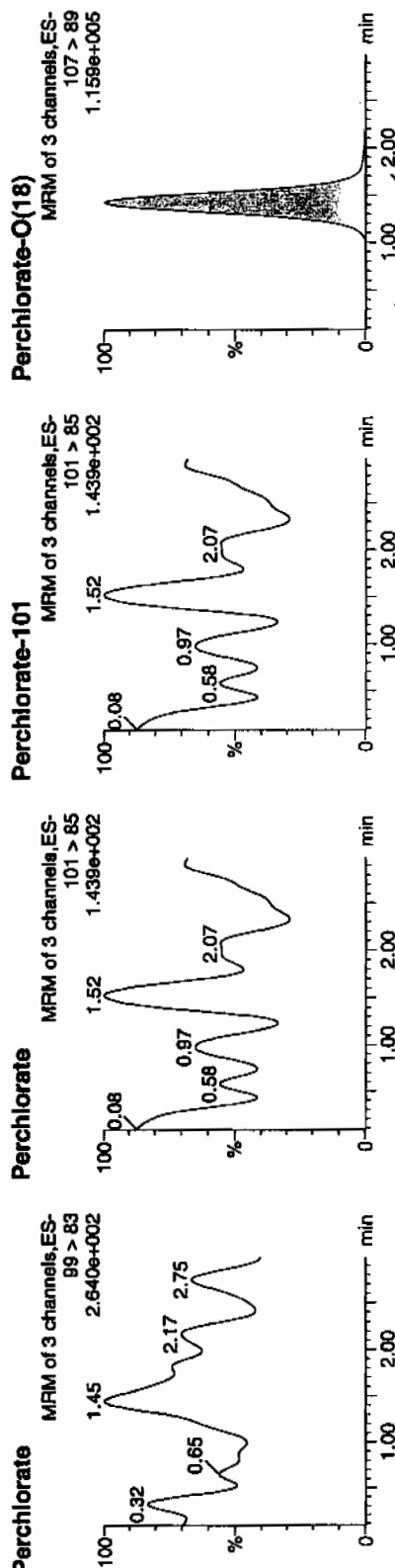
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Sample Name: per0105002a
Date: 05-Jan-2010
Time: 14:22:20
ID: IPB001
Vial: 1:1,A

and
01-26-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	1.42	30686.223	30686.223	bb			0.4993	99.85	-0.15	20113....	

Form 4

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-1073

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	05-JAN-10	per0105008a	IPB002
Perchlorate-101	0.00	0	NA	05-JAN-10	per0105008a	IPB002
Perchlorate	0.00	0	NA	05-JAN-10	per0105010a	IPB003
Perchlorate-101	0.00	0	NA	05-JAN-10	per0105010a	IPB003
Perchlorate	0.00	0	NA	05-JAN-10	per0105023a	IPB004
Perchlorate-101	0.00	0	NA	05-JAN-10	per0105023a	IPB004

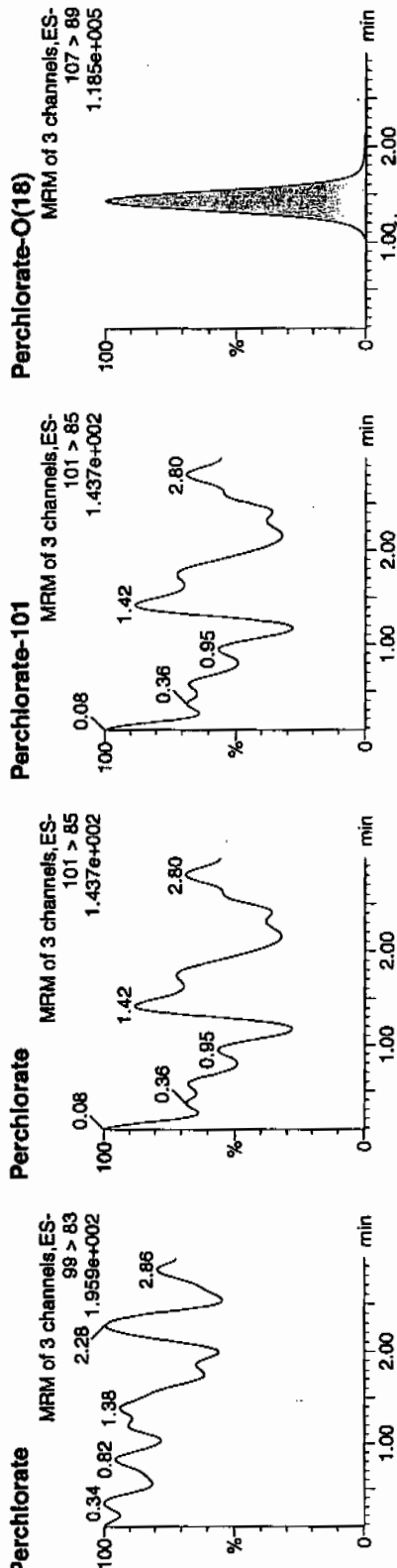
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105008a
Date: 05-Jan-2010
Time: 14:58:29
ID: IPB002
Vial: 1:1,A

6666
01-26-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	ISN	Ion Ratio
IPB002	Perchlorate	99 > 83											
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	1.43	31149.508	31149.508	bb			0.5068	101.36	1.36	9101.2...	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Sample Name: per0105010a

Date: 05-Jan-2010

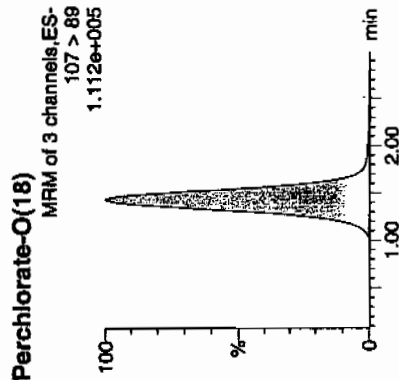
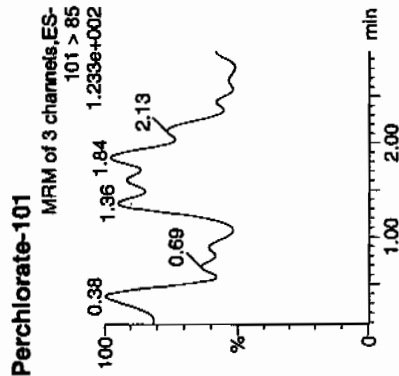
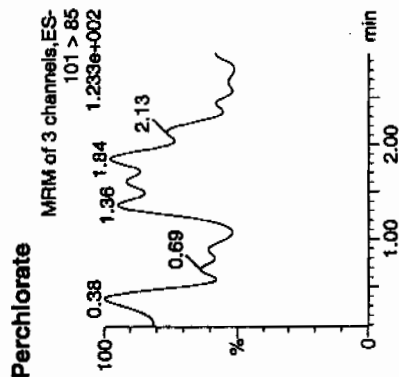
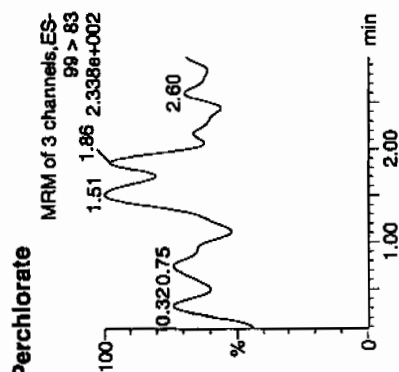
Time: 15:10:34

ID: IPB003

Vial: 1:1,A

1979 Perchlorate

01-06-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SS/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	1.43	29575.365	29575.365	bb			0.4812	96.24	-3.76	3121.7...	

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

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Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

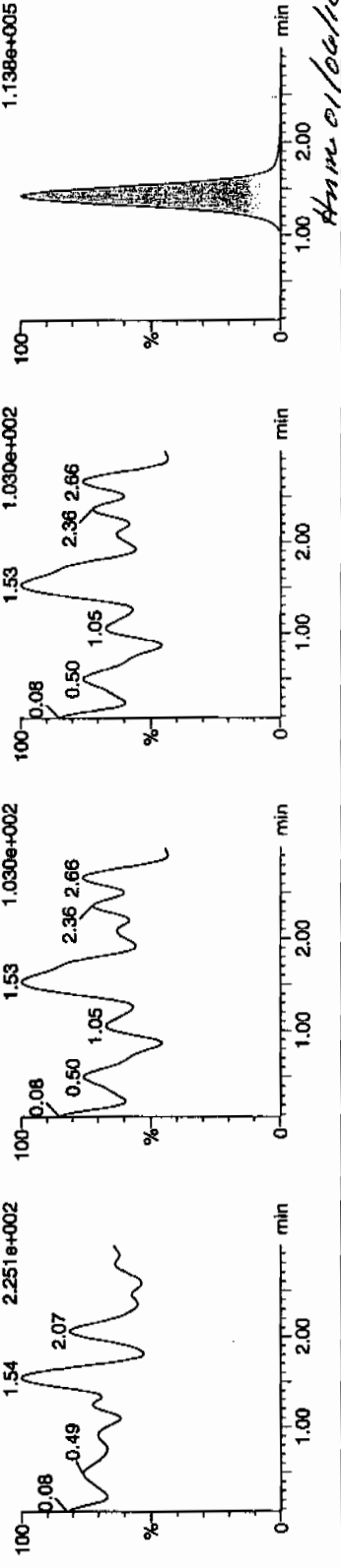
01-06-10

Sample Name: per0105023a
Date: 05-Jan-2010
Time: 16:29:06
ID: IPB004
Vial: 1:1,A

Perchlorate MRM of 3 channels, ES- 99 > 83 2.251e+002 1.54 2.07 0.49 100 % 0.08 1.00 2.00 min

Perchlorate-101 MRM of 3 channels, ES- 101 > 85 1.030e+002 1.53 2.36 2.66 100 % 0.08 0.50 1.05 1.00 2.00 min

Perchlorate-O(18) MRM of 3 channels, ES- 107 > 89 1.138e+005 1.00 2.00 min



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	IS/N Ion Ratio
IPB004	Perchlorate	99 > 83										0.00
IPB004	Perchlorate-101	101 > 85										
IPB004	Perchlorate-O(18)	107 > 89	1.42	30142.611	30142.611	bb			0.4904	98.09	-1.91	9357.4...

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

QUANTO ULTIMA: nairb 01-08-08.cal

Calibration Report - MS1 Static

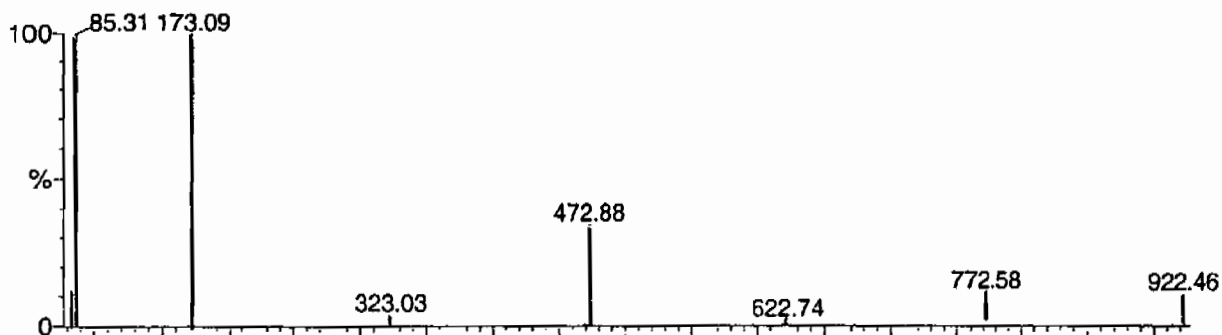
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

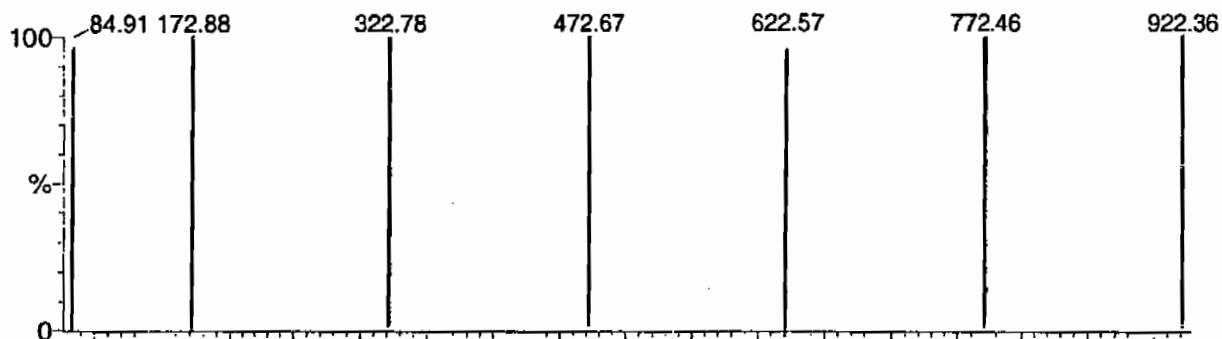
PEAKS HIGHLIGHTED BY GEL 01-07-08

Data file: STATMS1 - Uncalibrated

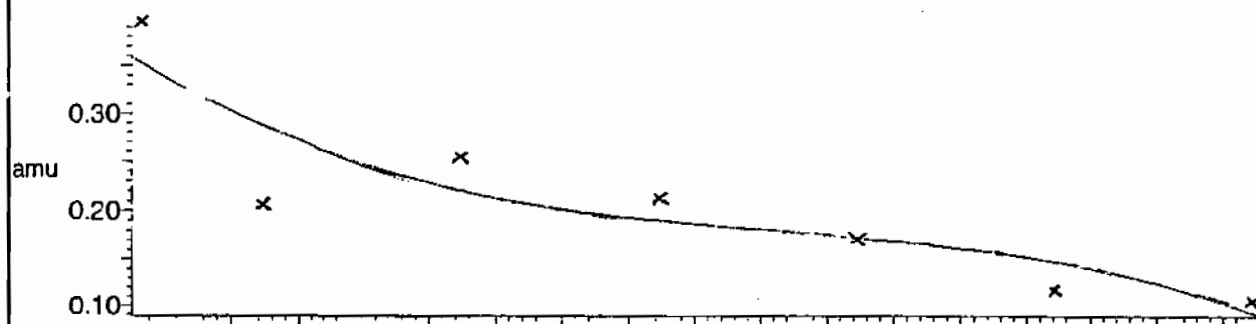
7 matches of 7 tested references



Reference file: Nairb

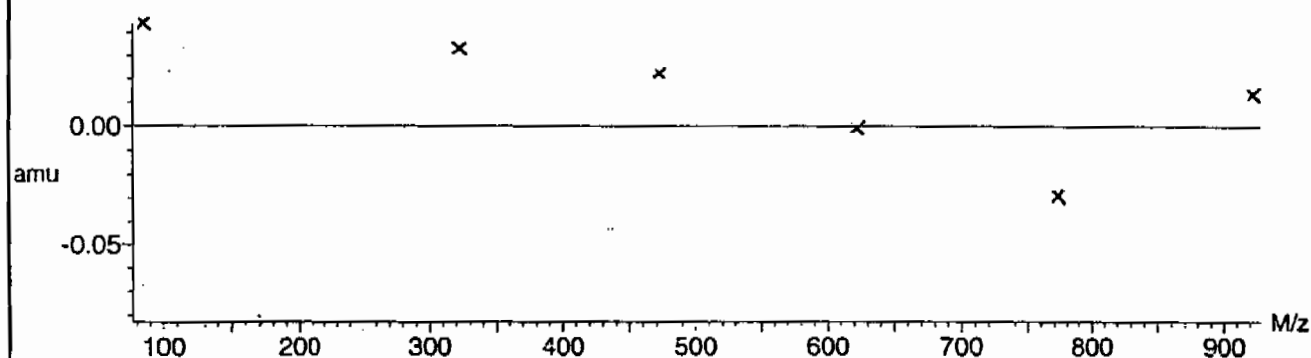


Mass difference (Raw - Ref mass)



Residuals

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



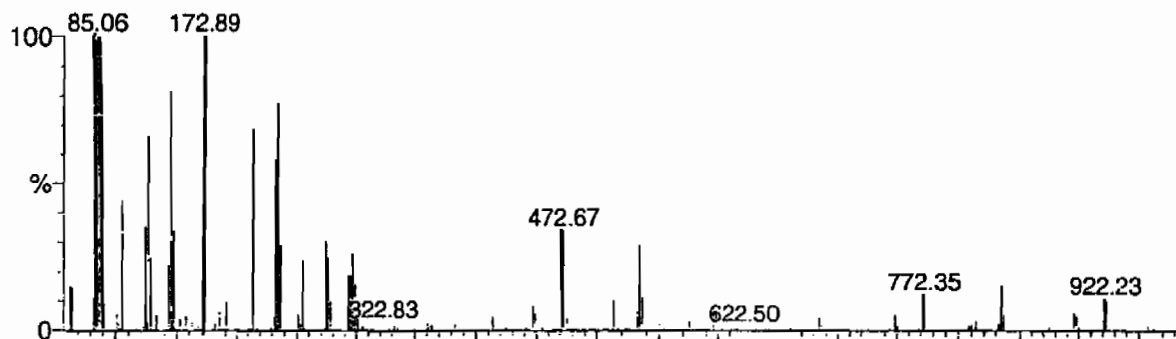
Calibration Report - MS1 Scanning

Page 1 of 1

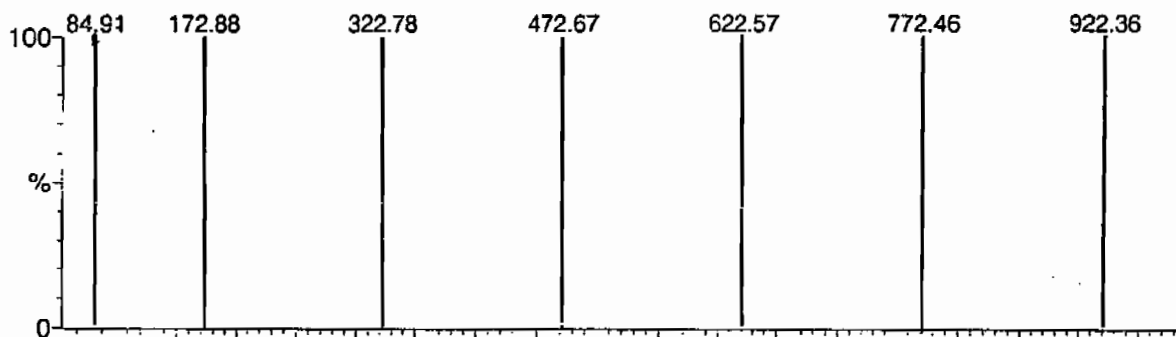
Printed: Tue Jan 08 12:20:09 2008

Data file: SCNMS1 - Uncalibrated

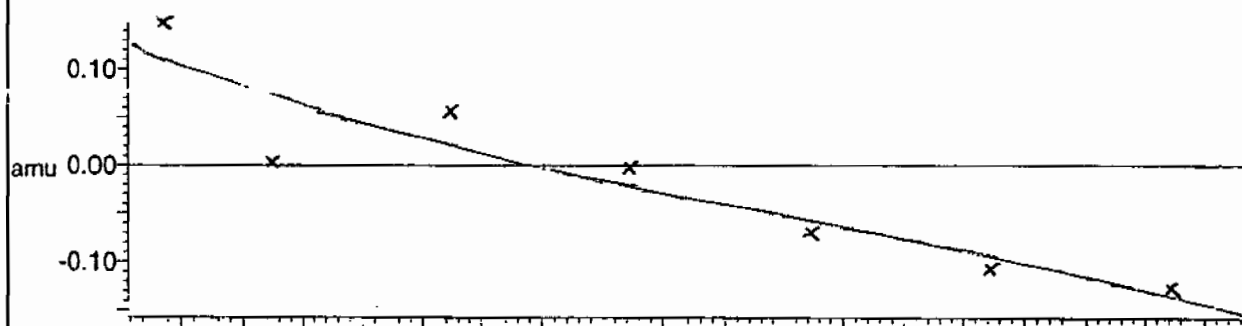
7 matches of 7 tested references



Reference file: Nairb

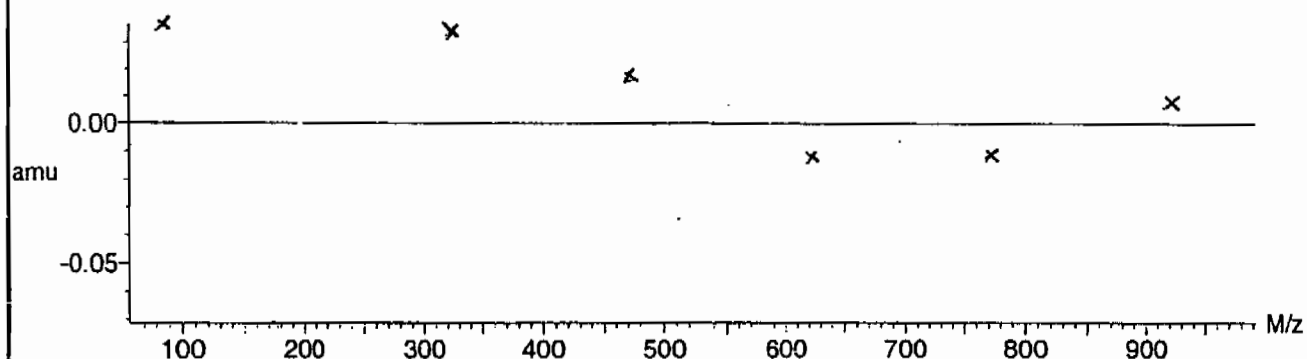


Mass difference (Raw - Ref mass)



Residuals

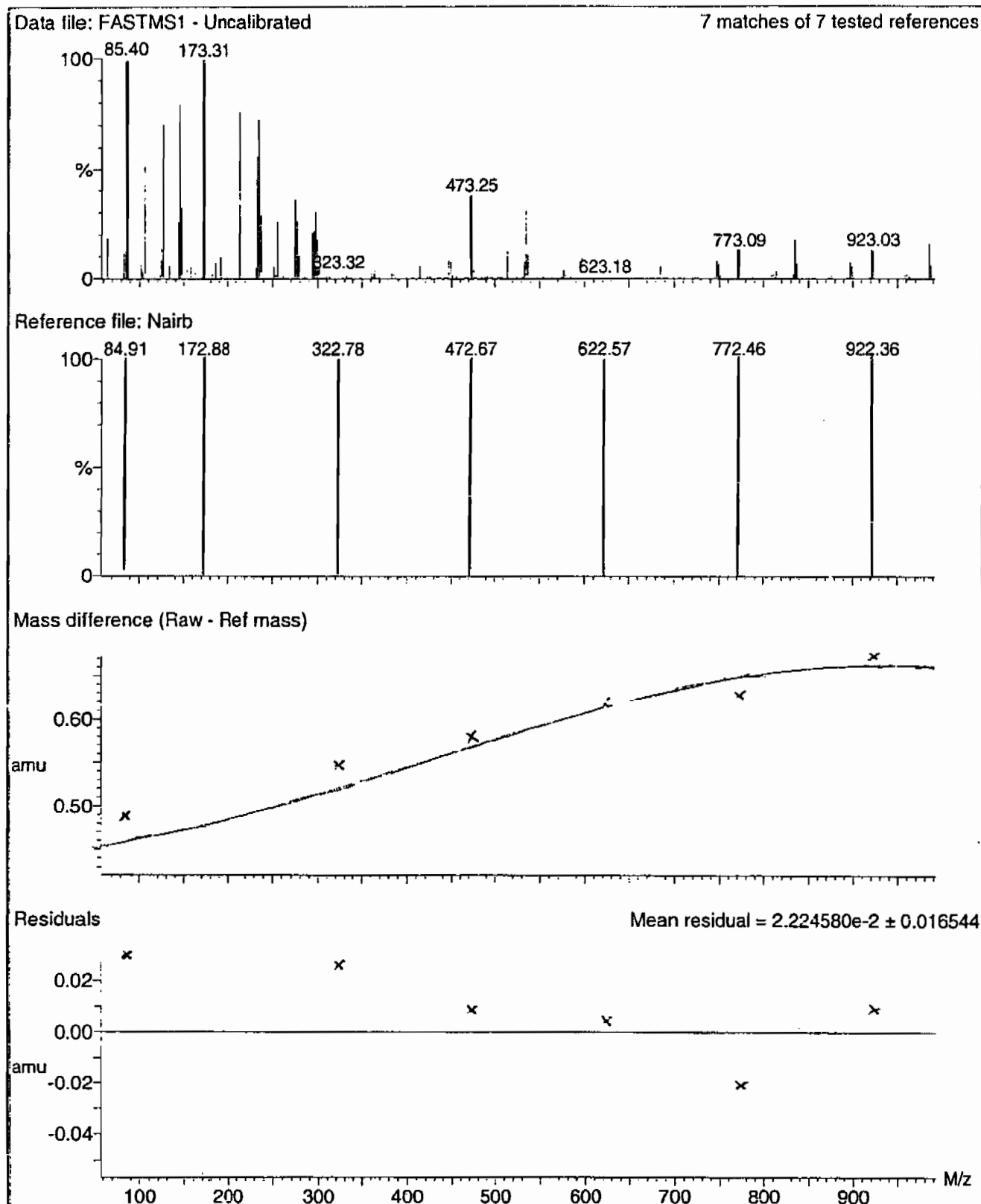
Mean residual = $2.732691 \times 10^{-2} \pm 0.020653$



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:21:04 2008



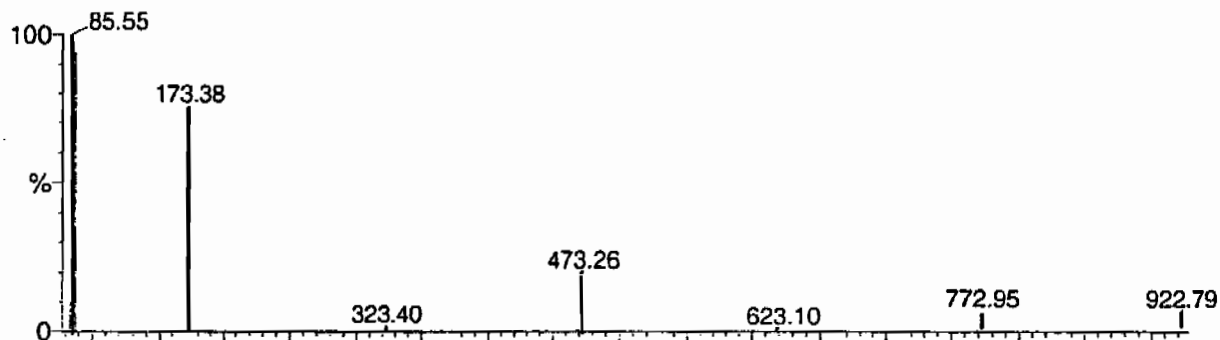
Calibration Report - MS2 Static

Page 1 of 1

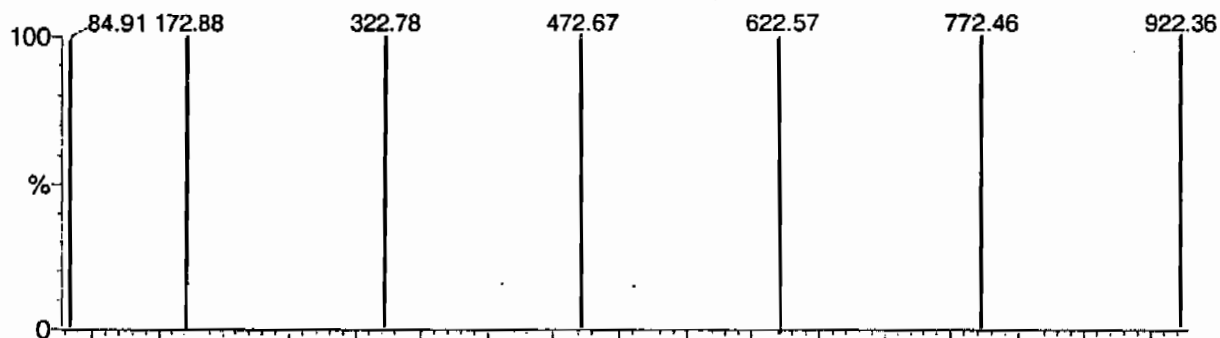
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Data file: STATMS2 - Uncalibrated

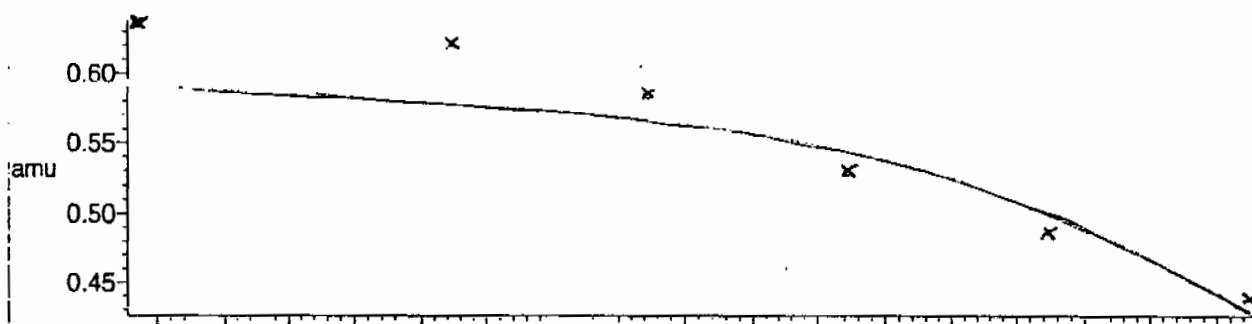
7 matches of 7 tested references



Reference file: Nairb

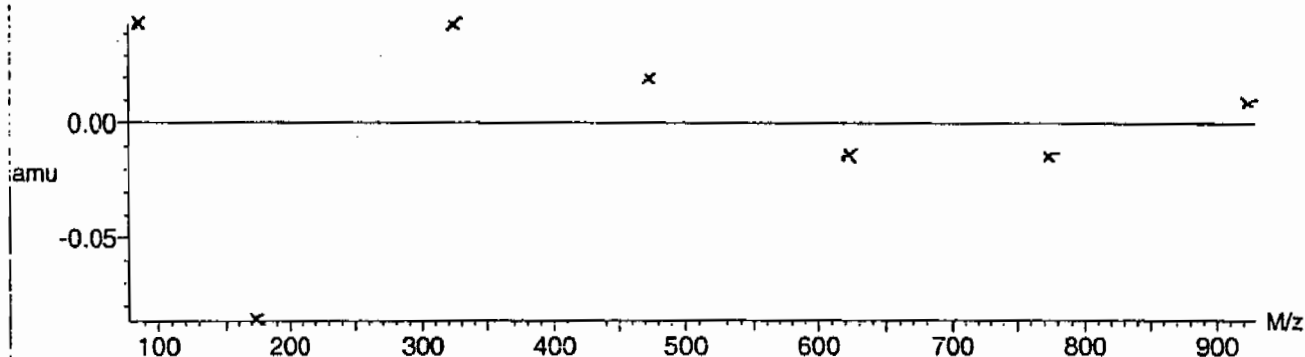


Mass difference (Raw - Ref mass)



Residuals

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



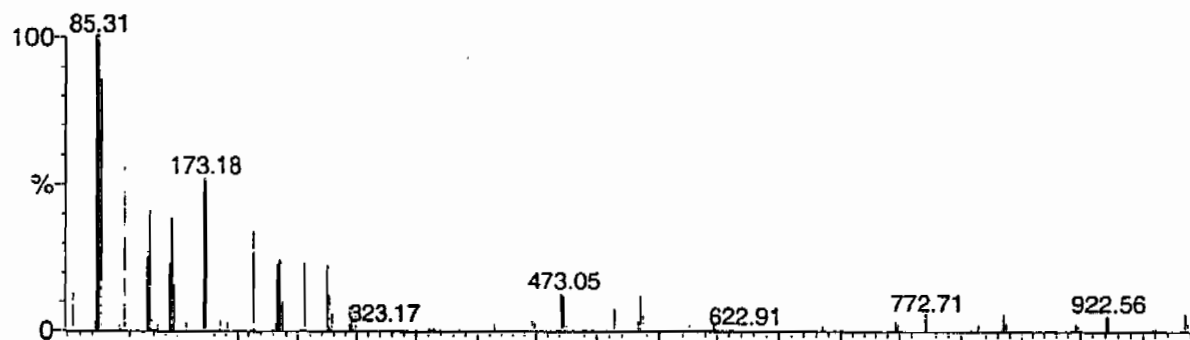
Calibration Report - MS2 Scanning

Page 1 of 1

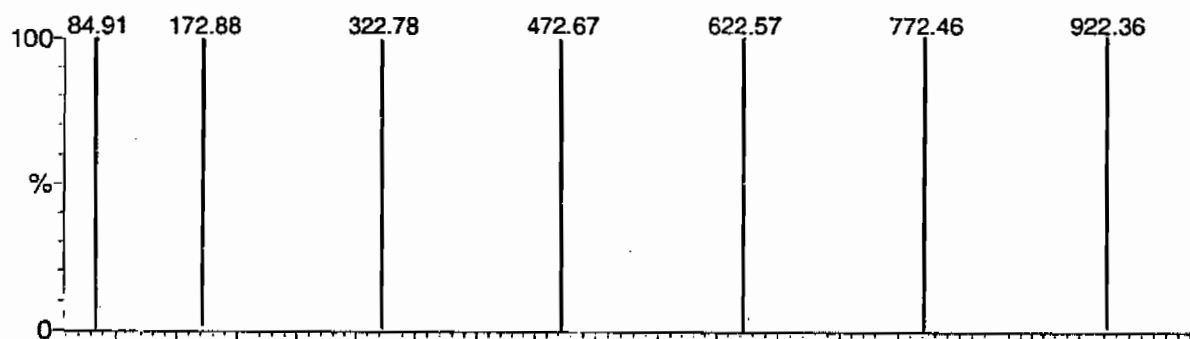
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Data file: SCNMS2 - Uncalibrated

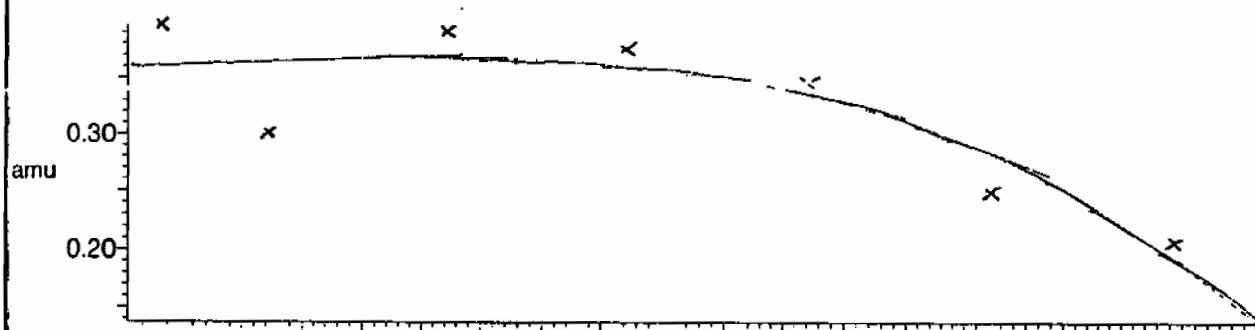
7 matches of 7 tested references



Reference file: Nairb

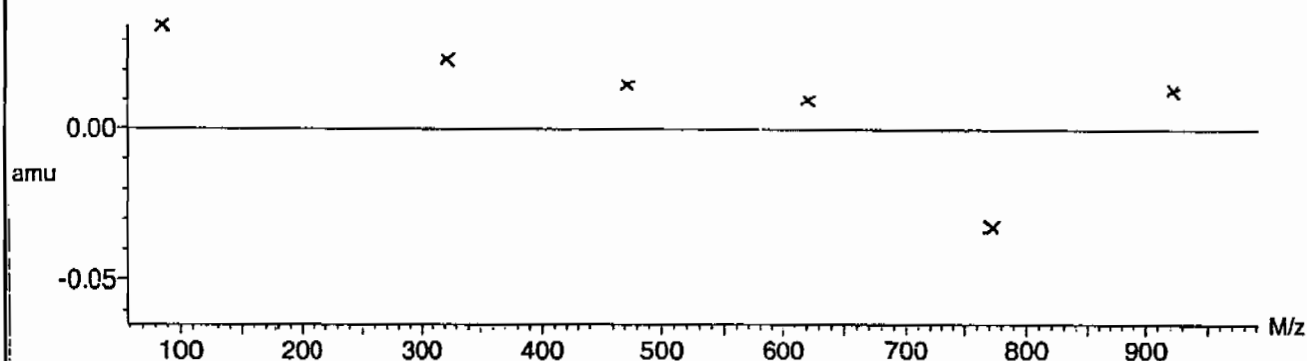


Mass difference (Raw - Ref mass)



Residuals

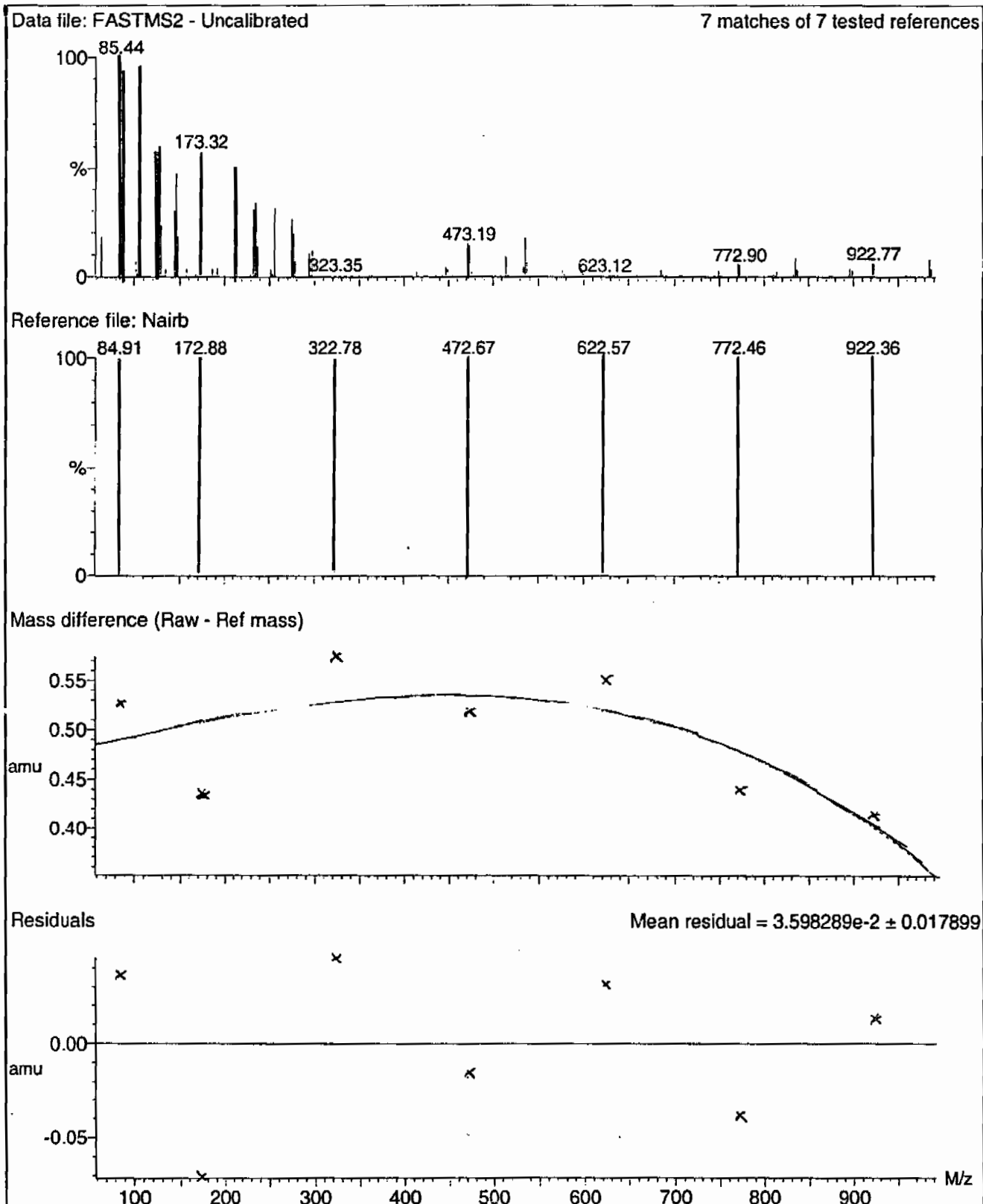
Mean residual = $2.782494 \times 10^{-2} \pm 0.017442$



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:23:51 2008



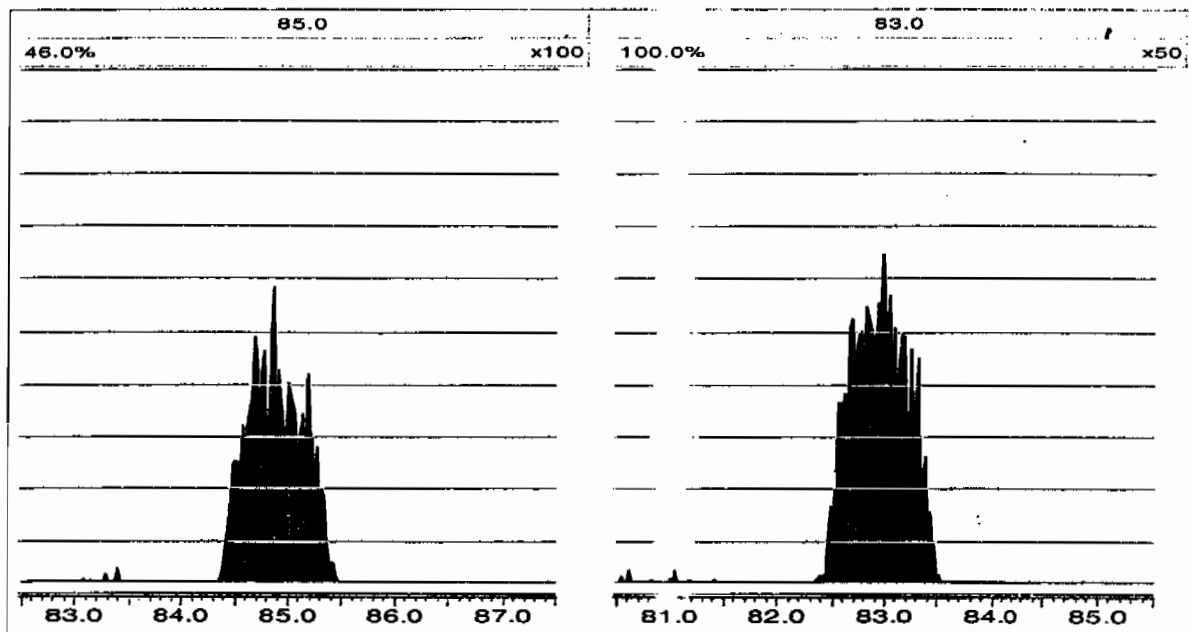
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

Printed: Tuesday, January 05, 2010 12:09:10 Eastern Standard Time



Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1073

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	per0105006a	05-JAN-10	30805.7				
Lower Area Limit			15402.85				
Upper Area Limit			61611.4				
1202004350	per0105012a	05-JAN-10 15:22	29456.3	1.43	1.44553	1.011	
1202004353	per0105013a	05-JAN-10 15:28	29621.1	1.42	1.43307	1.009	
1202004354	per0105014a	05-JAN-10 15:34	30999.7	1.5	1.5076	1.005	
243517003	per0105015a	05-JAN-10 15:40	30475.1	1.43	1.44557	1.011	
243517004	per0105016a	05-JAN-10 15:46	32642.1	1.4	1.4083	1.006	
243517005	per0105017a	05-JAN-10 15:52	29540.3	1.43	1.43308	1.002	
243517006	per0105018a	05-JAN-10 15:58	30525.8	1.42	1.43308	1.009	
243517007	per0105019a	05-JAN-10 16:04	31020.3	1.42	1.43308	1.009	

PAGE 1 of 2

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1073

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	per0105006a	05-JAN-10	30805.7				
Lower Area Limit			15402.85				
Upper Area Limit			61611.4				
243517008	per0105020a	05-JAN-10 16:10	31075.1	1.42	1.4331	1.009	
243517009	per0105021a	05-JAN-10 16:17	31443.4	1.42	1.43312	1.009	

SAMPLE DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936771

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7557

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1073

GEL Sample ID: 243517003

Date Filtered: 04-JAN-10

Injection Volume (uL): 20

% Solids: 86

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.582	2.33	0.582	ug/kg	U	1	05-JAN-10 15:40	per0105015a
	Perchlorate Isotope Ratio						1	05-JAN-10 15:40	per0105015a
14797-73-0	Perchlorate-101	.582	2.33	0.582	ug/kg	U	1	05-JAN-10 15:40	per0105015a
	Perchlorate-O(18)			5.77	ug/kg		1	05-JAN-10 15:40	per0105015a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105015a

Date: 05-Jan-2010

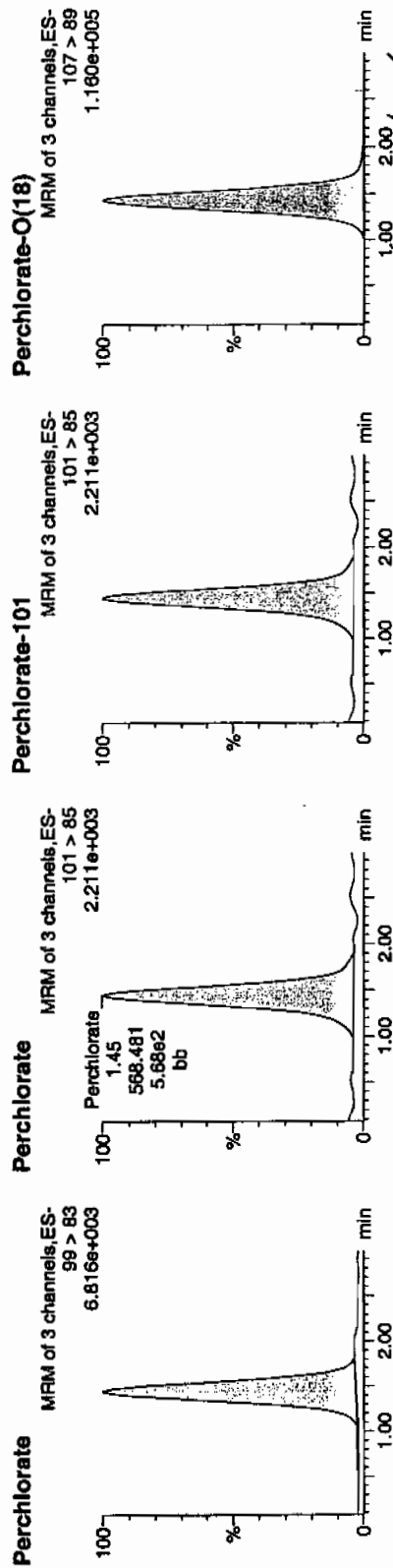
Time: 15:40:48

ID: 243517003

Vial: 1:3,D

01-06-10

LAN | 936774 | 5070 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ratio
243517003	Perchlorate	99 > 83	1.45	1696.404	1696.404	bb			0.0246			1047.9...	2.98
243517003	Perchlorate-101	101 > 85	1.45	568.481	568.481	bb			0.0245			197.885	
243517003	Perchlorate-O(18)	107 > 89	1.43	30475.078	30475.078	bb			0.4958	99.17	-0.83	9831.3...	

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: 936771
 Extraction Type: Solid Prep
 Client Sample No. RE12-10-7558
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1073
 GEL Sample ID: 243517004
 Date Filtered: 04-JAN-10
 Injection Volume (uL): 20
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0

%Solids: 22

CAS No.	Analyte [^]	MIDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.544	2.17	2.41	ug/kg		1	05-JAN-10 15:46	per0105016a
	Perchlorate Isotope Ratio			2.99			1	05-JAN-10 15:46	per0105016a
14797-73-0	Perchlorate-101	.544	2.17	2.39	ug/kg		1	05-JAN-10 15:46	per0105016a
	Perchlorate-O(18)			5.78	ug/kg		1	05-JAN-10 15:46	per0105016a

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

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105016a

Date: 05-Jan-2010

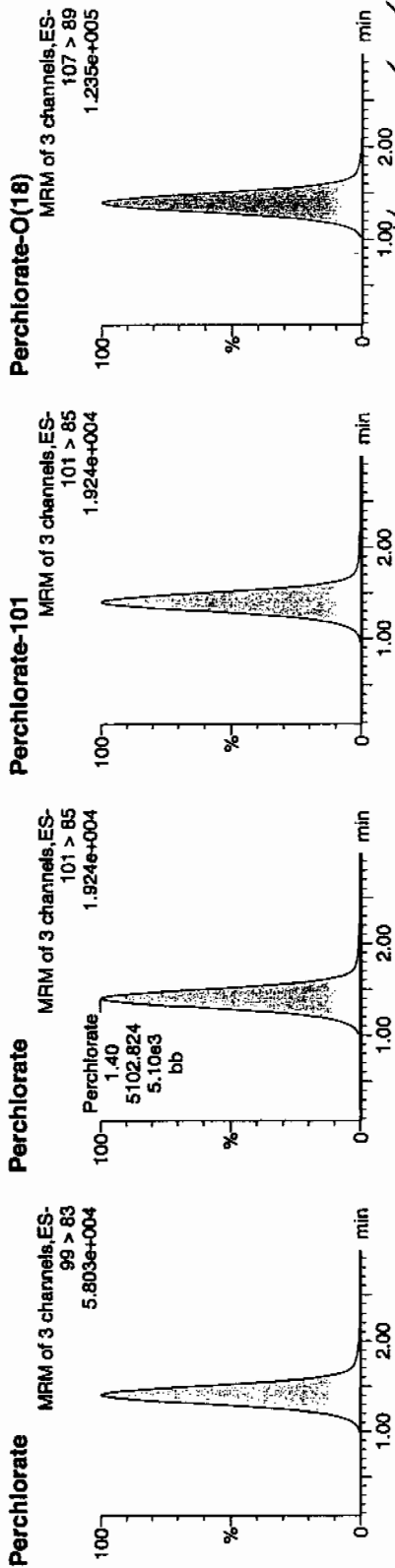
Time: 15:46:50

ID: 243517004

Vial: 1:3,E

12421936774 | 50120 | 11

1.924e+004
1.924e+004
1.924e+004



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243517004	Perchlorate	99 > 83	1.41	15255.198	15255.198	bb			0.2215			718.333	2.99
243517004	Perchlorate-101	101 > 85	1.40	5102.824	5102.824	bb			0.2198			1573.9...	
243517004	Perchlorate-O(18)	107 > 89	1.40	32642.125	32642.125	bb			0.5311	106.22	6.22	2163.1...	

P perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 236771
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7555
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1073
 GEL Sample ID: 243517005
 Date Filtered: 04-JAN-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	0.587	ug/kg	U	1	05-JAN-10 15:52	per0105017a
	Perchlorate Isotope Ratio						1	05-JAN-10 15:52	per0105017a
14797-73-0	Perchlorate-101	.587	2.35	0.587	ug/kg	U	1	05-JAN-10 15:52	per0105017a
	Perchlorate-O(18)			5.64	ug/kg		1	05-JAN-10 15:52	per0105017a

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

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105017a

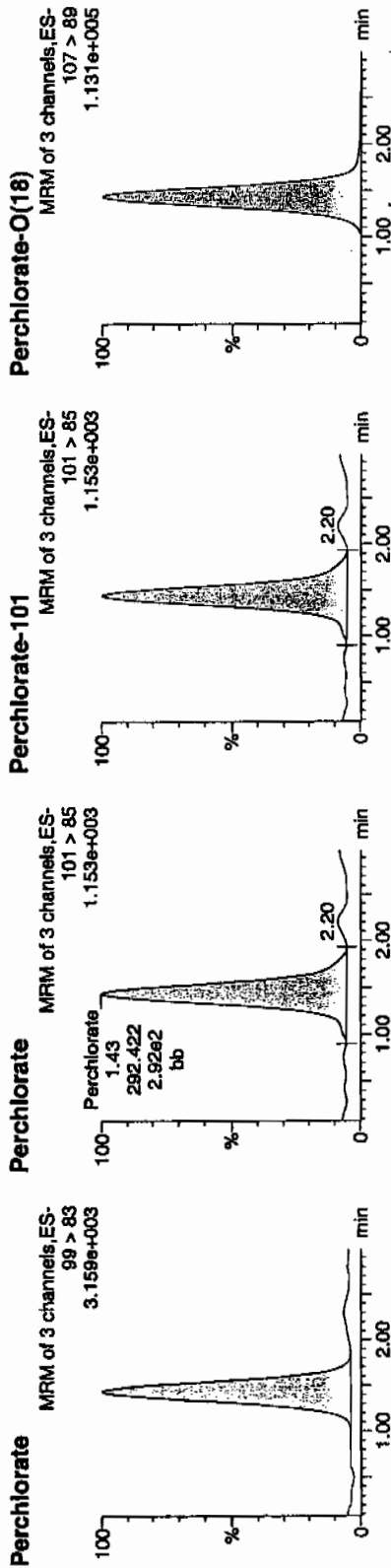
Date: 05-Jan-2010

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ID: 243517005

Val: 1:3,F

LAUW | 436774 | 5020 | 11
0-000-07 CW
01-06-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	On Ratio
243517005	Perchlorate	99 > 83	1.43	800.977	800.977	bb			0.0116			333.471	2.74
243517005	Perchlorate-101	101 > 85	1.43	292.422	292.422	bb			0.0126			55.556	
243517005	Perchlorate-O(18)	107 > 89	1.43	29540.350	29540.350	bb			0.4806	96.13	-3.87	7023.0...	

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: 236771

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7556

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1073

GEL Sample ID: 243517006

Date Filtered: 04-JAN-10

Injection Volume (uL): 20

%Solids: 21.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.545	2.18	0.545	ug/kg	U	1	05-JAN-10 15:58	per0105018a
	Perchlorate Isotope Ratio						1	05-JAN-10 15:58	per0105018a
14797-73-0	Perchlorate-101	.545	2.18	0.545	ug/kg	U	1	05-JAN-10 15:58	per0105018a
	Perchlorate-O(18)			5.41	ug/kg		1	05-JAN-10 15:58	per0105018a

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

*Concentration =

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

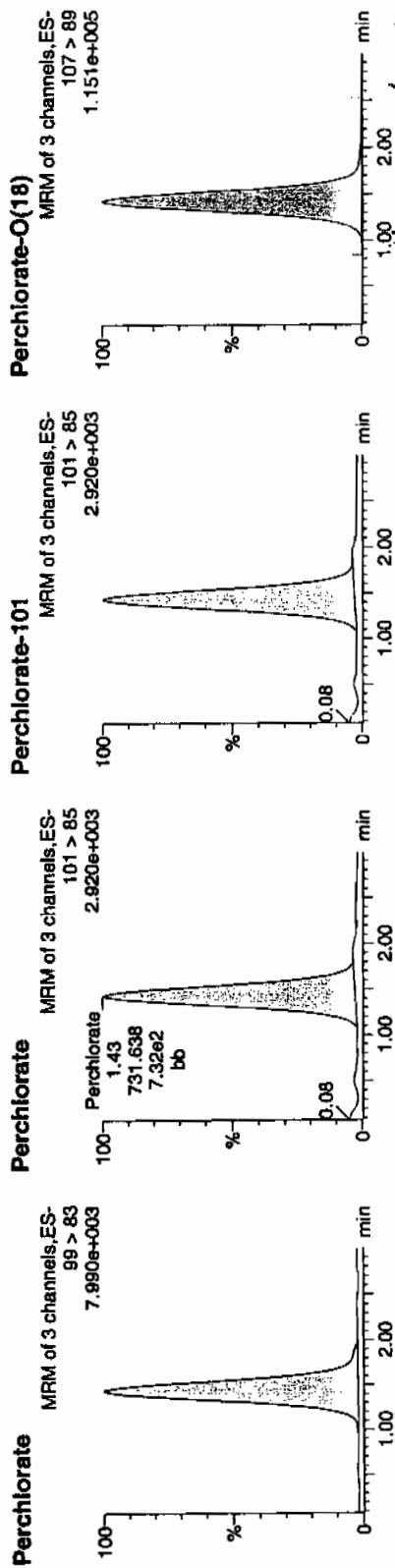
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105018a
Date: 05-Jan-2010
Time: 15:58:52
ID: 243517006
Val: 1:4,A

LANC 1936774 | 5020 | 11
01-06-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243517006	Perchlorate	99 > 83	1.43	2103.769	2103.769	bb			0.0306			573.619	2.88
243517006	Perchlorate-101	101 > 85	1.43	731.638	731.638	bb			0.0315			230.207	
243517006	Perchlorate-O(18)	107 > 89	1.42	30525.762	30525.762	bb			0.4967	99.33	-0.67	6496.1...	

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: 236771

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7562

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1073

GEL Sample ID: 243517007

Date Filtered: 04-JAN-10

Injection Volume (uL): 20

%Solids: 20.1

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.555	2.22	0.555	ug/kg	U	1	05-JAN-10 16:04	per0105019a
	Perchlorate Isotope Ratio						1	05-JAN-10 16:04	per0105019a
14797-73-0	Perchlorate-101	.555	2.22	0.555	ug/kg	U	1	05-JAN-10 16:04	per0105019a
	Perchlorate-O(18)			5.60	ug/kg		1	05-JAN-10 16:04	per0105019a

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

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

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

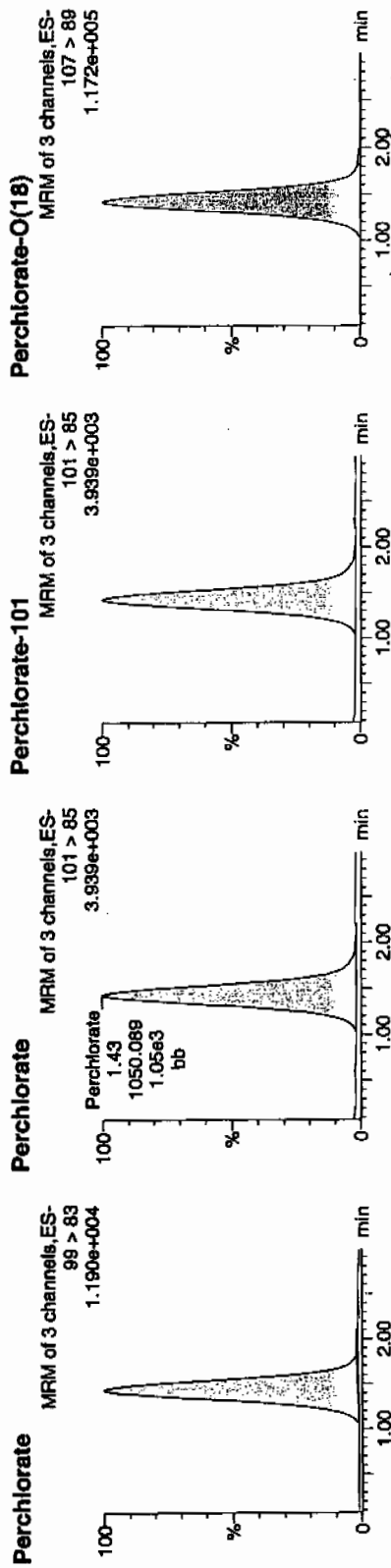
Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105019a
Date: 05-Jan-2010
Time: 16:04:55
ID: 243517007
Val: 1:4,B

01-06-10

LANL 936774 | 2020 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243517007	Perchlorate	99 > 83	1.43	3091.019	3091.019	bb			0.0449			234.304	2.94
243517007	Perchlorate-101	101 > 85	1.43	1050.089	1050.089	bb			0.0452			222.532	
243517007	Perchlorate-O(18)	107 > 89	1.42	31020.297	31020.297	bb			0.5047	100.94	0.94	2661.6...	

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 236771
 Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7561

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1073

GEL Sample ID: 243517008

Date Filtered: 04-JAN-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.566	2.26	0.566	ug/kg	U	1	05-JAN-10 16:10	per0105020a
	Perchlorate Isotope Ratio						1	05-JAN-10 16:10	per0105020a
14797-73-0	Perchlorate-101	.566	2.26	0.566	ug/kg	U	1	05-JAN-10 16:10	per0105020a
	Perchlorate-O(18)			5.72	ug/kg		1	05-JAN-10 16:10	per0105020a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
 Aliquot %Solids

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105020a

Date: 05-Jan-2010

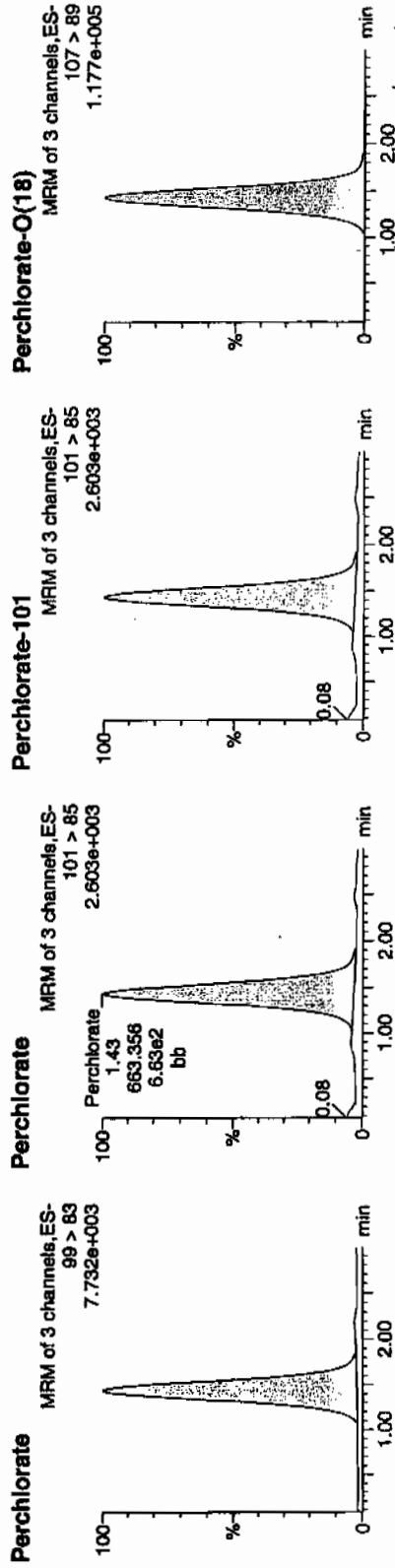
Time: 16:10:58

ID: 243517008

Gial: 1:4,C

01-26-10

LANU | 936774 | SATD | 1 |



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	IS/N	Ratio
243517008	Perchlorate	99 > 83	1.43	1974.905	1974.905	bb			0.0287			495.368	2.98
243517008	Perchlorate-101	101 > 85	1.43	663.356	663.356	bb			0.0286			153.766	
243517008	Perchlorate-O(18)	107 > 89	1.42	31075.098	31075.098	bb			0.5056	101.12	1.12	2827.3...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 936771
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7563
 Date Received: 24-DEC-02
 GEL Job No (SDG): 10-1073
 GEL Sample ID: 243517009
 Date Filtered: 04-JAN-10
 Injection Volume (uL): 20
 %Solids: 88

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.57	2.28	0.570	ug/kg	U	1	05-JAN-10 16:17	per0105021a
	Perchlorate Isotope Ratio						1	05-JAN-10 16:17	per0105021a
14797-73-0	Perchlorate-101	.57	2.28	0.570	ug/kg	U	1	05-JAN-10 16:17	per0105021a
	Perchlorate-O(18)			5.83	ug/kg		1	05-JAN-10 16:17	per0105021a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
 Aliquot %Solids

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

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Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Sample Name: per0105021a

Date: 05-Jan-2010

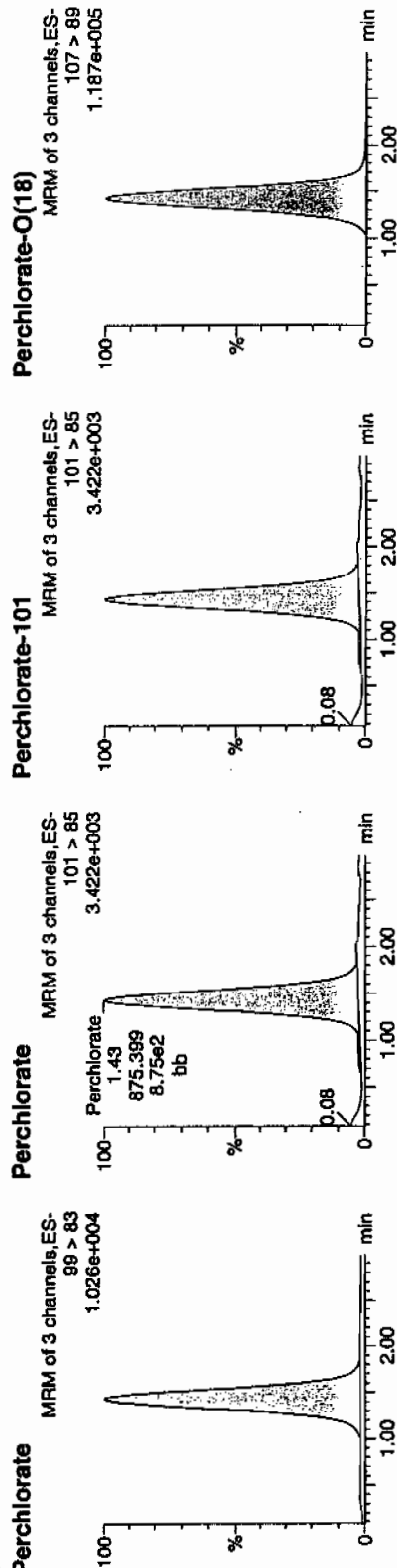
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ID: 243517009

Label: 1:4,D

01-06-10

LANC | 930774 | 5070 | 1 |



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243517009	Perchlorate	99 > 83	1.43	2610.492	2610.492	bb			0.0379			636.418	2.98
243517009	Perchlorate-101	101 > 85	1.43	875.399	875.399	bb			0.0377			240.450	
243517009	Perchlorate-O(18)	107 > 89	1.42	31443.385	31443.385	bb			0.5116	102.32	✓	2.32	7037.5...

STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1073

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 05-JAN-10

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

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

Paramname Perchlorate

Coefficient of Determination:

Calibration Curve: 68862.28

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-1073

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 05-JAN-10

HPLC Column: Phenomenex Ion Pac AG-16.2 X 50 mm

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

Parname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 23218

Response Type: External Standard

Curve Type: RF

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per010510a.mdb 05 Jan 2010 14:10:06
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per010510a.cdb 06 Jan 2010 07:55:37

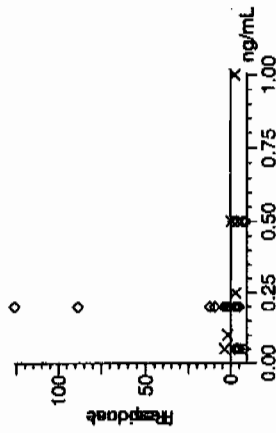
Compound name: Perchlorate

Response Factor: 68862.3

RF SD: 1918.2, % Relative SD: 2.78556

Response type: External Std, Area

Curve type: RF



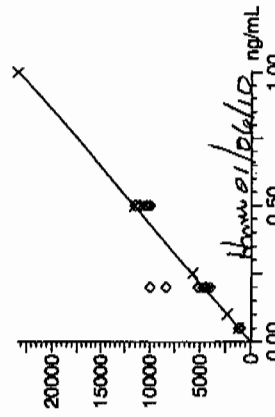
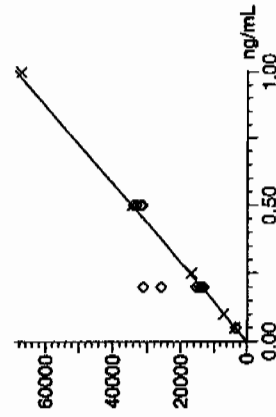
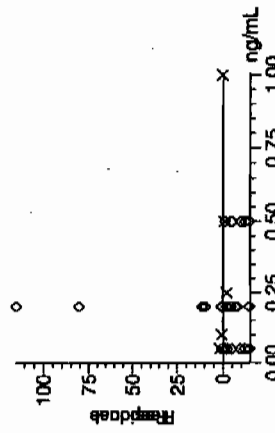
Compound name: Perchlorate-101

Response Factor: 23218

RF SD: 325.718, % Relative SD: 1.40287

Response type: External Std, Area

Curve type: RF



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01-06-10

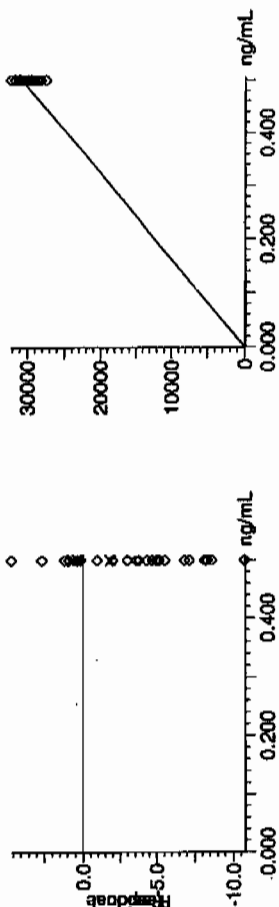
Howe 01/06/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 61461.9
RF SD: 652.701, % Relative SD: 1.06196
Response type: External Std, Area
Curve type: RF



Perchlorate Initial Calibration Verification

Lab Name: General Engineering LaboratoriesGEL Job No.(SDG): 10-1073Lab Code: GELReporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	96.32	05-JAN-10 15:04	per0105009a
Perchlorate Isotope Ratio		2.89		05-JAN-10 15:04	per0105009a
Perchlorate-101	.5	.49	98.82	05-JAN-10 15:04	per0105009a

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105009a

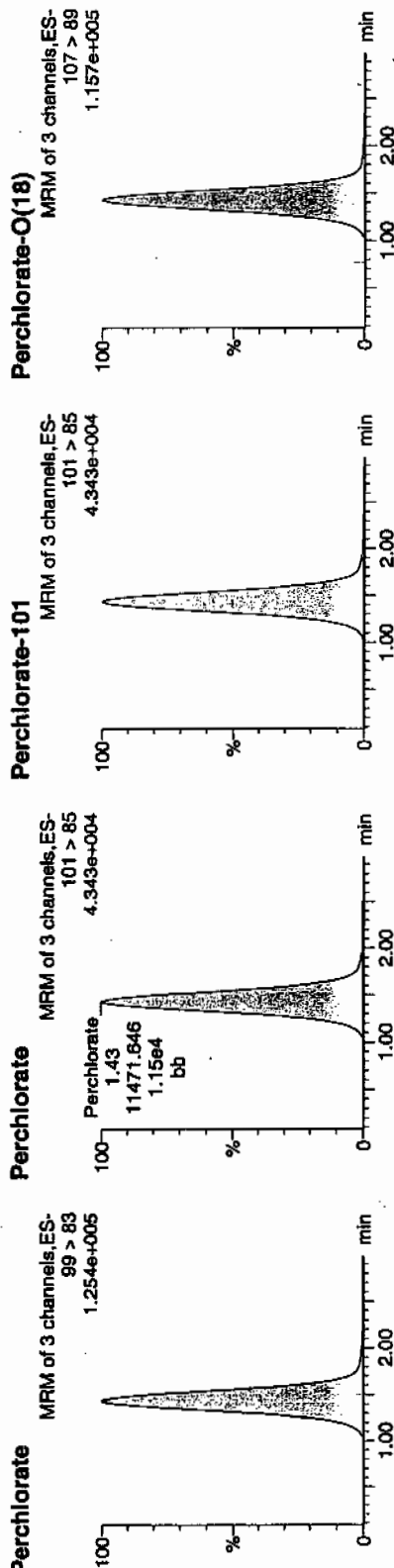
Date: 05-Jan-2010

Time: 15:04:31

ID: WCL100104-06ICV

Vial: 1:2,A

Perchlorate
01-26-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100104-06ICV	Perchlorate	99 > 83	1.43	33164.629	33164.629	bb			0.4816	96.32	-3.68	11276...	2.89
WCL100104-06ICV	Perchlorate-101	101 > 85	1.43	11471.646	11471.646	bb			0.4941	98.82	-1.18	3934.7...	
WCL100104-06ICV	Perchlorate-O(18)	107 > 89	1.42	30756.568	30756.568	bb			0.5004	100.08	-0.08	8345.4...	

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1073

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	95.88	05-JAN-10 16:23	per0105022a
Perchlorate Isotope Ratio		3		05-JAN-10 16:23	per0105022a
Perchlorate-101	.5	.47	94.92	05-JAN-10 16:23	per0105022a

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105022a

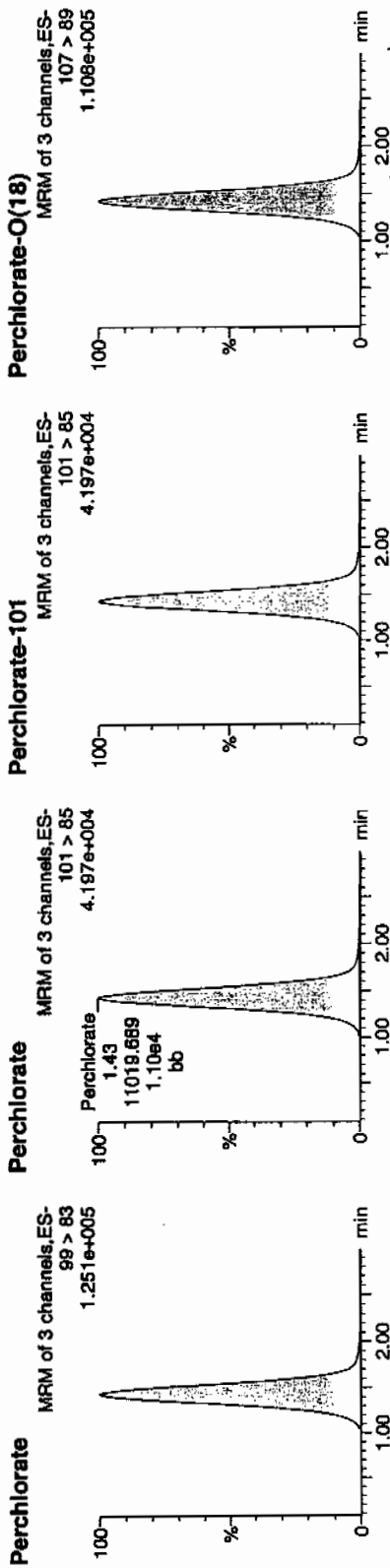
Date: 05-Jan-2010

Time: 16:23:03

ID: WCL100104-06CCV

Vial: 1:2,A

Pass
aw
01-06-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-06CCV	Perchlorate	99 > 83	1.43	33012.988	33012.988	bb			0.4794	95.88	-4.12	8319.6...	3.00
WCL100104-06CCV	Perchlorate-101	101 > 85	1.43	11019.689	11019.689	bb			0.4746	94.92	-5.08	1051.5...	
WCL100104-06CCV	Perchlorate-O(18)	107 > 89	1.42	29202.316	29202.316	bb			0.4751	95.03	-4.97	5360.5...	

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1073

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	95.65	05-JAN-10 15:16	per0105011a
Perchlorate Isotope Ratio		2.87		05-JAN-10 15:16	per0105011a
Perchlorate-101	.05	.05	98.89	05-JAN-10 15:16	per0105011a
Perchlorate	.05	.05	97.53	05-JAN-10 16:35	per0105024a
Perchlorate Isotope Ratio		2.87		05-JAN-10 16:35	per0105024a
Perchlorate-101	.05	.05	100.69	05-JAN-10 16:35	per0105024a

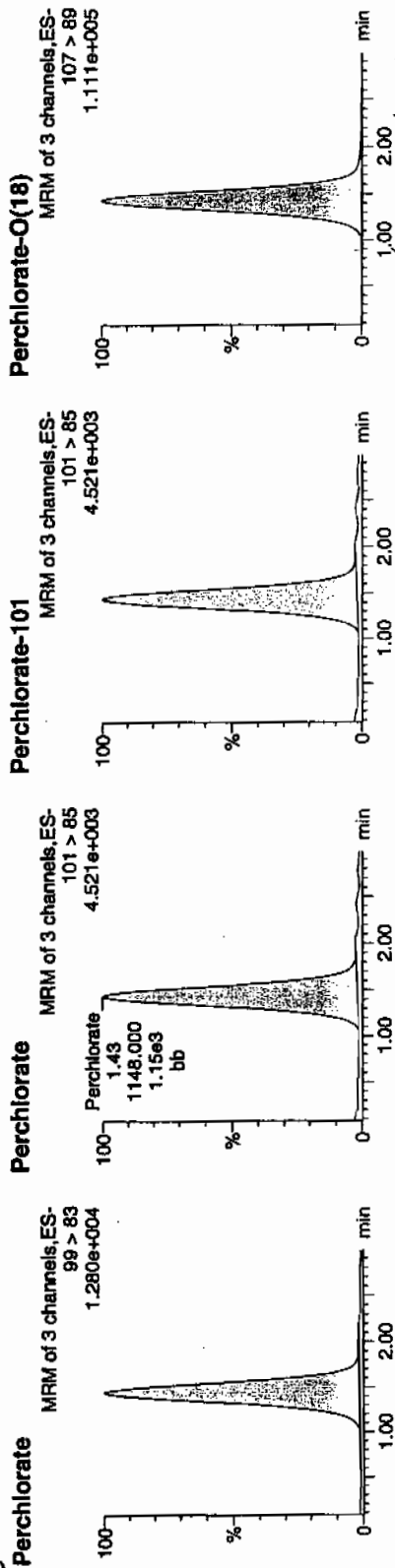
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105011a
Date: 05-Jan-2010
Time: 15:16:36
ID: WCL100104-07CRI
Vial: 1:2,B

*Per
and
01-06-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-07CRI	Perchlorate	99 > 83	1.43	3293.309	3293.309	bb			0.0478	95.65	-4.35	925.983	2.87
WCL100104-07CRI	Perchlorate-101	101 > 85	1.43	1148.000	1148.000	bb			0.0494	98.88	-1.11	603.697	
WCL100104-07CRI	Perchlorate-O(18)	107 > 89	1.43	29139.758	29139.758	bb			0.4741	94.82	-5.18	2649.9...	

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

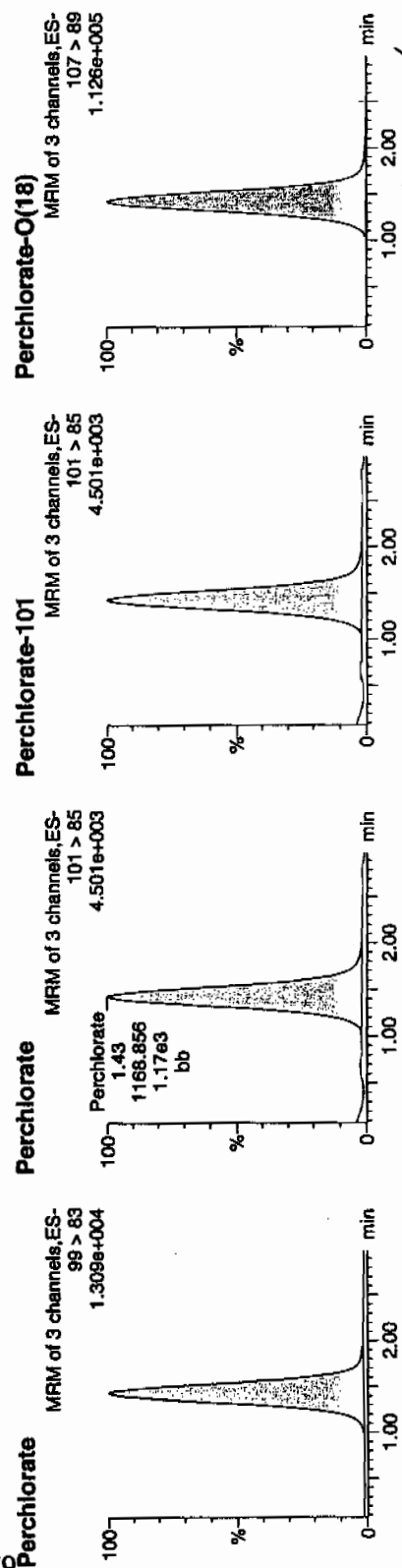
Page 24 of 83

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Sample Name: per0105024a
Date: 05-Jan-2010
Time: 16:35:07
ID: WCL100104-07CRI
Vial: 1:2,B

per
01-06-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	SN	Ion Ratio
WCL100104-07CRI	Perchlorate	99 > 83	1.43	3358.135	3358.135	bb			0.0488	97.53	-2.47	426.458	2.87
WCL100104-07CRI	Perchlorate-101	101 > 85	1.43	1168.856	1168.856	bb			0.0503	100.69	0.69	189.600	
WCL100104-07CRI	Perchlorate-Q(18)	107 > 89	1.42	29813.461	29813.461	bb			0.4851	97.01	-2.99	11034.1	

QUALITY CONTROL

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: 236771
 Extraction Type: Solid Prep
 Client Sample No. MB
 Date Received: 04-JAN-10
 GEL Job No (SDG): 10-1073
 GEL Sample ID: 1202004350
 Date Filtered: 04-JAN-10
 Injection Volume (uL): 20
 % Solids: 100

Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	05-JAN-10 15:22	per0105012a
	Perchlorate Isotope Ratio						1	05-JAN-10 15:22	per0105012a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	05-JAN-10 15:22	per0105012a
	Perchlorate-O(18)			4.79	ug/kg		1	05-JAN-10 15:22	per0105012a

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

*Concentration =

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Sample Name: per0105012a

Date: 05-Jan-2010

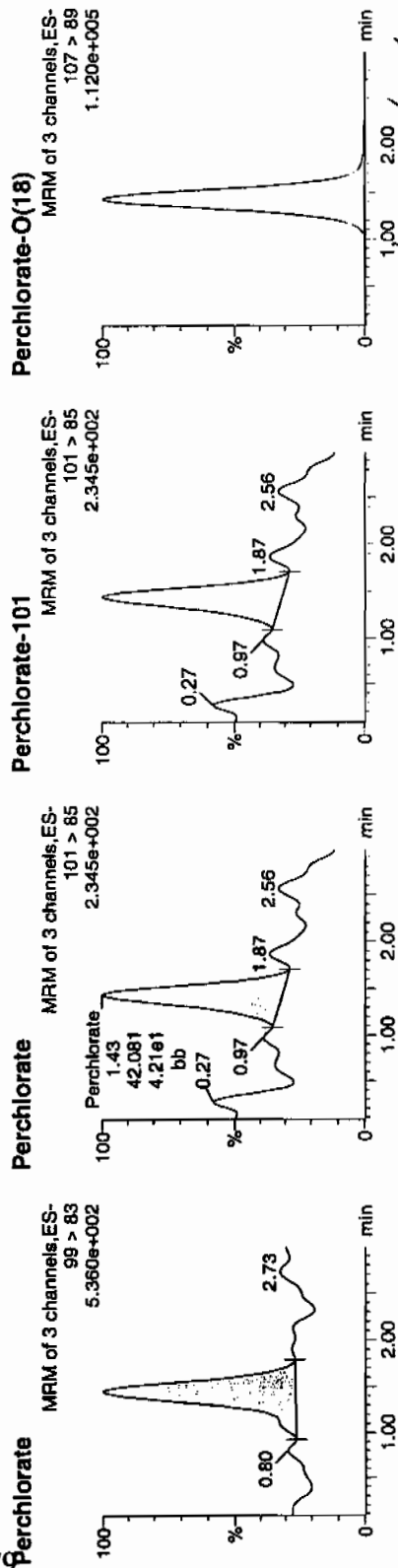
Time: 15:22:40

ID: 1202004350

Vial: 1:3,A

LAN-1936774 | 3020 | MS | 11

01-06-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004350	Perchlorate	99 > 83	1.45	115.254	115.254	bb			0.0017			21.217	2.74
1202004350	Perchlorate-101	101 > 85	1.43	42.081	42.081	bb			0.0018			21.352	
1202004350	Perchlorate-O(18)	107 > 89	1.43	29456.283	29456.283	bb			0.4793	95.85	-4.15	22944	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 236771

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

LCS

Date Received: 04-JAN-10

GEL Job No (SDG): 10-1073

GEL Sample ID: 1202004353

Date Filtered: 04-JAN-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.95	ug/kg	J	1	05-JAN-10 15:28	per0105013a
	Perchlorate Isotope Ratio			2.95			1	05-JAN-10 15:28	per0105013a
14797-73-0	Perchlorate-101	.5	2	1.97	ug/kg	J	1	05-JAN-10 15:28	per0105013a
	Perchlorate-O(18)			4.82	ug/kg		1	05-JAN-10 15:28	per0105013a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105013a

Date: 05-Jan-2010

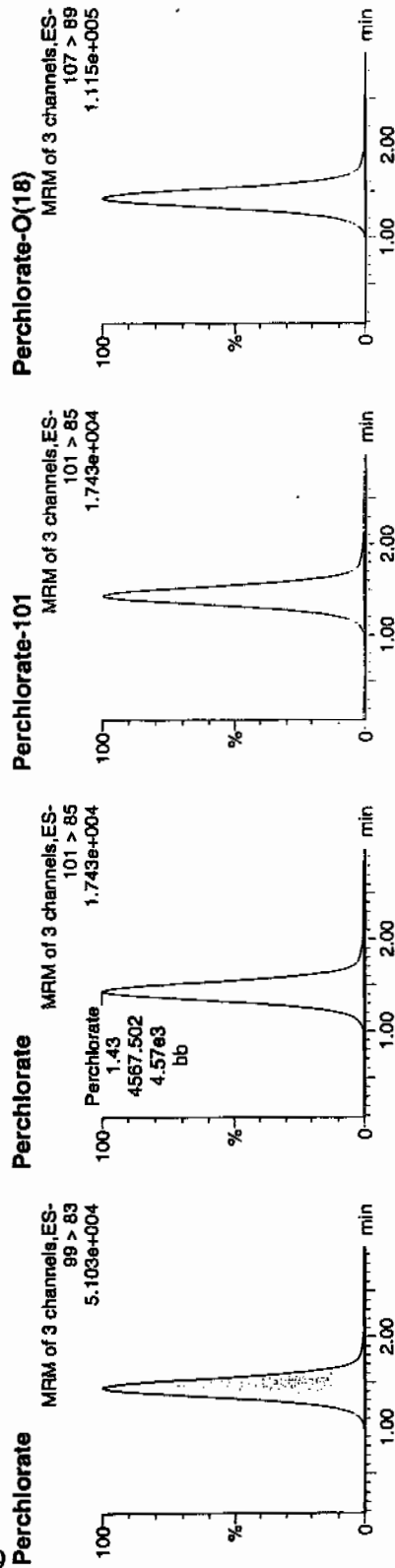
Time: 15:28:43

ID: 1202004353

Vial: 1:3,B

WJW
Q-6-10

1422-1936774 | 5032D | 45 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004353	Perchlorate	99 > 83	1.43	13462.322	13462.322	bb			0.1955	97.75	-2.25	3177.0...	2.95
1202004353	Perchlorate-101	101 > 85	1.43	4567.502	4567.502	bb			0.1967	98.36	-1.64	851.197	
1202004353	Perchlorate-O(18)	107 > 89	1.42	29621.119	29621.119	bb			0.4819	96.39	-3.61	23362....	

3462.322
68862.3
= 0.1955
thru 01/06/10

MISCELLANEOUS DATA

Prep Logbook

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

Batch ID: 936771 Verified by: _____
 Analyst: Jareth Shirley 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)
1202004350 MB	04-JAN-2010 15:22:40	2	20	10
1202004353 LCS	04-JAN-2010 15:22:40	2	20	10
243517003	04-JAN-2010 15:22:40	2	20	10
243517004	04-JAN-2010 15:22:40	2	20	10
243517005	04-JAN-2010 15:22:40	2	20	10
243517006	04-JAN-2010 15:22:40	2	20	10
243517007	04-JAN-2010 15:22:40	2	20	10
243517008	04-JAN-2010 15:22:40	2	20	10
243517009	04-JAN-2010 15:22:40	2	20	10
243542001	04-JAN-2010 15:22:40	2	20	10
243542002	04-JAN-2010 15:22:40	2	20	10
243542003	04-JAN-2010 15:22:40	2	20	10
243542004	04-JAN-2010 15:22:40	2	20	10
1202005614 MS (243542004)	04-JAN-2010 15:22:40	2	20	10
1202005615 MSD (243542004)	04-JAN-2010 15:22:40	2	20	10
243542005	04-JAN-2010 15:22:40	2	20	10
243542006	04-JAN-2010 15:22:40	2	20	10
243542007	04-JAN-2010 15:22:40	2	20	10
243542008	04-JAN-2010 15:22:40	2	20	10
243542009	04-JAN-2010 15:22:40	2	20	10
243542010	04-JAN-2010 15:22:40	2	20	10
1202004354 ICS	04-JAN-2010 15:22:40	2	20	10

Comments:

Desalting cartridges used: 090403-1-Ba & 091029-1-H

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202004354	10 ug/L ICS/CCV Second Source	UCL091201-01.2	.4	mL
LCS	1202004353	10 ug/L ICS/CCV Second Source	UCL091201-01.2	.4	mL
MS	1202005614	10 ug/L ICS/CCV Second Source	UCL091201-01.2	.4	mL
MSD	1202005615	10 ug/L ICS/CCV Second Source	UCL091201-01.2	.4	mL

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 01/05/10
 Extr. Injection Volume: 20uL
 Sequence Number: per010510a
 Initial Calibration Date: 01/05/10

Method: EPA 6850-Modified
 Int. Std.: UCL091019-03.2
 Mobile Phase Lot#: 1233781, 1233976
 Standard-Samp Reagent Lot#: 1233976

Reviewed BY: *hmc*
 Date: *01/06/10*
 SOP: GL-OA-E-067 Rev.6
 Alt Check Std. ID: WCL100104-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0105001a	IPB001	CWW	1/5/2010 14:16			1		USE	B
per0105002a	IPB001	CWW	1/5/2010 14:22			1		USE	B
per0105003a	WCLICAL-01	CWW	1/5/2010 14:28			1		USE	I
per0105004a	WCLICAL-02	CWW	1/5/2010 14:34			1		USE	I
per0105005a	WCLICAL-03	CWW	1/5/2010 14:40			1		USE	I
per0105006a	WCLICAL-04	CWW	1/5/2010 14:46			1		USE	I
per0105007a	WCLICAL-05	CWW	1/5/2010 14:52			1		USE	I
per0105008a	IPB002	CWW	1/5/2010 14:58			1		USE	B
per0105009a	WCLICV	CWW	1/5/2010 15:04			1		USE	C
per0105010a	IPB003	CWW	1/5/2010 15:10			1		USE	B
per0105011a	WCLCRI	CWW	1/5/2010 15:16			1		USE	C
per0105012a	1202004350	CWW	1/5/2010 15:22	936774	VARIOUS	1	LANL	USE	S
per0105013a	1202004353	CWW	1/5/2010 15:28	936774	VARIOUS	1	LANL	USE	S
per0105014a	1202004354	CWW	1/5/2010 15:34	936774	VARIOUS	1	LANL	USE	S
per0105015a	243517003	CWW	1/5/2010 15:40	936774	10-1073	1	LANL	USE	S
per0105016a	243517004	CWW	1/5/2010 15:46	936774	10-1073	1	LANL	USE	S
per0105017a	243517005	CWW	1/5/2010 15:52	936774	10-1073	1	LANL	USE	S
per0105018a	243517006	CWW	1/5/2010 15:58	936774	10-1073	1	LANL	USE	S
per0105019a	243517007	CWW	1/5/2010 16:04	936774	10-1073	1	LANL	USE	S
per0105020a	243517008	CWW	1/5/2010 16:10	936774	10-1073	1	LANL	USE	S
per0105021a	243517009	CWW	1/5/2010 16:17	936774	10-1073	1	LANL	USE	S
per0105022a	WCLCCV	CWW	1/5/2010 16:23			1		USE	C
per0105023a	IPB004	CWW	1/5/2010 16:29			1		USE	B
per0105024a	WCLCRI	CWW	1/5/2010 16:35			1		USE	C
per0105025a	243542001	CWW	1/5/2010 16:41	936774	10-1079-1	1	LANL	USE	S
per0105026a	243542002	CWW	1/5/2010 16:47	936774	10-1079-1	1	LANL	USE	S
per0105027a	243542003	CWW	1/5/2010 16:53	936774	10-1079-1	1	LANL	USE	S
per0105028a	243542004	CWW	1/5/2010 16:59	936774	10-1079-1	1	LANL	USE	S
per0105029a	1202005614	CWW	1/5/2010 17:05	936774	10-1079-1	1	LANL	USE	S

per0105030a	1202005615	CWW	1/5/2010 17:11	936774	10-1079-1	1	LANL	USE	S
per0105031a	243542005	CWW	1/5/2010 17:17	936774	10-1079-1	1	LANL	USE	S
per0105032a	243542006	CWW	1/5/2010 17:23	936774	10-1079-1	1	LANL	USE	S
per0105033a	243542007	CWW	1/5/2010 17:29	936774	10-1079-1	1	LANL	USE	S
per0105034a	243542008	CWW	1/5/2010 17:35	936774	10-1079-1	1	LANL	USE	S
per0105035a	WCLCCV	CWW	1/5/2010 17:41			1		USE	C
per0105036a	IPB005	CWW	1/5/2010 17:47			1		USE	B
per0105037a	WCLCRI	CWW	1/5/2010 17:53			1		USE	C
per0105038a	243542009	CWW	1/5/2010 17:59	936774	10-1079-1	1	LANL	USE	S
per0105039a	243542010	CWW	1/5/2010 18:05	936774	10-1079-1	1	LANL	USE	S
per0105040a	IPB006	CWW	1/5/2010 18:11			1		USE	B
per0105041a	1202006974	CWW	1/5/2010 18:17	937879	VARIOUS	1	LANL	USE	S
per0105042a	1202006975	CWW	1/5/2010 18:24	937879	VARIOUS	1	LANL	USE	S
per0105043a	1202006978	CWW	1/5/2010 18:30	937879	VARIOUS	1	LANL	USE	S
per0105044a	243609001	CWW	1/5/2010 18:36	937879	10-1094-1	1	LANL	USE	S
per0105045a	243609002	CWW	1/5/2010 18:42	937879	10-1094-1	1	LANL	USE	S
per0105046a	243609003	CWW	1/5/2010 18:48	937879	10-1094-1	1	LANL	USE	S
per0105047a	243609004	CWW	1/5/2010 18:54	937879	10-1094-1	1	LANL	USE	S
per0105048a	WCLCCV	CWW	1/5/2010 19:00			1		USE	C
per0105049a	IPB007	CWW	1/5/2010 19:06			1		USE	B
per0105050a	WCLCRI	CWW	1/5/2010 19:12			1		USE	C
per0105051a	243609005	CWW	1/5/2010 19:18	937879	10-1094-1	1	LANL	USE	S
per0105052a	243609006	CWW	1/5/2010 19:24	937879	10-1094-1	1	LANL	USE	S
per0105053a	243609007	CWW	1/5/2010 19:30	937879	10-1094-1	1	LANL	USE	S
per0105054a	243609008	CWW	1/5/2010 19:36	937879	10-1094-1	1	LANL	USE	S
per0105055a	243609009	CWW	1/5/2010 19:43	937879	10-1094-1	1	LANL	USE	S
per0105056a	243609010	CWW	1/5/2010 19:49	937879	10-1094-1	1	LANL	USE	S
per0105057a	243609011	CWW	1/5/2010 19:55	937879	10-1094-1	1	LANL	USE	S
per0105058a	243609012	CWW	1/5/2010 20:01	937879	10-1094-1	1	LANL	USE	S
per0105059a	243609013	CWW	1/5/2010 20:07	937879	10-1094-1	1	LANL	USE	S
per0105060a	WCLCCV	CWW	1/5/2010 20:13			1		USE	C
per0105061a	IPB008	CWW	1/5/2010 20:19			1		USE	B
per0105062a	WCLCRI	CWW	1/5/2010 20:25			1		USE	C
per0105063a	243609014	CWW	1/5/2010 20:31	937879	10-1094-1	1	LANL	USE	S
per0105064a	243609015	CWW	1/5/2010 20:37	937879	10-1094-1	1	LANL	USE	S
per0105065a	243609016	CWW	1/5/2010 20:43	937879	10-1094-1	1	LANL	USE	S
per0105066a	243609017	CWW	1/5/2010 20:49	937879	10-1094-1	1	LANL	USE	S

per0105067a	243611001	CWW	1/5/2010 20:55	937879	10-1096	1	LANL	USE	S
per0105068a	1202006976	CWW	1/5/2010 21:01	937879	10-1096	1	LANL	USE	S
per0105069a	1202006977	CWW	1/5/2010 21:07	937879	10-1096	1	LANL	USE	S
per0105070a	243611002	CWW	1/5/2010 21:13	937879	10-1096	1	LANL	USE	S
per0105071a	243611003	CWW	1/5/2010 21:20	937879	10-1096	1	LANL	USE	S
per0105072a	WCLCCV	CWW	1/5/2010 21:26			1		USE	C
per0105073a	IPB009	CWW	1/5/2010 21:32			1		USE	B
per0105074a	WCLCRI	CWW	1/5/2010 21:38			1		USE	C
per0105075a	1202008671	CWW	1/5/2010 21:44	938786	10-1052	1	LANL	USE	S
per0105076a	1202008674	CWW	1/5/2010 21:50	938786	10-1052	1	LANL	USE	S
per0105077a	1202008675	CWW	1/5/2010 21:56	938786	10-1052	1	LANL	USE	S
per0105078a	243469002	CWW	1/5/2010 22:02	938786	10-1052	1	LANL	USE	S
per0105079a	1202008672	CWW	1/5/2010 22:08	938786	10-1052	1	LANL	USE	S
per0105080a	1202008673	CWW	1/5/2010 22:14	938786	10-1052	1	LANL	USE	S
per0105081a	WCLCCV	CWW	1/5/2010 22:20			1		USE	C
per0105082a	IPB010	CWW	1/5/2010 22:27			1		USE	B
per0105083a	WCLCRI	CWW	1/5/2010 22:33			1		USE	C

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

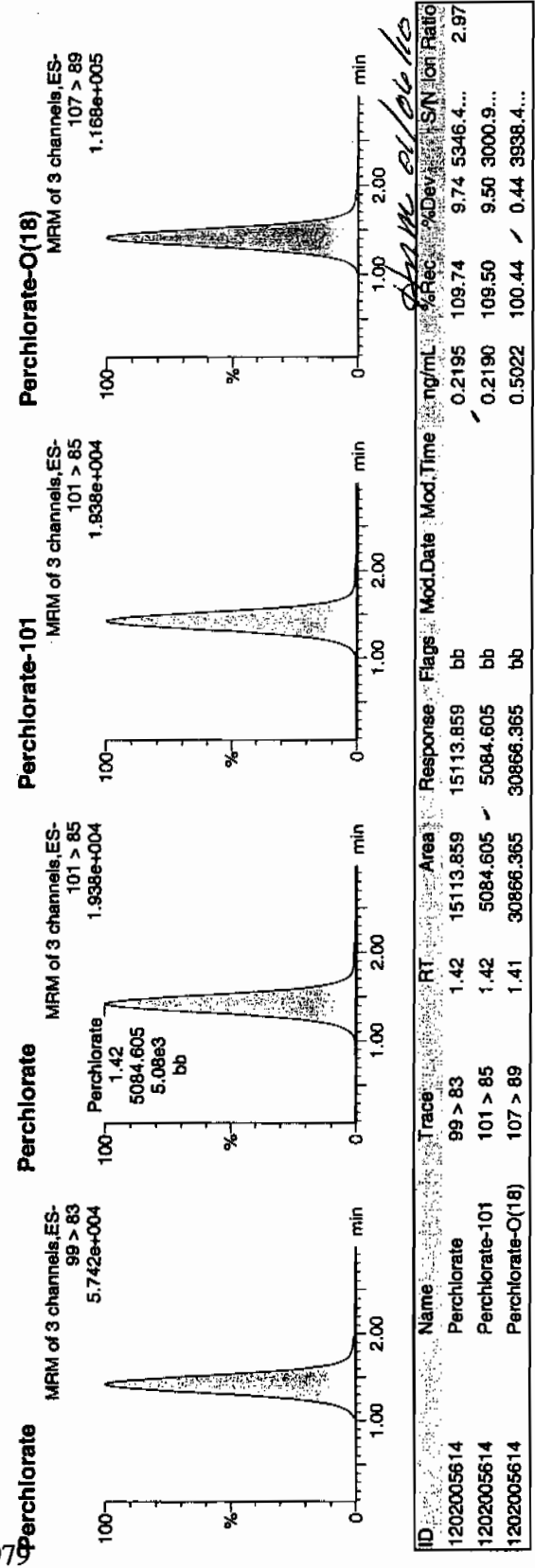
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Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Name: per0105029a
Date: 05-Jan-2010
Time: 17:05:20
ID: 1202005614
Vial: 1:5,C

01-06-10

LANU 1936774 | 5020 | ms | 11



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

Dataset: C:\MassLynx\Perchlorate.PRO\per010510a.qld

Last Altered: Wednesday, January 06, 2010 7:55:39 AM Eastern Standard Time
Printed: Wednesday, January 06, 2010 8:46:41 AM Eastern Standard Time

Filename: per0105030a

Date: 05-Jan-2010

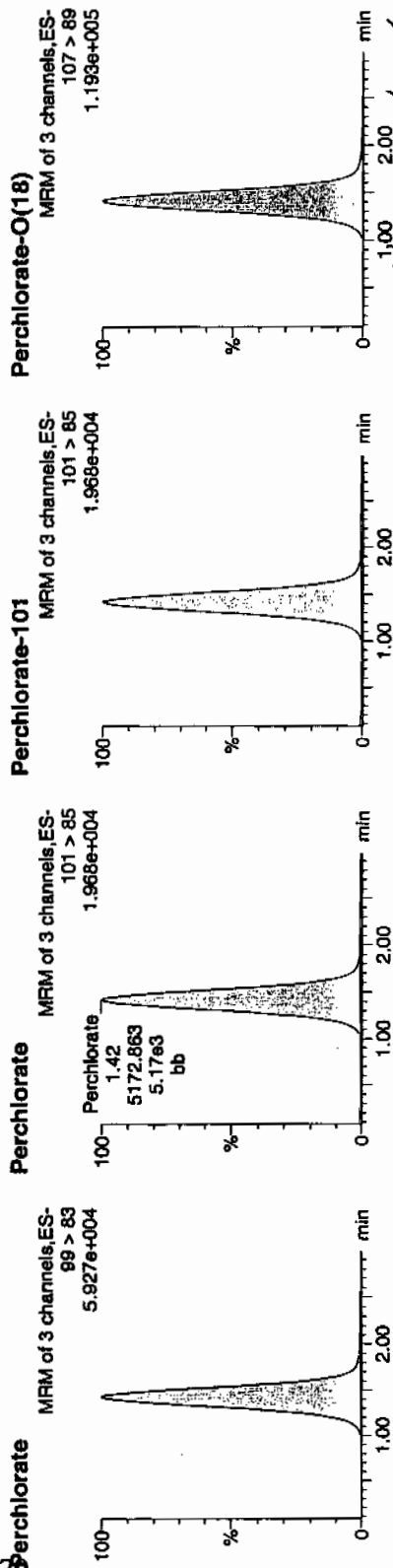
Time: 17:11:23

ID: 1202005615

Vial: 1:5,D

01-06-09

1.968e+004 | 5020 | MSD | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202005615	Perchlorate	99 > 83	1.42	15532.910	15532.910	bb			0.2256	112.78	12.78	3227.7...	3.00
1202005615	Perchlorate-101	101 > 85	1.42	5172.863	5172.863	bb			0.2228	111.40	11.40	1250.7...	
1202005615	Perchlorate-O(18)	107 > 89	1.41	31540.314	31540.314	bb			0.5132	102.63	2.63	2842.0...	

Isotope Ratio Criteria

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

2.31-3.85

Tune Criteria

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

LC/MS/MS EXPLOSIVES ANALYSIS

**LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1073**

Method/Analysis Information

Procedure: Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)

Analytical Method: SW846 8321A Modified

Prep Method: SW846 8330 PREP

Analytical Batch Number: 937041

Prep Batch Number: 937040

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
243517003	RE12-10-7557
243517004	RE12-10-7558
243517005	RE12-10-7555
243517006	RE12-10-7556
243517007	RE12-10-7562
243517008	RE12-10-7561
243517009	RE12-10-7563
1202005126	Method Blank (MB)
1202005127	Laboratory Control Sample (LCS)
1202005624	243517008(RE12-10-7561) Matrix Spike (MS)
1202005625	243517008(RE12-10-7561) Matrix Spike Duplicate (MSD)

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-056 REV# 12.

10-1073-EXPLCMS

Page 1 of 5

Primary Analyte Analysis

Calibration Information

Initial Calibration

All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements

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

Calibration Blank Requirements

All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements

All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries

All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation

Sample 243517008 (RE12-10-7561) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement

The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD spike 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.

Internal Standard (ISTD) Acceptance

The internal standard responses were within the required acceptance criteria for all samples and QC.

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

According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis

Sample 1202005625 (RE12-10-7561MSD) failed ISTD acceptance criteria. It was re-analyzed and passed acceptance criteria. The re-analysis is reported.

Secondary Analyte Analysis

Calibration Information

Initial Calibration

All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements

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

Calibration Blank Requirements

All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements

All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries

All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery

The LCS recovered TATB at 338%. The recovery limits are 47-166%. While TATB exhibited a high bias in the LCS, MS and MSD, it was not detected in the associated samples. The data are reported. Please see nonconformance report 778672.

QC Sample Designation

Sample 243517008 (RE12-10-7561) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement

The MS recovered TATB at 188%. The recovery limits are 44-166%. While TATB exhibited a high bias in the LCS, MS and MSD, it was not detected in the associated samples. The data are reported. Please see nonconformance report 778672.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recovered TATB at 212%. The recovery limits are 44-166%. While TATB exhibited a high bias in the LCS, MS and MSD, it was not detected in the associated samples. The data are reported. Please see nonconformance report 778672.

MS/MSD Relative Percent Difference (RPD) Statement

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

Internal Standard (ISTD) Acceptance

The internal standards were not added to the secondary analyte extracts.

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

According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation

Nonconformance report 778672 was generated for this SDG.

The LCS recovered TATB at 338%. The recovery limits are 47-166%. While TATB exhibited a high bias in the LCS, MS and MSD, it was not detected in the associated samples. The data are reported.

The MS recovered TATB at 188%. The MSD recovered TATB at 212%. The recovery limits are 44-166%. While TATB exhibited a high bias in the LCS, MS and MSD, it was not detected in the associated samples. The data are reported.

Manual Integrations

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

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Flagging Convention

The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments

Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte 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 APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

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: Deborah M. Mue Date: 01/11/10

SAMPLE DATA SUMMARY

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7557

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517003

Sample Amount 2

Moisture: 14.1

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105098a

Date Analyzed: 07-JAN-10 18:57

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7557

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517003

Sample Amount 2

Moisture: 14.1

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050042.wiff

Date Analyzed: 06-JAN-10 01:14

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7558

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517004

Sample Amount 2

Moisture: 8.0

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105099a

Date Analyzed: 07-JAN-10 19:26

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7558

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517004

Sample Amount 2

Moisture: 8.0

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050043.wiff

Date Analyzed: 06-JAN-10 01:29

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7555

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517005

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105100a

Date Analyzed: 07-JAN-10 19:56

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7555

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517005

Sample Amount 2

Moisture: 14.2

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050044.wiff

Date Analyzed: 06-JAN-10 01:45

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7556

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517006

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105101a

Date Analyzed: 07-JAN-10 20:25

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7556

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517006

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050045.wiff

Date Analyzed: 06-JAN-10 02:01

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7562

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517007

Sample Amount 2

Molsture: 9.9

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105102a

Date Analyzed: 07-JAN-10 20:54

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7562

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517007

Sample Amount 2

Moisture: 9.9

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050046.wiff

Date Analyzed: 06-JAN-10 02:17

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7561

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517008

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105103a

Date Analyzed: 07-JAN-10 21:24

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7561

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517008

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050047.wiff

Date Analyzed: 06-JAN-10 02:32

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7563

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517009

Sample Amount 2

Moisture: 12.3

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105109a

Date Analyzed: 08-JAN-10 00:21

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7563

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517009

Sample Amount 2

Moisture: 12.3

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050053.wiff

Date Analyzed: 06-JAN-10 04:07

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

QUALITY CONTROL SUMMARY

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLCGEL Job No (SDG): 10-1073Lab Code: GELHPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
243517003	RE12-10-7557	98.1	73.7 - 133.3	
243517003	RE12-10-7557	100	73.7 - 133.3	
243517004	RE12-10-7558	103	73.7 - 133.3	
243517004	RE12-10-7558	101	73.7 - 133.3	
243517005	RE12-10-7555	103	73.7 - 133.3	
243517005	RE12-10-7555	106	73.7 - 133.3	
243517006	RE12-10-7556	106	73.7 - 133.3	
243517006	RE12-10-7556	104	73.7 - 133.3	
243517007	RE12-10-7562	104	73.7 - 133.3	
243517007	RE12-10-7562	103	73.7 - 133.3	
243517008	RE12-10-7561	105	73.7 - 133.3	
243517008	RE12-10-7561	102	73.7 - 133.3	
243517009	RE12-10-7563	99.5	73.7 - 133.3	
243517009	RE12-10-7563	101	73.7 - 133.3	
1202005126	MB for batch 937040	103	73.7 - 133.3	
1202005126	MB for batch 937040	108	73.7 - 133.3	
1202005127	LCS for batch 937040	108	73.7 - 133.3	
1202005127	LCS for batch 937040	104	73.7 - 133.3	
1202005624	RE12-10-7561(243517008MS)	106	73.7 - 133.3	
1202005624	RE12-10-7561(243517008MS)	101	73.7 - 133.3	
1202005625	RE12-10-7561(243517008MSD)	97.7	73.7 - 133.3	
1202005625	RE12-10-7561(243517008MSD)	98	73.7 - 133.3	

DNT = 3,4-Dinitrotoluene

3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1073

Extract Batch Code: 937040

Date Extracted: 04-JAN-10

GEL LCS ID: 1202005127

GEL LCSDUP ID:

Analysis Date/Time: 07-JAN-10 18:27

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	4480	89.6					62.1 - 124
2,4,6-Trinitrotoluene	5000	4860	97.2					78.3 - 132
2,4-Dinitrotoluene	5000	4920	98.3					82.7 - 132
2,6-Dinitrotoluene	5000	4800	96					86.9 - 122
2-Amino-4,6-dinitrotoluene	5000	5180	104					84.2 - 149
4-Amino-2,6-dinitrotoluene	5000	4720	94.4					85.6 - 133
HMX	5000	4060	81.2					66.5 - 142
Nitrobenzene	5000	4130	82.5					71.8 - 126
PETN	5000	3870	77.3					64.6 - 147
RDX	5000	4500	89.9					78.7 - 144
Tetryl	5000	3500	69.9					31.2 - 119
m-Dinitrobenzene	5000	4370	87.5					80.9 - 127
m-Nitrotoluene	5000	4320	86.4					71.9 - 126
o-Nitrotoluene	5000	4190	83.8					75 - 123
p-Nitrotoluene	5000	4740	94.9					73.7 - 124

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1073

Extract Batch Code: 937040

Date Extracted: 04-JAN-10

GEL LCS ID: 1202005127

GEL LCSDUP ID:

Analysis Date/Time: 06-JAN-10 00:58

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	5000	3410	68.2					64.8 - 128
2,6-Diamino-4-nitrotoluene	5000	3910	78.2					69.6 - 133
3,5-Dinitroaniline	5000	5320	106					77.3 - 123
tris(o-cresyl) phosphate	5000	5020	100					84.3 - 120
TATB	5000	16900	338 *					46.8 - 166

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE12-10-7561

Lab Code: GEL

GEL Job No (SDG) 10-1073

Extract Batch Code: 937040

Date Extracted: 04-JAN-10

GEL Spike ID: 1202005624

GEL SpikeDup ID: 1202005625

Analysis Date/Time: 07-JAN-10 21:54

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	5000	0	4410	88.3	4490	89.8	1.7	30	70.7 - 130
2,4,6-Trinitrotoluene	5000	0	5470	109	4730	94.7	14.4	30	83.4 - 138
2,4-Dinitrotoluene	5000	0	4650	93	4880	97.5	4.78	30	79.1 - 137
2,6-Dinitrotoluene	5000	0	4860	97.1	4730	94.5	2.73	30	85.4 - 125
2-Amino-4,6-dinitrotoluene	5000	0	5860	117	4950	99.1	16.7	30	77.4 - 154
4-Amino-2,6-dinitrotoluene	5000	0	5570	111	4450	89	22.2	30	77.3 - 140
HMX	5000	0	3970	79.4	4050	81.1	2.1	30	66.7 - 144
Nitrobenzene	5000	0	3900	78	4560	91.2	15.6	30	70.4 - 129
PETN	5000	0	3680	73.6	4350	87	16.7	30	61.9 - 153
RDX	5000	0	4250	85	4150	82.9	2.5	30	73 - 140
Tetryl	5000	0	3380	67.5	3560	71.3	5.37	30	46.8 - 138
m-Dinitrobenzene	5000	0	4580	91.5	4820	96.4	5.15	30	83.5 - 126
m-Nitrotoluene	5000	0	4660	93.2	4060	81.2	13.8	30	68.6 - 135
o-Nitrotoluene	5000	0	4550	91.1	3930	78.7	14.6	30	71.2 - 131
p-Nitrotoluene	5000	0	4990	99.8	4040	80.8	21.1	30	69.3 - 133

#Column to be used to flag recovery and RPD values with an asterisk

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE12-10-7561

Lab Code: GEL

GEL Job No (SDG) 10-1073

Extract Batch Code: 937040

Date Extracted: 04-JAN-10

GEL Spike ID: 1202005624

GEL SpikeDup ID: 1202005625

Analysis Date/Time: 06-JAN-10 02:48

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	3820	76.4	4300	86	11.8	30	51.6 - 127
2,6-Diamino-4-nitrotoluene	5000	0	4450	89	3830	76.6	15	30	58.9 - 135
3,5-Dinitroaniline	5000	0	5210	104	5280	106	1.34	30	72.8 - 125
tris(o-cresyl) phosphate	5000	0	5020	100	5050	101	.596	30	79.1 - 124
TATB	5000	0	9390	188 *	10600	212 *	12.1	30	43.9 - 166

#Column to be used to flag recovery and RPD values with an asterisk

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05-JAN-10 18:57

GEL Data File: EXP0105001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	553.819
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	556.158
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Jan 06 12:44:40 2010, Page 1 of 71

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

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Calibration: Untitled, Time: Wed Jan 06 12:43:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105001a

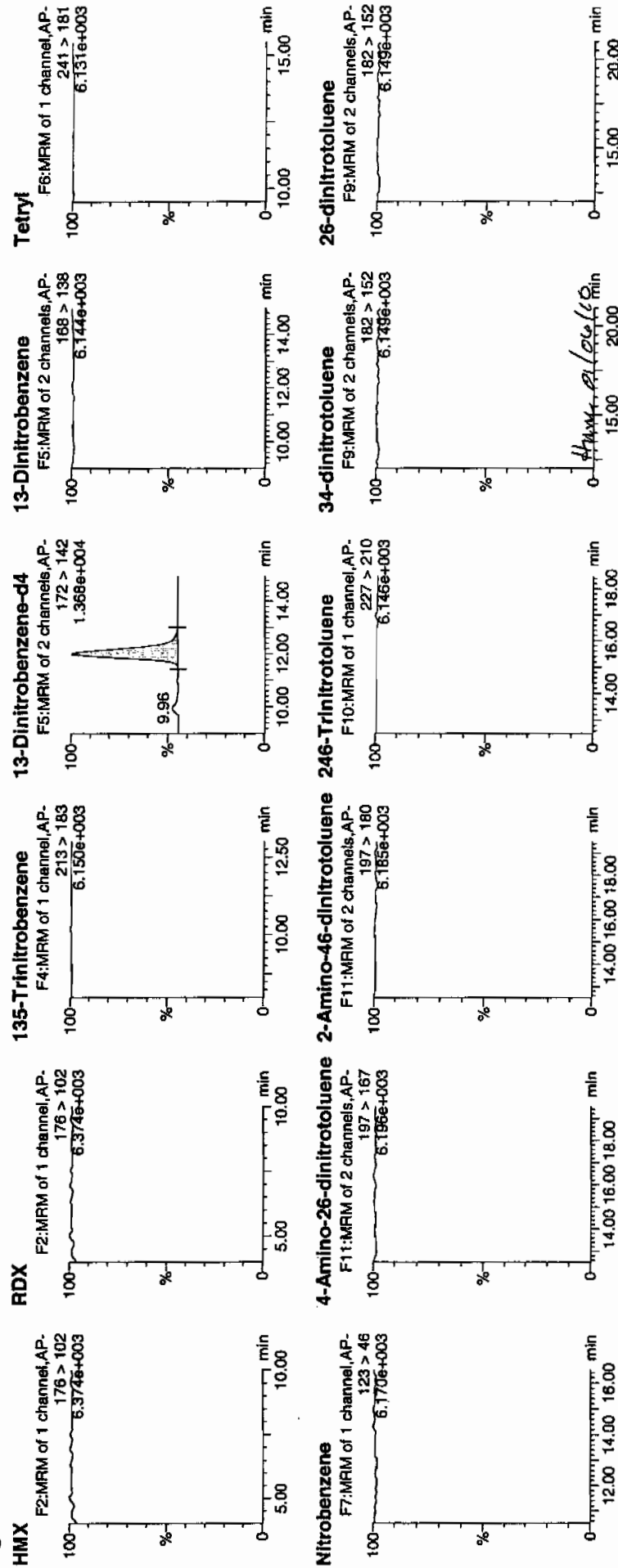
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Time: 18:57:22

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Vol: 1:1,A

1/6/10



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05-JAN-10 19:26

GEL Data File: EXP0105002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	555.293
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	571.06
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Sample Report

EL Laboratories, LLC / Analyst : Michael A. Penny

atset: Untitled, Time: Wed Jan 06 12:43:40 2010

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ate: 15-Jan-2010

ime: 19:26:50

y: XIBLK01

ial: 21.A

MX

of

176 > 102

6.2238+003

RDX

F2:MRM of 1 channel,AP-

176 > 102

6.2238+003

135-Trinitrobenzene

F4:MRM of 1 channel,AP-

213 > 183

6.0028+003

13-Dinitrobenzene-d4

F5:MRM of 2 channels,AP-

172 > 142

1.371e+004

13-Dinitrobenzene

F5:MRM of 2 channels,AP-

168 > 138

6.022e+003

Tetryl

F6:MRM of 1 channel,AP-

241 > 181

6.015e+003

itrobenzene

F7:MRM of 1 channel,AP-

123 > 46

6.0528+003

4-Amino-26-dinitrotoluene

F11:MRM of 2 channels,AP-

197 > 167

6.0866+003

2-Amino-46-dinitrotoluene

F11:MRM of 2 channels,AP-

197 > 180

6.0806+003

246-Trinitrotoluene

F10:MRM of 1 channel,AP-

227 > 210

8.0386+003

34-dinitrotoluene

F9:MRM of 2 channels,AP-

182 > 152

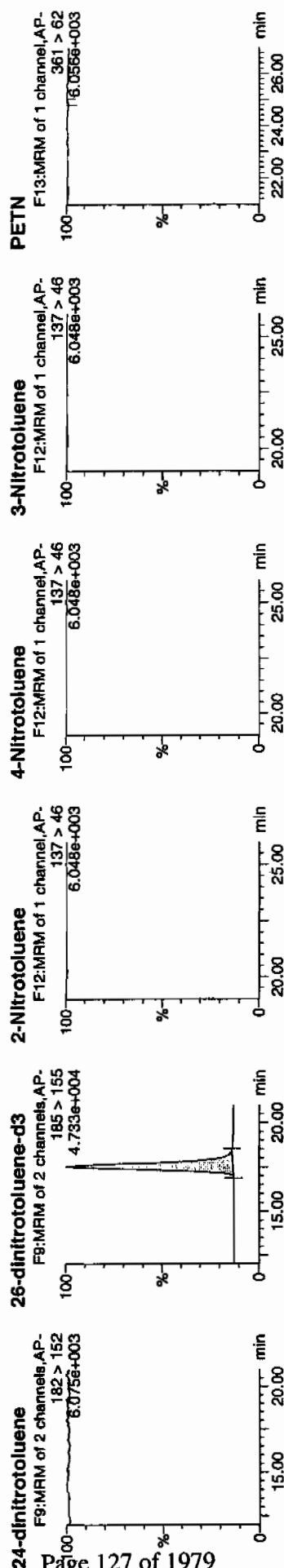
8.0756+003

26-dinitrotoluene

F9:MRM of 2 channels,AP-

182 > 152

8.0756+003



ID	Name	Trace	Peak RT	Area	IS Area	Abs Resp	Response	Flag	Mod Date	Mod Time	Integ mL	% Rec	% Dev	SN
XIBLK01	HMX	176 > 102			3092.306									
XIBLK01	RDX	176 > 102			3092.306									
XIBLK01	135-Trinitrobenzene	213 > 183			3092.306									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.00	3092.306		3092.306	3092.306	bb			555.2932	111.1	11.1	219.1
XIBLK01	13-Dinitrobenzene	168 > 138			3092.306									
XIBLK01	Tetryl	241 > 181			3092.306									
XIBLK01	Nitrobenzene	123 > 46			3092.306				MM- 06-Jan-10	12:26:48				
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			18367.025									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			18367.025									
XIBLK01	246-Trinitrotoluene	227 > 210			18367.025									
XIBLK01	34-dinitrotoluene	182 > 152			18367.025									
XIBLK01	26-dinitrotoluene	182 > 152			18367.025									
XIBLK01	24-dinitrotoluene	182 > 152			18367.025									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.53	18367.025		18367.025	18367.025	bb			571.0599	114.2	14.2	1313.8
XIBLK01	2-Nitrotoluene	137 > 46			18367.025									
XIBLK01	4-Nitrotoluene	137 > 46			18367.025									
XIBLK01	3-Nitrotoluene	137 > 46			18367.025									
XIBLK01	PETN	361 > 82	24.94	5.967			5.967	0.162	bb		0.0000			4.5

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08-JAN-10 17:15

GEL Data File: EXP0108001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	483.878
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	501.47
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

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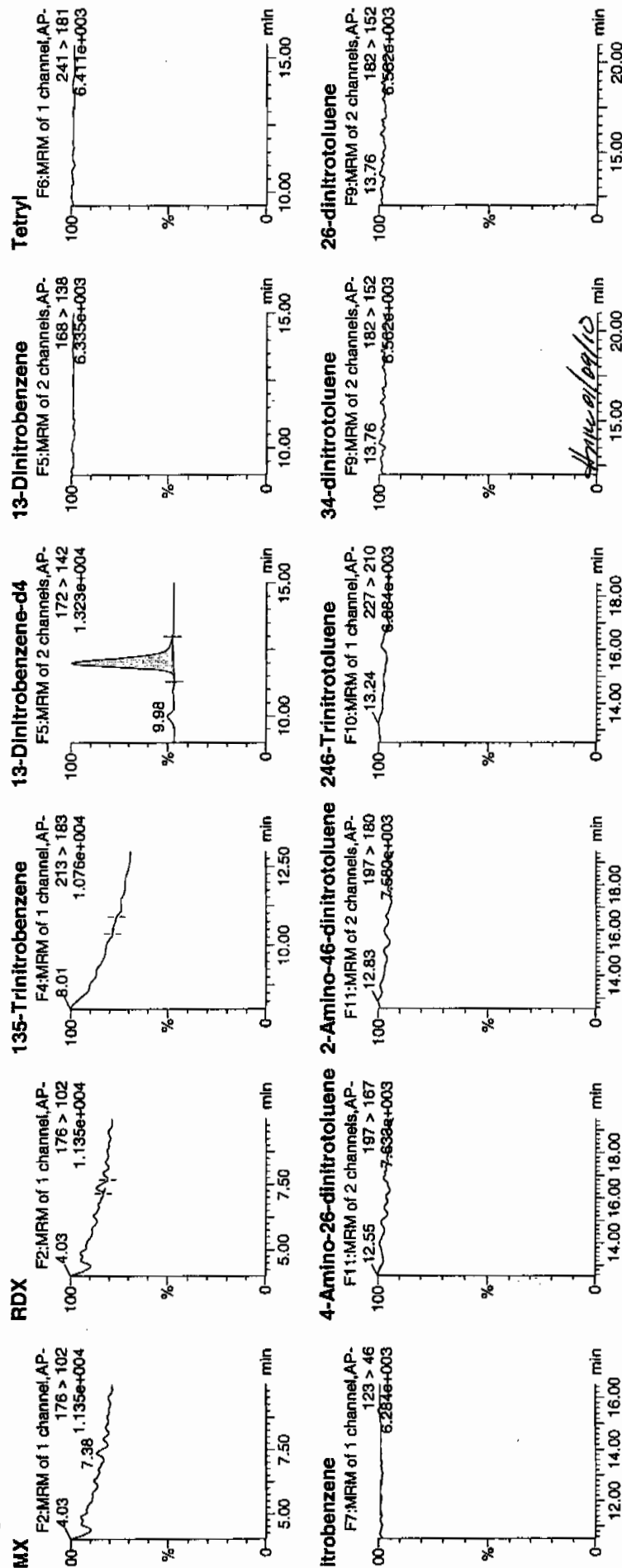
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ate: 08-Jan-2010

ime: 17:15:04

y: XIELK01

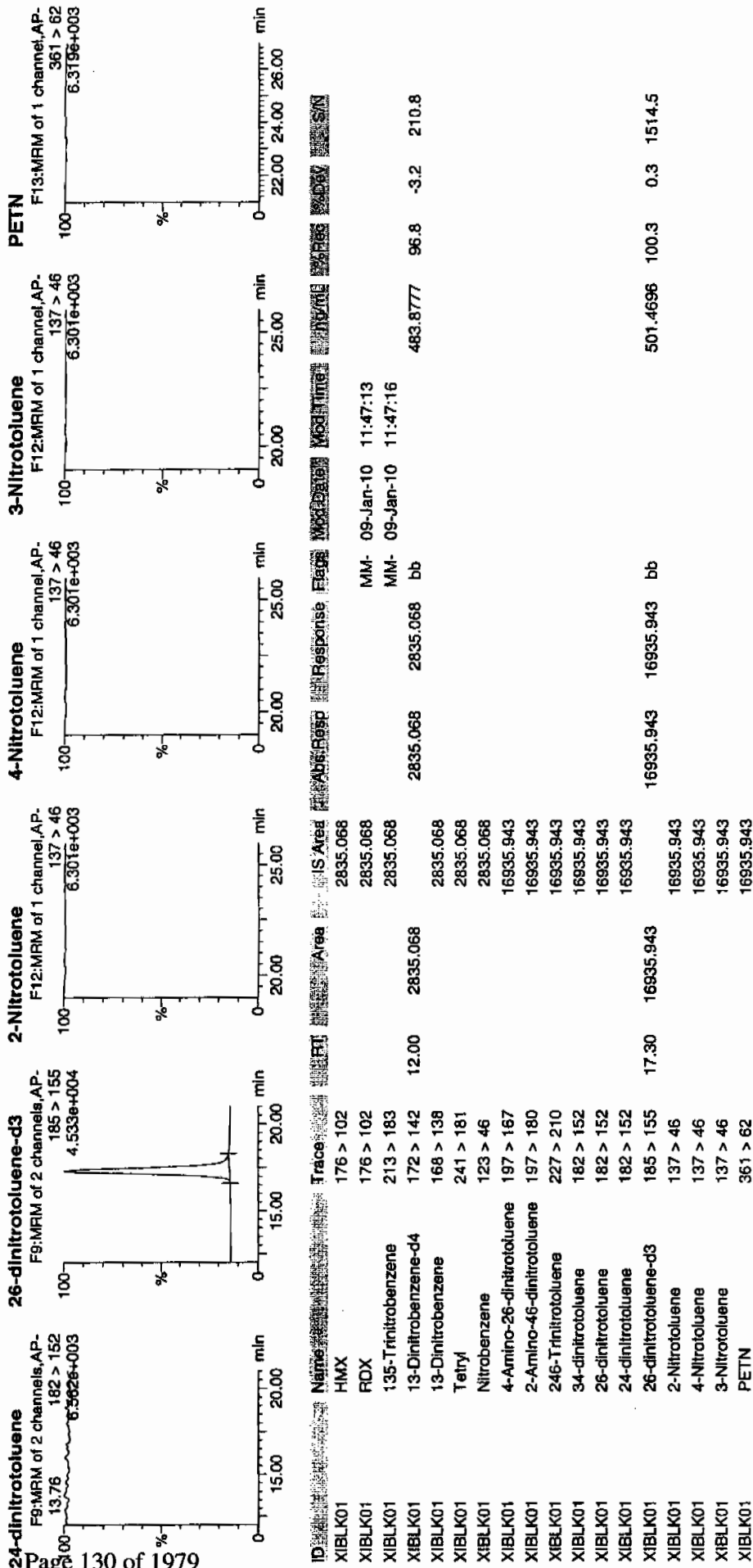
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Printed: Sat Jan 09 12:02:23 2010, Page 2 of 61

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08-JAN-10 17:44

GEL Data File: EXP0108002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	481.722
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	602.181
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

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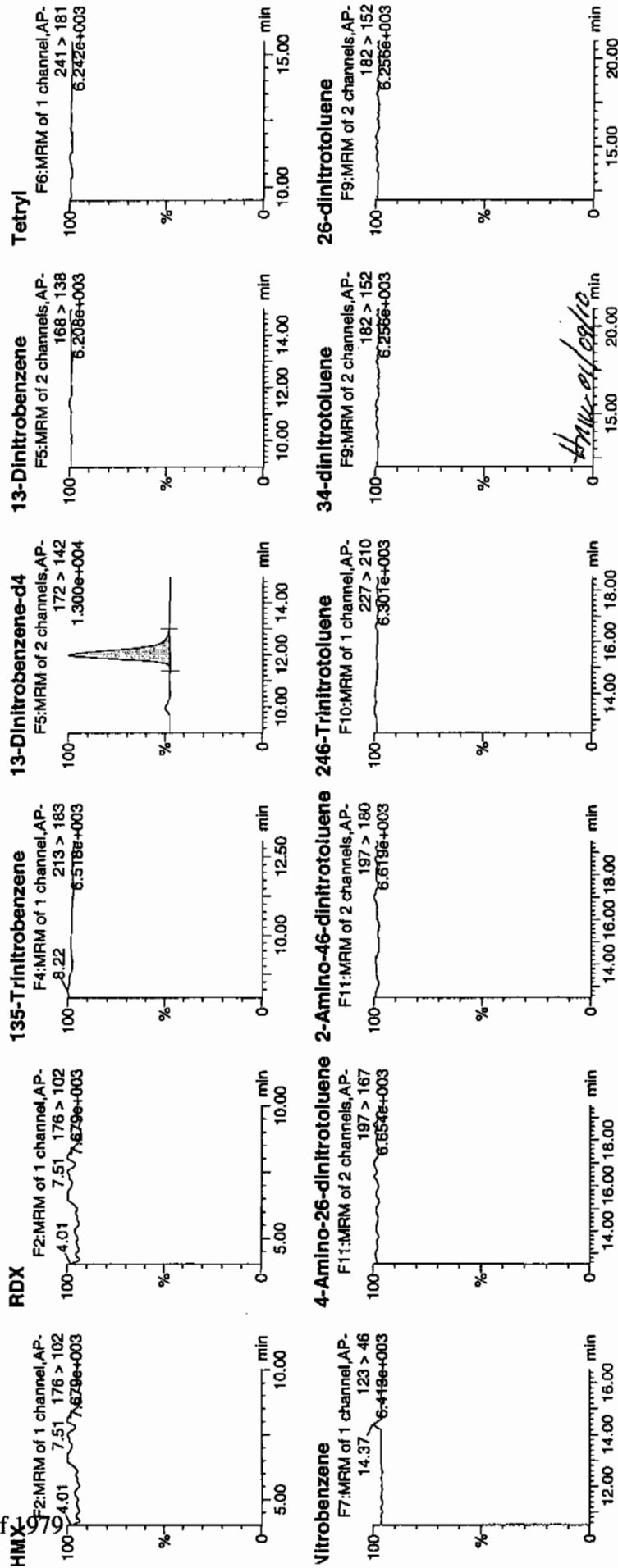
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Time: 17:44:36

ID: XBLK01

Vial: 31.A

19/10

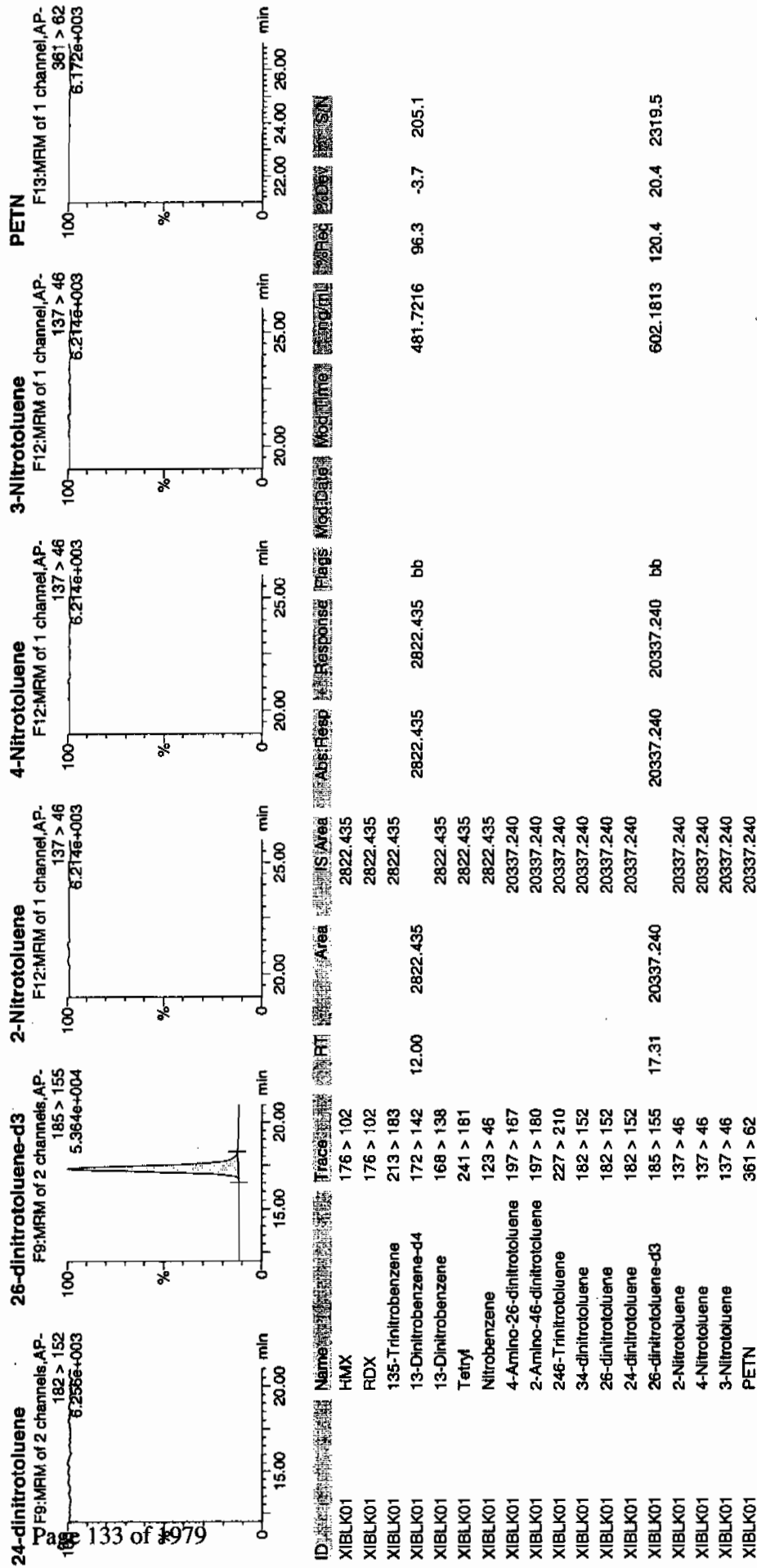


Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Jan 09 12:02:23 2010, Page 4 of 61

Dataset: C:\MASSLYN\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05-JAN-10 14:30

GEL Data File: EXS01050001.wiff

Instrument ID: LCMSMS

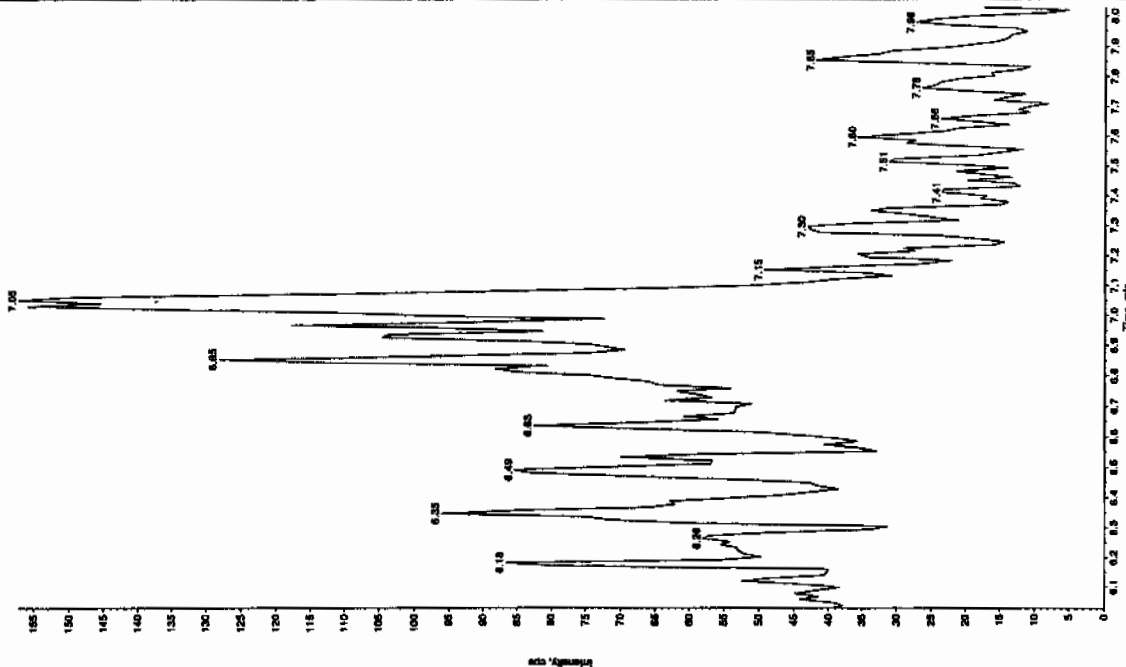
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

8/11/11
2008

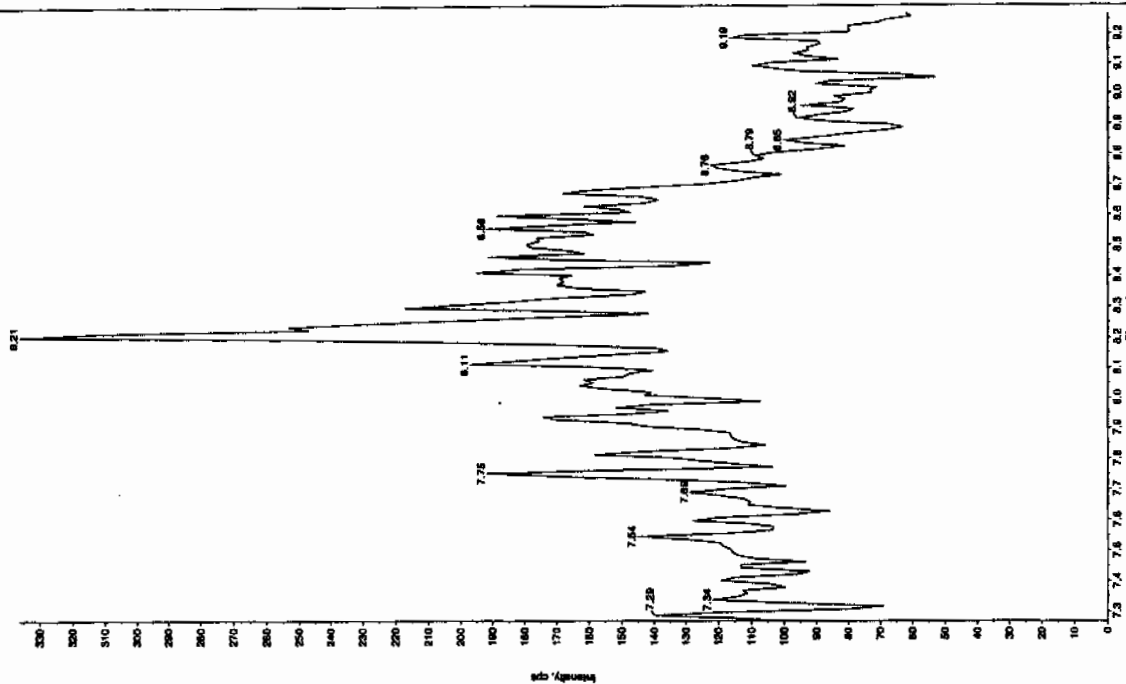
Sample Name: "XIBLX01" Sample ID: "XIBLX01" File: "EX501060001.wif"
Peak Name: "TATB" Mass(es): "257.2204.9 amu"
Invent: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: 0.00 ng/mL
Calculated Conc: 0.00
Acq. Date: 1/5/2010
Acq. Time: 2:30:25 PM
Modified: No



Sample Name: "XIBLX01" Sample ID: "XIBLX01" File: "EX501060001.wif"
Peak Name: "35-Dinitrochloride" Mass(es): "182.046.0 amu"
Invent: "LCMSEXP_B" Annotation: ""

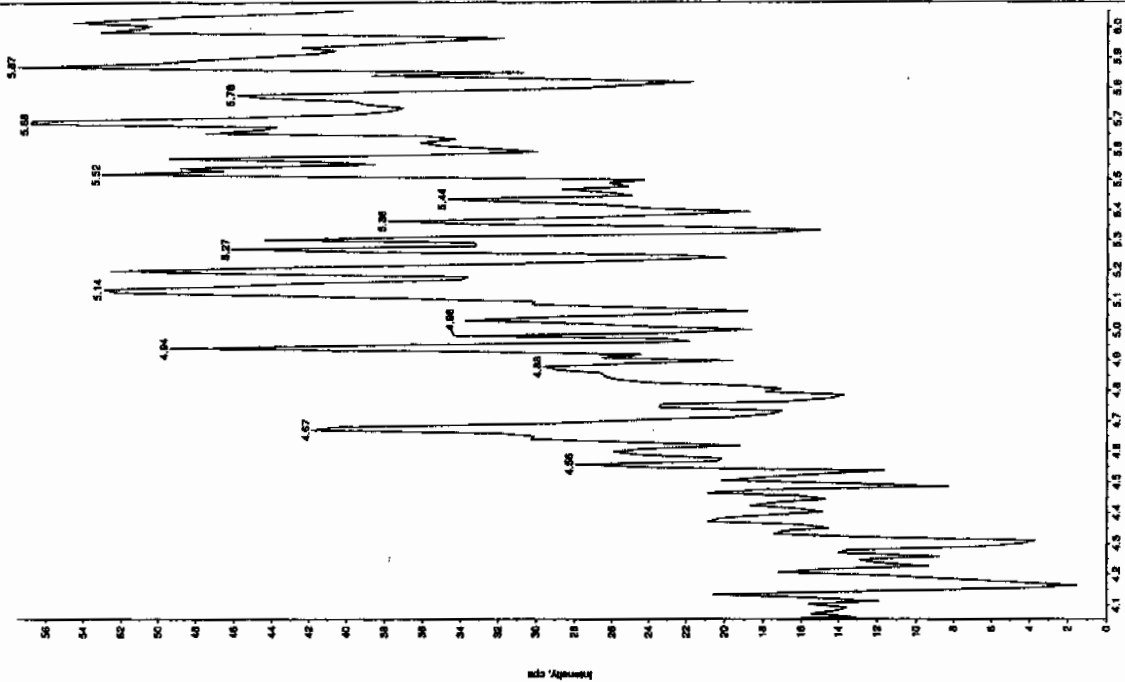
Sample Index: 1
Sample Type: Unknown
Concentration: 0.00 ng/mL
Calculated Conc: 0.00
Acq. Date: 1/5/2010
Acq. Time: 2:30:25 PM
Modified: No



for we 8/11/11

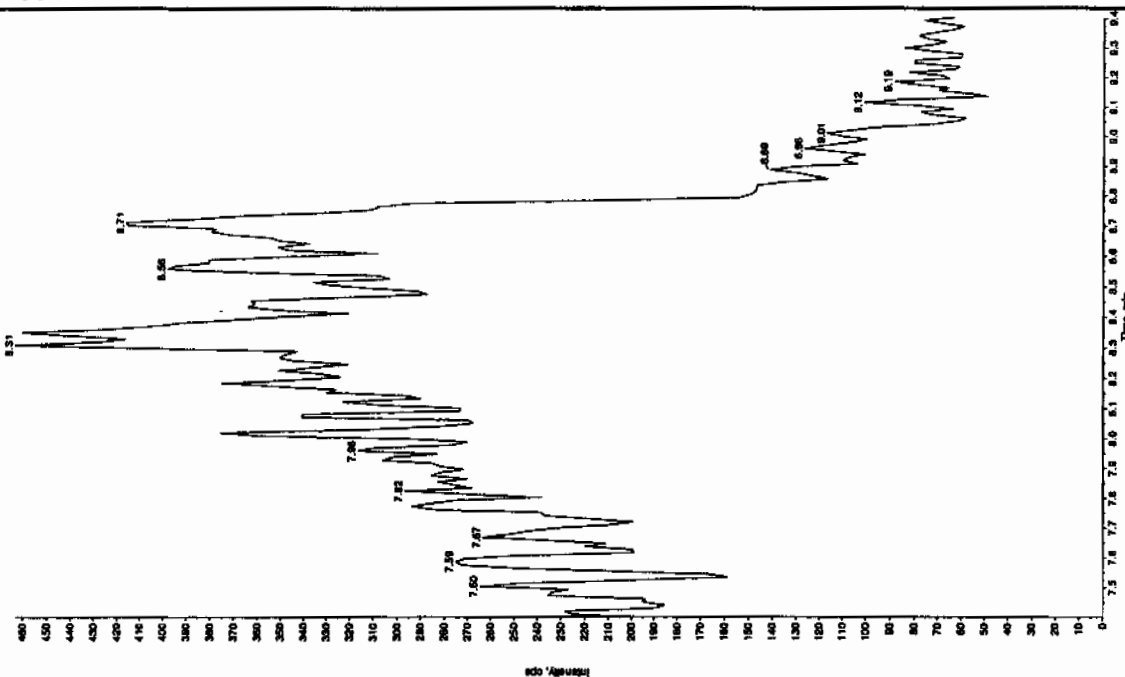
Sample Name: 'XBL001' Sample ID: '11LEP' File: 'EX001050001.wif'
 Peak Name: '26-Dienho-4-nitrobenzene' Mass(es): '196.046.0 amu'
 Comment: 'LONSEXP_B' Annotation: ''

Sample Index: 1
 Sample Type: Unknown
 Concentration: M/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 2:30:25 PM
 Modified: No



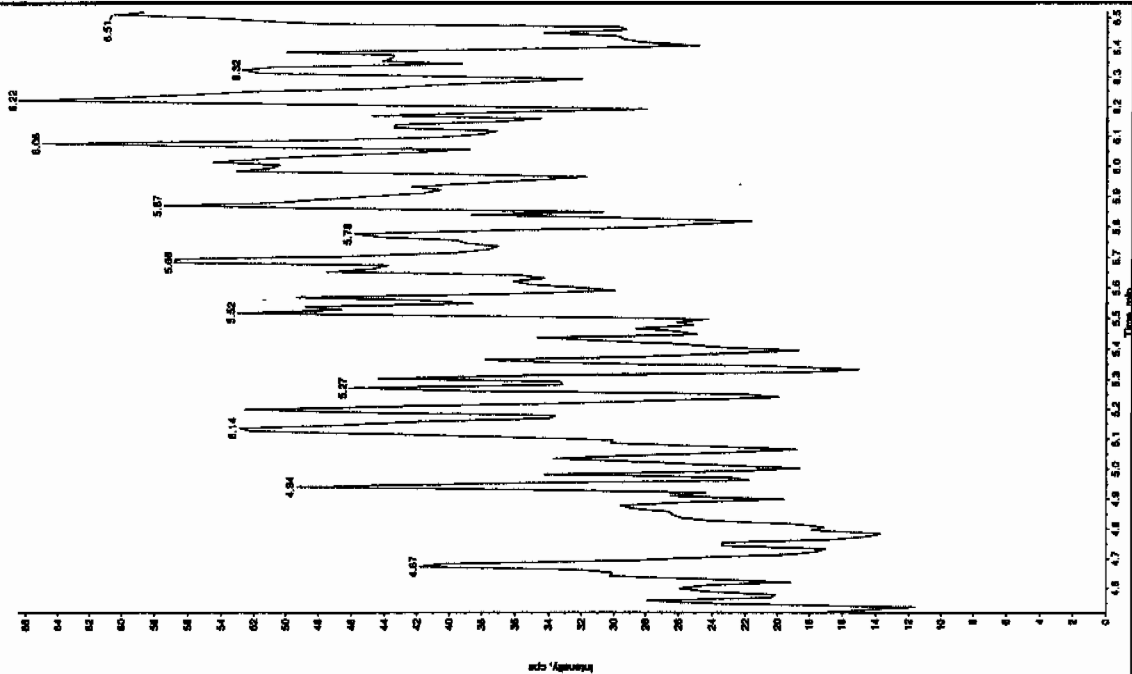
Sample Name: 'XBL001' Sample ID: '11LEP' File: 'EX001050001.wif'
 Peak Name: '34-Chlorobenzene' Mass(es): '162.1151.3 amu'
 Comment: 'LONSEXP_B' Annotation: ''

Sample Index: 1
 Sample Type: Unknown
 Concentration: M/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 2:30:25 PM
 Modified: No



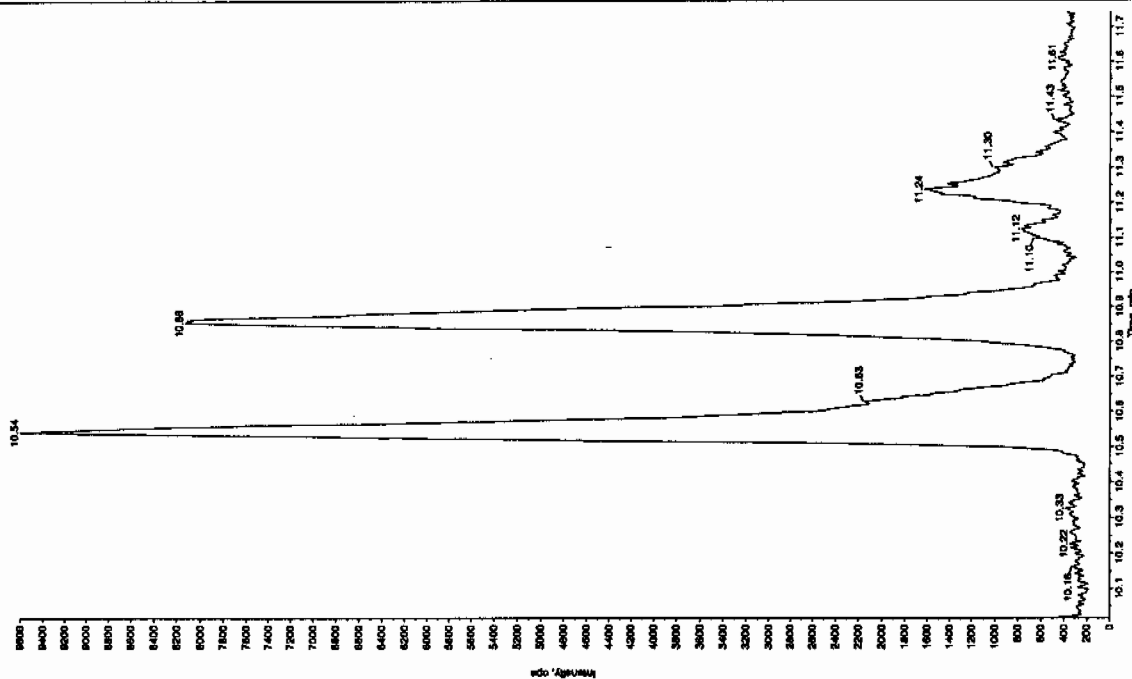
File Name: "XBL001" Sample ID: "11L1R" File: "EX01050001.wif"
 At Name: "24-Diamino-6-nitrofluorene" Mass(es): "165.046.0 amu"
 Method: "LCMS/EXP_B" Annotation: ""

1
 1e Index: 1
 1e Type: Unknown
 1e Concentration: N/A
 1e Date: 1/5/2010
 1e Time: 2:30:25 PM
 1e File: 137 of 1979



Sample Name: "XBL001" Sample ID: "11L1R" File: "EX01050001.wif"
 Peak Name: "triso-cresyl phosphate" Mass(es): "358.1811.0 amu"
 Comment: "LCMS/EXP_B" Annotation: ""

1
 1e Index: 1
 1e Type: Unknown
 1e Concentration: N/A
 1e Date: 1/5/2010
 1e Time: 2:30:25 PM
 1e File: 137 of 1979



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05-JAN-10 14:46

GEL Data File: EXS01050002.wiff

Instrument ID: LCMSMS

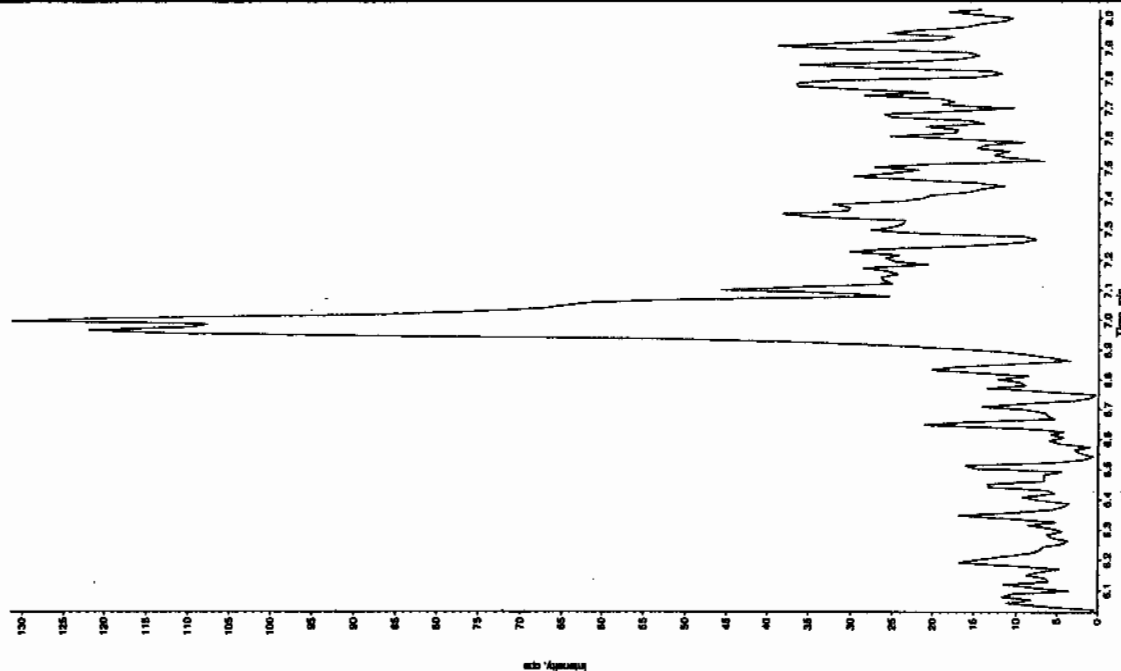
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

802-0111

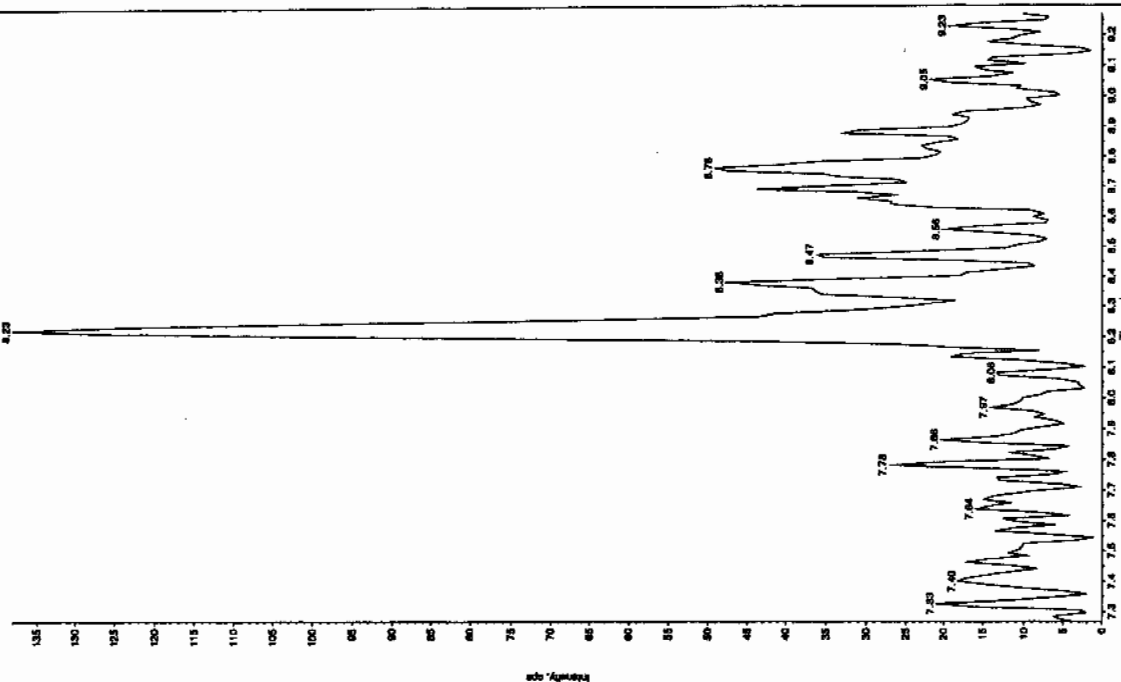
Sample Name: "XBL001" Sample ID: "HLEF" File: "EX01050002.wif"
 Peak Name: "TATB" Mass(es): 257.2204.9 amu
 Comment: "LCMSXP_B" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 2:46:12 PM
 Modified: No



Sample Name: "XBL001" Sample ID: "HLEF" File: "EX01050002.wif"
 Peak Name: "3S-Oxibutrolone" Mass(es): 182.046.0 amu
 Comment: "LCMSXP_B" Annotation: "

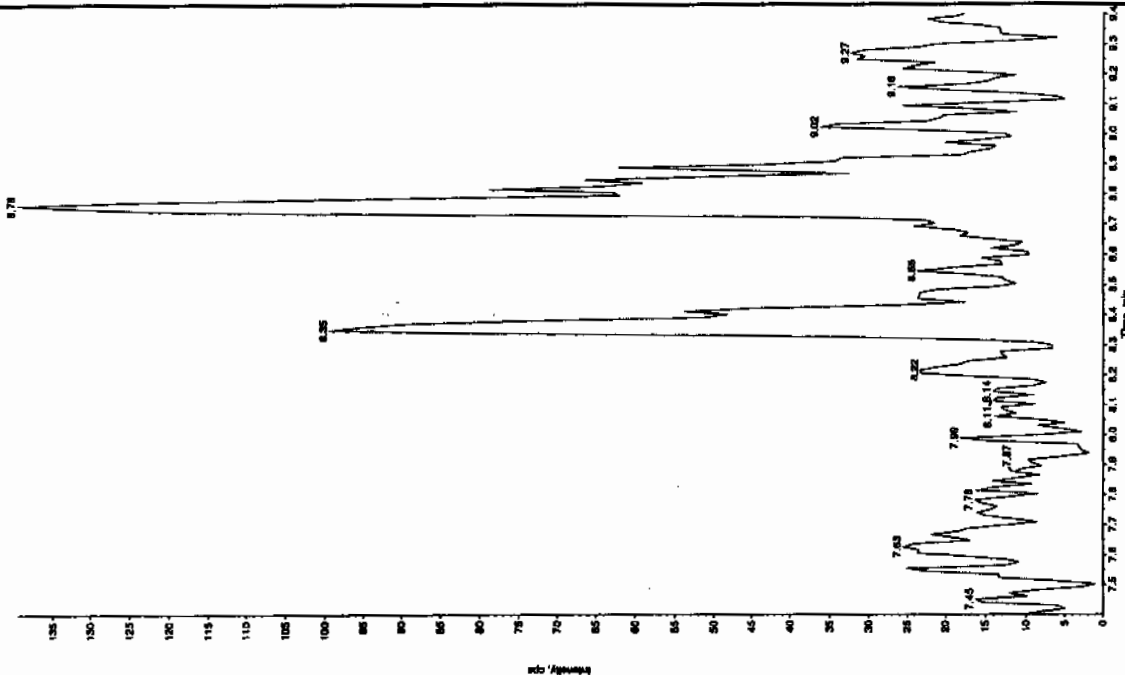
Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 2:46:12 PM
 Modified: No



4/11/10 01/07/10

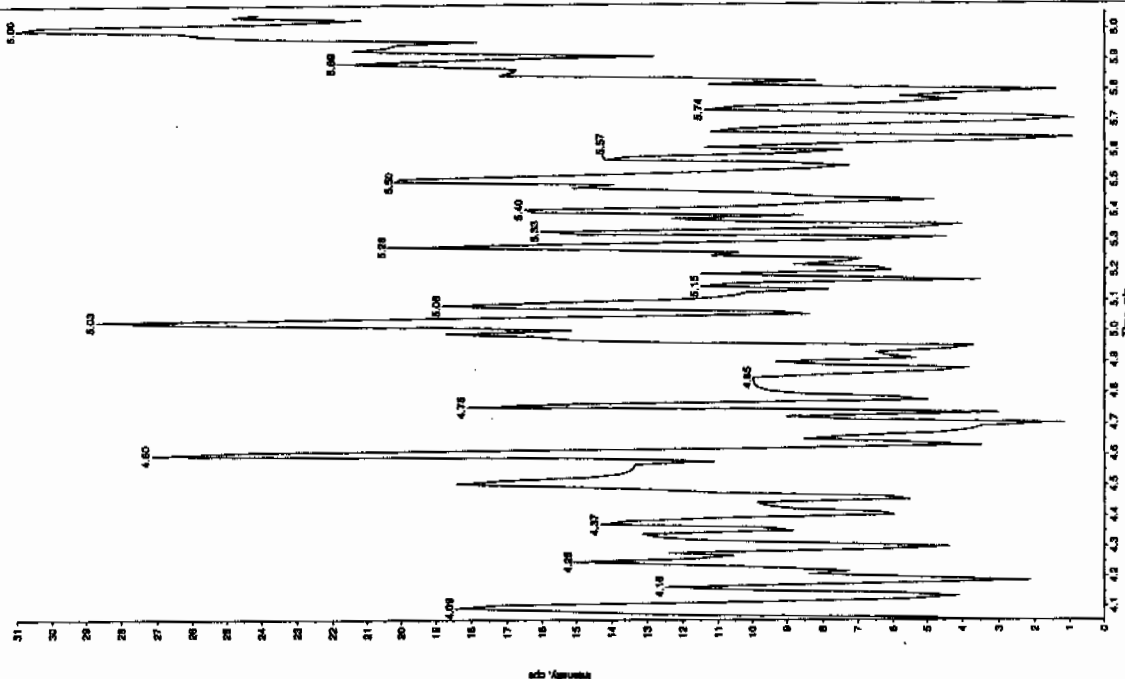
Sample Name: "XBL001" Sample ID: "111111" File: "EX01050002.wi"
 Peak Name: "2,4-Dinitrofluorene" Mass(es): "182.17151.9 amu"
 Comment: "LCMS-EXP_B" Annotation: ""

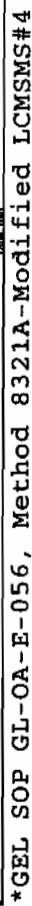
Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/3/2010
 Acq. Time: 2:46:12 PM
 Modified: No



Sample Name: "XBL001" Sample ID: "111111" File: "EX01050002.wi"
 Peak Name: "2,4-Dinitrofluorene" Mass(es): "186.046.0 amu"
 Comment: "LCMS-EXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/3/2010
 Acq. Time: 2:46:12 PM
 Modified: No





4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 05-JAN-10 22:53

GEL Data File: EXP0105009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	510.492
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	501.33
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0

Quantify Sample Report
 GEL Laboratories, LLC / Analyst : Michael A. Penny
 Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Name: C:\MASSLYNX\NEW_EXP_PROJ\Data\EXP0105009a

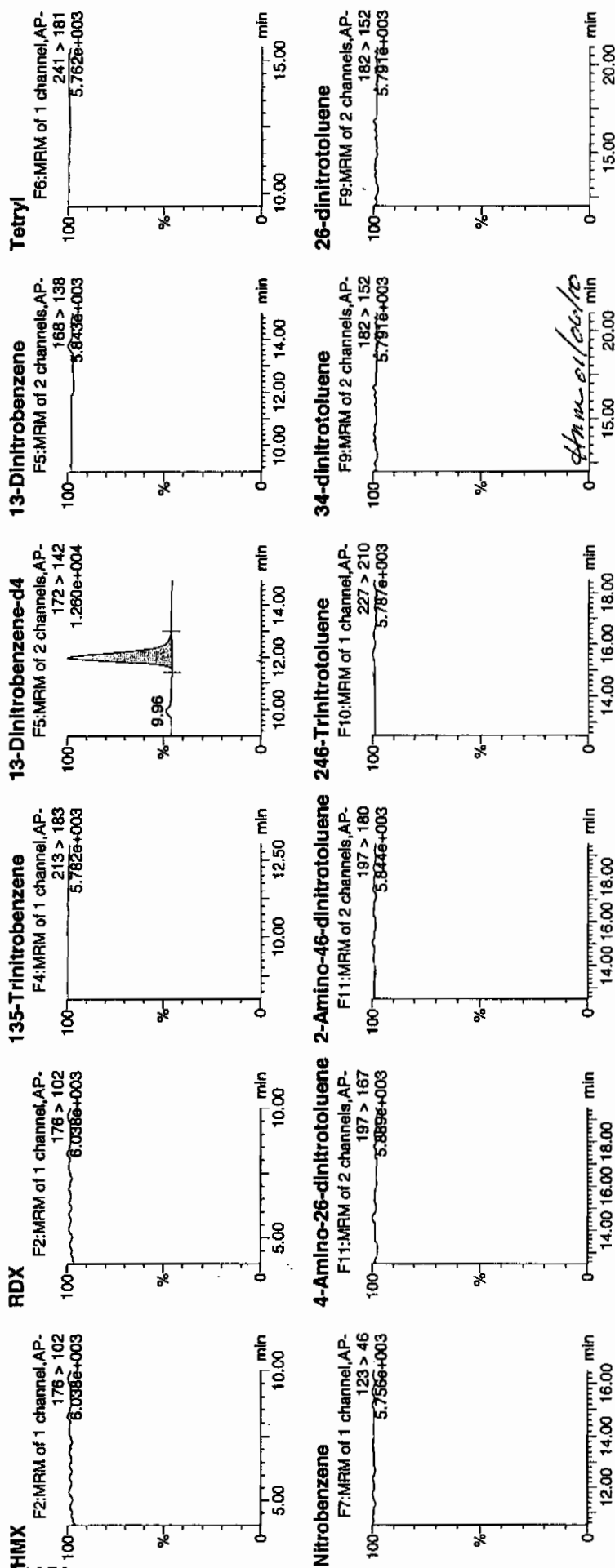
Date: 05-Jan-2010

Time: 22:53:09

ID: XIBLK02

Vial: 1:1,A

1/6/10



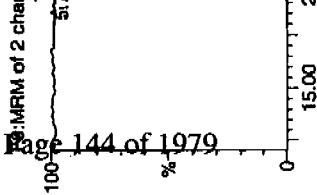
Quantify Sample Report

IEL Laboratories, LLC / Analyst : Michael A. Penny

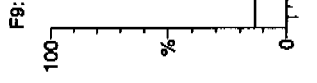
Printed: Wed Jan 06 12:44:40 2010, Page 18 of 71

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

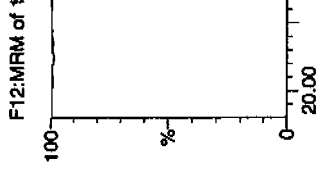
4-dinitrotoluene



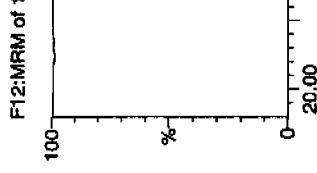
26-dinitrotoluene-d3



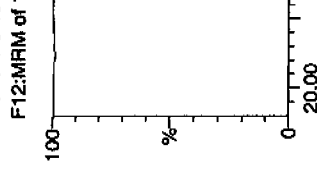
2-Nitrotoluene



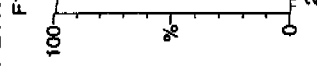
4-Nitrotoluene



3-Nitrotoluene



PETN



Name	Area	RT	Abs Resp	Flags	Mod Date	Mod Time	Acq Date	Acq Time
4-dinitrotoluene	2842.817	17.53	16124.299					
26-dinitrotoluene-d3	2842.817	17.53	16124.299					
2-Nitrotoluene	2842.817	16.124.299	16124.299					
4-Nitrotoluene	2842.817	16.124.299	16124.299					
3-Nitrotoluene	2842.817	16.124.299	16124.299					
PETN	2842.817	18.04.3	501.3300					

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 05-JAN-10 23:52

GEL Data File: EXP0105011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	461.766
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	477.85
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105011a

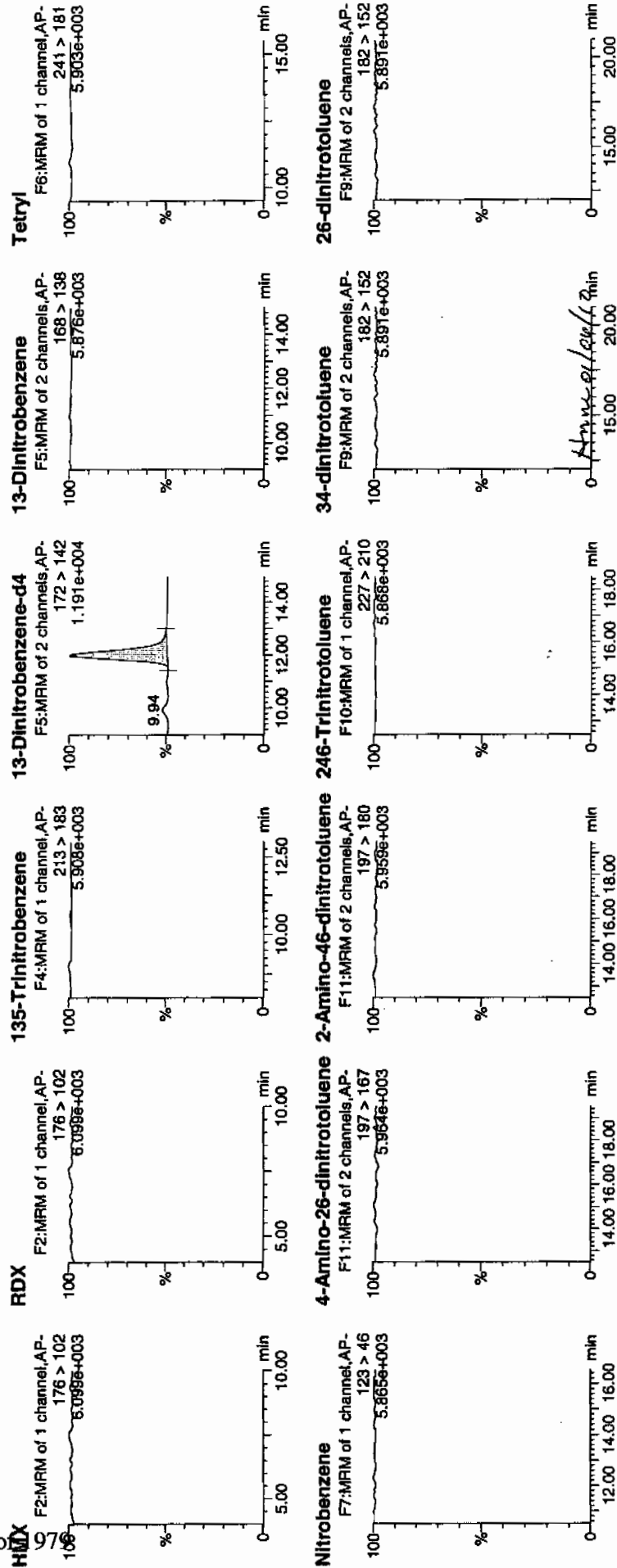
Date: 05-Jan-2010

Time: 23:52:06

ID: XIBLK03

Vol: 1:1,A

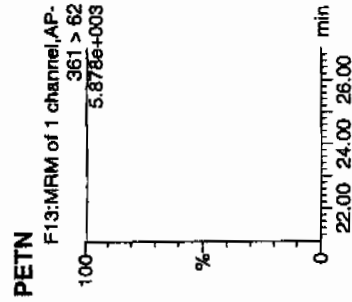
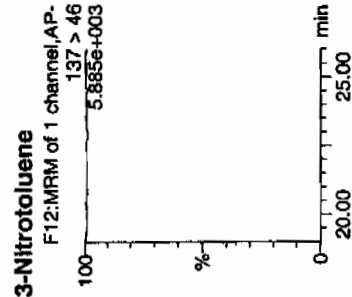
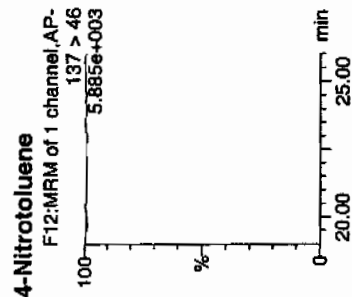
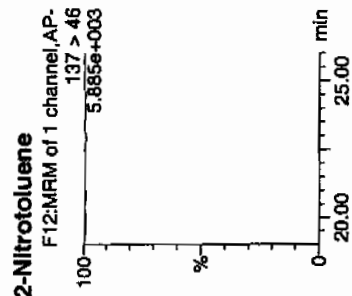
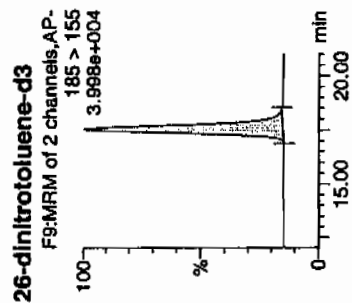
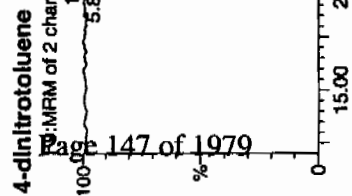
10/10



Quantify Sample Report

igEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 06-JAN-10 04:46

GEL Data File: EXP0105021a

Instrument ID: LCMSMS

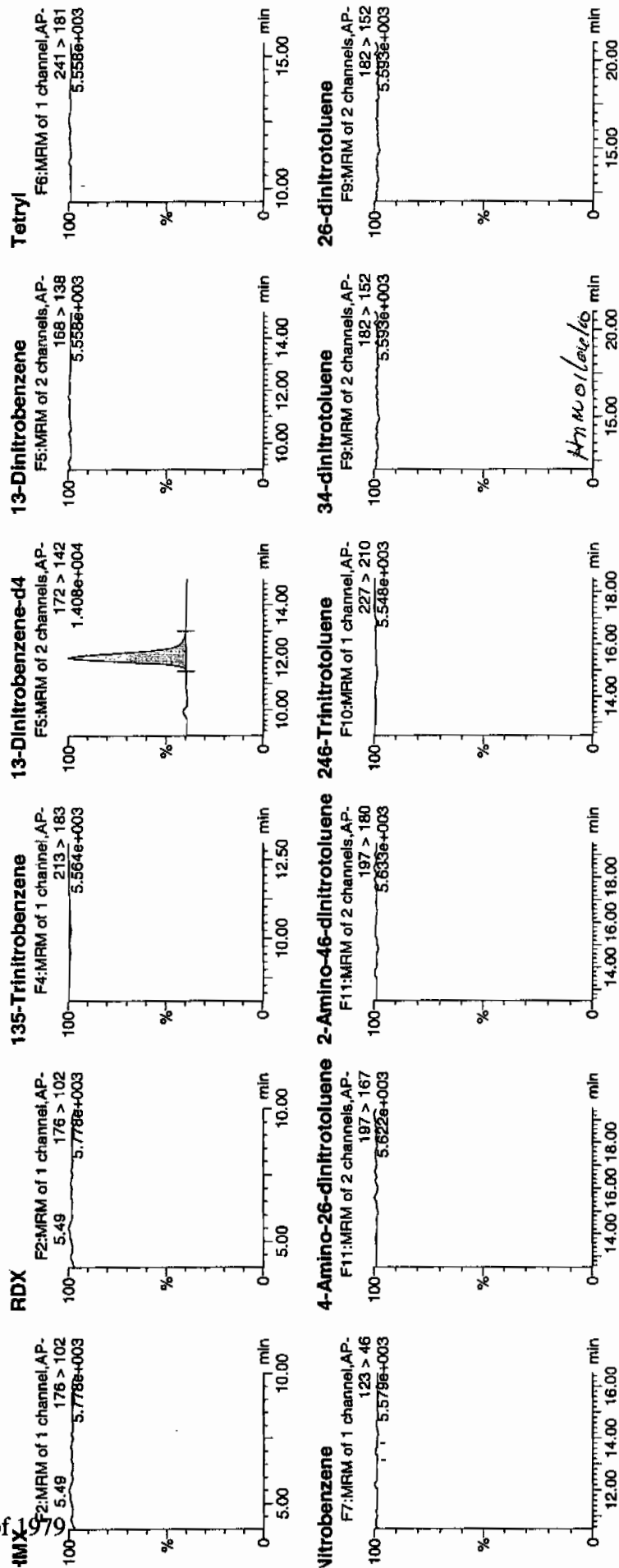
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	615.622
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	703.356
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
 JEL Laboratories, LLC / Analyst: Michael A. Penny
 Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

James: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105021a
 Date: 06-Jan-2010
 Time: 04:46:55
 D: X:\BLK04
 /lal: 3:1, A

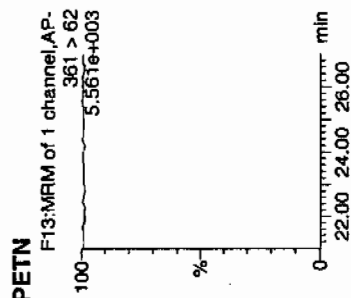
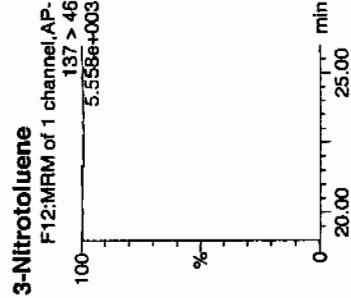
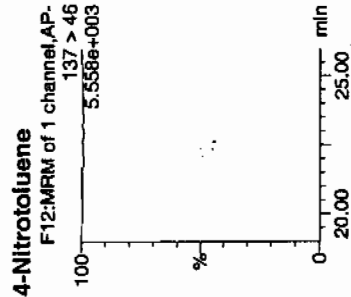
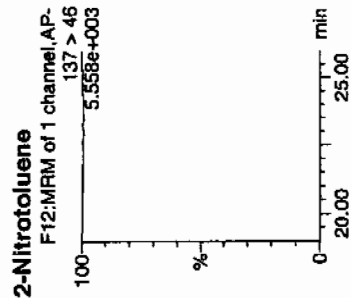
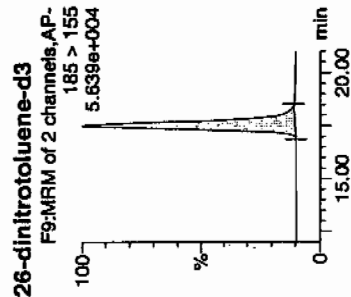
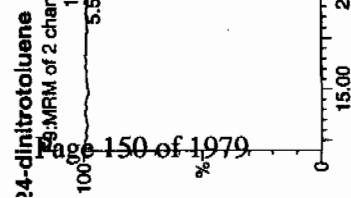
1/6/10



Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010



ID	Name	Trace Area	RT	Area	S Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	% Comp	% Rec	% Dev
XIBLK04	HMX	176 > 102			3428.266								
XIBLK04	RDX	176 > 102			3428.266								
XIBLK04	135-Trinitrobenzene	213 > 183			3428.266								
XIBLK04	13-Dinitrobenzene-d4	172 > 142	11.97	3428.266		3428.266	3428.266	bb			615.6223	123.1	23.1
XIBLK04	13-Dinitrobenzene	168 > 138			3428.266								316.4
XIBLK04	Tetryl	241 > 181			3428.266								
XIBLK04	Nitrobenzene	123 > 46			3428.266				MM-	06-Jan-10	12:27:16		
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			22622.070								
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			22622.070								
XIBLK04	246-Trinitrotoluene	227 > 210			22622.070								
XIBLK04	34-dinitrotoluene	182 > 152			22622.070								
XIBLK04	26-dinitrotoluene	182 > 152			22622.070								
XIBLK04	24-dinitrotoluene	182 > 152			22622.070								
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.53	22622.070		22622.070	22622.070	bb			703.3560	140.7	40.7
XIBLK04	2-Nitrotoluene	137 > 46			22622.070								2001.4
XIBLK04	4-Nitrotoluene	137 > 46			22622.070								
XIBLK04	3-Nitrotoluene	137 > 46			22622.070								
XIBLK04	PETN	361 > 62			22622.070								

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 06-JAN-10 11:10

GEL Data File: EXP0105034a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	527.354
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	541.043
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105034a

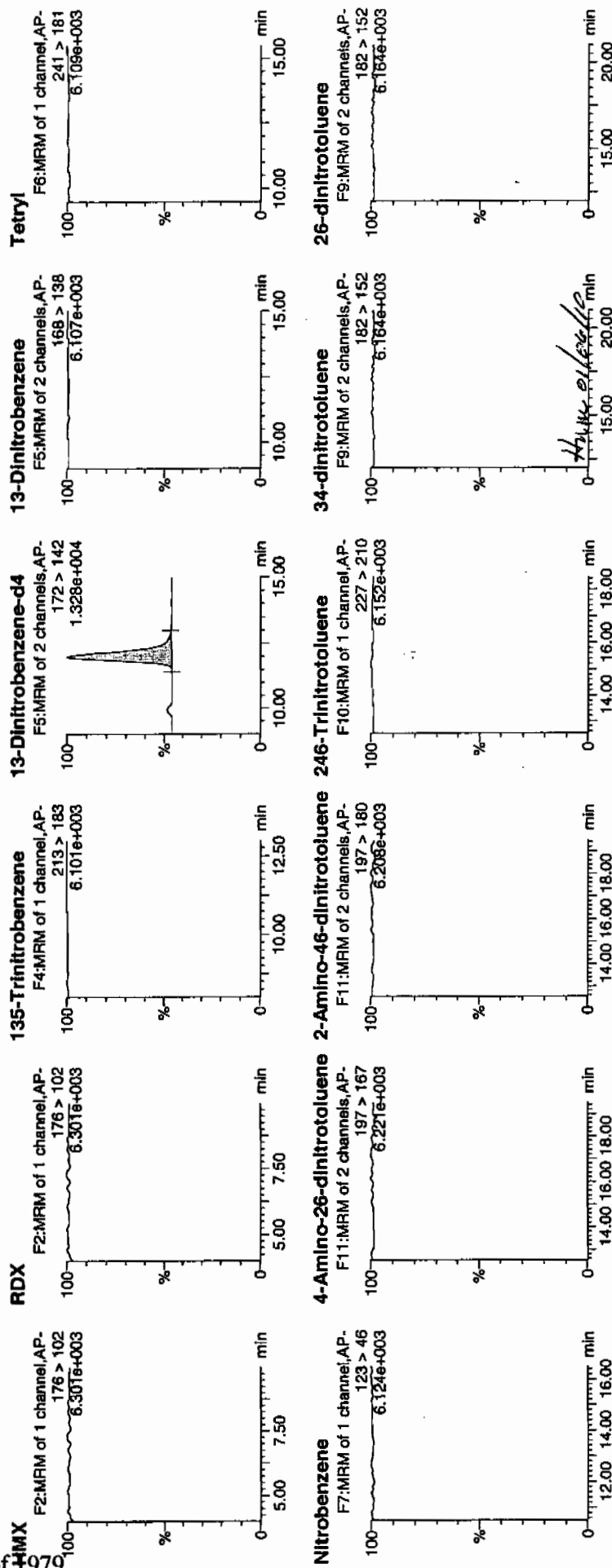
Date: 06-Jan-2010

Time: 11:10:44

ID: XIBLK05

Vial: 1:1,A

11/6/10



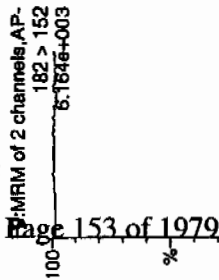
Quantify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

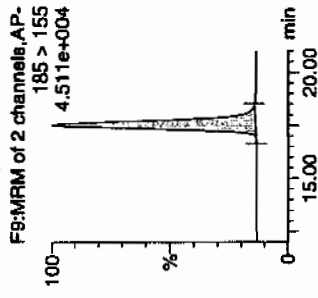
Printed: Wed Jan 06 12:44:40 2010, Page 68 of 71

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

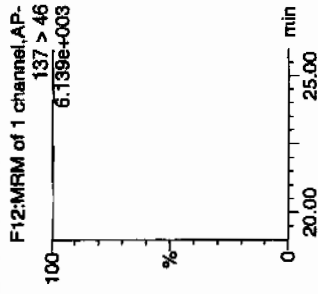
4-dinitrotoluene



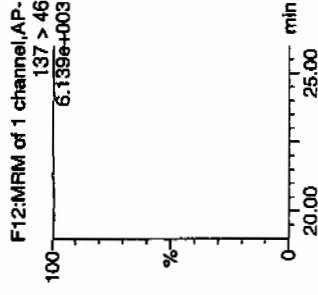
26-dinitrotoluene-d3



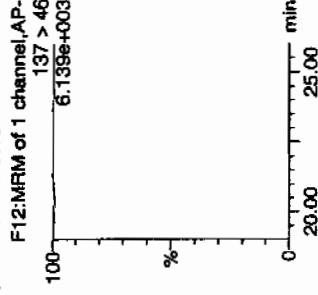
2-Nitrotoluene



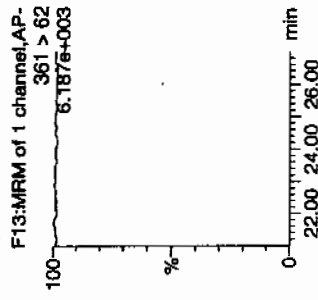
4-Nitrotoluene



3-Nitrotoluene



PETN



D	Name	Trace	RT	Area	SI Area	Abs. Resp	Flags	Mod Time	Intg	%	Res	% Dev	SN
(BLK05	HMX	176 > 102		2936.719									
(BLK05	RDX	176 > 102		2936.719									
(BLK05	135-Trinitrobenzene	213 > 183		2936.719									
(BLK05	13-Dinitrobenzene-d4	172 > 142	12.00	2936.719		2936.719	bb		527.3540	105.5	5.5	166.6	
(BLK05	13-Dinitrobenzene	168 > 138		2936.719									
(BLK05	Tetryl	241 > 181		2936.719									
(BLK05	Nitrobenzene	123 > 46		2936.719									
(BLK05	4-Amino-26-dinitrotoluene	197 > 167		17401.605									
(BLK05	2-Amino-46-dinitrotoluene	197 > 180		17401.605									
(BLK05	246-Trinitrotoluene	227 > 210		17401.605									
(BLK05	34-dinitrotoluene	182 > 152		17401.605									
(BLK05	26-dinitrotoluene	182 > 152		17401.605									
(BLK05	24-dinitrotoluene	182 > 152		17401.605									
(BLK05	26-dinitrotoluene-d3	185 > 155	17.52	17401.605		17401.605	bb		541.0434	108.2	8.2	1821.3	
(BLK05	2-Nitrotoluene	137 > 46		17401.605									
(BLK05	4-Nitrotoluene	137 > 46		17401.605									
(BLK05	3-Nitrotoluene	137 > 46		17401.605									
(BLK05	PETN	361 > 62		17401.605									

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 06-JAN-10 17:04

GEL Data File: EXP0105046a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	467.761
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	561.449
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
 iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010

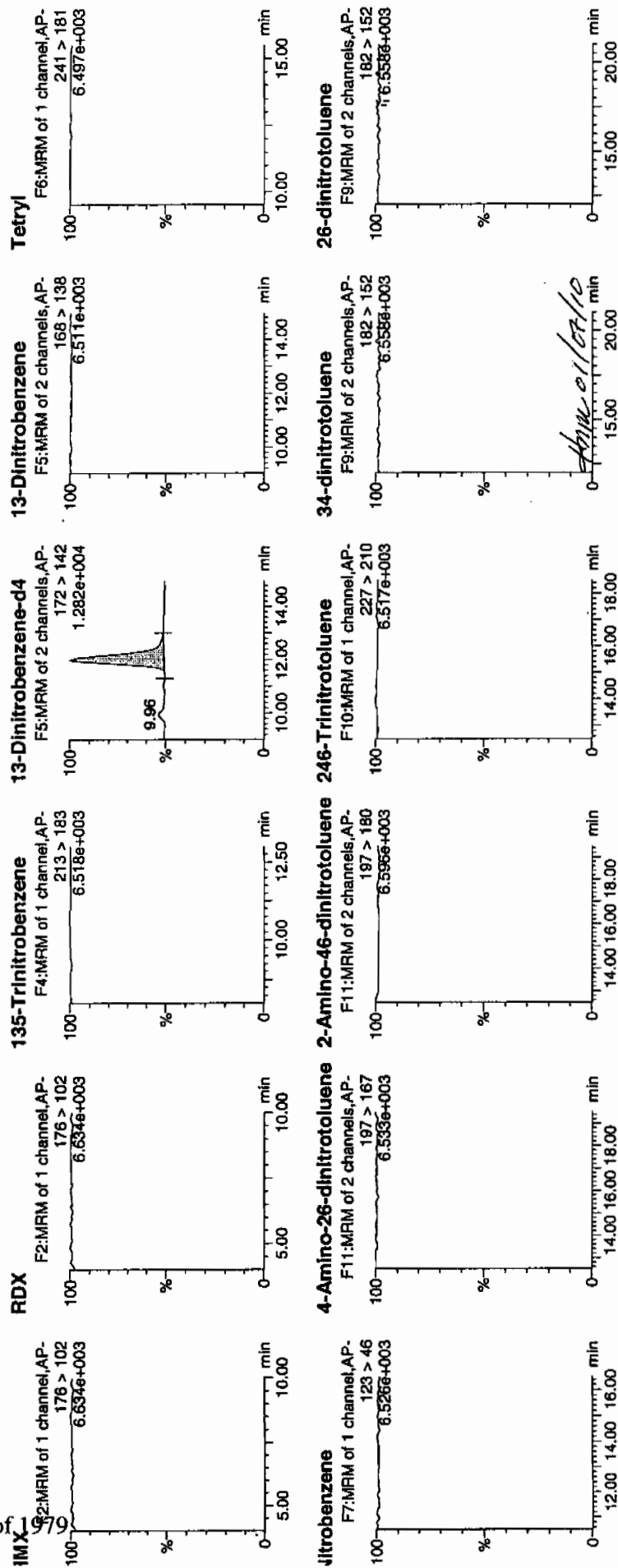
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Date: 06-Jan-2010

Time: 17:04:34

D: XBLK06

File: 1, A

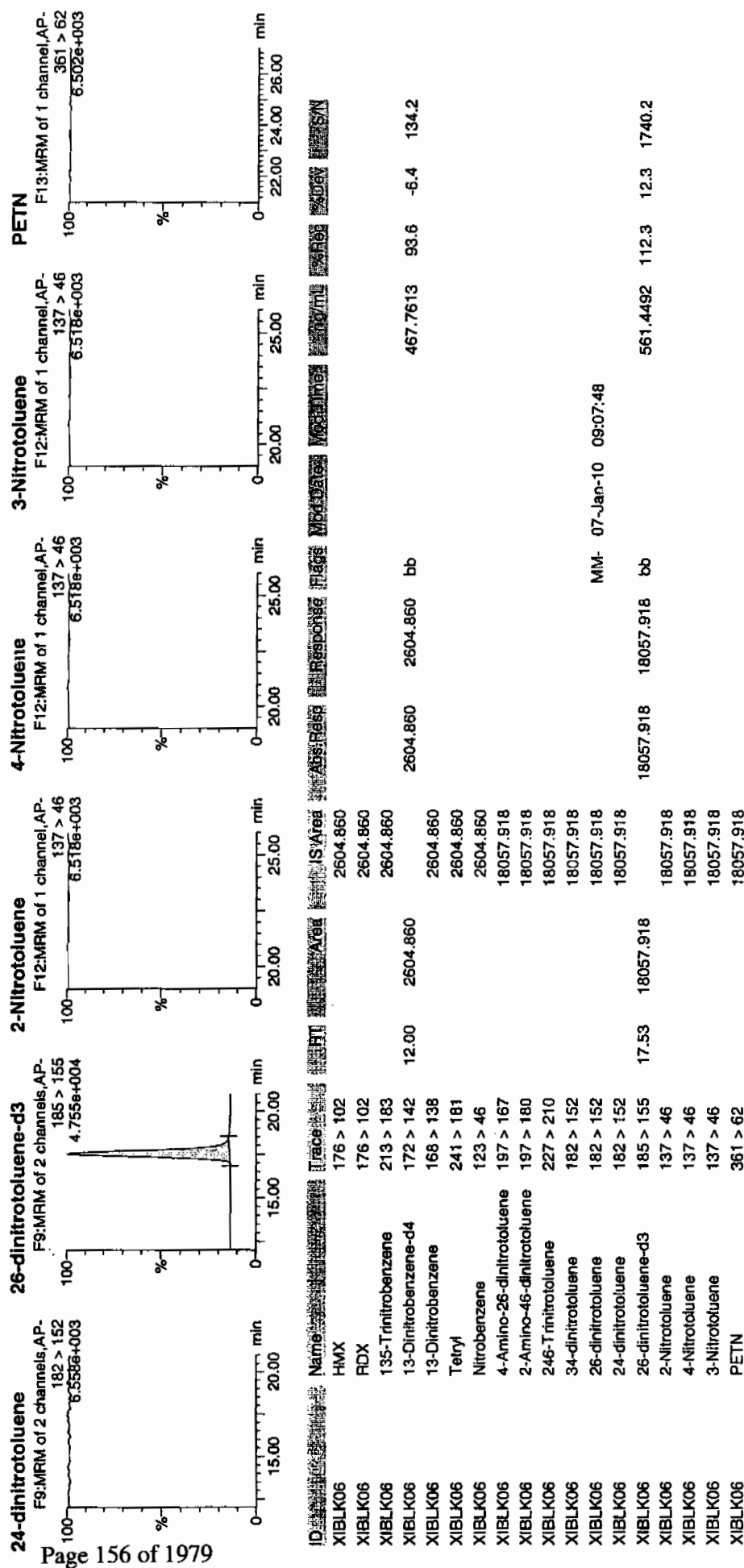


Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Jan 07 09:13:50 2010, Page 22 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010



4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 06-JAN-10 23:27

GEL Data File: EXP0105059a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	558.322
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	517.273
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Jan 07 09:13:50 2010, Page 47 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105059a

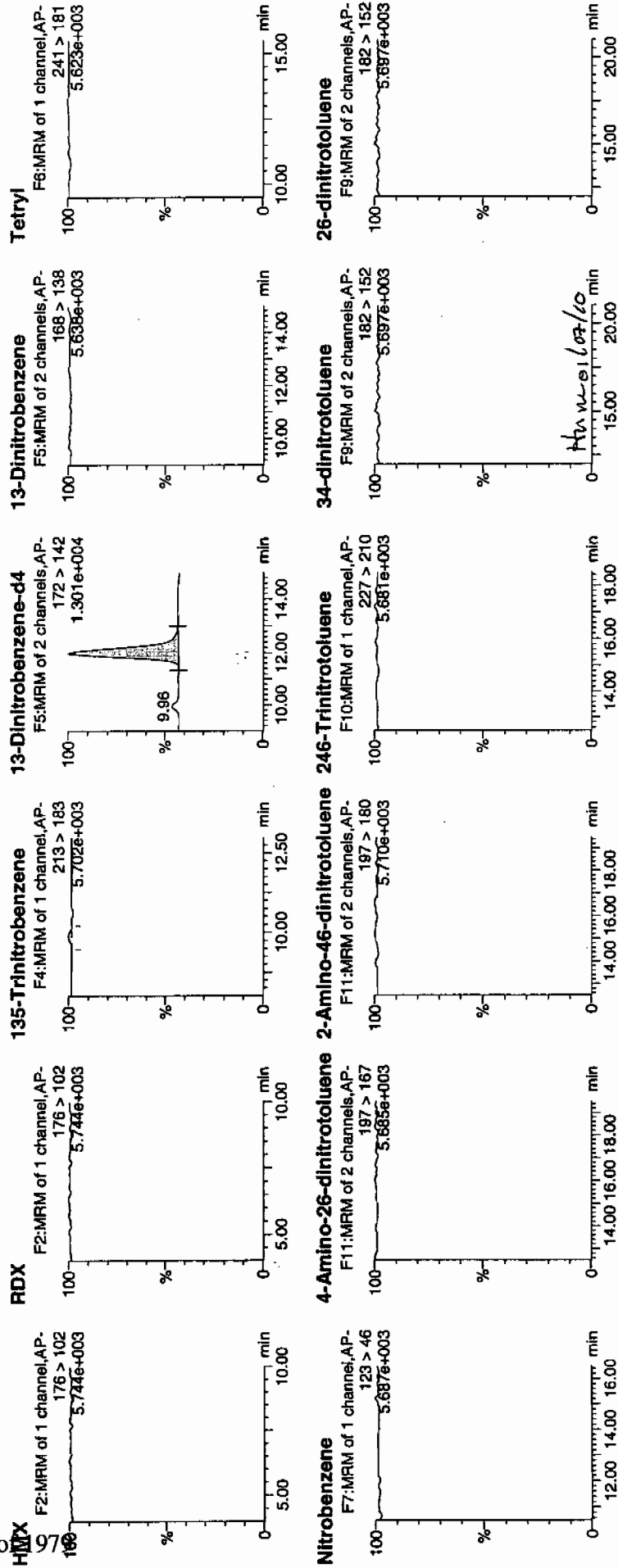
Date: 06-Jan-2010

Time: 23:27:53

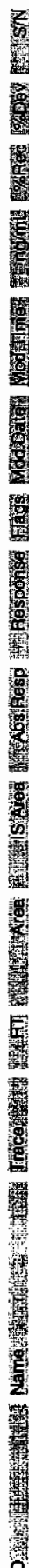
ID: XIBLK07

Vol: 1:1,A

1/10



Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010



GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 07-JAN-10 05:51

GEL Data File: EXP0105072a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	576.16
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	516.406

Identify Sample Report
EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010

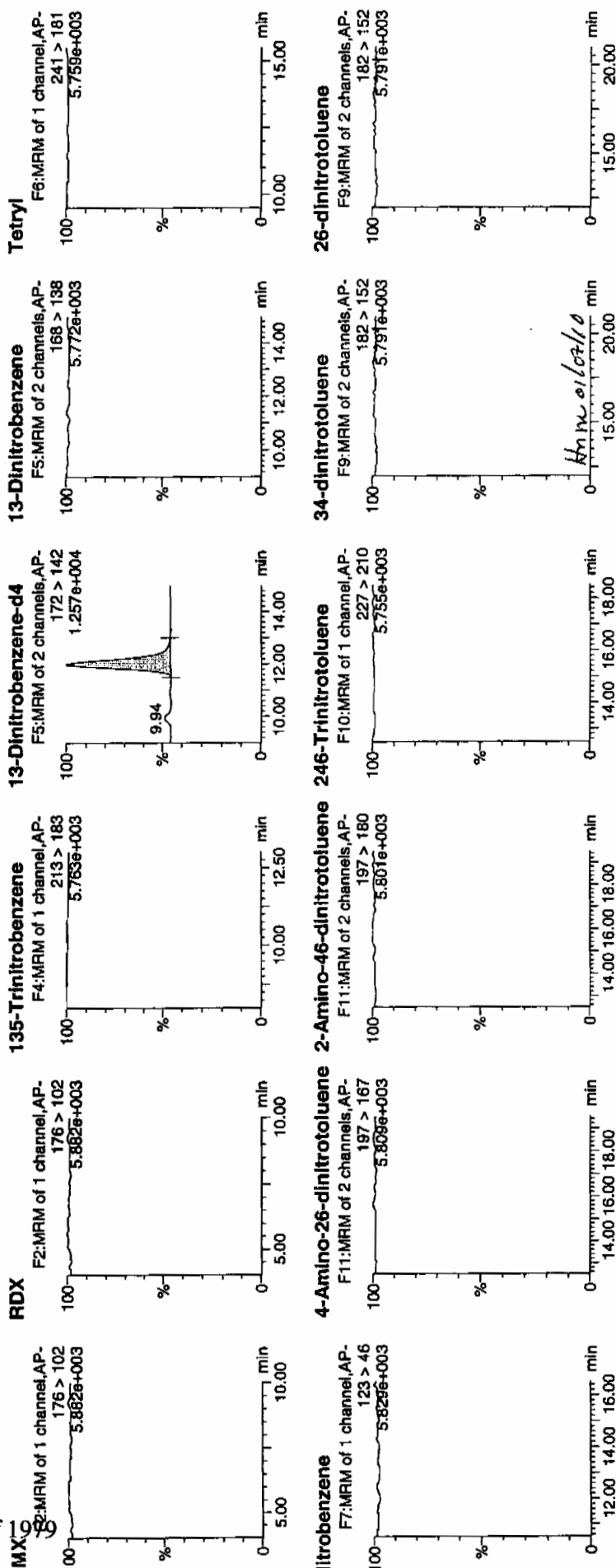
Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105072a

Sample ID: 207-Jan-2010

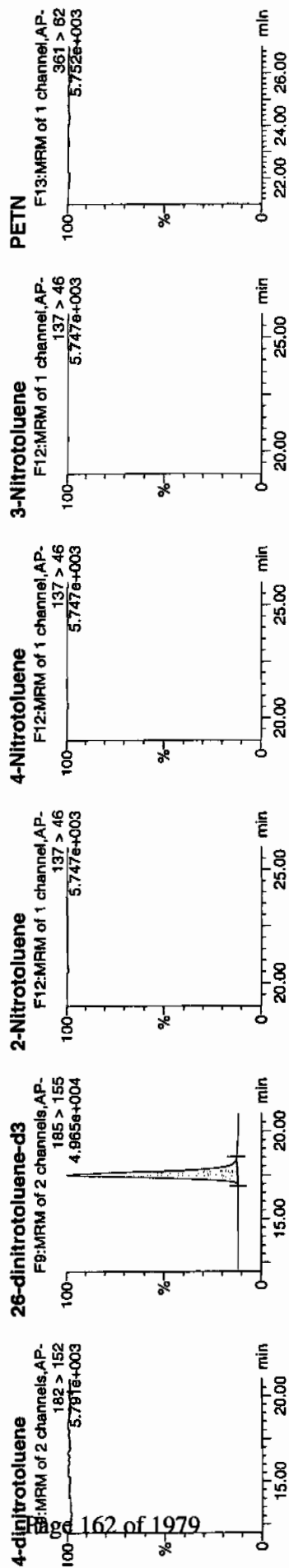
Time: 05:51:42

File: XELK08

Label: T1.A



Dataset: C:\MASSLYNX\New_Exp_PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010



Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Molecular	Mod Name	Norm	% Rec	Area	SN
4-nitrotoluene		176 > 102		2875.752									
26-dinitrotoluene-d3		176 > 102		2875.752									
2-Nitrotoluene		213 > 183		2875.752									
4-Nitrotoluene		172 > 142	12.00	2875.752									
3-Nitrotoluene		168 > 138		2875.752									
PETN		241 > 181		2875.752									
4-nitrotoluene		123 > 46		18531.053									
26-dinitrotoluene-d3		197 > 167		18531.053									
2-Nitrotoluene		197 > 180		18531.053									
4-Nitrotoluene		227 > 210		18531.053									
3-Nitrotoluene		182 > 152		18531.053									
PETN		182 > 152		18531.053									
4-nitrotoluene		185 > 155	17.51	18531.053									
26-dinitrotoluene-d3		137 > 46		18531.053									
2-Nitrotoluene		137 > 46		18531.053									
4-Nitrotoluene		137 > 46		18531.053									
3-Nitrotoluene		137 > 46		18531.053									
PETN		361 > 62		18531.053									

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 07-JAN-10 12:15

GEL Data File: EXP0105085a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	516.043
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	535
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Identify Sample Report
iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

lame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105085a

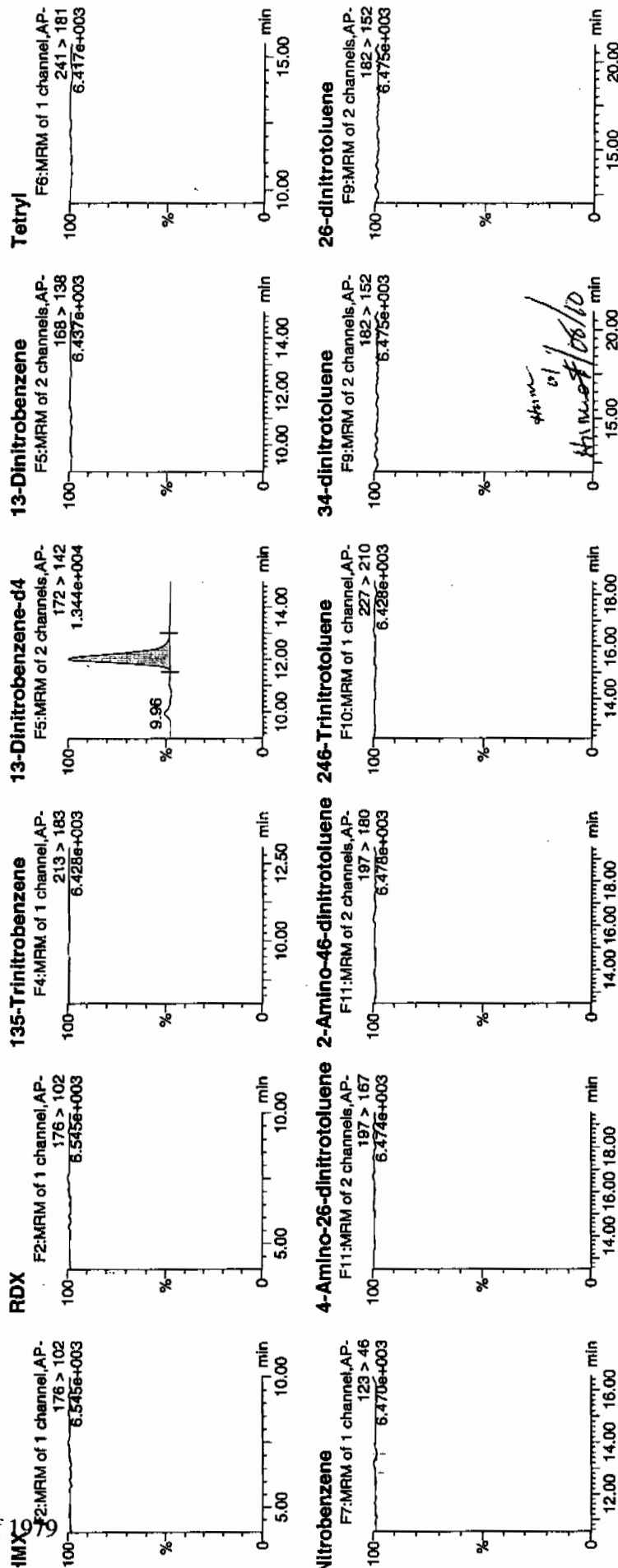
Date: 07-Jan-2010

Time: 12:15:51

D: XBLK09

File: 1:1,A

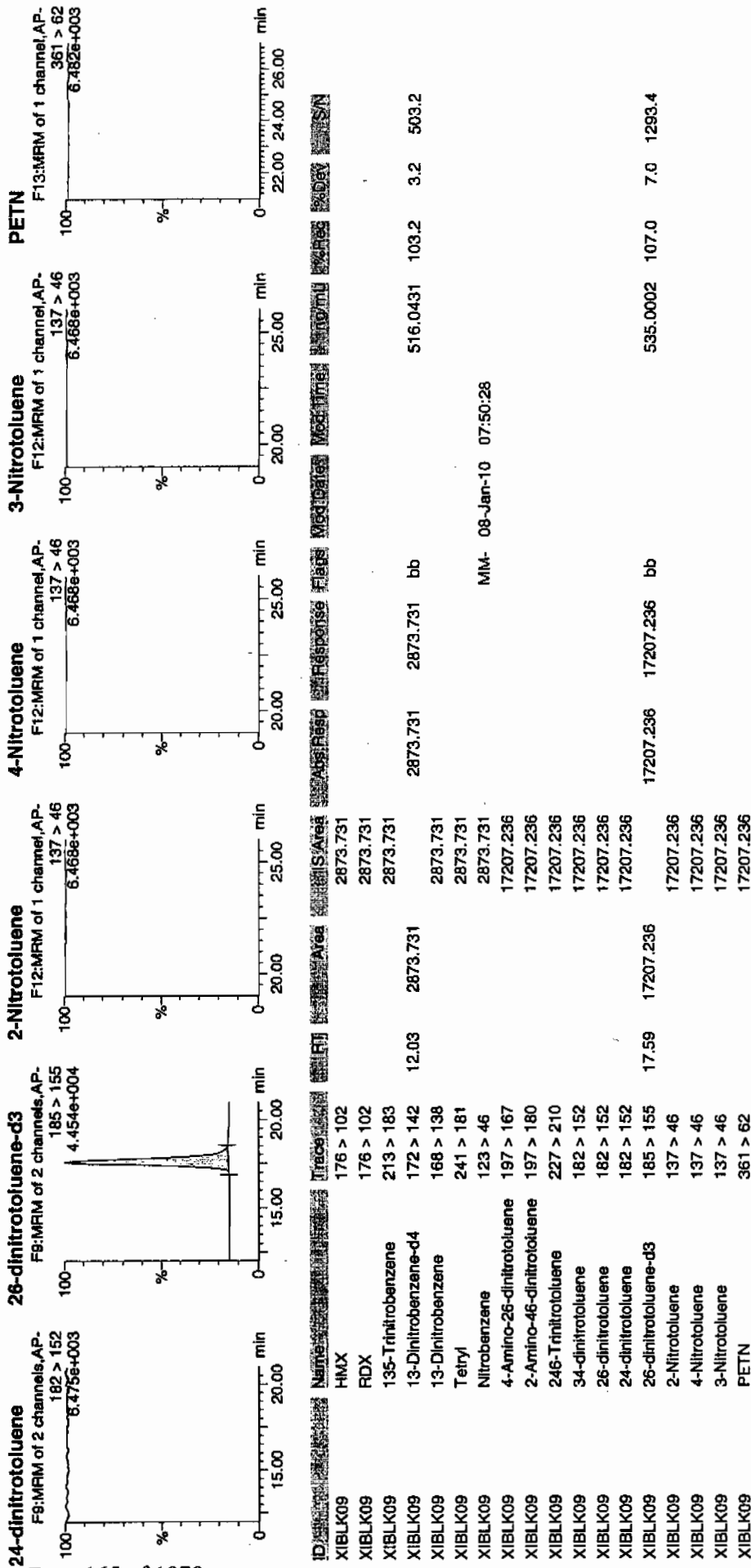
1/17
1/2/10



Printed: Fri Jan 08 08:09:43 2010, Page 24 of 97

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 07-JAN-10 16:59

GEL Data File: EXP0105094a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	547.563
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	529.841
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0

Identify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Sample Name: C:\MASSLYNX\NEW_EXP\PRO\Data\EXP0105094a

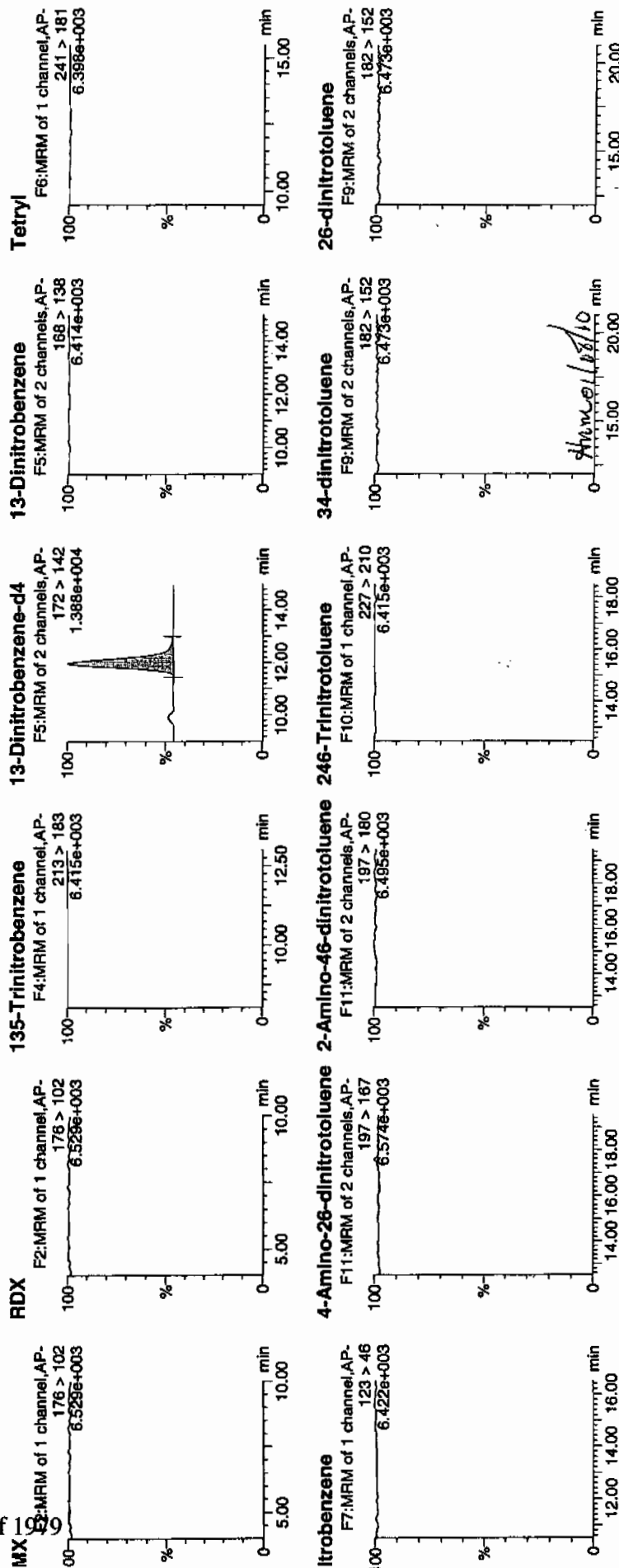
Date: 27-Jan-2010

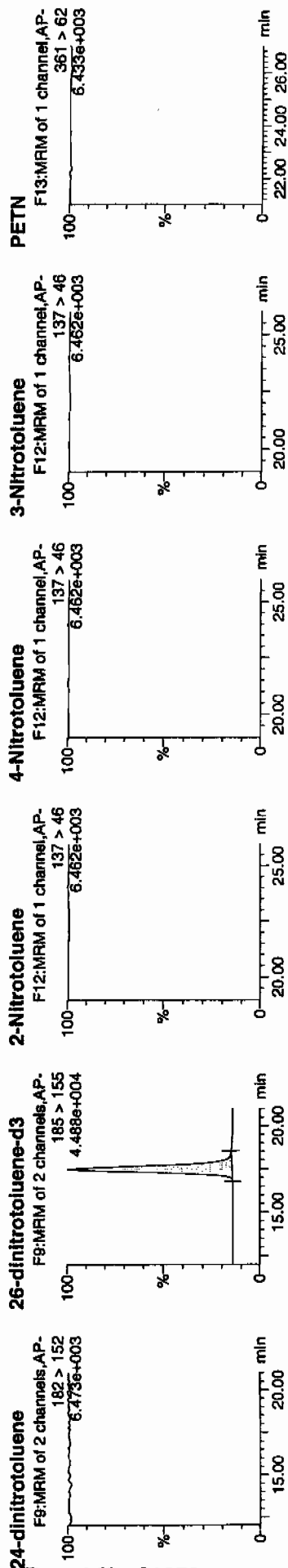
Time: 16:59:07

File: XBLK10

Label: 191.A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 07-JAN-10 23:22

GEL Data File: EXP0105107a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	585.501
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	623.453
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\data\EXP0105107a

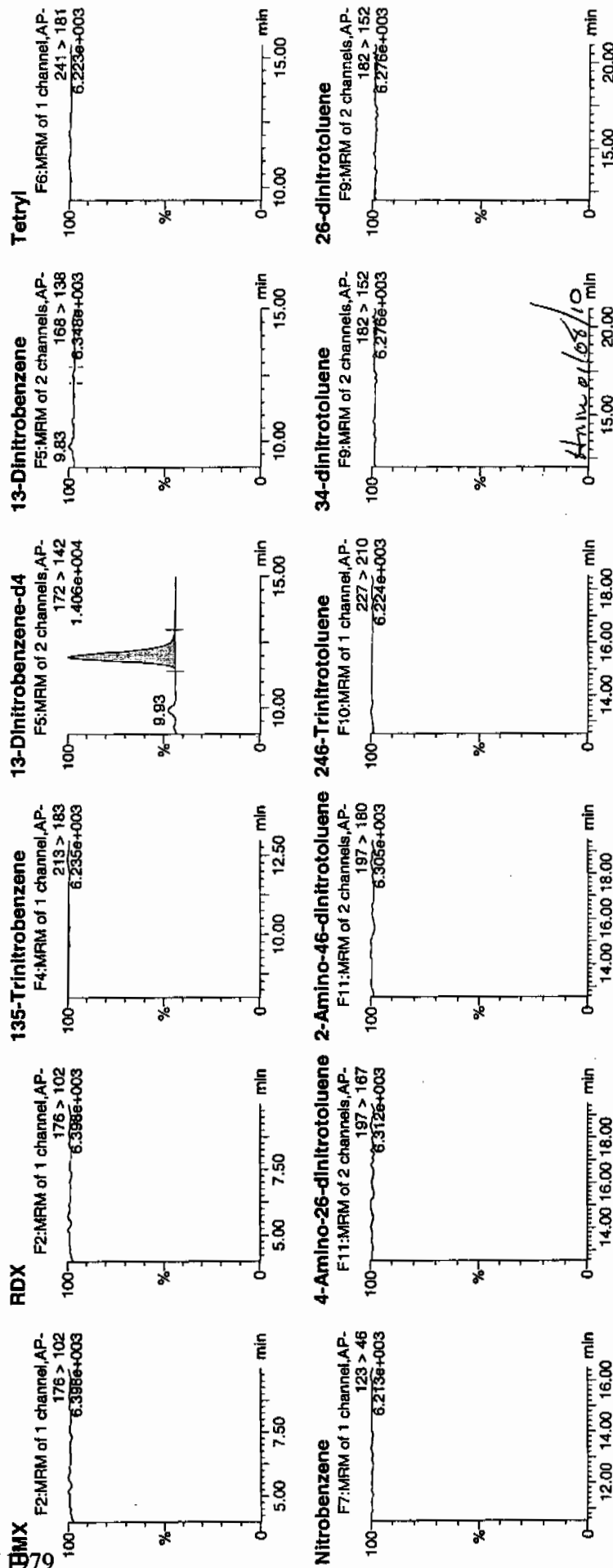
Date: 07-Jan-2010

Time: 23:22:44

ID: XIBLK11

Plat: 1:1,A

1/8/10



4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 08-JAN-10 05:46

GEL Data File: EXP0105120a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	624.885
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	594.837
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp_PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0105120a

Date: 08-Jan-2010

Time: 05:46:05

ID: XIBLK12

Vial: 1:1,A

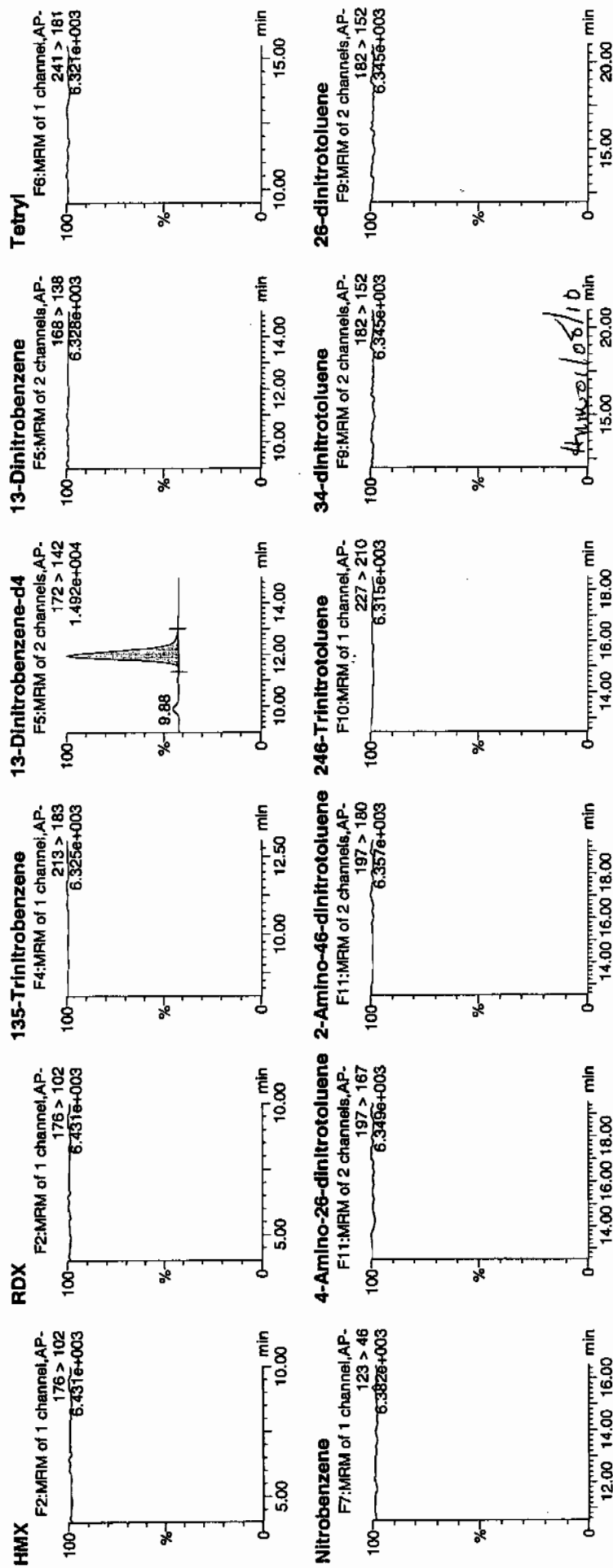
1/8/10

1/8/10

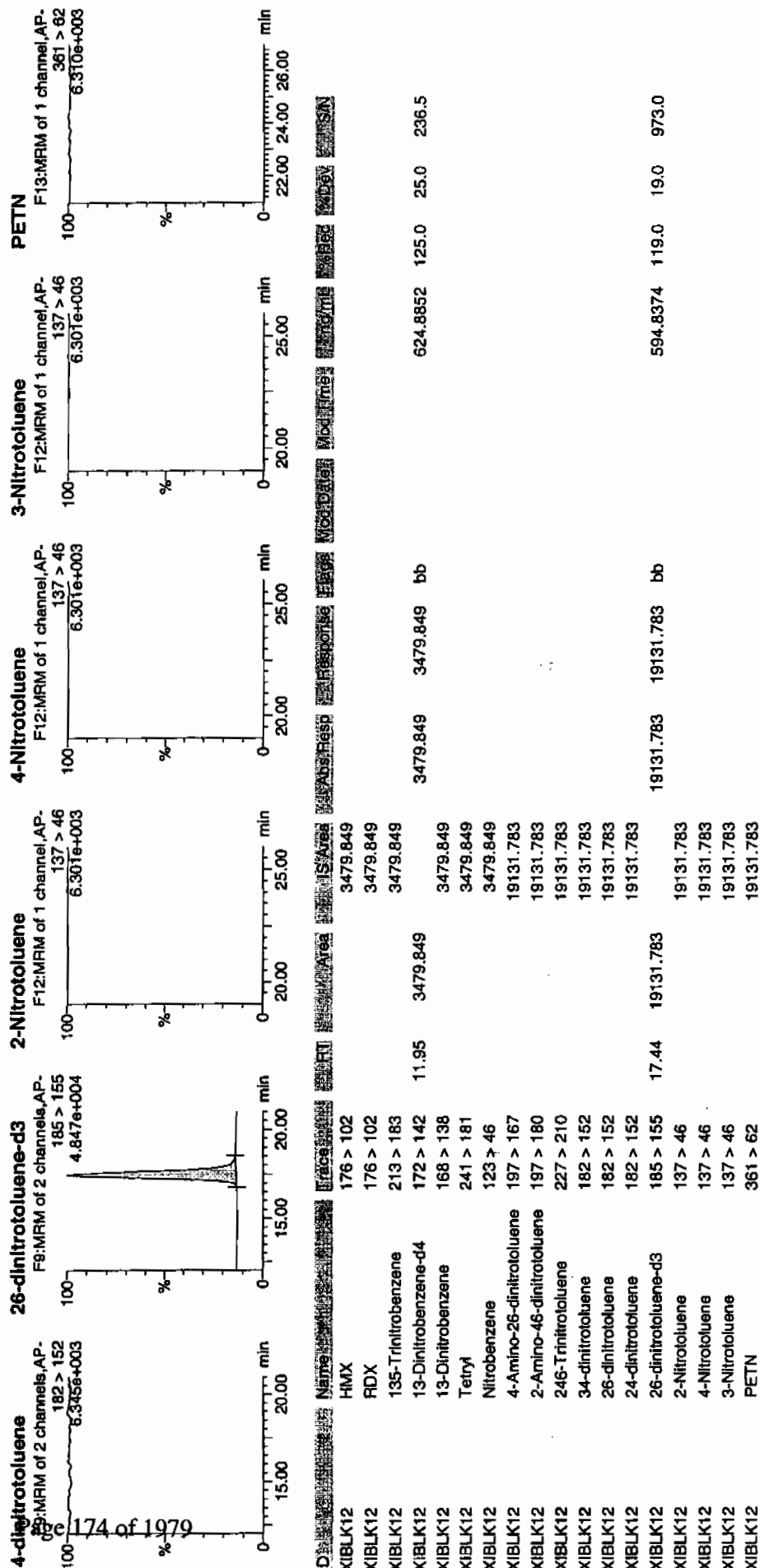
1/8/10

1/8/10

1/8/10



Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 08-JAN-10 21:11

GEL Data File: EXP0108009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	521.887
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	494.811
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108009a

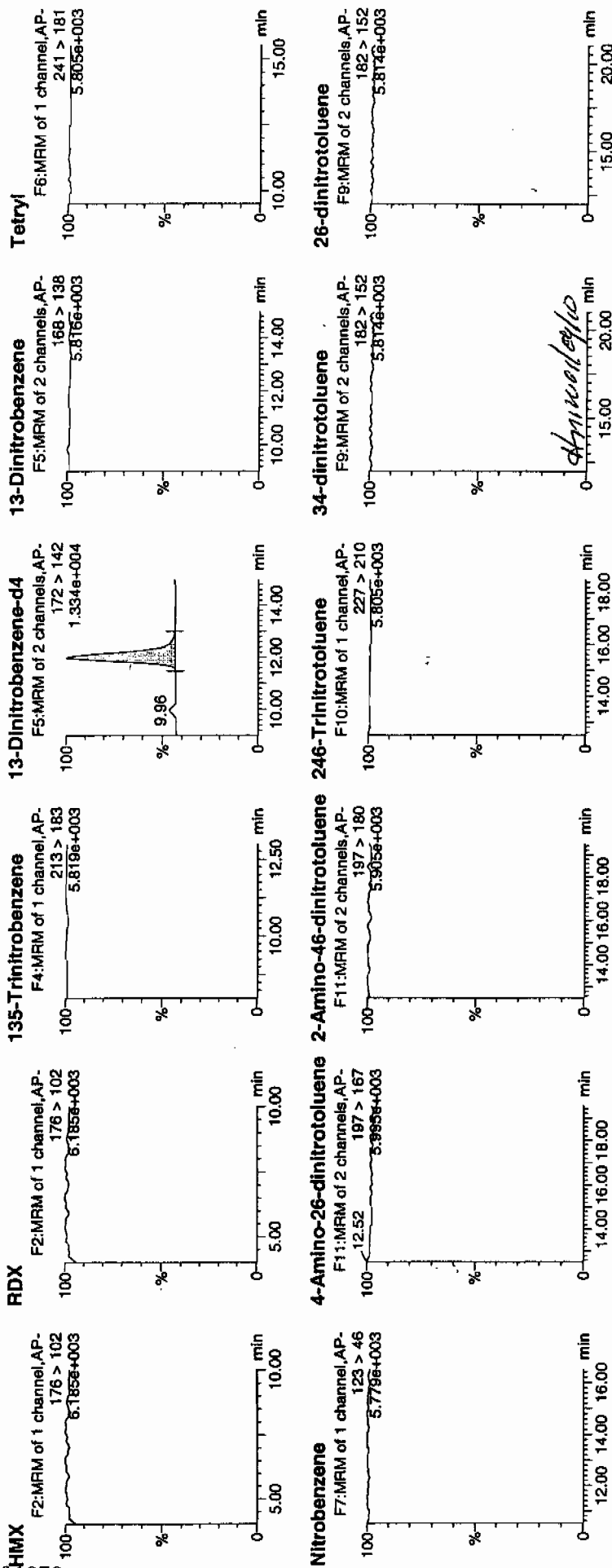
Date: 08-Jan-2010

Time: 21:11:10

ID: XIBLK02

Vial: 1:1.A

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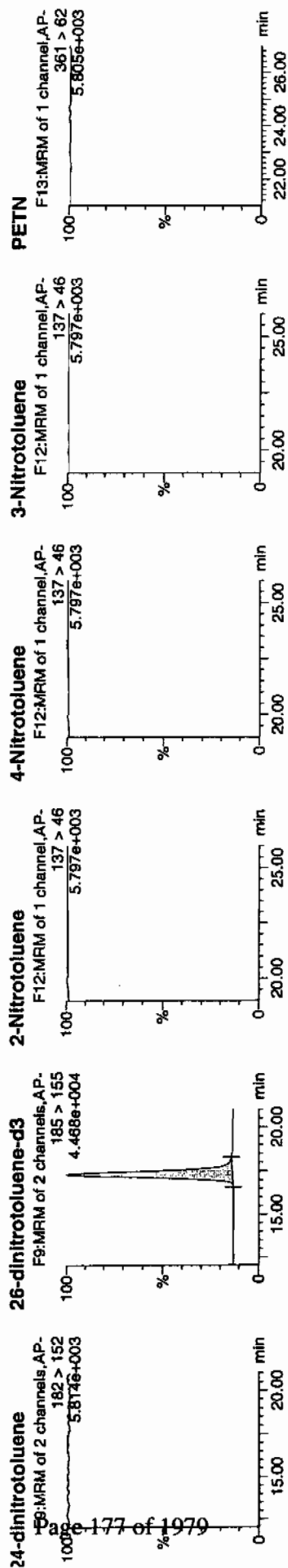


Quantify Sample Report

CEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Jan 09 12:02:23 2010, Page 18 of 61

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010



ID	Name	RT	Area	IS Area	Abs. Resp	Response	F13	Mod Date	Mod Time	Ref	Dev	SSN
XIBLK02	HMX	176 > 102		3057.764								
XIBLK02	RDX	176 > 102		3057.764								
XIBLK02	135-Trinitrobenzene	213 > 183		3057.764								
XIBLK02	13-Dinitrobenzene-d4	172 > 142	11.97	3057.764								
XIBLK02	13-Dinitrobenzene	168 > 138		3057.764								
XIBLK02	Tetryl	241 > 181		3057.764								
XIBLK02	Nitrobenzene	123 > 46		3057.764								
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167		16711.070								
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180		16711.070								
XIBLK02	246-Trinitrotoluene	227 > 210		16711.070								
XIBLK02	34-dinitrotoluene	182 > 152		16711.070								
XIBLK02	26-dinitrotoluene	182 > 152		16711.070								
XIBLK02	24-dinitrotoluene	182 > 152		16711.070								
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.29	16711.070								
XIBLK02	2-Nitrotoluene	137 > 46		16711.070								
XIBLK02	4-Nitrotoluene	137 > 46		16711.070								
XIBLK02	3-Nitrotoluene	137 > 46		16711.070								
XIBLK02	PETN	361 > 62										

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 08-JAN-10 22:10

GEL Data File: EXP0108011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	480.456
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	502.281
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
IEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO\010810\expA.qld, Time: Sat Jan 09 12:01:37 2010

Sample: C:\MASSLYNX\NEW_EXP\PRO\Data\EXP0108011a

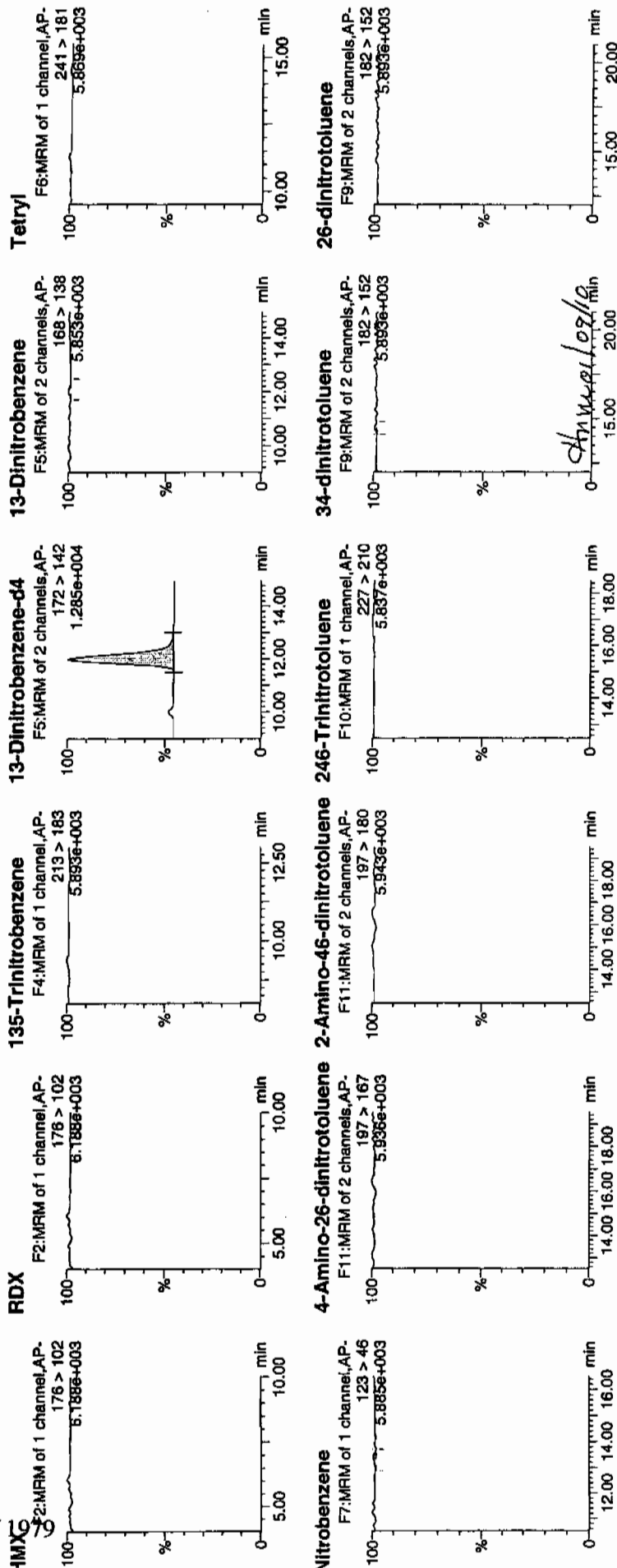
Date: 08-Jan-2010

Time: 22:10:07

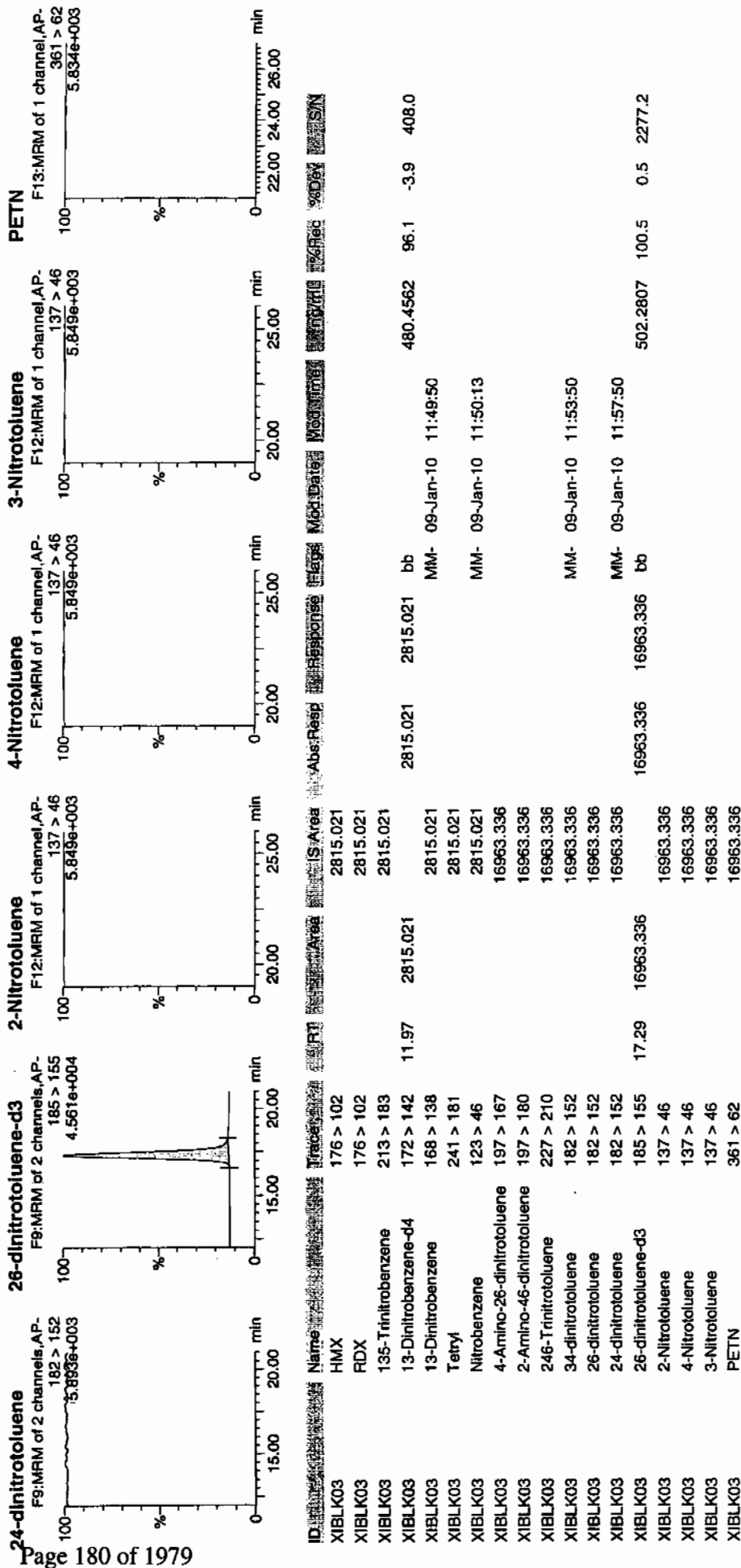
D: XBLK03

File: 9.1.A

1/9/10



Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010



4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 09-JAN-10 02:05

GEL Data File: EXP0108019a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	564.671
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	483.622
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Printed: Sat Jan 09 12:02:23 2010, Page 37 of 61

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108019a

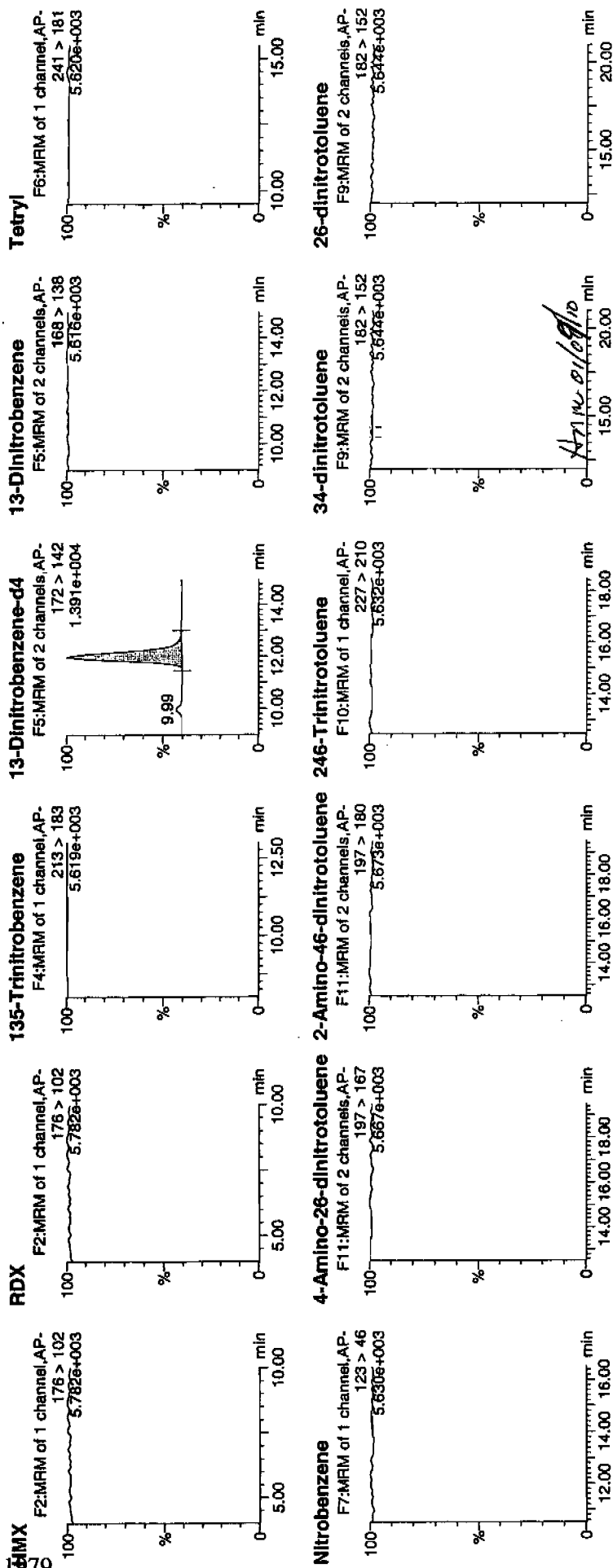
Date: 09-Jan-2010

Time: 02:05:56

ID: XIBLK04

Vial: 1:1,A

1/9/10

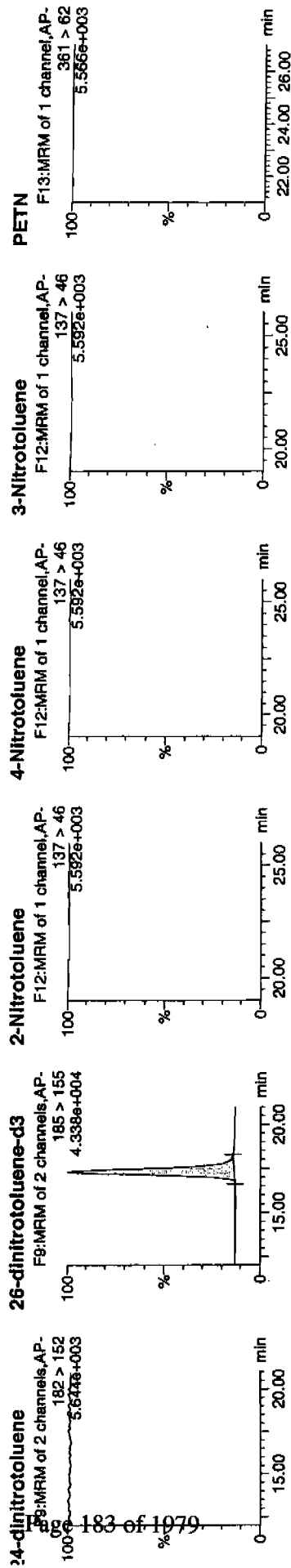


Quantify Sample Report

SEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Jan 09 12:02:23 2010, Page 38 of 61

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010



ID	Name	Trace	RT	Area	S Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	%Dev	Unit
XIBLK04	HMX		176 > 102		3308.440							
XIBLK04	RDX		176 > 102		3308.440							
XIBLK04	135-Trinitrobenzene		213 > 183		3308.440							
XIBLK04	13-Dinitrobenzene-d4		172 > 142	11.97	3308.440			bb				
XIBLK04	13-Dinitrobenzene		168 > 138		3308.440							
XIBLK04	Tetryl		241 > 181		3308.440							
XIBLK04	Nitrobenzene		123 > 46		3308.440							
XIBLK04	4-Amino-26-dinitrotoluene		197 > 167		16333.198							
XIBLK04	2-Amino-46-dinitrotoluene		197 > 180		16333.198							
XIBLK04	246-Trinitrotoluene		227 > 210		16333.198							
XIBLK04	34-dinitrotoluene		182 > 152		16333.198							
XIBLK04	26-dinitrotoluene		182 > 152		16333.198							
XIBLK04	24-dinitrotoluene		182 > 152		16333.198							
XIBLK04	26-dinitrotoluene-d3		185 > 155	17.29	16333.198			bb				
XIBLK04	2-Nitrotoluene		137 > 46		16333.198							
XIBLK04	4-Nitrotoluene		137 > 46		16333.198							
XIBLK04	3-Nitrotoluene		137 > 46		16333.198							
XIBLK04	PETN		361 > 62		16333.198							
									MM- 09-Jan-10	11:53:43		
											96.7	-3.3 1495.0
											564.6709	112.9 301.2
											483.6225	96.7 -3.3 1495.0

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK02

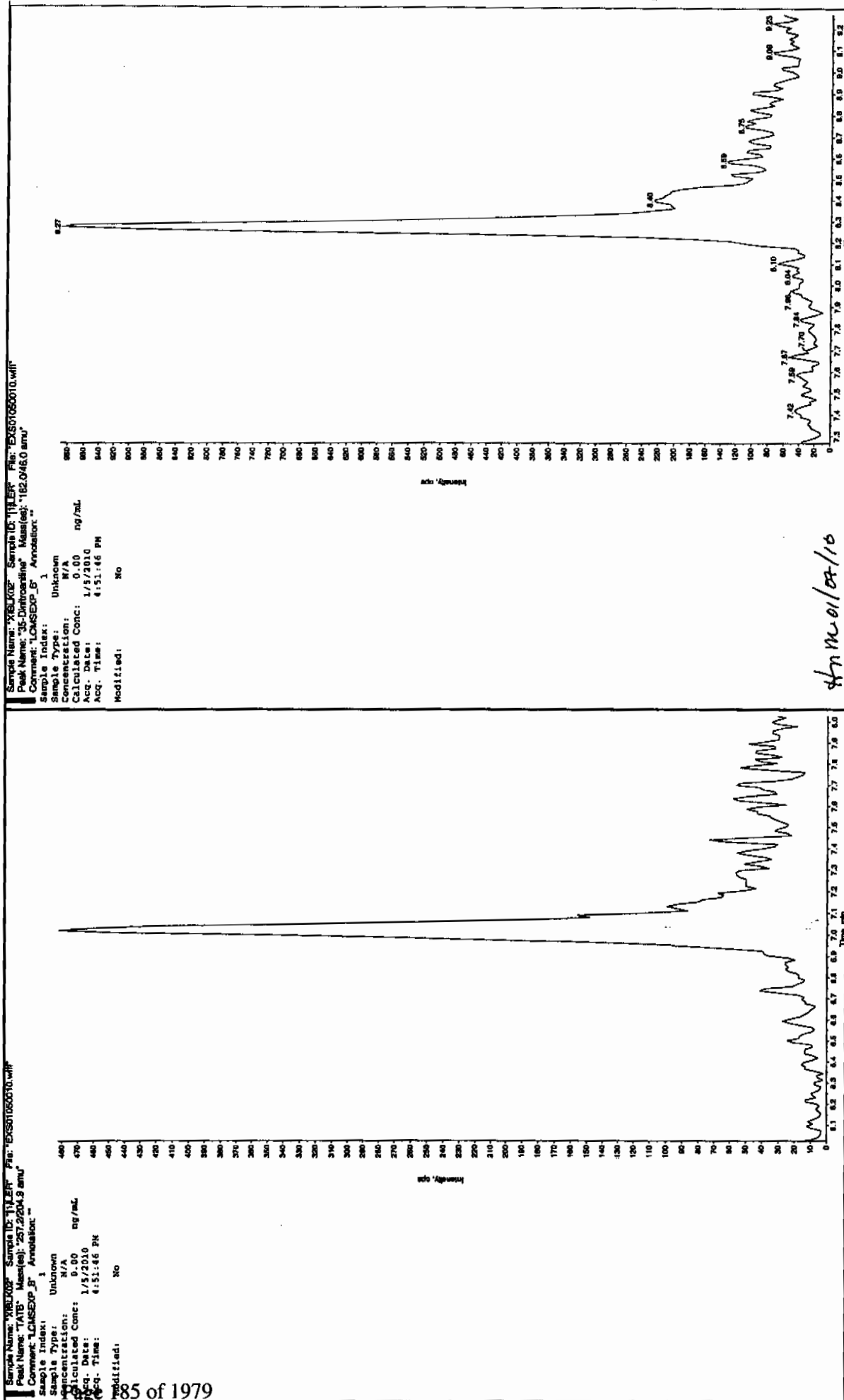
Analysis Date: 05-JAN-10 16:51

GEL Data File: EXS01050010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

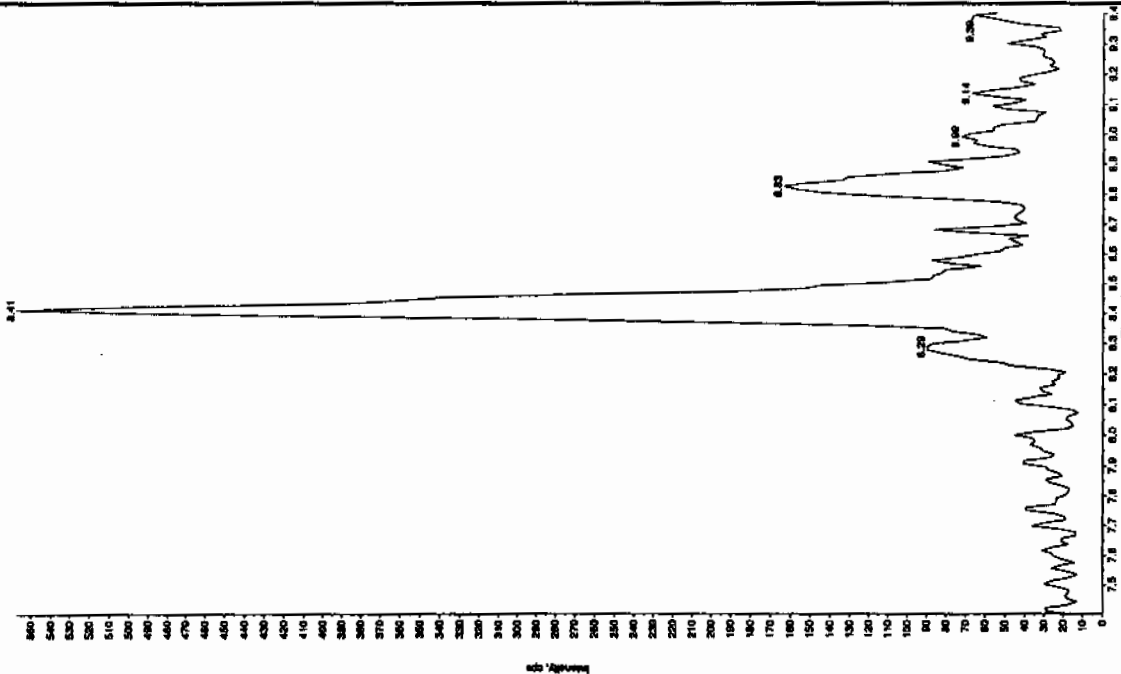
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

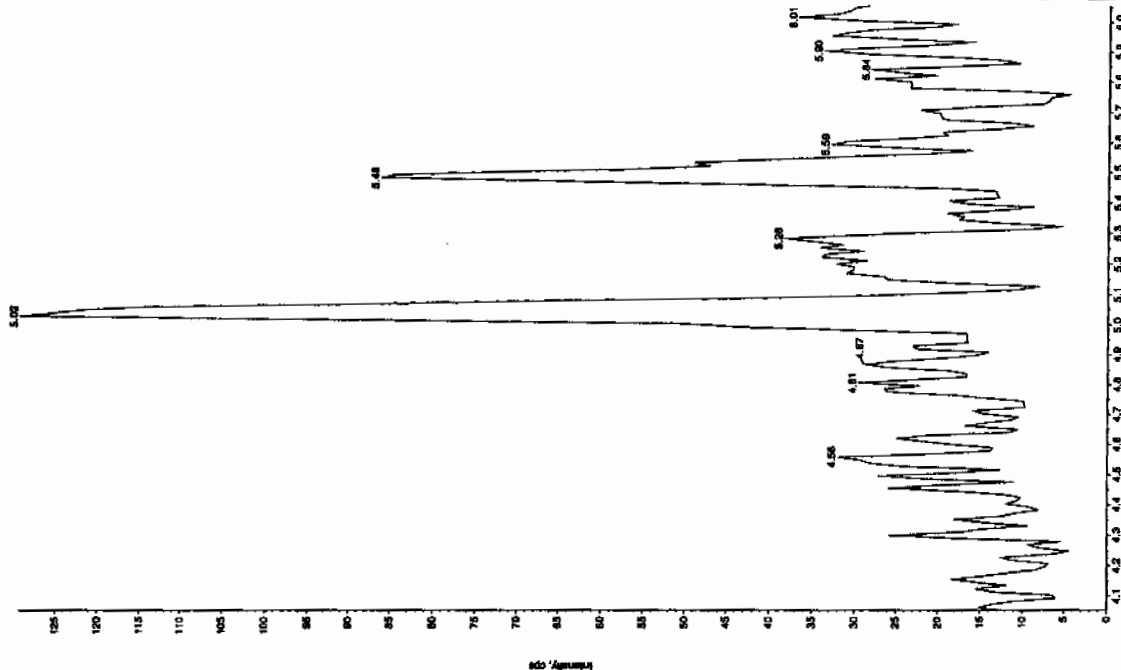
File Name: "XBL002" Sample ID: "TILER" File: "EXS01050010.wiff"
 Peak Name: "24-Oxobutanoic" Mass(es): "182.1151.9 amu"
 Comment: "LCMS EXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 4:51:46 PM
 Modified: No



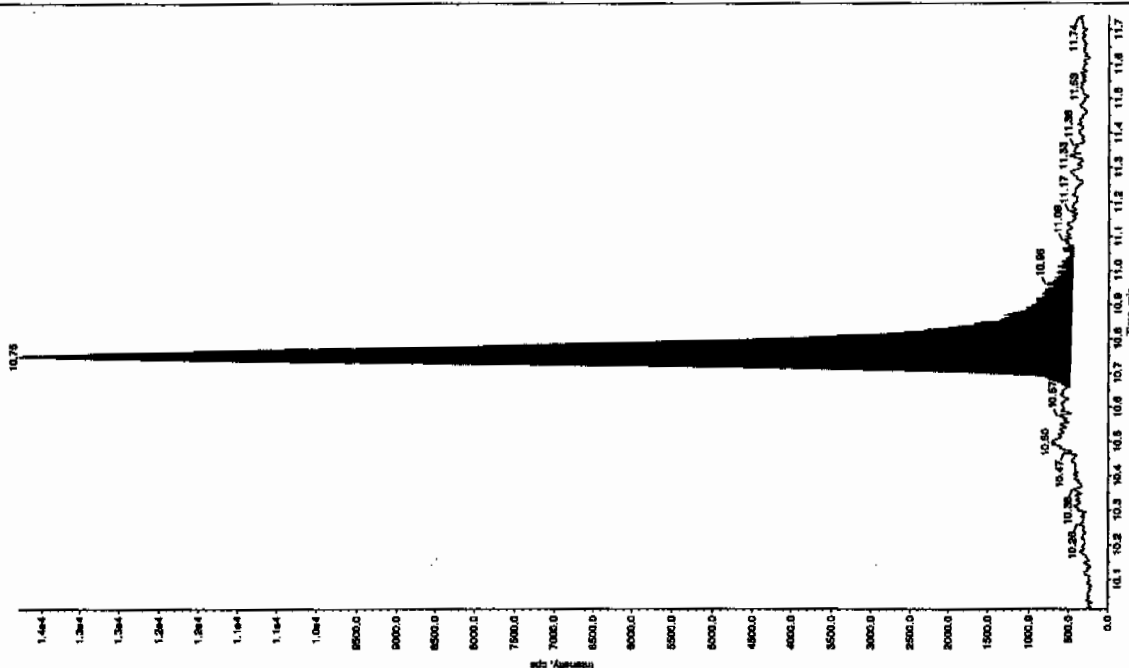
File Name: "XBL002" Sample ID: "TILER" File: "EXS01050010.wiff"
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "185.0461.0 amu"
 Comment: "LCMS EXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 4:51:46 PM
 Modified: No



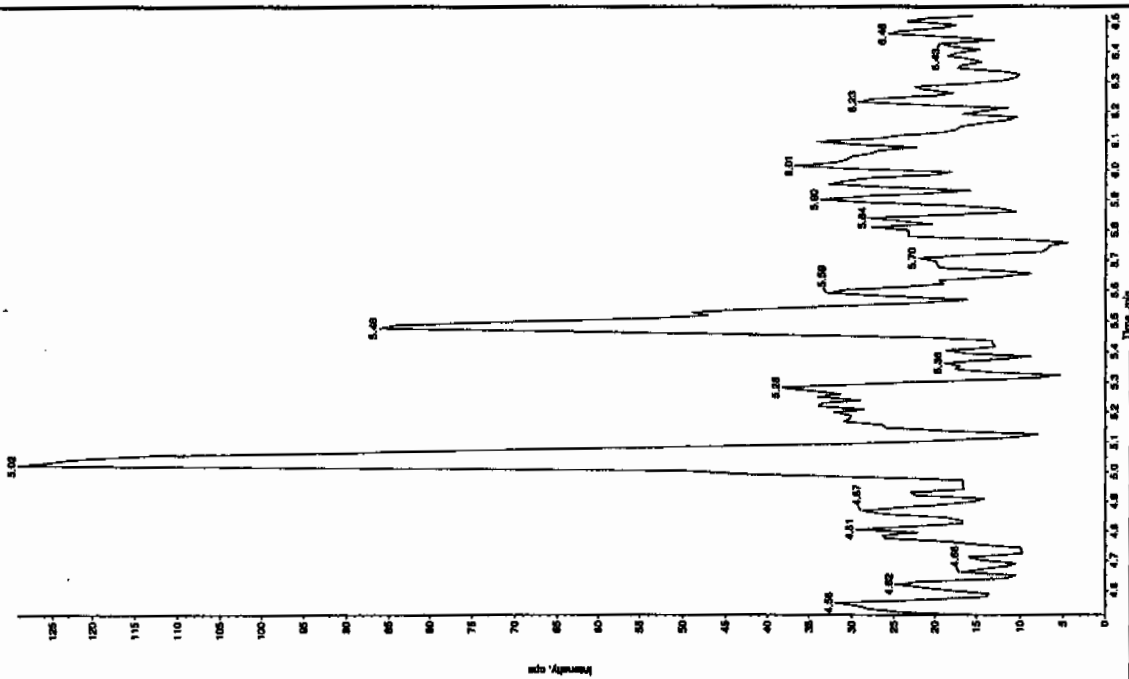
Sample Name: Y08L002 Sample ID: Y08L002 File: Y08L002.D
 Peak Name: 24-Dichloro-6-ethoxyphenol Mass(es): 388.1810 amu
 Comment: LCMS-EXP-1 Annotation:

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 1/5/2010
 Acq. Date: 1/5/2010
 Acq. Time: 4:51:46 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IOA
 Min. Peak Height: 1.00e4 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 10.7 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 10.7 min
 Height: 13312.138 counts
 Start Time: 10.7 min
 End Time: 11.1 min



Sample Name: Y08L002 Sample ID: Y08L002 File: Y08L002.D
 Peak Name: 24-Dichloro-6-ethoxyphenol Mass(es): 388.1810 amu
 Comment: LCMS-EXP-1 Annotation:

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 4:51:46 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IOA
 Min. Peak Height: 1.00e4 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 10.7 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 10.7 min
 Height: 13312.138 counts
 Start Time: 10.7 min
 End Time: 11.1 min



4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 05-JAN-10 17:23

GEL Data File: EXS01050012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0


```
File Name: "XIBLK03" Sample ID: "T1LER" File: "EXS01050012.wiff"
Sample Name: "TATB" Mass(es): "257.2/204.9 amu"
```

Comment: "LCMSExp_B" Annotation: "

Index: 1

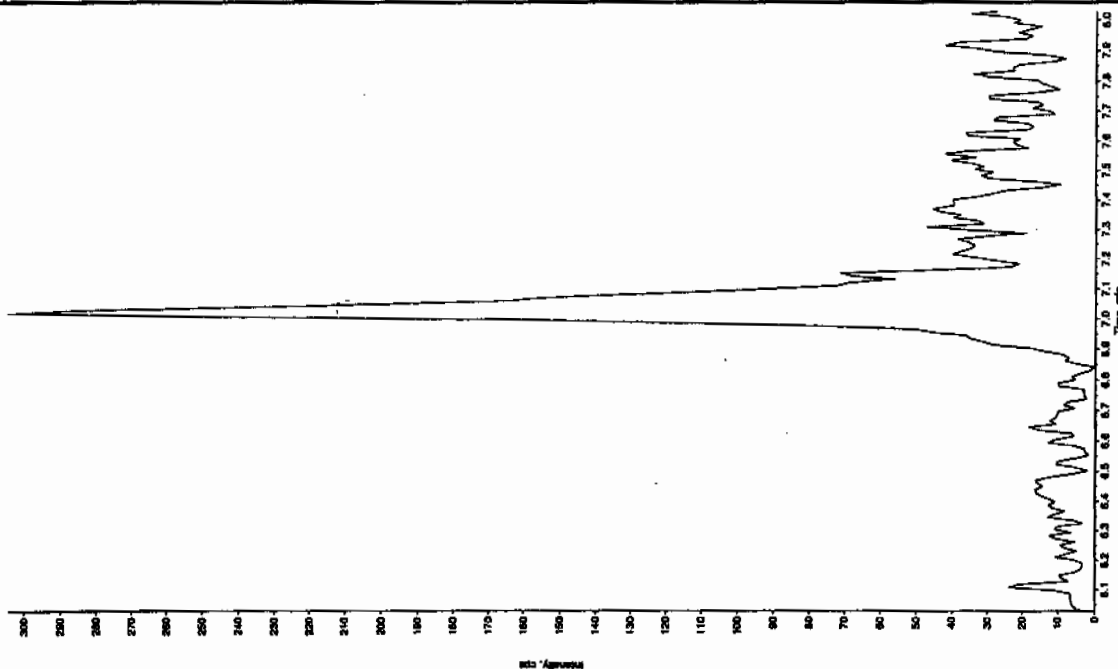
Unknown

Parameter	Value	Unit
Concentration	0.00	mg/ml
Label Conc.	N/A	

late of conc: 0.00
date: 1/5/2010

Date: 1/5/2010
Time: 5:23:10 PM

Time: 1



Sample Name: "XIBUX03" Sample ID: "HILER" File: "EXS01050012.wit"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0445.0 amu"

Comment: "LCMEXP_5" Annotation: "

1. Характеристики

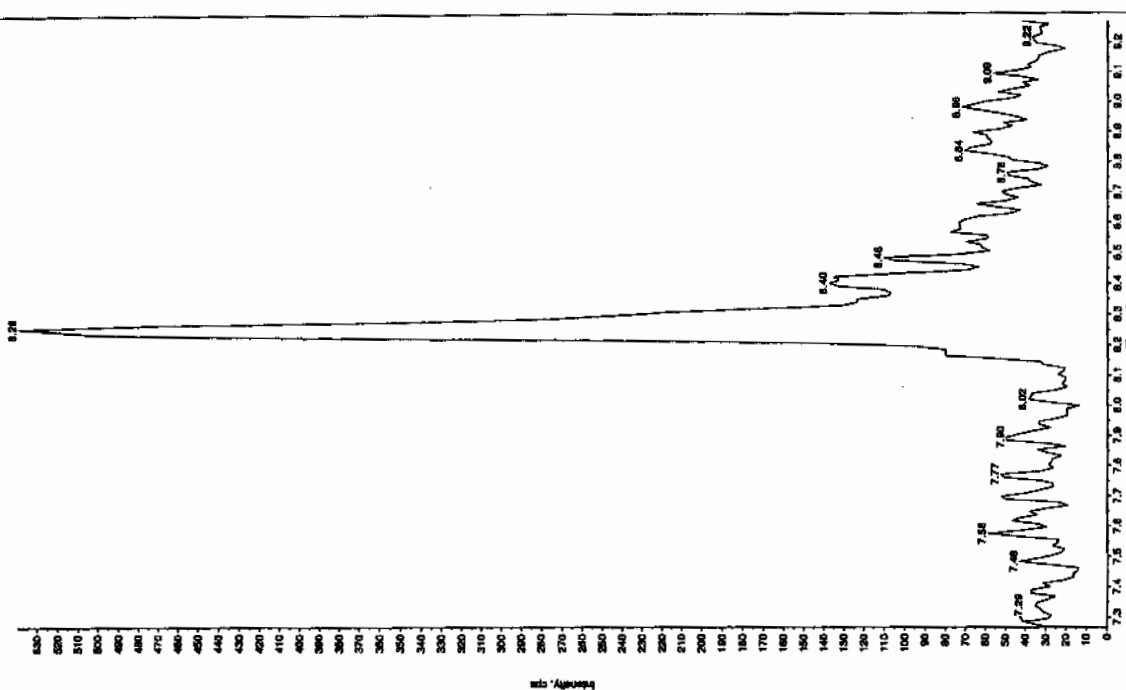
Sample Type:

concentration:	N/A	no/cm?
calculated conc:	0.00	

Calculated Conc: 0.00

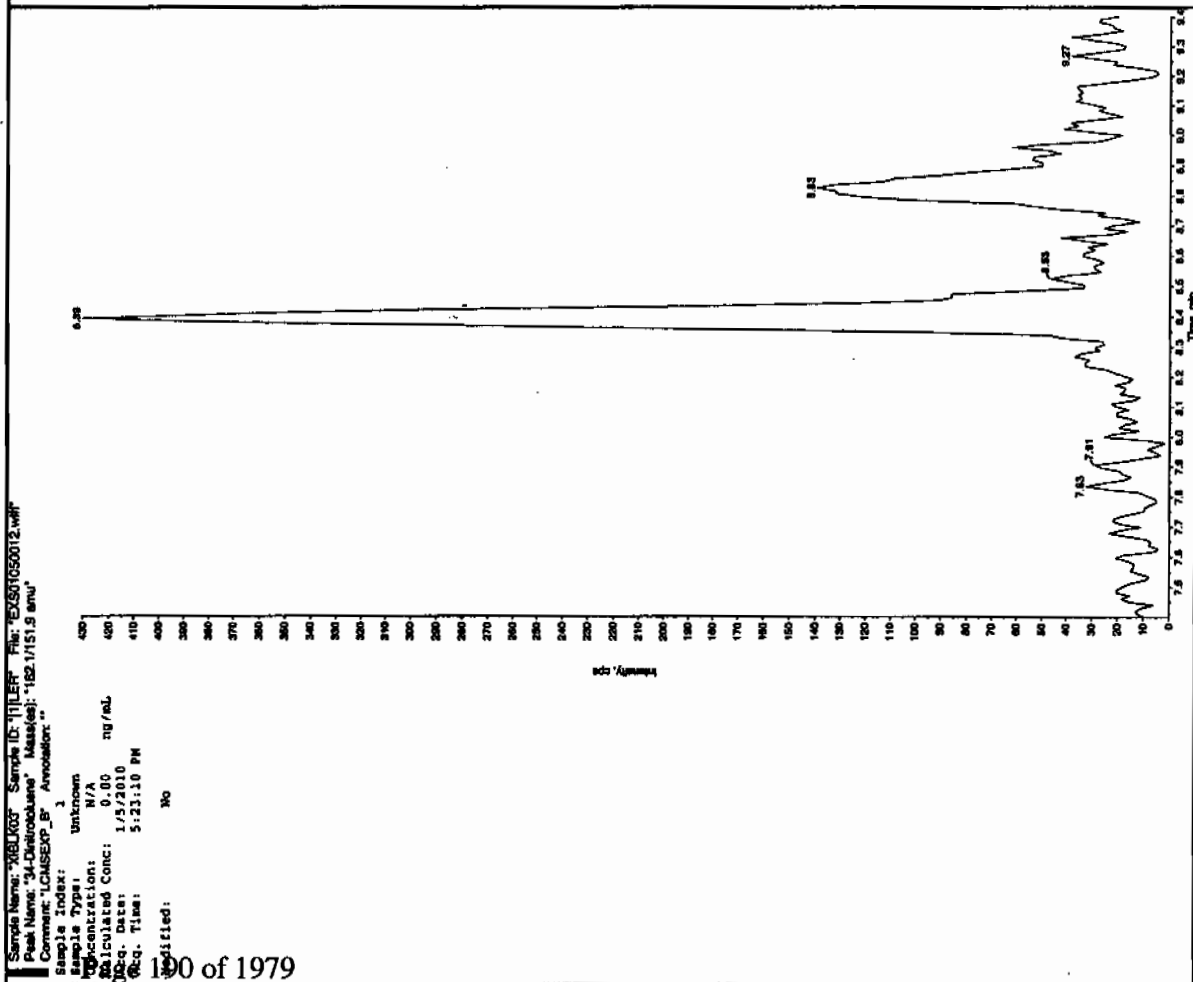
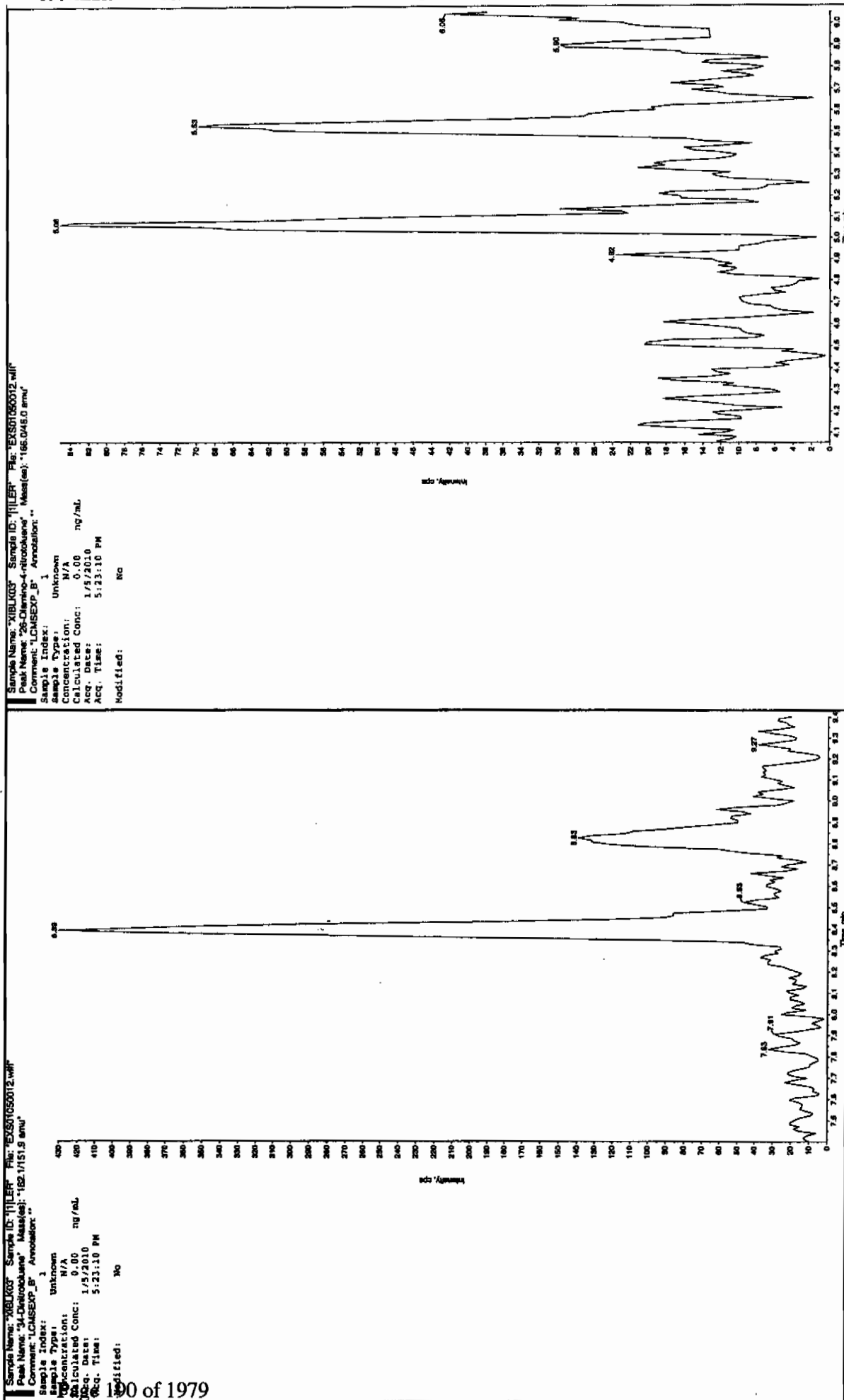
ccq. Date: 1/5/2010
ccq. Time: 5:23:10 PM

ccq. Time: 5:23:10

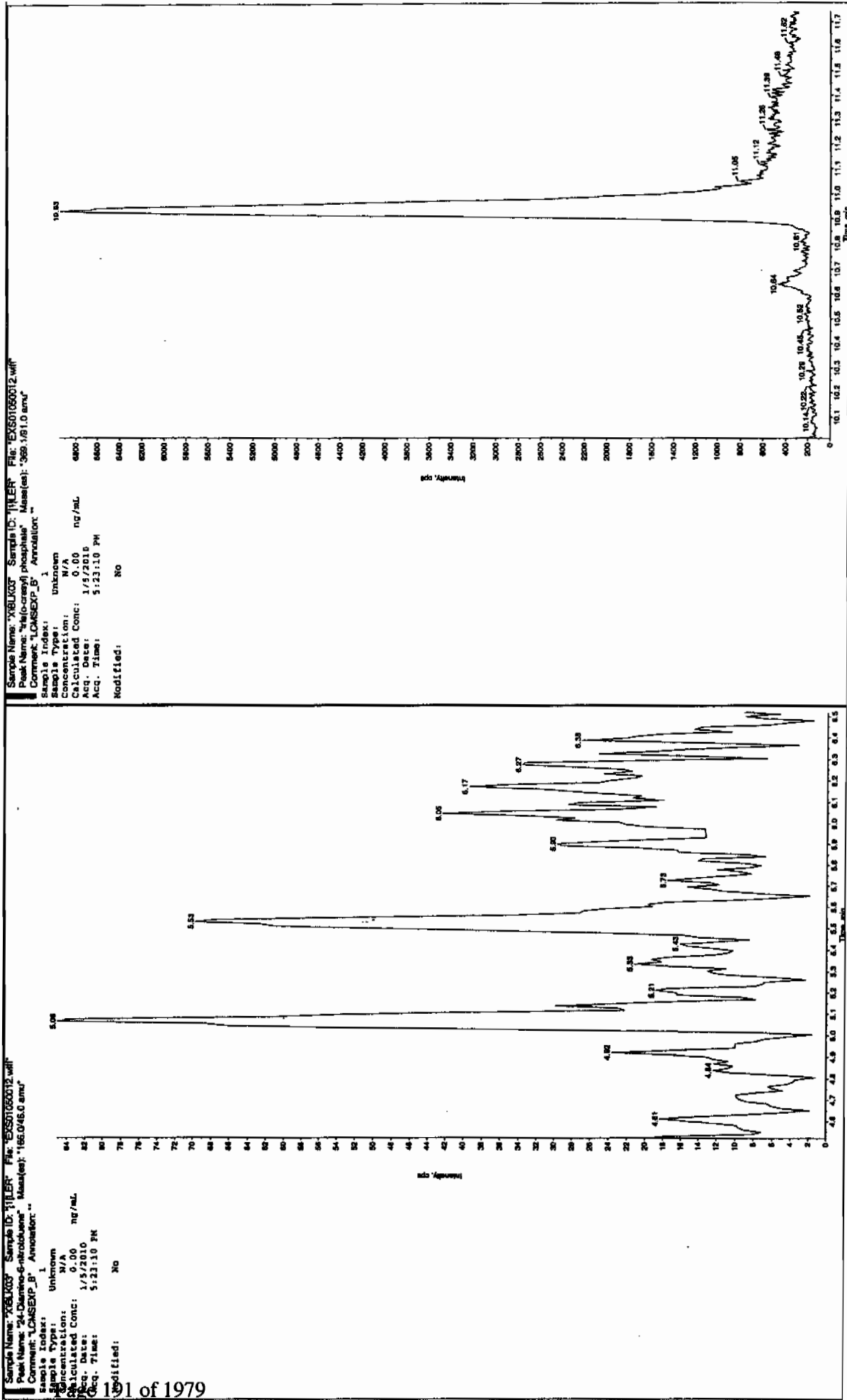


ENL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Hum oil



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 05-JAN-10 20:47

GEL Data File: EXS01050025.wiff

Instrument ID: LCMSMS

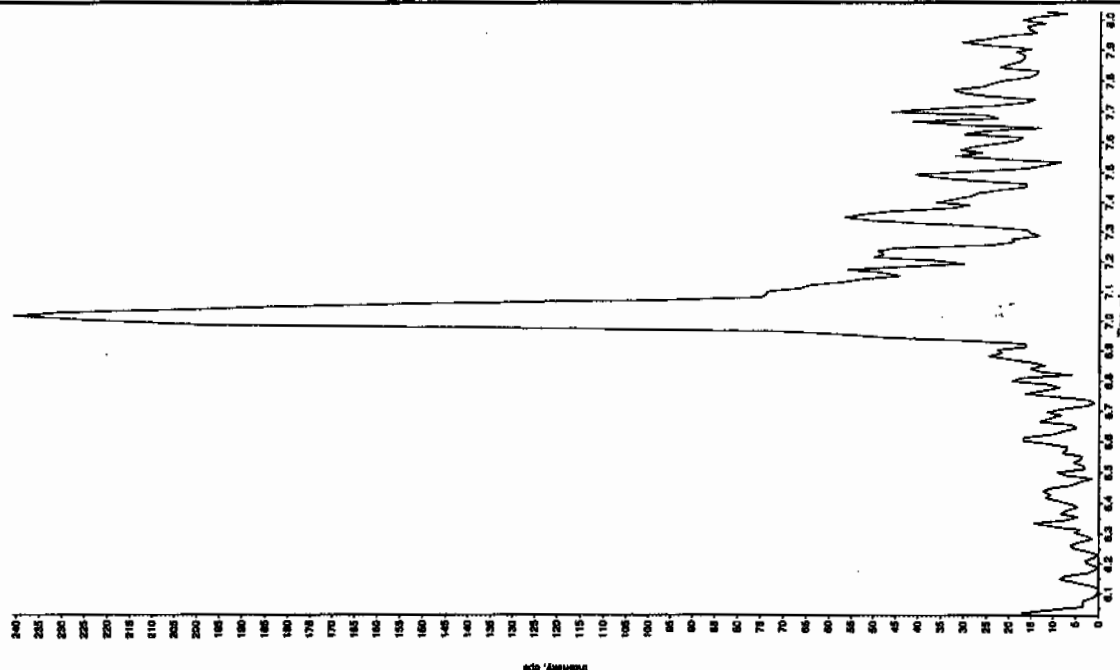
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0

12/11/10
202

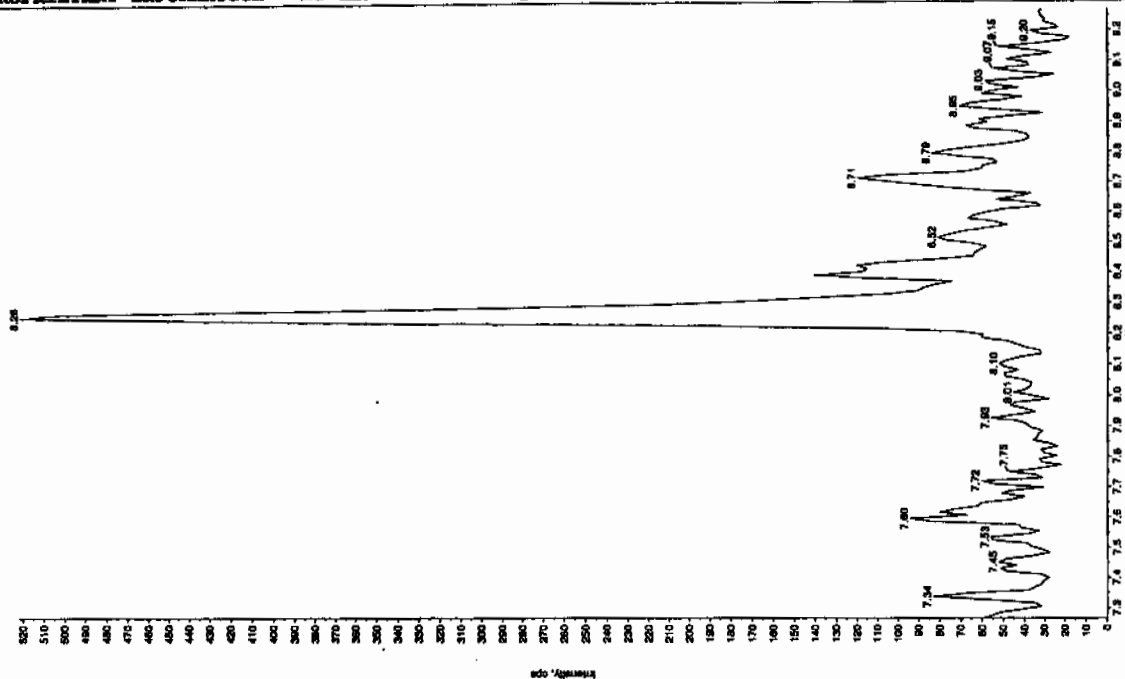
Sample Name: "XBL004" Sample ID: "HILER" File: "EXS01050025.will"
Peak Name: "TATB" Mass(es): "257.2204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: 0.00 ng/mL
Calculated Conc: 1/5/2010
Acq. Time: 8:47:17 PM
Modified: No



Sample Name: "XBL004" Sample ID: "HILER" File: "EXS01050025.will"
Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

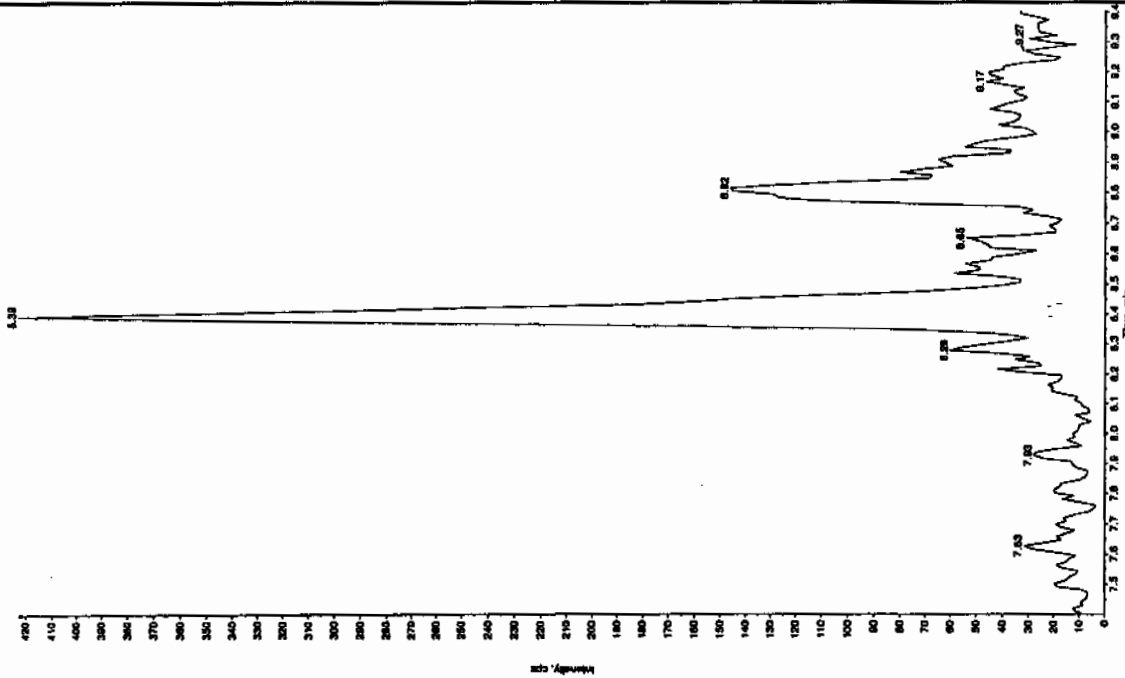
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1/5/2010
Acq. Time: 8:47:17 PM
Modified: No



Ann 01/01/10

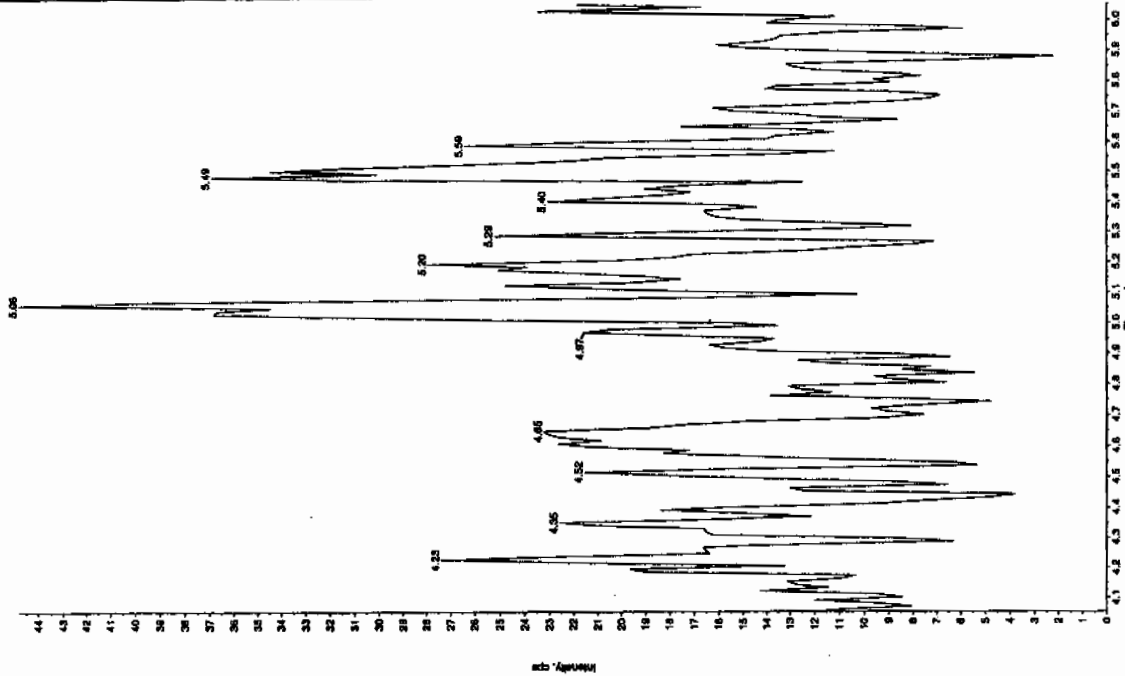
Sample Name: "XBL004" Sample ID: "HILLER" File: "EX001060025.will"
 Peak Name: "24-Dinitrochlorobenzene" Mass(es): "182.1/151.9 amu"
 Comment: "LCMS-EXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 8:47:17 PM
 Modified: No



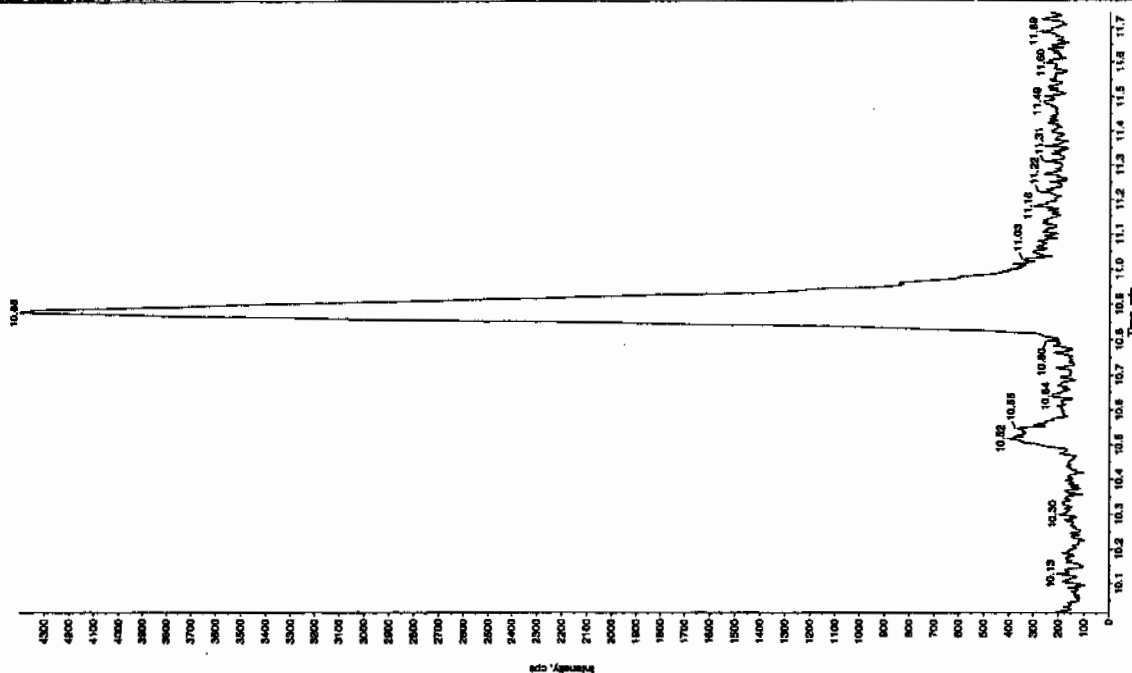
Sample Name: "XBL004" Sample ID: "HILLER" File: "EX001060025.will"
 Peak Name: "28-Dinitro-4-nitrochlorobenzene" Mass(es): "186.0/166.0 amu"
 Comment: "LCMS-EXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 8:47:17 PM
 Modified: No



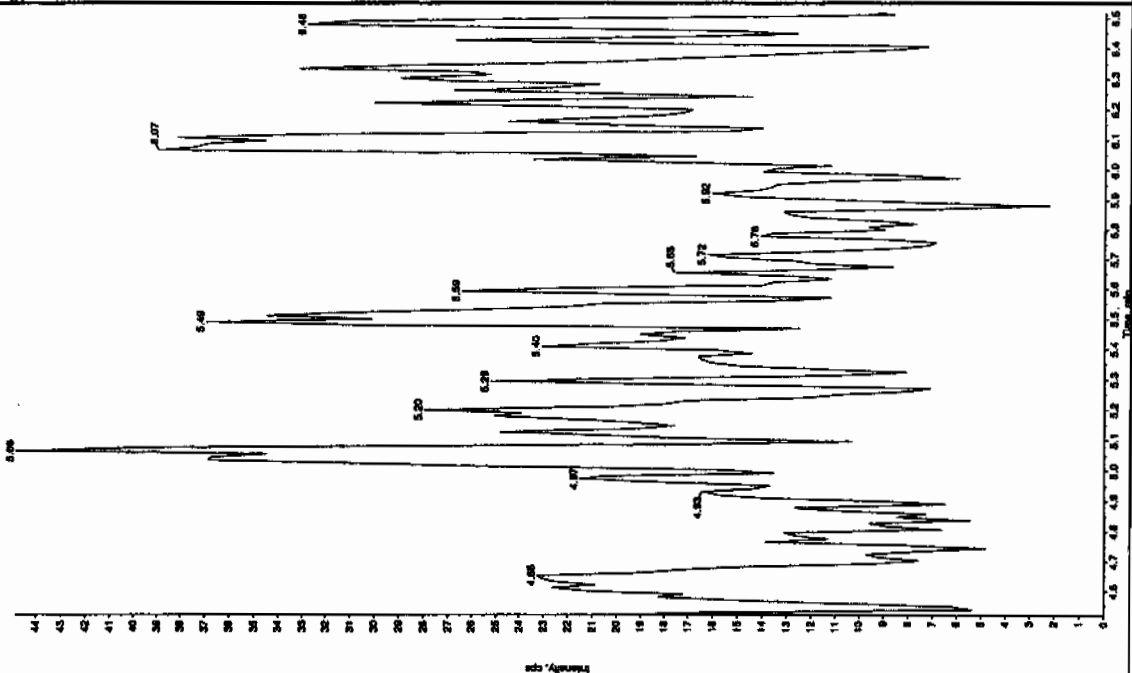
Sample Name: "XBL004" Sample ID: "J11ER" File: "EX001050025.will"
 Peak Name: "triglycerol phosphate" Mass(es): "388.191.0 amu"
 Comment: "LCMS/EXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Calculated Conc: 0.00
 Acq. Date: 3/5/2010
 Acq. Time: 8:47:17 PM
 Modified: No



Sample Name: "XBL004" Sample ID: "J11ER" File: "EX001050025.will"
 Peak Name: "24-Diamino-6-nitroindane" Mass(es): "168.046.0 amu"
 Comment: "LCMS/EXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Calculated Conc: 0.00
 Acq. Date: 3/5/2010
 Acq. Time: 8:47:17 PM
 Modified: No



4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 06-JAN-10 00:11

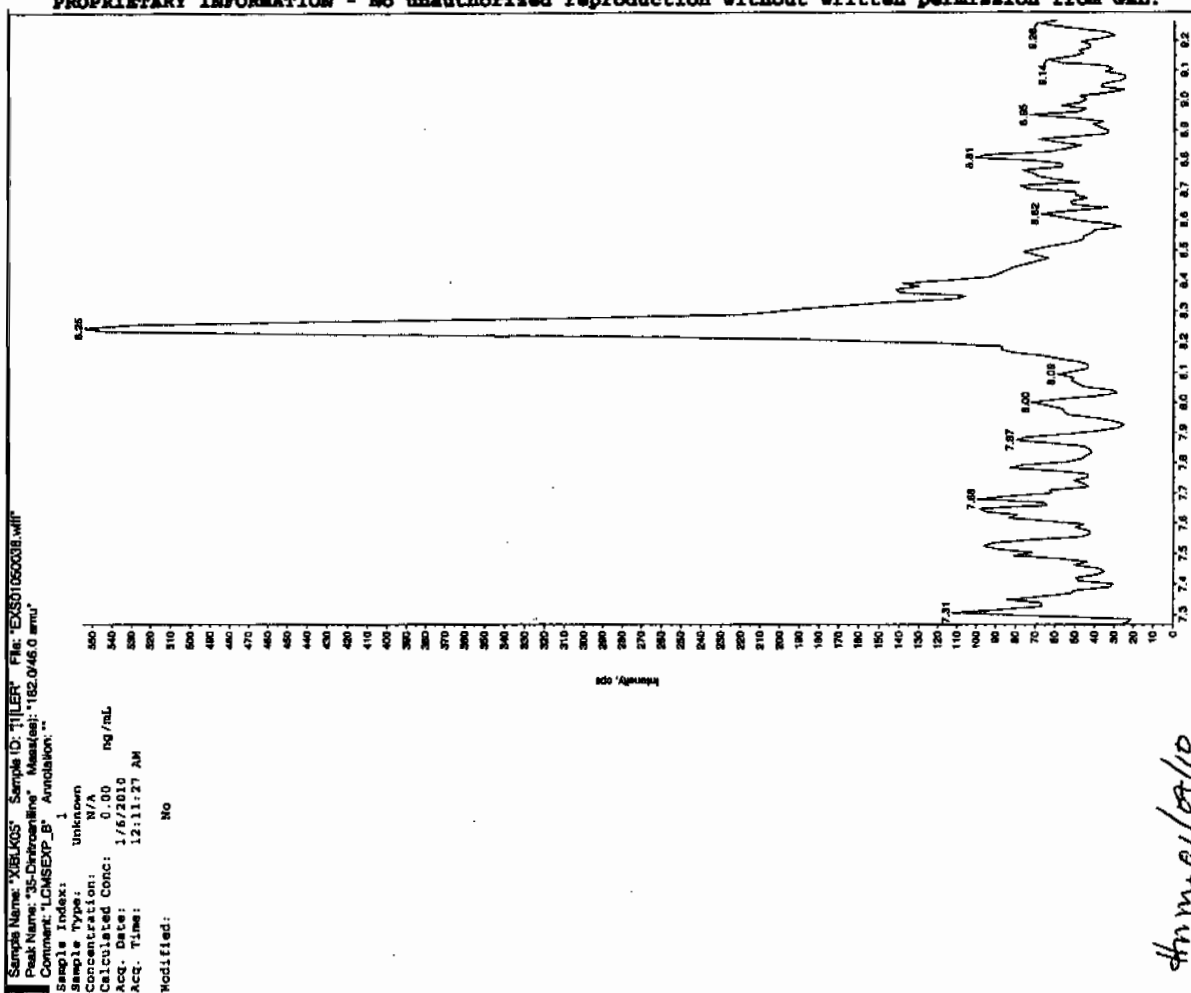
GEL Data File: EXS01050038.wiff

Instrument ID: LCMSMS

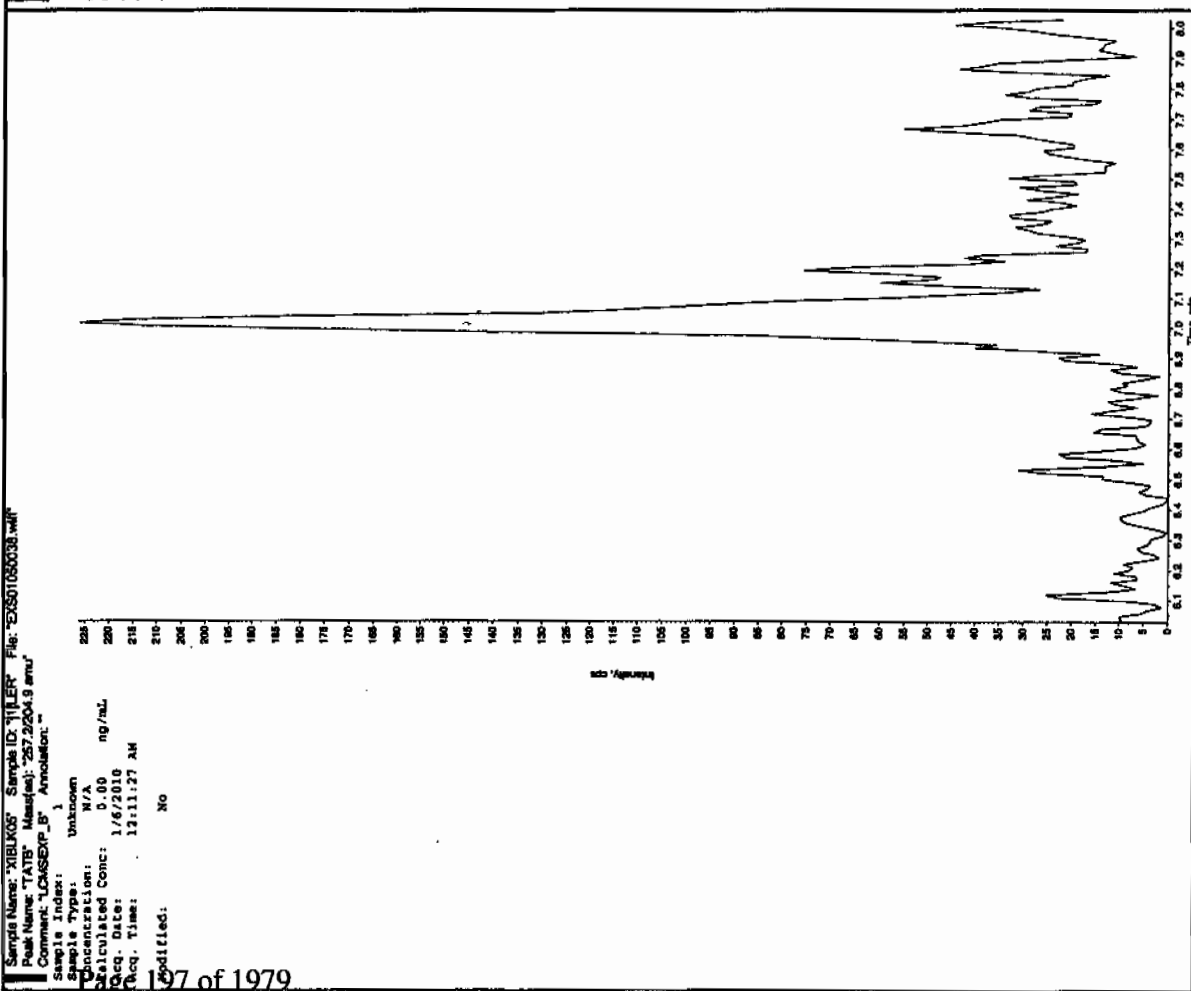
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

8/12/11



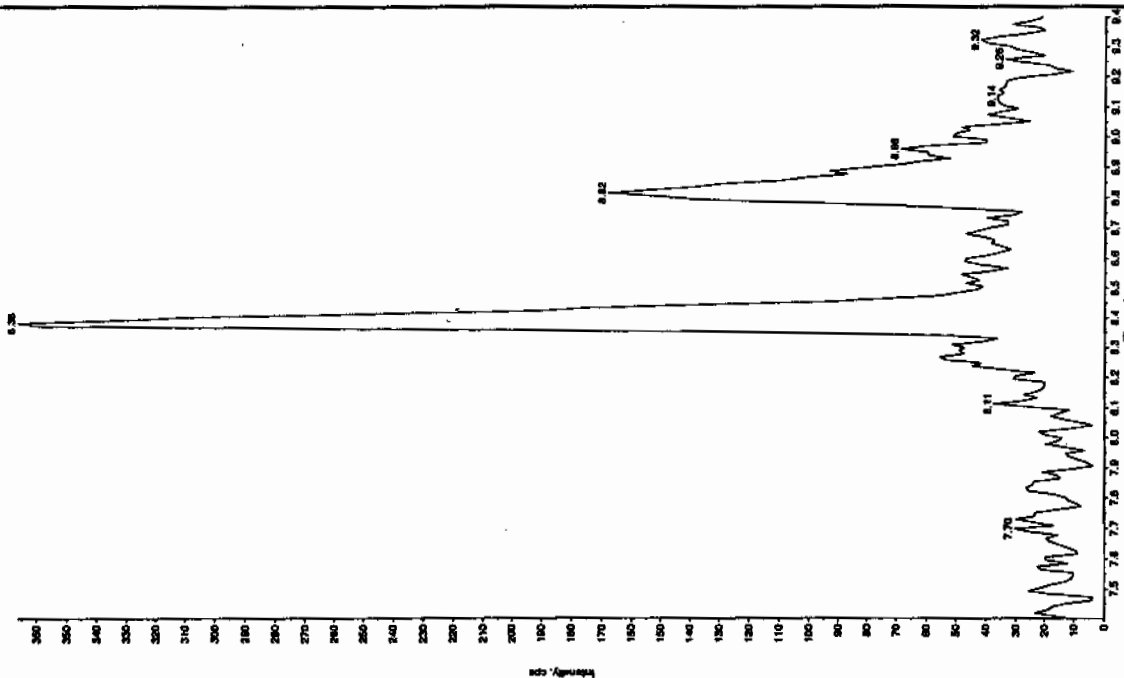
8/12/11



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

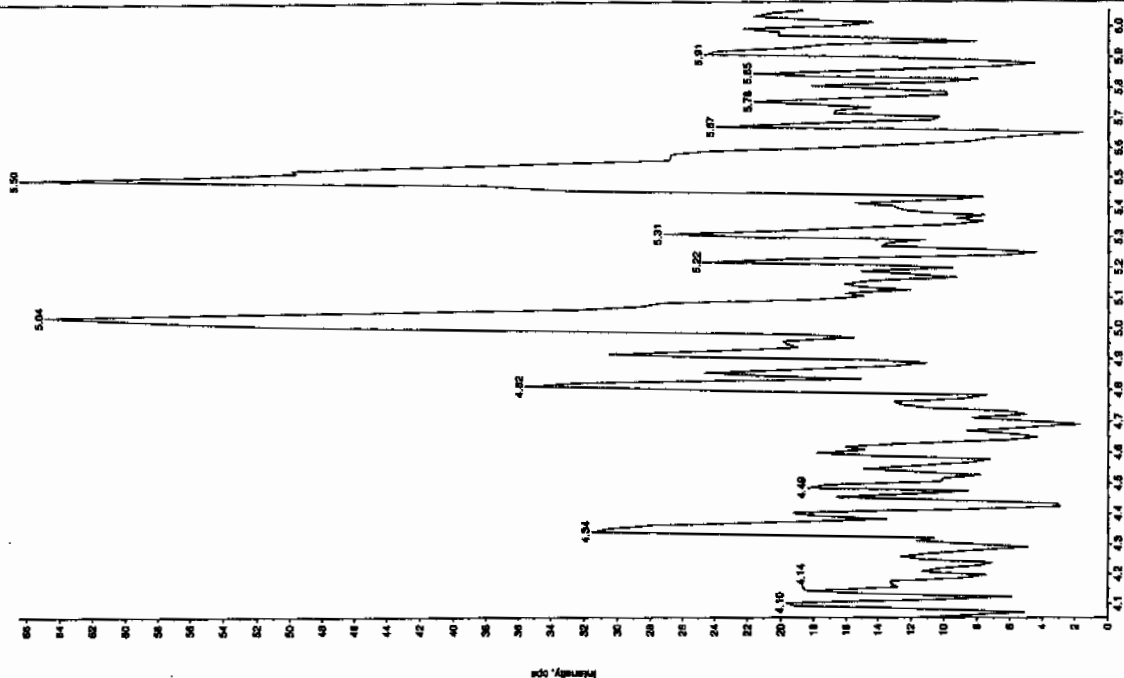
File Name: 'XBLK05' Sample ID: '11LEF' File: 'EX801050038.wif'
 Peak Name: '25-Dinitro-4-nitrobenzene' Mass(es): '182.1751.5 amu'
 Comment: 'LCMS05T_5' Annotation: '1'

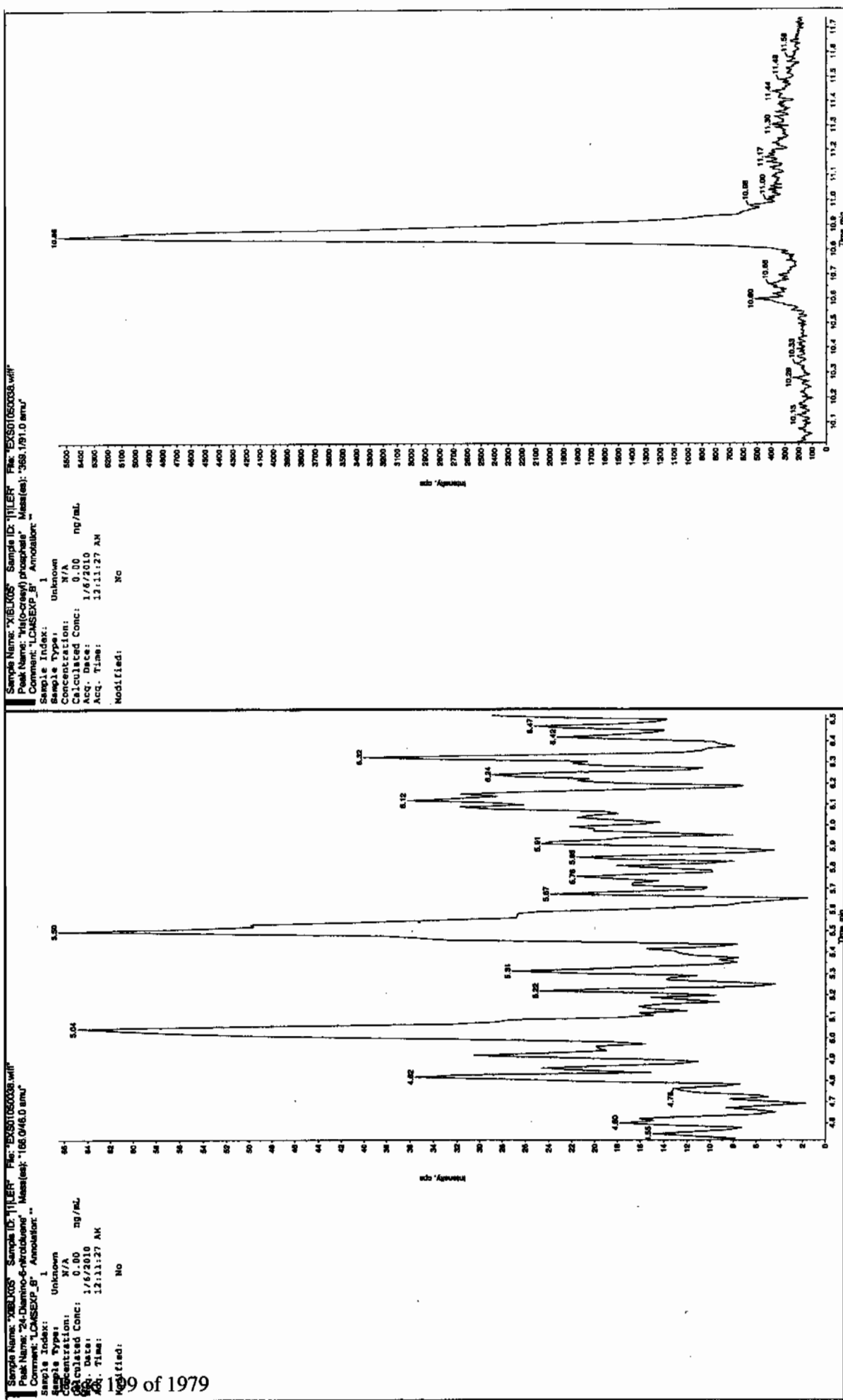
Sample Index: 'Unknown'
 Sample Type: 'N/A'
 Concentration: '0.00 ng/mL'
 Acq. Date: '1/6/2010'
 Acq. Time: '12:11:27 AM'
 Modified: 'No'



Sample Name: 'XBLK05' Sample ID: '11LEF' File: 'EX801050038.wif'
 Peak Name: '25-Dinitro-4-nitrobenzene' Mass(es): '186.0460 amu'
 Comment: 'LCMS05T_5' Annotation: '1'

Sample Index: 'Unknown'
 Sample Type: 'N/A'
 Concentration: '0.00 ng/mL'
 Acq. Date: '1/6/2010'
 Acq. Time: '12:11:27 AM'
 Modified: 'No'





4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 06-JAN-10 03:35

GEL Data File: EXS01050051.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0

Sample Name: "XBLUGS" Sample ID: "TILEP" File: "EX301060061.wif"

Peak Name: "3S-Dichloroacetic Acid" Mass(es): "182.0463 amu"

Comment: "LONSEXP_5" Annotation: "1"

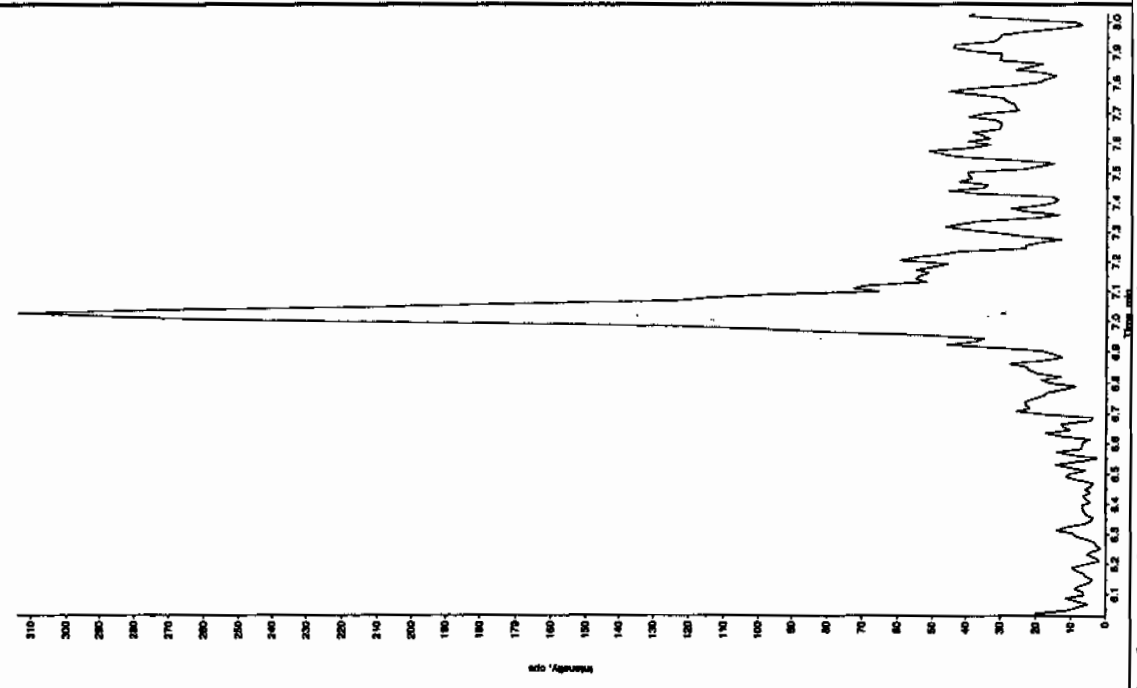
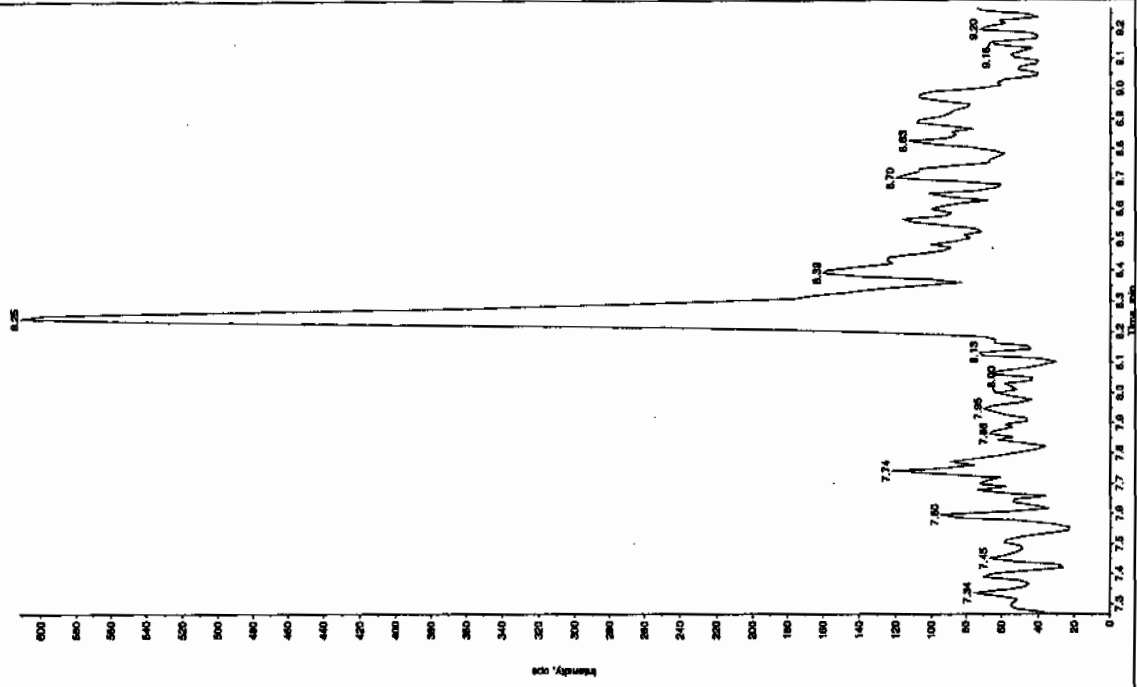
Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:35:40 AM
 Modified: No

Sample Name: "XBLUGS" Sample ID: "TILEP" File: "EX301060061.wif"

Peak Name: "TATP" Mass(es): "267.22048 amu"

Comment: "LONSEXP_5" Annotation: "1"

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:35:40 AM
 Modified: No



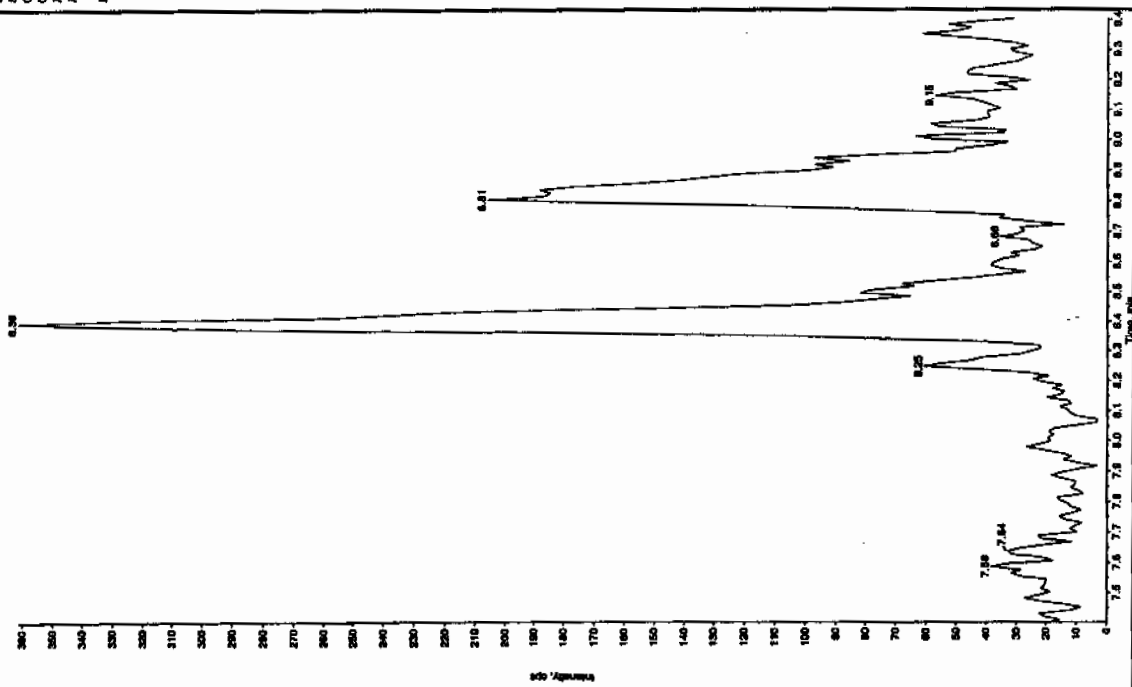
Time 01/06/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

01/06/10

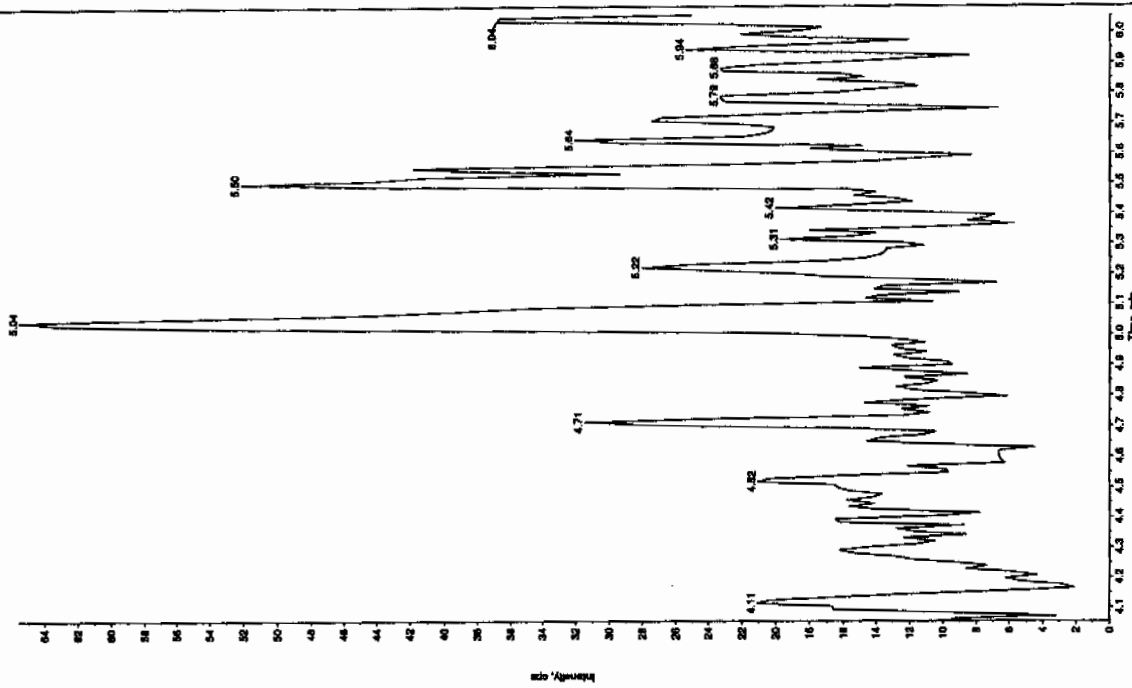
File Name: "X08006" Sample ID: "T1LER" File: "EX0801050051.wif"
 Peak Name: "34-Dichlorobenzene" Mass(es): "182.17519 amu"
 Comment: "LONSEXP_B" Annotation: ""

Sample Index: 1
 Sample Name: Unknown
 Concentration: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:35:40 AM
 Modified: No



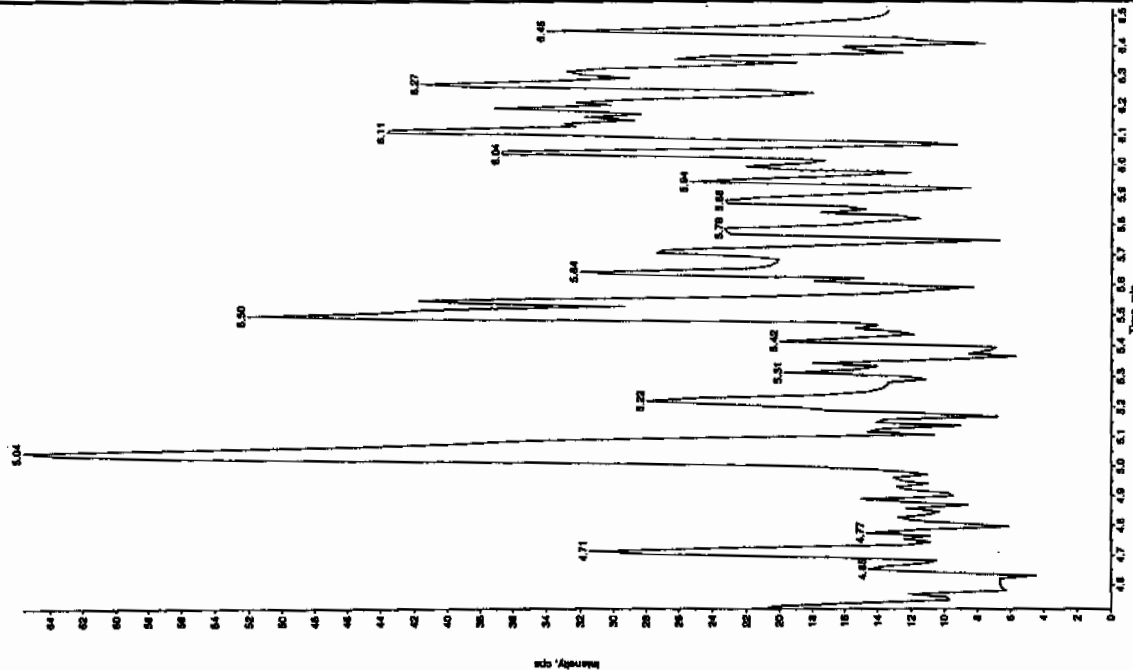
Sample Name: "X08006" Sample ID: "T1LER" File: "EX0801050051.wif"
 Peak Name: "28-Dichloro-4-nitrobenzene" Mass(es): "186.0460 amu"
 Comment: "LONSEXP_B" Annotation: ""

Sample Index: 1
 Sample Name: Unknown
 Concentration: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:35:40 AM
 Modified: No



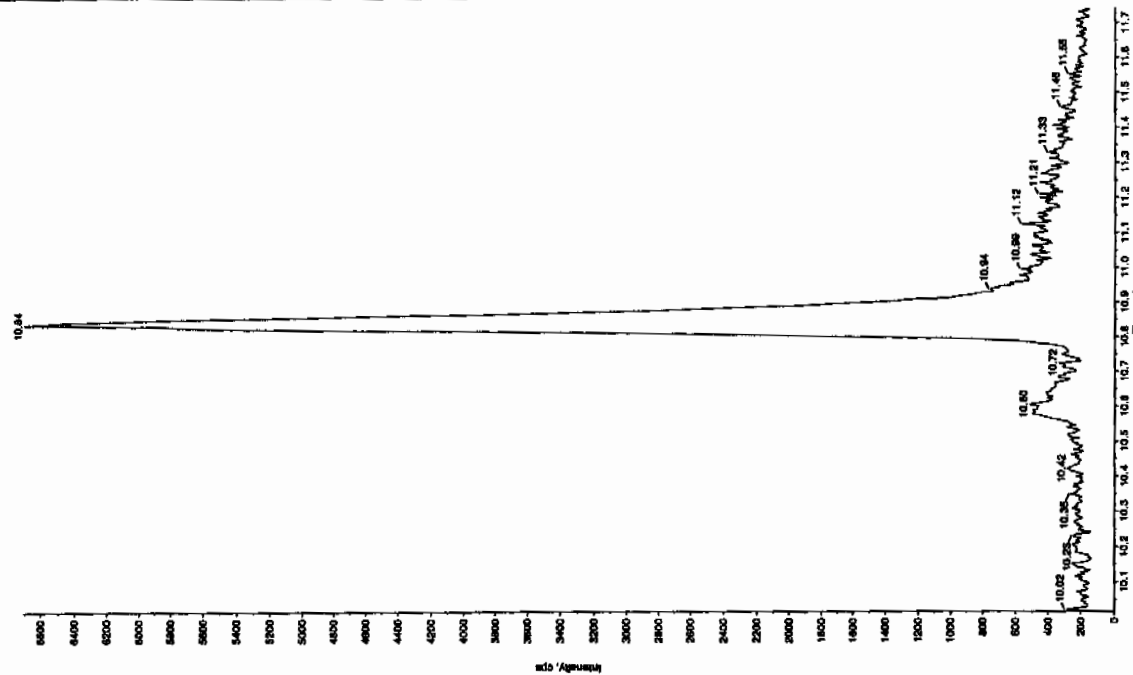
Sample Name: "241209" Sample ID: "HLEP" File: "EX501050051.mpl"
 Peak Name: "24-Diamino-Enolone" Mass(es): "166.046.0 amu"
 Comment: "LCMSXP_B" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:35:40 AM
 Modified: No



Sample Name: "YELKOS" Sample ID: "HLEP" File: "EX501050051.mpl"
 Peak Name: "Mito-cytopl phosphat" Mass(es): "328.161.0 amu"
 Comment: "LCMSXP_B" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:35:40 AM
 Modified: No



4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1073

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 06-JAN-10 06:59

GEL Data File: EXS01050064.wiff

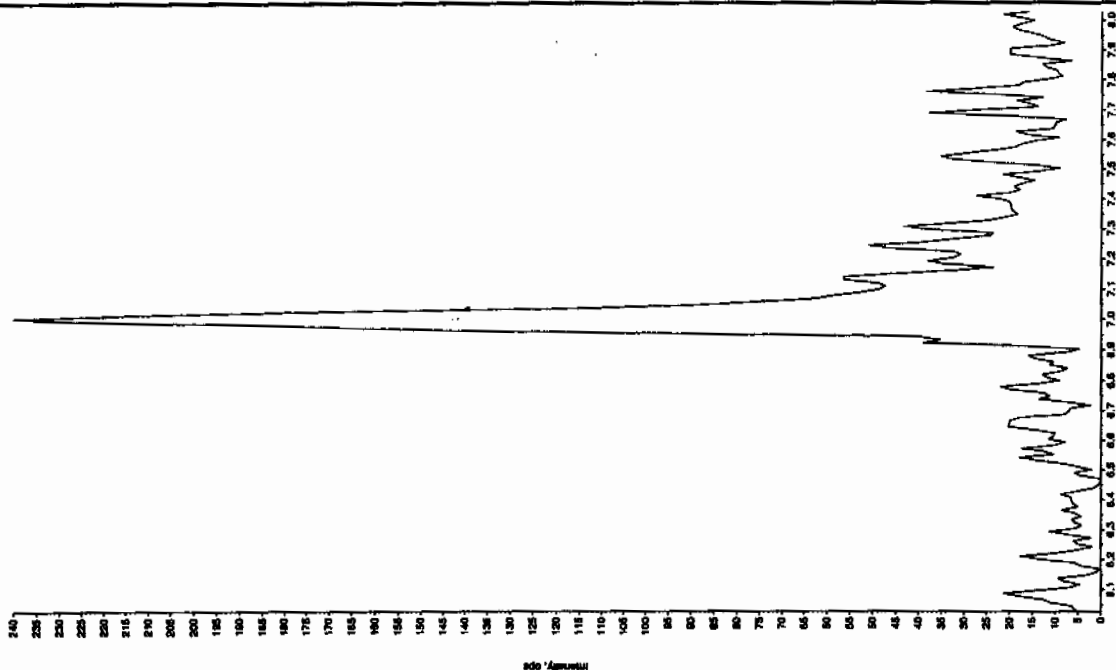
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

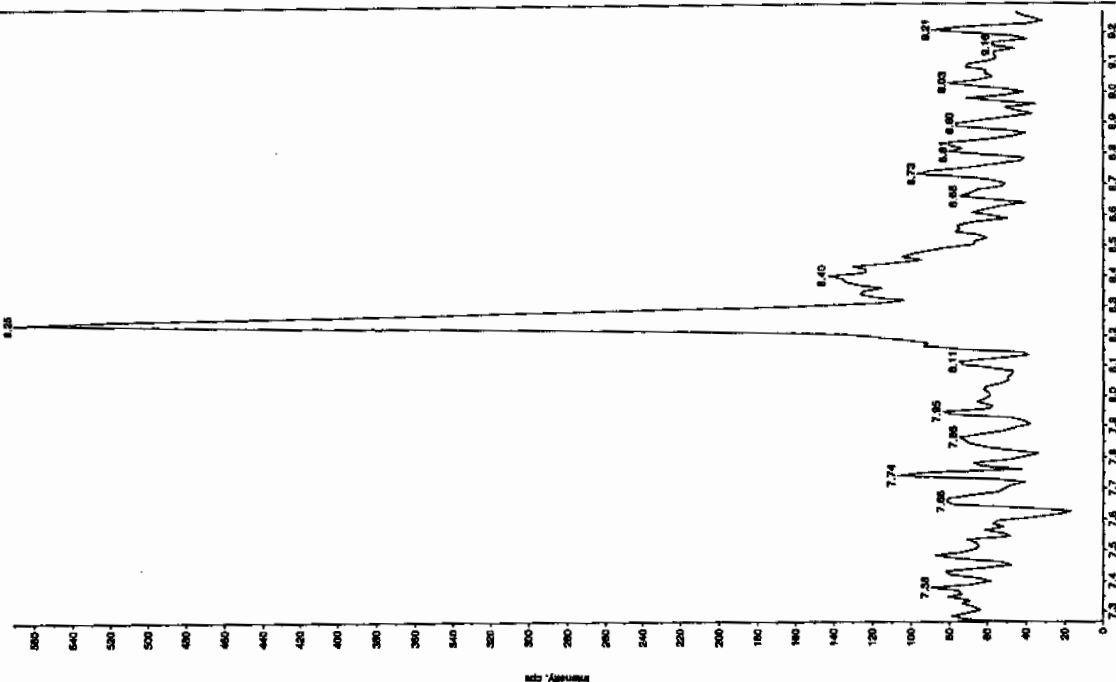
Sample Name: "XIBLX07" Sample ID: "HILER" File: "EX801050064.wif"
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"
 Comment: "LCMSDEP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 6:59:48 AM
 Modified: No



Sample Name: "XIBLX07" Sample ID: "HILER" File: "EX801050064.wif"
 Peak Name: "3S-Dinitrofluorene" Mass(es): "182.046.0 amu"
 Comment: "LCMSDEP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 6:59:48 AM
 Modified: No

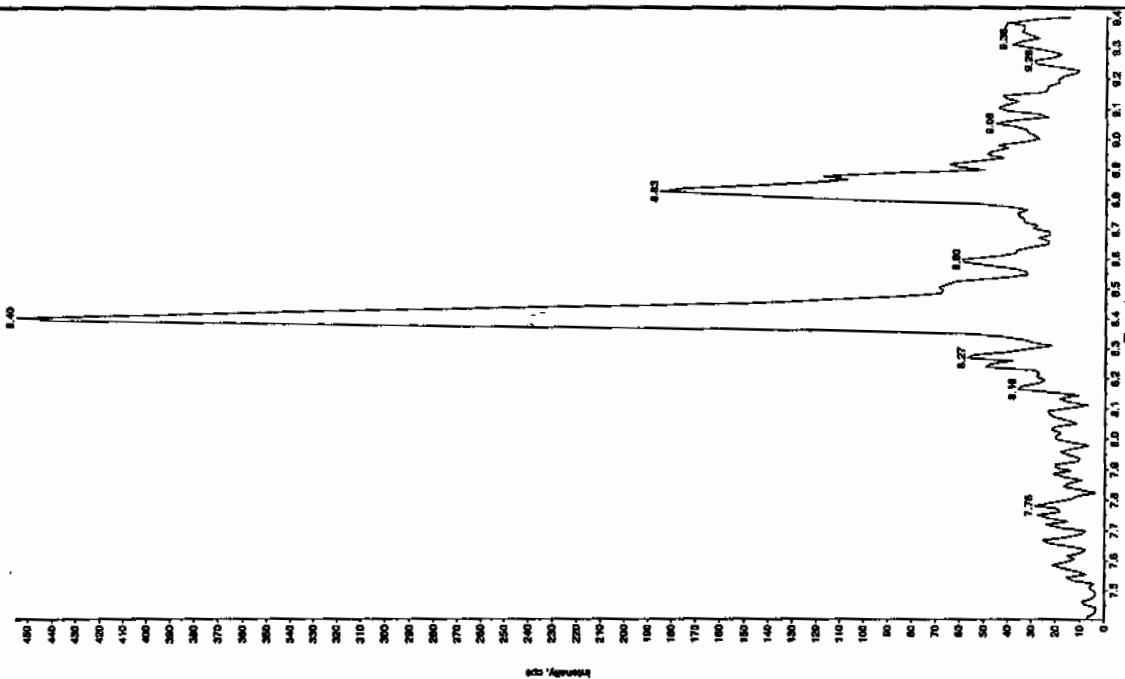


01/14/10
 JGA

47mm 01/08/10

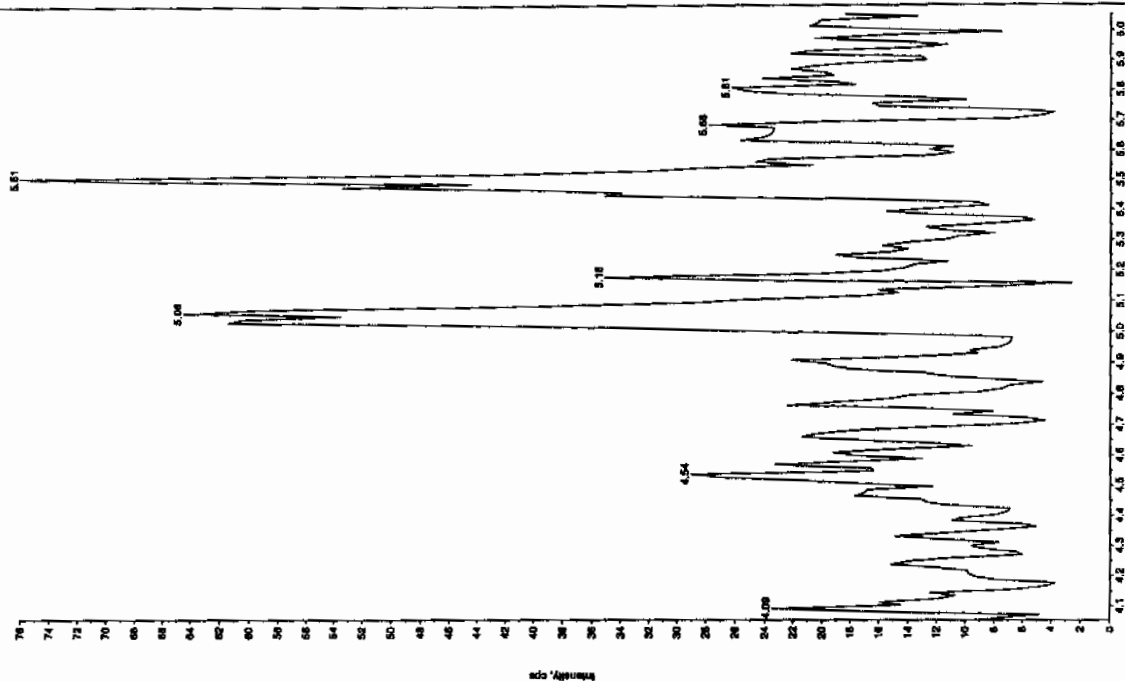
File Name: "X81007" Sample ID: "HILIER" File: "ES01050064.wif"
 Peak Name: "25-Dinitro-4-nitrofluorene" Mass(es): "182.1151.9 amu"

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 6:59:48 AM
 Modified: No



Sample Name: "X81007" Sample ID: "HILIER" File: "ES01050064.wif"
 Peak Name: "25-Dinitro-4-nitrofluorene" Mass(es): "166.0463.0 amu"

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 6:59:48 AM
 Modified: No



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

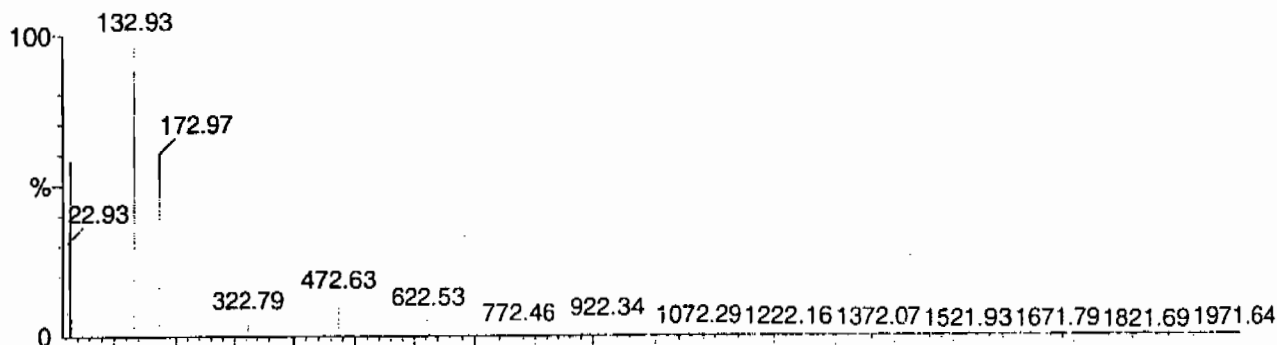
Calibration Report - MS1 Static

Page 1 of 1

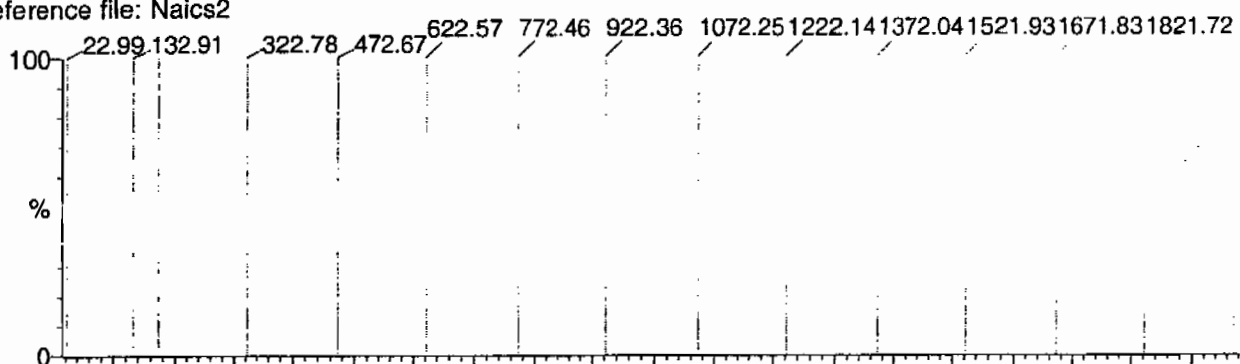
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

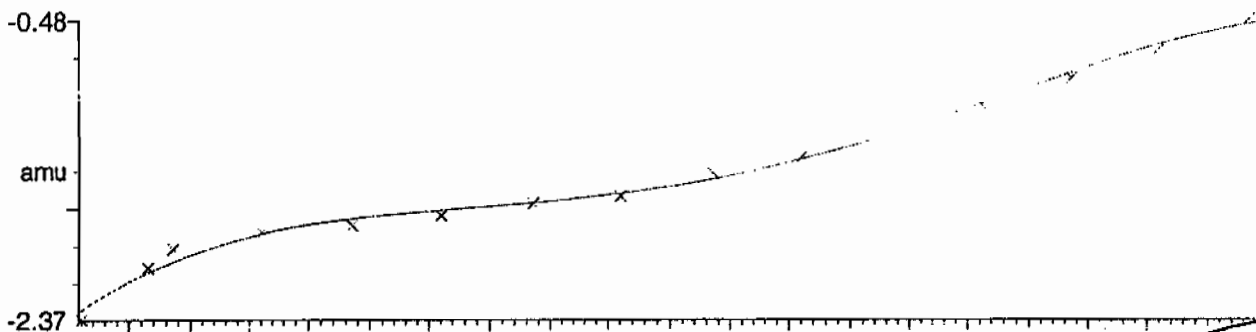
15 matches of 15 tested references



Reference file: Naics2

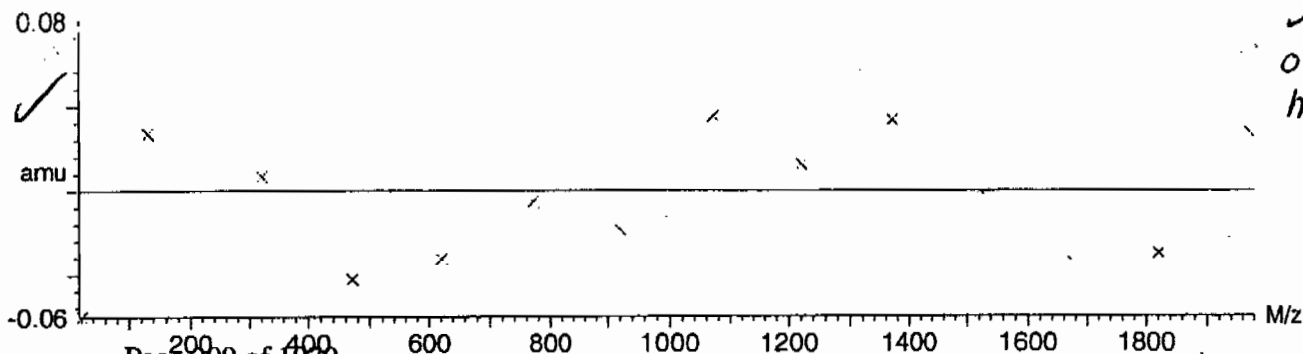


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $-1.673470 \times 10^{-9} \pm 0.036953$



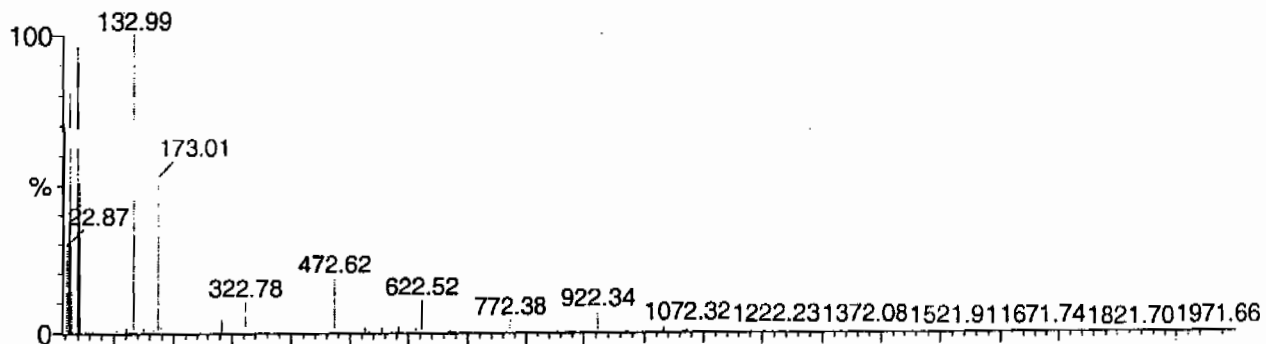
Calibration Report - MS1 Scanning

Page 1 of 1

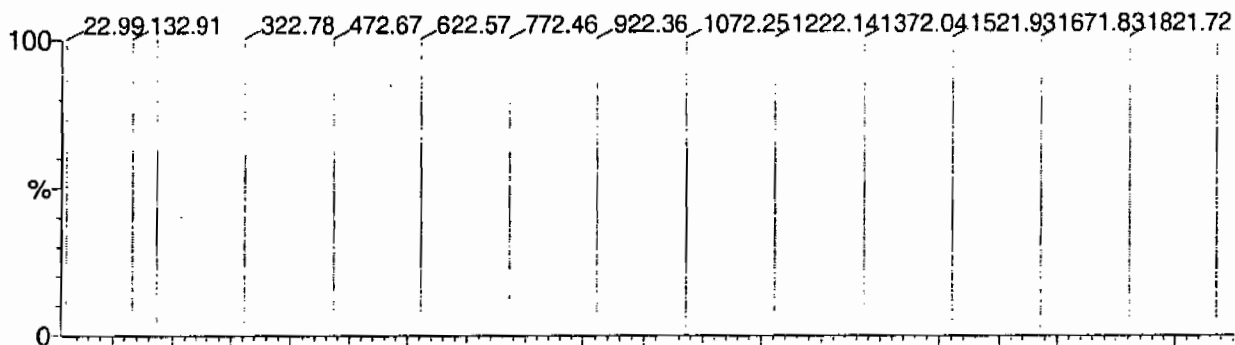
Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

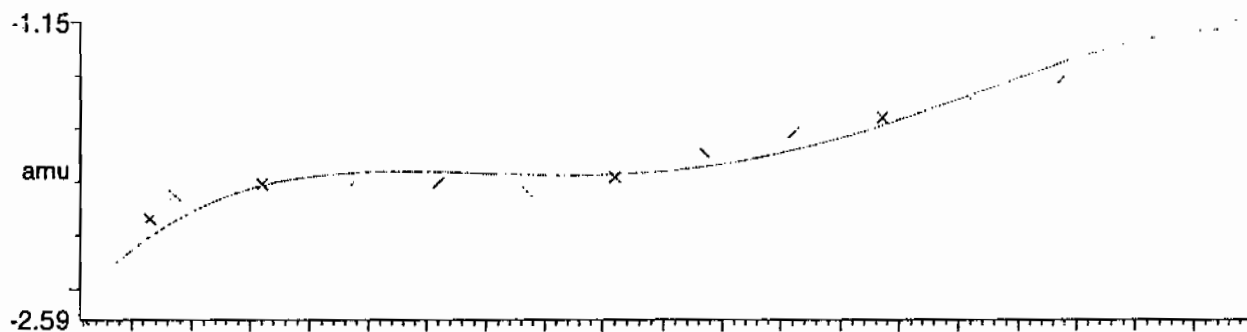
15 matches of 15 tested references



Reference file: Naics2

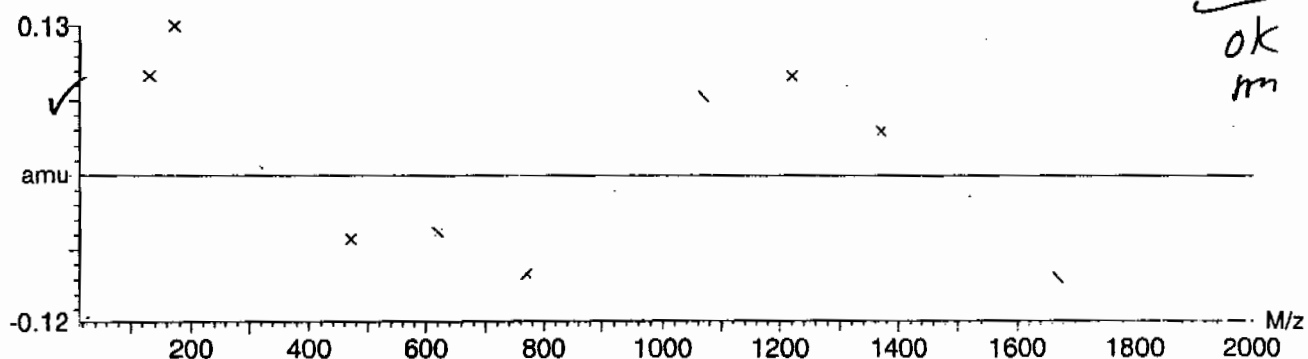


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $-5.432715 \times 10^{-9} \pm 0.069858$



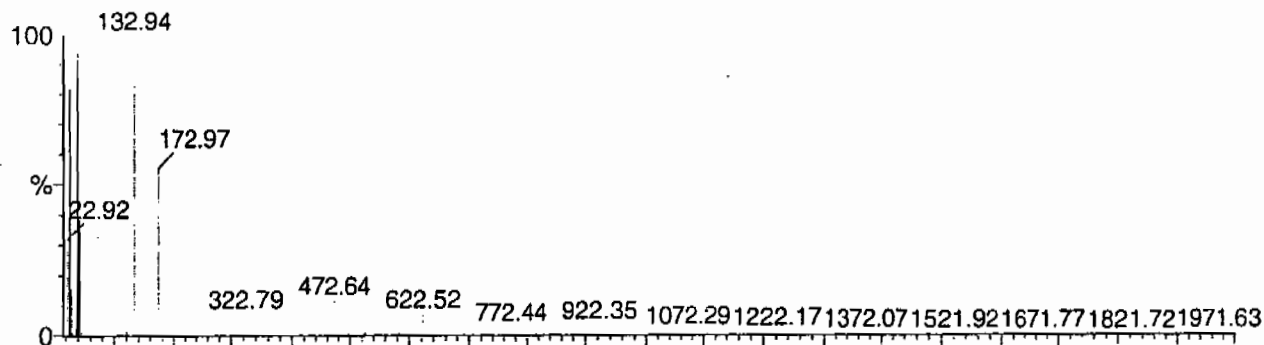
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

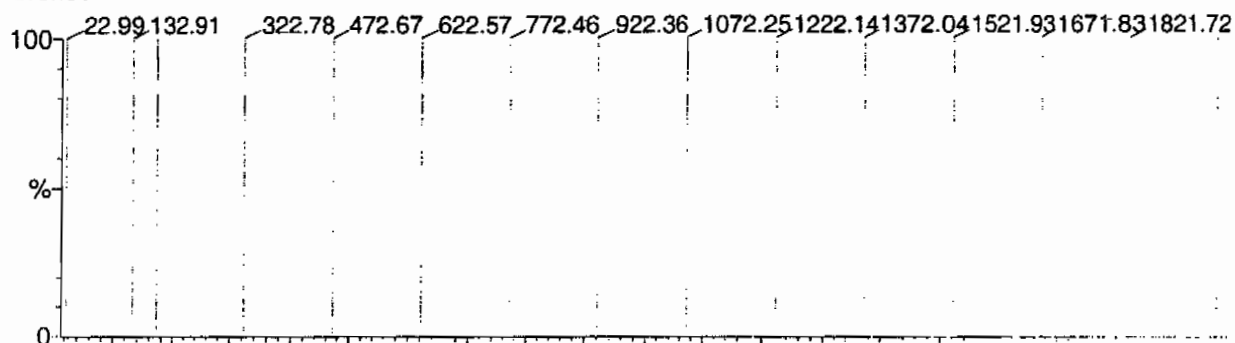
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

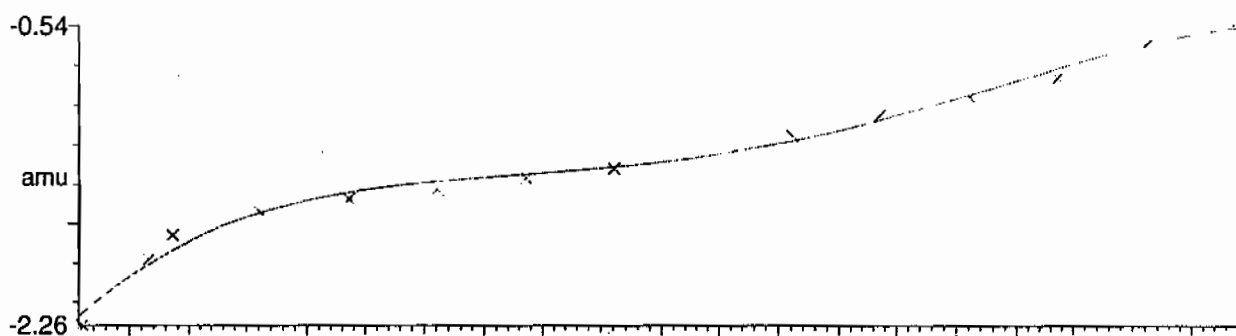
15 matches of 15 tested references



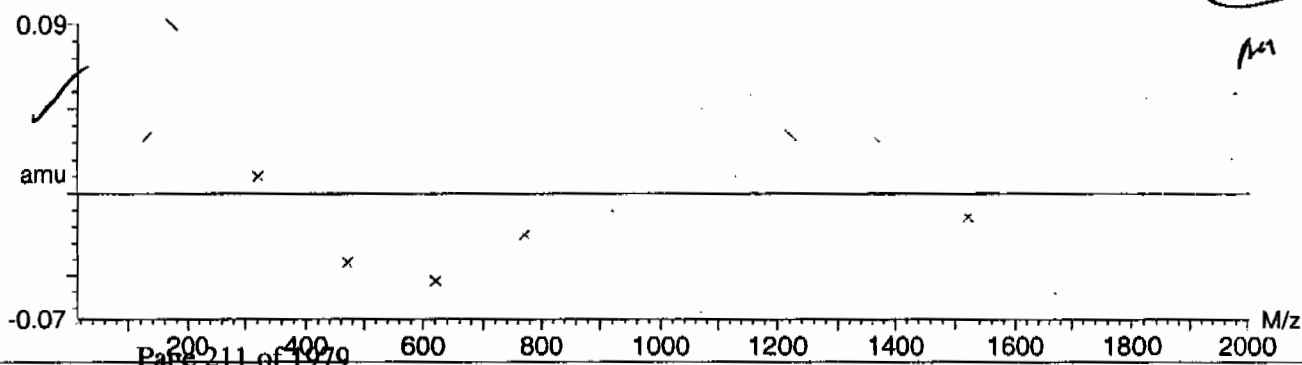
Reference file: Naics2



Mass difference (Raw - Ref mass)



Residuals



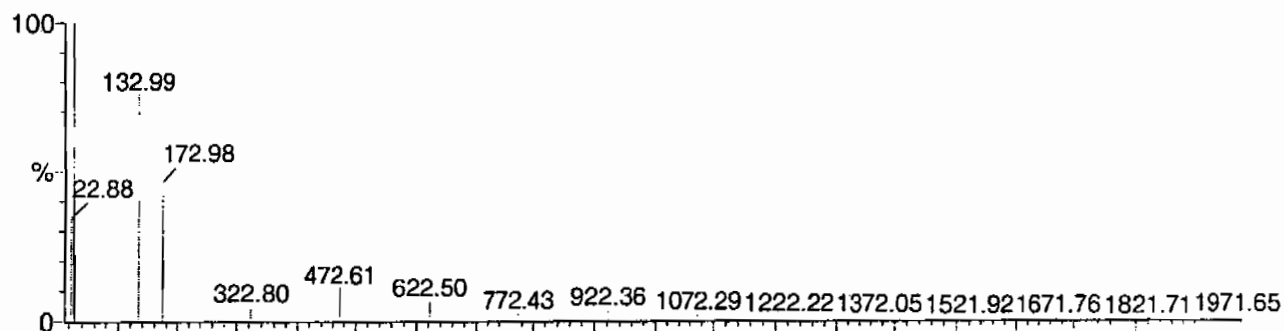
Calibration Report - MS2 Static

Page 1 of 1

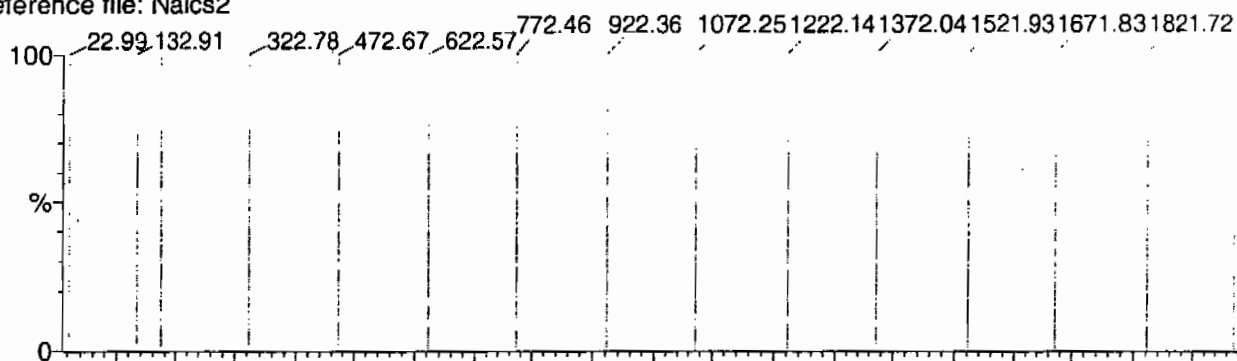
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

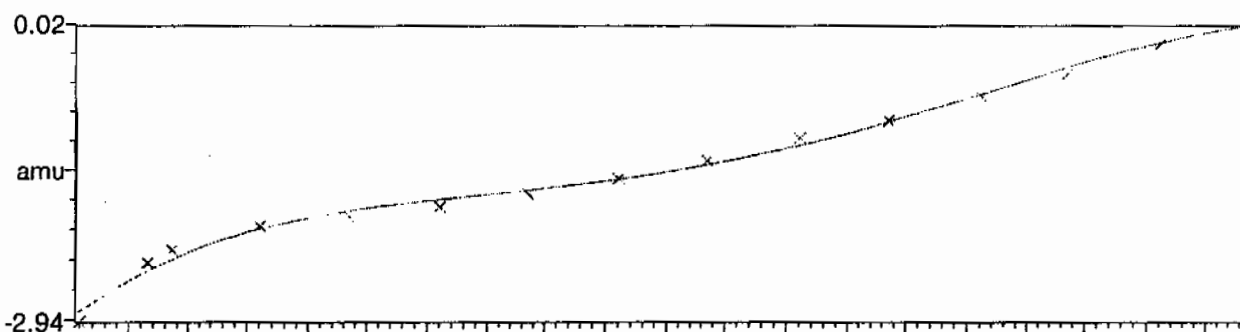
15 matches of 15 tested references



Reference file: Naics2

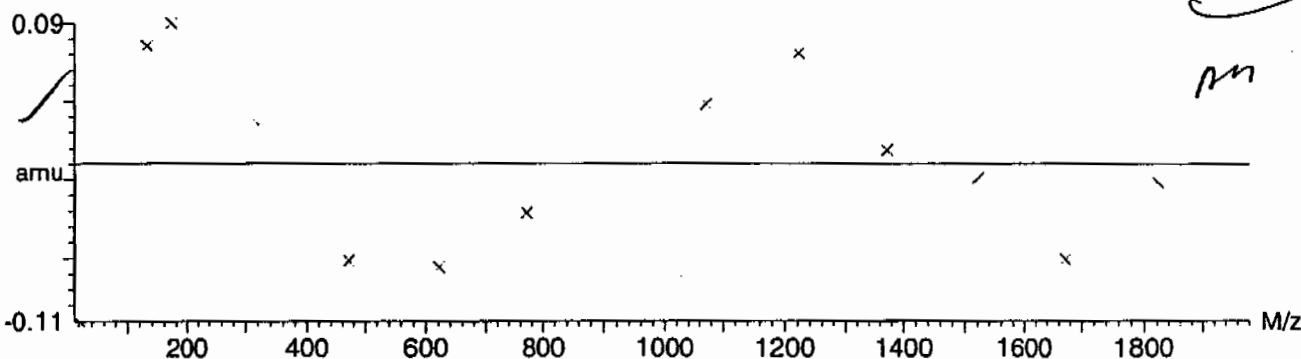


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $2.048910 \times 10^{-9} \pm 0.057803$



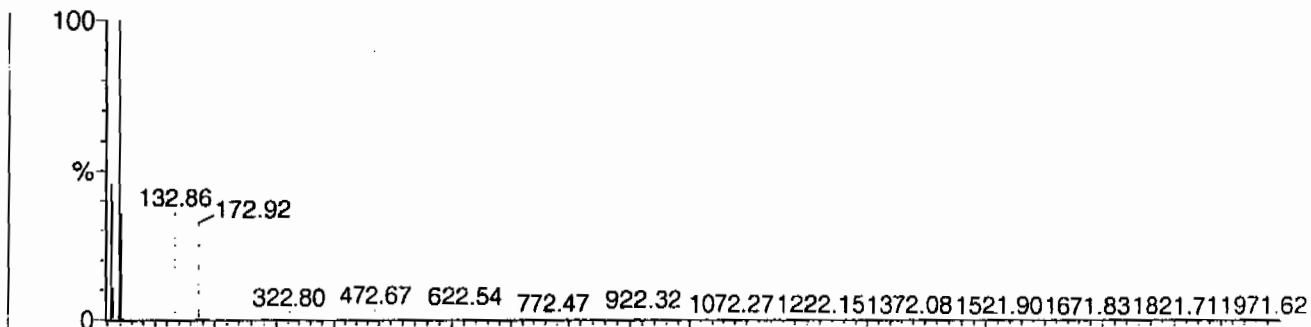
Calibration Report - MS2 Scanning

Page 1 of 1

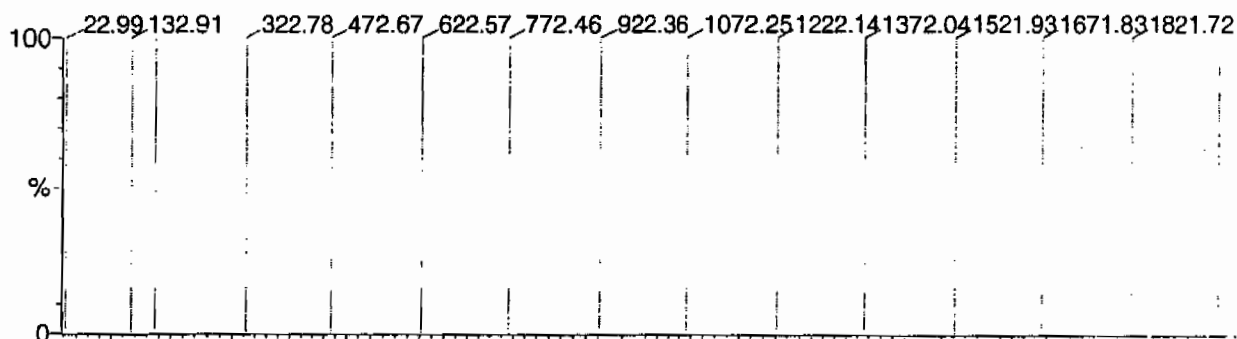
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

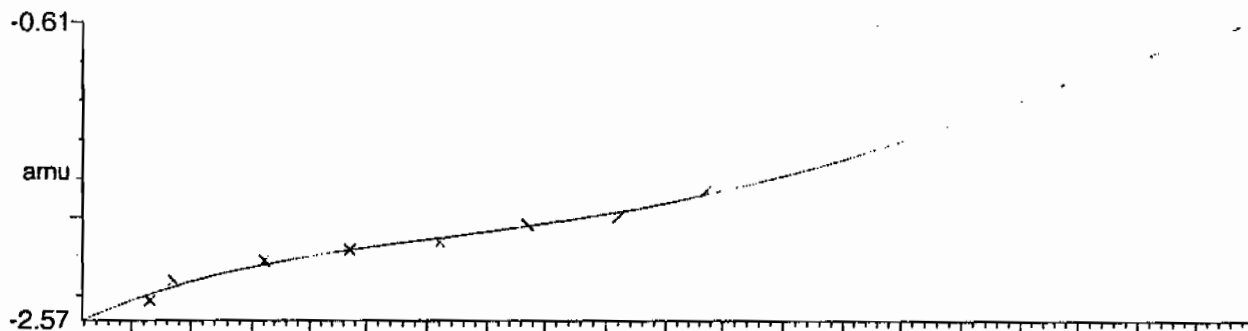
14 matches of 15 tested references



Reference file: Naics2

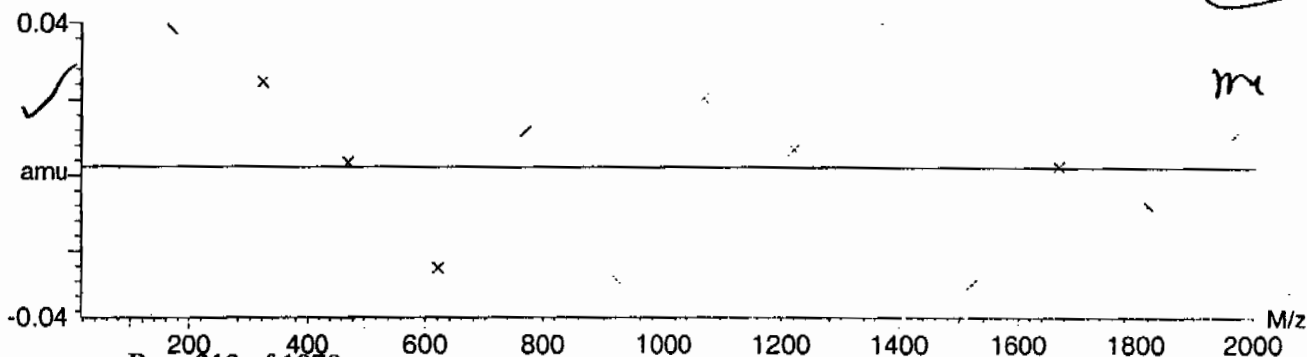


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $-2.623502 \times 10^{-9} \pm 0.025622$



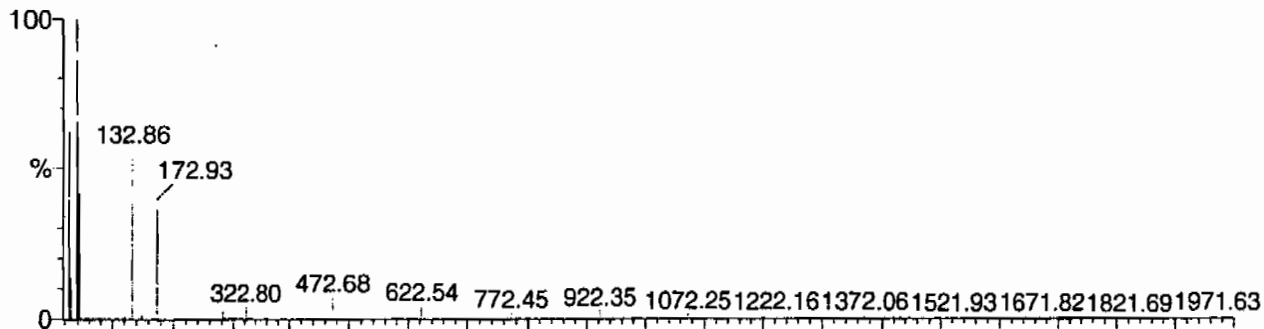
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

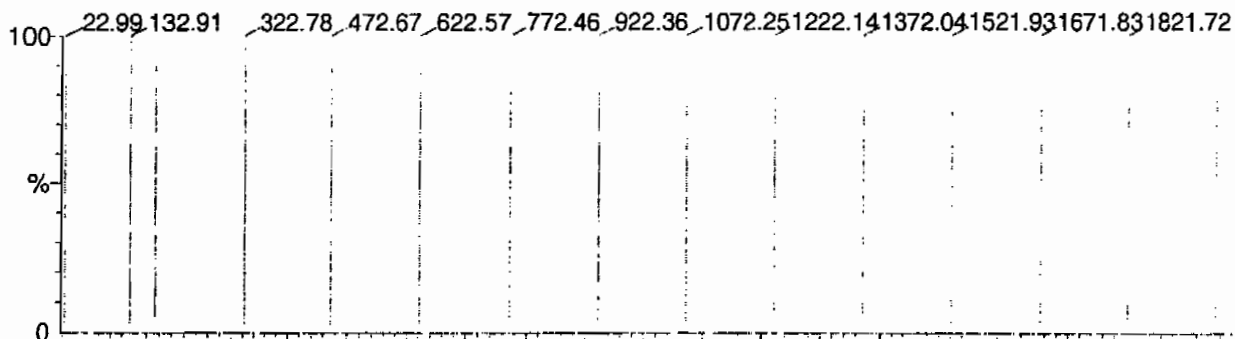
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

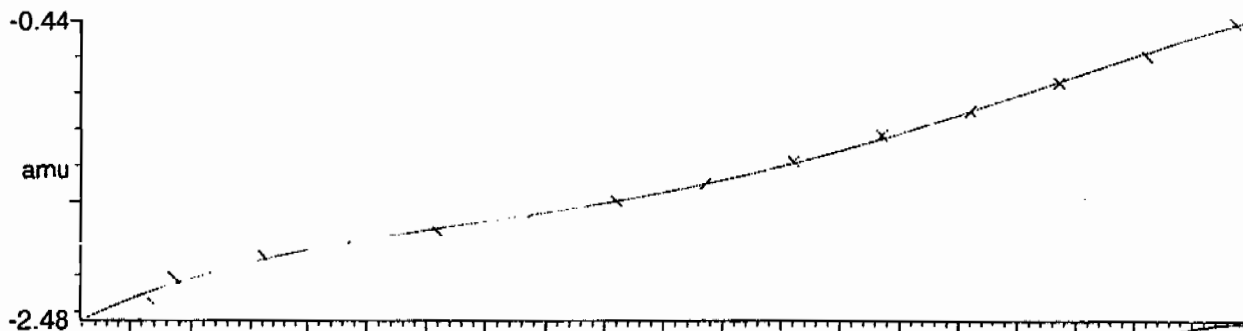
14 matches of 15 tested references



Reference file: Naics2

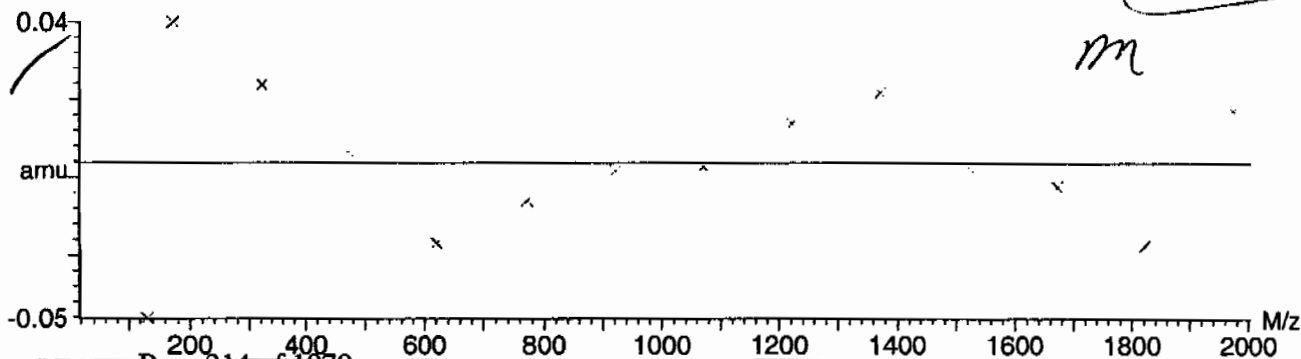


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $-6.785350 \times 10^{-9} \pm 0.023134$

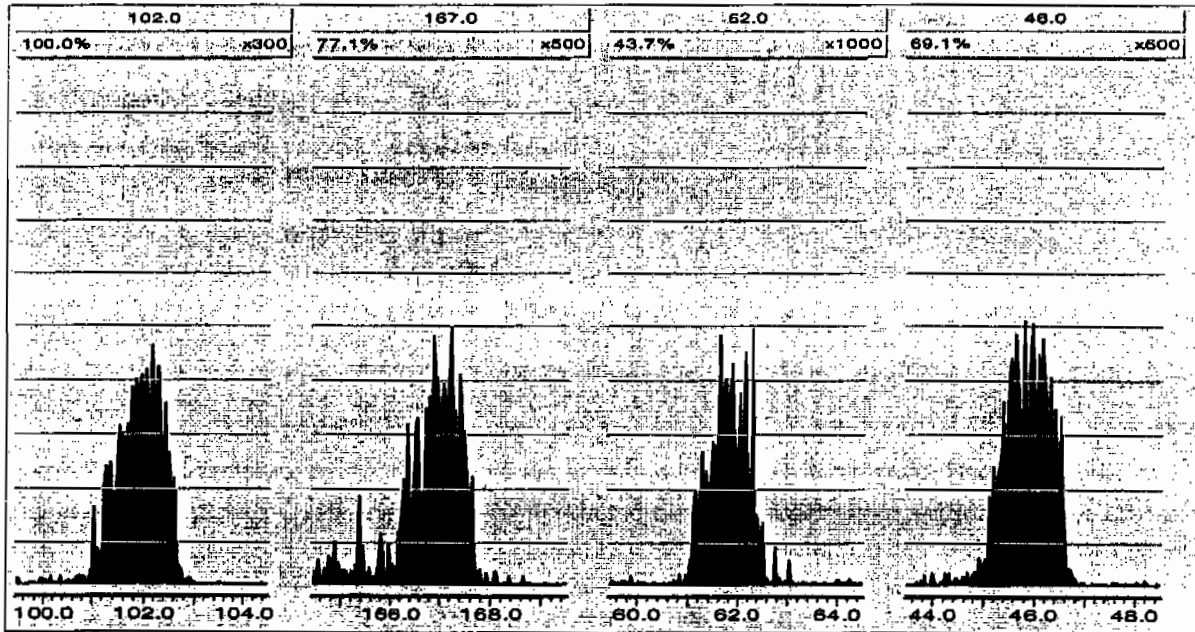


Quattro Micro Tune Parameters

Page 1

Parameter File: C:\MASSLYNX\NEW_EXP.PROVACQUDB\explosives04.IPR

Printed : Tue Jan 05 12:59:20 2010

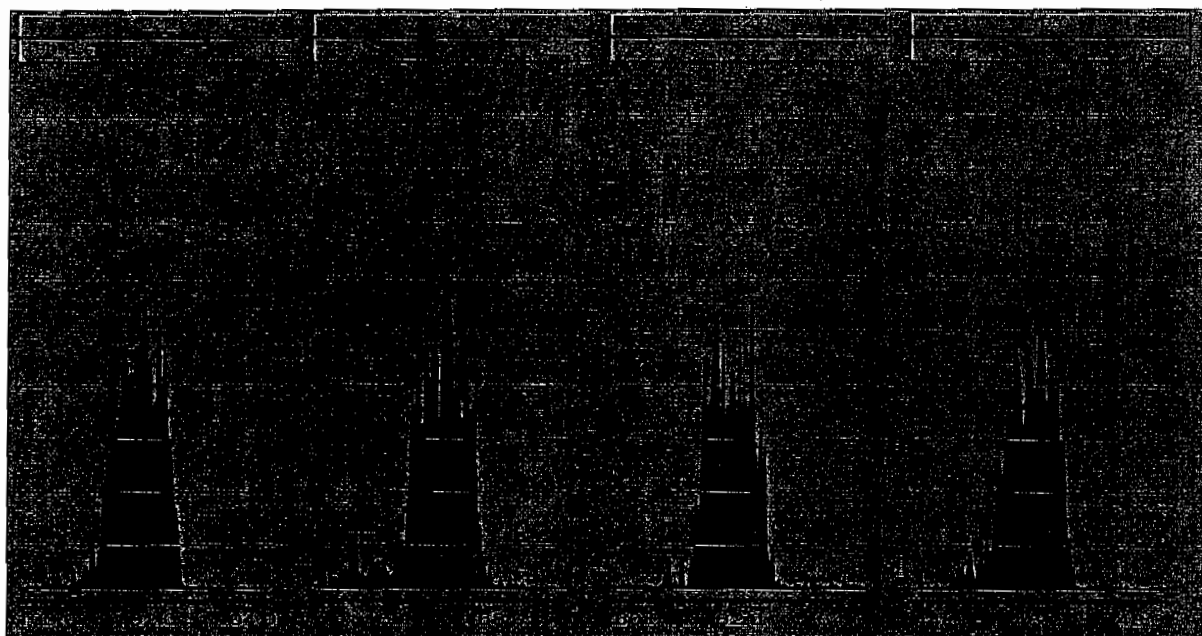


Quattro Micro Tune Parameters

Page 1

Parameter File: C:\MASSLYNXNEW_EXP.PROVACQUDB\explosives04.ipr

Printed : Fri Jan 08 17:13:08 2010



8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			2784.393	11.998	16081.533	17.529
Upper Limit			3619.7109	12.498	20905.9929	18.029
Lower Limit			1949.0751	11.498	11257.0731	17.029
MB for batch 937040	07-jan-10 17:58	EXP0105096a	3235.88	11.972	17910	17.466
LCS for batch 937040	07-jan-10 18:27	EXP0105097a	3327.49	11.971	18221.9	17.465
RE12-10-7557	07-jan-10 18:57	EXP0105098a	3386.51	11.972	20375.3	17.466
RE12-10-7558	07-jan-10 19:26	EXP0105099a	3144.28	11.946	17807.1	17.465
RE12-10-7555	07-jan-10 19:56	EXP0105100a	3306.29	11.946	19051.2	17.465
RE12-10-7556	07-jan-10 20:25	EXP0105101a	3174.2	11.972	18215	17.466
RE12-10-7562	07-jan-10 20:54	EXP0105102a	3296.3	11.946	18200.8	17.466
RE12-10-7561	07-jan-10 21:24	EXP0105103a	3105.26	11.972	16452.8	17.467
RE12-10-7561(243517008MS)	07-jan-10 21:54	EXP0105104a	3494.36	11.972	18137.8	17.466
RE12-10-7563	08-jan-10 00:21	EXP0105109a	3281.82	11.944	18290	17.455

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			2929.528	11.985	16886.317	17.3
Upper Limit			3808.3864	12.485	21952.2121	17.8
Lower Limit			2050.6696	11.485	11820.4219	16.8
RE12-10-7561(243517008MSD)	08-jan-10 23:09	EXP0108013a	3624.32	11.972	21071.5	17.291

IS1 (DNB) = 1,3-Dinitrobenzene-d4

IS2 (DNT) = 2,6-Dinitrotoluene-d3

Area Upper Limit = + 30% of average IS area from multipoint calibration

Area Lower Limit = - 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT

RT Lower Limit = -0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits

SAMPLE DATA

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7557

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517003

Sample Amount 2

Moisture: 14.1

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105098a

Date Analyzed: 07-JAN-10 18:57

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105098a

Date: 07-Jan-2010

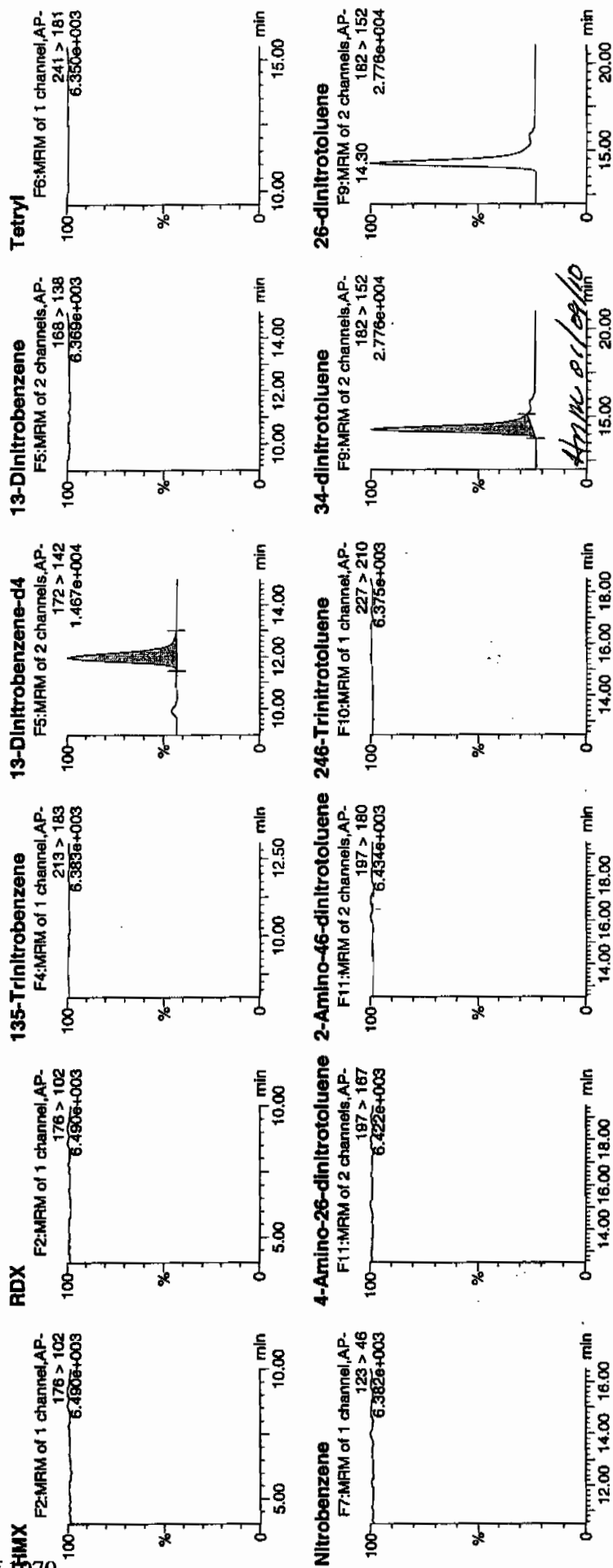
Time: 18:57:09

ID: 243517003

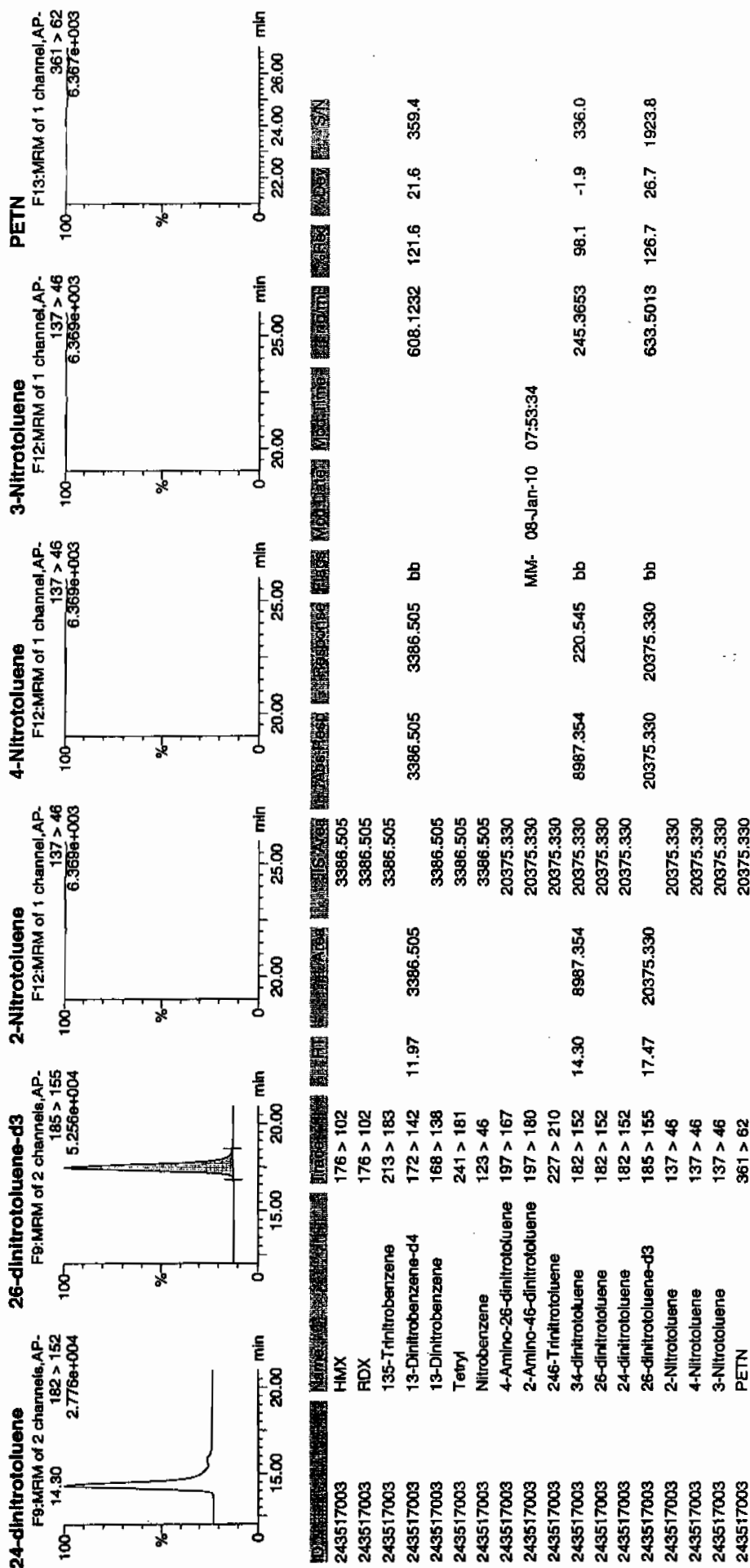
Vial: 3:1,C

1477
1/8/10

LAU 937041 / 21



Dataset: C:\MASSLYNX\New_Exp\PRO10510expA2.qld, Time: Fri Jan 08 08:07:47 2010



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7557

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517003

Sample Amount 2

Moisture: 14.1

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050042.wiff

Date Analyzed: 06-JAN-10 01:14

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

243517003
11/16/11

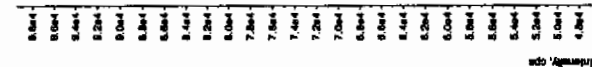
Sample Name: "243517003" Sample ID: "83704121" File: "EXS01050042.wif"

Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 1:14:15 AM
Modified: No

Intensity, cps



Sample Name: "243517003" Sample ID: "83704121" File: "EXS01050042.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 1:14:15 AM
Modified: No

Intensity, cps



83704121
11/16/11

Sample Name: "243517003" Sample ID: "93704121LRR" File: "EX501050042.wif"

Peak Name: "24-Oretrololeone" Mass(es): "162.1751.9 amu"

Comment: "LCX832125" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: N/A ng/mL

Calculated Conc: 1/6/2010

Acq. Date: 1:14:15 AM

Acq. Time: 1:14:15 AM

Modified: No

File Type: 22

File Name: 22

File Size: 1460.00 cpe

Peak Width: 0.00 sec

Peak Width: 3 points

Window Width: 15.0 sec

Window: 8.40 min

Release RT: No

Type: Valley

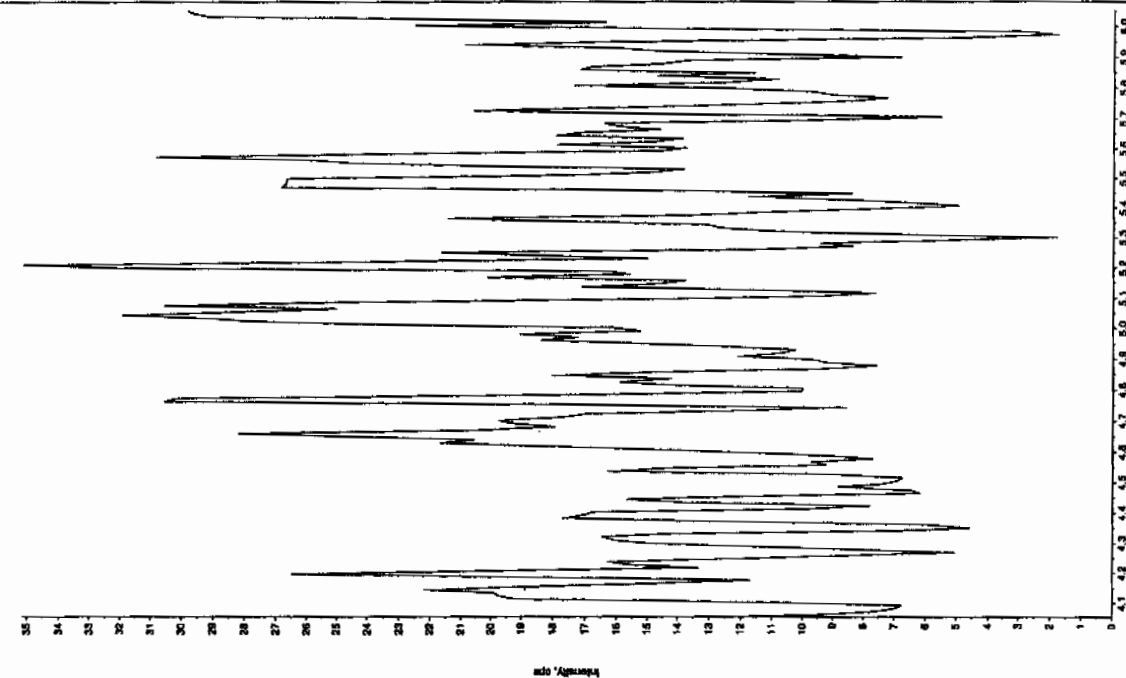
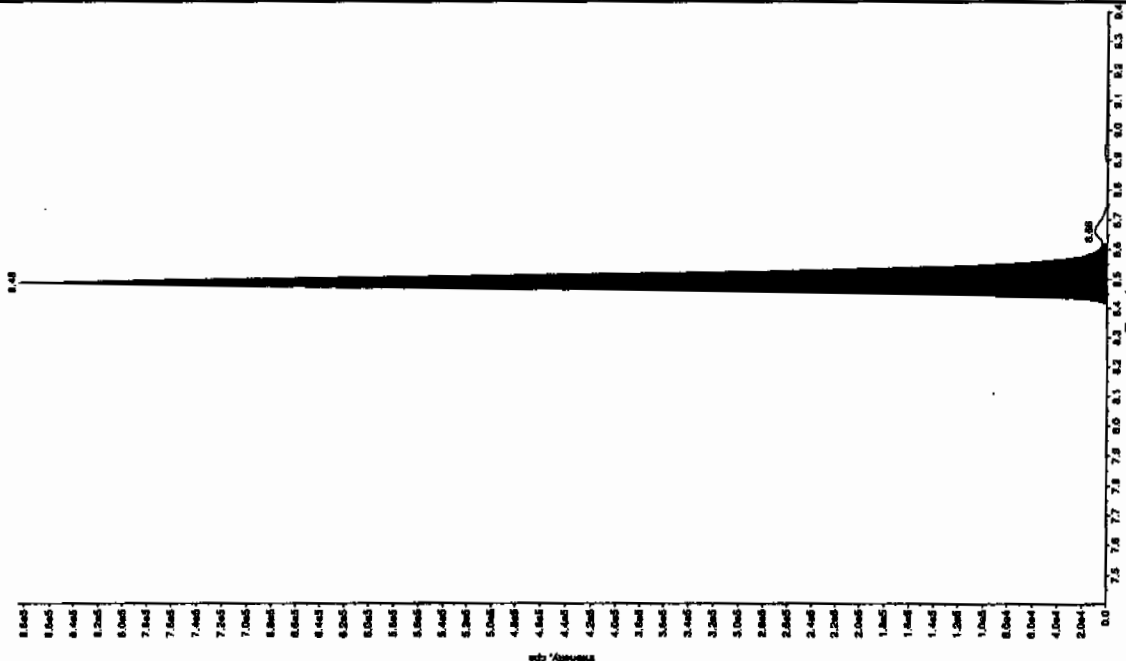
Antion Time: 8.48 min

Antion Time: 3.11e+006 counts

Antion Time: 885179.749 cps

Antion Time: 8.39 min

Antion Time: 8.52 min

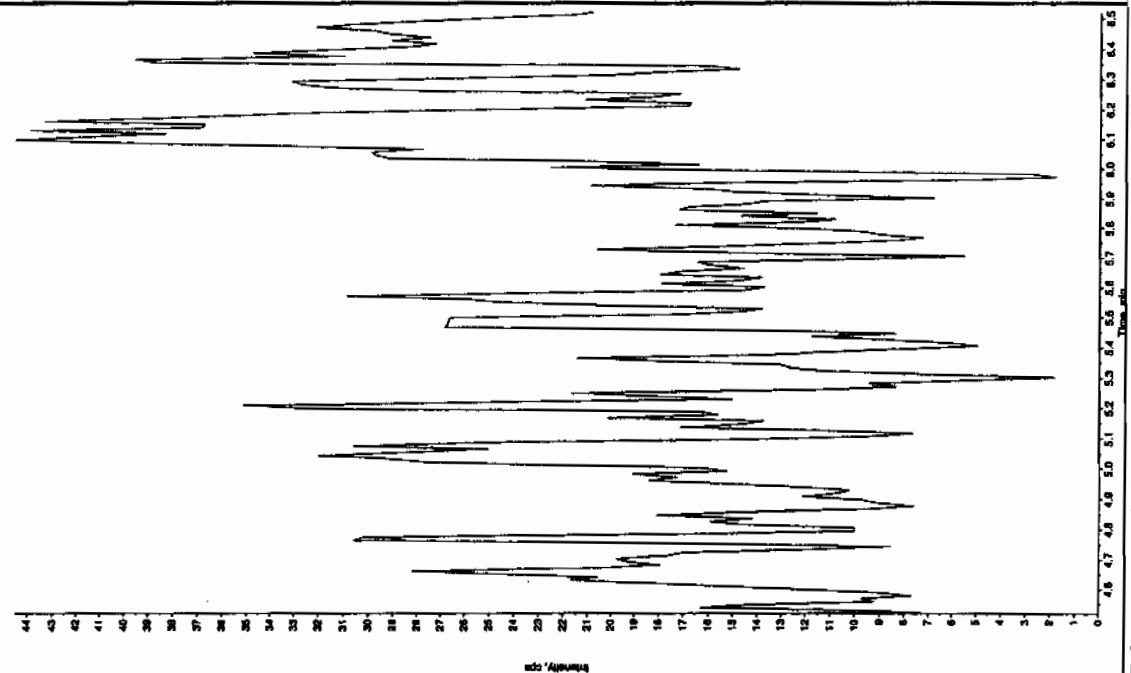
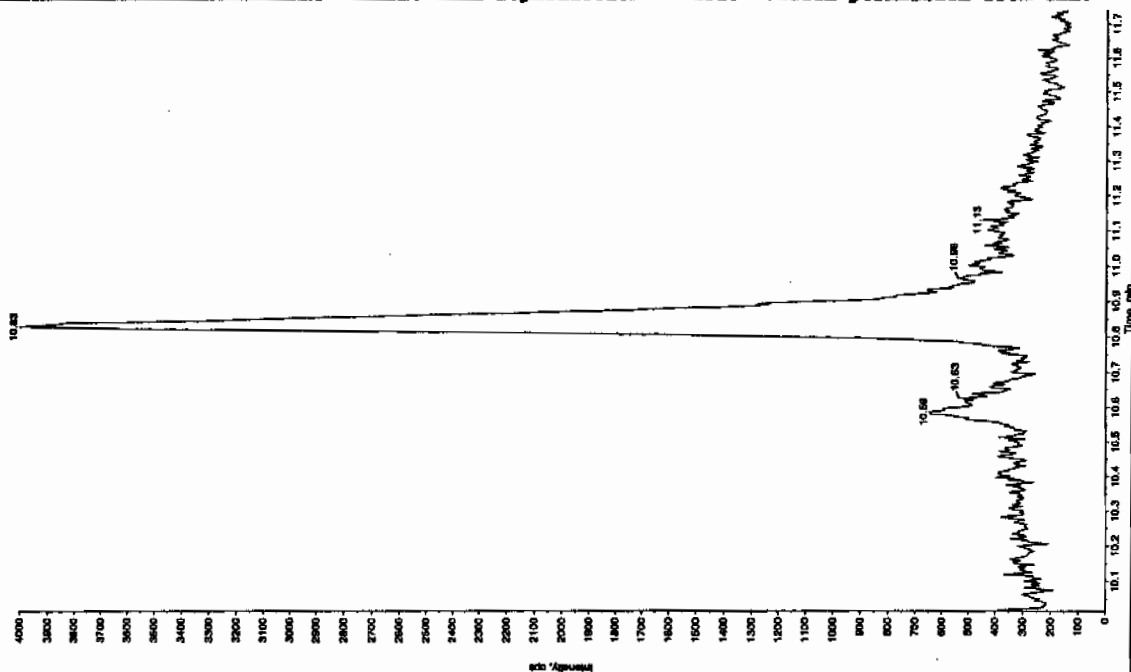


Sample Name: "243517003" Sample ID: "83704121L" File: "EX8301060042.wil"
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
 Comment: "LCX832125" Annotation: "

Sample Name: "243517003" Sample ID: "83704121L" File: "EX8301060042.wil"
 Peak Name: "24-Dimethoxy-6-nitrofluorene" Mass(es): "166.0/46.0 amu"
 Comment: "LCX832125" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 1:14:15 AM
 Modified: NO

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 1:14:15 AM
 Modified: NO



1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7558

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517004

Sample Amount 2

Moisture: 8.0

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105099a

Date Analyzed: 07-JAN-10 19:26

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

Printed: Fri Jan 08 08:09:43 2010, Page 51 of 97

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105099a

Date: 07-Jan-2010

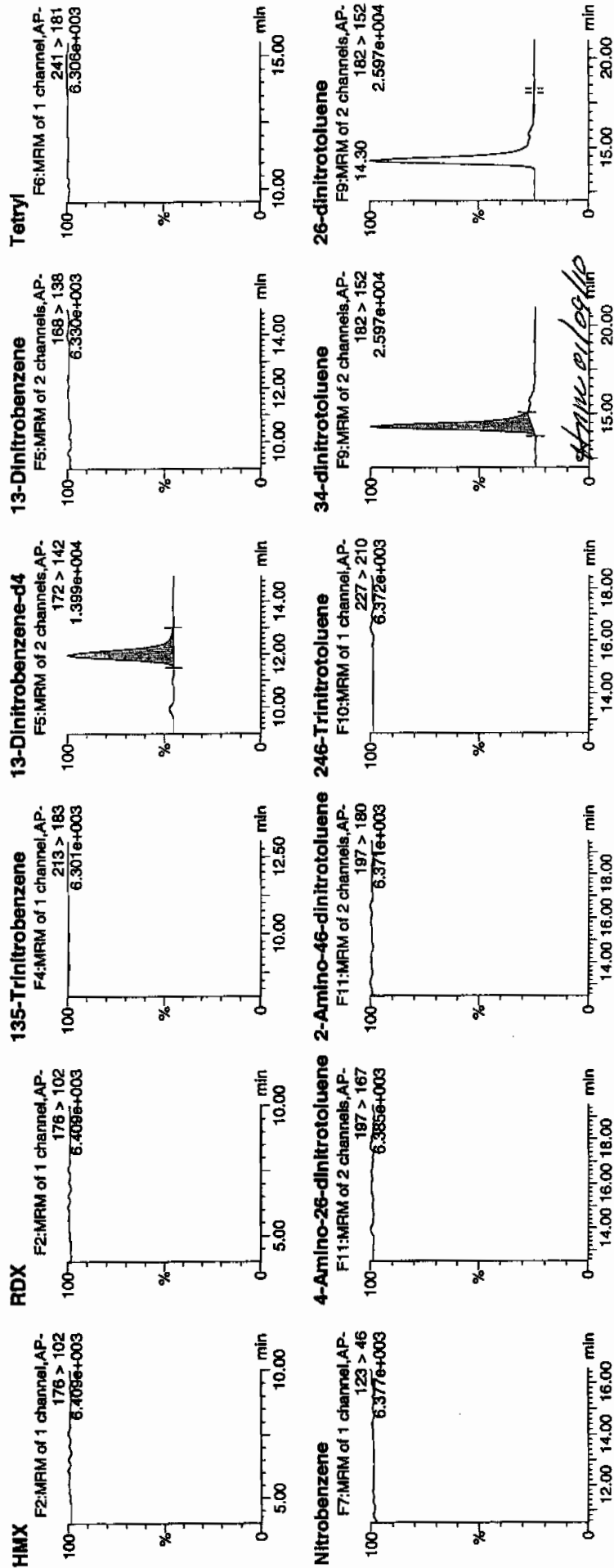
Time: 19:26:37

ID: 243517004

Vial: 3:1,D

1407
1/8/10

121
1937041 / 8022



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7558

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517004

Sample Amount 2

Molsture: 8.0

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050043.wiff

Date Analyzed: 06-JAN-10 01:29

Units: ug/kg

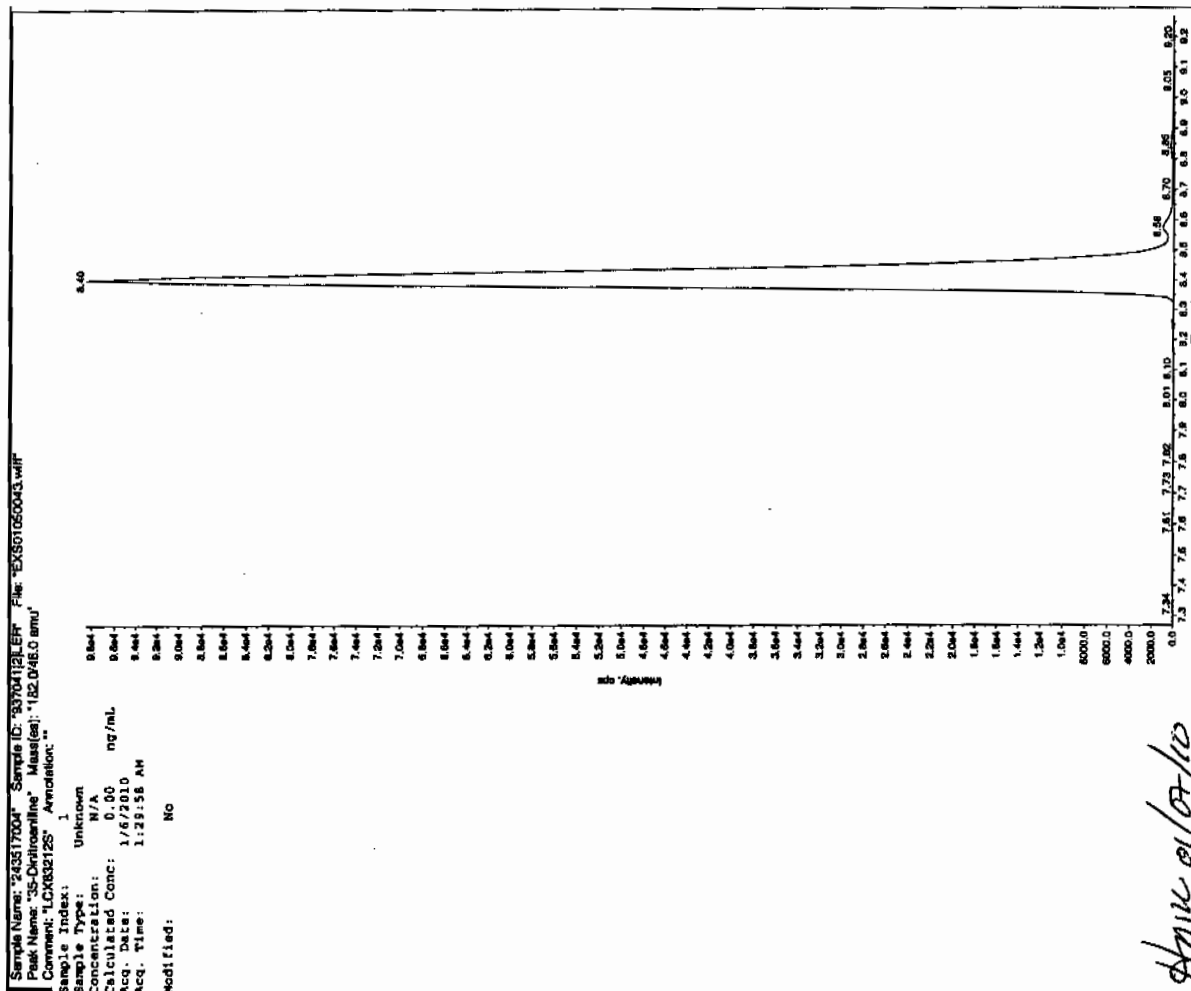
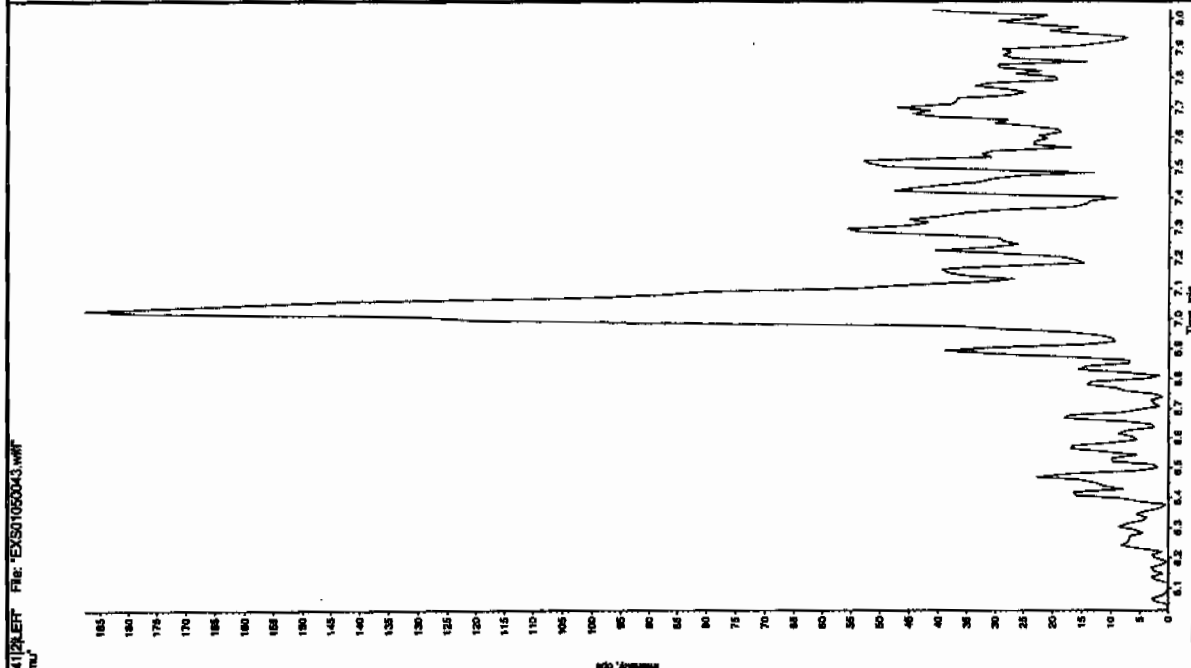
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

01/16/10
2/2/10

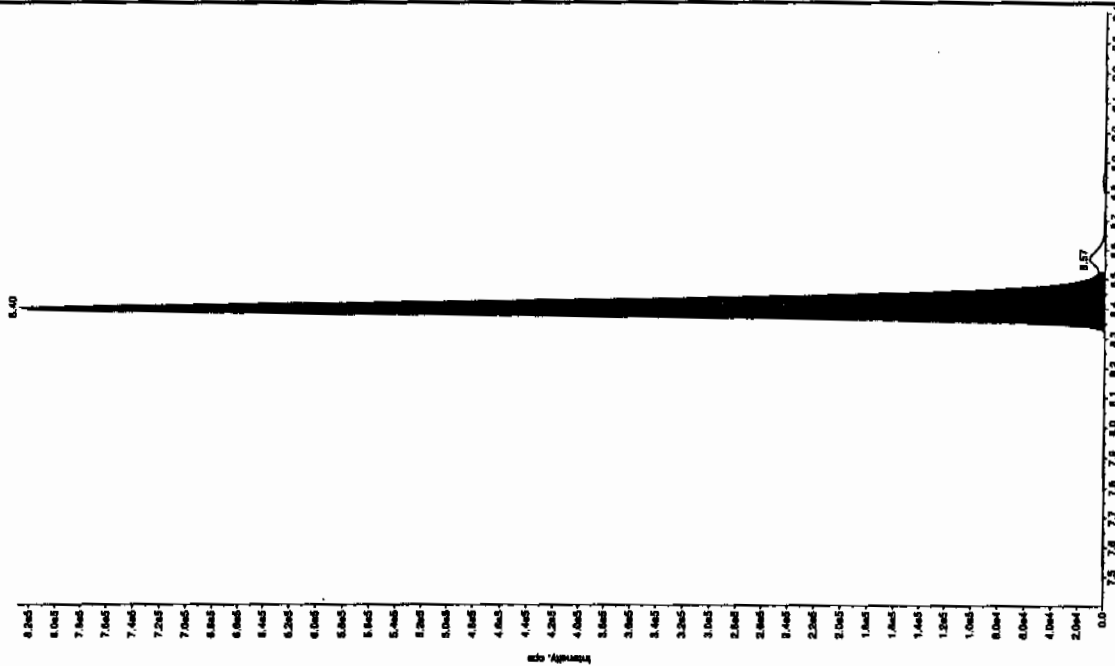
Sample Name: "243517004" Sample ID: "33704121" File: "EX501050043.wif"
Peak Name: "TATB" Mass(es): "257.2204.8 amu"
Comment: "LCX832125" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 1:29:58 AM
Modified: No



Amic 01/07/10

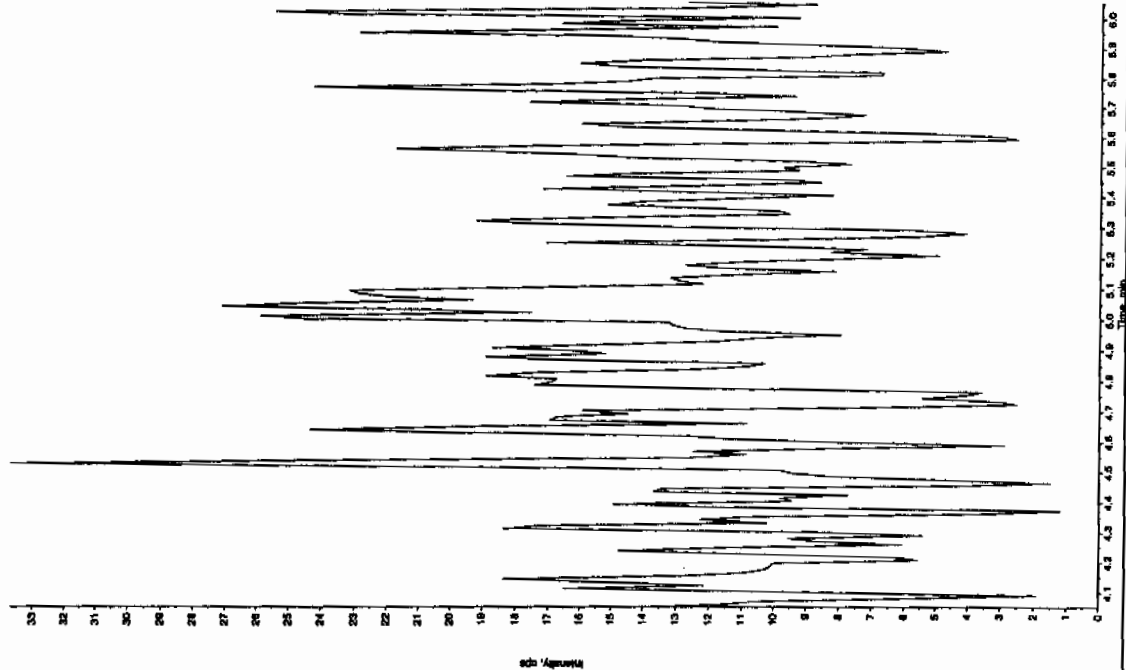
Sample Name: "243517004" Sample ID: "93704121ER" File: "EX501065043.wif"
 Peak Name: "24-Dinitrofluorene" Mass(es): "182.1761.9 amu"
 Comment: "LCX832125" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 252 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 1:29:58 AM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1460.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 15.0 sec
 Expected RT: 8.40 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 8.40 min
 Area: 3.14e+006 counts
 Height: 836322.705 cps
 Start Time: 8.26 min
 End Time: 8.53 min



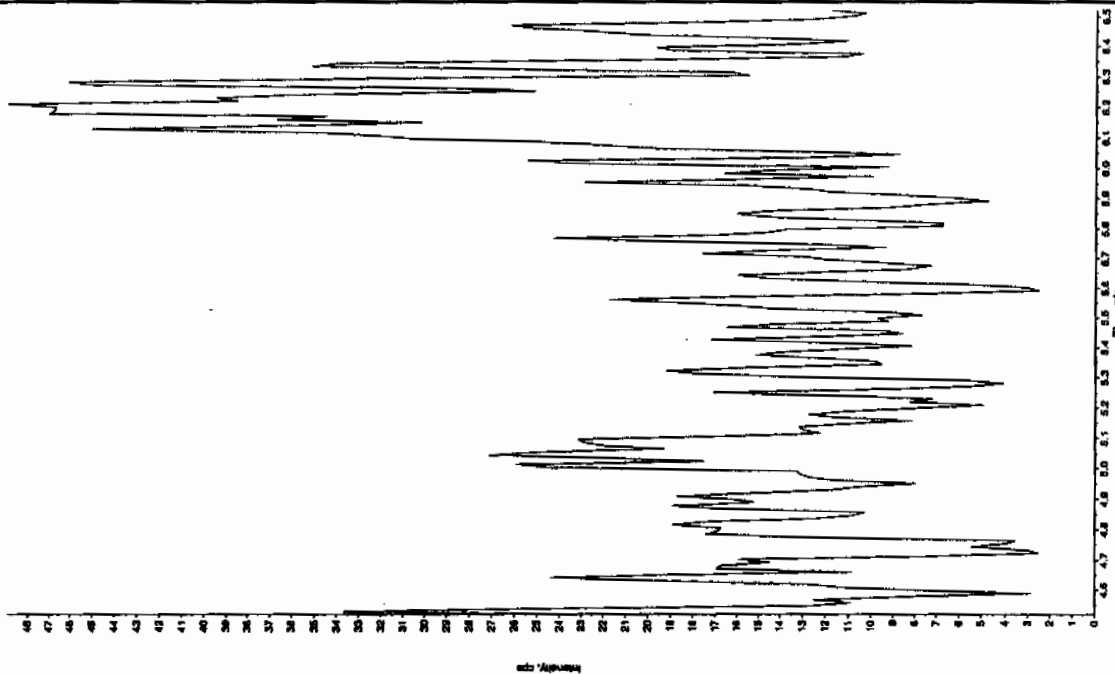
Sample Name: "243517004" Sample ID: "93704121ER" File: "EX501065043.wif"
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "166.046.0 amu"
 Comment: "LCX832125" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 1:29:58 AM
 Modified: No



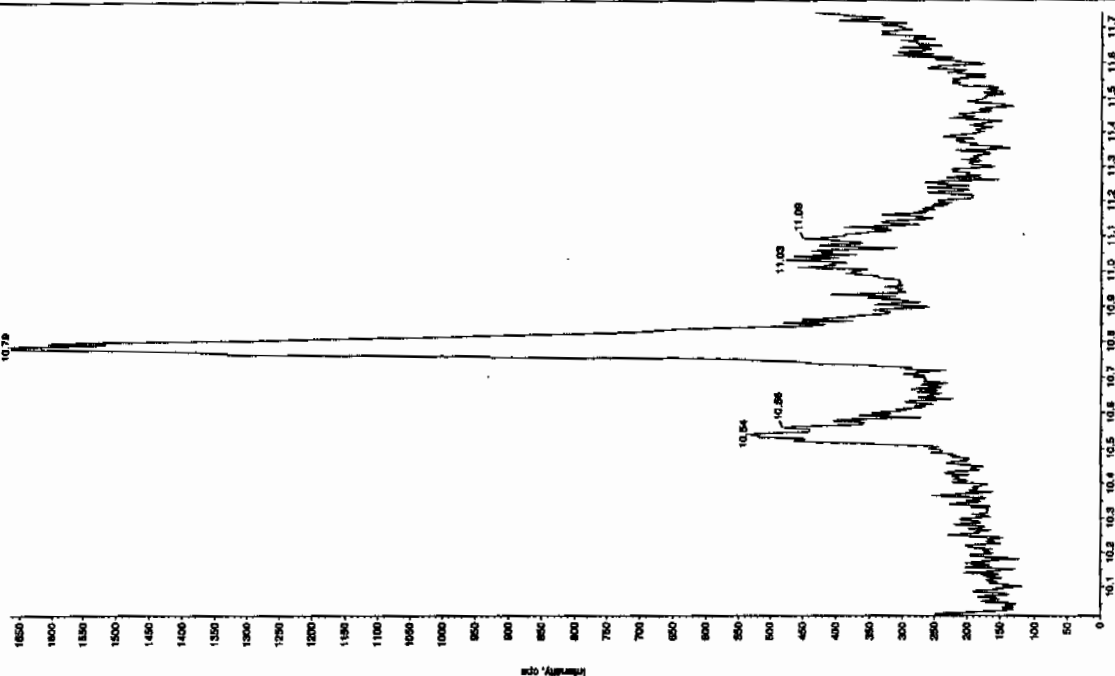
Sample Name: "243517004" Sample ID: "83704121ER" File: "EXS01050043.wif"
 Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.046 0 amu"
 Comment: "LCX532125" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 1:29:58 AM
 Modified: No



Sample Name: "243517004" Sample ID: "83704121ER" File: "EXS01050043.wif"
 Peak Name: "4-isopropyl phosphate" Mass(es): "389.161 0 amu"
 Comment: "LCX532125" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 1:29:58 AM
 Modified: No



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7555

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517005

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105100a

Date Analyzed: 07-JAN-10 19:56

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105100a

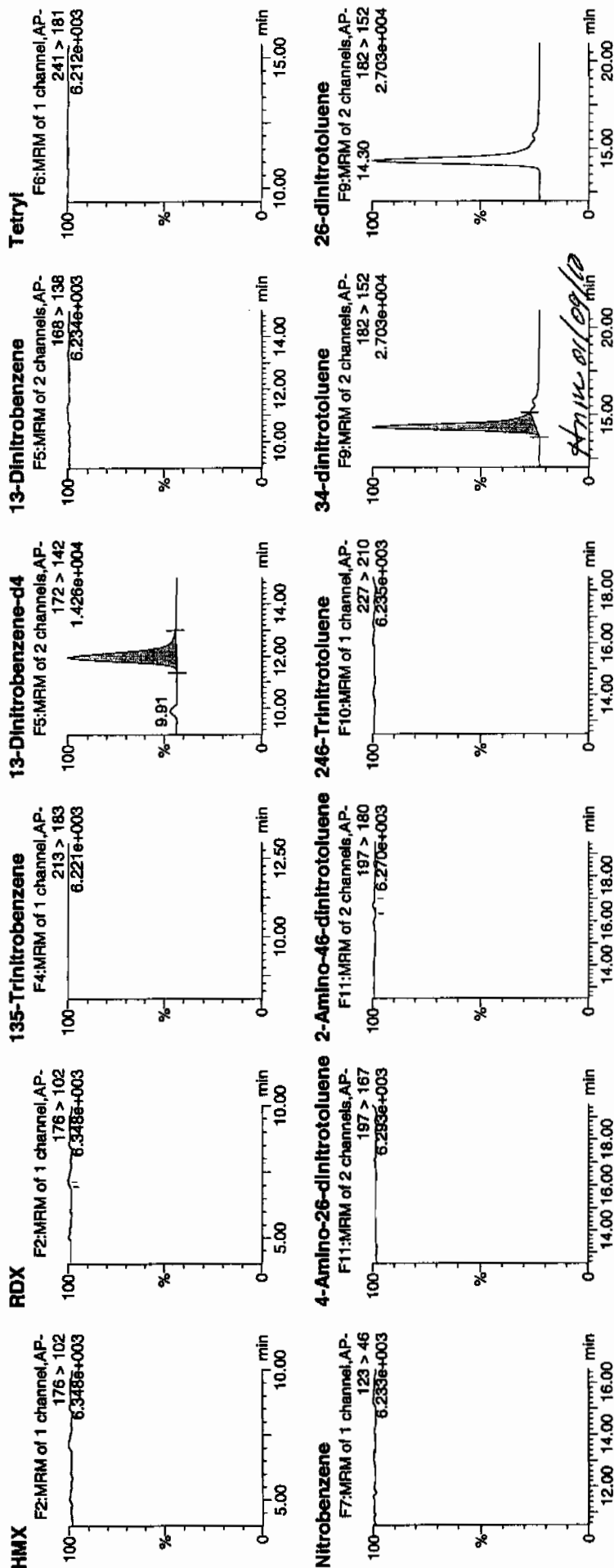
Date: 07-Jan-2010

Time: 19:56:05

ID: 243517005

Vial: 3:1,E

Handwritten: 1077
1/8/10
1947041 | 21

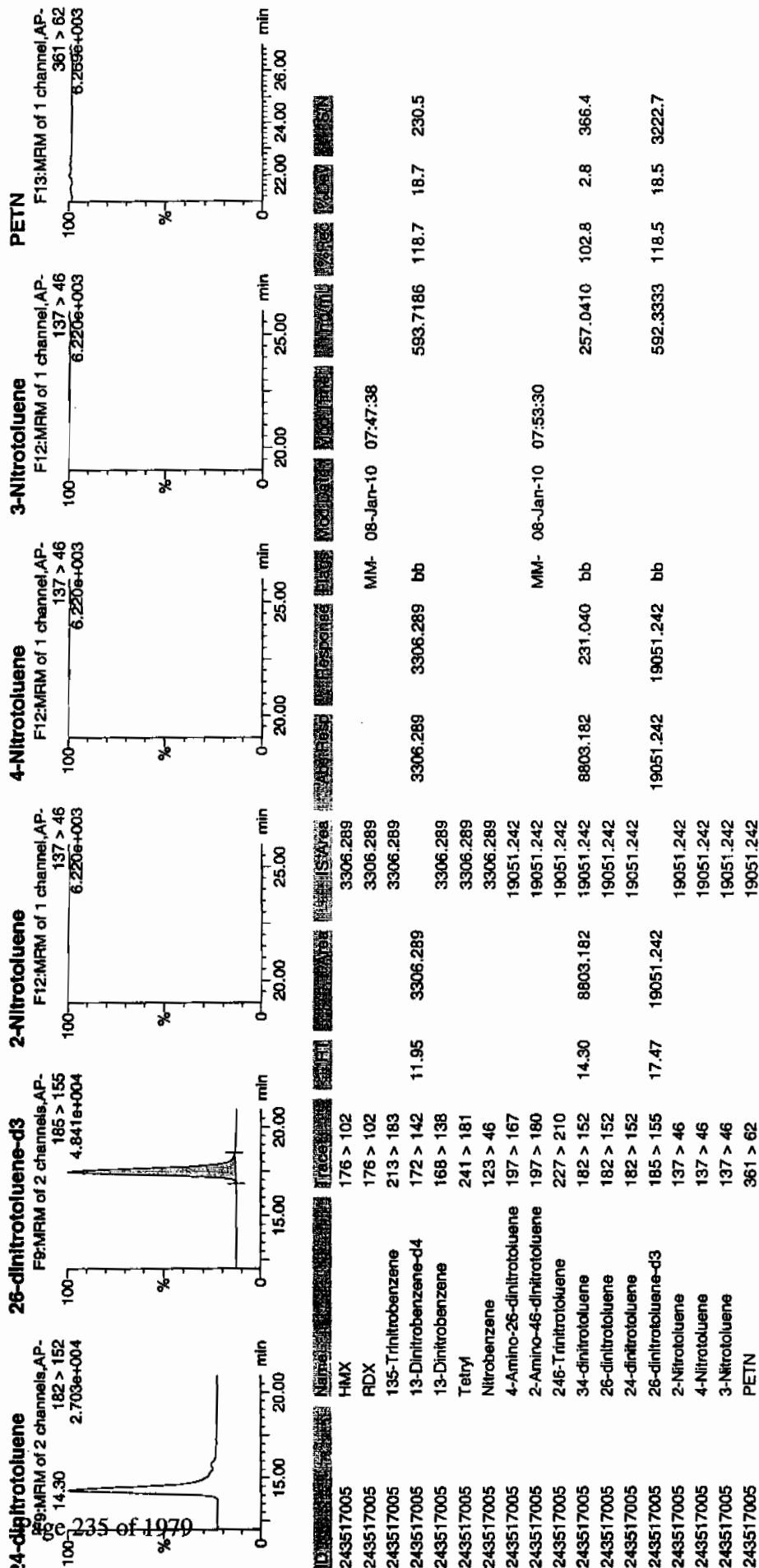


Quantify Sample Report

IEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Jan 08 08:09:43 2010, Page 54 of 97

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7555

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517005

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050044.wiff

Date Analyzed: 06-JAN-10 01:45

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

Sample Name: "243517005" Sample ID: "83704121LRF" File: "EXS01050044.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCMS3212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown

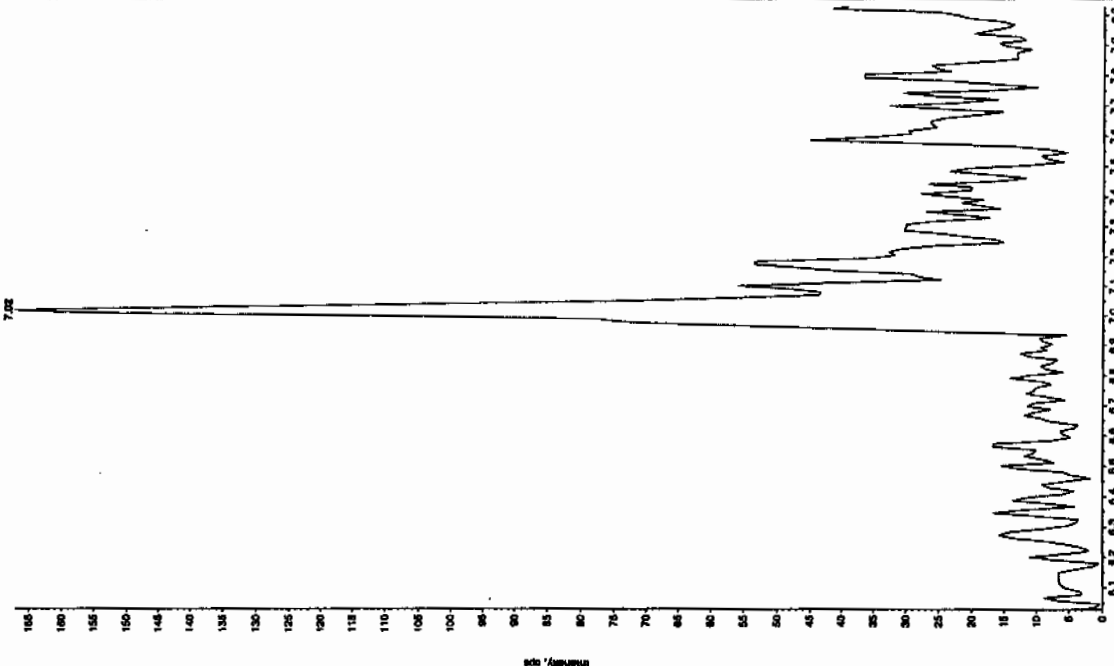
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 1/6/2010

Acq. Time: 1:45:41 AM

Modified: No



Sample Name: "243517005" Sample ID: "83704121LRF" File: "EXS01050044.wif"

Peak Name: "35-Dihydroxy" Mass(es): "182.046.0 amu"

Comment: "LCMS3212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown

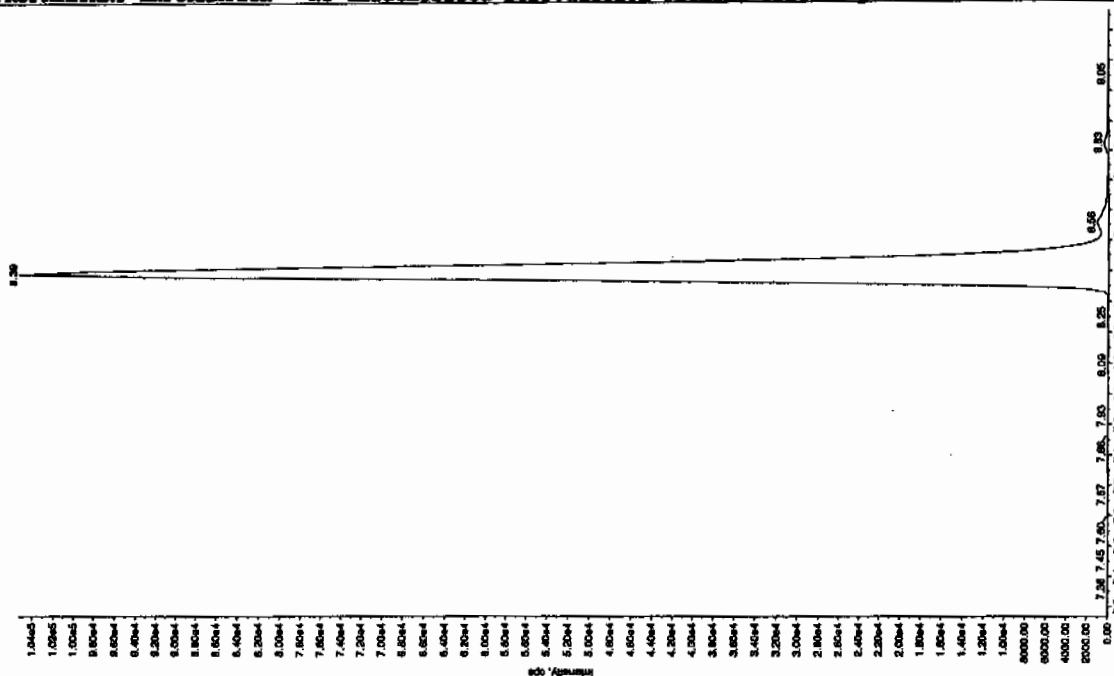
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 1/6/2010

Acq. Time: 1:45:41 AM

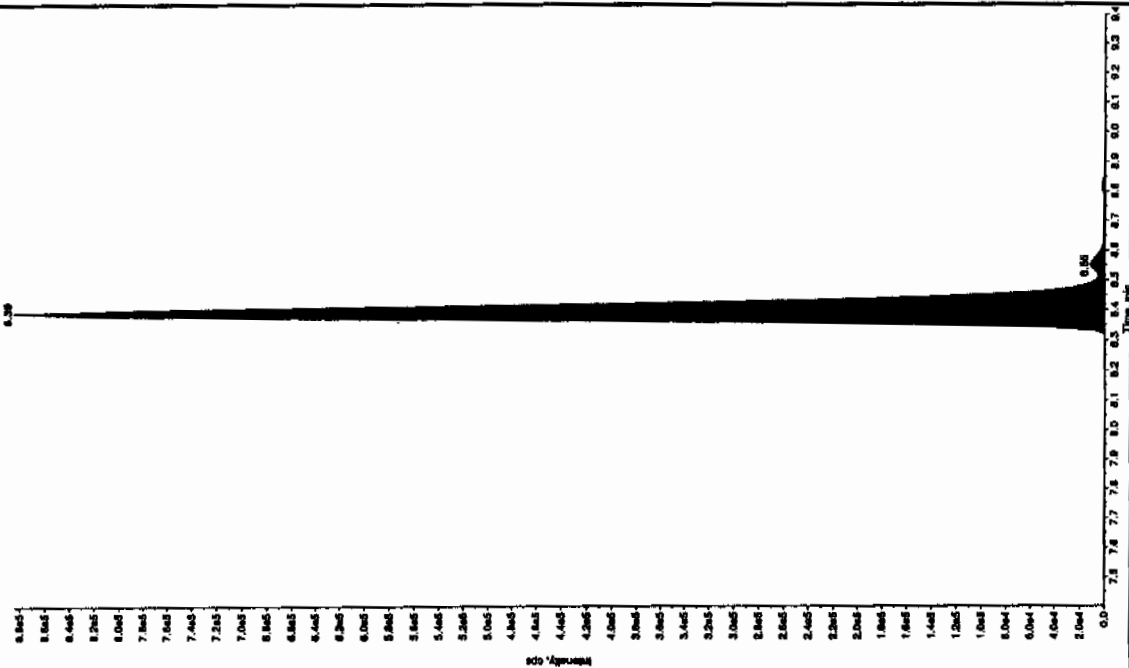
Modified: No



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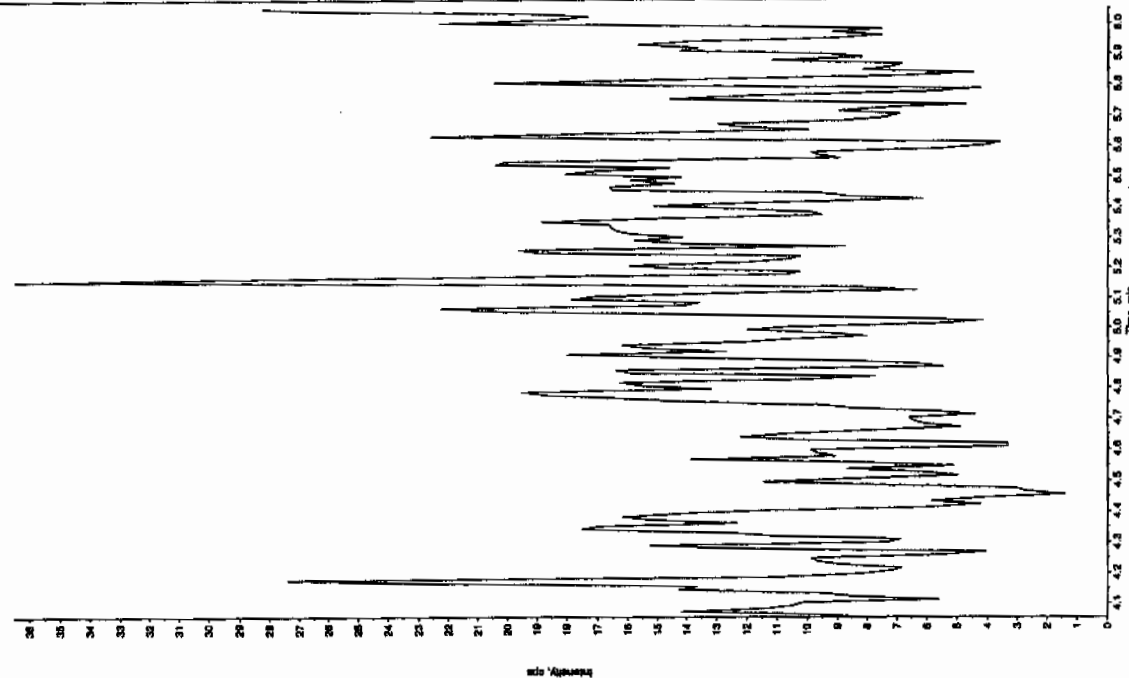
Sample Name: "243517005" Sample ID: "83704121ER" File: "EX501050044.wif"
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.17151.8 amu"
 Comment: "LCX832125" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A ng/mL
 Calculated Conc: 1/6/2010
 Acq. Date: 1/6/2010
 Acq. Time: 1:45:41 AM
 Modified: No
 Method: No
 Peak: Algorithm: IntelliQuan - IQA
 Peak Height: 1460.00 cps
 Width Peak Width: 0.00 sec
 Smoothing Width: 3 points
 Window: 15.0 sec
 Expected RT: 8.40 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 8.39 min
 Area: 3.30e+006 counts
 Height: 884823.474 cps
 Start Time: 8.30 min
 End Time: 8.74 min



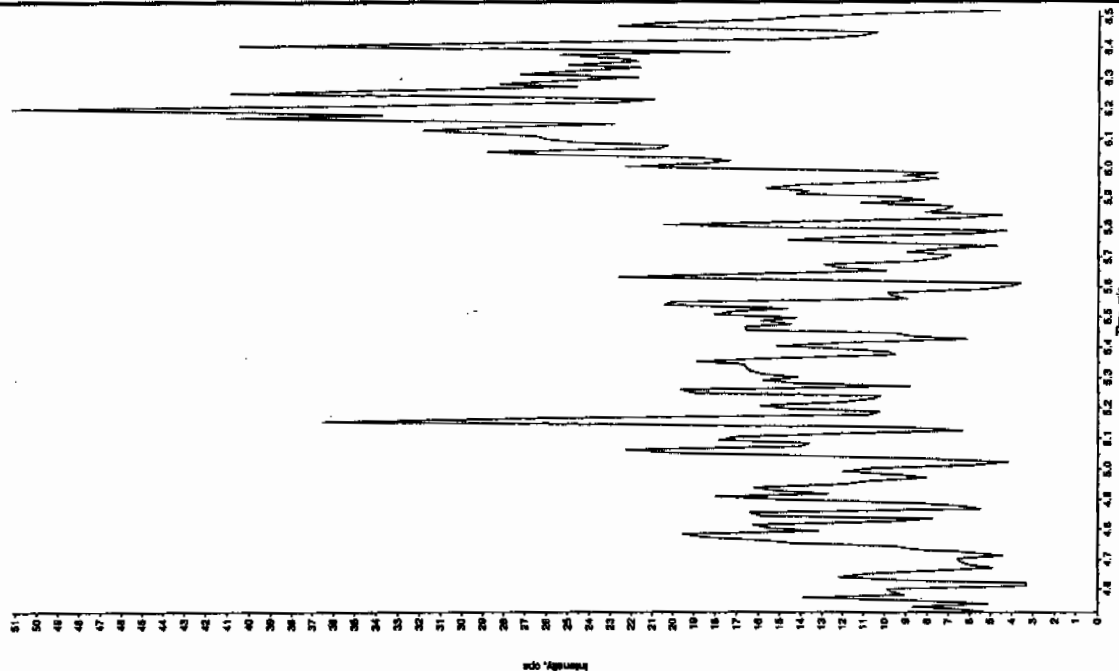
Sample Name: "243517005" Sample ID: "83704121ER" File: "EX501050044.wif"
 Peak Name: "28-Dinitro-4-nitrofluorene" Mass(es): "186.0468.0 amu"
 Comment: "LCX832125" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A ng/mL
 Calculated Conc: 0.00
 Acq. Date: 1/6/2010
 Acq. Time: 1:45:41 AM
 Modified: No



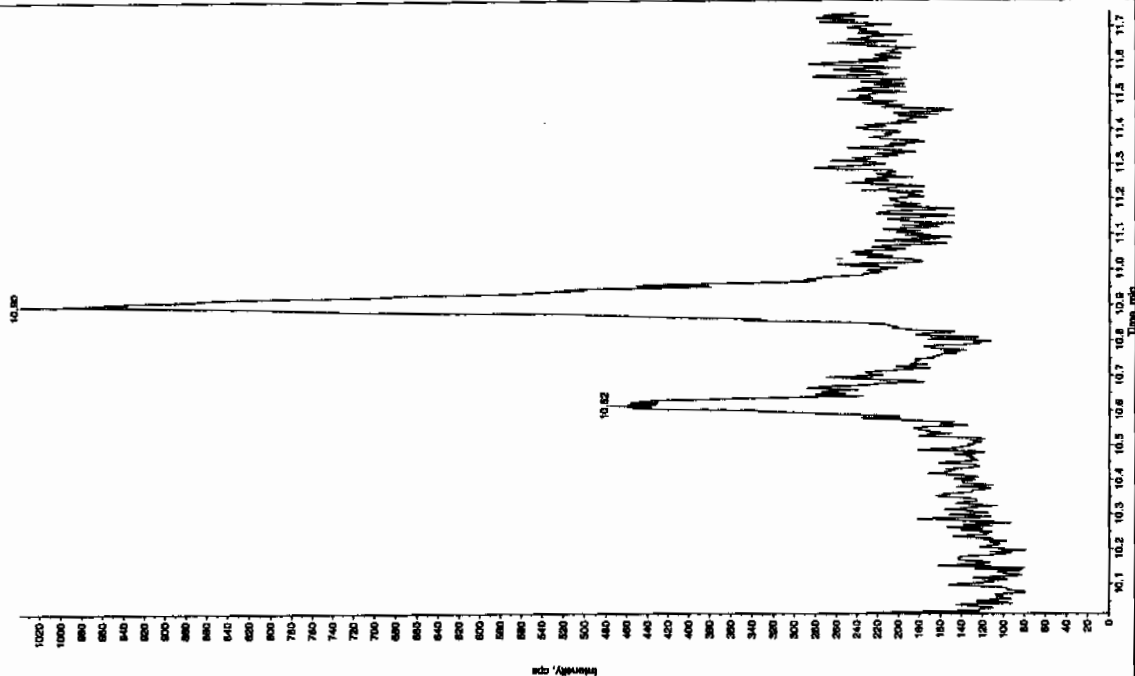
Sample Name: "243517005" Sample ID: "93704121LIF" File: "EX501050044.wif"
 Peak Name: "243517005" Peak Name: "243517005" Mass(es): "166.046.0 amu"
 Comment: "LCMS832125" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 1:45:41 AM
 Modified: No



Sample Name: "243517005" Sample ID: "93704121LIF" File: "EX501050044.wif"
 Peak Name: "243517005" Peak Name: "243517005" Mass(es): "353.191.0 amu"
 Comment: "LCMS832125" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 1:45:41 AM
 Modified: No



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7556

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517006

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105101a

Date Analyzed: 07-JAN-10 20:25

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Name: C:\MASSLYNX\NEW_EXP\PRO\DATA\EXP0105101a

Date: 07-Jan-2010

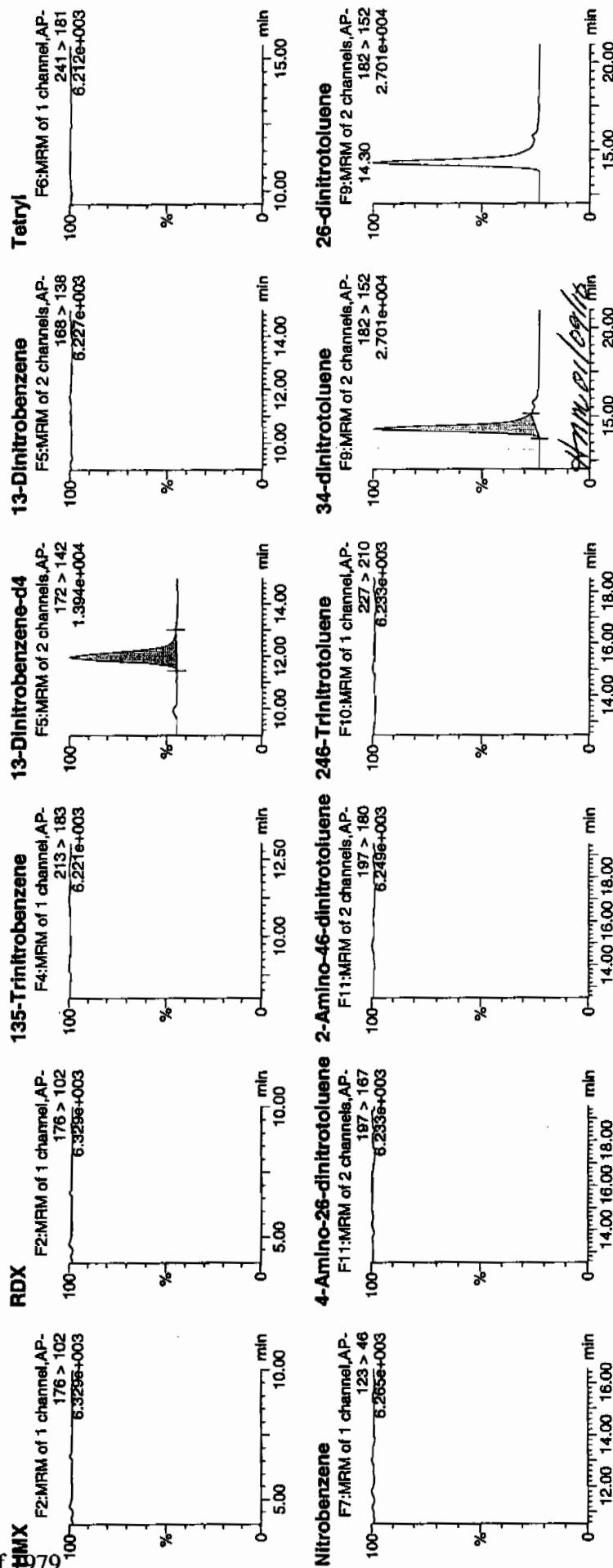
Time: 20:25:32

ID: 243517006

Vial: 3:1,F

1/8/10

WAV 937041 / 800 / 21

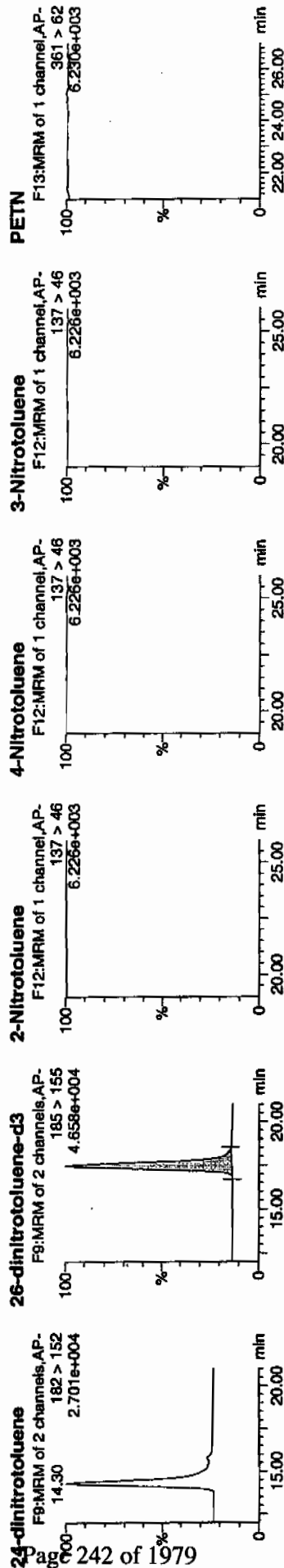


Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

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Dataset: C:\MASSLYNX\New_Exp\PRO1010510expA2.qld, Time: Fri Jan 08 08:07:47 2010



24-dinitrotoluene	26-dinitrotoluene-d3	2-Nitrotoluene	4-Nitrotoluene	3-Nitrotoluene	PETN
F8:MRM of 2 channels, AP- 182 > 152 2.701e+004	F8:MRM of 2 channels, AP- 185 > 155 4.858e+004	F12:MRM of 1 channel, AP- 137 > 46 6.226e+003	F12:MRM of 1 channel, AP- 137 > 46 6.226e+003	F12:MRM of 1 channel, AP- 137 > 46 6.226e+003	F13:MRM of 1 channel, AP- 361 > 62 6.230e+003
242 of 1979					
243517006	HMZ	3174.196	3174.196	3174.196	3174.196
243517006	RDX	3174.196	3174.196	3174.196	3174.196
243517006	135-Trinitrobenzene	213 > 183	3174.196	3174.196	3174.196
243517006	13-Dinitrobenzene-d4	172 > 142	3174.196	3174.196	3174.196
243517006	13-Dinitrobenzene	168 > 138	3174.196	3174.196	3174.196
243517006	Tetryl	241 > 181	3174.196	3174.196	3174.196
243517006	Nitrobenzene	123 > 46	3174.196	3174.196	3174.196
243517006	4-Amino-26-dinitrotoluene	197 > 167	3174.196	3174.196	3174.196
243517006	2-Amino-46-dinitrotoluene	197 > 180	3174.196	3174.196	3174.196
243517006	246-Trinitrotoluene	227 > 210	3174.196	3174.196	3174.196
243517006	34-dinitrotoluene	182 > 152	3174.196	3174.196	3174.196
243517006	26-dinitrotoluene	182 > 152	3174.196	3174.196	3174.196
243517006	24-dinitrotoluene	182 > 152	3174.196	3174.196	3174.196
243517006	26-dinitrotoluene-d3	185 > 155	3174.196	3174.196	3174.196
243517006	2-Nitrotoluene	137 > 46	3174.196	3174.196	3174.196
243517006	4-Nitrotoluene	137 > 46	3174.196	3174.196	3174.196
243517006	3-Nitrotoluene	137 > 46	3174.196	3174.196	3174.196
243517006	PETN	361 > 62	3174.196	3174.196	3174.196

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7556

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517006

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050045.wiff

Date Analyzed: 06-JAN-10 02:01

Units: ug/kg

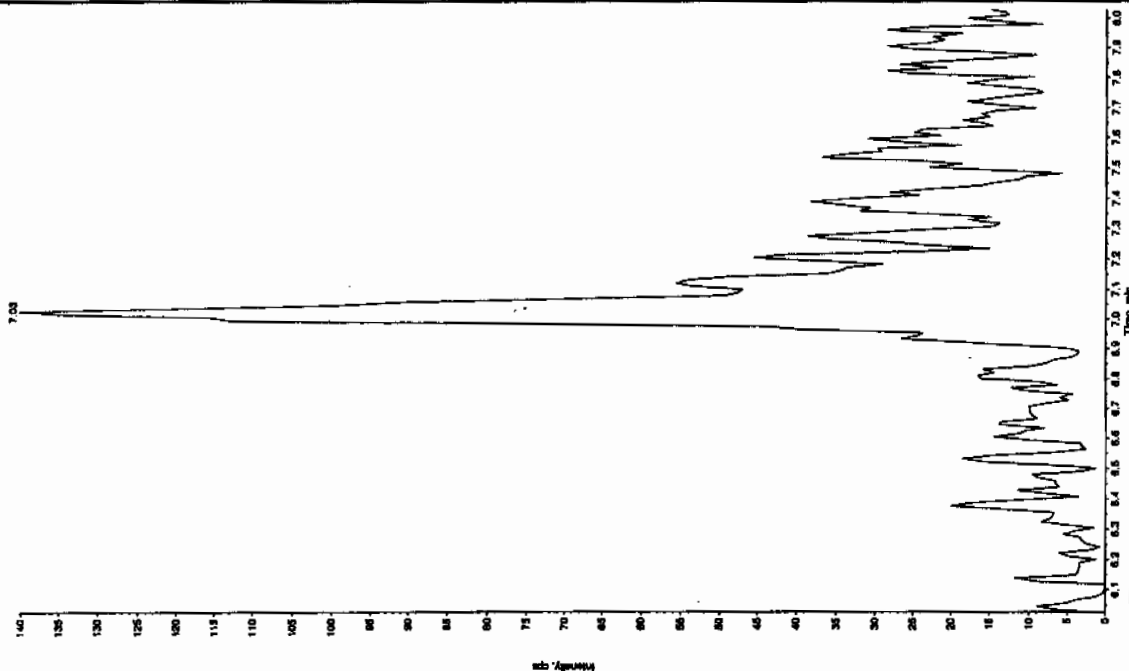
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

Sample Name: 243517005 Sample ID: 93704121LER File: EXS01050045.wif
 Peak Name: "35-Dihydrocodeine" Mass(es): 182.0/46.0 amu
 Comment: "LCX832125" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 2:01:24 AM
 Modified: No



Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 2:01:24 AM
 Modified: No

Handwritten signature: Anne 01/07/10

Handwritten note: 01/11/10

Sample Name: "34-Dinitrochlorobenzene" Sample ID: "83704121LRF" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

Sample Index: 1
 Sample Name: "34-Dinitrochlorobenzene"
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 2:01:24 AM
 Modified: No

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

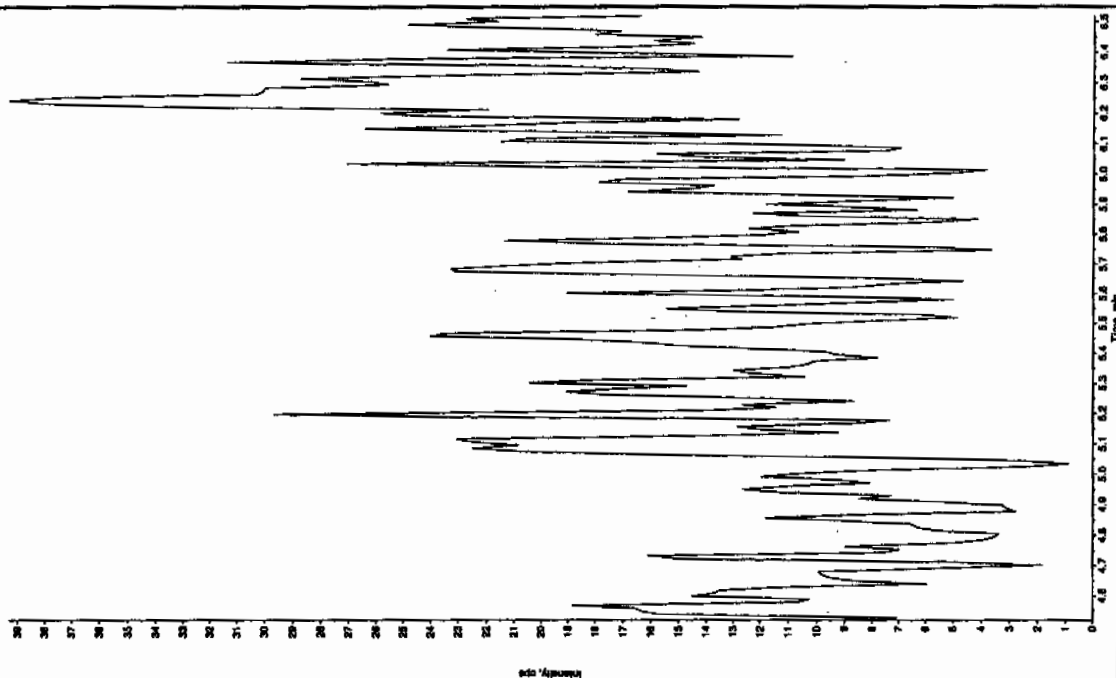
File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

File Name: "34-Dinitrochlorobenzene" File: "EX0501050045.wif"
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.17151.9 amu"
 Comment: "LCN632125" Annotation: "

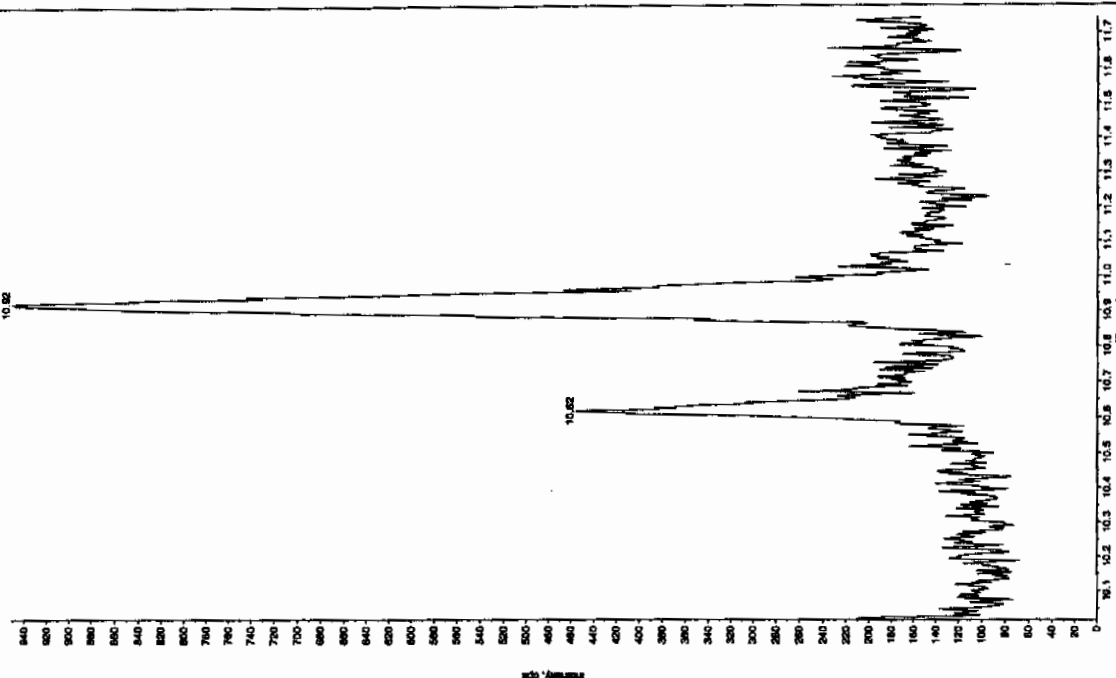
Sample Name: '24517005' Sample ID: '33704128.EP' File: 'EXS01050045.wif'
Peak Name: '24 Diethylphosphat' Mass(es): '168.0460 amu'
Comment: 'LCX832125' Annotation: ''

Sample ID: 1
Sample Name: 24517005
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/8/2010
Acq. Time: 2:01:24 AM
Modified: No



Sample Name: '24517005' Sample ID: '33704128.EP' File: 'EXS01050045.wif'
Peak Name: '24 Diethylphosphat' Mass(es): '355.1910 amu'
Comment: 'LCX832125' Annotation: ''

Sample ID: 1
Sample Name: 24517005
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/8/2010
Acq. Time: 2:01:24 AM
Modified: No



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7562

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517007

Sample Amount 2

Moisture: 9.9

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105102a

Date Analyzed: 07-JAN-10 20:54

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Jan 08 08:09:43 2010, Page 57 of 97

Dataset: C:\MASSLYNX\New_Exp\PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Name: C:\MASSLYNX\NEW_EXP\PRO\data\EXP0105102a

Date: 07-Jan-2010

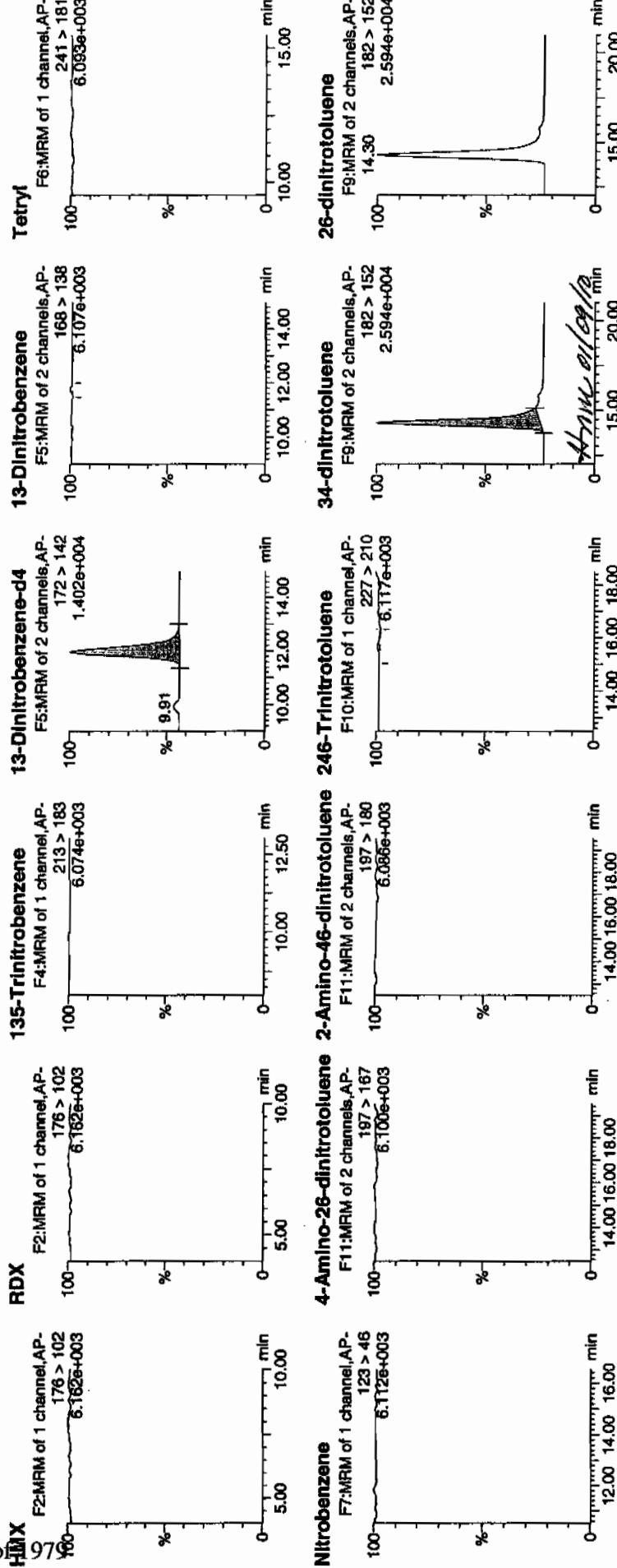
Time: 20:54:59

ID: 243517007

Vol: 3.2, A

not
1/8/10

LAU 937041 / Soars / 21



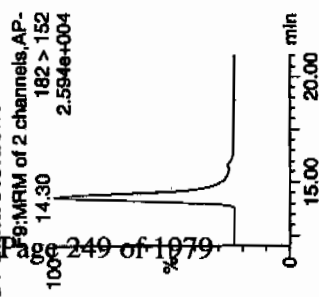
Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

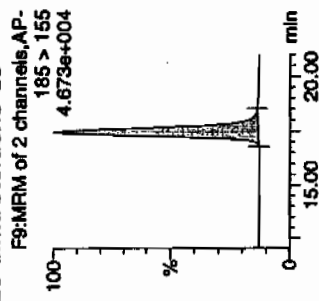
Printed: Fri Jan 08 08:09:43 2010, Page 58 of 97

Dataset: C:\MASSLYNX\New_Exp\PRO1010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

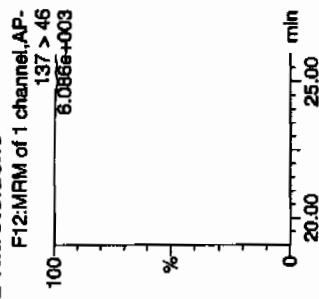
24-dinitrotoluene



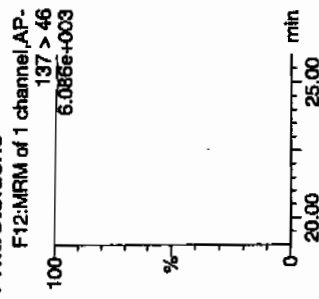
26-dinitrotoluene-d3



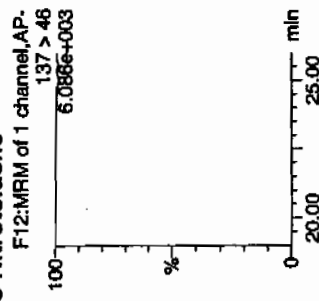
2-Nitrotoluene



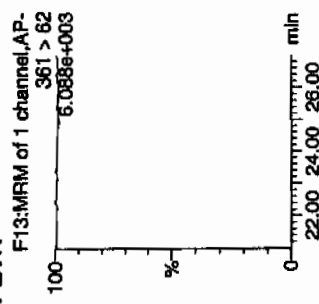
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Retention Time (min)	Area	Height	Width	MM
243517007	HMZ	176 > 102	3296.296			
243517007	RDX	176 > 102	3296.296			
243517007	135-Trinitrobenzene	213 > 183	3296.296			
243517007	13-Dinitrobenzene-d4	172 > 142	11.95			
243517007	13-Dinitrobenzene	168 > 138	3296.296			
243517007	Tetryl	241 > 181	3296.296			
243517007	Nitrobenzene	123 > 46	3296.296			
243517007	4-Amino-26-dinitrotoluene	197 > 167	18200.844			
243517007	2-Amino-46-dinitrotoluene	197 > 180	18200.844			
243517007	246-Trinitrotoluene	227 > 210	18200.844			
243517007	34-dinitrotoluene	182 > 152	18200.844			
243517007	26-dinitrotoluene	182 > 152	18200.844			
243517007	24-dinitrotoluene	182 > 152	18200.844			
243517007	26-dinitrotoluene-d3	185 > 155	17.47			
243517007	2-Nitrotoluene	137 > 46	18200.844			
243517007	4-Nitrotoluene	137 > 46	18200.844			
243517007	3-Nitrotoluene	137 > 46	18200.844			
243517007	PETN	361 > 62	18200.844			

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7562

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517007

Sample Amount 2

Moisture: 9.9

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050046.wiff

Date Analyzed: 06-JAN-10 02:17

Units: ug/kg

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

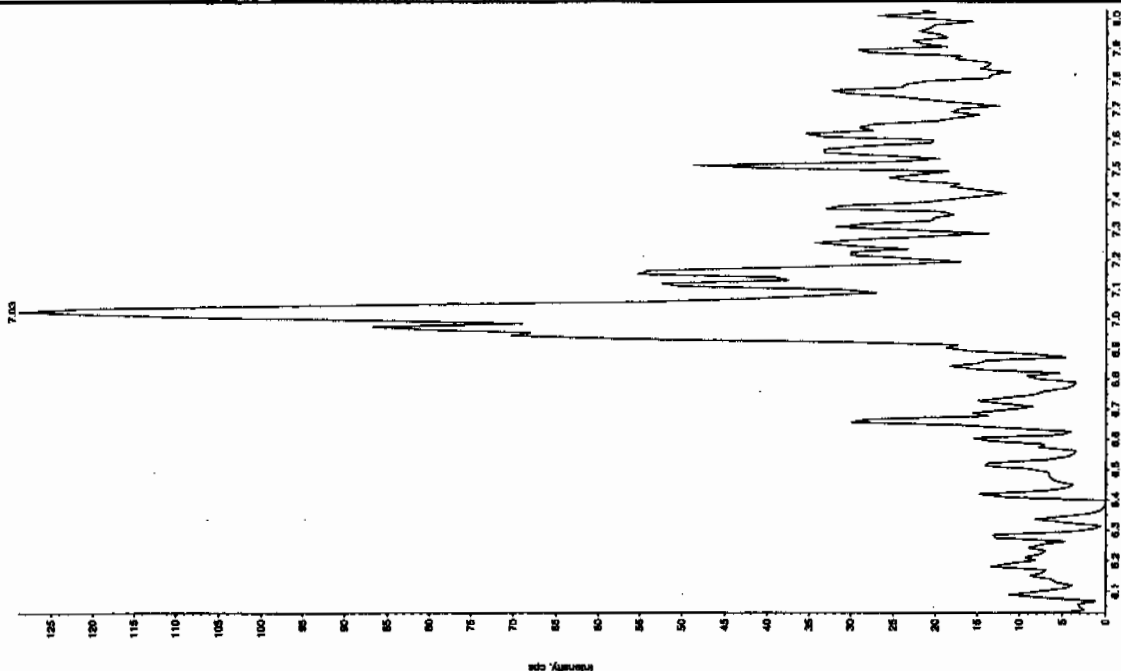
*Concentration =

Instrument Value	X	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		<u>Sample Amount</u>		

01/10
Jax

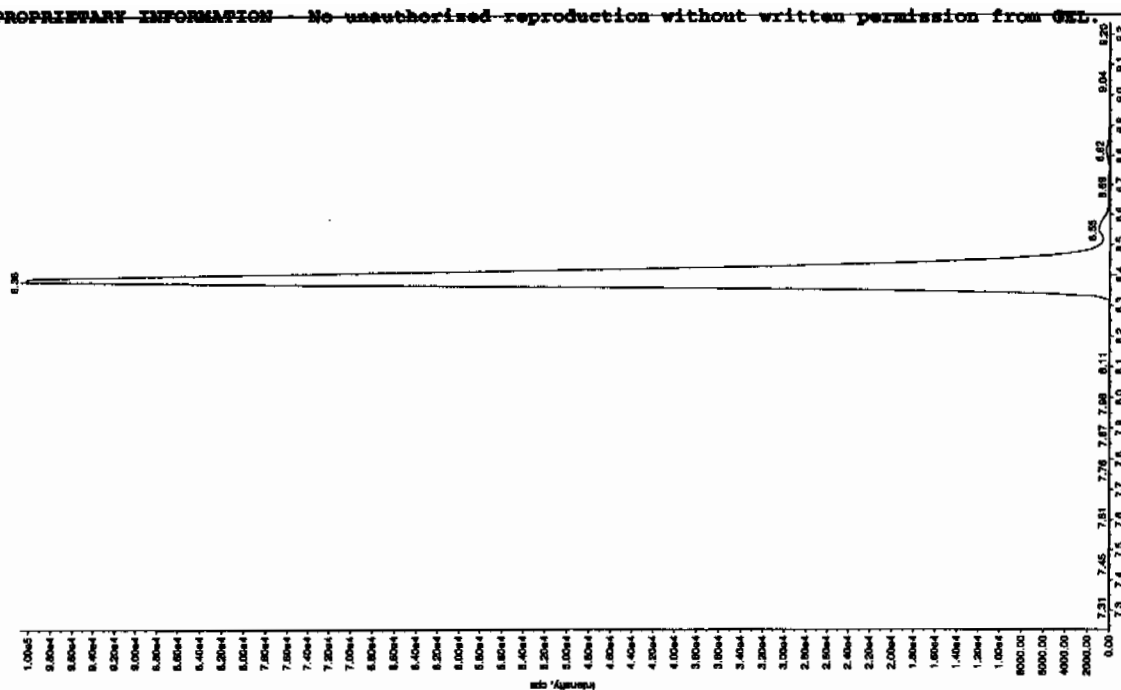
Sample Name: 243517007 Sample ID: 30704121LER File: EX501050046.wif
Peak Name: "TATB" Mass(es): 287.2004.9 amu
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 2:17:07 AM
Modified: No



Sample Name: 243517007 Sample ID: 30704121LER File: EX501050046.wif
Peak Name: "3S-Dinitrobenzine" Mass(es): 182.046.0 amu
Comment: "LCX83212S" Annotation: "

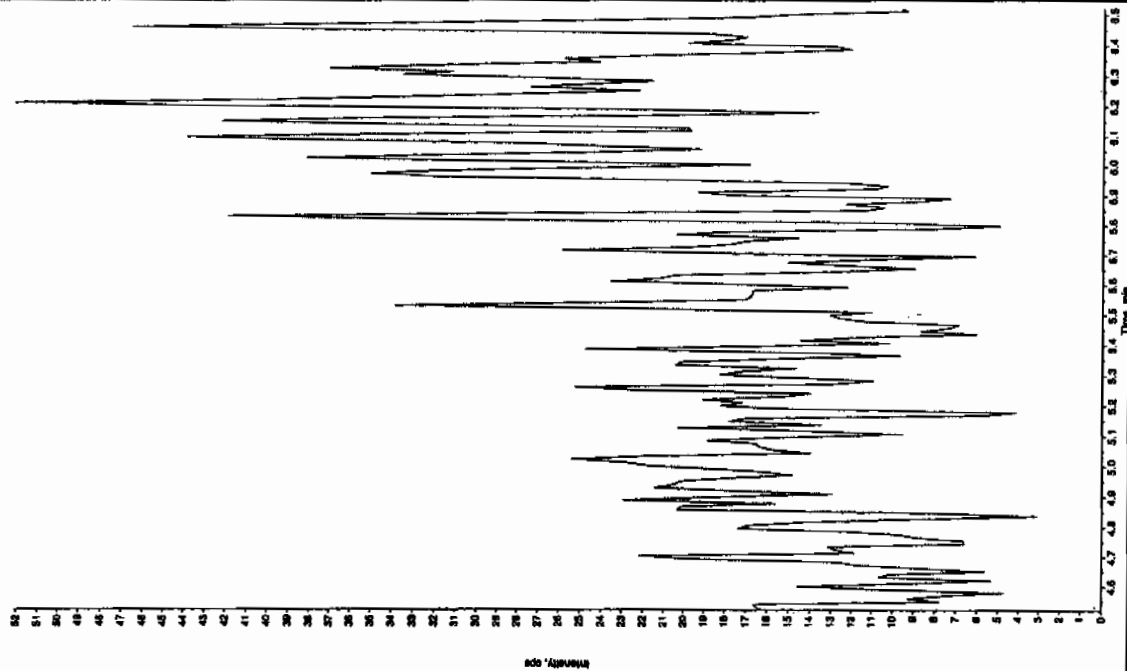
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 2:17:07 AM
Modified: Yes



Amw 01/07/10

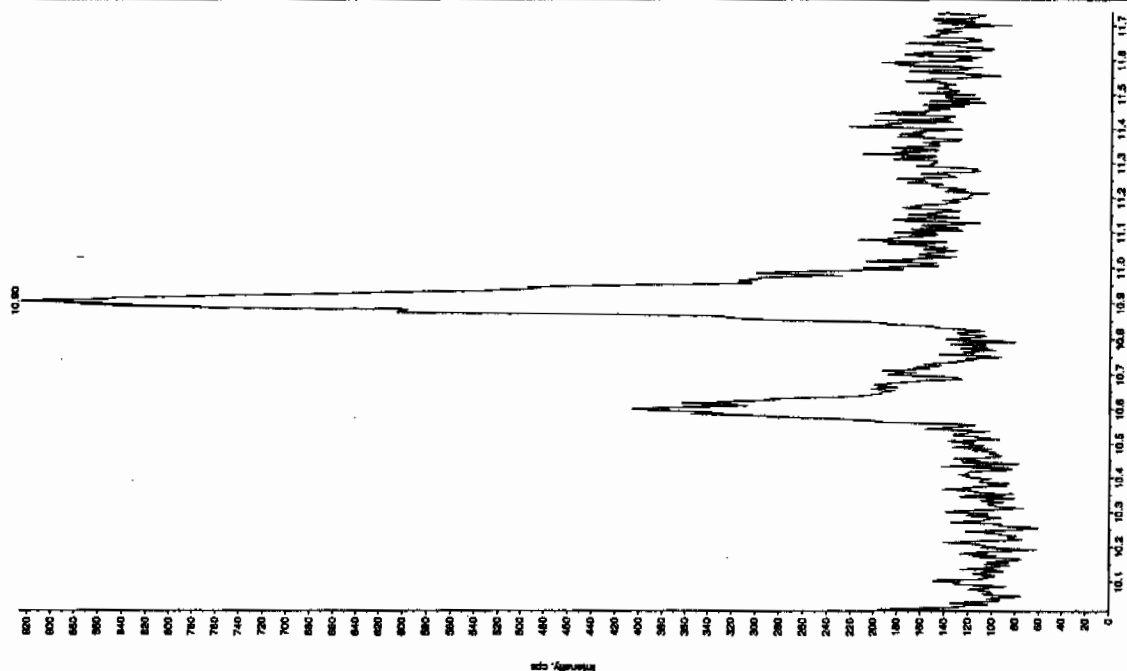
Sample Name: "243517007" Sample ID: "93704121ER" File: "EXS01050046.will"
Peak Name: "24-Diamino-6-nitrofluorene" Mass(es): "165.046.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: W/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 2:17:07 AM
Modified: No



Sample Name: "243517007" Sample ID: "93704121ER" File: "EXS01050046.will"
Peak Name: "Isobutyryl phosphate" Mass(es): "353.191.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: W/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 2:17:07 AM
Modified: No



1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7561

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517008

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105103a

Date Analyzed: 07-JAN-10 21:24

Units: ug/kg

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

*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
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Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Jan 08 08:09:43 2010, Page 59 of 97

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105103a

Date: 07-Jan-2010

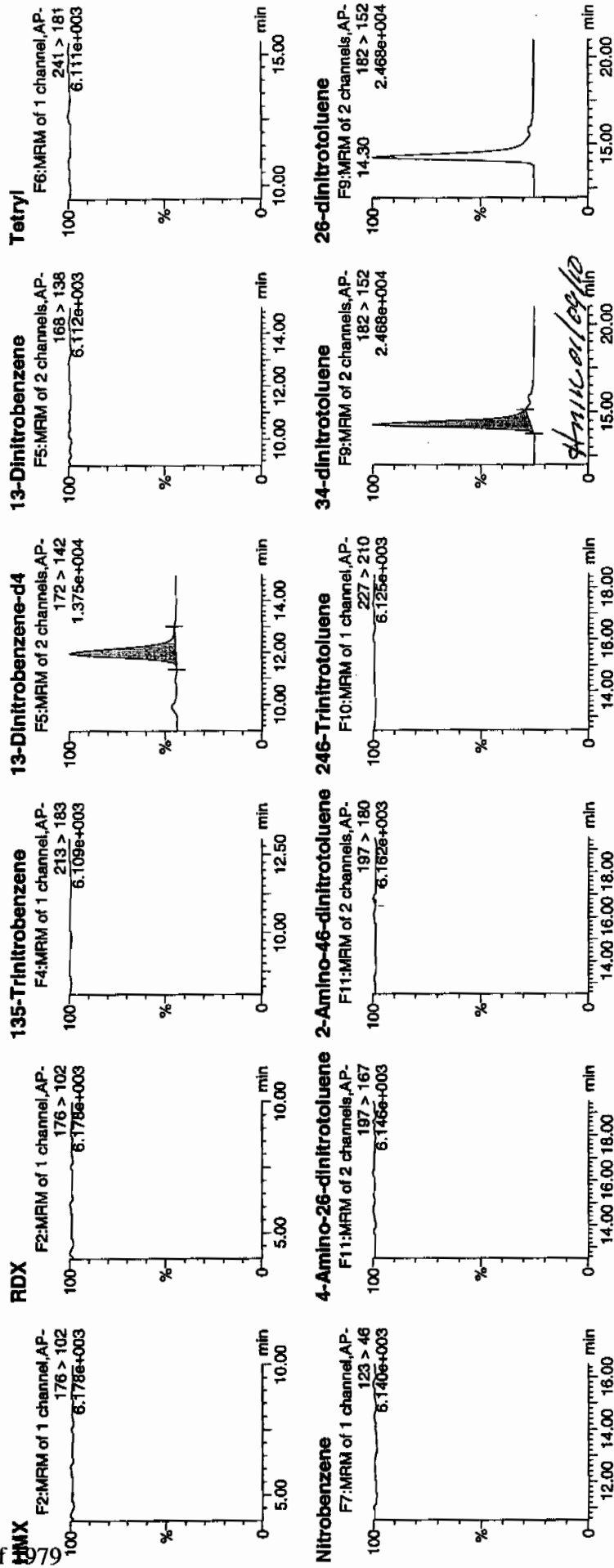
Time: 21:24:29

ID: 243517008

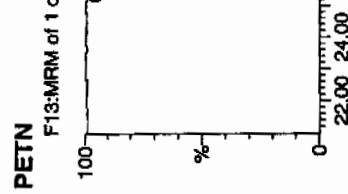
Vial: 3:2,B

1/8/10

WAVE 937041 / 80000 / 2



Dataset: C:\MASSLYN\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010



GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7561

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517008

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 237040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050047.wiff

Date Analyzed: 06-JAN-10 02:32

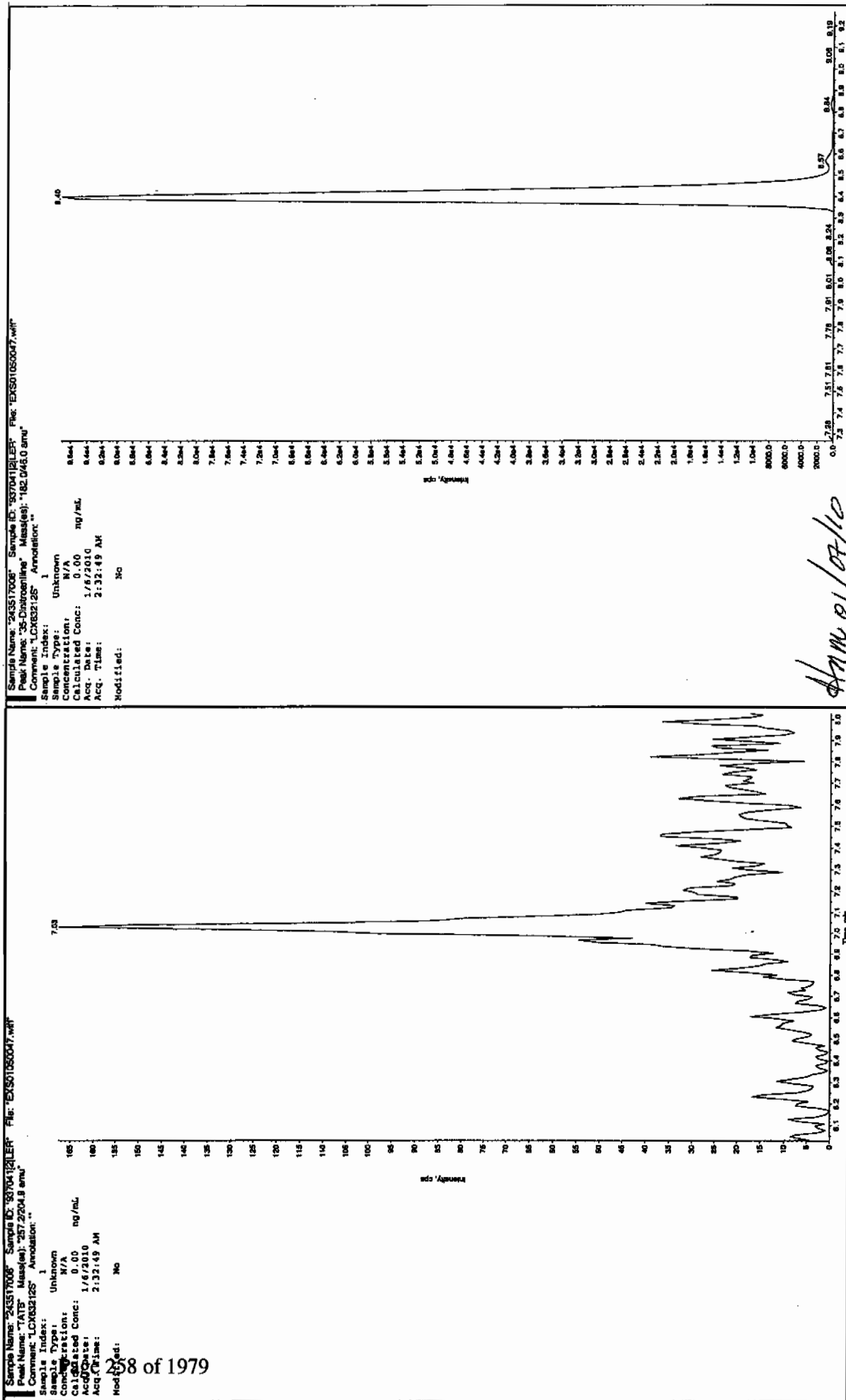
Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

01/11/10
Jen



01/07/10
Jen

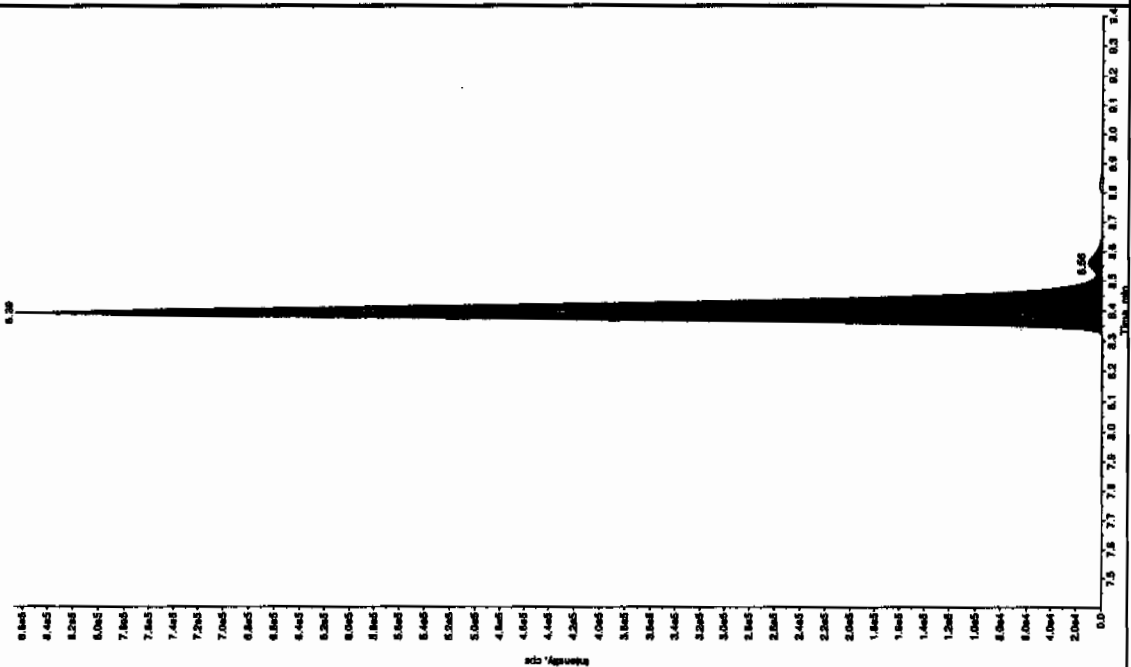
Sample Name: "243517008" Sample ID: "83704121ER" File: "EX501050047.wif"
Peak Name: "34-Difluorobenzene" Mass(es): "162.1/161.9 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 2:32:49 AM

Modified: NO
ProbAlgorithm: IntelliQuan - IOA
MinPeakHeight: 1450.00 cps
MinPeakWidth: 0.00 sec
SmoothingWidth: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: NO

Int. Type: Valley
Retention Time: 8.39 min
Area: 3.16e+006 counts
Height: 867021.545 cps
Start Time: 8.30 min
End Time: 8.71 min

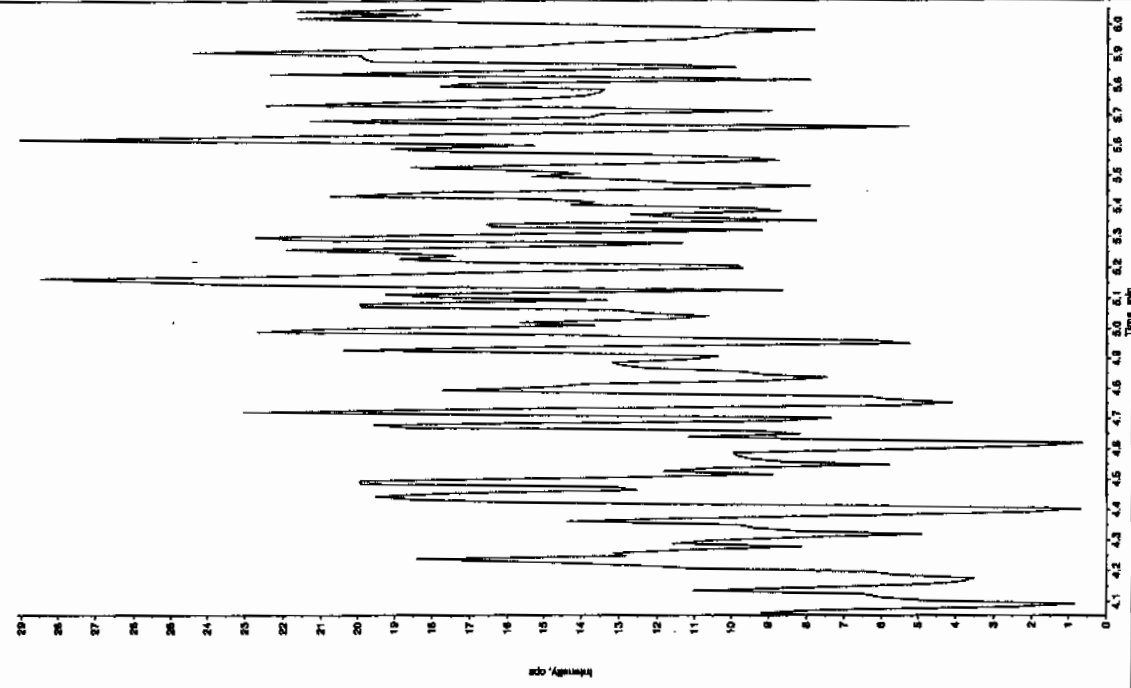


Sample Name: "243517008" Sample ID: "83704121ER" File: "EX501050047.wif"
Peak Name: "26-Difluoro-4-nitrobenzene" Mass(es): "168.0/166.0 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 2:32:49 AM

Modified: NO



Sample Name: "243517008" Sample ID: "837041212" File: "EXS01050047.will"
Peak Name: "24-Diamino-6-ethylidenel" Mass(es): "166.046.0 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown

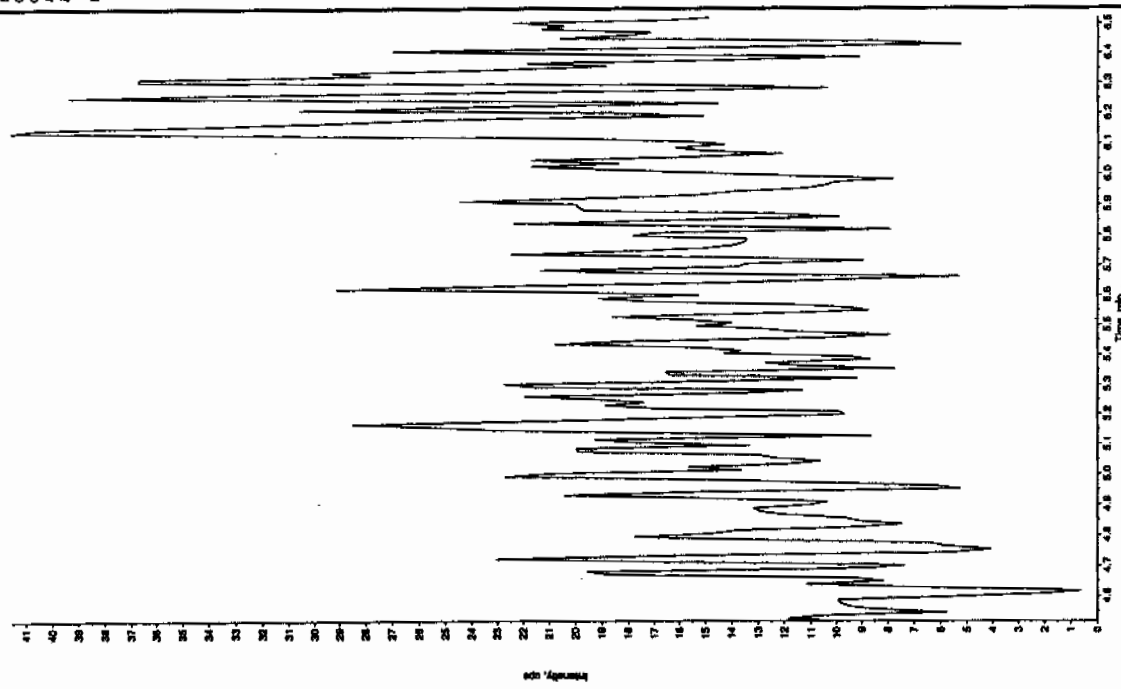
Concentration: 0.00 ng/mL

Calculated Conc: 1/6/2010

Acq. Date: 2:32:49 AM

Acq. Time: 2:32:49 AM

Modified: No



Sample Name: "243517008" Sample ID: "837041212" File: "EXS01050047.will"
Peak Name: "trifluoromethyl phosphate" Mass(es): "369.191.0 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown

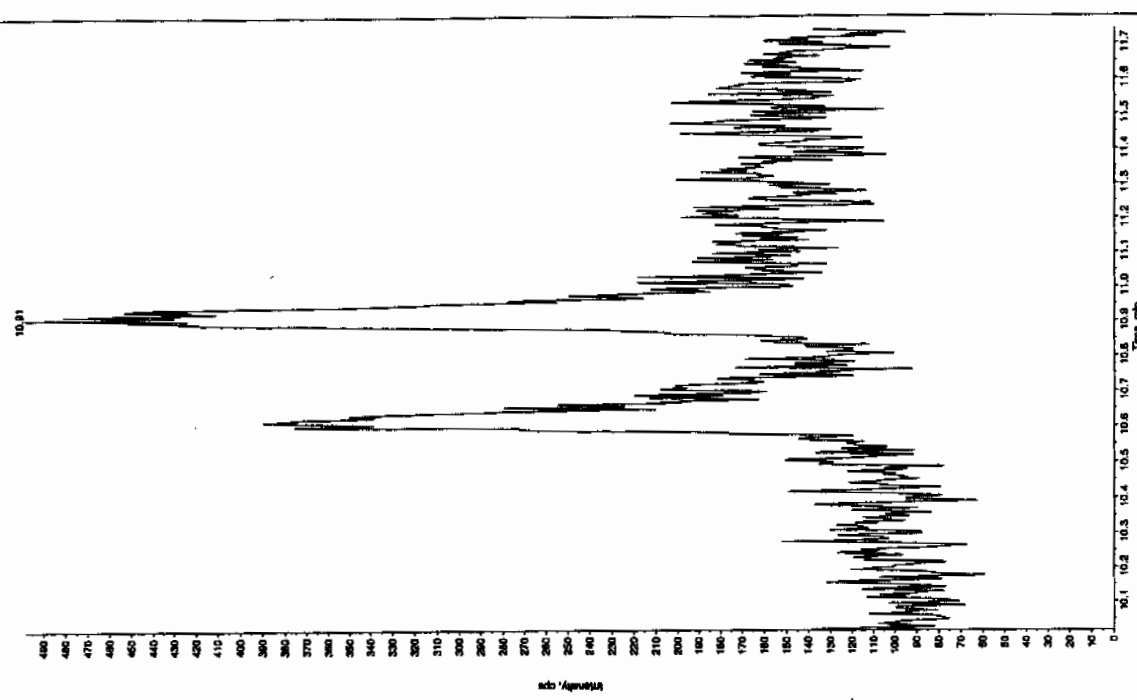
Concentration: 0.00 ng/mL

Calculated Conc: 1/6/2010

Acq. Date: 2:32:49 AM

Acq. Time: 2:32:49 AM

Modified: No



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7563

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517009

Sample Amount 2

Moisture: 12.3

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105109a

Date Analyzed: 08-JAN-10 00:21

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Jan 08 08:09:43 2010, Page 71 of 97

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\data\EXP0105109a

Date: 08-Jan-2010

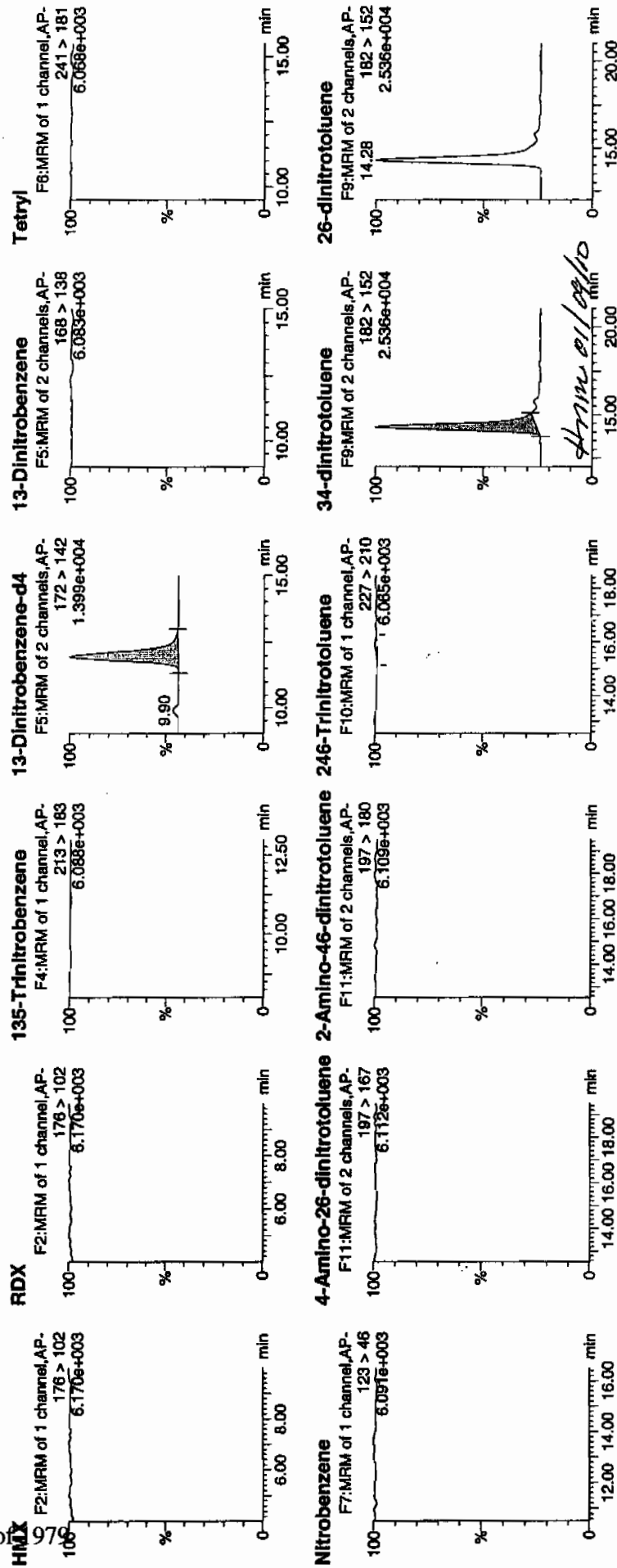
Time: 00:21:40

ID: 243517009

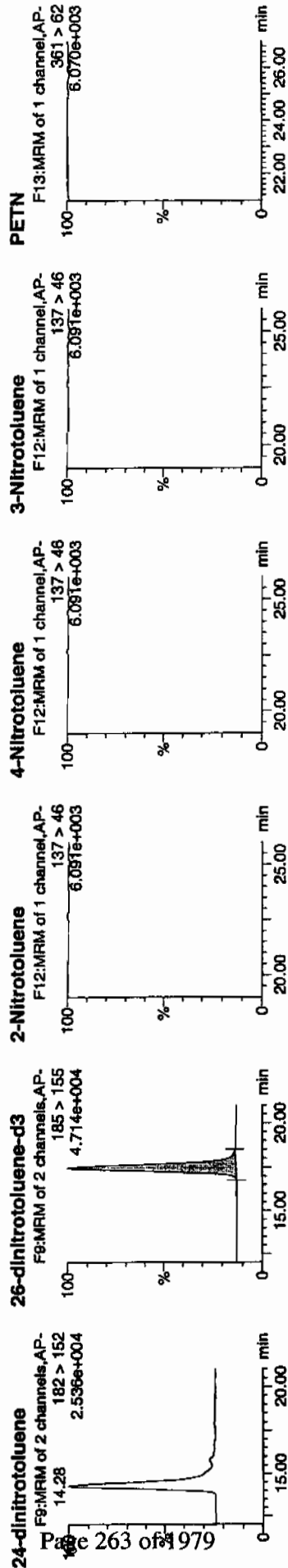
Vial: 3:2,E

1/8/10

1937041 / 8043 / 21



Dataset: C:\MASSLYNX\New Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010



ID	Name	Area	Area	Response	Peak	Molecular Weight	Mass	Retention Time	Abundance	Calculated Mass	Observed Mass
243517009	HMX	176 > 102	3281.815								
243517009	RDX	176 > 102	3281.815								
243517009	135-Trinitrobenzene	213 > 183	3281.815								
243517009	13-Dinitrobenzene-d4	172 > 142	11.94	3281.815	bb				589.3238	117.9	17.9
243517009	13-Dinitrobenzene	168 > 138	3281.815								
243517009	Tetryl	241 > 181	3281.815								
243517009	Nitrobenzene	123 > 46	3281.815								
243517009	4-Amino-2,6-dinitrotoluene	197 > 167	18289.982								
243517009	2-Amino-4,6-dinitrotoluene	197 > 180	18289.982								
243517009	2,4,6-Trinitrotoluene	227 > 210	18289.982								
243517009	3,4-dinitrotoluene	182 > 152	18289.982								
243517009	2,6-dinitrotoluene	182 > 152	18289.982								
243517009	2,4-dinitrotoluene	182 > 152	18289.982								
243517009	2,6-dinitrotoluene-d3	185 > 155	17.46	18289.982	bb						
243517009	2-Nitrotoluene	137 > 46	18289.982								
243517009	4-Nitrotoluene	137 > 46	18289.982								
243517009	3-Nitrotoluene	137 > 46	18289.982								
243517009	PETN	361 > 62	18289.982								

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7563

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 243517009

Sample Amount 2

Moisture: 12.3

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050053.wiff

Date Analyzed: 06-JAN-10 04:07

Units: ug/kg

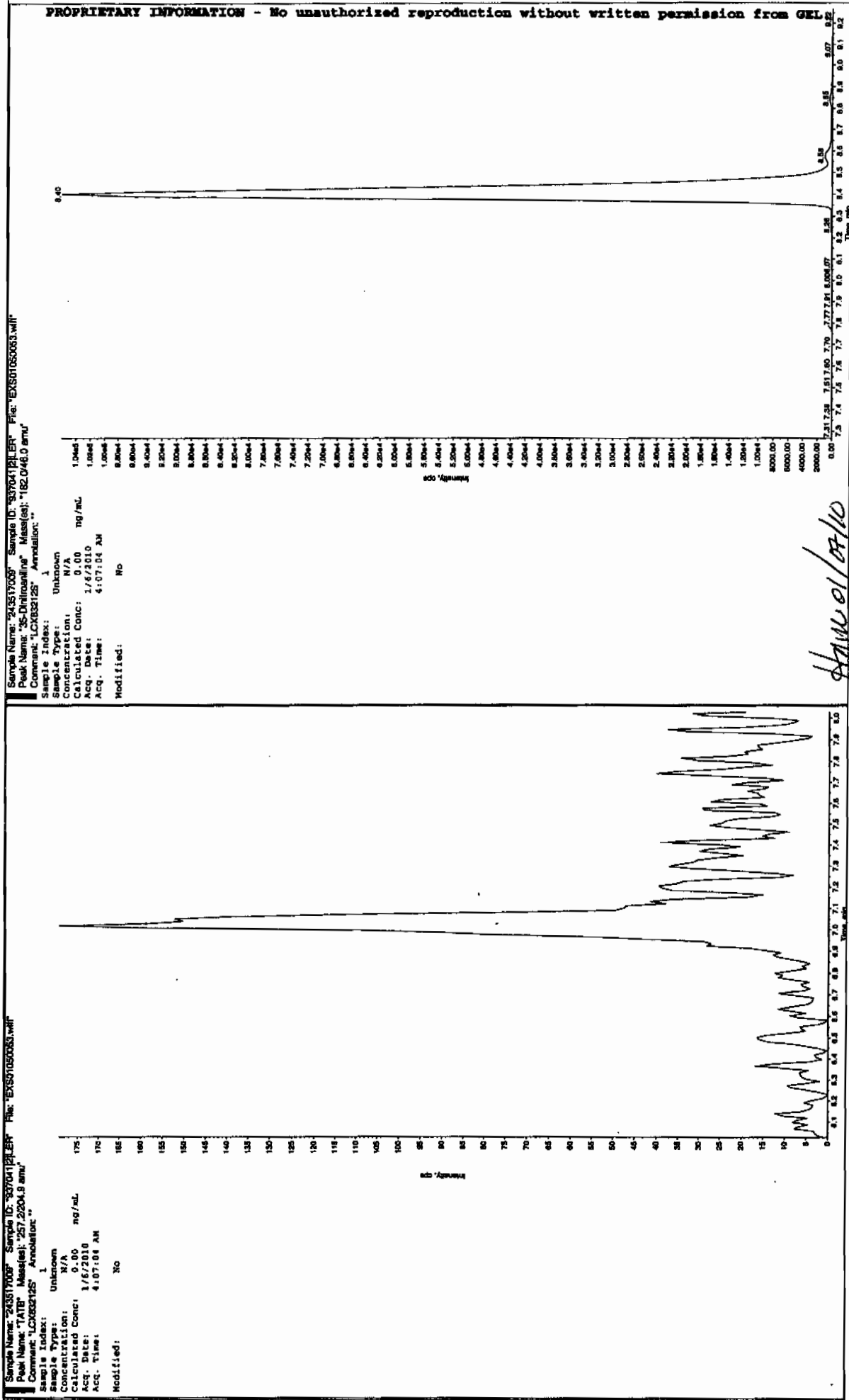
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
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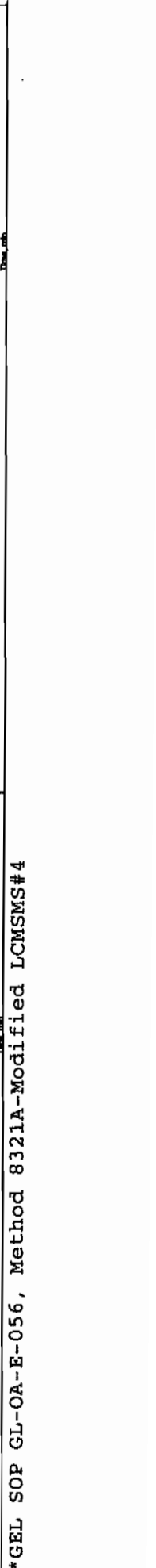
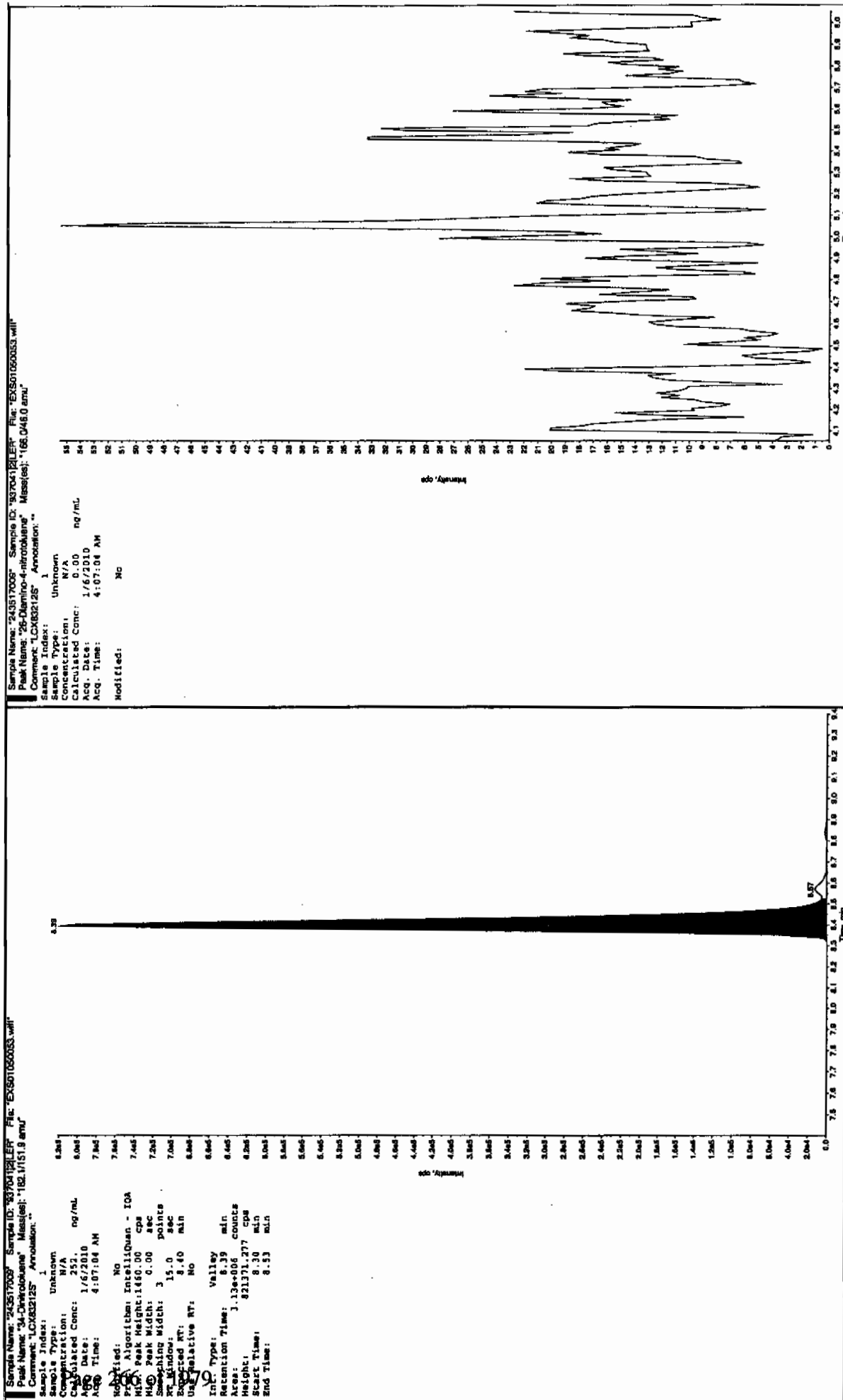
17/10
Jen

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Handwritten signature/initials

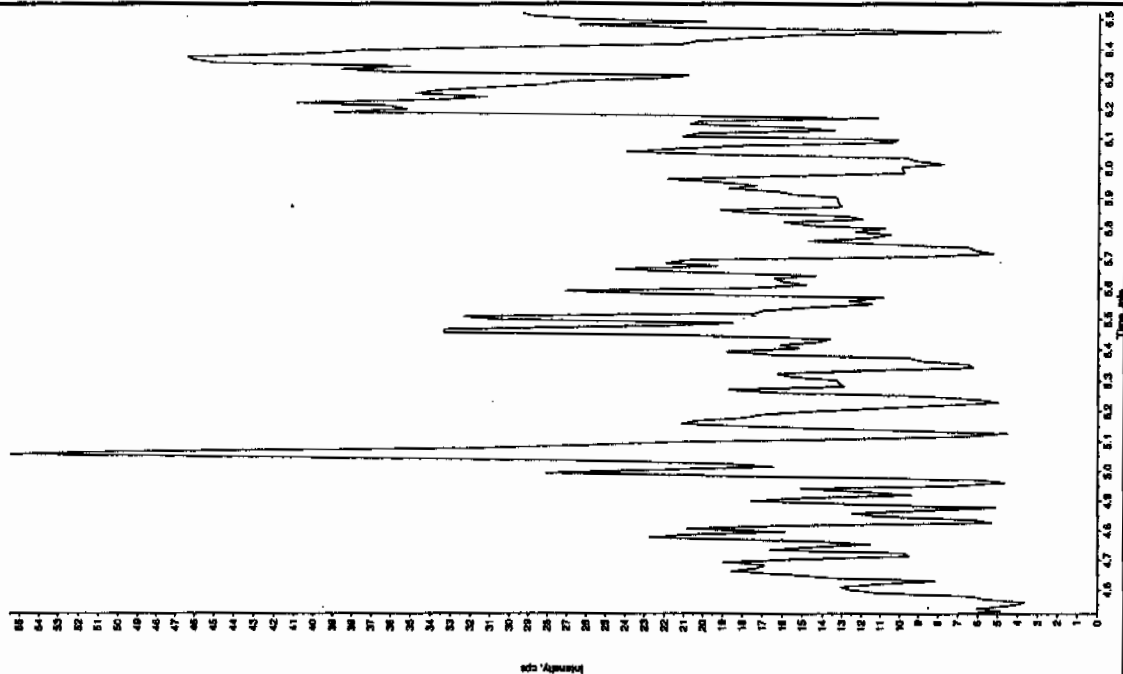
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

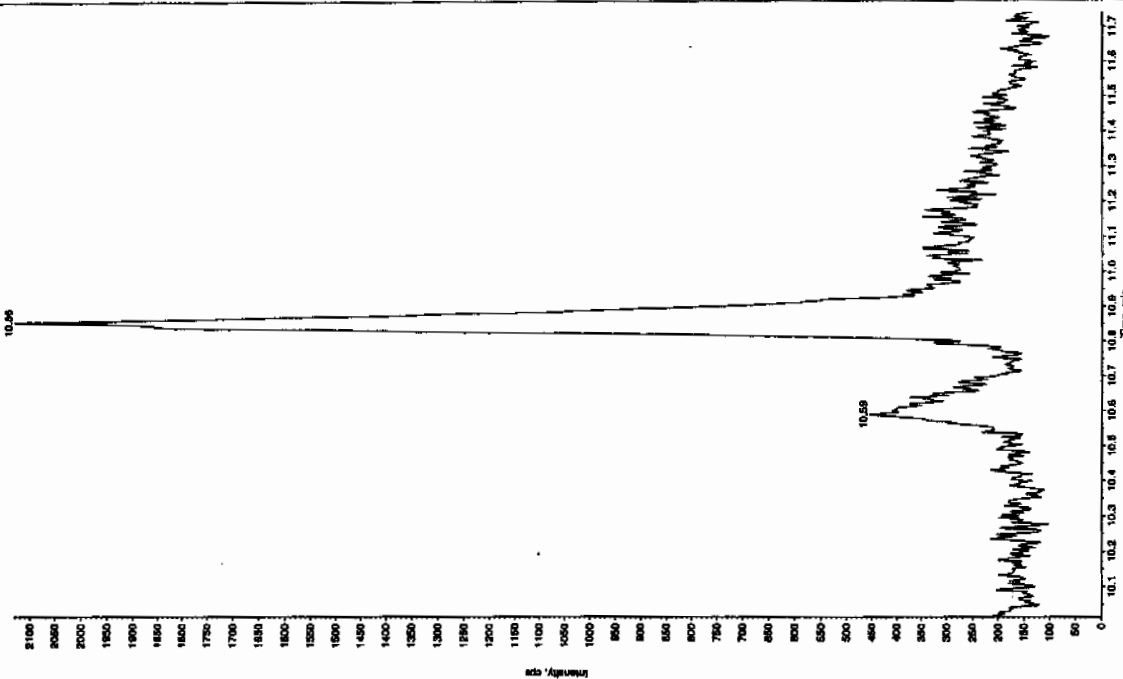
Sample Name: 203517009 Sample ID: 83704121 LER File: E050105053.wif
 Peak Name: 74-Diamino-6-pyridinol Mass(es): 166.046.0 amu
 Comment: LC0632125 Annotation: -

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 4:07:04 AM
 Modified: No



Sample Name: 203517009 Sample ID: 83704121 LER File: E050105053.wif
 Peak Name: 74-Diamino-6-pyridinol Mass(es): 166.046.0 amu
 Comment: LC0632125 Annotation: -

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 4:07:04 AM
 Modified: No



STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MXN	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

Calibration Levels 8321A-Modified-EXPL.xls

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1073

Lab Code: GEL

Run Date: 05-JAN-10.08-JAN-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Parameter	1	2	3	4	5	6	Ave RF	RSD	Q
Calibration Level:	EXP0105003a	EXP0105004a	EXP0105005a	EXP0105006a	EXP0105007a	EXP0105008a			
Data File:									
1,3-Dinitrobenzene-d4	5.947	5.846	6.001	5.669	4.9	5.05	5.569	8.545	
2,4,6-Trinitrotoluene	.362	.363	.325	.327	.366	.363	0.351	5.53	
2,4-Dinitrotoluene	.29	.265	.26	.253	.255	.264	0.265	5.074	
2,6-Dinitrotoluene	1.048	1.117	1.032	1.086	1.078	1.096	1.076	2.921	
2,6-Dinitrotoluene-d3	33.333	34.252	35.081	32.174	28.367	29.771	32.163	8.153	
2-Amino-4,6-dinitrotoluene	.384	.355	.36	.401	.43	.443	0.396	9.109	
3,4-Dinitrotoluene	.747	.886	.922	.887	.968	.984	0.899	9.436	
4-Amino-2,6-dinitrotoluene	.257	.298	.254	.287	.309	.31	0.286	8.668	
HMX	3.489	3.464	3.59	3.982	3.95	4.191	3.778	8.019	
Nitrobenzene	1.073	1.013	.997	.976	1.018	1.031	1.018	3.224	
RDX	2.428	2.485	2.301	2.481	2.615	2.711	2.504	5.742	
m-Dinitrobenzene	1.624	1.023	1.131	1.188	1.221	1.281	1.245	16.525	
m-Nitrotoluene	.084	.104	.088	.102	.102	.092	0.095	9.075	
o-Nitrotoluene	.192	.167	.158	.168	.187	.173	0.174	7.339	
p-Nitrotoluene	.069	.08	.076	.083	.089	.08	0.080	8.409	

Q column used to flag RSD values outside of Limit (>20%)

* Values outside of QC Limit

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1073

Lab Code: GEL

Run Date: 05-JAN-10.08-JAN-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0105003a	EXP0105004a	EXP0105005a	EXP0105006a	EXP0105007a	EXP0105008a					
Parameter:											
1,3,5-Trinitrobenzene	834.82	1405.29	4276.81	8323.66	14638.8	19893.9	3.097	.0007434	74.827	.9997	
PETN	2771.15	5704.23	18684.2	32195.9	51123.6	59749.9	2.865	-.0008448	9.915	.9991	
Tetryl	254.529	426.773	1417.82	2569.02	4145.67	5420.36	1.073	-.0000276	19.961	.9996	

Quadratic Fit: $y = Ax^2 + Bx + C$
 where X^2 column above is coefficient A
 X column above is coefficient B
 intercept is C

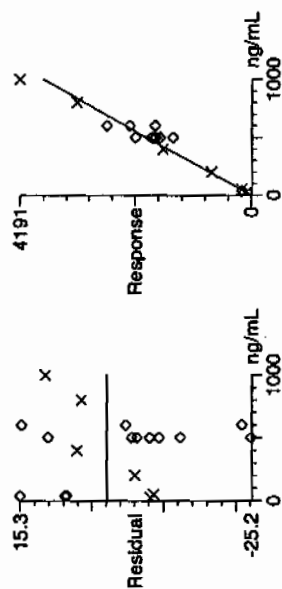
COD is Coefficient of Determination
 Q column used to flag COD outside of Limit (<0.990)
 * Values outside of QC Limit

Quantify Calibration Report

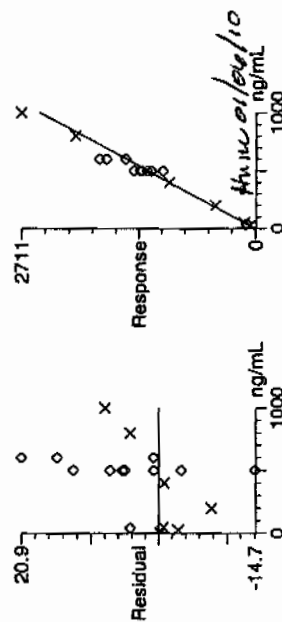
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Method: C:\MASSLYNX\New_Exp.PROMethDB\010510expa.mdb, Time: Wed Jan 06 09:01:26 2010
 Calibration: Untitled, Time: Wed Jan 06 12:43:40 2010
 Compound name: HMX
 Response Factor: 3.77775
 RRF SD: 0.302947, % Relative SD: 8.01923
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: RF



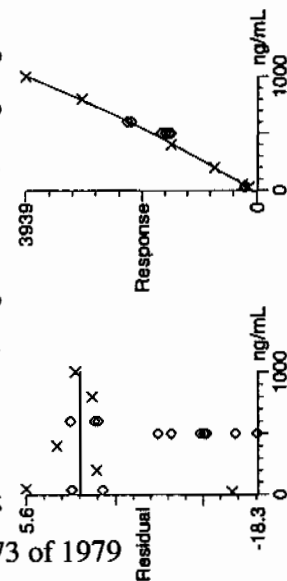
Compound name: RDX
 Response Factor: 2.50334
 RRF SD: 0.143736, % Relative SD: 5.74176
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: RF



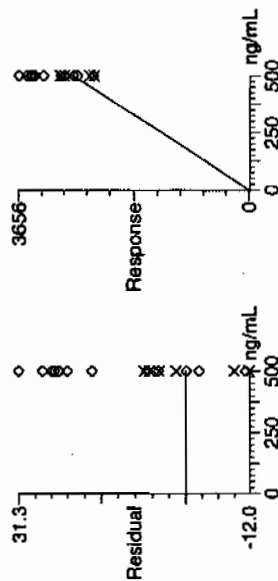
Quantify Calibration Report
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Compound name: 135-Trinitrobenzene
 Coefficient of Determination: 0.999681
 Calibration curve: $0.000745442 \cdot x^2 + 3.09719 \cdot x + 74.8268$
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

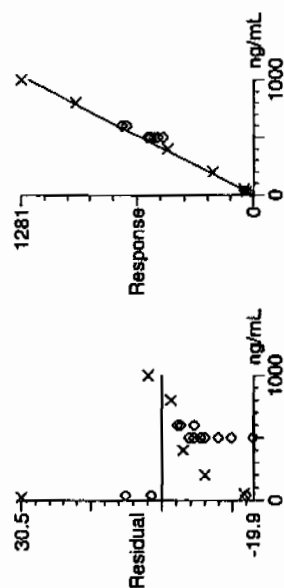


Compound name: 13-Dinitrobenzene-d4
 Response Factor: 5.56878
 RRF SD: 0.475861, % Relative SD: 8.54515
 Response type: External Std, Area
 Curve type: RF

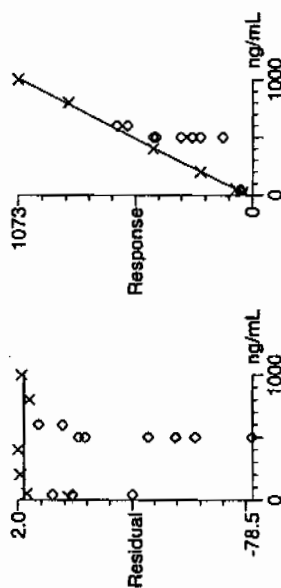


Quantify Calibration Report
 GEL Laboratories, LLC / Analyst : Michael A. Penny
 Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Compound name: 13-Dinitrobenzene
 Response Factor: 1.24452
 RRF SD: 0.205661, % Relative SD: 16.5253
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: RF



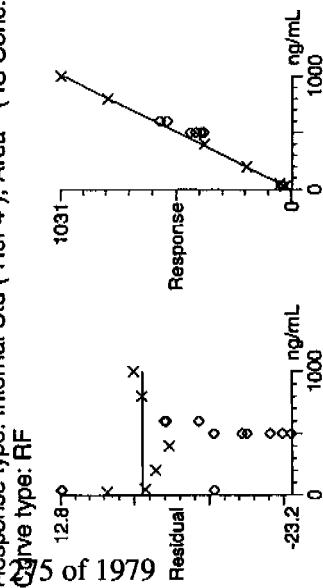
Compound name: Tetraol
 Coefficient of Determination: 0.999583
 Calibration curve: $-2.75622e-005 \cdot x^2 + 1.07298 \cdot x + 19.9606$
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None



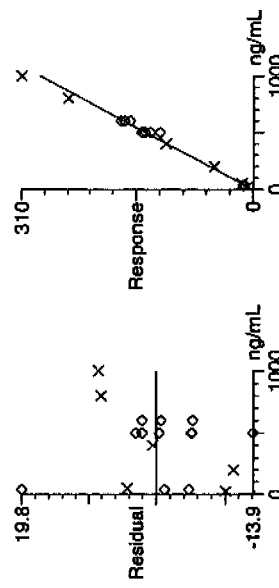
Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Compound name: Nitrobenzene
Response Factor: 1.01789
RRF SD: 0.0328132, % Relative SD: 3.22365
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF



Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.28581
RRF SD: 0.0247734, % Relative SD: 8.66779
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



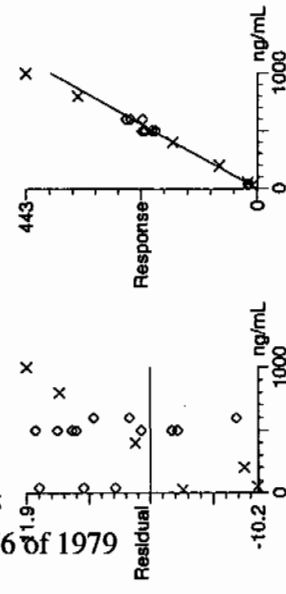
Quantify Calibration Report

Printed: Wed Jan 06 12:44:40 2010, Page 5 of 9

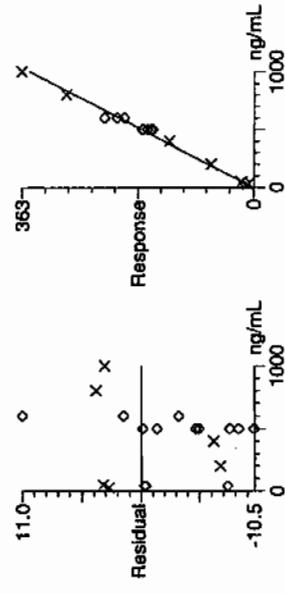
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Compound name: 2-Amino-46-dinitrotoluene
 Response Factor: 0.39565
 RRF SD: 0.0360404, % Relative SD: 9.10918
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: RF



Compound name: 246-Trinitrotoluene
 Response Factor: 0.351001
 RRF SD: 0.019412, % Relative SD: 5.53046
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: RF



Quantify Calibration Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Jan 06 12:44:40 2010, Page 6 of 9

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

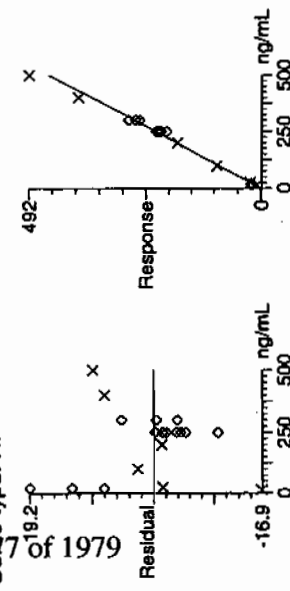
Compound name: 34-dinitrotoluene

Response Factor: 0.898843

RRF SD: 0.0848111, % Relative SD: 9.43558

Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)

Curve type: RF



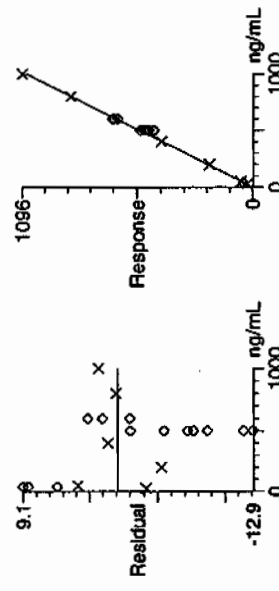
Compound name: 26-dinitrotoluene

Response Factor: 1.07604

RRF SD: 0.0314275, % Relative SD: 2.92066

Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)

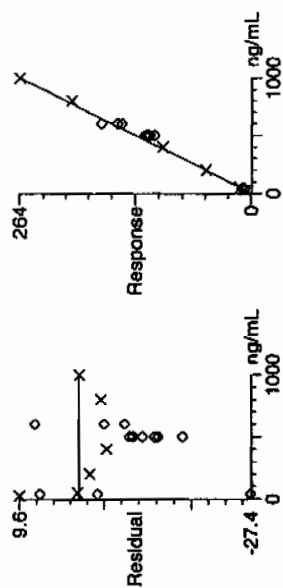
Curve type: RF



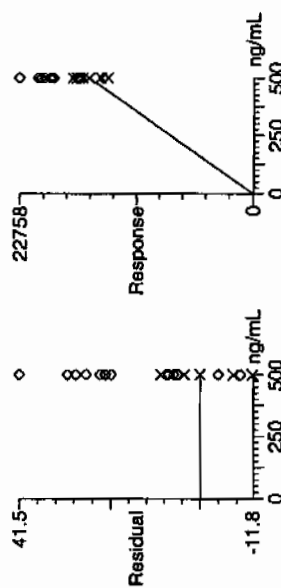
Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.264403
R² SD: 0.0134163, % Relative SD: 5.07418
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



Compound name: 26-dinitrotoluene-d3
Response Factor: 32.163
R² SD: 2.62233, % Relative SD: 8.15325
Response type: External Std, Area
Curve type: RF



Quantify Calibration Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Jan 06 12:44:40 2010, Page 8 of 9

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

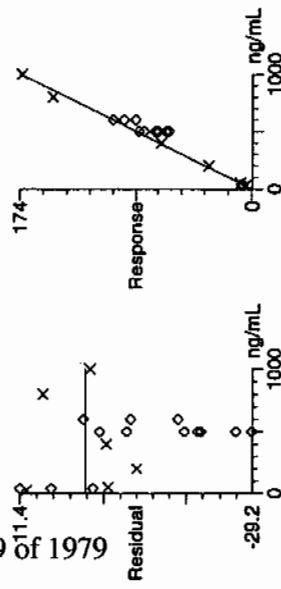
Compound name: 2-Nitrotoluene

Response Factor: 0.174015

RRF SD: 0.0127706, % Relative SD: 7.33882

Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)

Curve type: RF



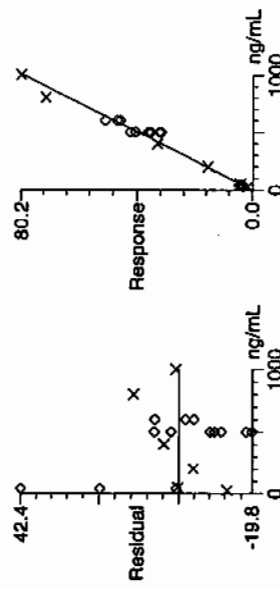
Compound name: 4-Nitrotoluene

Response Factor: 0.0795344

RRF SD: 0.00668823, % Relative SD: 8.40923

Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)

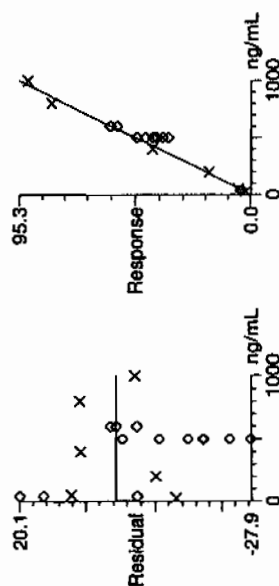
Curve type: RF



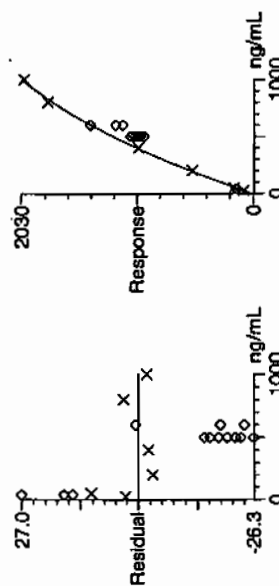
Quantify Calibration Report GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.0953054
RIF SD: 0.00864891, % Relative SD: 9.07495
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RIF



Compound name: PETN
Coefficient of Determination: 0.999074
Calibration curve: $-0.000844792 \cdot x^2 + 2.86454 \cdot x + 9.91503$
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None



Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0105010a

Analysis Date: 05-JAN-10 23:22

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	606.125	101	
1,3-Dinitrobenzene-d4	500	443.099	89	
2,4,6-Trinitrotoluene	600	578.863	96	
2,4-Dinitrotoluene	600	575.479	96	
2,6-Dinitrotoluene	600	608.595	101	
2,6-Dinitrotoluene-d3	500	454.479	91	
2-Amino-4,6-dinitrotoluene	600	612.263	102	
3,4-Dinitrotoluene	300	288.875	96	
4-Amino-2,6-dinitrotoluene	600	595.711	99	
HMX	600	580.03	97	
Nitrobenzene	600	580.246	97	
PETN	600	604.351	101	
RDX	600	693	116	
Tetryl	600	571.333	95	
m-Dinitrobenzene	600	576.202	96	
m-Nitrotoluene	600	606.413	101	
o-Nitrotoluene	600	602.05	100	
p-Nitrotoluene	600	638.796	106	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Jan 06 12:44:40 2010, Page 19 of 71

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105010a

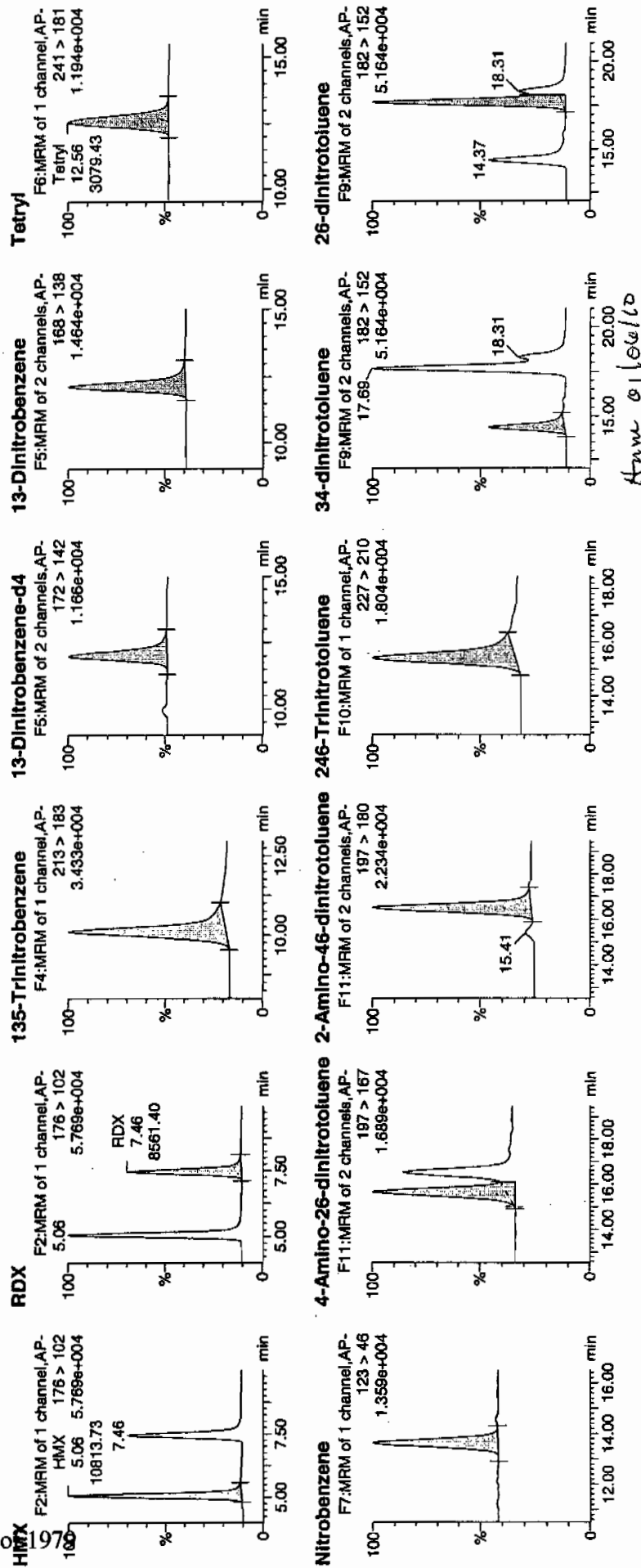
Date: 05-Jan-2010

Time: 23:22:38

ID: WXX100105-07ICV

Vol: 1:1,B

1/6/10

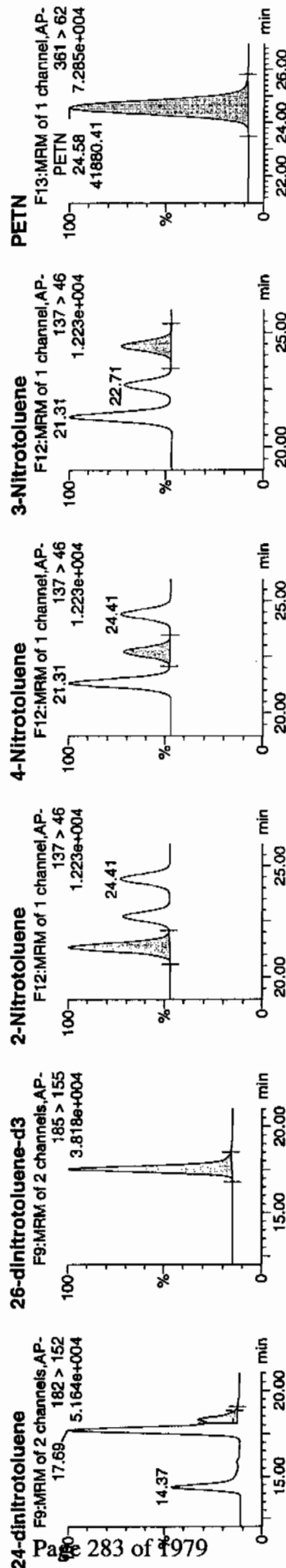


Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Jan 06 12:44:40 2010, Page 20 of 71

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010



ID	Name	Trace	RT	Area	S-Area	Abundance	Response	Flag	Mod Date	Mod Time	Conc (ng/ml)	Area	Response	Flag	Mod Date	Mod Time	Conc (ng/ml)
WXX100105-07ICV	HMX	176 > 102	5.06	10813.726	2467.523	10813.726	2191.211	bb			580.0302	96.7	-3.3	1501.5			
WXX100105-07ICV	RDX	176 > 102	7.46	8561.400	2467.523	8561.400	1734.817	bb			693.0001	115.5	15.5	995.5			
WXX100105-07ICV	135-Trinitrobenzene	213 > 183	10.10	10985.283	2467.523	10985.283	2225.974	bb			606.1248	101.0	1.0	1039.0			
WXX100105-07ICV	13-Dinitrobenzene-d4	172 > 142	12.00	2467.523	2467.523	2467.523	2467.523	bb			443.0993	88.6	-11.4	294.3			
WXX100105-07ICV	13-Dinitrobenzene	168 > 138	12.13	3538.908	2467.523	3538.908	717.097	bb			576.2021	96.0	-4.0	253.9			
WXX100105-07ICV	Tetryl	241 > 181	12.56	3079.425	2467.523	3079.425	623.991	bb			571.3328	95.2	-4.8	238.0			
WXX100105-07ICV	Nitrobenzene	123 > 46	13.61	2914.775	2467.523	2914.775	590.628	bb			580.2465	96.7	-3.3	245.3			
WXX100105-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.64	4977.533	14617.416	4977.533	170.260	MM	06-Jan-10	12:29:05	595.7112	99.3	-0.7	247.4			
WXX100105-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.51	7081.891	14617.416	7081.891	242.242	bb			612.2630	102.0	2.0	438.3			
WXX100105-07ICV	246-Trinitrotoluene	227 > 210	15.40	5939.974	14617.416	5939.974	203.181	bb			578.8626	96.5	-3.5	321.9			
WXX100105-07ICV	34-dinitrotoluene	182 > 152	14.37	7590.927	14617.416	7590.927	259.654	bb			288.8752	96.3	-3.7	225.1			
WXX100105-07ICV	26-dinitrotoluene	182 > 152	17.69	19145.094	14617.416	19145.094	654.873	MM	06-Jan-10	12:33:49	608.5954	101.4	1.4	581.4			
WXX100105-07ICV	26-dinitrotoluene	182 > 152	18.31	4448.328	14617.416	4448.328	152.158	MM	06-Jan-10	12:38:09	575.4787	95.9	-4.1	133.2			
WXX100105-07ICV	26-dinitrotoluene-d3	185 > 155	17.52	14617.416	14617.416	14617.416	14617.416	bb			454.4786	90.9	-9.1	1020.2			
WXX100105-07ICV	2-Nitrotoluene	137 > 46	21.31	3062.805	14617.416	3062.805	104.766	bb			602.0497	100.3	0.3	338.8			
WXX100105-07ICV	4-Nitrotoluene	137 > 46	22.71	1485.314	14617.416	1485.314	50.806	bb			638.7964	106.5	6.5	155.8			
WXX100105-07ICV	3-Nitrotoluene	137 > 46	24.41	1689.611	14617.416	1689.611	57.794	bb			606.4134	101.1	1.1	168.1			
WXX100105-07ICV	PETN	361 > 62	24.58	41880.410	14617.416	41880.410	1432.552	bb			604.3506	100.7	0.7	3946.6			

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 01/05/10
 Time of Injection: 2322
 Standard Number: WXX100105-07ICV
 Data File: EXP0105010a

HMX	96.7
RDX	115.5
135-TNB	101.0
13-DNB	96.0
Tetryl	95.2
Nitrobenzene	96.7
4A-26-DNT	99.3
2A-46-DNT	102.0
246-TNT	96.5
34-DNT(surr)	96.3
26-DNT	101.4
24-DNT	95.9
2-NT	100.3
4-NT	106.5
3-NT	101.1
PETN	100.7

11/6/10

Total 1601.1

Average 100.1

Handwritten: 11/6/10
 ICV Limits 85-115%
 CRI Limits 70-130%
 CCV Limits 85-115%

No single analyte > +/- 60%

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1073

Lab Code: GEL

Run Date: 05-JAN-10.08-JAN-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Paramname	1	2	3	4	5	6	Ave RF	RSD	Q
Calibration Level:	EXP0108003a	EXP0108004a	EXP0108005a	EXP0108006a	EXP0108007a	EXP0108008a			
Data File:									
1,3-Dinitrobenzene-d4	5.252	5.624	5.891	6.445	6.107	5.835	5.859	6.957	
2,4,6-Trinitrotoluene	.306	.336	.314	.327	.314	.346	0.324	4.735	
2,4-Dinitrotoluene	.243	.248	.217	.259	.232	.264	0.244	7.094	
2,6-Dinitrotoluene	1.169	1.205	1.09	1.09	1.129	1.108	1.132	4.098	
2,6-Dinitrotoluene-d3	33.895	34.7	35.72	36.984	28.747	32.59	33.773	8.544	
2-Amino-4,6-dinitrotoluene	.336	.305	.353	.41	.383	.422	0.368	12.165	
3,4-Dinitrotoluene	.929	.814	.846	.967	.885	.941	0.897	6.587	
4-Amino-2,6-dinitrotoluene	.311	.255	.243	.286	.285	.313	0.282	10.113	
HMX	2.997	3.192	3.42	3.446	3.375	3.383	3.302	5.279	
Nitrobenzene	1.095	1.158	.964	.965	.784	.952	0.986	13.189	
RDX	2.497	2.664	2.216	2.444	2.402	2.465	2.448	5.935	
Tetryl	1.384	1.231	1.057	1.039	.881	.916	1.085	17.673	
m-Dinitrobenzene	1.194	1.443	1.14	1.219	1.21	1.157	1.227	8.957	
m-Nitrotoluene	.118	.092	.104	.098	.091	.098	0.100	10.044	
o-Nitrotoluene	.163	.159	.148	.167	.155	.134	0.154	7.843	
p-Nitrotoluene	.088	.105	.072	.08	.08	.083	0.085	13.229	

Q column used to flag RSD values outside of Limit (>20%)

* Values outside of QC Limit

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1073

Lab Code: GEL

Run Date: 05-JAN-10.08-JAN-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column:

Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Linear

Calibration Level:	1	2	3	4	5	6	Slope	Intercept	COD	Q
Data File:	EXP0108003a	EXP0108004a	EXP0108005a	EXP0108006a	EXP0108007a	EXP0108008a				
Parasame										
1,3,5-Trinitrobenzene	679.468	1322.77	4392.01	8767.35	17070.5	19999.8	3.457	0	.9988	
PETN	1824.72	3612.81	12304.1	21610.4	36335.8	39498.4	1.536	16.875	.9968	

Linear fit: $Y = mx + b$
 where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)

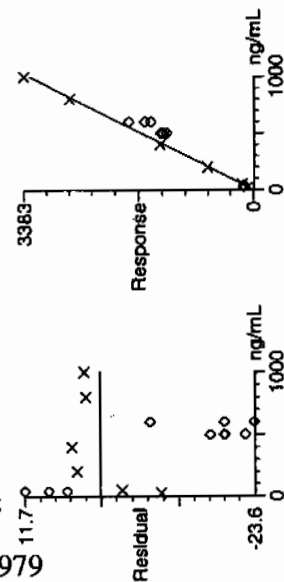
* Values outside of QC Limit

Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

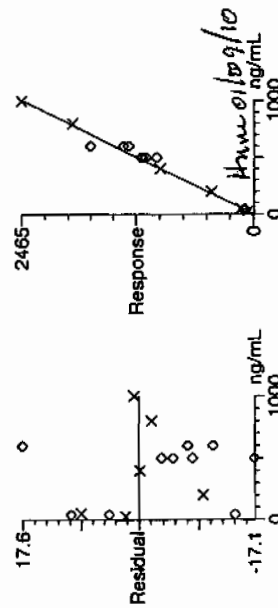
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Method: C:\MASSLYNX\New_Exp\PRO1010810expA.mdb, Time: Sat Jan 09 11:44:31 2010
 Calibration: Untitled, Time: Sat Jan 09 12:01:37 2010

Compound name: HMX
 Response Factor: 3.30223
 RRF SD: 0.174327, % Relative SD: 5.27907
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: RF



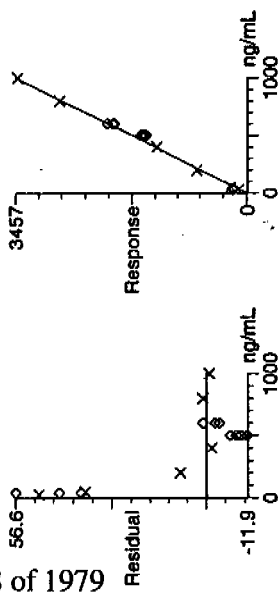
Compound name: RDX
 Response Factor: 2.44794
 RRF SD: 0.145292, % Relative SD: 5.93528
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: RF



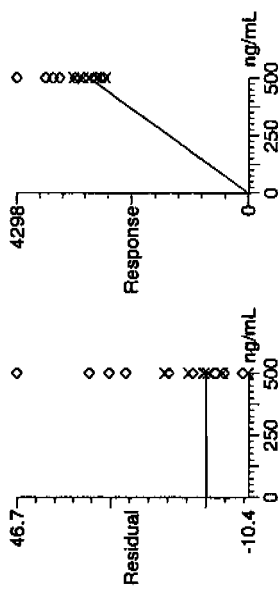
Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Compound name: 135-Trinitrobenzene
Coefficient of Determination: 0.998845
Calibration curve: $3.45704 \times x$
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: Null, Axis trans: None



Compound name: 13-Dinitrobenzene-d4
Response Factor: 5.85906
RRF SD: 0.407601, % Relative SD: 6.95677
Response type: External Std, Area
Curve type: RF



Quantify Calibration Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Jan 09 12:02:23 2010, Page 3 of 9

Dataset: C:\MASSLYNX\New_Exp\PRO10810expA.qld, Time: Sat Jan 09 12:01:37 2010

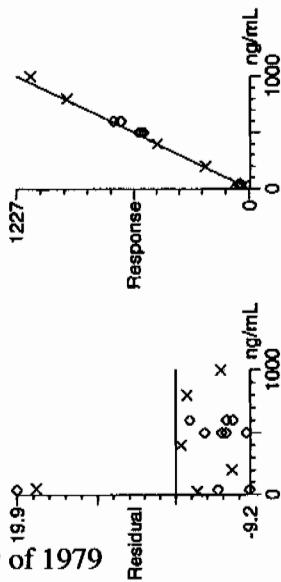
Compound name: 13-Dinitrobenzene

Response Factor: 1.22703

RRF SD: 0.109909, % Relative SD: 8.95735

Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)

Curve type: RF



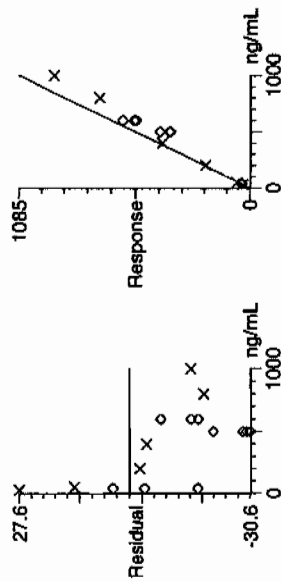
Compound name: Tetryl

Response Factor: 1.08466

RRF SD: 0.191688, % Relative SD: 17.6727

Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)

Curve type: RF

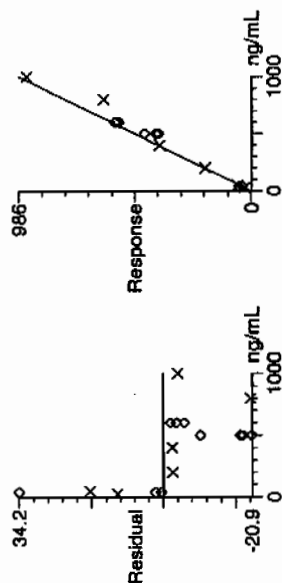


Quantify Calibration Report

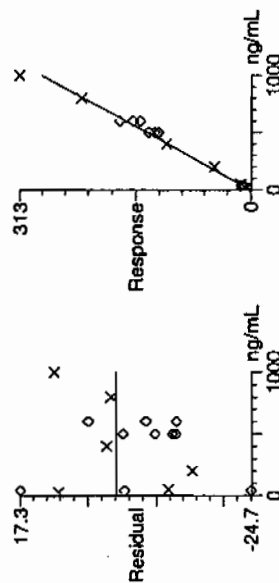
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Compound name: Nitrobenzene
 Response Factor: 0.986407
 RRF SD: 0.1301, % Relative SD: 13.1892
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: RF



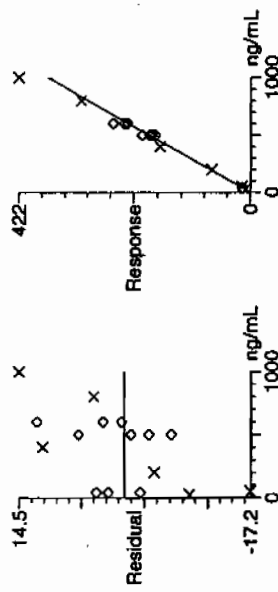
Compound name: 4-Amino-26-dinitrotoluene
 Response Factor: 0.28197
 RRF SD: 0.0285154, % Relative SD: 10.1129
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: RF



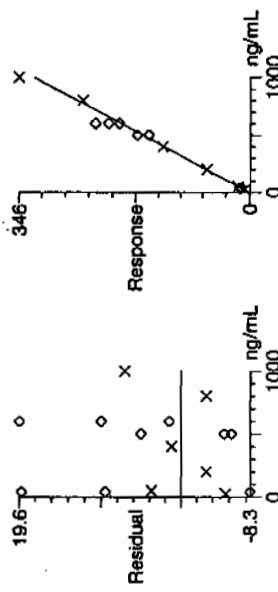
Quantify Calibration Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PROV010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.368254
RRF SD: 0.0447967, % Relative SD: 12.1646
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



Compound name: 246-Trinitrotoluene
Response Factor: 0.323689
RRF SD: 0.0153263, % Relative SD: 4.73488
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

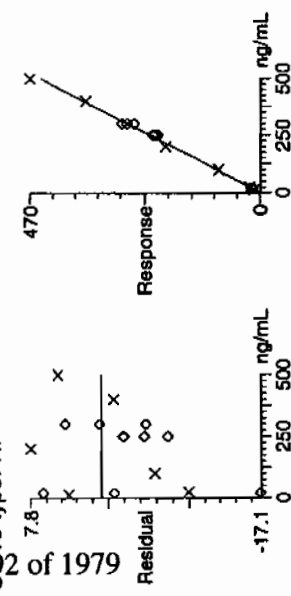
Compound name: 34-dinitrotoluene

Response Factor: 0.897168

RRF SD: 0.0590949, % Relative SD: 6.58682

Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)

Curve type: RF



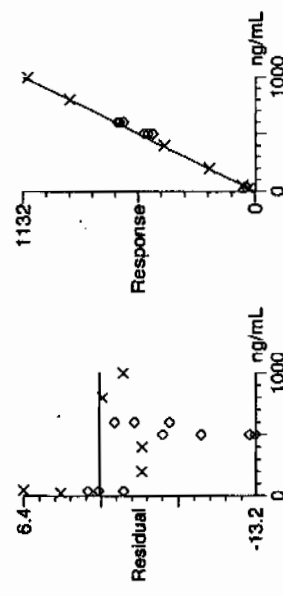
Compound name: 26-dinitrotoluene

Response Factor: 1.13194

RRF SD: 0.0463851, % Relative SD: 4.09785

Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)

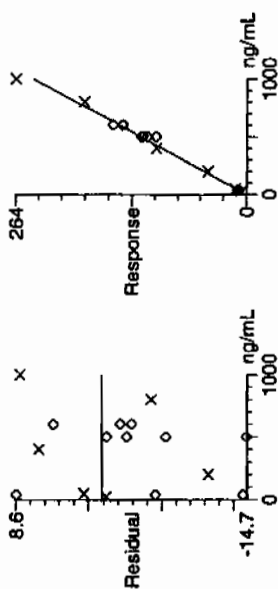
Curve type: RF



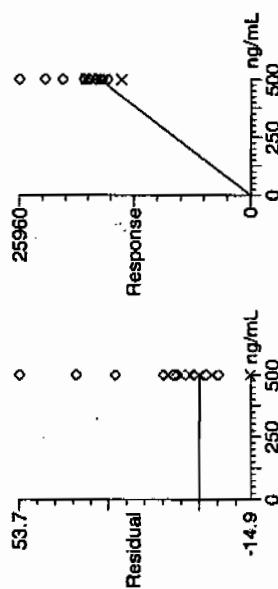
Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.243856
RRF SD: 0.0172996, % Relative SD: 7.09421
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



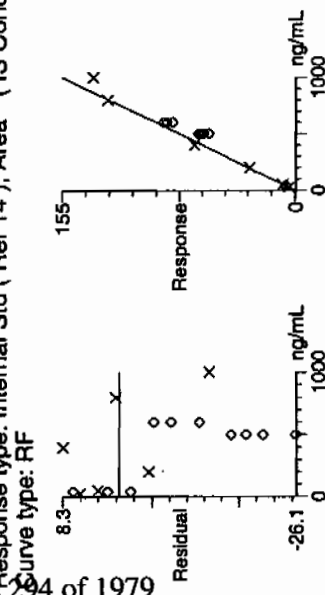
Compound name: 26-dinitrotoluene-d3
Response Factor: 33.7726
RRF SD: 2.88541, % Relative SD: 8.54363
Response type: External Std, Area
Curve type: RF



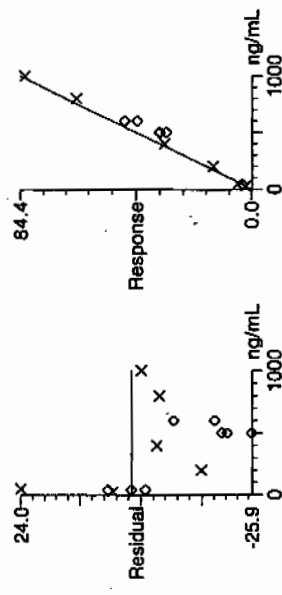
Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.154586
RRF SD: 0.0121245, % Relative SD: 7.84323
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



Compound name: 4-Nitrotoluene
Response Factor: 0.0844098
RRF SD: 0.0111663, % Relative SD: 13.2286
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



Quantify Calibration Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Jan 09 12:02:23 2010, Page 9 of 9

Dataset: C:\MASSLYNX\New_Exp\PRO1010810expA.qld, Time: Sat Jan 09 12:01:37 2010

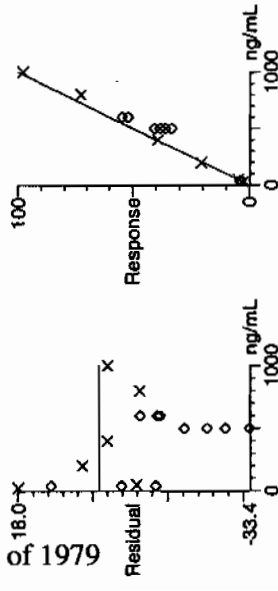
Compound name: 3-Nitrotoluene

Response Factor: 0.100163

RF SD: 0.01006, % Relative SD: 10.0436

Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)

Curve type: RF



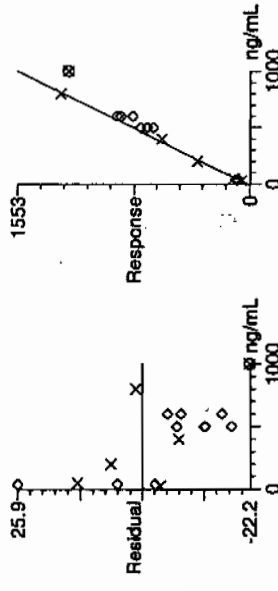
Compound name: PETN

Correlation coefficient: $r = 0.998412$, $r^2 = 0.996827$

Calibration curve: $1.53649 * x + 16.8747$

Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Exclude, Weighting: Null, Axis trans: None



Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0108010a

Analysis Date: 08-JAN-10 21:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u QDS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	488.896	98	
2,4,6-Trinitrotoluene	600	658.712	110	
2,4-Dinitrotoluene	600	582.225	97	
2,6-Dinitrotoluene	600	581.833	97	
2,6-Dinitrotoluene-d3	500	490.316	98	
2-Amino-4,6-dinitrotoluene	600	617.209	103	
3,4-Dinitrotoluene	300	311.903	104	
4-Amino-2,6-dinitrotoluene	600	567.423	95	
HMX	600	485.93	81	
Nitrobenzene	600	589.772	98	
PETN	600	568.486	95	
RDX	600	557.415	93	
Tetryl	600	496.018	83	
m-Dinitrobenzene	600	561.696	94	
m-Nitrotoluene	600	518.123	86	
o-Nitrotoluene	600	554.614	92	
p-Nitrotoluene	600	547.059	91	
1,3,5-Trinitrobenzene	600	584.535	97	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Printed: Sat Jan 09 12:02:23 2010, Page 19 of 61

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0108010a

Date: 08-Jan-2010

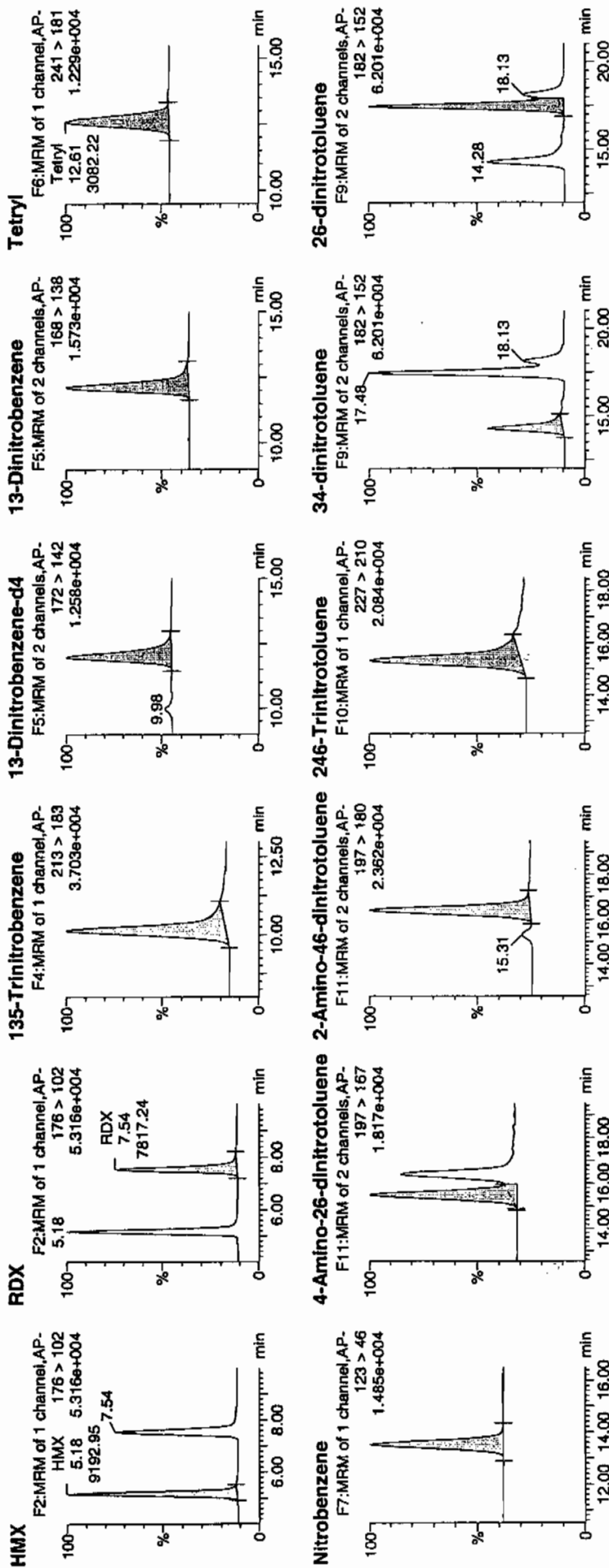
Time: 21:40:39

ID: WXX100108-07ICV

Vial: 1:1,B

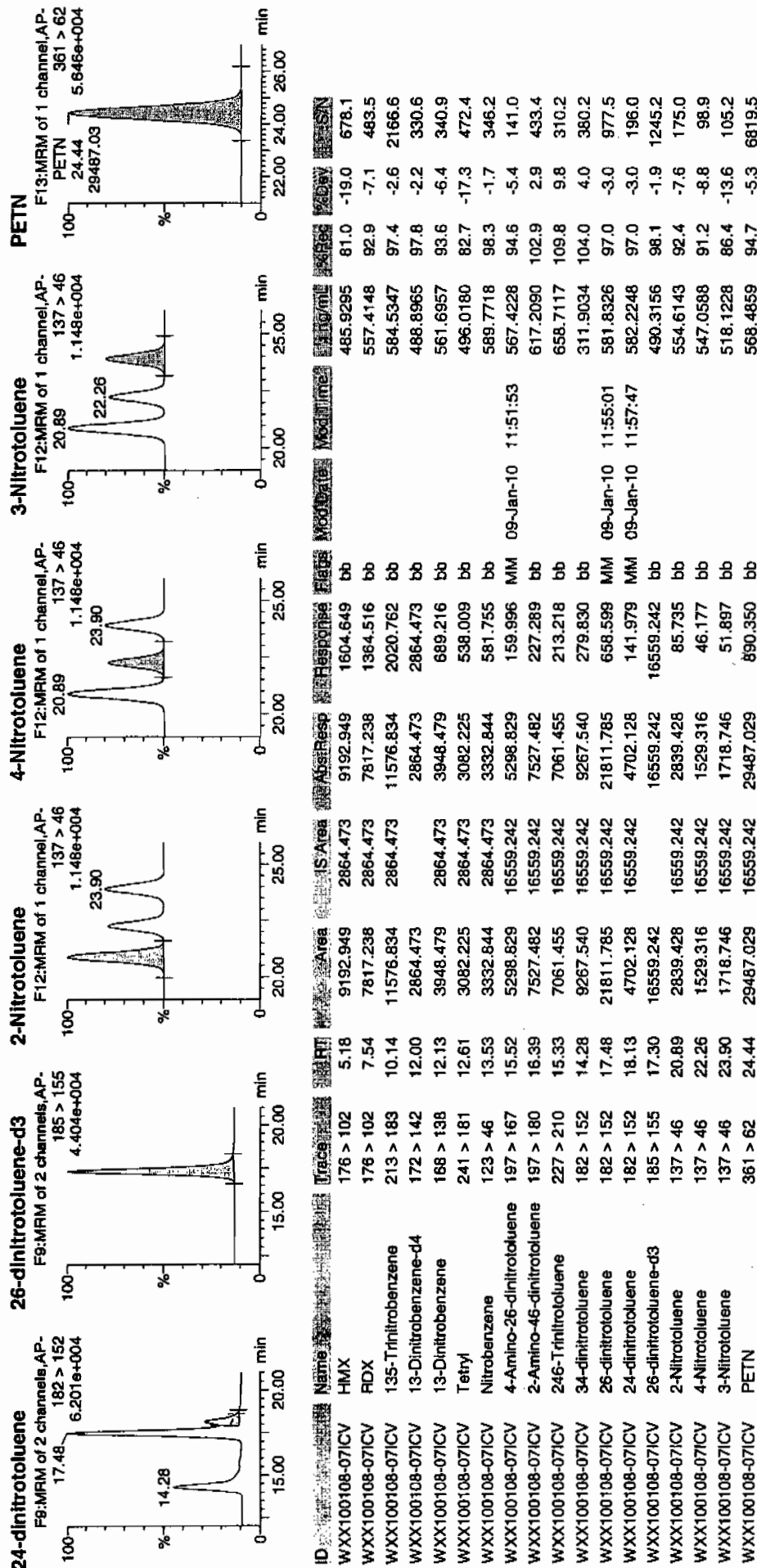
Handwritten: 1/9/10

Page 297 of 1979



Handwritten: 1/9/10

Dataset: C:\MASSLYNX\New_Exp\PROX010810expA.qld, Time: Sat Jan 09 12:01:37 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 01/08/10
 Time of Injection: 2140
 Standard Number: WXX100108-07ICV
 Data File: EXP0108010a

HMX	81.0
RDX	92.9
135-TNB	97.4
13-DNB	93.6
Tetryl	82.7
Nitrobenzene	98.3
4A-26-DNT	94.6
2A-46-DNT	102.9
246-TNT	109.8
34-DNT(surr)	104.0
26-DNT	97.0
24-DNT	97.0
2-NT	92.4
4-NT	91.2
3-NT	86.4
PETN	94.7

Total 1515.9

Average 94.7

1/9/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Form 6

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1073

Lab Code: GEL

Run Date: 05-JAN-10.08-JAN-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC.I-Sphere ODS-H8Q

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS01050003.wif	EXS01050004.wif	EXS01050003.wif	EXS01050006.wif	EXS01050007.wif	EXS01050008.wif	EXS01050009.wif					
Paraname:												
2,4-Diamino-6-nitrotoluene	119000	240000	570000	1160000	1580000	2320000	4580000	14300	2190	.045	.9995	
2,6-Diamino-4-nitrotoluene	167000	321000	888000	1630000	2510000	3420000	6300000	-30400	3590	-.207	.9997	
3,4-Dinitrotoluene	288000	581000	1500000	2870000	4340000	5830000	10300000	-99000	13700	-3.22	.9988	
3,5-Dinitroaniline	438000	907000	2250000	4080000	6180000	7980000	13400000	-15600	9130	-1.2	.9999	
TATB	66800	138000	345000	682000	998000	1360000	2570000	-4460	1410	-.059	.9999	
tris(o-cresyl) phosphate	1220000	2460000	6050000	11400000	16000000	20200000	31700000	80200	24600	-4.39	1	

Quadratic Fit: $y = Ax^2 + Bx + C$
 where X^2 column above is coefficient A
 X column above is coefficient B
 intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)

* Values outside of QC Limit

010510ICAL

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-4.46e+003			
a1	1.41e+003			
a2	-0.0594			
Correlation coefficient 0.9999				
Use Area				

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.56e+004			
a1	9.13e+003			
a2	-1.2			
Correlation coefficient 0.9999				
Use Area				

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-9.9e+004			
a1	1.37e+004			
a2	-3.22			
Correlation coefficient 0.9988				
Use Area				

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-3.04e+004			
a1	3.59e+003			
a2	-0.207			
Correlation coefficient 0.9997				
Use Area				

for 11/10

for 01/01/10

010510ICAL

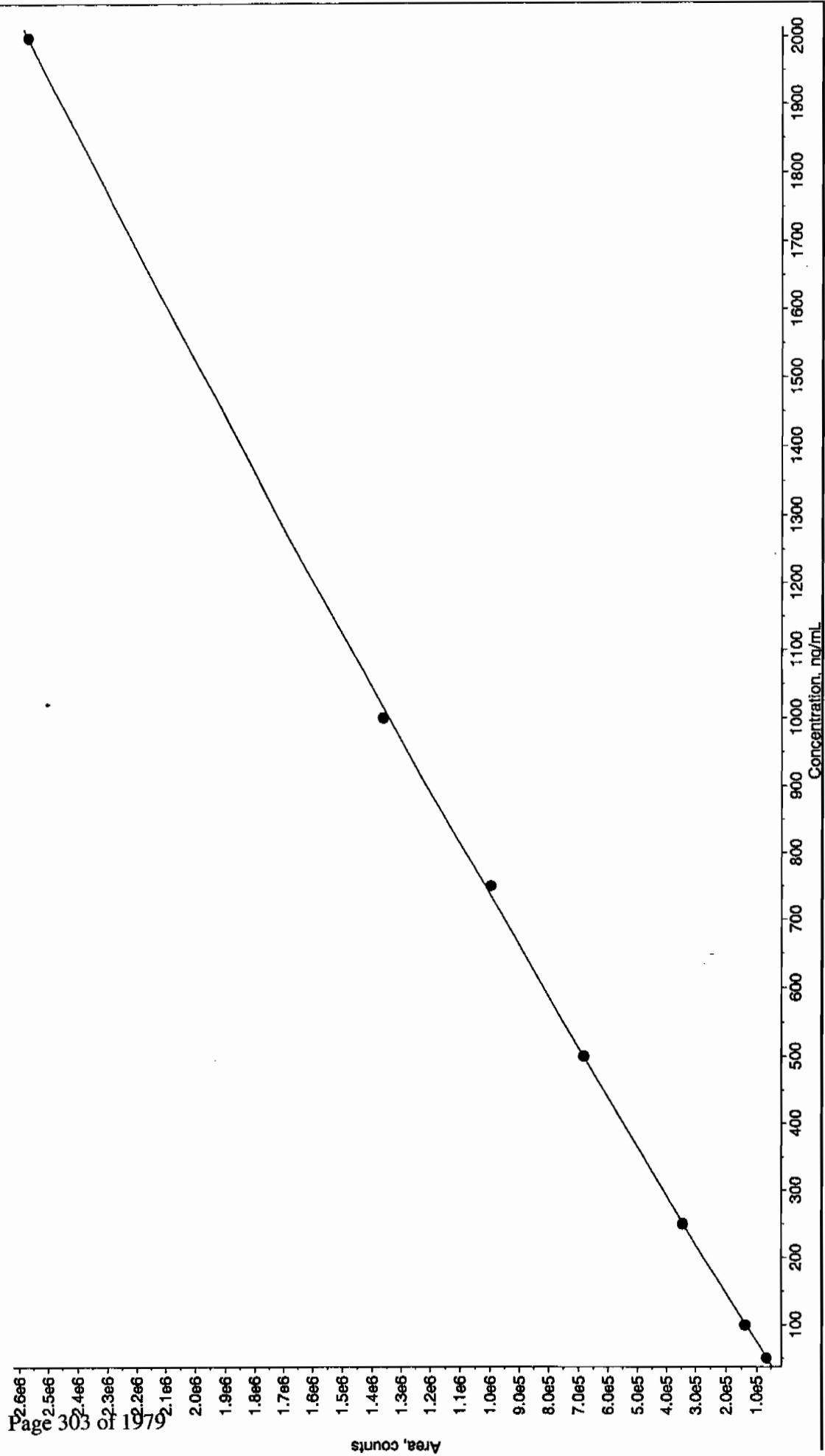
Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.43e+004			
a1	2.19e+003			
a2	0.0451			
Correlation coefficient 0.9995				
Use Area				

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

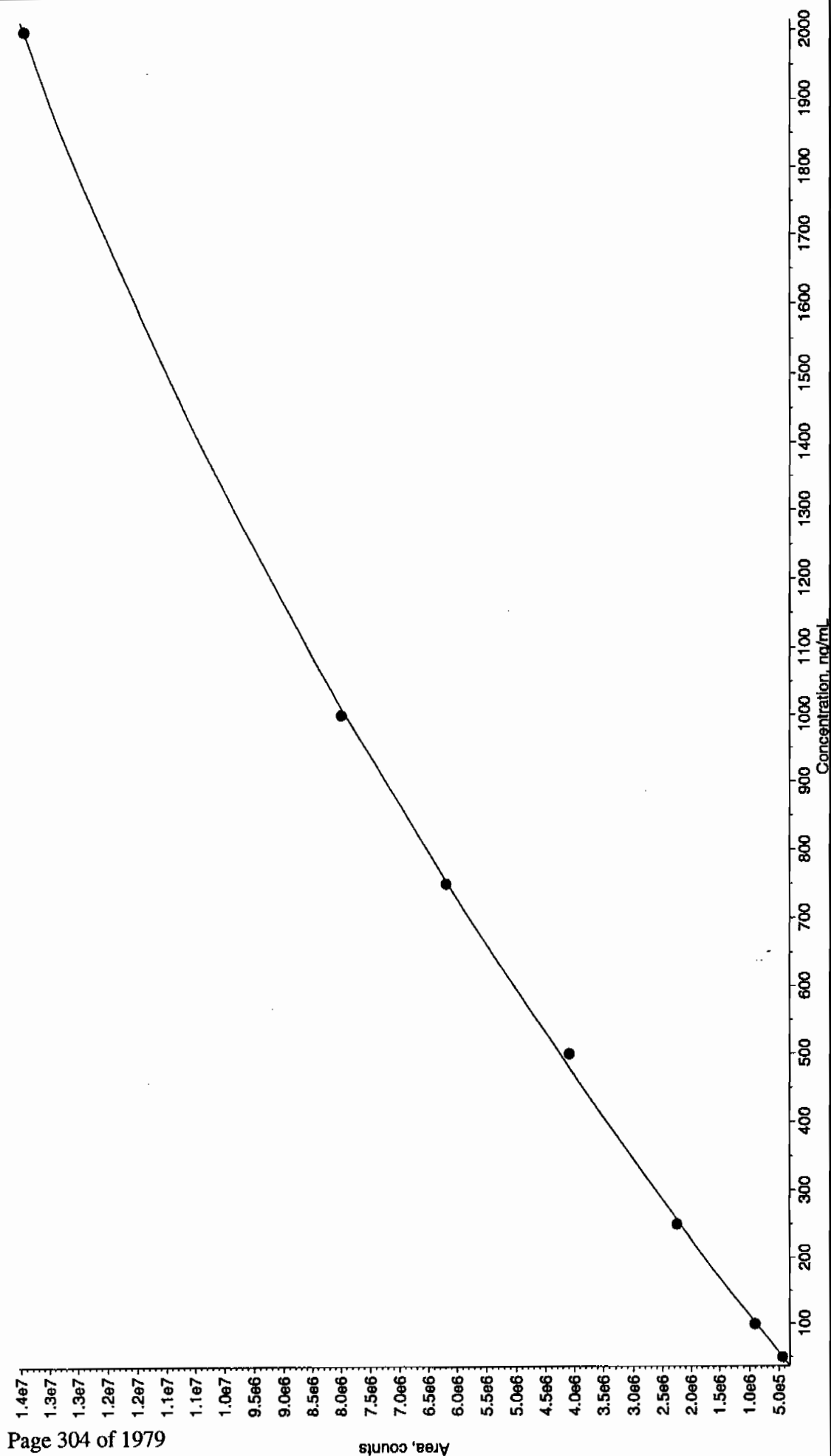
Fit	Quadratic	Weighting	None	Iterate No
a0	8.02e+004			
a1	2.46e+004			
a2	-4.39			
Correlation coefficient 1.0000				
Use Area				

010510.rdb (TATB): "Quadratic" Regression ("No" weighting): $y = -0.0594 x^2 + 1.41e+003 x + -4.46e+003$ ($r = 0.9999$)

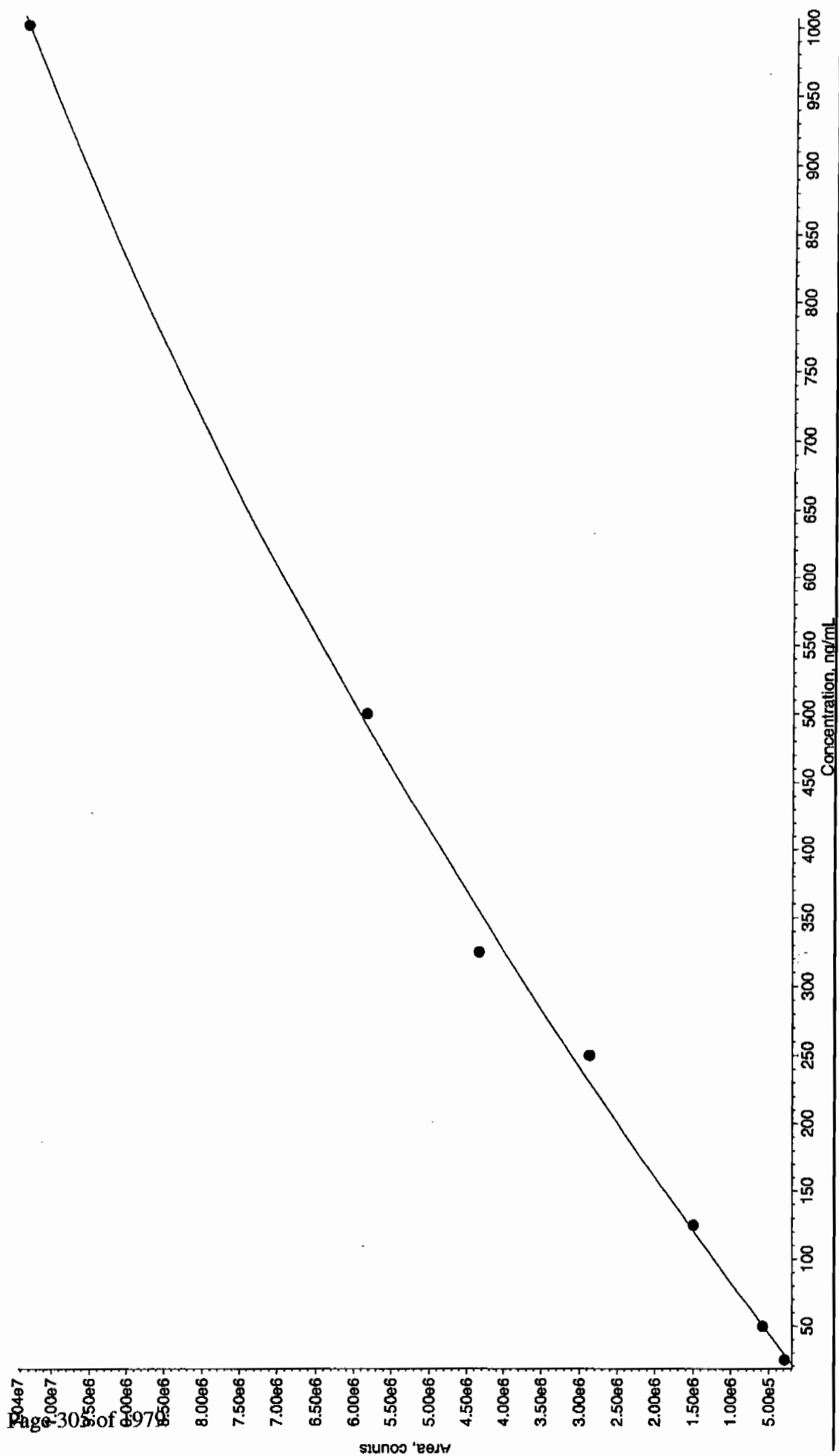


GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

010510.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting): $y = -1.2 \times 10^{-4} x^2 + 9.13 \times 10^{-3} x + -1.56 \times 10^{-4}$ ($r = 0.9999$)

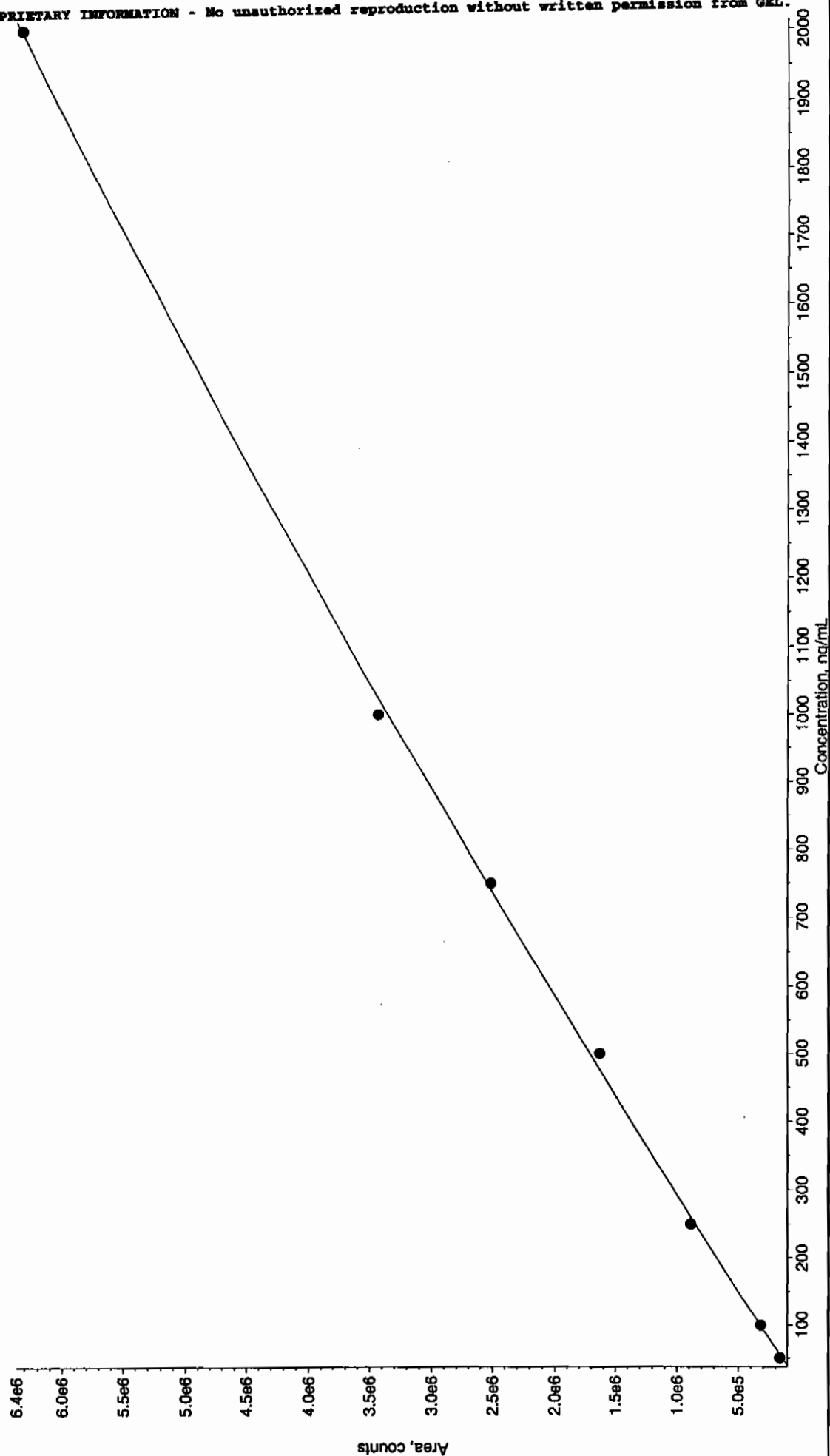


010510.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting): $y = -3.22 x^2 + 1.37e+004 x + -9.9e+004$ ($r = 0.9988$)



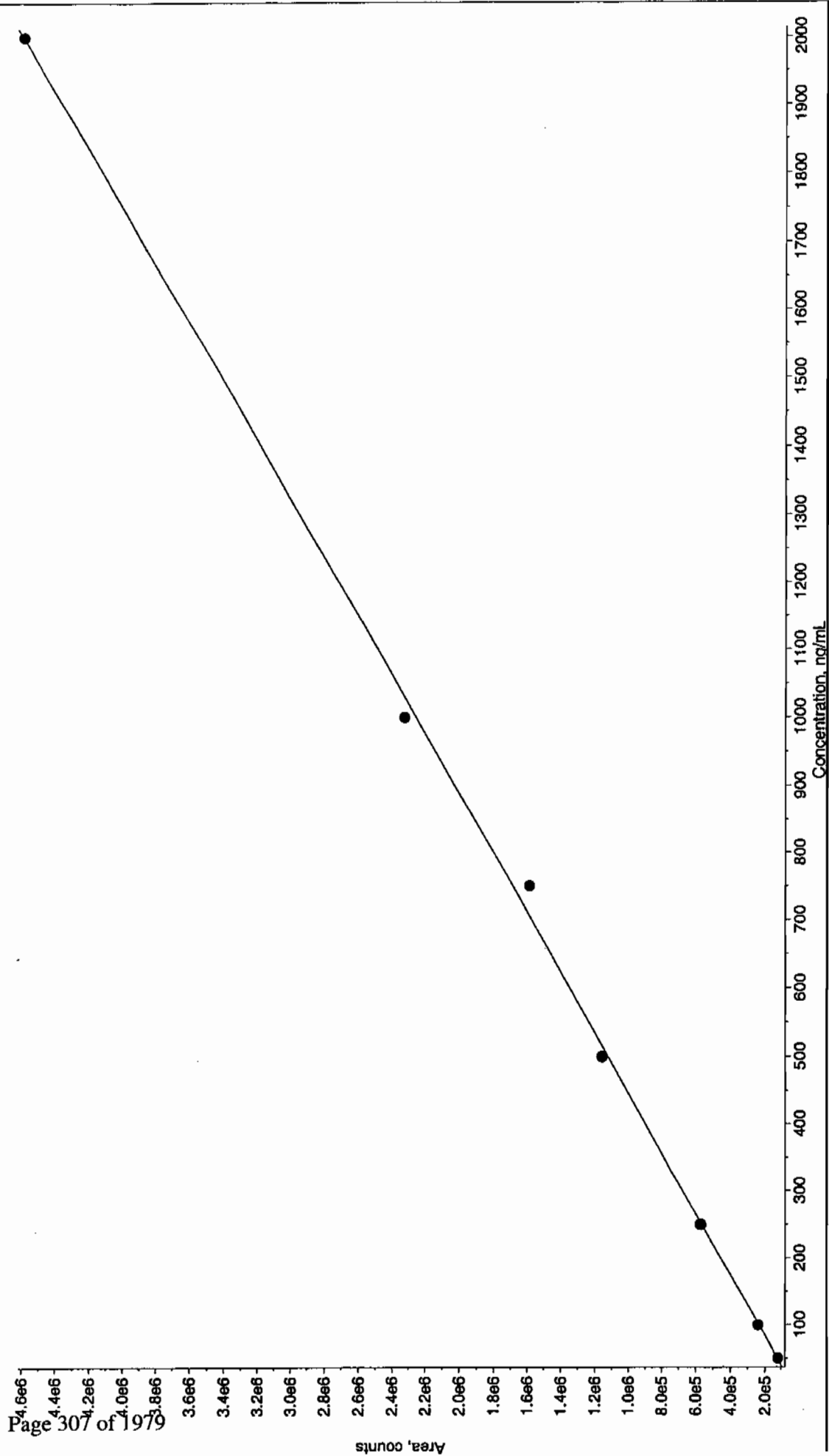
GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

010510.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting): $y = -0.207 x^2 + 3.59e+003 x + -3.04e+004$ ($r = 0.9997$)



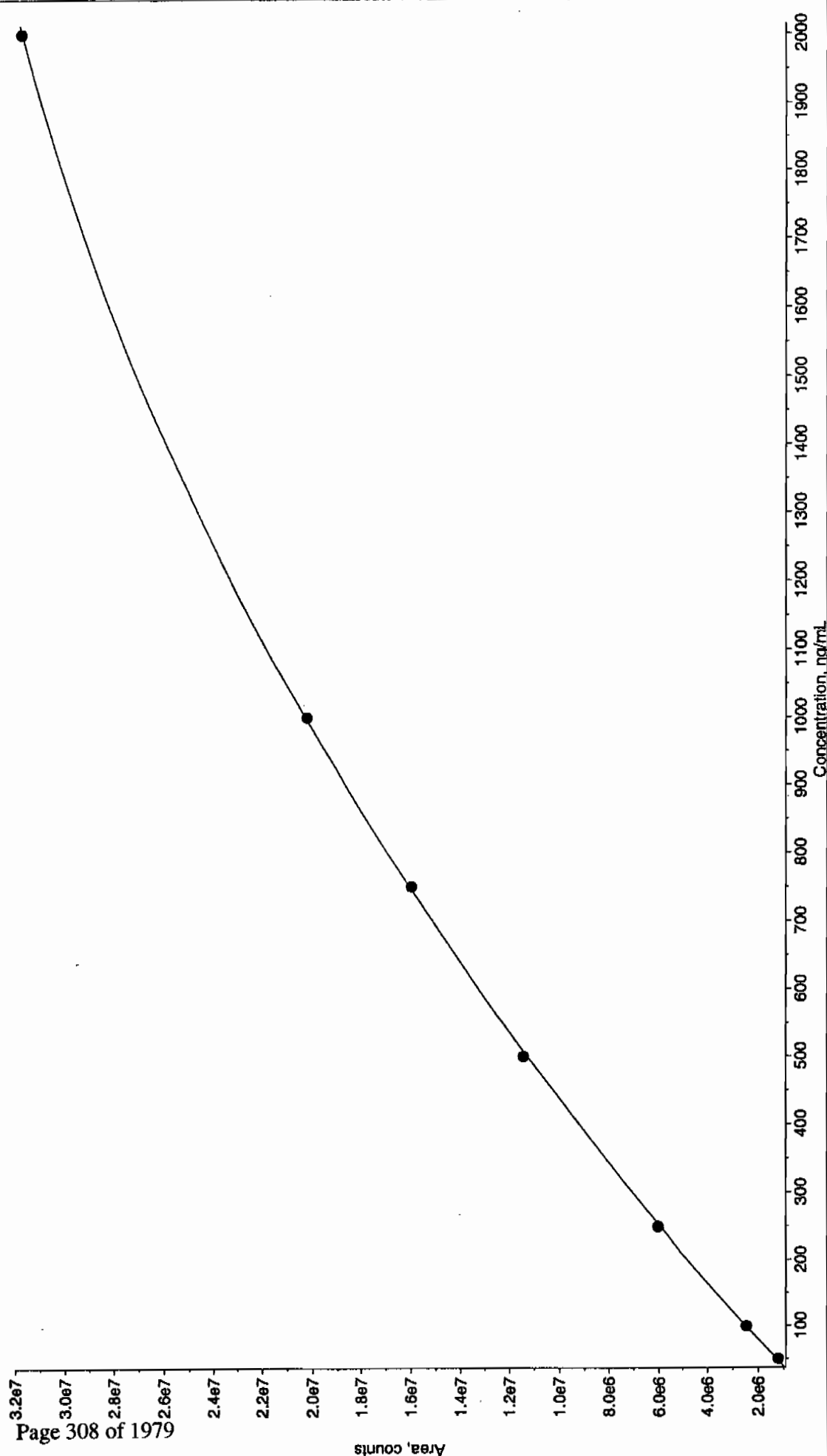
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

010510.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting): $y = 0.0451 x^2 + 2.19e+003 x + 1.43e+004$ ($r = 0.9995$)



GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

010510.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting): $y = -4.39 x^2 + 2.46e+004 x + 8.02e+004$ ($r = 1.0000$)



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS01050011.wiff

Analysis Date: 05-JAN-10 17:07

LCMSMS ID: 1358

Column ID: Sphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	512	102	
2,6-Diamino-4-nitrotoluene	500	553	111	
3,4-Dinitrotoluene	250	225	90	
3,5-Dinitroaniline	500	509	102	
TATB	500	514	103	
tris(o-cresyl) phosphate	500	481	96	

Recovery Limits:

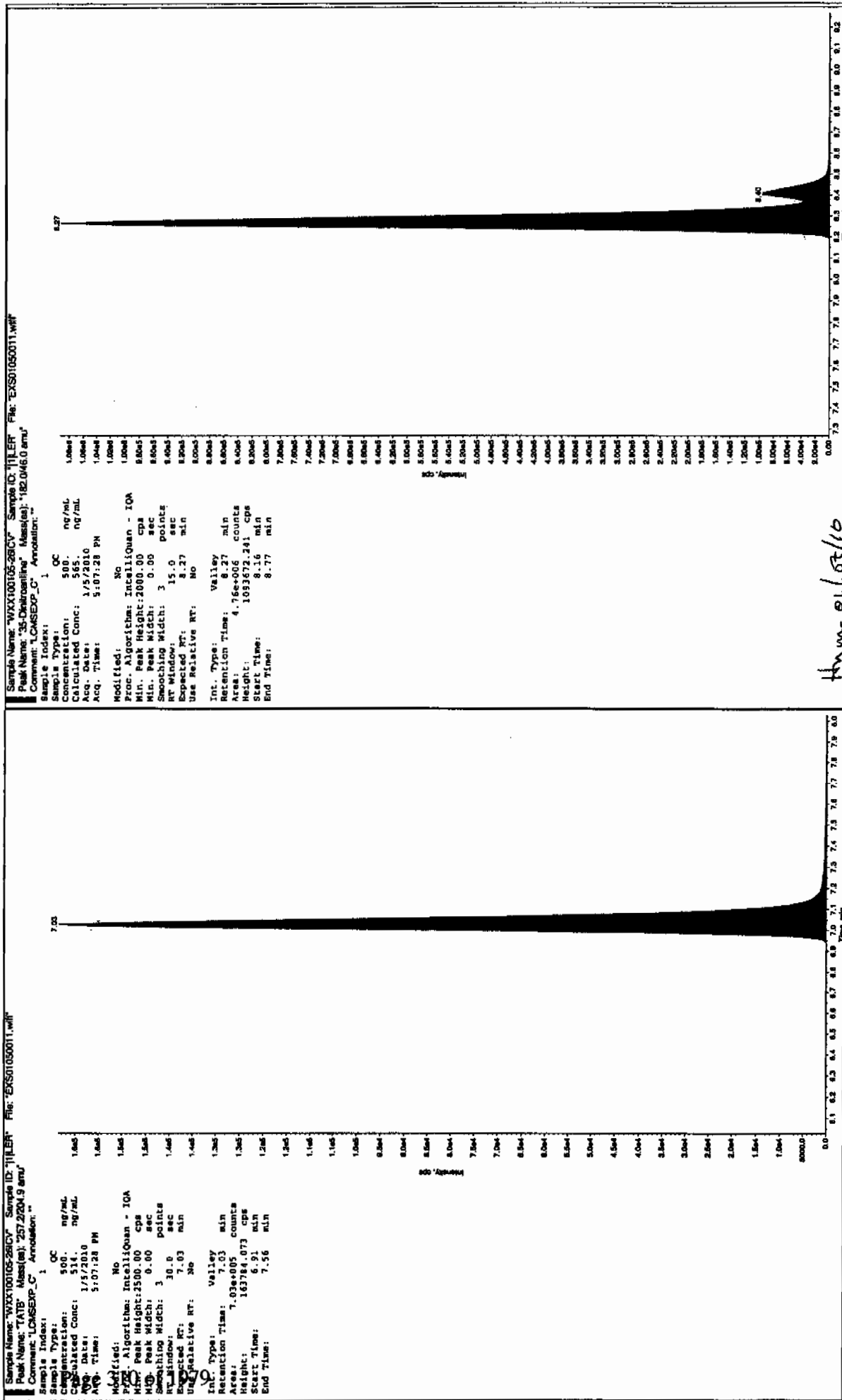
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

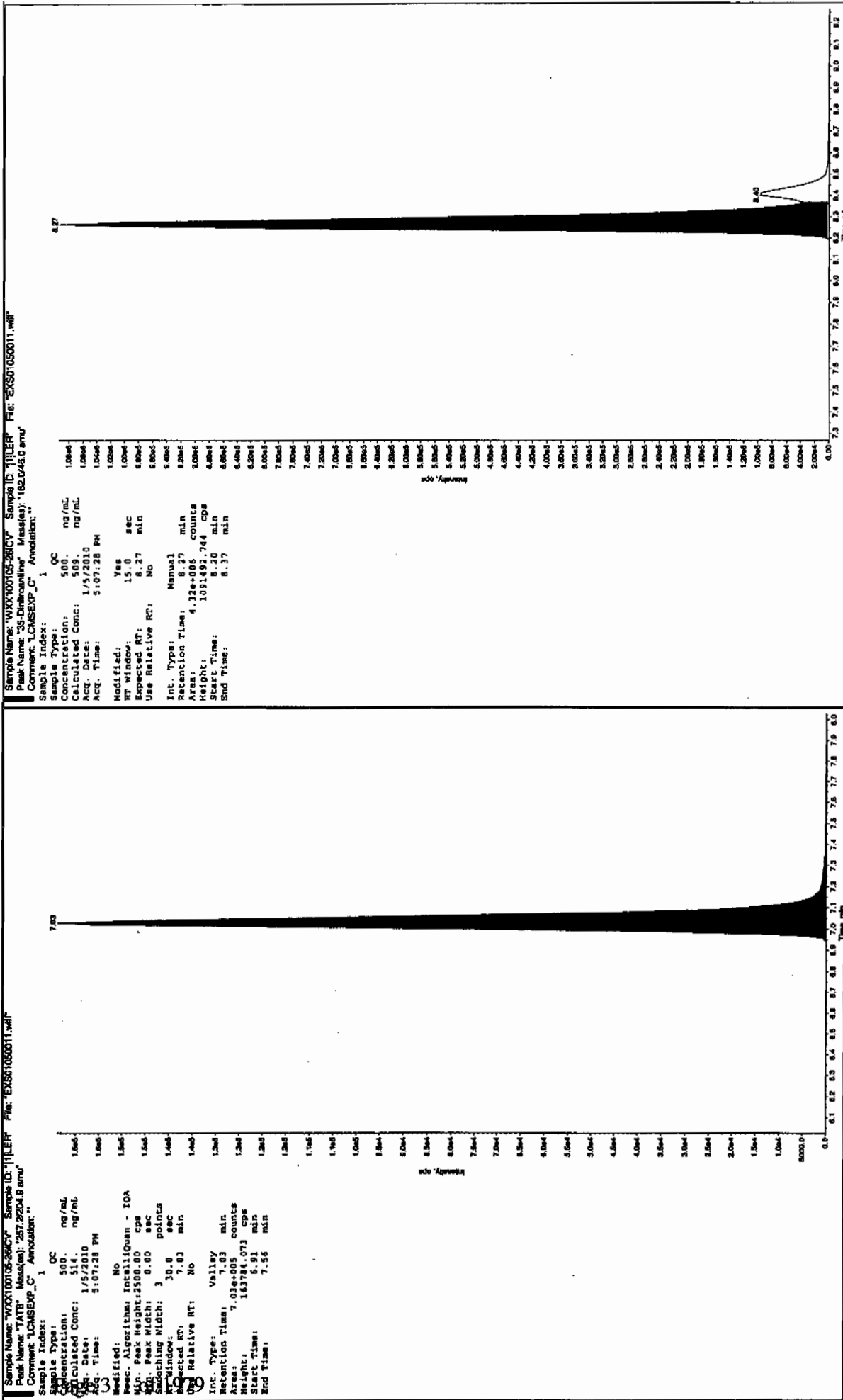
* Value outside of Recovery Limits

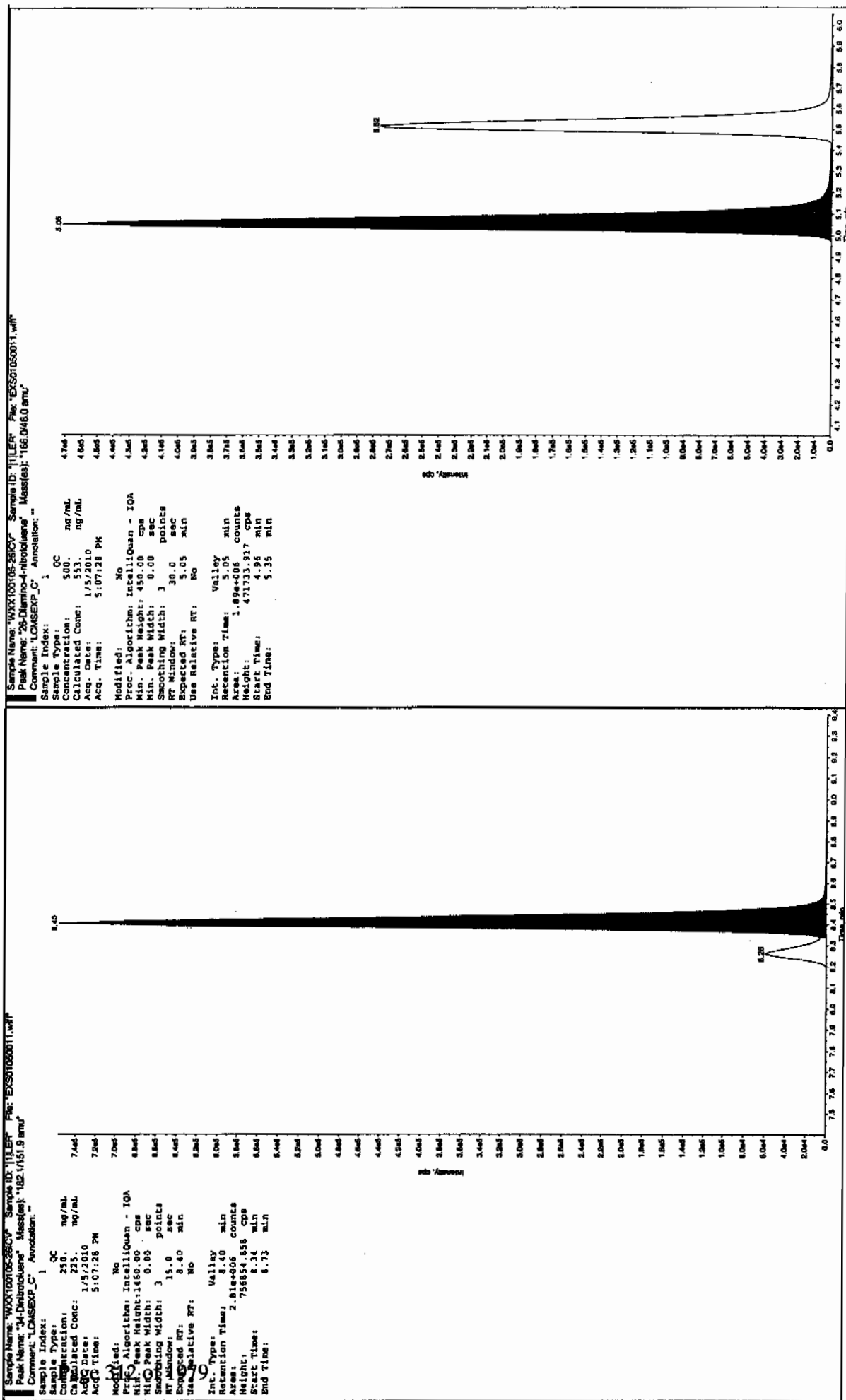
01/11/11
20080808



have eluted

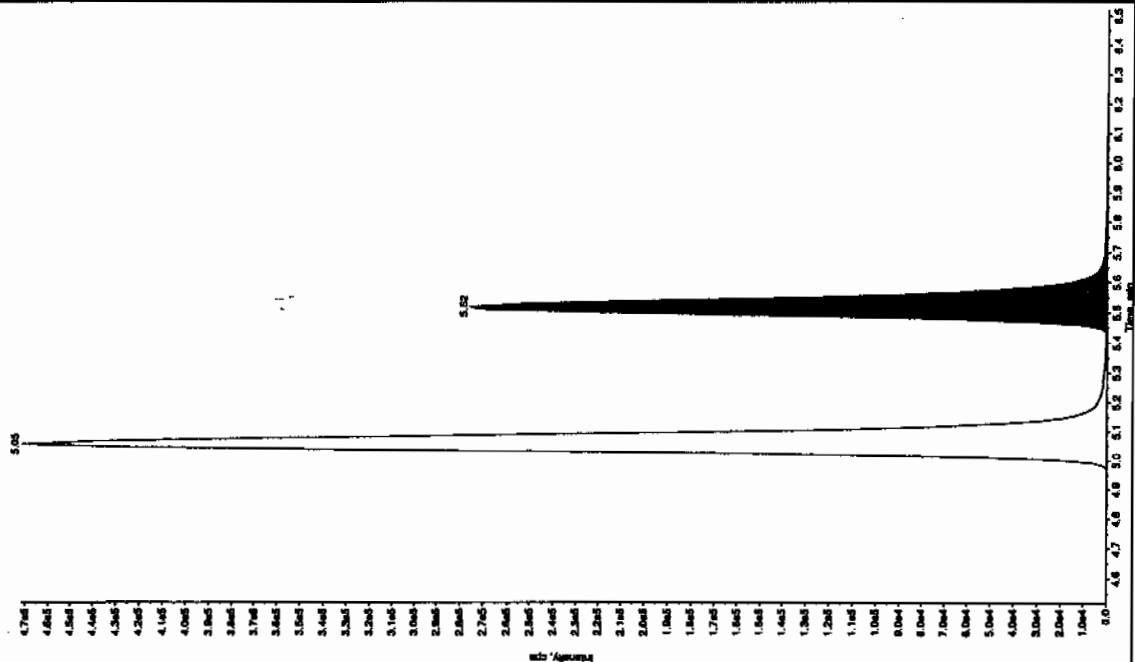
11/17/10
Vandenberg



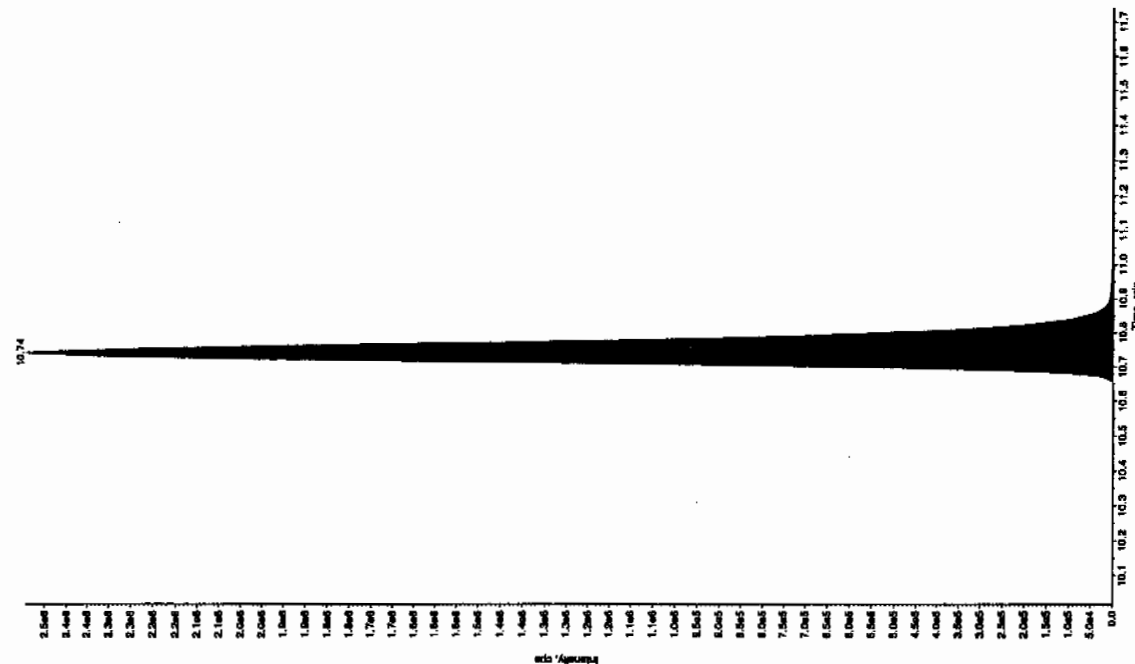


*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XXX100105-25CV" Sample ID: "111ER" File: "XS010500111.wat"
Peak Name: "24-Diethyl-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP C" Annotation: ""



Sample Name: "WXX100105-261CV" Sample ID: "11LEA" File: "EXS01050011.wiff"
Peak Name: "bis(o-cresyl) phosphates" Mass(es): "369.1791.0 amu"
Comment: "LCMSEXP C" Annotation: "



7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0105012a

Analysis Date: 06-JAN-10 00:21

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	40	43.086	108	
m-Nitrotoluene	40	48.034	120	
o-Nitrotoluene	40	39.452	99	
p-Nitrotoluene	40	48.414	121	
1,3,5-Trinitrobenzene	40	39.099	98	
1,3-Dinitrobenzene-d4	500	487.493	97	
2,4,6-Trinitrotoluene	40	39.892	100	
2,4-Dinitrotoluene	40	29.031	73	
2,6-Dinitrotoluene	40	43.458	109	
2,6-Dinitrotoluene-d3	500	479.797	96	
2-Amino-4,6-dinitrotoluene	40	41.371	103	
3,4-Dinitrotoluene	20	21.554	108	
4-Amino-2,6-dinitrotoluene	40	38.151	95	
HMX	40	46.12	115	
Nitrobenzene	40	45.004	113	
PETN	40	50.794	127	
RDX	40	41.764	104	
Tetryl	40	36.162	90	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105012a

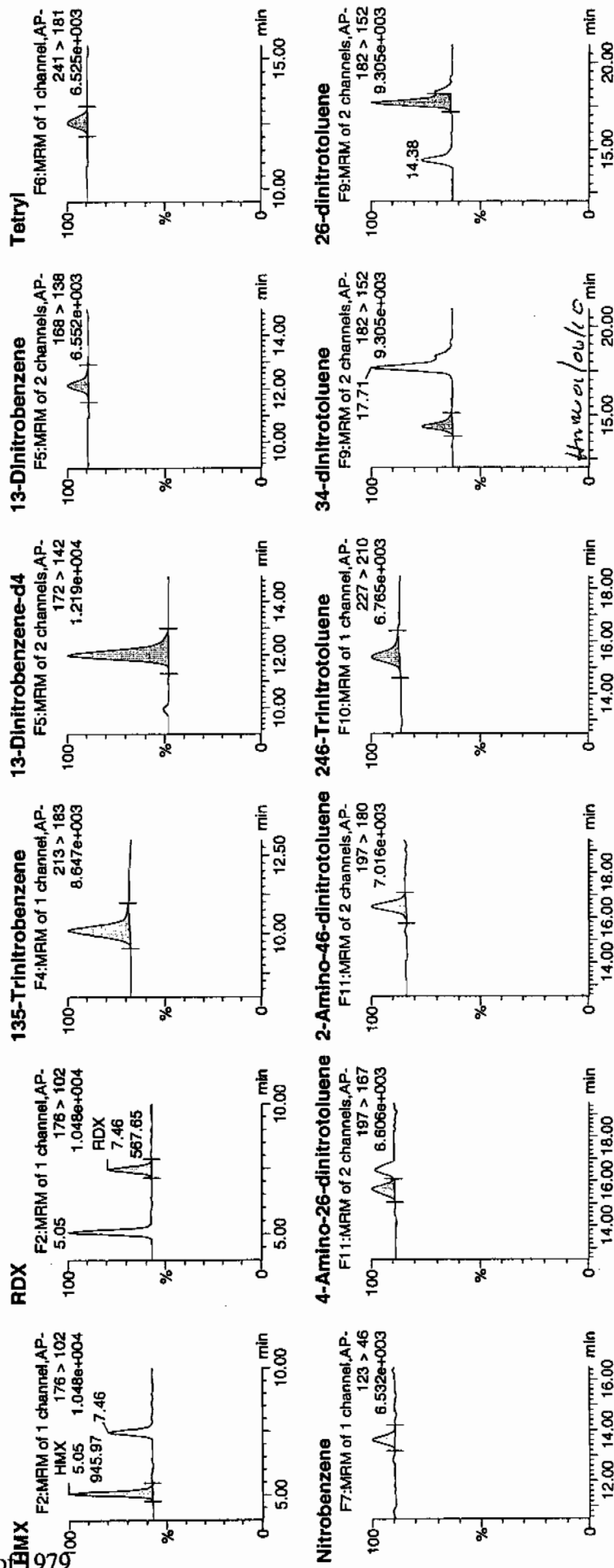
Date: 06-Jan-2010

Time: 00:21:35

ID: WXX100105-08CRI

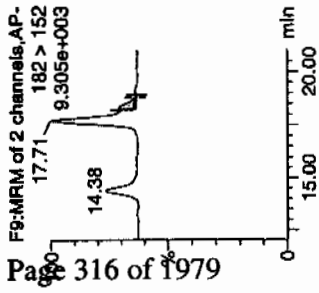
Vial: 1:1,C

WXX
1/6/10

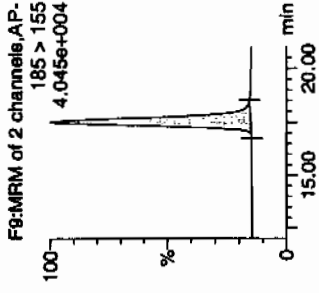


Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

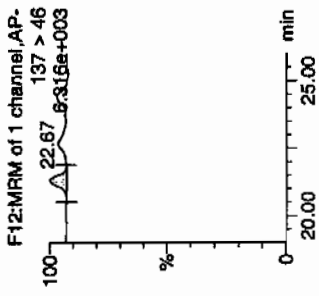
24-dinitrotoluene



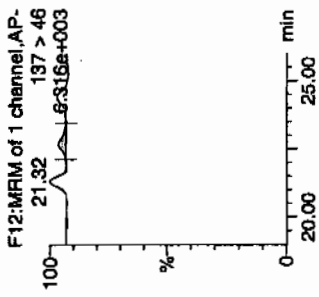
26-dinitrotoluene-d3



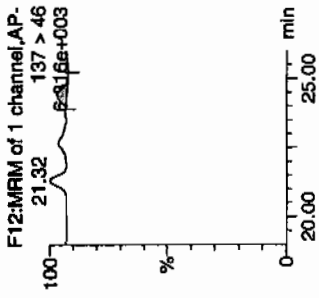
2-Nitrotoluene



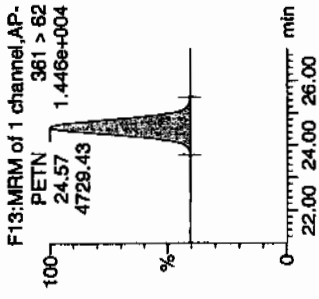
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS:Area	Abs:Resp	Response	Flags	Mod	Date	Volume	Conc	Area	Conc	Area	Conc	Area	Conc
WXX100105-08C1	HMZ	176 > 102	5.05	945,973	2714.742	945,973	174,229	bb					46.1197	115.3	15.3	101.6		
WXX100105-08C1	RDX	176 > 102	7.46	567,653	2714.742	567,653	104,550	bb					41.7642	104.4	4.4	52.4		
WXX100105-08C1	135-Trinitrobenzene	213 > 183	10.11	1069,959	2714.742	1069,959	197,065	bb					39.0994	97.7	-2.3	307.6		
WXX100105-08C1	13-Dinitrobenzene-d4	172 > 142	12.00	2714,742	2714,742	2714,742	2714,742	bb					487.4930	97.5	-2.5	350.3		
WXX100105-08C1	13-Dinitrobenzene	168 > 138	12.17	291,140	2714,742	291,140	53,622	bb					43.0864	107.7	7.7	35.2		
WXX100105-08C1	Tetryl	241 > 181	12.53	318,850	2714,742	318,850	58,726	bb					36.1621	90.4	-9.6	32.4		
WXX100105-08C1	Nitrobenzene	123 > 46	13.63	248,720	2714,742	248,720	45,809	bb					45.0040	112.5	12.5	29.7		
WXX100105-08C1	4-Amino-26-dinitrotoluene	197 > 167	15.62	336,536	15431,733	336,536	10,904	MM	06-Jan-10	12:29:12			38.1513	95.4	-4.6	34.8		
WXX100105-08C1	2-Amino-46-dinitrotoluene	197 > 180	16.49	505,186	15431,733	505,186	16,368	bb					41.3710	103.4	3.4	43.2		
WXX100105-08C1	246-Trinitrotoluene	227 > 210	15.41	432,150	15431,733	432,150	14,002	bb					39.8916	99.7	-0.3	63.0		
WXX100105-08C1	34-dinitrotoluene	182 > 152	14.38	597,930	15431,733	597,930	19,373	bb					21.5537	107.8	7.8	29.7		
WXX100105-08C1	26-dinitrotoluene	182 > 152	17.71	1443,265	15431,733	1443,265	46,763	MM	06-Jan-10	12:33:57			43.4593	108.6	8.6	77.8		
WXX100105-08C1	26-dinitrotoluene	182 > 152	18.32	236,902	15431,733	236,902	7,676	MM	06-Jan-10	12:38:23			29.0307	72.6	-27.4	15.9		
WXX100105-08C1	26-dinitrotoluene-d3	185 > 155	17.53	15431,733	15431,733	15431,733	15431,733	bb					479.7970	96.0	-4.0	889.2		
WXX100105-08C1	2-Nitrotoluene	137 > 46	21.32	211,882	15431,733	211,882	6,865	bb					39.4515	98.6	-1.4	31.3		
WXX100105-08C1	4-Nitrotoluene	137 > 46	22.67	118,843	15431,733	118,843	3,851	bb					48.4143	121.0	21.0	14.6		
WXX100105-08C1	3-Nitrotoluene	137 > 46	24.42	141,291	15431,733	141,291	4,578	bb					48.0344	120.1	20.1	17.7		
WXX100105-08C1	PETN	361 > 62	24.57	4729,434	15431,733	4729,434	153,237	bb					50.7941	127.0	27.0	325.5		

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 01/06/10
 Time of Injection 0021
 Standard Number WXX100105-08CRI
 Data File EXP0105012a

HMX	115.3
RDX	104.4
135-TNB	97.7
13-DNB	107.7
Tetryl	90.4
Nitrobenzene	112.5
4A-26-DNT	95.4
2A-46-DNT	103.4
246-TNT	99.7
34-DNT(surr)	107.8
26-DNT	108.6
24-DNT	72.6
2-NT	98.6
4-NT	121.0
3-NT	120.1
PETN	127.0
Total	1682.2

100%
1/6/10

Average

105.1

4/11/10 01/06/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0105020a

Analysis Date: 06-JAN-10 04:17

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	591.487	99	
1,3-Dinitrobenzene-d4	500	617.566	124	*
2,4,6-Trinitrotoluene	600	666.044	111	
2,4-Dinitrotoluene	600	555.954	93	
2,6-Dinitrotoluene	600	593.114	99	
2,6-Dinitrotoluene-d3	500	603.055	121	*
2-Amino-4,6-dinitrotoluene	600	550.985	92	
3,4-Dinitrotoluene	300	315.081	105	
4-Amino-2,6-dinitrotoluene	600	568.973	95	
HMX	600	458.181	76	*
Nitrobenzene	600	547.645	91	
PETN	600	455.032	76	*
RDX	600	605.106	101	
Tetryl	600	570.762	95	
m-Dinitrobenzene	600	580.387	97	
m-Nitrotoluene	600	599.836	100	
o-Nitrotoluene	600	501.553	84	
p-Nitrotoluene	600	575.012	96	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Printed: Wed Jan 06 12:44:40 2010, Page 39 of 71

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

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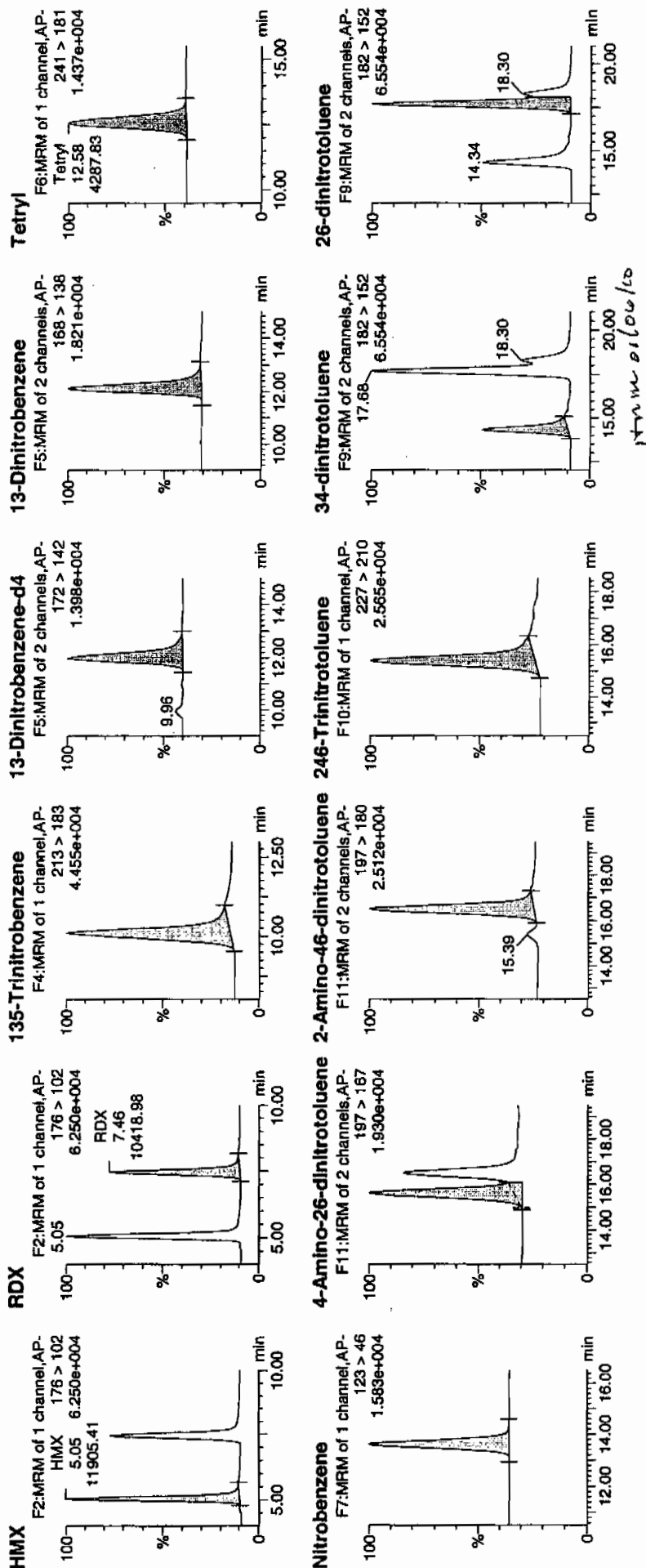
Date: 06-Jan-2010

Time: 04:17:27

ID: WXX100105-07CCV

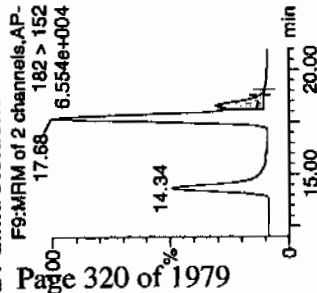
Vial: 1:1,B

1/6/10

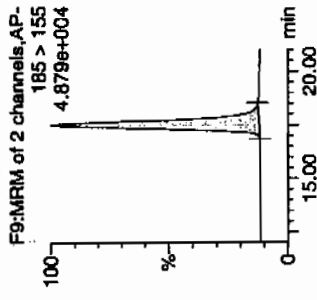


Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

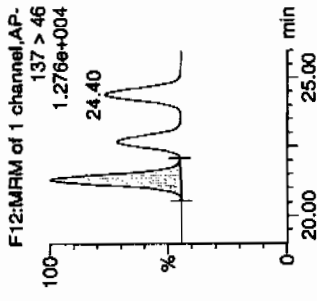
24-dinitrotoluene



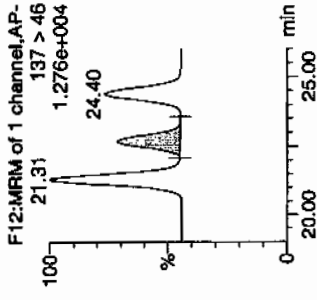
26-dinitrotoluene-d3



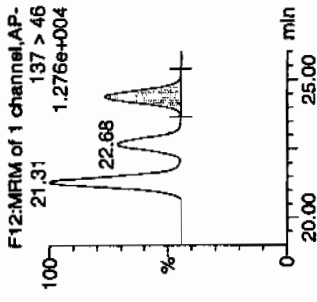
2-Nitrotoluene



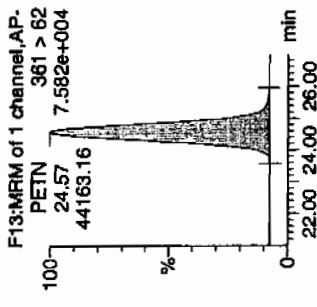
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Reg	Obs	SN		
WXX100105-07CCV	HMX	176 > 102	5.05	11905.405	3439.091	11905.405	1730.894	db			458.1809	76.4	-23.6	1489.4
WXX100105-07CCV	RDX	176 > 102	7.46	10418.981	3439.091	10418.981	1514.787	bb			605.1058	100.9	0.9	1113.1
WXX100105-07CCV	135-Trinitrobenzene	213 > 183	10.11	14908.943	3439.091	14908.943	2167.570	bb			591.4871	98.6	-1.4	1036.8
WXX100105-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	3439.091	3439.091	3439.091	3439.091	bb			617.5662	123.5	23.5	508.5
WXX100105-07CCV	13-Dinitrobenzene	168 > 138	12.14	4968.147	3439.091	4968.147	722.305	bb			580.3868	96.7	-3.3	858.3
WXX100105-07CCV	Tetryl	241 > 181	12.58	4287.832	3439.091	4287.832	623.396	bb			570.7615	95.1	-4.9	603.7
WXX100105-07CCV	Nitrobenzene	123 > 46	13.63	3834.192	3439.091	3834.192	557.443	bb			547.6447	91.3	-8.7	335.5
WXX100105-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.62	6308.315	19396.076	6308.315	162.618	MM	06-Jan-10	12:30:03	568.9731	94.8	-5.2	158.1
WXX100105-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.49	8456.572	19396.076	8456.572	217.997	bb			550.9851	91.8	-8.2	486.2
WXX100105-07CCV	246-Trinitrotoluene	227 > 210	15.38	9068.909	19396.076	9068.909	233.782	bb			666.0437	111.0	11.0	724.7
WXX100105-07CCV	34-dinitrotoluene	182 > 152	14.34	10986.255	19396.076	10986.255	283.208	bb			315.0807	105.0	5.0	304.8
WXX100105-07CCV	26-dinitrotoluene	182 > 152	17.68	24757.688	19396.076	24757.688	638.214	MM	06-Jan-10	12:34:49	593.1137	98.9	-1.1	702.3
WXX100105-07CCV	24-dinitrotoluene	182 > 152	18.30	5702.291	19396.076	5702.291	146.996	MM	06-Jan-10	12:39:27	555.9536	92.7	-7.3	160.0
WXX100105-07CCV	26-dinitrotoluene-d3	185 > 155	17.51	19396.076	19396.076	19396.076	19396.076	bb			603.0547	120.6	20.6	2136.8
WXX100105-07CCV	2-Nitrotoluene	137 > 46	21.31	3385.686	19396.076	3385.686	87.278	bb			501.5525	83.6	-16.4	192.6
WXX100105-07CCV	4-Nitrotoluene	137 > 46	22.68	1774.092	19396.076	1774.092	45.733	bb			575.0122	95.8	-4.2	93.5
WXX100105-07CCV	3-Nitrotoluene	137 > 46	24.40	2217.655	19396.076	2217.655	57.168	bb			599.8363	100.0	-0.0	112.8
WXX100105-07CCV	PETN	361 > 62	24.57	44163.160	19396.076	44163.160	1138.456	bb			455.0320	75.8	-24.2	1951.5

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 01/06/10
 Time of Injection: 0417
 Standard Number: WXX100105-07CCV
 Data File: EXP0105020a

HMX	76.4
RDX	100.9
135-TNB	98.6
13-DNB	96.7
Tetryl	95.1
Nitrobenzene	91.3
4A-26-DNT	94.8
2A-46-DNT	91.8
246-TNT	111.0
34-DNT(surr)	105.0
26-DNT	98.9
24-DNT	92.7
2-NT	83.6
4-NT	95.8
3-NT	100.0
PETN	75.8

Total 1508.4

Average 94.3

Ann 01/06/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0105022a

Analysis Date: 06-JAN-10 05:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u QDS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40.332	101	
1,3-Dinitrobenzene-d4	500	499.536	100	
2,4,6-Trinitrotoluene	40	39.824	100	
2,4-Dinitrotoluene	40	38.799	97	
2,6-Dinitrotoluene	40	43.658	109	
2,6-Dinitrotoluene-d3	500	530.682	106	
2-Amino-4,6-dinitrotoluene	40	44.282	111	
3,4-Dinitrotoluene	20	22.508	113	
4-Amino-2,6-dinitrotoluene	40	47.924	120	
HMX	40	43.053	108	
Nitrobenzene	40	45.116	113	
PETN	40	46.941	117	
RDX	40	41.829	105	
Tetryl	40	25.129	63	*
m-Dinitrobenzene	40	32.713	82	
m-Nitrotoluene	40	46.051	115	
o-Nitrotoluene	40	42.367	106	
p-Nitrotoluene	40	40.289	101	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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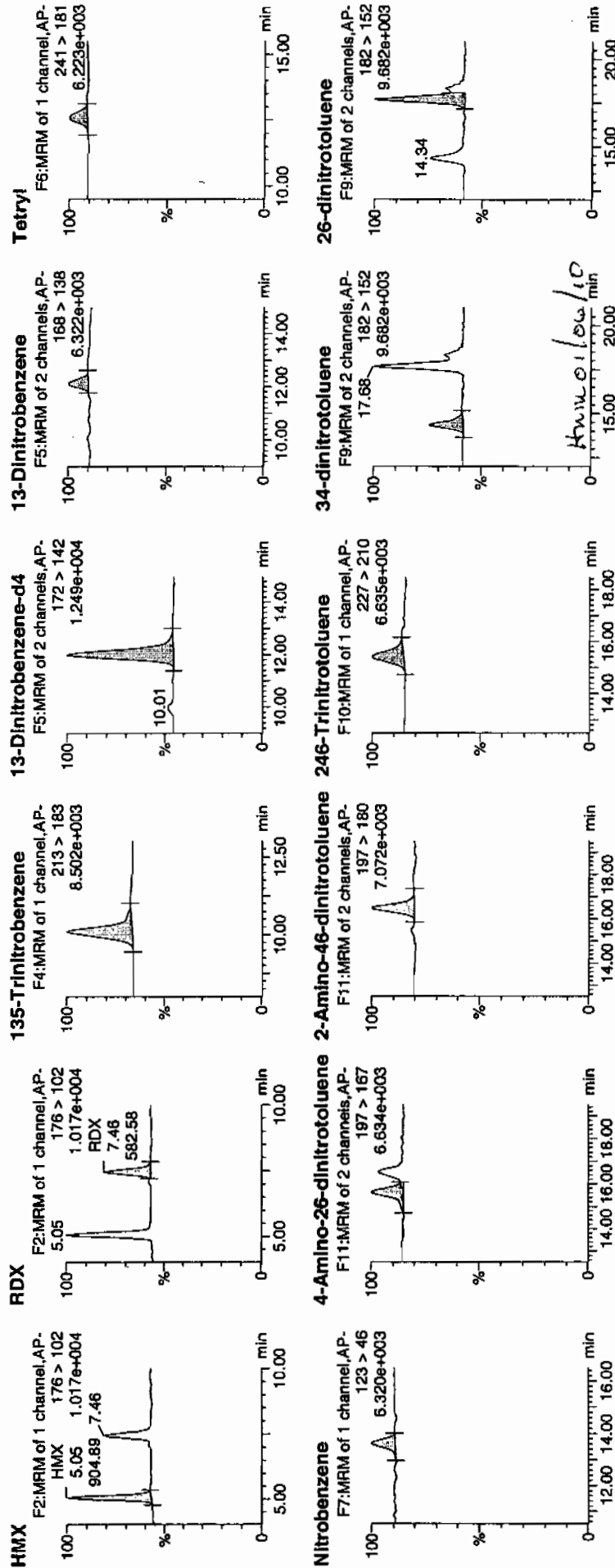
Date: 06-Jan-2010

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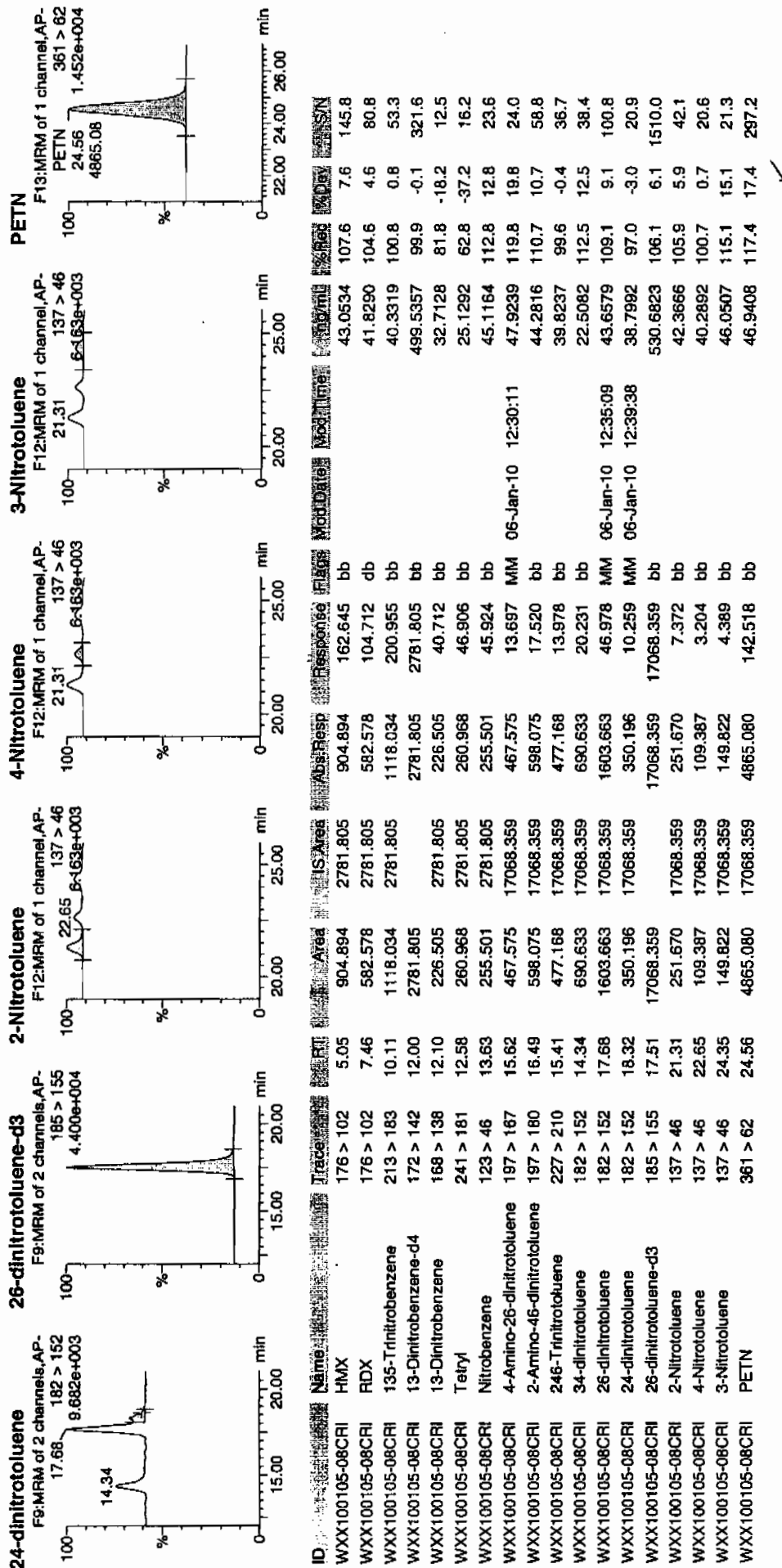
ID: WXX100105-08CRI

Vial: 1:1,C

1/6/10



Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 01/06/10
 Time of Injection 0516
 Standard Number WXX100105-08CRI
 Data File EXP0105022a

HMX	107.6
RDX	104.6
135-TNB	100.8
13-DNB	91.8
Tetryl	92.8
Nitrobenzene	112.8
4A-26-DNT	119.8
2A-46-DNT	110.7
246-TNT	99.6
34-DNT(surr)	112.5
26-DNT	109.1
24-DNT	97.0
2-NT	105.9
4-NT	100.7
3-NT	115.1
PETN	117.4

Total 1698.2

Average 106.1

Handwritten: 4/11/06/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0105033a

Analysis Date: 06-JAN-10 10:41

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	600	609.992	102	
2,4-Dinitrotoluene	600	642.913	107	
2,6-Dinitrotoluene	600	617.053	103	
2,6-Dinitrotoluene-d3	500	536.35	107	
2-Amino-4,6-dinitrotoluene	600	633.252	106	
3,4-Dinitrotoluene	300	298.758	100	
4-Amino-2,6-dinitrotoluene	600	612.158	102	
HMX	600	690.236	115	
Nitrobenzene	600	577.991	96	
PETN	600	487.763	81	
RDX	600	725.455	121	*
Tetryl	600	522.023	87	
m-Dinitrobenzene	600	558.746	93	
m-Nitrotoluene	600	575.257	96	
o-Nitrotoluene	600	552.159	92	
p-Nitrotoluene	600	589.044	98	
1,3,5-Trinitrobenzene	600	589.099	98	
1,3-Dinitrobenzene-d4	500	525.663	105	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Name: C:\MASSLYNX\NEW_EXP.PRO\data\EXP0105033a

Date: 06-Jan-2010

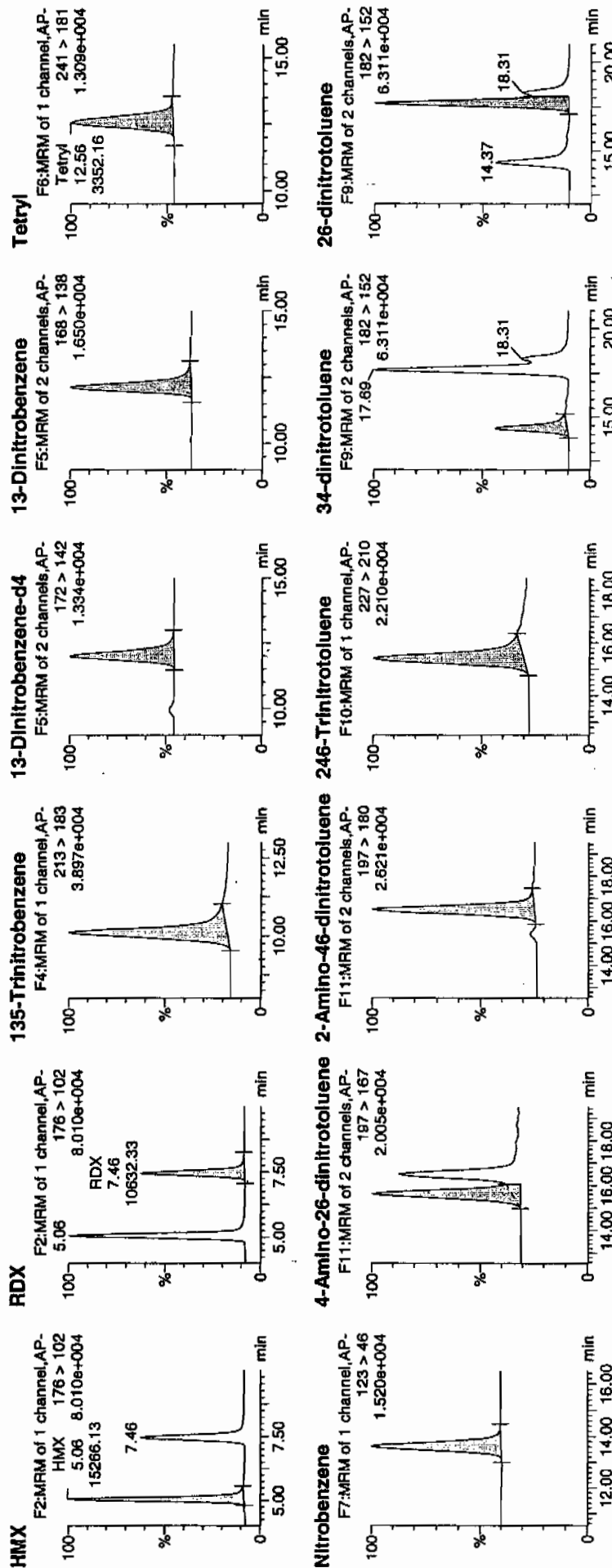
Time: 10:41:16

ID: WXX100105-07CCV

Vial: 1:1,B

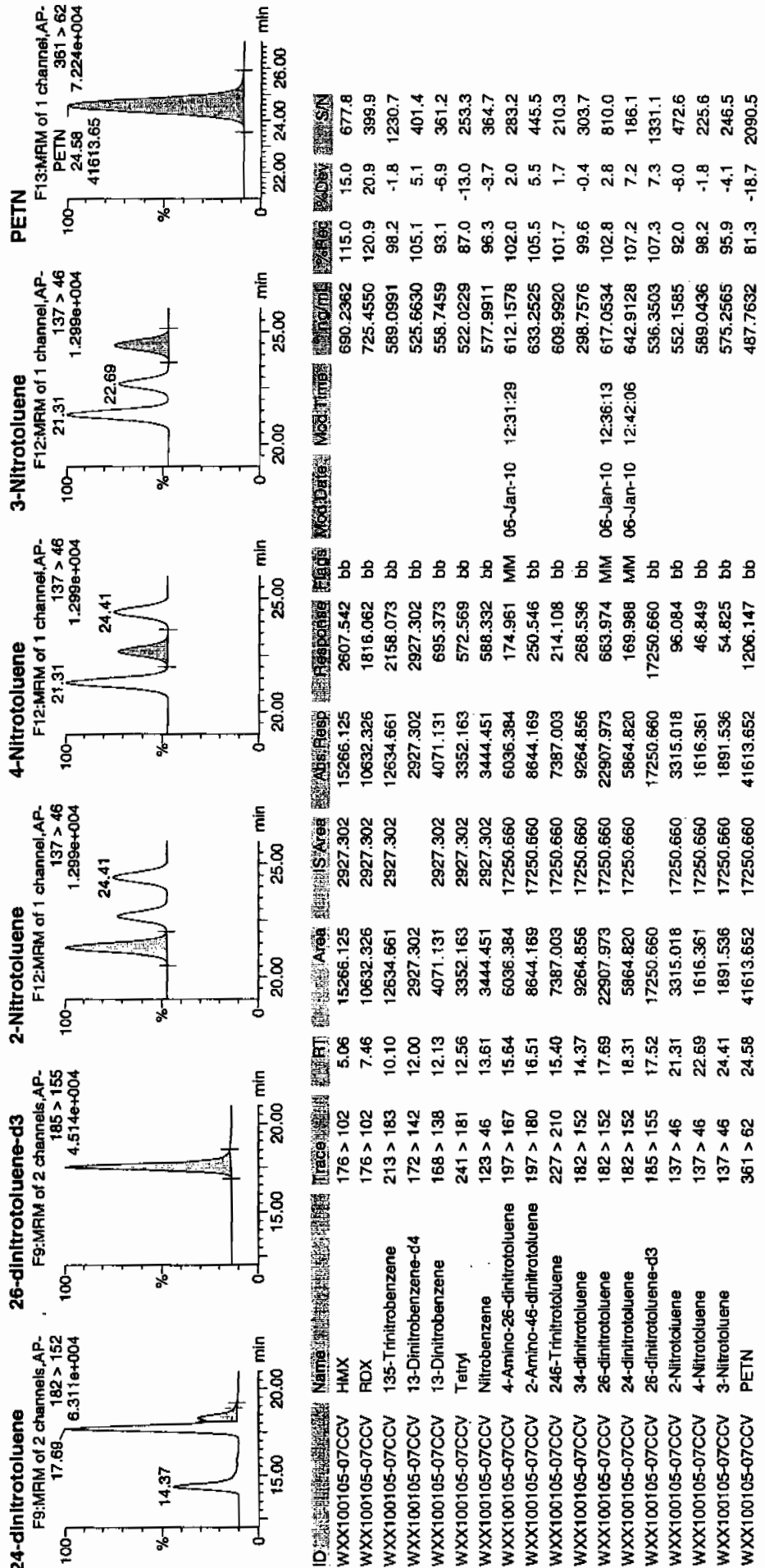
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17
1/6/10



Hum 01/06/10

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



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 01/06/10
 Time of Injection: 1041
 Standard Number: WXX100105-07CCV
 Data File: EXP0105033a

HMX	115.0
RDX	120.9
135-TNB	98.2
13-DNB	93.1
Tetryl	87.0
Nitrobenzene	96.3
4A-26-DNT	102.0
2A-46-DNT	105.5
246-TNT	101.7
34-DNT(surr)	99.6
26-DNT	102.8
24-DNT	107.2
2-NT	92.0
4-NT	98.2
3-NT	95.9
PETN	81.3

Total 1596.7

Average 99.8

Handwritten: 01/06/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0105035a

Analysis Date: 06-JAN-10 11:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	42.61	107	
3,4-Dinitrotoluene	20	23.833	119	
4-Amino-2,6-dinitrotoluene	40	39.539	99	
HMX	40	42.86	107	
Nitrobenzene	40	35.561	89	
PETN	40	46.145	115	
RDX	40	39.933	100	
Tetryl	40	33.451	84	
m-Dinitrobenzene	40	40.922	102	
m-Nitrotoluene	40	38.321	96	
o-Nitrotoluene	40	44.542	111	
p-Nitrotoluene	40	56.961	142	*
1,3,5-Trinitrobenzene	40	40.38	101	
1,3-Dinitrobenzene-d4	500	535.956	107	
2,4,6-Trinitrotoluene	40	36.764	92	
2,4-Dinitrotoluene	40	42.552	106	
2,6-Dinitrotoluene	40	42.341	106	
2,6-Dinitrotoluene-d3	500	526.242	105	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: Untitled, Time: Wed Jan 06 12:43:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105035a

Date: 06-Jan-2010

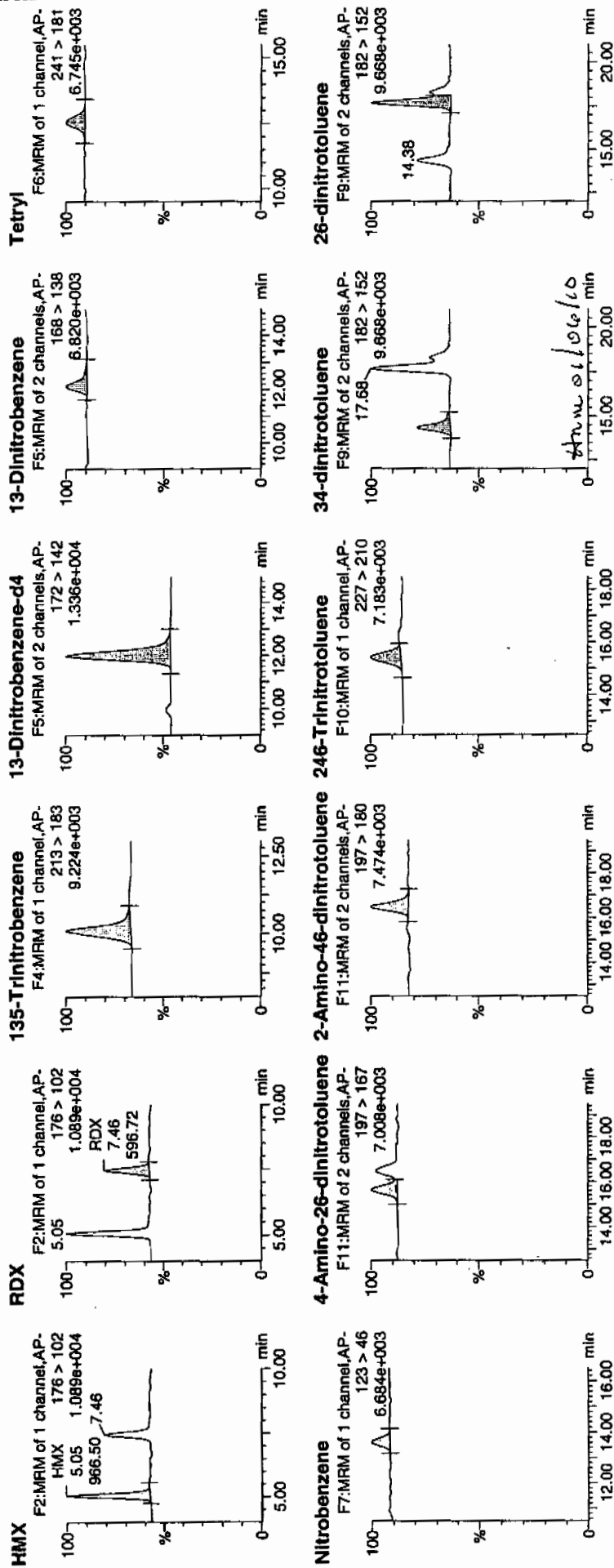
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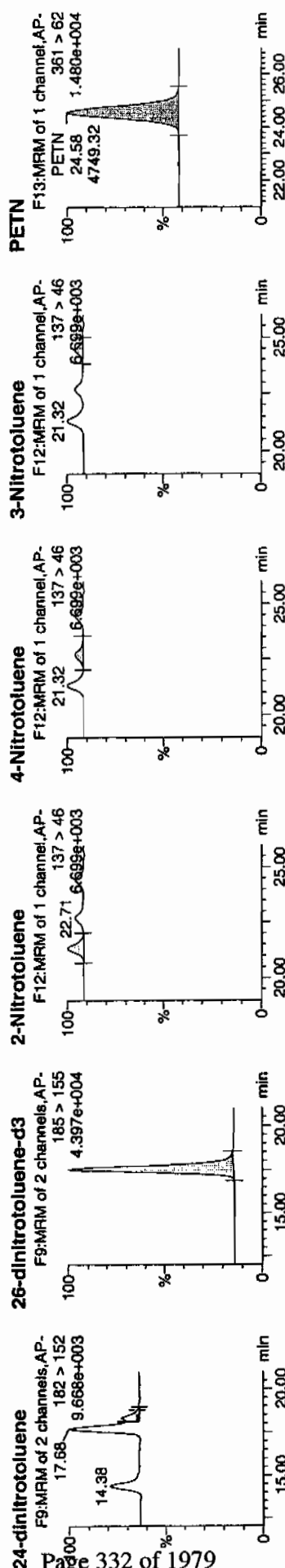
ID: WXX100105-08CRI

Vial: 1:1,C

WXX
1/6/10

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Name	ID	Trace	RT	Area	IS Area	Abst Resp	Response	Flags	Mod Date	Mod Time	Int Time	Calced	Area	SSN
HMx	WX100105-08C1	176 > 102	5.05	966.501	2984.623	966.501	161.913	bb			42.8597	107.1	7.1	134.0
RDX	WX100105-08C1	176 > 102	7.46	596.718	2984.623	596.718	99.965	bb			39.9328	99.8	-0.2	72.1
135-Trinitrobenzene	WX100105-08C1	213 > 183	10.11	1200.451	2984.623	1200.451	201.106	bb			40.3798	100.9	0.9	143.2
13-Dinitrobenzene-d4	WX100105-08C1	172 > 142	11.97	2984.623	2984.623	2984.623	2984.623	bb			535.9563	107.2	7.2	589.5
13-Dinitrobenzene	WX100105-08C1	168 > 138	12.10	304.004	2984.623	304.004	50.928	bb			40.9220	102.3	2.3	60.3
Tetryl	WX100105-08C1	241 > 181	12.58	333.217	2984.623	333.217	55.822	bb			33.4513	83.6	-16.4	28.1
Nitrobenzene	WX100105-08C1	123 > 46	13.63	216.067	2984.623	216.067	36.197	bb			35.5605	88.9	-11.1	13.8
4-Amino-26-dinitrotoluene	WX100105-08C1	197 > 167	15.65	382.538	16925.545	382.538	11.301	MM	06-Jan-10	12:31:44	39.5389	98.8	-1.2	22.6
2-Amino-46-dinitrotoluene	WX100105-08C1	197 > 180	16.49	570.887	16925.545	570.887	16.859	bb			42.6103	106.5	6.5	53.0
246-Trinitrotoluene	WX100105-08C1	227 > 210	15.41	436.826	16925.545	436.826	12.904	bb			36.7644	91.9	-8.1	27.5
34-dinitrotoluene	WX100105-08C1	182 > 152	14.38	725.165	16925.545	725.165	21.422	bb			23.8331	119.2	19.2	41.6
26-dinitrotoluene	WX100105-08C1	182 > 152	17.68	1542.273	16925.545	1542.273	45.561	MM	06-Jan-10	12:36:22	42.3409	105.9	5.9	98.0
24-dinitrotoluene	WX100105-08C1	182 > 152	18.32	380.858	16925.545	380.858	11.251	MM	06-Jan-10	12:42:19	42.5523	106.4	6.4	25.4
26-dinitrotoluene-d3	WX100105-08C1	185 > 155	17.53	16925.545	16925.545	16925.545	16925.545	bb			526.2420	105.2	5.2	897.9
2-Nitrotoluene	WX100105-08C1	137 > 46	21.32	262.381	16925.545	262.381	7.751	bb			44.5424	111.4	11.4	45.6
4-Nitrotoluene	WX100105-08C1	137 > 46	22.71	153.357	16925.545	153.357	4.530	bb			56.9608	142.4	42.4	23.6
3-Nitrotoluene	WX100105-08C1	137 > 46	24.43	123.632	16925.545	123.632	3.652	bb			38.3214	95.8	-4.2	23.1
PETN	WX100105-08C1	361 > 62	24.58	4749.321	16925.545	4749.321	140.300	bb			46.1450	115.4	15.4	348.0

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 01/06/10
 Time of Injection 1140
 Standard Number WXX100105-08CRI
 Data File EXP0105035a

HMX	107.1
RDX	99.8
135-TNB	100.9
13-DNB	102.3
Tetryl	83.6
Nitrobenzene	88.9
4A-26-DNT	98.8
2A-46-DNT	106.5
246-TNT	91.9
34-DNT(surr)	119.2
26-DNT	105.9
24-DNT	106.4
2-NT	111.4
4-NT	142.4
3-NT	95.8
PETN	115.4

Total 1676.3

Average 104.8

Handwritten: 01/06/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0105045a

Analysis Date: 06-JAN-10 16:34

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o-Nitrotoluene	600	593.524	99	
p-Nitrotoluene	600	662.314	110	
1,3,5-Trinitrobenzene	600	588.1	98	
1,3-Dinitrobenzene-d4	500	501.187	100	
2,4,6-Trinitrotoluene	600	634.909	106	
2,4-Dinitrotoluene	600	531.203	89	
2,6-Dinitrotoluene	600	619.001	103	
2,6-Dinitrotoluene-d3	500	514.361	103	
2-Amino-4,6-dinitrotoluene	600	678.338	113	
3,4-Dinitrotoluene	300	328.966	110	
4-Amino-2,6-dinitrotoluene	600	668.561	111	
HMX	600	723.56	121	*
Nitrobenzene	600	601.245	100	
PETN	600	513.043	86	
RDX	600	747.744	125	*
Tetryl	600	563.6	94	
m-Dinitrobenzene	600	593.372	99	
m-Nitrotoluene	600	584.012	97	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105045a

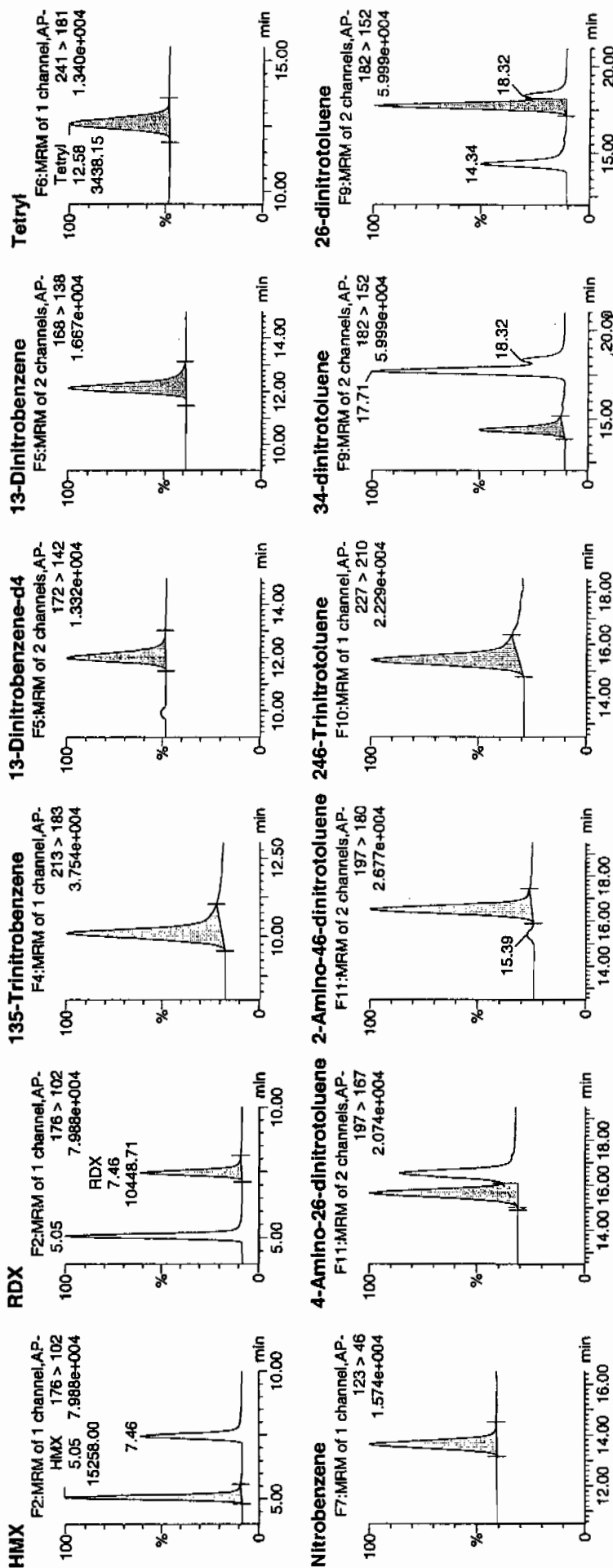
Date: 06-Jan-2010

Time: 16:34:58

ID: WXX100105-07CCV

Vial: 1:1,B

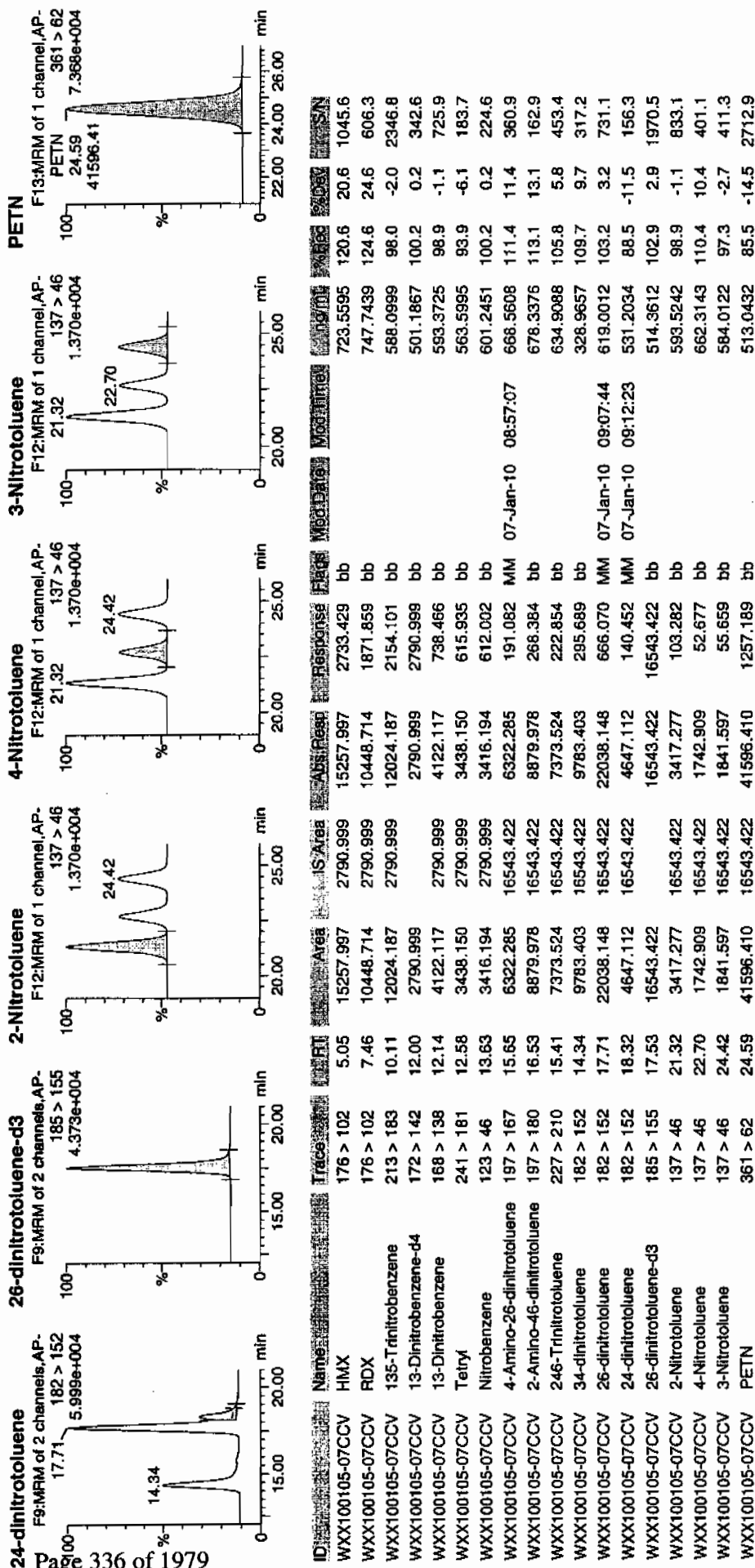
MR
1/2/10



Handwritten note: 01/07/10

Quantify Sample Report
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 01/06/10
 Time of Injection: 1634
 Standard Number: WXX100105-07CCV
 Data File: EXP0105045a

HMX	120.6
RDX	124.6
135-TNB	98.0
13-DNB	98.9
Tetryl	93.9
Nitrobenzene	100.2
4A-26-DNT	111.4
2A-46-DNT	113.1
246-TNT	105.8
34-DNT(surr)	109.7
26-DNT	103.2
24-DNT	88.5
2-NT	98.9
4-NT	110.4
3-NT	97.3
PETN	85.5

11/11/10

Total 1660.0

Average 103.8

from 01/07/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0105047a

Analysis Date: 06-JAN-10 17:34

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	40	57.68	144	*
1,3,5-Trinitrobenzene	40	45.394	113	
1,3-Dinitrobenzene-d4	500	521.479	104	
2,4,6-Trinitrotoluene	40	35.708	89	
2,4-Dinitrotoluene	40	35.954	90	
2,6-Dinitrotoluene	40	40.094	100	
2,6-Dinitrotoluene-d3	500	533.778	107	
2-Amino-4,6-dinitrotoluene	40	48.509	121	
3,4-Dinitrotoluene	20	22.098	110	
4-Amino-2,6-dinitrotoluene	40	43.013	108	
HMX	40	51.054	128	
Nitrobenzene	40	41.108	103	
PETN	40	47.17	118	
RDX	40	47.781	119	
Tetryl	40	33.286	83	
m-Dinitrobenzene	40	39.18	98	
m-Nitrotoluene	40	58.178	145	*
o-Nitrotoluene	40	47.789	119	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Printed: Thu Jan 07 09:13:50 2010, Page 23 of 77

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105047a

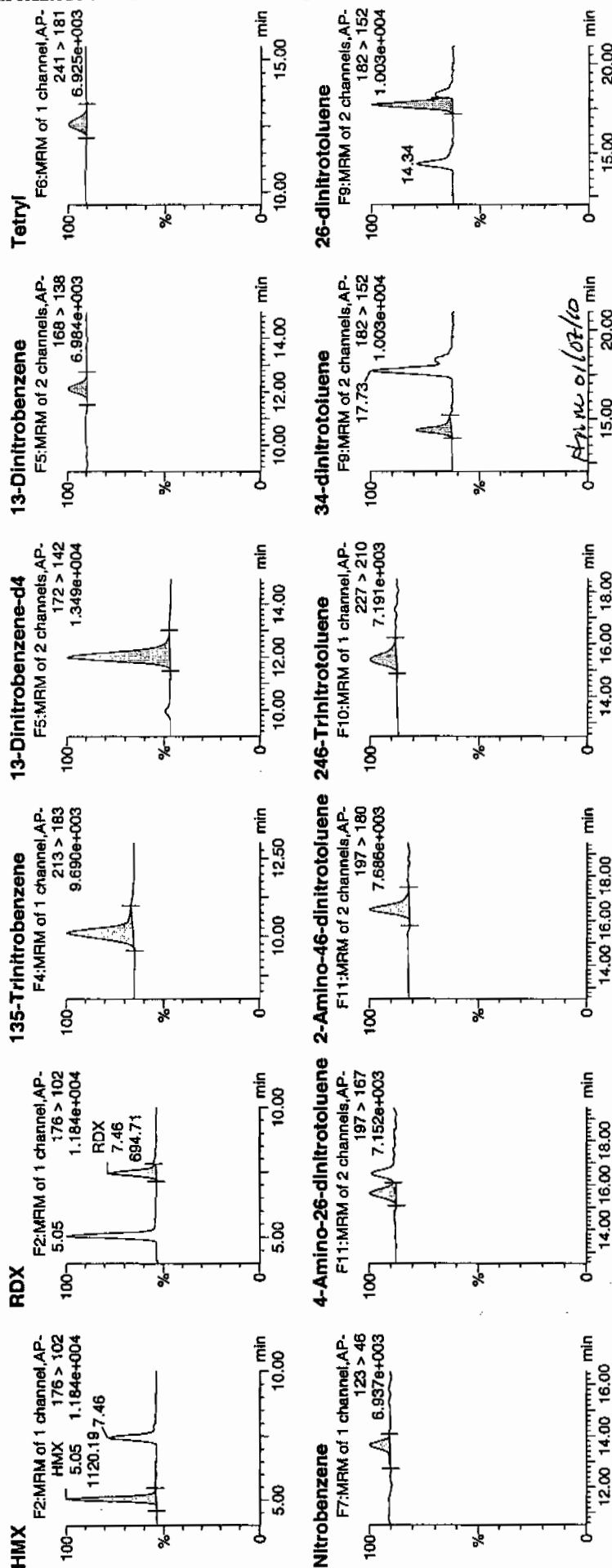
Date: 06-Jan-2010

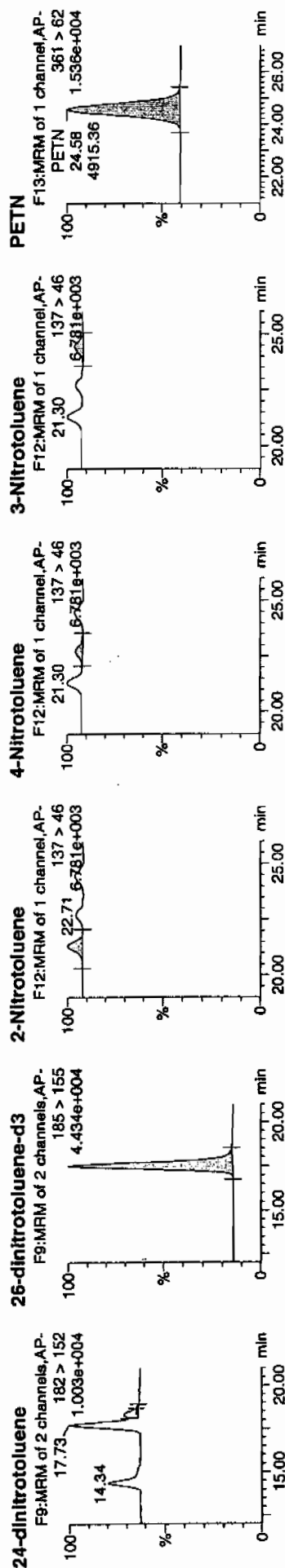
Time: 17:34:03

ID: WXX100105-08CRI

Vial: 1:1,C

1/2/10





Database	Name	Trace	RT	Area	IS Area	Abn Resp	Response	Flags	Mod Date	Mod Time	ICM	2nd Rec	3rd Rec	SN	
D:\Data\GC\GC100105-08CRI	HMx	176 > 102	5.05	1120.186	2904.000	1120.186	192.869	bb	51.0540	127.6	27.6	136.7			
	RDX	176 > 102	7.46	694.705	2904.000	694.705	119.612	bd	47.7808	119.5	19.5	73.1			
	135-Trinitrobenzene	213 > 183	10.11	1260.088	2904.000	1260.088	216.957	bb	45.3943	113.5	13.5	126.5			
	13-Dinitrobenzene-d4	172 > 142	12.00	2904.000		2904.000	2904.000	bb	521.4786	104.3	4.3	399.7			
	13-Dinitrobenzene	168 > 138	12.14	283.199	2904.000	283.199	48.760	bb	39.1798	97.9	-2.1	25.3			
	Tetryl	241 > 181	12.58	323.187	2904.000	323.187	55.645	bb	33.2859	83.2	-16.8	40.1			
	Nitrobenzene	123 > 46	13.67	243.029	2904.000	243.029	41.844	bb	41.1084	102.8	2.8	28.5			
	4-Amino-26-dinitrotoluene	197 > 167	15.62	422.105	17167.934	422.105	12.293	MM	07-Jan-10	08:57:14	43.0125	107.5	7.5	22.2	
	2-Amino-46-dinitrotoluene	197 > 180	16.49	658.999	17167.934	658.999	19.193	bb	48.5094	121.3	21.3	50.7			
	246-Trinitrotoluene	227 > 210	15.41	430.344	17167.934	430.344	12.533	bb	35.7075	89.3	-10.7	38.5			
D:\Data\GC\GC100105-08CRI	34-dinitrotoluene	182 > 152	14.34	682.014	17167.934	682.014	19.863	bb	22.0984	110.5	10.5	55.0			
	26-dinitrotoluene	182 > 152	17.73	1481.349	17167.934	1481.349	43.143	MM	07-Jan-10	09:07:57	40.0942	100.2	0.2	125.4	
	24-dinitrotoluene	182 > 152	18.27	326.407	17167.934	326.407	9.506	MM	07-Jan-10	09:12:09	35.9538	89.9	-10.1	25.2	
	26-dinitrotoluene-d3	185 > 155	17.51	17167.934		17167.934	17167.934	bb	533.7782	106.8	6.8	1304.8			
	2-Nitrotoluene	137 > 46	21.30	285.538	17167.934	285.538	8.316	bb	47.7892	119.5	19.5	51.8			
	4-Nitrotoluene	137 > 46	22.71	157.517	17167.934	157.517	4.588	bb	57.6799	144.2	44.2	24.8			
	3-Nitrotoluene	137 > 46	24.46	190.381	17167.934	190.381	5.545	bb	58.1779	145.4	45.4	30.2			
	PETN	361 > 62	24.58	4915.358	17167.934	4915.358	143.155	bb	47.1698	117.9	17.9	123.1			
	135-Trinitrobenzene	213 > 183	10.11	1260.088	2904.000	1260.088	216.957	bb	45.3943	113.5	13.5	126.5			
	13-Dinitrobenzene-d4	172 > 142	12.00	2904.000		2904.000	2904.000	bb	521.4786	104.3	4.3	399.7			
13-Dinitrobenzene	168 > 138	12.14	283.199	2904.000	283.199	48.760	bb	39.1798	97.9	-2.1	25.3				
Tetryl	241 > 181	12.58	323.187	2904.000	323.187	55.645	bb	33.2859	83.2	-16.8	40.1				
Nitrobenzene	123 > 46	13.67	243.029	2904.000	243.029	41.844	bb	41.1084	102.8	2.8	28.5				
4-Amino-26-dinitrotoluene	197 > 167	15.62	422.105	17167.934	422.105	12.293	MM	07-Jan-10	08:57:14	43.0125	107.5	7.5	22.2		
2-Amino-46-dinitrotoluene	197 > 180	16.49	658.999	17167.934	658.999	19.193	bb	48.5094	121.3	21.3	50.7				
246-Trinitrotoluene	227 > 210	15.41	430.344	17167.934	430.344	12.533	bb	35.7075	89.3	-10.7	38.5				
34-dinitrotoluene	182 > 152	14.34	682.014	17167.934	682.014	19.863	bb	22.0984	110.5	10.5	55.0				
26-dinitrotoluene	182 > 152	17.73	1481.349	17167.934	1481.349	43.143	MM	07-Jan-10	09:07:57	40.0942	100.2	0.2	125.4		
24-dinitrotoluene	182 > 152	18.27	326.407	17167.934	326.407	9.506	MM	07-Jan-10	09:12:09	35.9538	89.9	-10.1	25.2		
26-dinitrotoluene-d3	185 > 155	17.51	17167.934		17167.934	17167.934	bb	533.7782	106.8	6.8	1304.8				
2-Nitrotoluene	137 > 46	21.30	285.538	17167.934	285.538	8.316	bb	47.7892	119.5	19.5	51.8				
4-Nitrotoluene	137 > 46	22.71	157.517	17167.934	157.517	4.588	bb	57.6799	144.2	44.2	24.8				
3-Nitrotoluene	137 > 46	24.46	190.381	17167.934	190.381	5.545	bb	58.1779	145.4	45.4	30.2				
PETN	361 > 62	24.58	4915.358	17167.934	4915.358	143.155	bb	47.1698	117.9	17.9	123.1				

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 01/06/10
 Time of Injection 1734
 Standard Number WXX100105-08CRI
 Data File EXP0105047a

HMX	127.6
RDX	119.5
135-TNB	113.5
13-DNB	97.9
Tetryl	83.2
Nitrobenzene	102.8
4A-26-DNT	107.5
2A-46-DNT	121.3
246-TNT	89.3
34-DNT(surr)	110.5
26-DNT	100.2
24-DNT	89.9
2-NT	119.5
4-NT	144.2
3-NT	145.4
PETN	117.9

*WXX
1/7/10*

Total 1790.2

Average 111.9

from 01/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0105058a

Analysis Date: 06-JAN-10 22:58

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	602.598	100	
1,3-Dinitrobenzene-d4	500	536.365	107	
2,4,6-Trinitrotoluene	600	656.464	109	
2,4-Dinitrotoluene	600	593.527	99	
2,6-Dinitrotoluene	600	623.713	104	
2,6-Dinitrotoluene-d3	500	529.861	106	
2-Amino-4,6-dinitrotoluene	600	659.777	110	
3,4-Dinitrotoluene	300	307.9	103	
4-Amino-2,6-dinitrotoluene	600	598.797	100	
HMX	600	594.843	99	
Nitrobenzene	600	539.994	90	
PETN	600	559.629	93	
RDX	600	683.46	114	
Tetryl	600	540.492	90	
m-Dinitrobenzene	600	592.957	99	
m-Nitrotoluene	600	561.262	94	
o-Nitrotoluene	600	544.753	91	
p-Nitrotoluene	600	706.437	118	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010

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Date: 06-Jan-2010

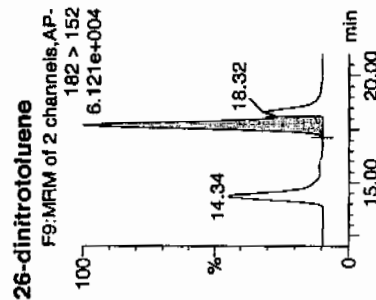
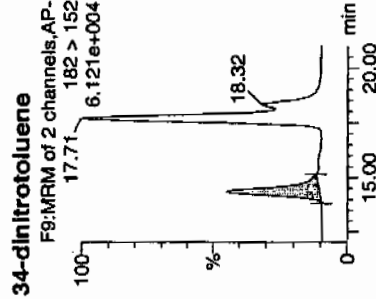
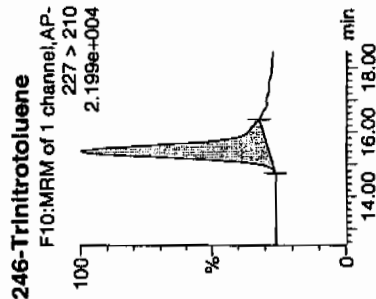
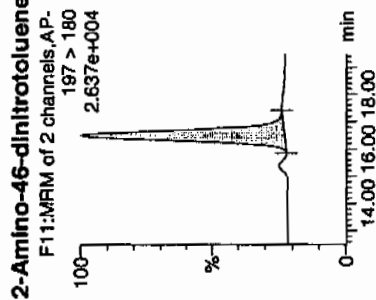
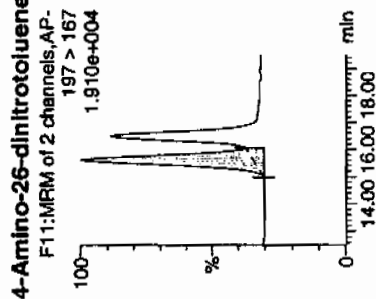
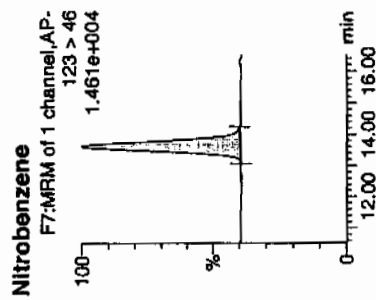
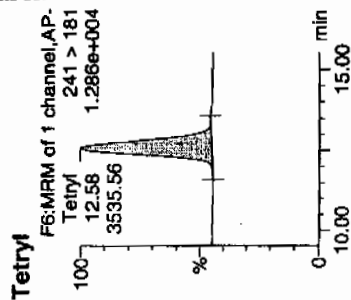
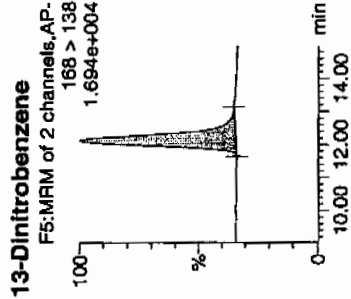
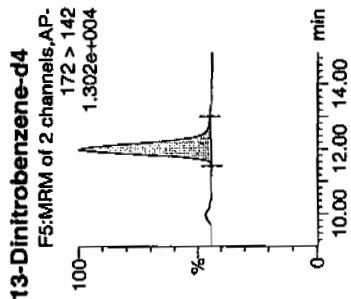
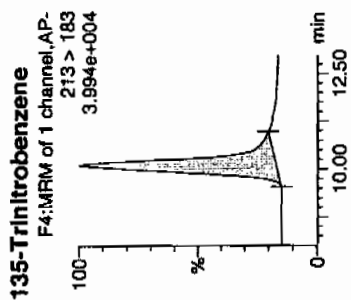
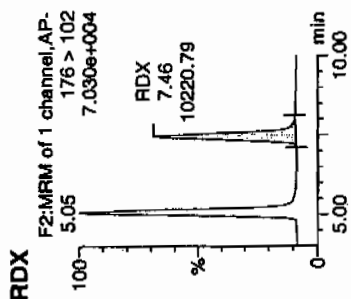
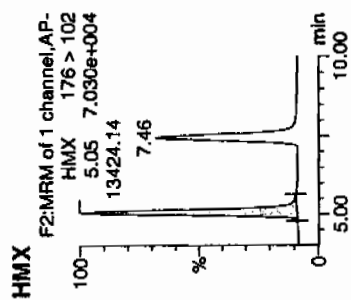
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ID: WXX100105-07CCV

Vial: 1:1,B

1/7/10

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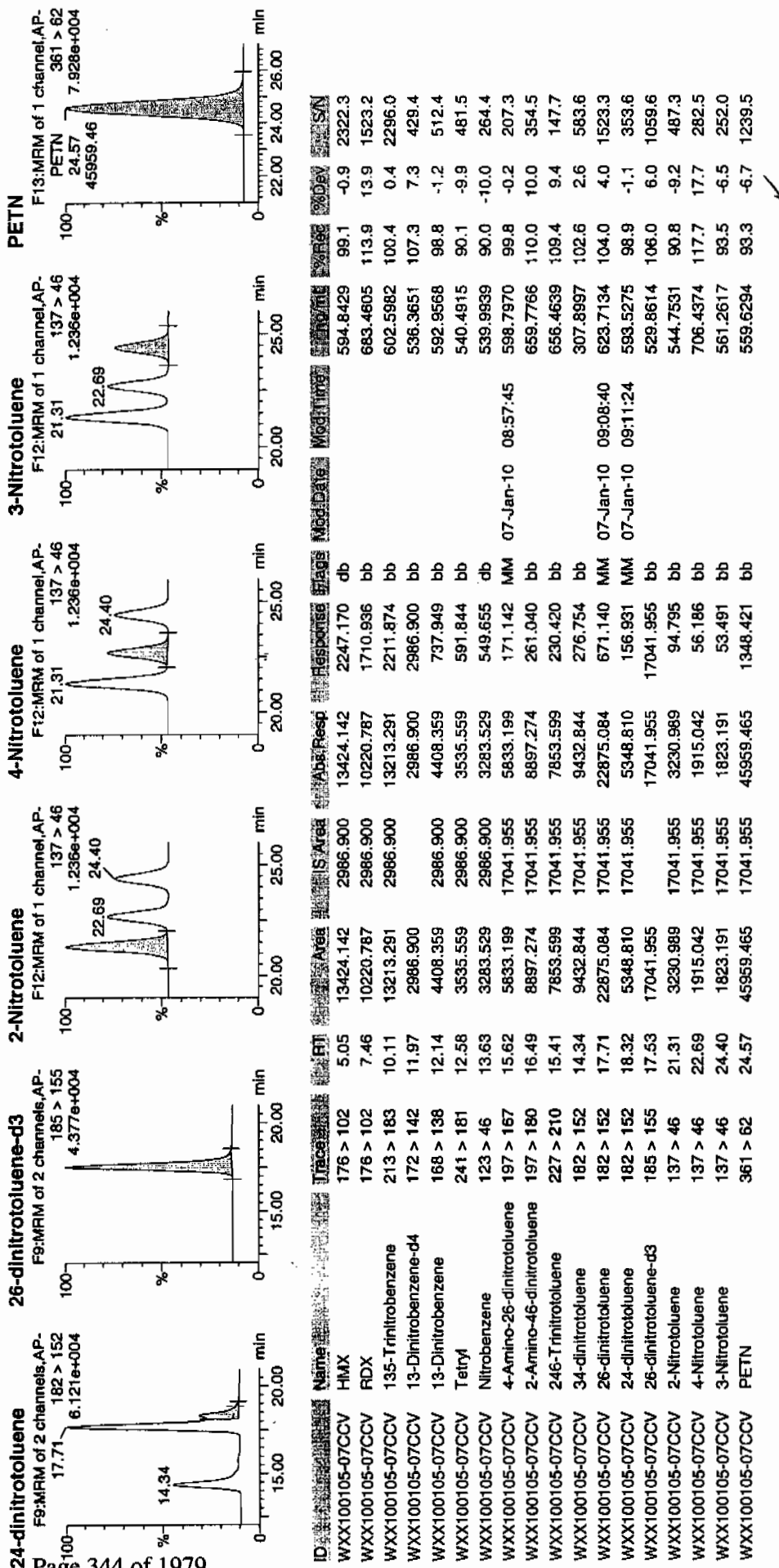


Hum e1/07/10

Printed: Thu Jan 07 09:13:50 2010, Page 46 of 77

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp_PROJ010510expA1.qld, Time: Thu Jan 07 09:13:14 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 01/06/10
 Time of Injection: 2258
 Standard Number: WXX100105-07CCV
 Data File: EXP0105058a

HMX		99.1
RDX		113.9
135-TNB		100.4
13-DNB		98.8
Tetryl		90.1
Nitrobenzene		90.0
4A-26-DNT		99.8
2A-46-DNT		110.0
246-TNT		109.4
34-DNT(surr)		102.6
26-DNT		104.0
24-DNT		98.9
2-NT		90.8
4-NT		117.7
3-NT		93.5
PETN		93.3

*mt
1/7/10*

Total 1612.3

Average 100.8

done 01/07/10
 ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0105060a

Analysis Date: 06-JAN-10 23:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	29.076	73	
1,3-Dinitrobenzene-d4	500	631.708	126	
2,4,6-Trinitrotoluene	40	29.816	75	
2,4-Dinitrotoluene	40	26.941	67	*
2,6-Dinitrotoluene	40	40.41	101	
2,6-Dinitrotoluene-d3	500	567.695	114	
2-Amino-4,6-dinitrotoluene	40	36.992	92	
3,4-Dinitrotoluene	20	18.988	95	
4-Amino-2,6-dinitrotoluene	40	31.552	79	
HMX	40	44.385	111	
Nitrobenzene	40	30.885	77	
PETN	40	48.108	120	
RDX	40	36.538	91	
Tetryl	40	27.603	69	*
m-Dinitrobenzene	40	39.816	100	
m-Nitrotoluene	40	39.914	100	
o-Nitrotoluene	40	39.779	99	
p-Nitrotoluene	40	36.341	91	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene,

2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105060a

Date: 06-Jan-2010

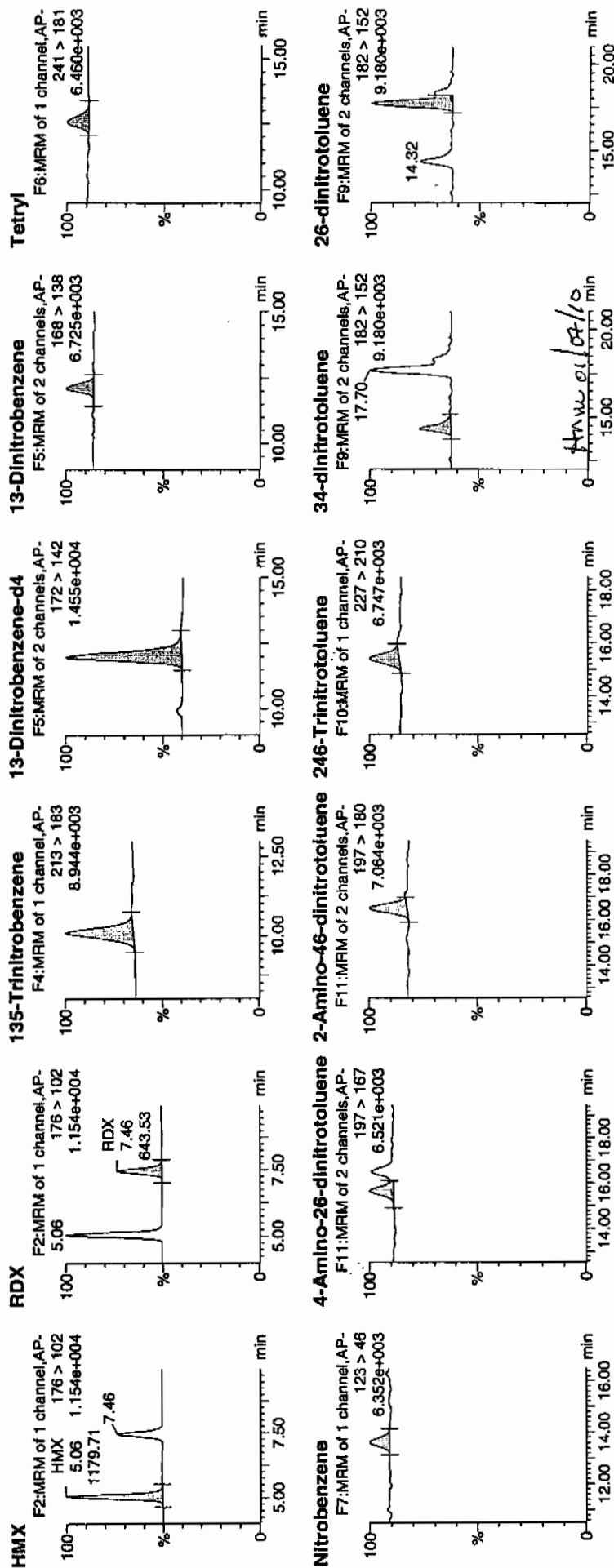
Time: 23:57:21

ID: WXX100105-08CRI

Vial: 1:1,C

1/2/10

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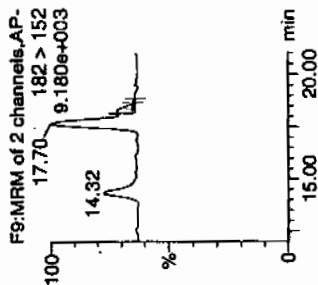
Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

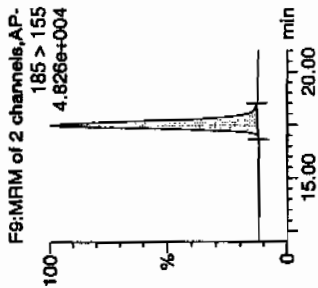
Printed: Thu Jan 07 09:13:50 2010, Page 50 of 77

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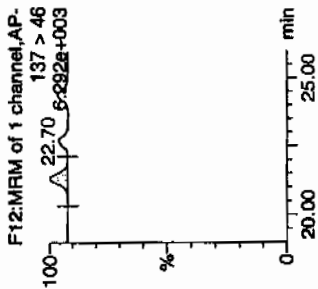
24-dinitrotoluene



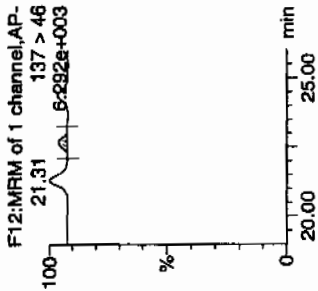
26-dinitrotoluene-d3



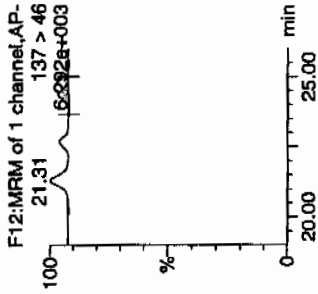
2-Nitrotoluene



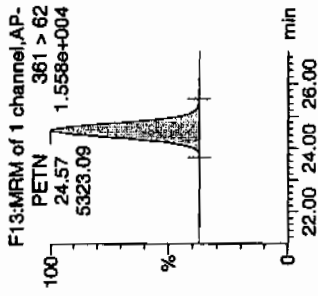
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	Area	Abs	Resp	Flags	Mod	Date	Mod	Time	Mod	Time	Mod	Time	Mod	Time
WXX100105-08C1	HMX	176 > 102	5.06	1179.707	3517.844	1179.707	167.675	bb	44.3848	111.0	11.0	244.1	111.0	11.0	244.1	111.0	11.0	244.1
WXX100105-08C1	RDX	176 > 102	7.46	643.526	3517.844	643.526	91.466	bb	36.5375	91.3	-8.7	113.0	91.3	-8.7	113.0	91.3	-8.7	113.0
WXX100105-08C1	135-Trinitrobenzene	213 > 183	10.09	1164.486	3517.844	1164.486	165.511	bb	29.0762	72.7	-27.3	193.2	72.7	-27.3	193.2	72.7	-27.3	193.2
WXX100105-08C1	13-Dinitrobenzene-d4	172 > 142	12.00	3517.844	3517.844	3517.844	3517.844	bb	631.7081	126.3	26.3	382.9	126.3	26.3	382.9	126.3	26.3	382.9
WXX100105-08C1	13-Dinitrobenzene	168 > 138	12.13	348.634	3517.844	348.634	49.552	bb	39.8162	99.5	-0.5	38.8	99.5	-0.5	38.8	99.5	-0.5	38.8
WXX100105-08C1	Tetryl	241 > 181	12.56	348.664	3517.844	348.664	49.556	bb	27.6025	69.0	-31.0	45.3	69.0	-31.0	45.3	69.0	-31.0	45.3
WXX100105-08C1	Nitrobenzene	123 > 46	13.61	221.181	3517.844	221.181	31.437	bb	30.8845	77.2	-22.8	21.9	77.2	-22.8	21.9	77.2	-22.8	21.9
WXX100105-08C1	4-Amino-26-dinitrotoluene	197 > 167	15.64	329.315	18258.816	329.315	9.018	MM	31.5523	78.9	-21.1	22.2	78.9	-21.1	22.2	78.9	-21.1	22.2
WXX100105-08C1	2-Amino-46-dinitrotoluene	197 > 180	16.51	534.464	18258.816	534.464	14.636	bb	36.9918	92.5	-7.5	63.3	92.5	-7.5	63.3	92.5	-7.5	63.3
WXX100105-08C1	246-Trinitrotoluene	227 > 210	15.40	382.168	18258.816	382.168	10.465	bb	29.8156	74.5	-25.5	35.0	74.5	-25.5	35.0	74.5	-25.5	35.0
WXX100105-08C1	34-dinitrotoluene	182 > 152	14.32	623.256	18258.816	623.256	17.067	bb	18.9880	94.9	-5.1	36.8	94.9	-5.1	36.8	94.9	-5.1	36.8
WXX100105-08C1	26-dinitrotoluene	182 > 152	17.70	1587.905	18258.816	1587.905	43.483	MM	40.4104	101.0	1.0	93.8	101.0	1.0	93.8	101.0	1.0	93.8
WXX100105-08C1	24-dinitrotoluene	182 > 152	18.26	260.129	18258.816	260.129	7.123	MM	26.9413	67.4	-32.6	19.7	67.4	-32.6	19.7	67.4	-32.6	19.7
WXX100105-08C1	26-dinitrotoluene-d3	185 > 155	17.52	18258.816	18258.816	18258.816	18258.816	bb	567.6955	113.5	13.5	825.7	113.5	13.5	825.7	113.5	13.5	825.7
WXX100105-08C1	2-Nitrotoluene	137 > 46	21.31	252.777	18258.816	252.777	6.922	bb	39.7785	99.4	-0.6	34.7	99.4	-0.6	34.7	99.4	-0.6	34.7
WXX100105-08C1	4-Nitrotoluene	137 > 46	22.70	105.549	18258.816	105.549	2.890	bb	36.3410	90.9	-9.1	16.9	90.9	-9.1	16.9	90.9	-9.1	16.9
WXX100105-08C1	3-Nitrotoluene	137 > 46	24.37	138.914	18258.816	138.914	3.804	bb	39.9141	99.8	-0.2	20.1	99.8	-0.2	20.1	99.8	-0.2	20.1
WXX100105-08C1	PETN	361 > 62	24.57	5323.091	18258.816	5323.091	145.768	bb	48.1082	120.3	20.3	754.6	120.3	20.3	754.6	120.3	20.3	754.6

✓

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 01/06/10
 Time of Injection 2357
 Standard Number WXX100105-08CRI
 Data File EXP0105060a

HMX	111.0
RDX	91.3
135-TNB	72.7
13-DNB	99.5
Tetryl	69.0
Nitrobenzene	77.2
4A-26-DNT	78.9
2A-46-DNT	92.5
246-TNT	74.5
34-DNT(surr)	94.9
26-DNT	101.0
24-DNT	67.4
2-NT	99.4
4-NT	90.9
3-NT	99.8
PETN	120.3

*WTT
1/7/10*

Total 1440.3

Average 90.0

Ann of 10/10

ICV Limits 85-115%
 CRI Limits 70-130%
 CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0105071a

Analysis Date: 07-JAN-10 05:21

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	600	696.365	116	
3,4-Dinitrotoluene	300	321.262	107	
4-Amino-2,6-dinitrotoluene	600	636.366	106	
HMX	600	651.751	109	
Nitrobenzene	600	554.25	92	
PETN	600	622.345	104	
RDX	600	685.342	114	
Tetryl	600	640.176	107	
m-Dinitrobenzene	600	607.51	101	
m-Nitrotoluene	600	552.913	92	
o-Nitrotoluene	600	560.881	93	
p-Nitrotoluene	600	602.043	100	
1,3,5-Trinitrobenzene	600	615.217	103	
1,3-Dinitrobenzene-d4	500	490.643	98	
2,4,6-Trinitrotoluene	600	662.413	110	
2,4-Dinitrotoluene	600	589.376	98	
2,6-Dinitrotoluene	600	607.152	101	
2,6-Dinitrotoluene-d3	500	493.629	99	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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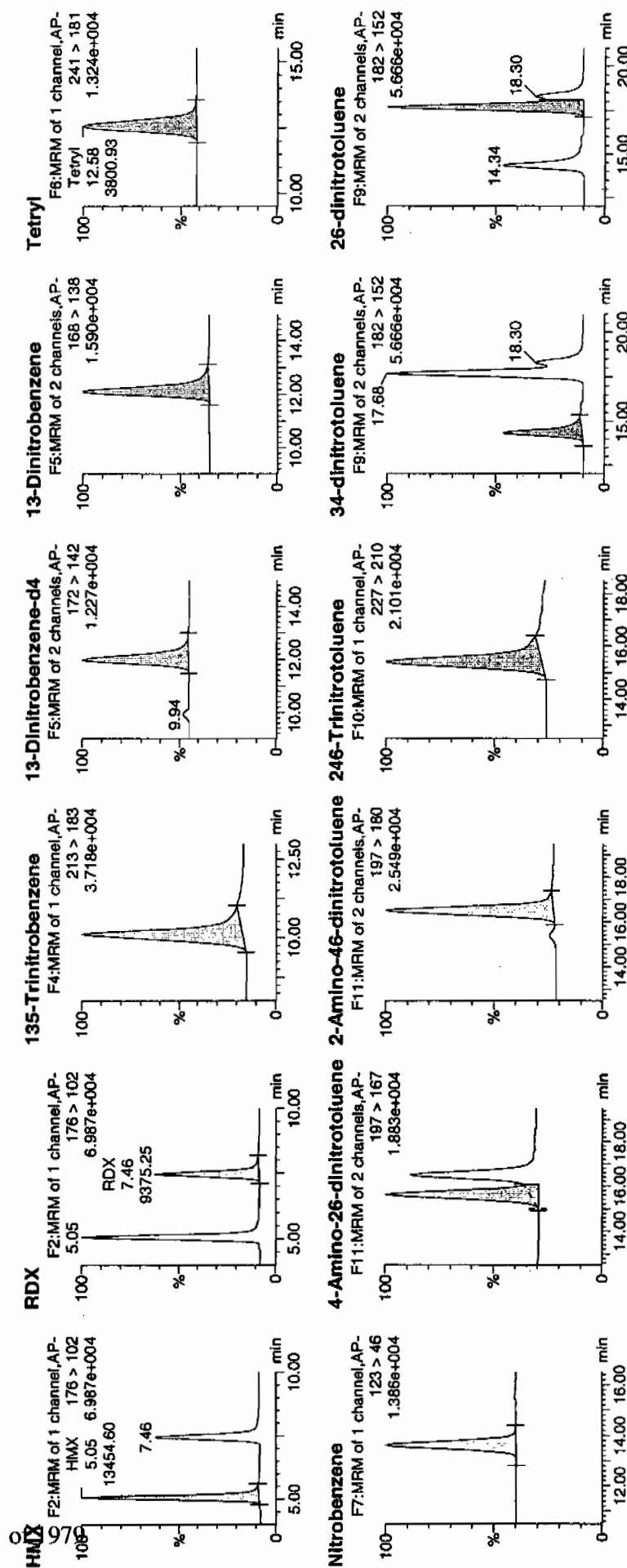
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Time: 05:21:51

ID: JWX100105-07CCV

View: 1:1,B

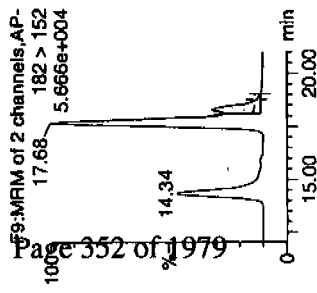
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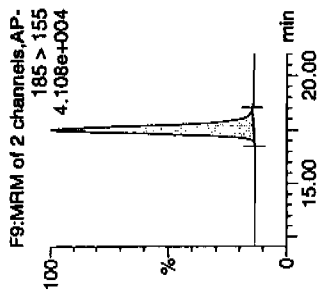
Handwritten note: 01/07/10

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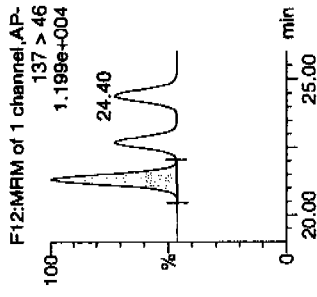
24-dinitrotoluene



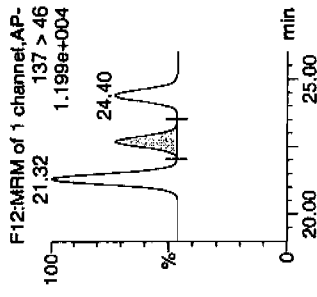
26-dinitrotoluene-d3



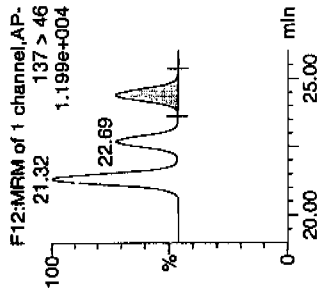
2-Nitrotoluene



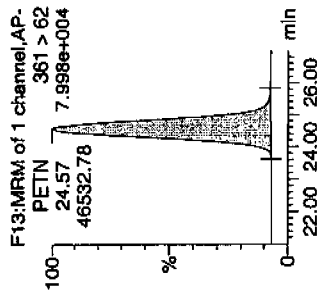
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	SI Area	Response	Flags	Mod Date	Mod Time	Integr	% Rec	% Dev	SN
WXX100105-07CCV	HMV	176 > 102	5.05	13454.602	2732.281	13454.602	2462.156	db		651.7513	108.6	8.6	1266.0
WXX100105-07CCV	RDX	176 > 102	7.46	9375.248	2732.281	9375.248	1715.645	bb		685.3417	114.2	14.2	752.1
WXX100105-07CCV	135-Trinitrobenzene	213 > 183	10.11	12363.094	2732.281	12363.094	2262.413	bb		615.2172	102.5	2.5	956.3
WXX100105-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	2732.281		2732.281	2732.281	bb		490.6426	98.1	-1.9	184.3
WXX100105-07CCV	13-Dinitrobenzene	168 > 138	12.10	4131.541	2732.281	4131.541	756.061	bb		607.5101	101.3	1.3	313.7
WXX100105-07CCV	Tetryl	241 > 181	12.58	3800.926	2732.281	3800.926	695.559	bb		640.1756	106.7	6.7	301.7
WXX100105-07CCV	Nitrobenzene	123 > 46	13.63	3082.923	2732.281	3082.923	564.167	bb		554.2504	92.4	-7.6	294.9
WXX100105-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.62	5775.277	15876.623	5775.277	181.880	MM	07-Jan-10 08:58:21	636.3659	106.1	6.1	112.4
WXX100105-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.49	8748.536	15876.623	8748.536	275.516	bb		696.3645	116.1	16.1	249.8
WXX100105-07CCV	246-Trinitrotoluene	227 > 210	15.41	7382.868	15876.623	7382.868	232.508	bb		662.4125	110.4	10.4	391.6
WXX100105-07CCV	34-dinitrotoluene	182 > 152	14.34	9169.206	15876.623	9169.206	288.764	bb		321.2622	107.1	7.1	237.7
WXX100105-07CCV	26-dinitrotoluene	182 > 152	17.68	20745.025	15876.623	20745.025	653.320	MM	07-Jan-10 09:09:01	607.1522	101.2	1.2	592.3
WXX100105-07CCV	24-dinitrotoluene	182 > 152	18.30	4948.202	15876.623	4948.202	155.833	MM	07-Jan-10 09:10:02	589.3759	98.2	-1.8	136.8
WXX100105-07CCV	26-dinitrotoluene-d3	185 > 155	17.51	15876.623		15876.623	15876.623	bb		493.6293	98.7	-1.3	1693.3
WXX100105-07CCV	2-Nitrotoluene	137 > 46	21.32	3099.170	15876.623	3099.170	97.602	bb		560.8812	93.5	-6.5	755.1
WXX100105-07CCV	4-Nitrotoluene	137 > 46	22.69	1520.446	15876.623	1520.446	47.883	bb		602.0432	100.3	0.3	363.5
WXX100105-07CCV	3-Nitrotoluene	137 > 46	24.40	1673.256	15876.623	1673.256	52.696	bb		552.9131	92.2	-7.8	367.2
WXX100105-07CCV	PETN	361 > 62	24.57	46532.781	15876.623	46532.781	1465.450	bb		622.3449	103.7	3.7	4992.6

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 01/07/10
 Time of Injection: 0521
 Standard Number: WXX100105-07CCV
 Data File: EXP0105071a

HMX	108.6
RDX	114.2
135-TNB	102.5
13-DNB	101.3
Tetryl	106.7
Nitrobenzene	92.4
4A-26-DNT	106.1
2A-46-DNT	116.1
246-TNT	110.4
34-DNT(surr)	107.1
26-DNT	101.2
24-DNT	98.2
2-NT	93.5
4-NT	100.3
3-NT	92.2
PETN	103.7

mt
1/7/10

Total 1654.5

Average 103.4

HMN 01/07/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0105073a

Analysis Date: 07-JAN-10 06:21

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	40	45.43	114	
Nitrobenzene	40	55.429	139	*
PETN	40	54.458	136	*
RDX	40	47.689	119	
Tetryl	40	35.317	88	
m-Dinitrobenzene	40	47.956	120	
m-Nitrotoluene	40	47.982	120	
o-Nitrotoluene	40	40.006	100	
p-Nitrotoluene	40	48.56	121	
1,3,5-Trinitrobenzene	40	43.929	110	
1,3-Dinitrobenzene-d4	500	519.191	104	
2,4,6-Trinitrotoluene	40	44.124	110	
2,4-Dinitrotoluene	40	40.259	101	
2,6-Dinitrotoluene	40	43.367	108	
2,6-Dinitrotoluene-d3	500	507.304	101	
2-Amino-4,6-dinitrotoluene	40	43.409	109	
3,4-Dinitrotoluene	20	28.959	145	*
4-Amino-2,6-dinitrotoluene	40	44.563	111	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Jan 07 09:13:50 2010, Page 75 of 77

Dataset: C:\MASSLYNX\New_Exp\PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010

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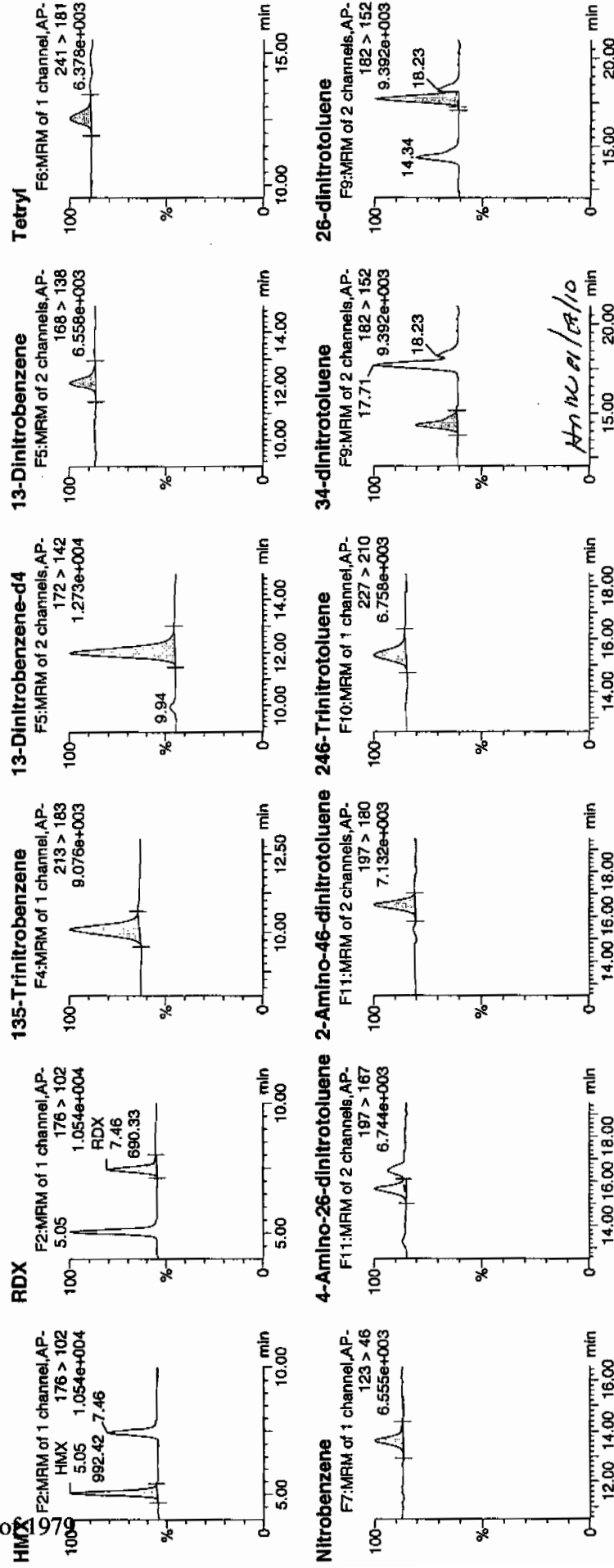
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Time: 06:21:11

ID: VJXX100105-08CRI

Vial: 1:1,C

1/7/10



Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Jan 07 09:13:50 2010, Page 76 of 77

Dataset: C:\MASSLYNX\New_Exp\PRO\010510expA1.qld, Time: Thu Jan 07 09:13:14 2010

24-dinitrotoluene

F9:MRM of 2 channels,AP-

182 > 152

9.392e+003

17.71

14.34

356 of 1979

100

%

min

20.00

15.00

min

26-dinitrotoluene-d3

F9:MRM of 2 channels,AP-

185 > 155

4.165e+004

22.67

22.67

100

%

min

20.00

15.00

min

2-Nitrotoluene

F12:MRM of 1 channel,AP-

137 > 46

6.238e+003

21.32

21.32

100

%

min

25.00

20.00

min

4-Nitrotoluene

F12:MRM of 1 channel,AP-

137 > 46

6.238e+003

21.32

21.32

100

%

min

25.00

20.00

min

3-Nitrotoluene

F12:MRM of 1 channel,AP-

137 > 46

6.238e+003

21.32

21.32

100

%

min

25.00

20.00

min

PETN

F13:MRM of 1 channel,AP-

361 > 62

1.522e+004

24.57

5332.41

100

%

min

26.00

22.00

min

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100105-08CRI	HMX	176 > 102	5.05	992.424	2891.260	992.424	171.625	bb			45.4304	113.6	13.6	181.4
WXX100105-08CRI	RDX	176 > 102	7.46	690.329	2891.260	690.329	119.382	bb			47.6891	119.2	19.2	105.4
WXX100105-08CRI	135-Trinitrobenzene	213 > 183	10.11	1227.752	2891.260	1227.752	212.321	bb			43.9289	109.8	9.8	384.0
WXX100105-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	2891.260	2891.260	2891.260	2891.260	bb			519.1908	103.8	3.8	352.4
WXX100105-08CRI	13-Dinitrobenzene	168 > 138	12.14	345.111	2891.260	345.111	59.682	bb			47.9555	119.9	19.9	36.1
WXX100105-08CRI	Tetryl	241 > 181	12.53	334.350	2891.260	334.350	57.821	bb			35.3172	88.3	-11.7	49.8
WXX100105-08CRI	Nitrobenzene	123 > 46	13.63	326.256	2891.260	326.256	56.421	bb			55.4294	138.6	38.6	27.2
WXX100105-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.65	415.626	16316.440	415.626	12.736	MM	07-Jan-10	08:58:27	44.5625	111.4	11.4	39.2
WXX100105-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.52	560.464	16316.440	560.464	17.175	bb			43.4092	108.5	8.5	64.2
WXX100105-08CRI	246-Trinitrotoluene	227 > 210	15.41	505.398	16316.440	505.398	15.487	bb			44.1235	110.3	10.3	73.7
WXX100105-08CRI	34-dinitrotoluene	182 > 152	14.34	849.422	16316.440	849.422	26.030	bb			28.9590	144.8	44.8	33.0
WXX100105-08CRI	26-dinitrotoluene	182 > 152	17.71	1522.795	16316.440	1522.795	46.664	MM	07-Jan-10	09:09:15	43.3668	108.4	8.4	65.6
WXX100105-08CRI	24-dinitrotoluene	182 > 152	18.23	347.367	16316.440	347.367	10.645	MM	07-Jan-10	09:09:51	40.2593	100.6	0.6	16.3
WXX100105-08CRI	26-dinitrotoluene-d3	185 > 155	17.53	16316.440	16316.440	16316.440	16316.440	bb			507.3039	101.5	1.5	1957.5
WXX100105-08CRI	2-Nitrotoluene	137 > 46	21.32	227.180	16316.440	227.180	6.962	bb			40.0063	100.0	0.0	13.6
WXX100105-08CRI	4-Nitrotoluene	137 > 46	22.67	126.035	16316.440	126.035	3.862	bb			48.5602	121.4	21.4	6.3
WXX100105-08CRI	3-Nitrotoluene	137 > 46	24.42	149.228	16316.440	149.228	4.573	bb			47.9819	120.0	20.0	8.1
WXX100105-08CRI	PETN	361 > 62	24.57	5332.409	16316.440	5332.409	163.406	bb			54.4577	136.1	36.1	381.6

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 01/07/10
 Time of Injection 0621
 Standard Number WXX100105-08CRI
 Data File EXP0105073a

HMX	113.6
RDX	119.2
135-TNB	109.8
13-DNB	119.9
Tetryl	88.3
Nitrobenzene	138.6
4A-26-DNT	111.4
2A-46-DNT	108.5
246-TNT	110.3
34-DNT(surr)	144.8
26-DNT	108.4
24-DNT	100.6
2-NT	100.0
4-NT	121.4
3-NT	120.0
PETN	136.1

Total 1850.9

Average 115.7

Handwritten: 115.7

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0105084a

Analysis Date: 07-JAN-10 11:46

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	600	626.301	104	
2,6-Dinitrotoluene-d3	500	533.329	107	
2-Amino-4,6-dinitrotoluene	600	657.782	110	
3,4-Dinitrotoluene	300	312.099	104	
4-Amino-2,6-dinitrotoluene	600	628.459	105	
HMX	600	621.522	104	
Nitrobenzene	600	536.439	89	
PETN	600	529.822	88	
RDX	600	649.731	108	
Tetryl	600	508.349	85	
m-Dinitrobenzene	600	573.39	96	
m-Nitrotoluene	600	569.388	95	
o-Nitrotoluene	600	551.291	92	
p-Nitrotoluene	600	589.584	98	
1,3,5-Trinitrobenzene	600	630.675	105	
1,3-Dinitrobenzene-d4	500	533.721	107	
2,4,6-Trinitrotoluene	600	630.155	105	
2,4-Dinitrotoluene	600	610.814	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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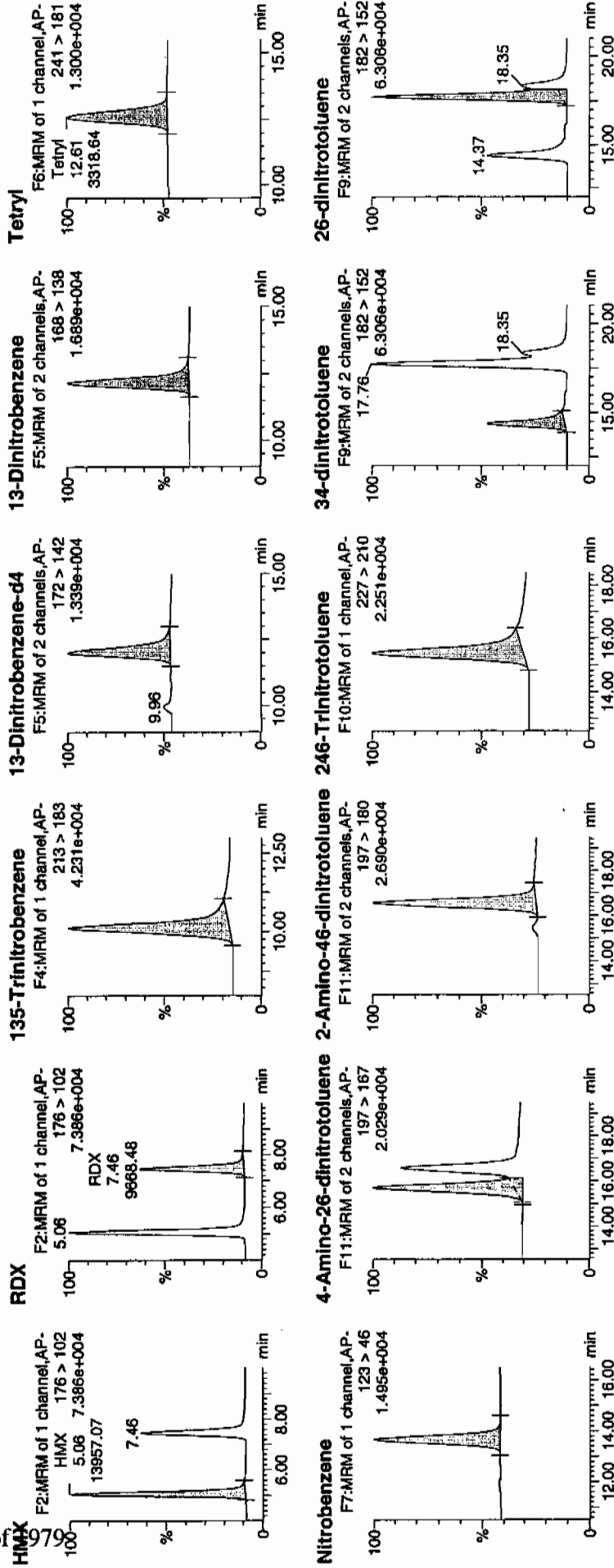
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Time: 11:46:15

ID: WXX100105-07CCV

View: 1:1,B

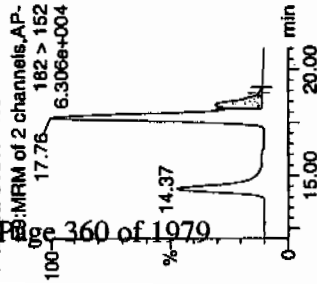
1/8/10



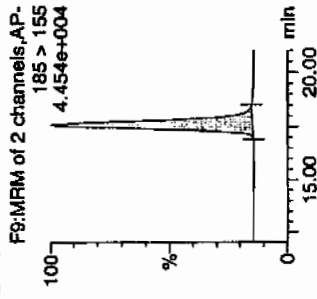
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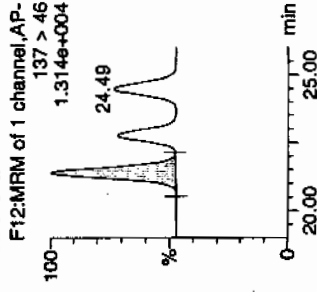
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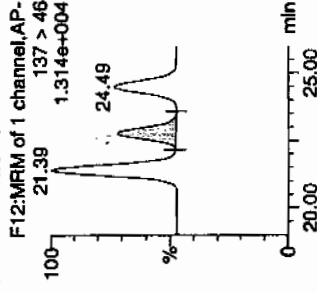
26-dinitrotoluene-d3



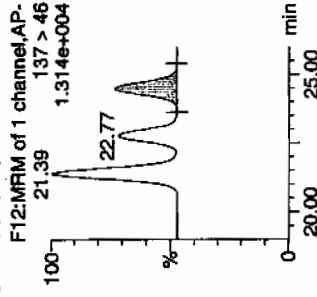
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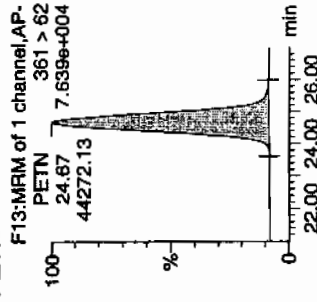
4-Nitrotoluene



3-Nitrotoluene



PETN



Det	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Int ID	Mod	Area	SN
WXX100105-07CCV	HMX	176 > 102	5.06	13957.068	2972.175	13957.068	2347.955	bb			621.5216	103.6	3.6	2527.5
WXX100105-07CCV	RDX	176 > 102	7.46	9668.481	2972.175	9668.481	1626.499	bb			649.7310	108.3	8.3	1497.4
WXX100105-07CCV	135-Trinitrobenzene	213 > 183	10.12	13818.513	2972.175	13818.513	2324.647	bb			630.6755	105.1	5.1	1248.3
WXX100105-07CCV	13-Dinitrobenzene-d4	172 > 142	12.00	2972.175	2972.175	2972.175	2972.175	bb			533.7209	106.7	6.7	175.0
WXX100105-07CCV	13-Dinitrobenzene	168 > 138	12.17	4241.872	2972.175	4241.872	713.597	bb			573.3898	95.6	-4.4	457.7
WXX100105-07CCV	Tetryl	241 > 181	12.61	3318.642	2972.175	3318.642	558.285	bb			508.3489	84.7	-15.3	365.0
WXX100105-07CCV	Nitrobenzene	123 > 46	13.66	3245.830	2972.175	3245.830	546.036	bb			536.4387	89.4	-10.6	338.4
WXX100105-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	6162.226	17153.494	6162.226	179.620	MM	08-Jan-10	07:51:10	628.4594	104.7	4.7	505.8
WXX100105-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.54	8928.426	17153.494	8928.426	260.251	bb			657.7815	109.6	9.6	468.8
WXX100105-07CCV	246-Trinitrotoluene	227 > 210	15.44	7588.188	17153.494	7588.188	221.185	bb			630.1545	105.0	5.0	366.6
WXX100105-07CCV	34-dinitrotoluene	182 > 152	14.37	9624.068	17153.494	9624.068	280.528	bb			312.0988	104.0	4.0	207.1
WXX100105-07CCV	28-dinitrotoluene	182 > 152	17.76	23120.313	17153.494	23120.313	673.924	MM	08-Jan-10	08:01:25	626.3007	104.4	4.4	514.4
WXX100105-07CCV	26-dinitrotoluene	182 > 152	18.35	5540.624	17153.494	5540.624	161.501	MM	08-Jan-10	08:06:58	610.8143	101.8	1.8	114.9
WXX100105-07CCV	26-dinitrotoluene-d3	185 > 155	17.59	17153.494	17153.494	17153.494	17153.494	bb			533.3293	106.7	6.7	1511.1
WXX100105-07CCV	2-Nitrotoluene	137 > 46	21.39	3291.168	17153.494	3291.168	95.933	bb			551.2912	91.9	-8.1	259.0
WXX100105-07CCV	4-Nitrotoluene	137 > 46	22.77	1608.731	17153.494	1608.731	46.892	bb			589.5839	98.3	-1.7	118.5
WXX100105-07CCV	3-Nitrotoluene	137 > 46	24.49	1861.694	17153.494	1861.694	54.266	bb			569.3881	94.9	-5.1	127.2
WXX100105-07CCV	PETN	361 > 62	24.67	44272.129	17153.494	44272.129	1290.470	bb			529.8218	88.3	-11.7	3631.9

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 01/07/10
 Time of Injection: 1146
 Standard Number: WXX100105-07CCV
 Data File: EXP0105084a

HMX	103.6
RDX	108.3
135-TNB	105.1
13-DNB	95.6
Tetryl	84.7
Nitrobenzene	89.4
4A-26-DNT	104.7
2A-46-DNT	109.6
246-TNT	105.0
34-DNT(surr)	104.0
26-DNT	104.4
24-DNT	101.8
2-NT	91.9
4-NT	98.3
3-NT	94.9
PETN	88.3

mt
1/10/10

Total 1589.6

Average 99.4

Time 01/08/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0105086a

Analysis Date: 07-JAN-10 12:45

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	34.64	87	
1,3-Dinitrobenzene-d4	500	611.345	122	
2,4,6-Trinitrotoluene	40	51.014	128	
2,4-Dinitrotoluene	40	48.644	122	
2,6-Dinitrotoluene	40	44.062	110	
2,6-Dinitrotoluene-d3	500	546.377	109	
2-Amino-4,6-dinitrotoluene	40	42.357	106	
3,4-Dinitrotoluene	20	26.517	133	*
4-Amino-2,6-dinitrotoluene	40	47.796	119	
HMX	40	40.563	101	
Nitrobenzene	40	49.463	124	
PETN	40	50.097	125	
RDX	40	38.966	97	
Tetryl	40	24.846	62	*
m-Dinitrobenzene	40	36.52	91	
m-Nitrotoluene	40	55.279	138	*
o-Nitrotoluene	40	43.88	110	
p-Nitrotoluene	40	47.101	118	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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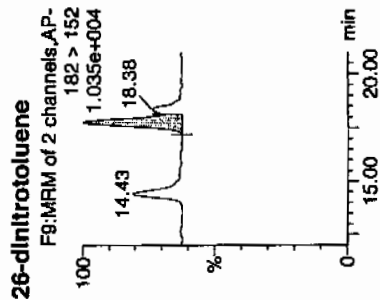
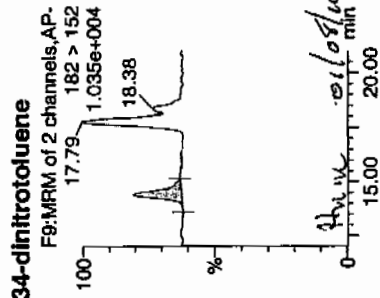
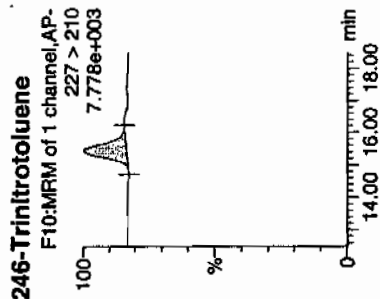
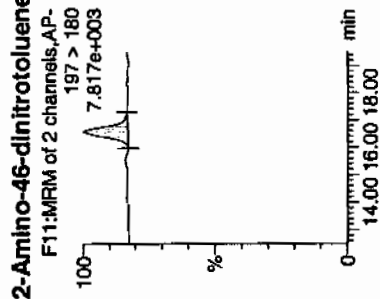
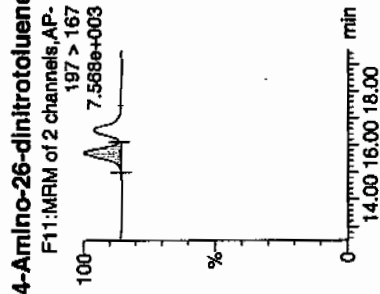
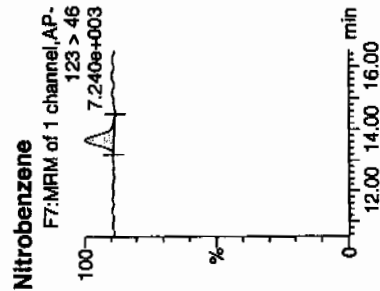
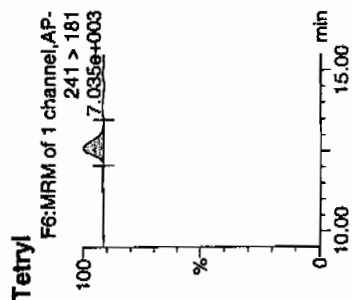
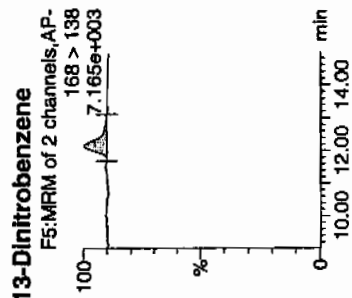
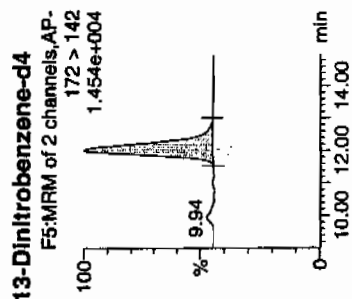
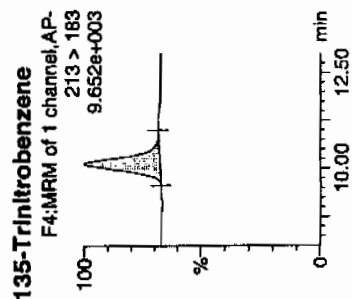
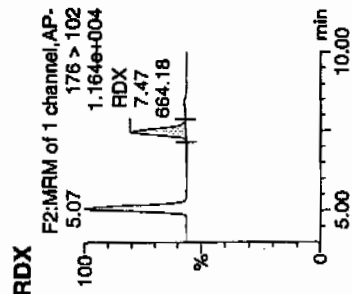
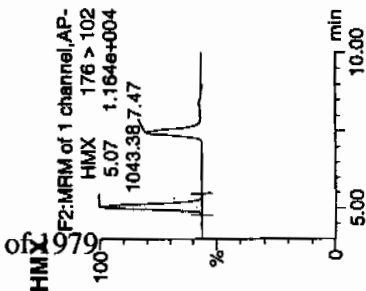
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Time: 12:45:20

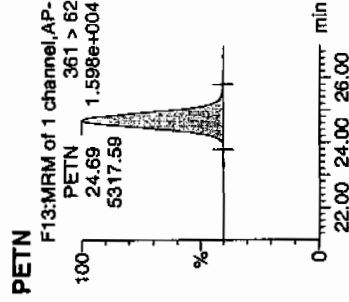
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Vial: 1, C

WXX
1/9/10



Dataset: C:\MASSLYNX\New Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010



ID	Name	Trace	RT	Area	%Area	Abst.Peak	Response	Flag	Mod.Date	Mod.Time	Inj.Vol	Rec	Mod	SN
WXX100105-08CRI	HMX	176 > 102	5.07	1043.382	3404.445	1043.382	153.238	bb			40.5633	101.4	1.4	231.1
WXX100105-08CRI	RDX	176 > 102	7.47	664.177	3404.445	664.177	.97.546	bb			38.9661	97.4	-2.6	127.3
WXX100105-08CRI	135-Tnitrobenzene	213 > 183	10.12	1246.089	3404.445	1248.089	183.009	bb			34.6404	86.6	-13.4	707.6
WXX100105-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	3404.445		3404.445	3404.445	bb			611.3447	122.3	22.3	217.6
WXX106105-08CRI	13-Dinitrobenzene	168 > 138	12.17	309.462	3404.445	309.462	45.450	bb			36.5197	91.3	-8.7	24.7
WXX100105-08CRI	Tetryl	241 > 181	12.63	317.311	3404.445	317.311	46.602	bb			24.8457	62.1	-37.9	28.5
WXX100105-08CRI	Nitrobenzene	123 > 46	13.67	342.815	3404.445	342.815	50.348	bb			49.4832	123.7	23.7	31.3
WXX100105-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	480.118	17573.148	480.118	13.661	MM	08-Jan-10	07:51:19	47.9599	119.5	19.5	41.2
WXX100105-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	589.004	17573.148	589.004	16.759	bb			42.3573	105.9	5.9	29.3
WXX100105-08CRI	246-Trinitrotoluene	227 > 210	15.45	629.325	17573.148	629.325	17.906	bb			51.0137	127.5	27.5	40.4
WXX100105-08CRI	34-dinitrotoluene	182 > 152	14.43	837.690	17573.148	837.690	23.834	bb			26.5167	132.6	32.6	38.7
WXX100105-08CRI	26-dinitrotoluene	182 > 152	17.79	1666.369	17573.148	1666.369	47.412	MM	08-Jan-10	08:01:32	44.0619	110.2	10.2	79.7
WXX100105-08CRI	24-dinitrotoluene	182 > 152	18.38	452.039	17573.148	452.039	12.862	MM	08-Jan-10	08:06:49	48.6440	121.6	21.6	22.0
WXX100105-08CRI	26-dinitrotoluene-d3	185 > 155	17.60	17573.148		17573.148	17573.148	bb			546.3770	109.3	9.3	1390.6
WXX100105-08CRI	2-Nitrotoluene	137 > 46	21.42	268.369	17573.148	268.369	7.636	bb			43.8800	109.7	9.7	65.3
WXX100105-08CRI	4-Nitrotoluene	137 > 46	22.81	131.664	17573.148	131.664	3.746	bb			47.1012	117.8	17.8	33.0
WXX100105-08CRI	3-Nitrotoluene	137 > 46	24.57	185.165	17573.148	185.165	5.268	bb			55.2792	138.2	38.2	38.9
WXX100105-08CRI	PETN	361 > 62	24.69	5317.590	17573.148	5317.590	151.299	bb			50.0966	125.2	25.2	368.1

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 01/07/10
 Time of Injection 1245
 Standard Number WXX100105-08CRI
 Data File EXP0105086a

HMX	101.4
RDX	97.4
135-TNB	86.6
13-DNB	91.3
Tetryl	62.1
Nitrobenzene	123.7
4A-26-DNT	119.5
2A-46-DNT	105.9
246-TNT	127.5
34-DNT(surr)	132.6
26-DNT	110.2
24-DNT	121.6
2-NT	109.7
4-NT	117.8
3-NT	138.2
PETN	125.2

WAT 1/8/10

Total 1770.7

Average 110.7

think 01/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0105093a

Analysis Date: 07-JAN-10 16:29

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	600	555.057	93	
m-Nitrotoluene	600	609.97	102	
o-Nitrotoluene	600	594.575	99	
p-Nitrotoluene	600	640.447	107	
1,3,5-Trinitrobenzene	600	558.883	93	
1,3-Dinitrobenzene-d4	500	561.058	112	
2,4,6-Trinitrotoluene	600	668.825	111	
2,4-Dinitrotoluene	600	623.498	104	
2,6-Dinitrotoluene	600	621.598	104	
2,6-Dinitrotoluene-d3	500	504.834	101	
2-Amino-4,6-dinitrotoluene	600	718.322	120	
3,4-Dinitrotoluene	300	347.892	116	
4-Amino-2,6-dinitrotoluene	600	661.652	110	
HMX	600	554.588	92	
Nitrobenzene	600	520.766	87	
PETN	600	463.877	77	*
RDX	600	580.36	97	
Tetryl	600	476.046	79	*

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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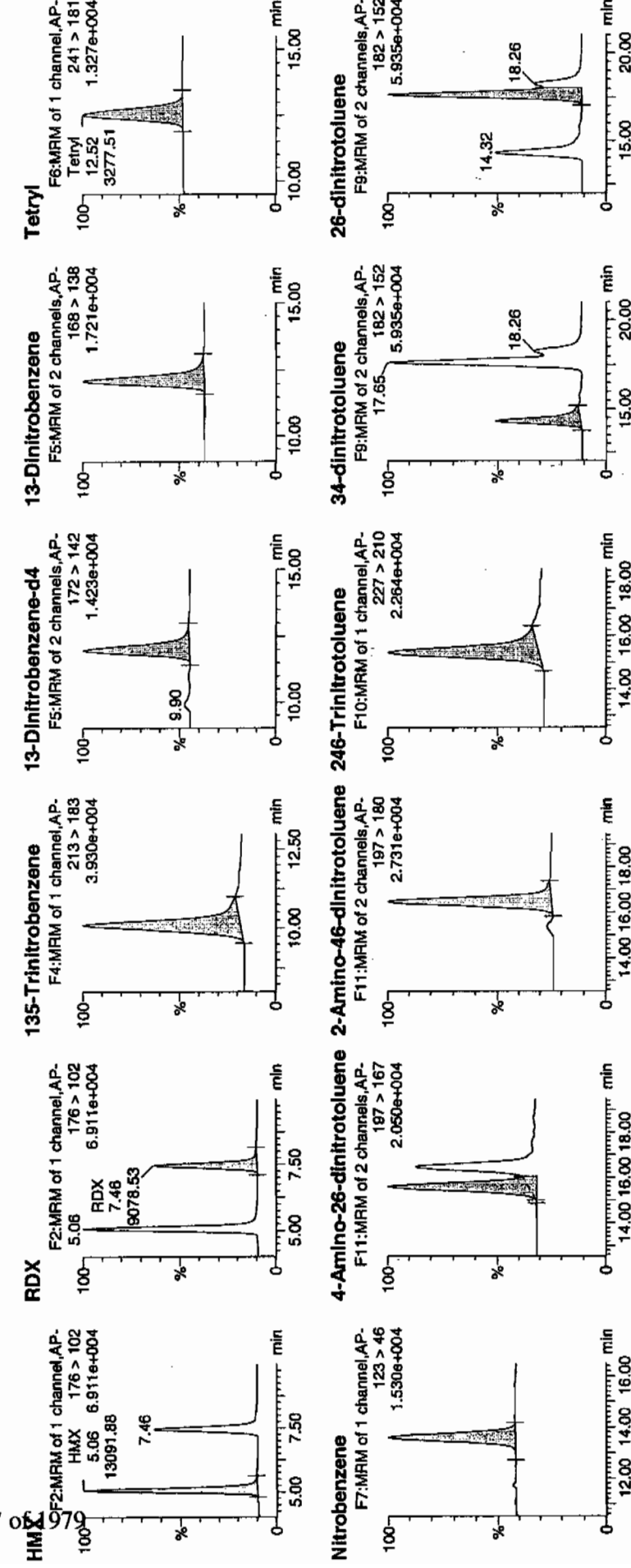
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Date: 07-Jan-2010

Time: 16:29:32

ID: VXX100105-07CCV

Via: 1.1.B

WAT
1/8/10

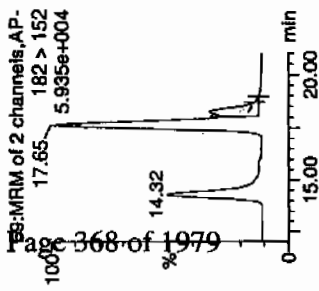
Quantify Sample Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

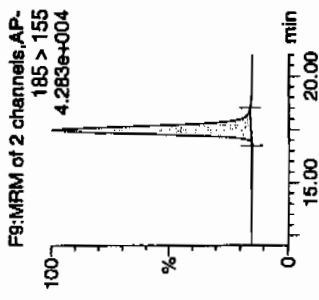
Printed: Fri Jan 08 08:09:43 2010, Page 40 of 97

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

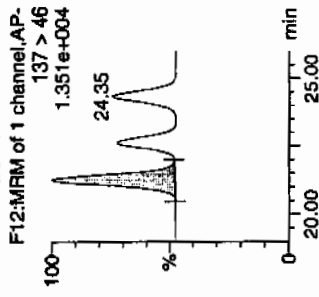
24-dinitrotoluene



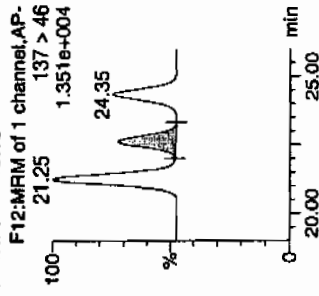
26-dinitrotoluene-d3



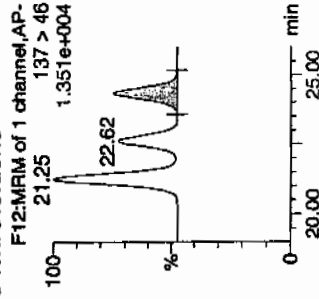
2-Nitrotoluene



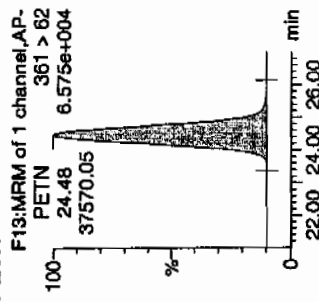
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	Area	IS Area	Response	Flags	Mod Date	Mod Time	Area	SN
WXX100105-07CCV	HMX	176 > 102	5.06	13091.881	2095.096	db			554.5878	92.4
WXX100105-07CCV	RDX	176 > 102	7.46	9078.532	1452.839	bb			580.3597	96.7
WXX100105-07CCV	135-Trinitrobenzene	213 > 183	10.09	12739.029	2038.629	bb			558.8827	93.1
WXX100105-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	3124.411	3124.411	bb			561.0583	112.2
WXX100105-07CCV	13-Dinitrobenzene	168 > 138	12.10	4316.573	690.782	bb			555.0572	92.5
WXX100105-07CCV	Tetryl	241 > 181	12.52	3277.513	524.501	bb			476.0457	79.3
WXX100105-07CCV	Nitrobenzene	123 > 46	13.61	3312.394	530.083	bb			520.7659	86.8
WXX100105-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.61	6141.063	189.107	MM	08-Jan-10	07:51:48	661.6522	110.3
WXX100105-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.45	9229.242	284.204	bb			718.3223	119.7
WXX100105-07CCV	246-Trinitrotoluene	227 > 210	15.37	7623.548	234.758	bb			668.8253	111.5
WXX100105-07CCV	34-dinitrotoluene	182 > 152	14.32	10154.637	312.700	bb			347.8920	116.0
WXX100105-07CCV	26-dinitrotoluene	182 > 152	17.65	21720.715	688.864	MM	08-Jan-10	08:02:28	621.5984	103.6
WXX100105-07CCV	24-dinitrotoluene	182 > 152	18.26	5353.502	164.855	MM	08-Jan-10	08:06:02	623.4979	103.9
WXX100105-07CCV	26-dinitrotoluene-d3	185 > 155	17.48	16237.009	16237.009	bb			504.8343	101.0
WXX100105-07CCV	2-Nitrotoluene	137 > 46	21.25	3359.920	103.465	bb			594.5748	99.1
WXX100105-07CCV	4-Nitrotoluene	137 > 46	22.62	1654.149	50.938	bb			640.4473	106.7
WXX100105-07CCV	3-Nitrotoluene	137 > 46	24.35	1887.825	58.133	bb			609.9698	101.7
WXX100105-07CCV	PETN	361 > 62	24.48	37570.051	1156.926	bb			463.8769	77.3
										652.7

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 01/07/10
 Time of Injection: 1629
 Standard Number: WXX100105-07CCV
 Data File: EXP0105093a

HMX	92.4
RDX	96.7
135-TNB	93.1
13-DNB	92.5
Tetryl	79.3
Nitrobenzene	86.8
4A-26-DNT	110.3
2A-46-DNT	119.7
246-TNT	111.5
34-DNT(surr)	116.0
26-DNT	103.6
24-DNT	103.9
2-NT	99.1
4-NT	106.7
3-NT	101.7
PETN	77.3

11/10/10

Total 1590.6

Average 99.4

Handwritten: 01/08/10

ICV Limits 85-115%
 CRI Limits 70-130%
 CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0105095a

Analysis Date: 07-JAN-10 17:28

LCMSMS ID: 203

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	40	46.089	115	
2,4-Dinitrotoluene	40	37.788	94	
2,6-Dinitrotoluene	40	44.674	112	
2,6-Dinitrotoluene-d3	500	512.817	103	
2-Amino-4,6-dinitrotoluene	40	43.424	109	
3,4-Dinitrotoluene	20	20.139	101	
4-Amino-2,6-dinitrotoluene	40	42.271	106	
HMX	40	44.319	111	
Nitrobenzene	40	36.092	90	
PETN	40	41.165	103	
RDX	40	43.526	109	
Tetryl	40	19.2	48	*
m-Dinitrobenzene	40	39.586	99	
m-Nitrotoluene	40	40.419	101	
o-Nitrotoluene	40	41.797	104	
p-Nitrotoluene	40	49.106	123	
1,3,5-Trinitrobenzene	40	44.012	110	
1,3-Dinitrobenzene-d4	500	537.59	108	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\10510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Sample: C:\MASSLYNX\NEW_EXP.PRO\data\EXP0105095a

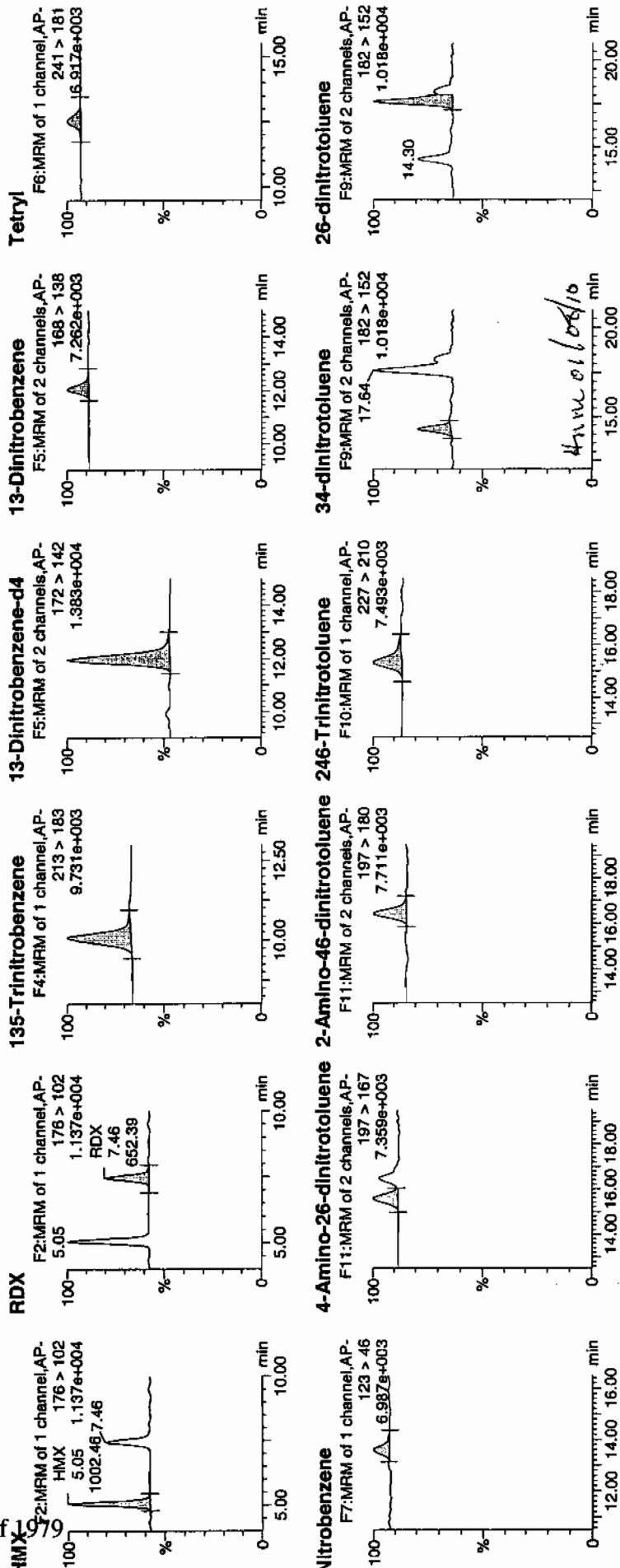
Date: 07-Jan-2010

Time: 17:28:36

D: WXX100105-08CRI

/1a1>:1,C

1/3/10



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 01/07/10
 Time of Injection 1728
 Standard Number WXX100105-08CRI
 Data File EXP0105095a

HMX	110.8
RDX	108.8
135-TNB	110.0
13-DNB	99.0
Tetryl	48.0
Nitrobenzene	90.2
4A-26-DNT	105.7
2A-46-DNT	108.6
246-TNT	115.2
34-DNT(surr)	100.7
26-DNT	111.7
24-DNT	94.5
2-NT	104.5
4-NT	122.8
3-NT	101.0
PETN	102.9

WAF
11/8/10

Total 1634.4

Sum 01/08/10

Average 102.2

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0105106a

Analysis Date: 07-JAN-10 22:53

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	600	712.859	119	
Tetryl	600	529.049	88	
m-Dinitrobenzene	600	595.632	99	
m-Nitrotoluene	600	560.693	93	
o-Nitrotoluene	600	547.829	91	
p-Nitrotoluene	600	615.665	103	
1,3,5-Trinitrobenzene	600	567.209	95	
1,3-Dinitrobenzene-d4	500	595.633	119	
2,4,6-Trinitrotoluene	600	628.045	105	
2,4-Dinitrotoluene	600	595.555	99	
2,6-Dinitrotoluene	600	626.541	104	
2,6-Dinitrotoluene-d3	500	567.774	114	
2-Amino-4,6-dinitrotoluene	600	664.644	111	
3,4-Dinitrotoluene	300	317.36	106	
4-Amino-2,6-dinitrotoluene	600	647.77	108	
HMX	600	550.035	92	
Nitrobenzene	600	531.461	89	
PETN	600	412.457	69	*

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

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Date: 07-Jan-2010

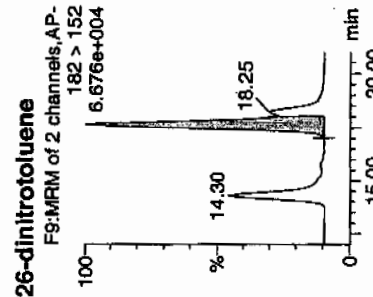
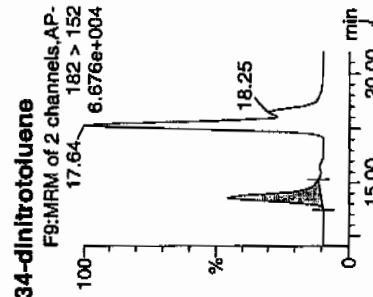
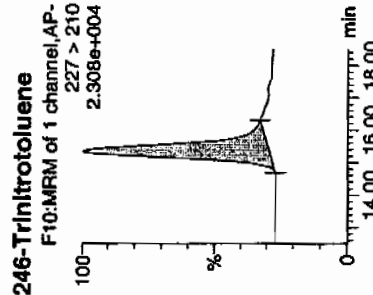
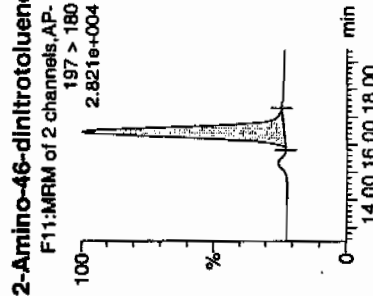
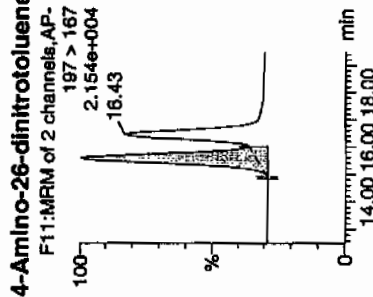
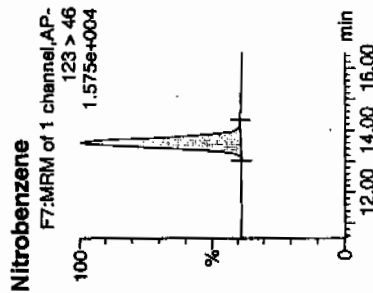
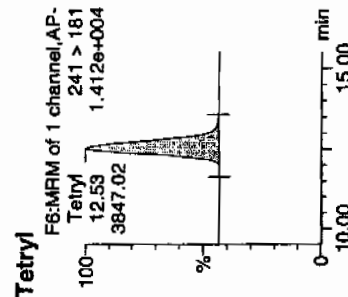
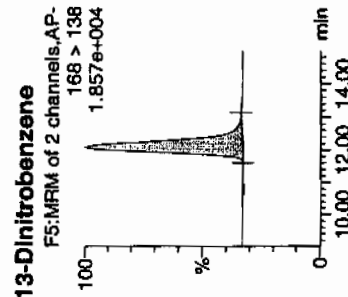
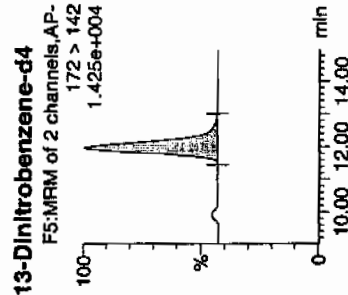
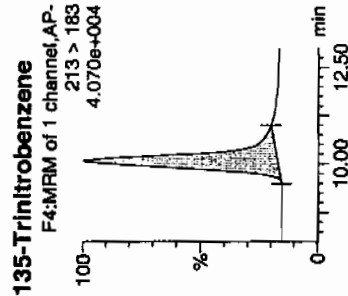
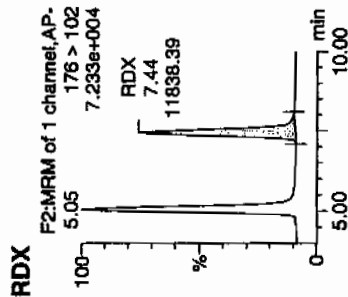
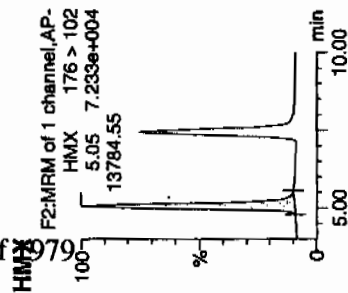
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ID: WXX100105-07CCV

Vol: 1:1,B

MM
1/6/10

HM
of 8



MM 01/08/10

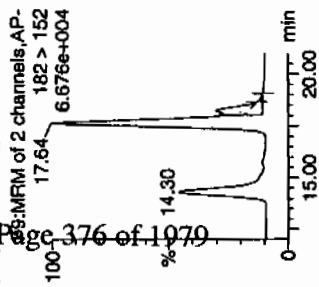
Quantify Sample Report

IEL Laboratories, LLC / Analyst: Michael A. Penny

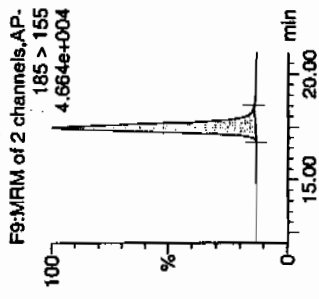
Printed: Fri Jan 08 08:09:43 2010, Page 66 of 97

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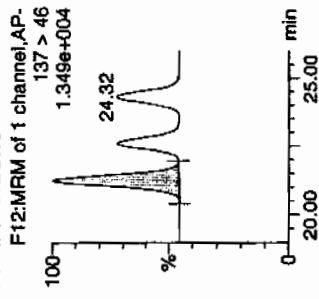
4-dinitrotoluene



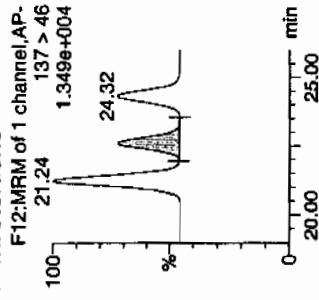
2,6-dinitrotoluene-d3



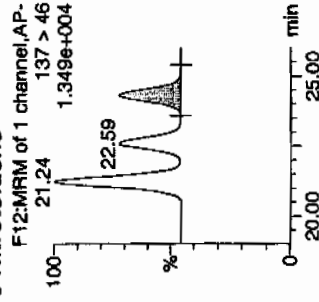
2-Nitrotoluene



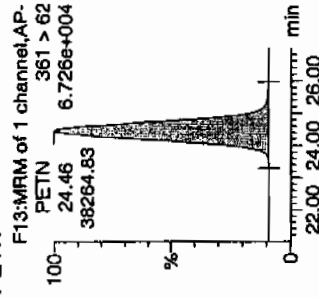
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	Area	IS Area	Abs Resp	Flags	Mod Date	Mod Time	SN
WXX100105-07CCV	HMX	176 > 102	5.05	13784.550	3316.949	bb	08-Jan-10	07:52:40	550.0349
WXX100105-07CCV	RDX	176 > 102	7.44	11838.390	3316.949	bb	08-Jan-10	07:52:40	712.8589
WXX100105-07CCV	135-Trinitrobenzene	213 > 183	10.09	13741.510	3316.949	bb	08-Jan-10	07:52:40	567.2094
WXX100105-07CCV	13-Dinitrobenzene-d4	172 > 142	11.95	3316.949	3316.949	bb	08-Jan-10	07:52:40	595.6329
WXX100105-07CCV	13-Dinitrobenzene	188 > 138	12.10	4917.561	4917.561	bb	08-Jan-10	07:52:40	595.6316
WXX100105-07CCV	Tetryl	241 > 181	12.53	3847.022	3847.022	bb	08-Jan-10	07:52:40	529.0488
WXX100105-07CCV	Nitrobenzene	123 > 46	13.58	3588.737	3588.737	bb	08-Jan-10	07:52:40	531.4612
WXX100105-07CCV	4-Amino-2,6-dinitrotoluene	197 > 167	15.59	6761.792	6761.792	MM	08-Jan-10	07:52:40	647.7703
WXX100105-07CCV	2-Amino-4,6-dinitrotoluene	197 > 180	16.46	9604.227	262.966	bb	08-Jan-10	07:52:40	664.6435
WXX100105-07CCV	246-Trinitrotoluene	227 > 210	15.34	8051.234	220.445	bb	08-Jan-10	07:52:40	628.0454
WXX100105-07CCV	34-dinitrotoluene	182 > 152	14.30	10418.354	285.257	bb	08-Jan-10	07:52:40	317.3600
WXX100105-07CCV	26-dinitrotoluene	182 > 152	17.64	24622.969	674.182	MM	08-Jan-10	08:03:27	626.5406
WXX100105-07CCV	24-dinitrotoluene	182 > 152	18.25	5751.114	157.467	MM	08-Jan-10	08:05:08	595.5553
WXX100105-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	18261.355	18261.355	bb	08-Jan-10	08:05:08	567.7744
WXX100105-07CCV	2-Nitrotoluene	137 > 46	21.24	3481.725	95.330	bb	08-Jan-10	08:05:08	547.8291
WXX100105-07CCV	4-Nitrotoluene	137 > 46	22.59	1788.391	48.967	bb	08-Jan-10	08:05:08	615.6647
WXX100105-07CCV	3-Nitrotoluene	137 > 46	24.32	1951.666	53.437	bb	08-Jan-10	08:05:08	560.6930
WXX100105-07CCV	PETN	361 > 62	24.46	38264.832	1047.700	bb	08-Jan-10	08:05:08	412.4573
									68.7
									-31.3
									2438.0

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 01/07/10
 Time of Injection: 2253
 Standard Number: WXX100105-07CCV
 Data File: EXP0105106a

HMX	91.7
RDX	118.8
135-TNB	94.5
13-DNB	99.3
Tetryl	88.2
Nitrobenzene	88.6
4A-26-DNT	108.0
2A-46-DNT	110.8
246-TNT	104.7
34-DNT(surr)	105.8
26-DNT	104.4
24-DNT	99.3
2-NT	91.3
4-NT	102.6
3-NT	93.4
PETN	68.7
Total	1570.1

ACT
1/8/10

4771K 01/08/10

Average

98.1

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0105108a

Analysis Date: 07-JAN-10 23:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	40	41.865	105	
Tetryl	40	31.156	78	
m-Dinitrobenzene	40	40.758	102	
m-Nitrotoluene	40	42.116	105	
o-Nitrotoluene	40	37.641	94	
p-Nitrotoluene	40	43.216	108	
1,3,5-Trinitrobenzene	40	38.142	95	
1,3-Dinitrobenzene-d4	500	553.397	111	
2,4,6-Trinitrotoluene	40	45.997	115	
2,4-Dinitrotoluene	40	45.46	114	
2,6-Dinitrotoluene	40	42.879	107	
2,6-Dinitrotoluene-d3	500	545.989	109	
2-Amino-4,6-dinitrotoluene	40	42.796	107	
3,4-Dinitrotoluene	20	21.604	108	
4-Amino-2,6-dinitrotoluene	40	47.272	118	
HMX	40	41.558	104	
Nitrobenzene	40	35.126	88	
PETN	40	38.659	97	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Jan 08 08:09:43 2010, Page 69 of 97

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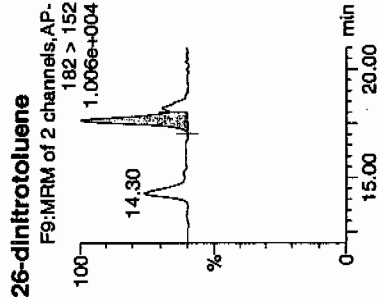
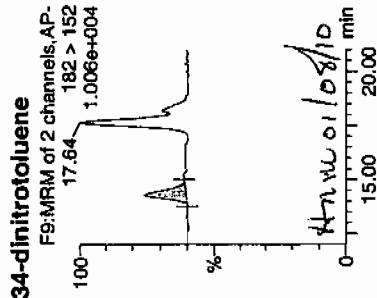
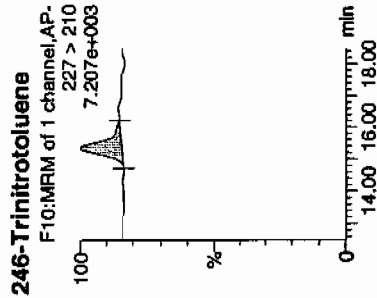
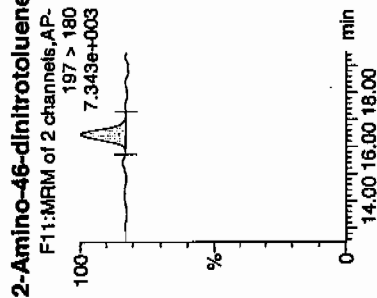
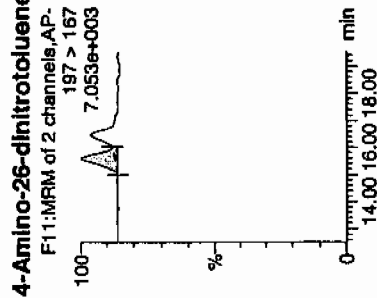
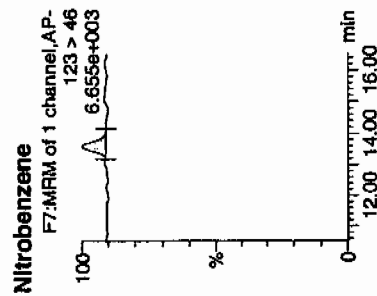
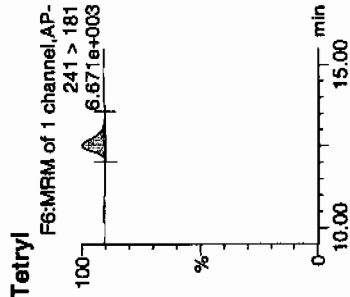
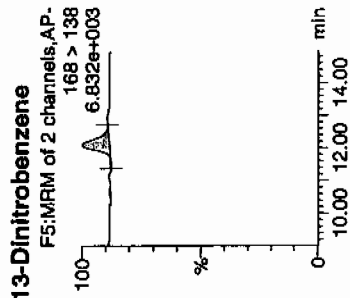
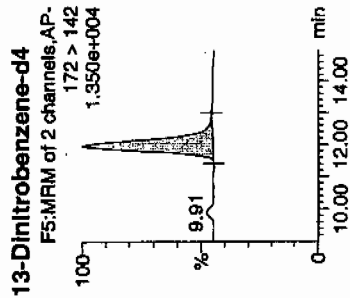
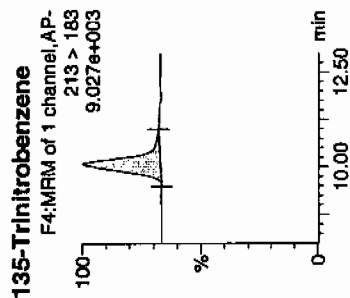
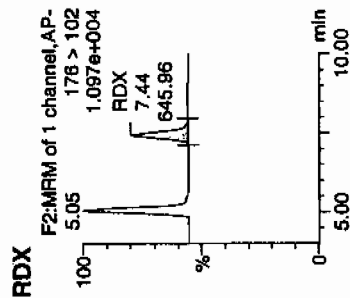
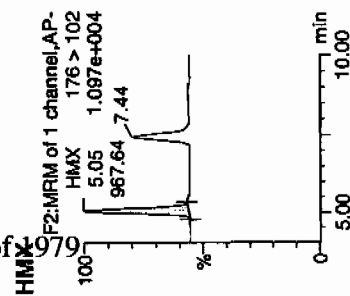
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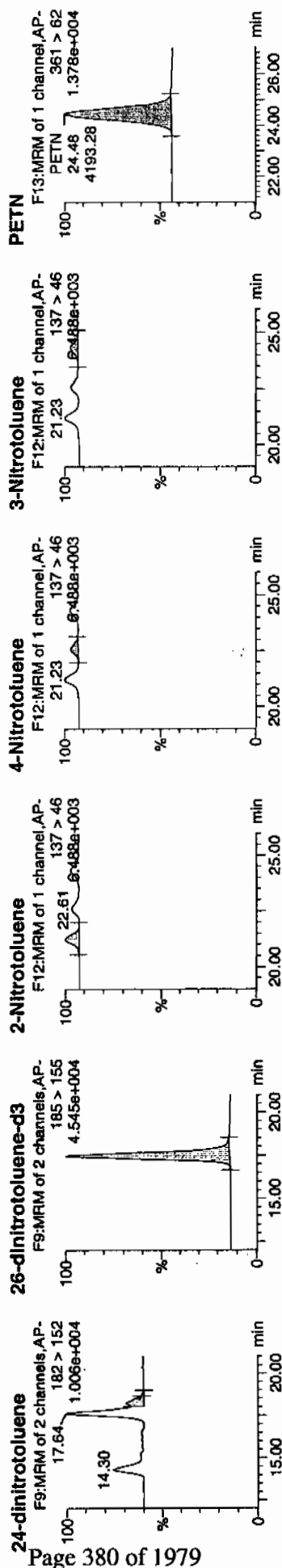
ID: WXX100105-08CRI

Vial: 1,C

1/8/10



Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010



Sample ID	Name	Trace	RT	Area	IS Area	Abs. Resp	Response	Flags	Mod. Date	Mod. Time	Intensity	Peak	Width	Area	Height
WXX100105-08CRI	HMX	176 > 102	5.05	967.637	3081.749	967.637	156.995	bb			41.5577	103.9	3.9	238.9	
WXX100105-08CRI	RDX	176 > 102	7.44	645.956	3081.749	645.956	104.803	bb			41.8654	104.7	4.7	129.4	
WXX100105-08CRI	135-Trinitrobenzene	213 > 183	10.09	1195.988	3081.749	1195.988	194.044	bb			38.1419	95.4	-4.6	196.1	
WXX100105-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	3081.749	3081.749	3081.749	3081.749	bb			553.3974	110.7	10.7	160.7	
WXX100105-08CRI	13-Dinitrobenzene	168 > 138	12.10	312.638	3081.749	312.638	50.724	bb			40.7579	101.9	1.9	36.9	
WXX100105-08CRI	Tetryl	241 > 181	12.53	328.905	3081.749	328.905	53.363	bb			31.1558	77.9	-22.1	24.1	
WXX100105-08CRI	Nitrobenzene	123 > 46	13.58	220.370	3081.749	220.370	35.754	bb			35.1256	87.8	-12.2	18.1	
WXX100105-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.62	474.519	17560.678	474.519	13.511	MM	08-Jan-10	07:52:51	47.2721	118.2	18.2	38.4	
WXX100105-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.46	594.685	17560.678	594.685	16.932	bb			42.7962	107.0	7.0	57.6	
WXX100105-08CRI	246-Trinitrotoluene	227 > 210	15.34	567.031	17560.678	567.031	16.145	bb			45.9967	115.0	15.0	49.3	
WXX100105-08CRI	34-dinitrotoluene	182 > 152	14.30	682.004	17560.678	682.004	19.418	bb			21.6039	108.0	8.0	19.0	
WXX100105-08CRI	26-dinitrotoluene	182 > 152	17.64	1620.491	17560.678	1620.491	46.140	MM	08-Jan-10	08:03:38	42.8792	107.2	7.2	49.3	
WXX100105-08CRI	24-dinitrotoluene	182 > 152	18.21	422.151	17560.678	422.151	12.020	MM	08-Jan-10	08:04:57	45.4600	113.7	13.7	11.8	
WXX100105-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	17560.678	17560.678	17560.678	17560.678	bb			545.9893	109.2	9.2	1756.9	
WXX100105-08CRI	2-Nitrotoluene	137 > 46	21.23	230.047	17560.678	230.047	6.550	bb			37.6408	94.1	-5.9	18.4	
WXX100105-08CRI	4-Nitrotoluene	137 > 46	22.61	120.717	17560.678	120.717	3.437	bb			43.2157	108.0	8.0	9.4	
WXX100105-08CRI	3-Nitrotoluene	137 > 46	24.34	140.974	17560.678	140.974	4.014	bb			42.1163	105.3	5.3	10.3	
WXX100105-08CRI	PETN	361 > 62	24.48	4193.276	17560.678	4193.276	119.394	bb			38.6594	96.6	-3.4	59.3	

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 01/07/10
 Time of Injection 2352
 Standard Number WXX100105-08CRI
 Data File EXP0105108a

HMX	103.9
RDX	104.7
135-TNB	95.4
13-DNB	101.9
Tetryl	77.9
Nitrobenzene	87.8
4A-26-DNT	118.2
2A-46-DNT	107.0
246-TNT	115.0
34-DNT(surr)	108.0
26-DNT	107.2
24-DNT	113.7
2-NT	94.1
4-NT	108.0
3-NT	105.3
PETN	96.6

Total 1644.7

Average 102.8

ICV Limits 85-115%
 CRI Limits 70-130%
 CCV Limits 85-115%

No single analyte > +/- 60%

110/10

1/11/10 01/08/10

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0105119a

Analysis Date: 08-JAN-10 05:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	645.585	108	
1,3-Dinitrobenzene-d4	500	535.819	107	
2,4,6-Trinitrotoluene	600	626.512	104	
2,4-Dinitrotoluene	600	584.158	97	
2,6-Dinitrotoluene	600	612.717	102	
2,6-Dinitrotoluene-d3	500	609.062	122	*
2-Amino-4,6-dinitrotoluene	600	697.936	116	
3,4-Dinitrotoluene	300	319.894	107	
4-Amino-2,6-dinitrotoluene	600	645.605	108	
HMX	600	668.819	111	
Nitrobenzene	600	605.056	101	
PETN	600	380.511	63	*
RDX	600	691.768	115	
Tetryl	600	594.766	99	
m-Dinitrobenzene	600	591.279	99	
m-Nitrotoluene	600	571.536	95	
o-Nitrotoluene	600	533.028	89	
p-Nitrotoluene	600	639.673	107	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

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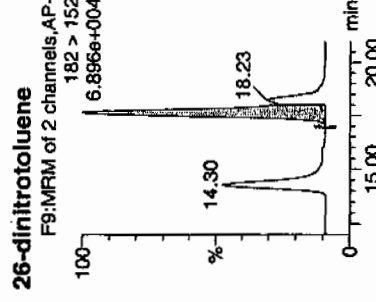
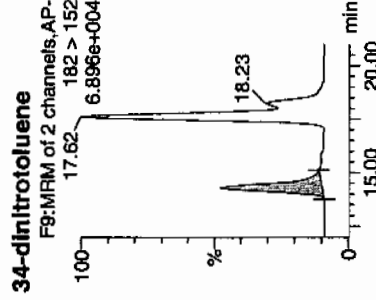
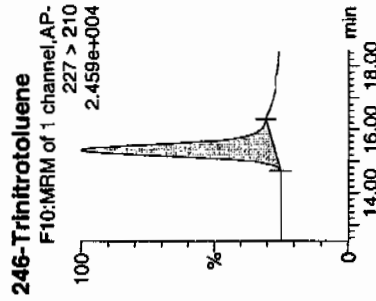
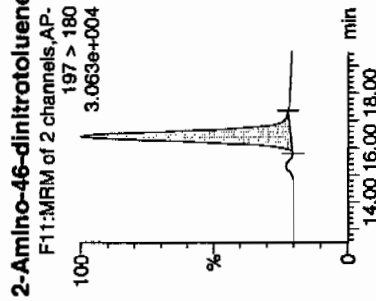
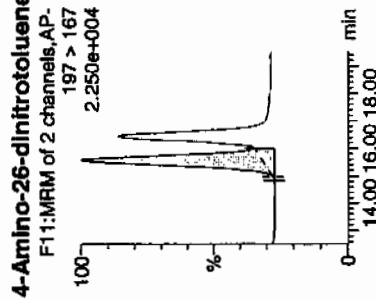
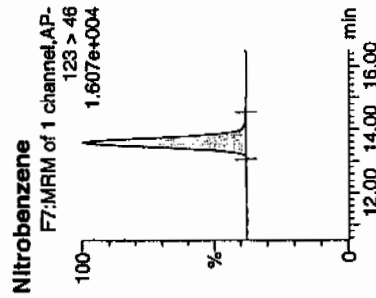
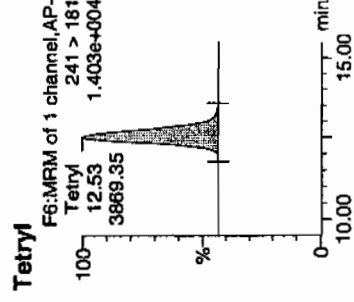
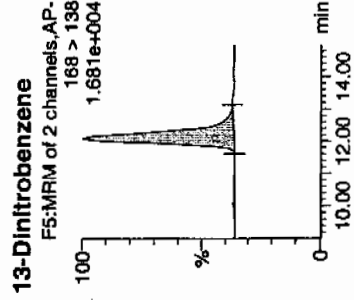
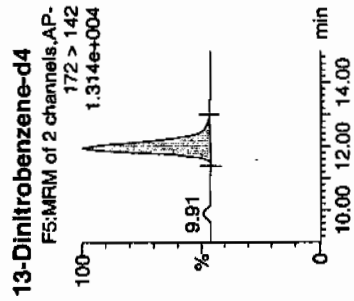
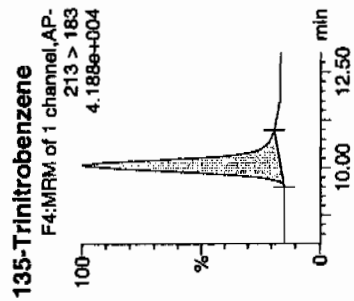
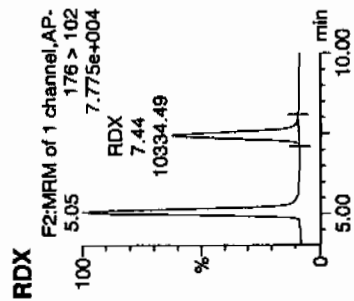
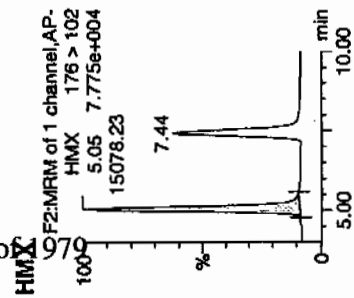
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Time: 05:16:32

ID: 80XX100105-07CCV

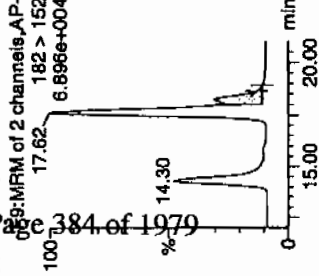
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1/3/10

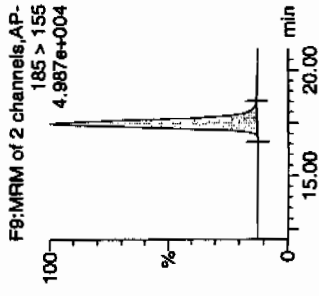


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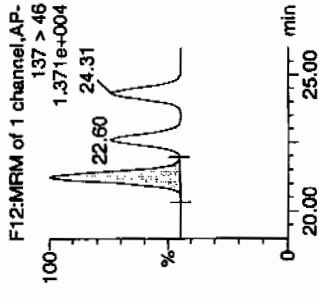
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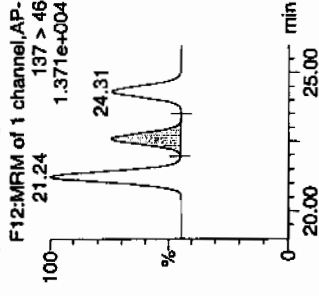
26-dinitrotoluene-d3



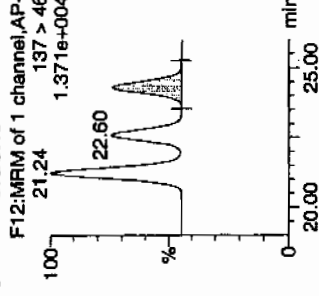
2-Nitrotoluene



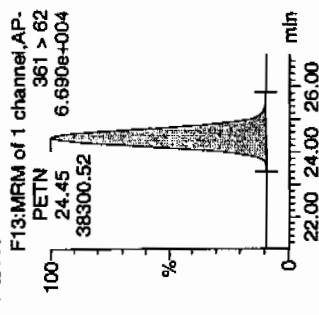
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	RT	Area	IS Area	ABF Resp	Response	Flags	Mod Date	Mod Time	Ref	SN
WXX100105-07CCV	HMX	176 > 102	5.05	15078.230	2983.858	15078.230	db	08-Jan-10	07:52:59	668.8191	111.5
WXX100105-07CCV	RDX	176 > 102	7.44	10334.489	2983.858	10334.489	bb	08-Jan-10	07:52:59	691.7682	115.3
WXX100105-07CCV	135-Trinitrobenzene	213 > 183	10.09	14233.064	2983.858	14233.064	bb	08-Jan-10	07:52:59	645.5854	107.6
WXX100105-07CCV	13-Dinitrobenzene-d4	172 > 142	11.95	2983.858	2983.858	2983.858	bb	08-Jan-10	07:52:59	535.8189	107.2
WXX100105-07CCV	13-Dinitrobenzene	168 > 138	12.10	4391.408	2983.858	4391.408	bb	08-Jan-10	07:52:59	591.2789	98.5
WXX100105-07CCV	Tetryl	241 > 181	12.53	3869.354	2983.858	3869.354	bb	08-Jan-10	07:52:59	594.7658	99.1
WXX100105-07CCV	Nitrobenzene	123 > 46	13.58	3675.404	2983.858	3675.404	bb	08-Jan-10	07:52:59	605.0561	100.8
WXX100105-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.59	7229.257	19589.297	7229.257	MM	08-Jan-10	07:52:59	645.6052	107.6
WXX100105-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.43	10818.706	19589.297	10818.706	bb	08-Jan-10	07:52:59	697.9364	116.3
WXX100105-07CCV	246-Trinitrotoluene	227 > 210	15.34	8615.627	19589.297	8615.627	bb	08-Jan-10	07:52:59	626.5123	104.4
WXX100105-07CCV	34-dinitrotoluene	182 > 152	14.30	11265.190	19589.297	11265.190	bb	08-Jan-10	07:52:59	319.8937	106.6
WXX100105-07CCV	26-dinitrotoluene	182 > 152	17.62	25830.756	19589.297	25830.756	MM	08-Jan-10	07:52:59	612.7171	102.1
WXX100105-07CCV	24-dinitrotoluene	182 > 152	18.23	6051.264	19589.297	6051.264	MM	08-Jan-10	07:52:59	584.1580	97.4
WXX100105-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	19589.297	19589.297	19589.297	bb	08-Jan-10	07:52:59	609.0622	121.8
WXX100105-07CCV	2-Nitrotoluene	137 > 46	21.24	3634.001	19589.297	3634.001	bb	08-Jan-10	07:52:59	533.0277	88.8
WXX100105-07CCV	4-Nitrotoluene	137 > 46	22.60	1993.253	19589.297	1993.253	bb	08-Jan-10	07:52:59	639.6735	106.6
WXX100105-07CCV	3-Nitrotoluene	137 > 46	24.31	2134.075	19589.297	2134.075	bb	08-Jan-10	07:52:59	571.5358	95.3
WXX100105-07CCV	PETN	361 > 62	24.45	38300.520	19589.297	38300.520	bb	08-Jan-10	07:52:59	380.5106	63.4

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 01/08/10
 Time of Injection: 0516
 Standard Number: WXX100105-07CCV
 Data File: EXP0105119a

HMX	111.5
RDX	115.3
135-TNB	107.6
13-DNB	98.5
Tetryl	99.1
Nitrobenzene	100.8
4A-26-DNT	107.6
2A-46-DNT	116.3
246-TNT	104.4
34-DNT(surr)	106.6
26-DNT	102.1
24-DNT	97.4
2-NT	88.8
4-NT	106.6
3-NT	95.3
PETN	63.4

*1077
1/8/10*

Total 1621.3

Average 101.3

Handwritten: 01/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0105121a

Analysis Date: 08-JAN-10 06:15

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	27.817	70	*
1,3-Dinitrobenzene-d4	500	642.777	129	
2,4,6-Trinitrotoluene	40	31.047	78	
2,4-Dinitrotoluene	40	40.907	102	
2,6-Dinitrotoluene	40	40.995	102	
2,6-Dinitrotoluene-d3	500	619.883	124	
2-Amino-4,6-dinitrotoluene	40	35.713	89	
3,4-Dinitrotoluene	20	18.421	92	
4-Amino-2,6-dinitrotoluene	40	35.692	89	
HMX	40	46.845	117	
Nitrobenzene	40	32.536	81	
PETN	40	34.333	86	
RDX	40	42.59	106	
Tetryl	40	21.176	53	*
m-Dinitrobenzene	40	31.777	79	
m-Nitrotoluene	40	51.988	130	
o-Nitrotoluene	40	39.172	98	
p-Nitrotoluene	40	40.501	101	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

James: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0105121a

Date: 08-Jan-2010

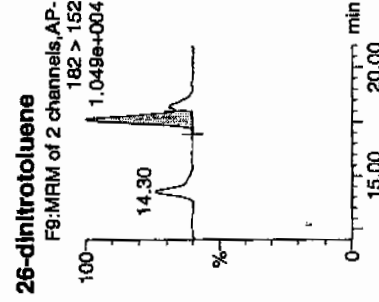
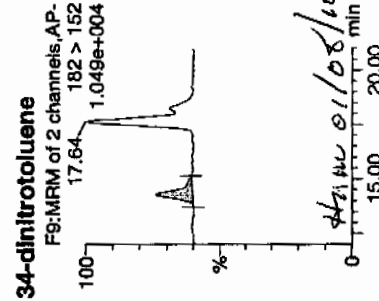
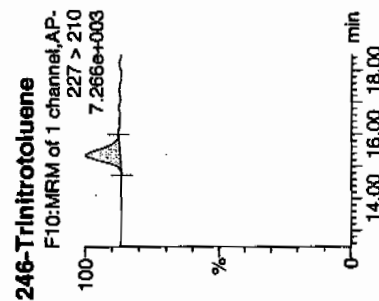
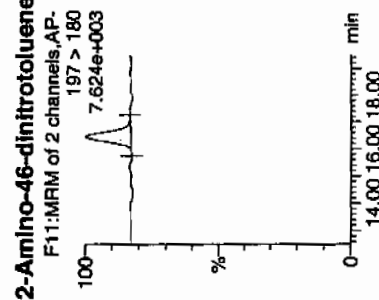
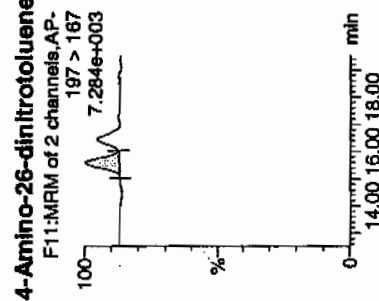
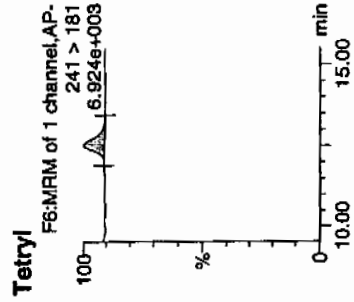
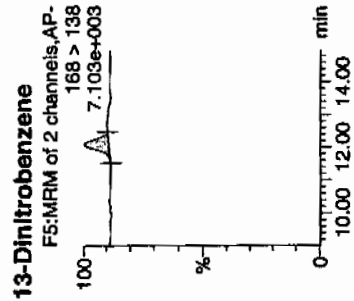
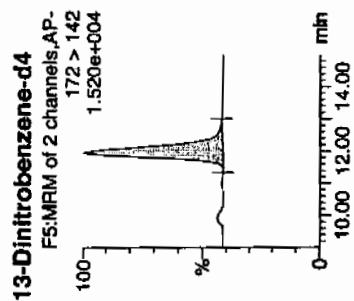
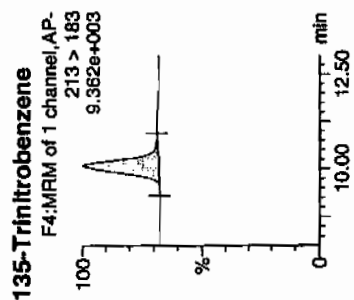
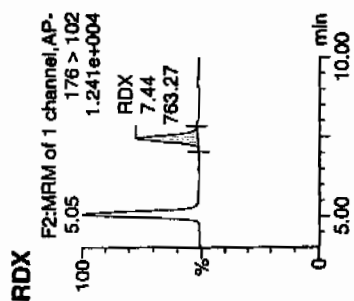
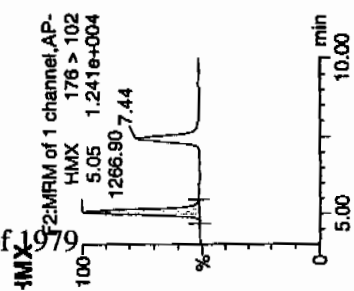
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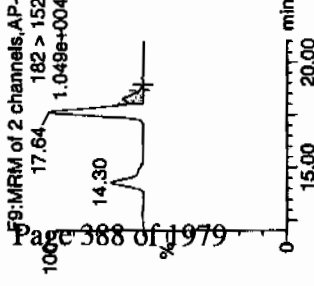
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1MX-279

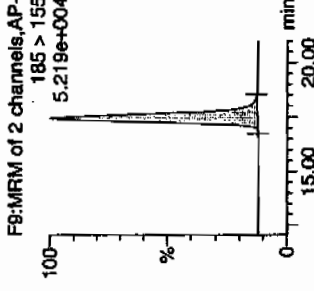


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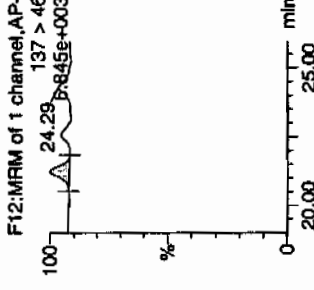
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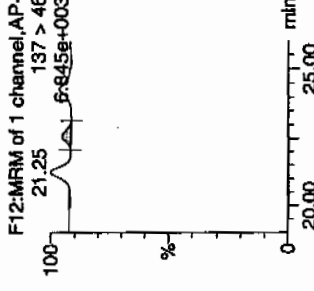
26-dinitrotoluene-d3



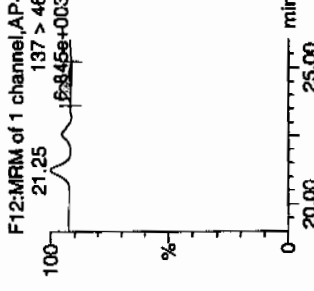
2-Nitrotoluene



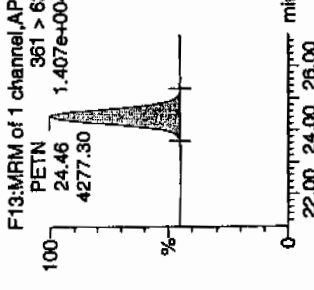
4-Nitrotoluene



3-Nitrotoluene



PETN



ID#	Name	RT	Area	Height	Volume	Conc	Mass
WXX100105-08CRI	HMZ	176 > 102	5.05	1266.901	3579.484	176.967	bb
WXX100105-08CRI	RDZ	176 > 102	7.44	763.266	3579.484	106.617	bb
WXX100105-08CRI	135-Trinitrobenzene	213 > 183	10.07	1156.594	3579.484	161.559	bb
WXX100105-08CRI	13-Dinitrobenzene-d4	172 > 142	11.95	3579.484	3579.484	3579.484	bb
WXX100105-08CRI	13-Dinitrobenzene	168 > 138	12.10	283.121	3579.484	39.548	bb
WXX100105-08CRI	Tetrayl	241 > 181	12.53	305.472	3579.484	42.670	bb
WXX100105-08CRI	Nitrobenzene	123 > 46	13.58	237.089	3579.484	33.118	bb
WXX100105-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.59	406.763	19937.336	10.201	MM
WXX100105-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.43	563.429	19937.336	14.130	bb
WXX100105-08CRI	246-Trinitrotoluene	227 > 210	15.34	434.531	19937.336	10.897	bb
WXX100105-08CRI	34-dinitrotoluene	182 > 152	14.30	660.242	19937.336	16.558	bb
WXX100105-08CRI	26-dinitrotoluene	182 > 152	17.64	1758.967	19937.336	44.112	MM
WXX100105-08CRI	24-dinitrotoluene	182 > 152	18.21	431.287	19937.336	10.816	MM
WXX100105-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	19937.336	19937.336	19937.336	bb
WXX100105-08CRI	2-Nitrotoluene	137 > 46	21.25	271.804	19937.336	6.816	bb
WXX100105-08CRI	4-Nitrotoluene	137 > 46	22.58	128.445	19937.336	3.221	bb
WXX100105-08CRI	3-Nitrotoluene	137 > 46	24.29	197.568	19937.336	4.955	bb
WXX100105-08CRI	PETN	361 > 62	24.46	4277.298	19937.336	107.269	bb

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 01/08/10
 Time of Injection 0615
 Standard Number WXX100105-08CRI
 Data File EXP0105121a

HMX	117.1
RDX	106.5
135-TNB	69.5
13-DNB	79.4
Tetryl	52.9
Nitrobenzene	81.3
4A-26-DNT	89.2
2A-46-DNT	89.3
246-TNT	77.6
34-DNT(surr)	92.1
26-DNT	102.5
24-DNT	102.3
2-NT	97.9
4-NT	101.3
3-NT	130.0
PETN	85.8

11/8/10

Total 1474.7

Average 92.2

Approved 01/08/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108012a

Analysis Date: 08-JAN-10 22:39

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	40	40.401	101	
2,6-Dinitrotoluene-d3	500	509.639	102	
2-Amino-4,6-dinitrotoluene	40	40.883	102	
3,4-Dinitrotoluene	20	16.575	83	
4-Amino-2,6-dinitrotoluene	40	30.131	75	
HMX	40	42.046	105	
Nitrobenzene	40	53.695	134	*
PETN	40	42.102	105	
RDX	40	34.339	86	
Tetryl	40	33.119	83	
m-Dinitrobenzene	40	47.97	120	
m-Nitrotoluene	40	44.301	111	
o-Nitrotoluene	40	42.717	107	
p-Nitrotoluene	40	40.049	100	
1,3,5-Trinitrobenzene	40	62.632	157	*
1,3-Dinitrobenzene-d4	500	454.977	91	
2,4,6-Trinitrotoluene	40	36.667	92	
2,4-Dinitrotoluene	40	34.288	86	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108012a

Date: 08-Jan-2010

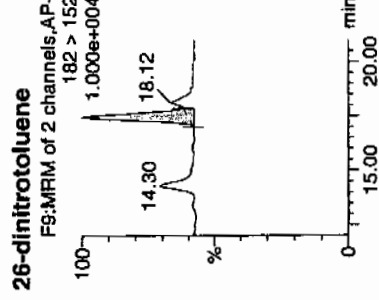
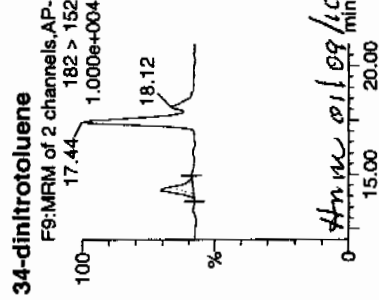
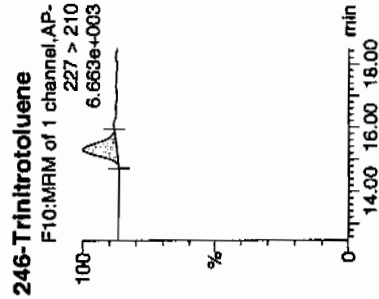
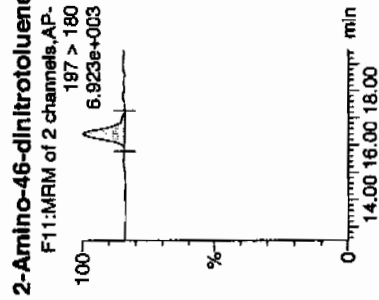
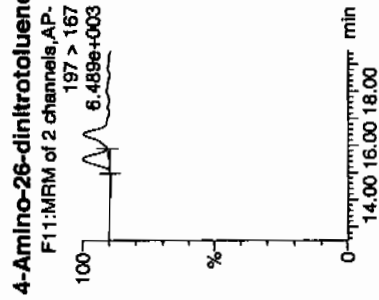
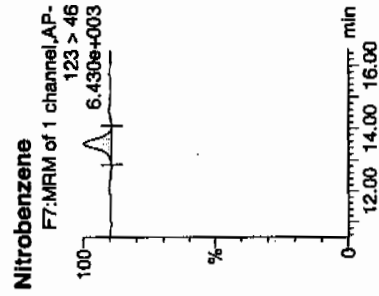
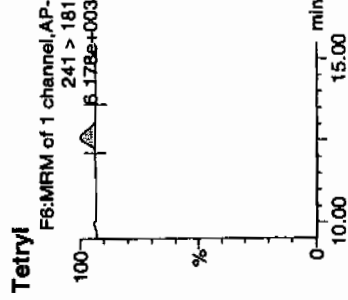
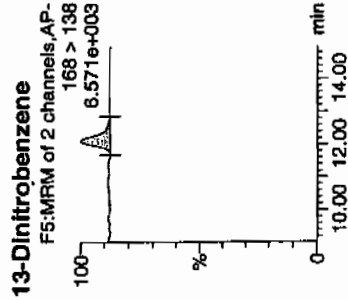
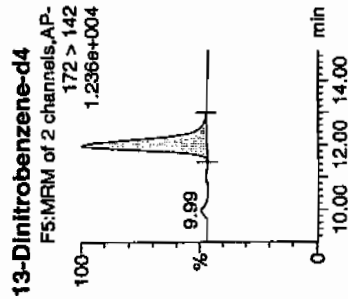
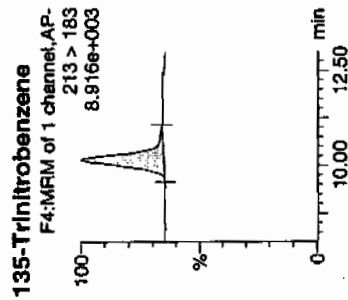
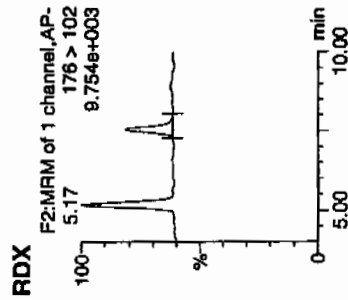
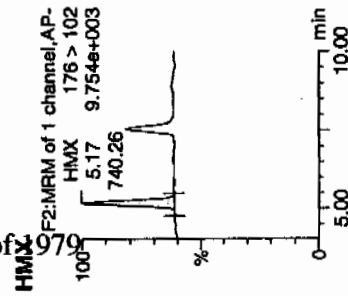
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ID: WXX100108-08CRI

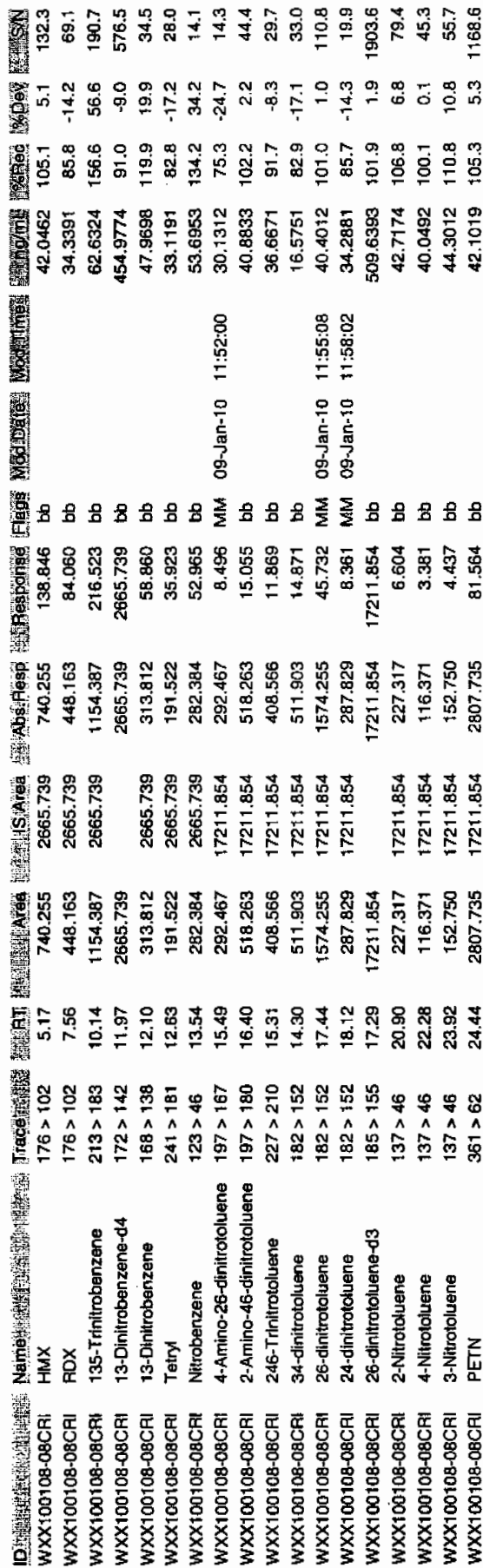
Vial: 1, C

1/9/10

of 970



Dataset: C:\MASSLYNX\New_Exp.PRO\10810expA.qld, Time: Sat Jan 09 12:01:37 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 01/08/10
 Time of Injection 2239
 Standard Number WXX100108-08CRI
 Data File EXP0108012a

HMX	105.1
RDX	85.8
135-TNB	156.6
13-DNB	119.9
Tetryl	82.8
Nitrobenzene	134.2
4A-26-DNT	75.3
2A-46-DNT	102.2
246-TNT	91.7
34-DNT(surr)	82.9
26-DNT	101.0
24-DNT	85.7
2-NT	106.8
4-NT	100.1
3-NT	110.8
PETN	105.3

*MTT
1/9/10*

Total 1646.2

Average 102.9

MTT 01/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0108018a

Analysis Date: 09-JAN-10 01:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	606.021	101	
1,3-Dinitrobenzene-d4	500	516.054	103	
2,4,6-Trinitrotoluene	600	608.705	101	
2,4-Dinitrotoluene	600	628.741	105	
2,6-Dinitrotoluene	600	563.684	94	
2,6-Dinitrotoluene-d3	500	538.099	108	
2-Amino-4,6-dinitrotoluene	600	601.969	100	
3,4-Dinitrotoluene	300	285.84	95	
4-Amino-2,6-dinitrotoluene	600	533.955	89	
HMX	600	554.517	92	
Nitrobenzene	600	581.678	97	
PETN	600	551.216	92	
RDX	600	705.816	118	
Tetryl	600	552.916	92	
m-Dinitrobenzene	600	589.319	98	
m-Nitrotoluene	600	544.817	91	
o-Nitrotoluene	600	528.699	88	
p-Nitrotoluene	600	494.24	82	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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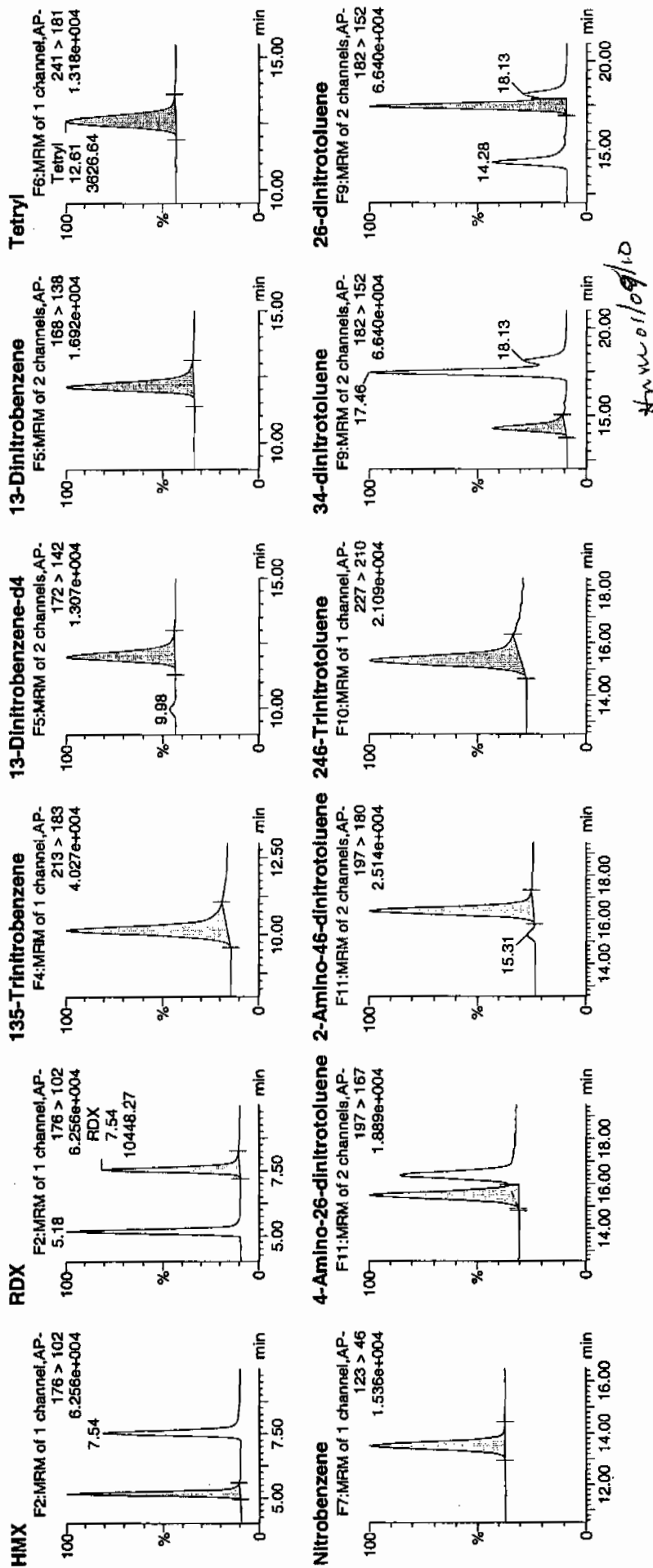
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Time: 01:36:28

ID: WXX100108-07CCV

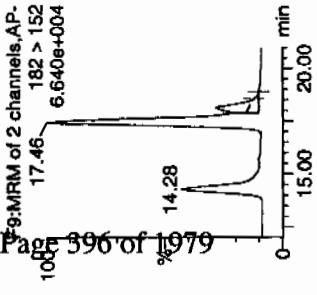
Vial: 1:1,B

1/9/10

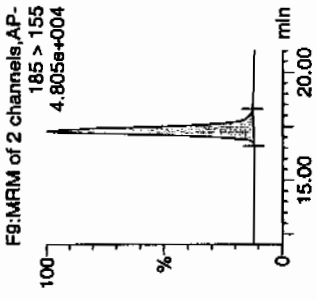


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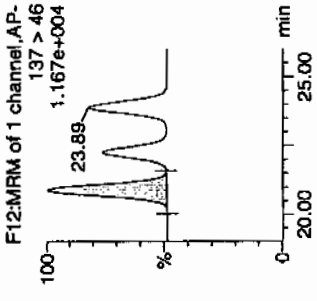
24-dinitrotoluene



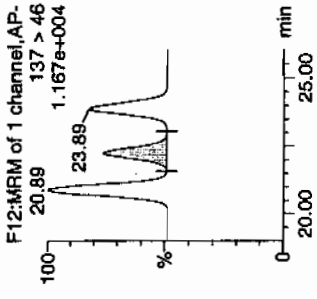
26-dinitrotoluene-d3



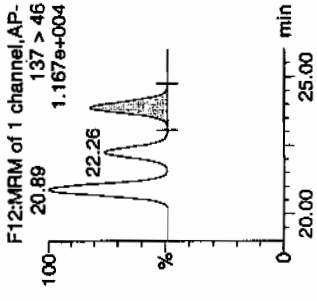
2-Nitrotoluene



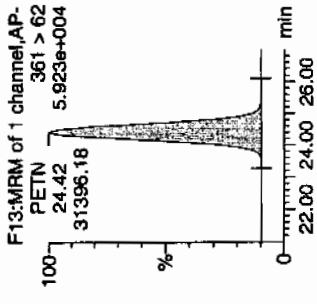
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Area	Dev	MSN	
WXX100108-07CCV	HMX	176 > 102	5.18	11073.245	3023.591	11073.245	1831.141	bb			554.5172	92.4	-7.6	1676.1
WXX100108-07CCV	RDX	176 > 102	7.54	10448.271	3023.591	10448.271	1727.792	bb			705.8157	117.6	17.6	1325.5
WXX100108-07CCV	135-Trinitrobenzene	213 > 183	10.14	12669.103	3023.591	12669.103	2095.042	bb			606.0215	101.0	1.0	1439.2
WXX100108-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	3023.591	3023.591	3023.591	3023.591	bb			516.0541	103.2	3.2	166.8
WXX100108-07CCV	13-Dinitrobenzene	168 > 138	12.10	4372.778	3023.591	4372.778	723.110	bb			589.3189	98.2	-1.8	711.6
WXX100108-07CCV	Tetryl	241 > 181	12.61	3626.639	3023.591	3626.639	599.724	bb			552.9160	92.2	-7.8	565.9
WXX100108-07CCV	Nitrobenzene	123 > 46	13.53	3469.703	3023.591	3469.703	573.772	bb			581.6785	96.9	-3.1	273.3
WXX100108-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.52	5472.227	18172.998	5472.227	150.559	MM	09-Jan-10	11:52:27	533.9552	89.0	-11.0	472.4
WXX100108-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.39	8057.079	18172.998	8057.079	221.677	bb			601.9689	100.3	0.3	352.2
WXX100108-07CCV	246-Trinitrotoluene	227 > 210	15.33	7161.302	18172.998	7161.302	197.031	bb			608.7053	101.5	1.5	360.5
WXX100108-07CCV	34-dinitrotoluene	182 > 152	14.28	9320.819	18172.998	9320.819	256.447	bb			285.8404	95.3	-4.7	411.0
WXX100108-07CCV	26-dinitrotoluene	182 > 152	17.46	23190.764	18172.998	23190.764	638.056	MM	09-Jan-10	11:55:35	563.6840	93.9	-6.1	1111.5
WXX100108-07CCV	24-dinitrotoluene	182 > 152	18.13	5572.645	18172.998	5572.645	153.322	MM	09-Jan-10	11:58:24	628.7406	104.8	4.8	229.7
WXX100108-07CCV	26-dinitrotoluene-d3	185 > 155	17.30	18172.998	18172.998	18172.998	18172.998	bb			538.0986	107.6	7.6	1261.8
WXX100108-07CCV	2-Nitrotoluene	137 > 46	20.89	2970.536	18172.998	2970.536	81.729	bb			528.6995	88.1	-11.9	169.2
WXX100108-07CCV	4-Nitrotoluene	137 > 46	22.26	1516.307	18172.998	1516.307	41.719	bb			494.2399	82.4	-17.6	89.1
WXX100108-07CCV	3-Nitrotoluene	137 > 46	23.89	1983.425	18172.998	1983.425	54.571	bb			544.8170	90.8	-9.2	109.1
WXX100108-07CCV	PETN	361 > 62	24.42	31396.178	18172.998	31396.178	863.814	bb			551.2156	91.9	-8.1	5840.6

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 01/09/10
 Time of Injection: 0136
 Standard Number: WXX100108-07CCV
 Data File: EXP0108018a

HMX	92.4
RDX	117.6
135-TNB	101.0
13-DNB	98.2
Tetryl	92.2
Nitrobenzene	96.9
4A-26-DNT	89.0
2A-46-DNT	100.3
246-TNT	101.5
34-DNT(surr)	95.3
26-DNT	93.9
24-DNT	104.8
2-NT	88.1
4-NT	82.4
3-NT	90.8
PETN	91.9

MTT
1/9/10

Total 1536.3

Average 96.0

Hmm 01/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108020a

Analysis Date: 09-JAN-10 02:35

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	40	36.303	91	
m-Nitrotoluene	40	34.916	87	
o-Nitrotoluene	40	40.683	102	
p-Nitrotoluene	40	38.865	97	
1,3,5-Trinitrobenzene	40	57.42	144	*
1,3-Dinitrobenzene-d4	500	478.135	96	
2,4,6-Trinitrotoluene	40	47.739	119	
2,4-Dinitrotoluene	40	43.444	109	
2,6-Dinitrotoluene	40	39.173	98	
2,6-Dinitrotoluene-d3	500	472.045	94	
2-Amino-4,6-dinitrotoluene	40	41.528	104	
3,4-Dinitrotoluene	20	19.72	99	
4-Amino-2,6-dinitrotoluene	40	39.363	98	
HMX	40	44.675	112	
Nitrobenzene	40	40.724	102	
PETN	40	50.356	126	
RDX	40	41.821	105	
Tetryl	40	41.61	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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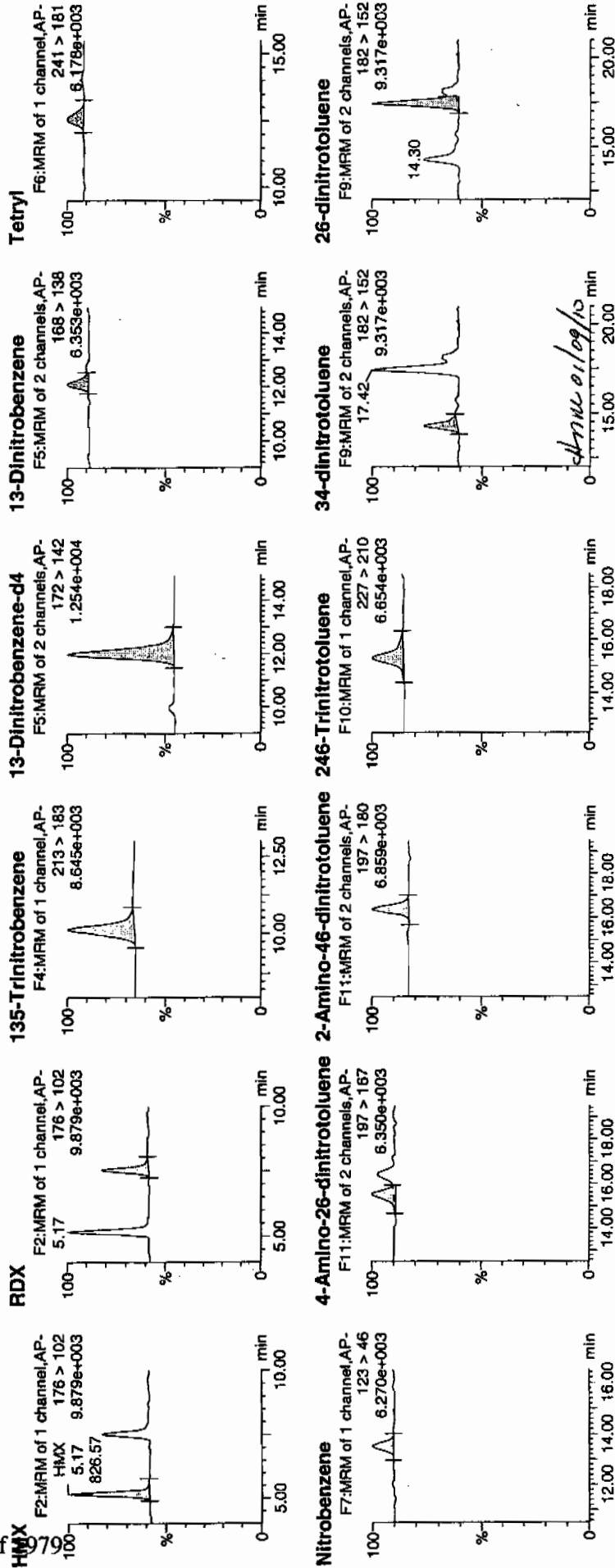
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Time: 02:35:25

ID: WXX100108-08CRI

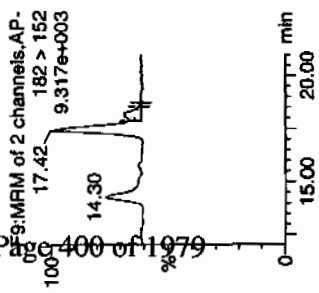
Vial: 1:1,C

1/9/10

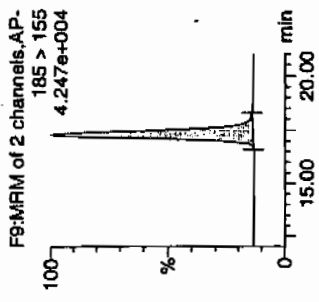


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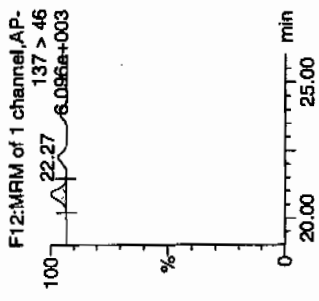
24-dinitrotoluene



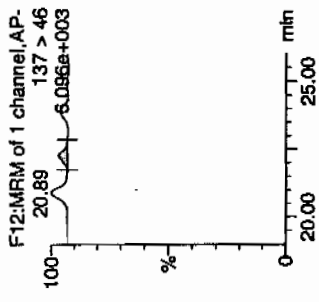
26-dinitrotoluene-d3



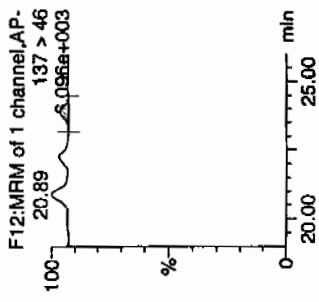
2-Nitrotoluene



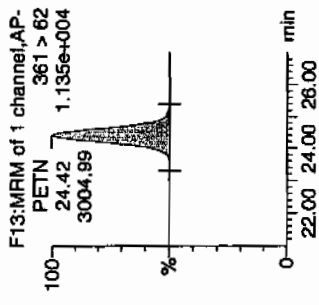
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS/Area	Abn Resp	Response	Flags	Mod Date	Mod Time	Ratio	Area	SN
WXX100108-08CRI	HMX	176 > 102	5.17	826.568	2801.420	826.568	147.527	bb				44.6749	111.7
WXX100108-08CRI	RDX	176 > 102	7.54	573.584	2801.420	573.584	102.374	bb				41.8205	104.6
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.14	1112.191	2801.420	1112.191	198.505	bb				57.4204	143.6
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	2801.420	2801.420	2801.420	2801.420	bb				478.1348	95.6
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.10	249.579	2801.420	249.579	44.545	bd				36.3033	90.8
WXX100108-08CRI	Tetryl	241 > 181	12.58	252.871	2801.420	252.871	45.133	bb				41.6101	104.0
WXX100108-08CRI	Nitrobenzene	123 > 46	13.54	225.069	2801.420	225.069	40.171	bb				40.7241	101.8
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	353.887	15942.212	353.887	11.099	MM	09-Jan-10	11:52:33		39.3626	98.4
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.37	487.608	15942.212	487.608	15.293	bb				41.5284	103.8
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.31	492.693	15942.212	492.693	15.452	bb				47.7386	119.3
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.30	564.100	15942.212	564.100	17.692	bb				19.7198	98.6
WXX100108-08CRI	28-dinitrotoluene	182 > 152	17.42	1413.790	15942.212	1413.790	44.341	MM	09-Jan-10	11:55:43		39.1727	97.9
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.08	337.788	15942.212	337.788	10.594	MM	09-Jan-10	11:58:34		43.4443	108.6
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	15942.212	15942.212	15942.212	15942.212	bb				472.0455	94.4
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.89	200.523	15942.212	200.523	6.289	bb				40.6833	101.7
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.27	104.600	15942.212	104.600	3.281	bb				38.8652	97.2
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.89	111.509	15942.212	111.509	3.497	bb				34.9159	87.3
WXX100108-08CRI	PETN	361 > 62	24.42	3004.994	15942.212	3004.994	94.246	bb				50.3561	125.9

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 01/09/10
 Time of Injection 0235
 Standard Number WXX100108-08CRI
 Data File EXP0108020a

HMX	111.7
RDX	104.6
135-TNB	143.6
13-DNB	90.8
Tetryl	104.0
Nitrobenzene	101.8
4A-26-DNT	98.4
2A-46-DNT	103.8
246-TNT	119.3
34-DNT(surr)	98.6
26-DNT	97.9
24-DNT	108.6
2-NT	101.7
4-NT	97.2
3-NT	87.3
PETN	125.9

*mtf
1/1/10*

Total 1695.2

Average 106.0

4mm 01/08/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS01050013.wiff

Analysis Date: 05-JAN-10 17:38

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	97.7	98	
2,6-Diamino-4-nitrotoluene	100	97.5	98	
3,4-Dinitrotoluene	50	50.4	101	
3,5-Dinitroaniline	100	98.7	99	
TATB	100	101	101	
tris(o-cresyl) phosphate	100	101	101	

Recovery Limits:

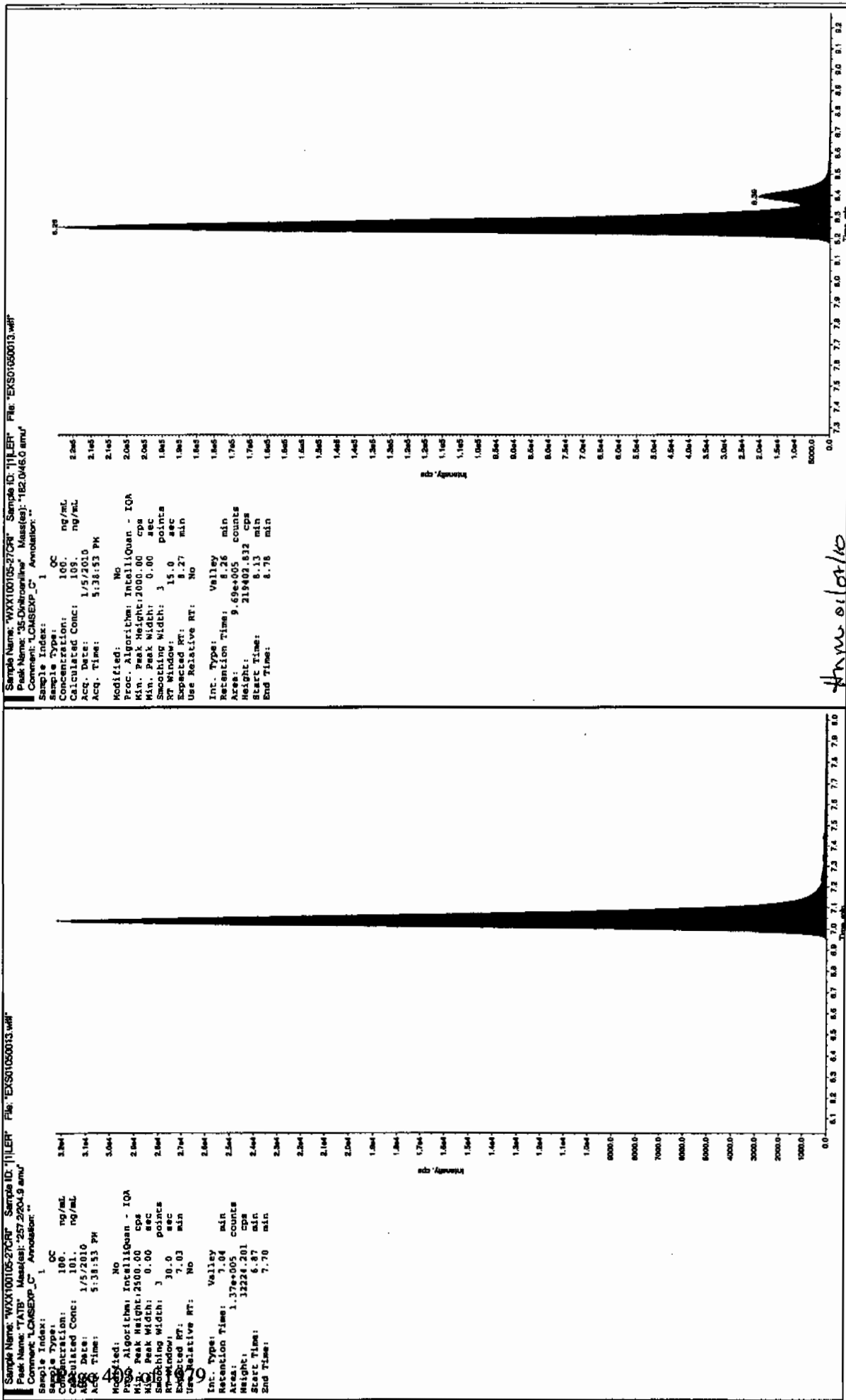
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

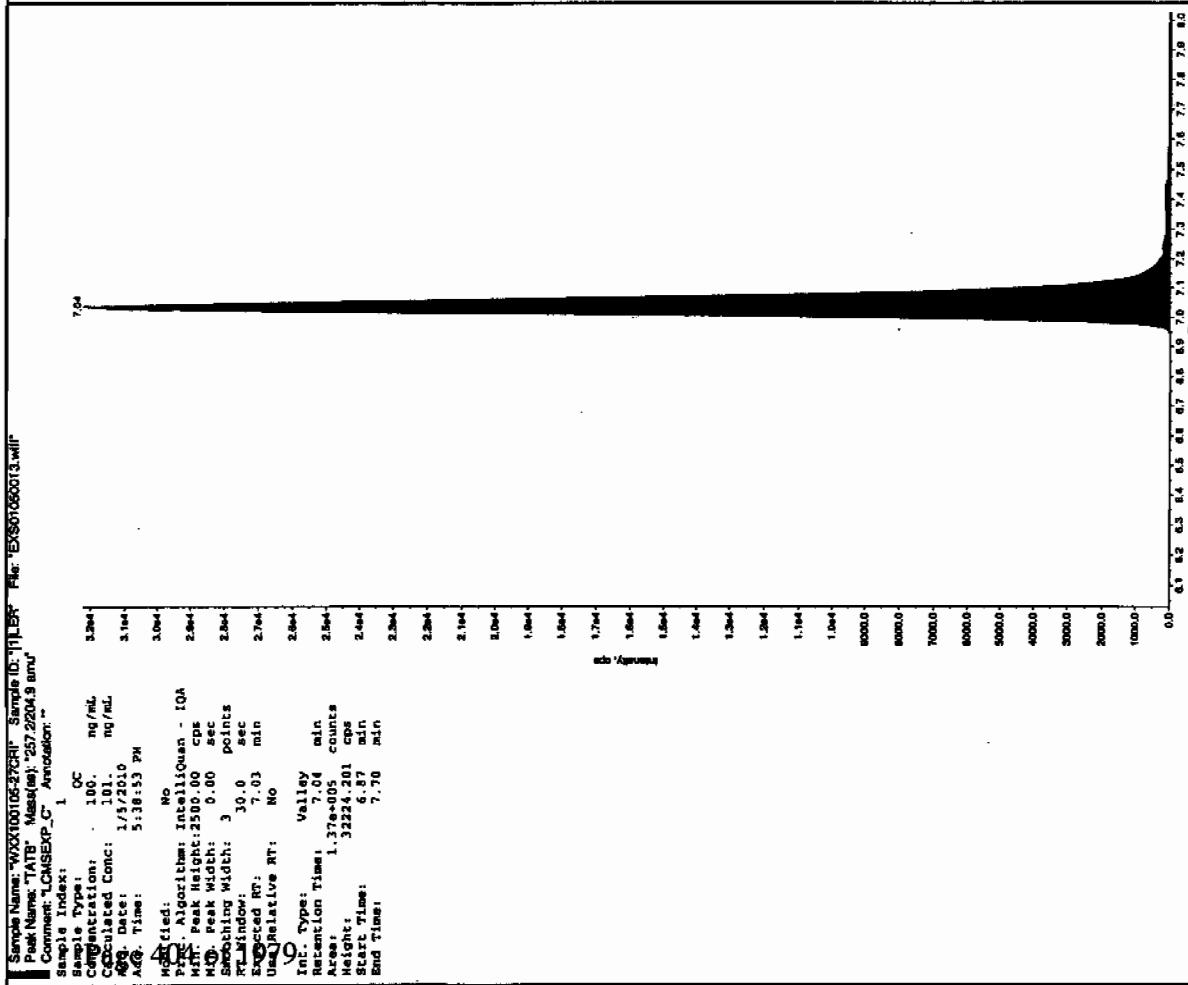
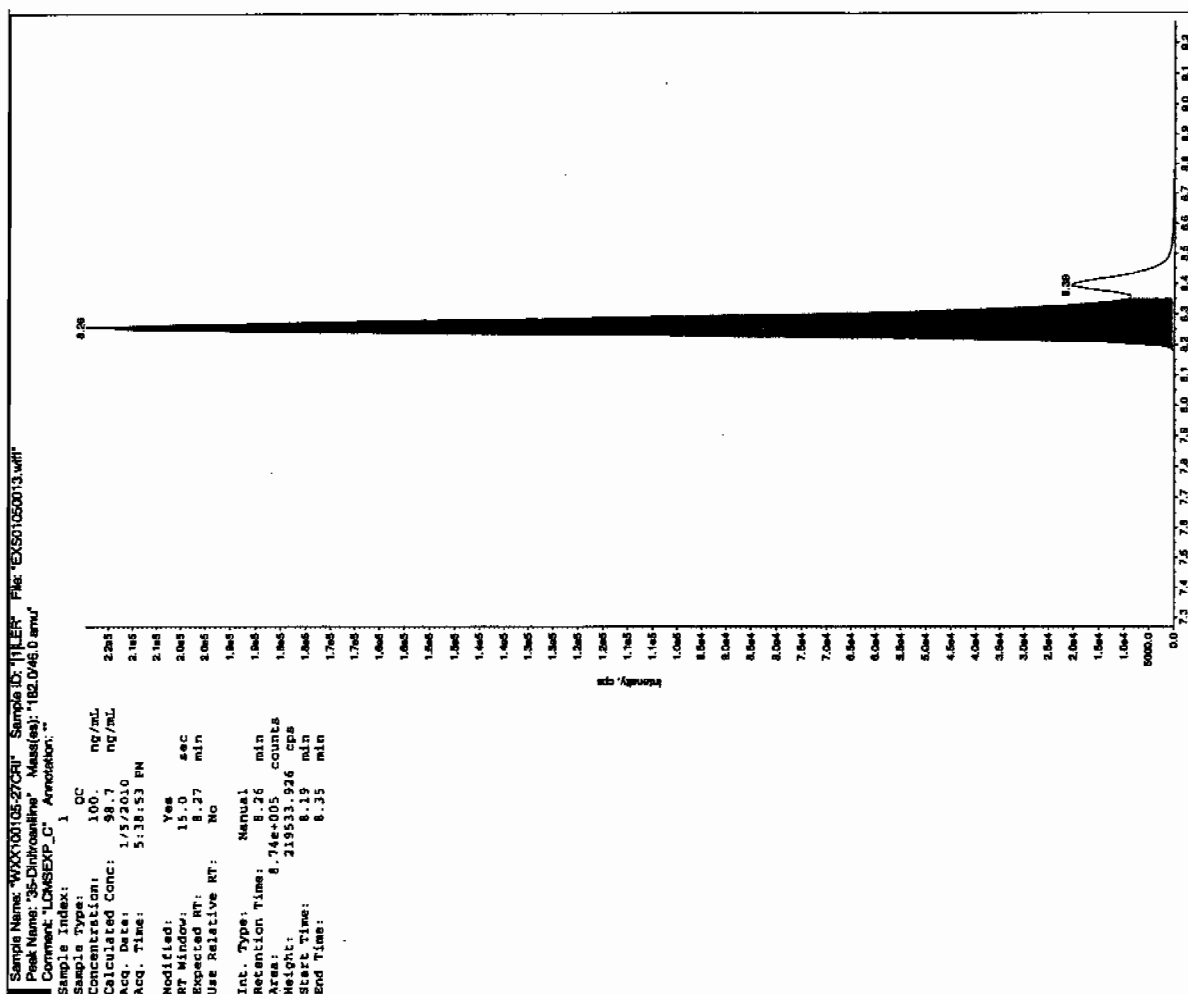
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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2023

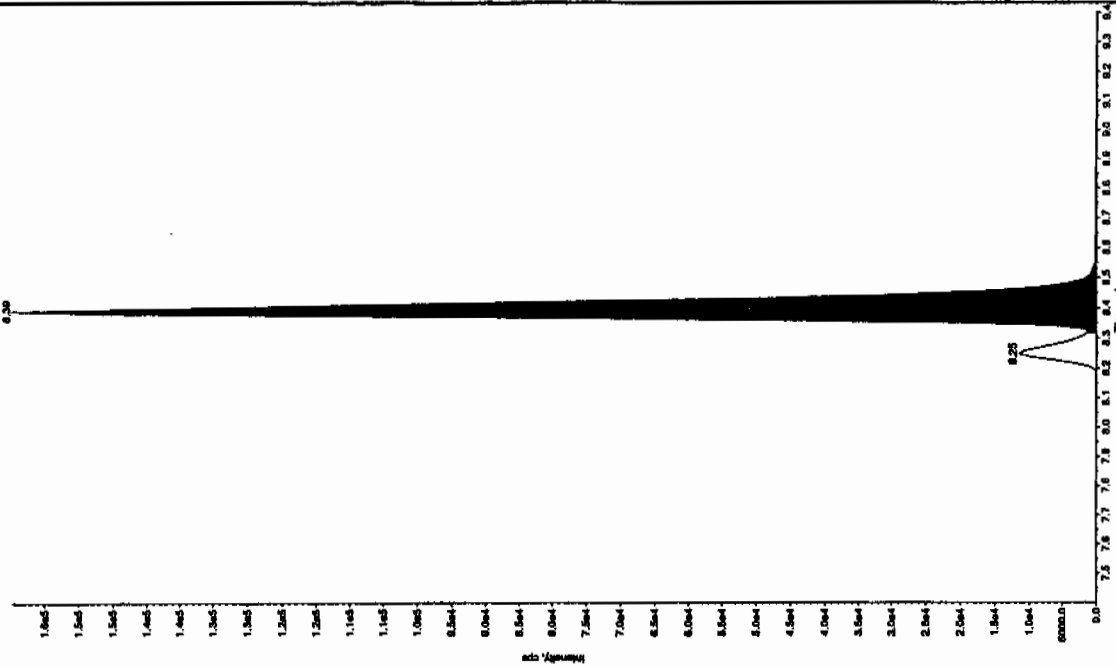


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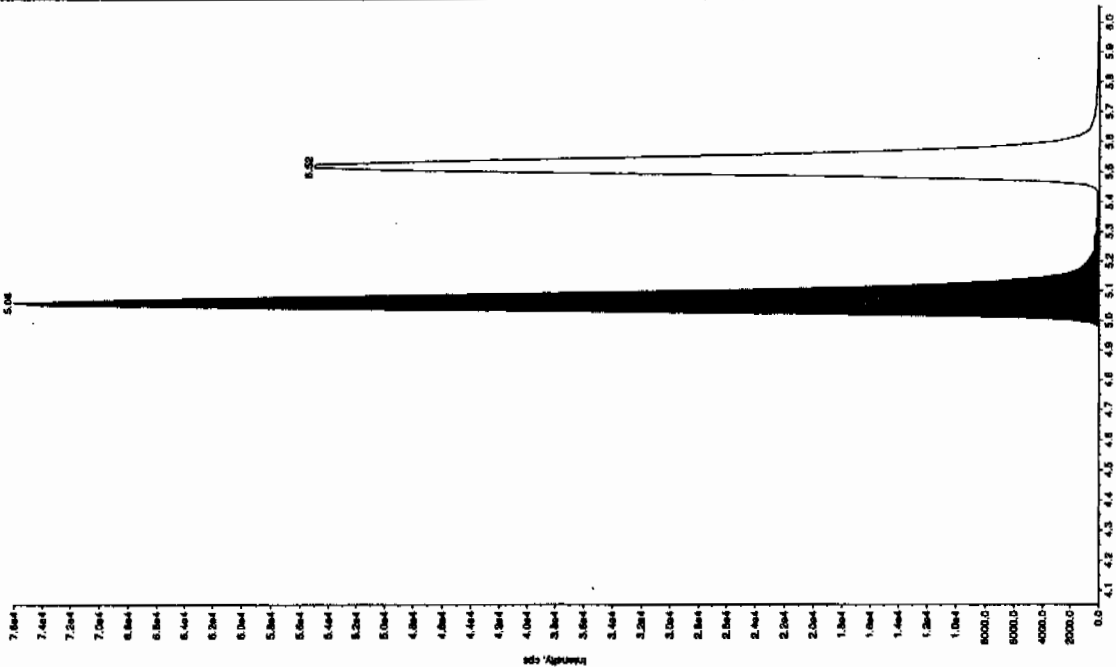
Sample Name: "WXX100105-2709" Sample ID: "11LER" File: "EXS01050013.wif"
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: OC
 Concentration: 50.0 ng/mL
 Calculated Conc: 50.4 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 5:38:53 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1460.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 Window: 15.0 sec
 Expected RT: 8.40 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 8.39 min
 Area: 5.81e+005 counts
 Height: 155785.172 cps
 Start Time: 8.32 min
 End Time: 8.71 min



Sample Name: "WXX100105-2709" Sample ID: "11LER" File: "EXS01050013.wif"
 Peak Name: "28-Dinitro-4-nitrofluorene" Mass(es): "166.0/146.0 amu"
 Comment: "LCMSEXP_C" Annotation: ""

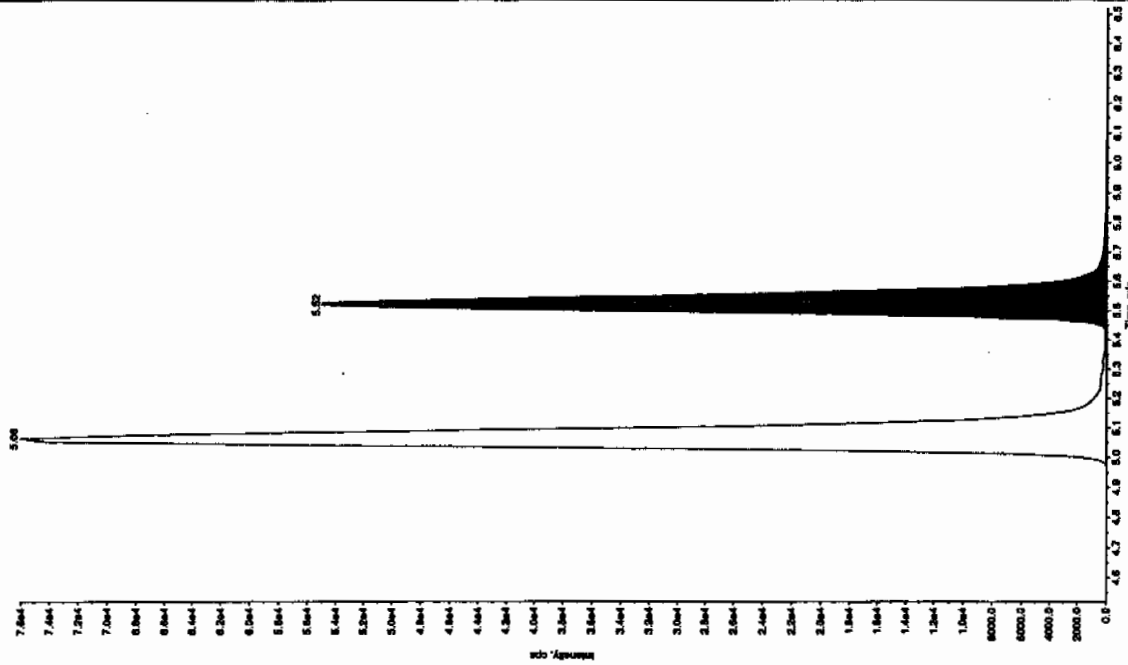
Sample Index: 1
 Sample Type: OC
 Concentration: 100.0 ng/mL
 Calculated Conc: 97.5 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 5:38:53 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 450.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 Window: 30.0 sec
 Expected RT: 5.05 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 5.06 min
 Area: 3.17e+005 counts
 Height: 76040.047 cps
 Start Time: 4.98 min
 End Time: 5.36 min



Sample Name: WXX100105-27C5R Sample ID: T1LERF File: EX501060013.wif
 Peak Name: 7A-Diethyl-6-phenylene Mass(es): 166.0450 amu

Concentration: 100.0 ng/mL
 Calculated Conc: 97.1 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 5:38:53 PM

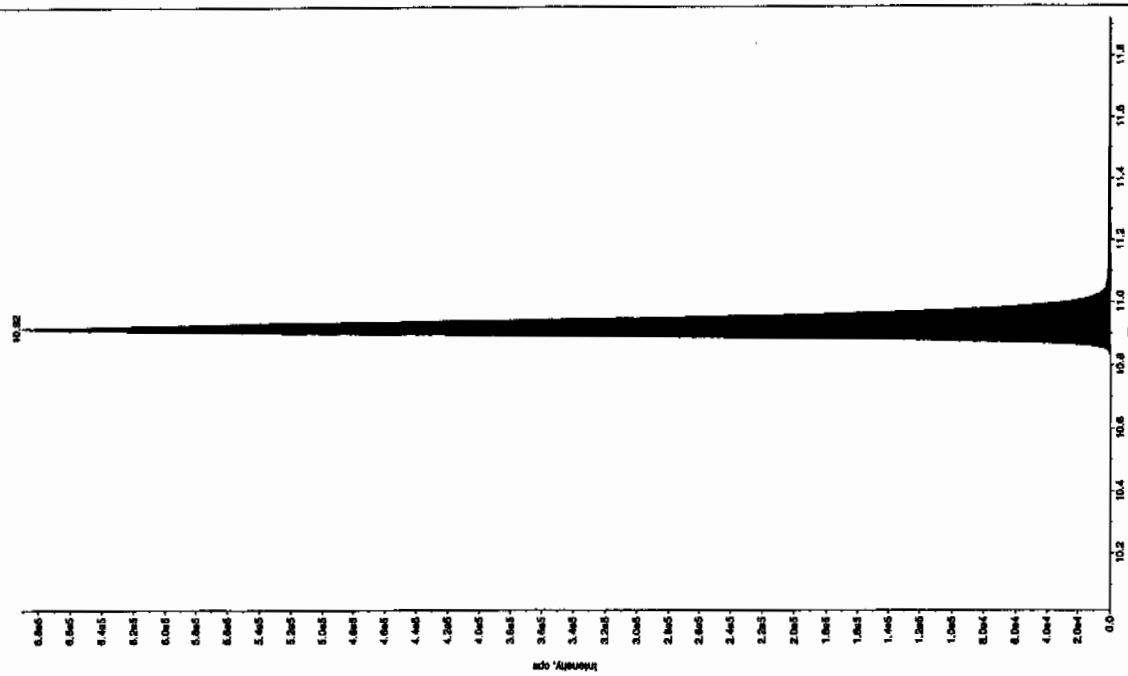
Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 350.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 5.52 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 5.52 min
 Area: 2.28e+006 counts
 Height: 54939.430 cps
 Start Time: 5.41 min
 End Time: 5.69 min



Sample Name: WXX100105-27C5R Sample ID: T1LERF File: EX501060013.wif
 Peak Name: 7B-Diethyl-6-phenylene Mass(es): 365.11910 amu

Concentration: 100.0 ng/mL
 Calculated Conc: 101.0 ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 5:38:53 PM

Modified: Yes
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1.00e4 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 10.9 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 10.9 min
 Area: 2.52e+006 counts
 Height: 69042.434 cps
 Start Time: 10.8 min
 End Time: 11.2 min



7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS01050024.wiff

Analysis Date: 05-JAN-10 20:31

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	498	100	
2,6-Diamino-4-nitrotoluene	500	425	85	
3,4-Dinitrotoluene	250	230	92	
3,5-Dinitroaniline	500	495	99	
TATB	500	521	104	
tris(o-cresyl) phosphate	500	508	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

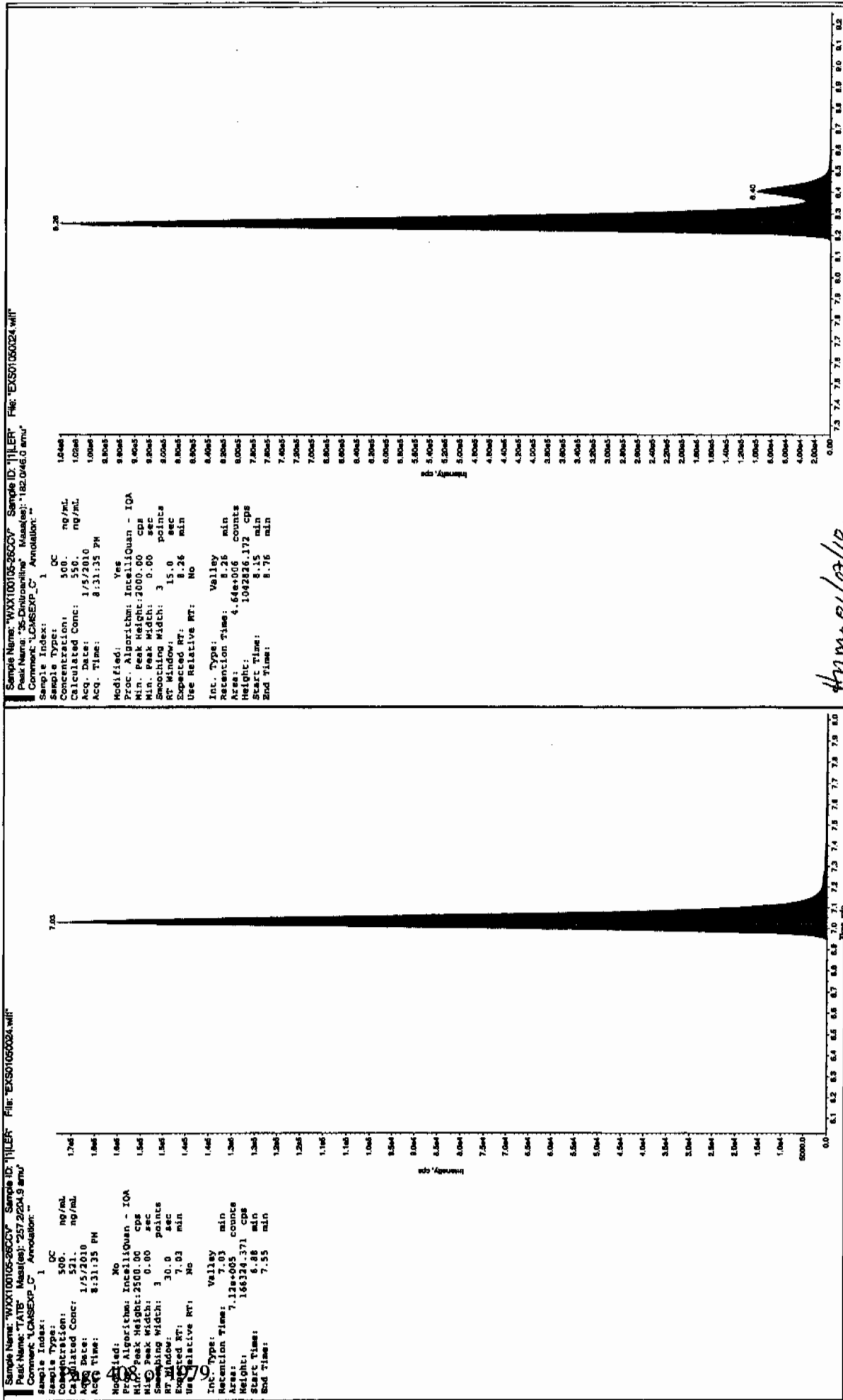
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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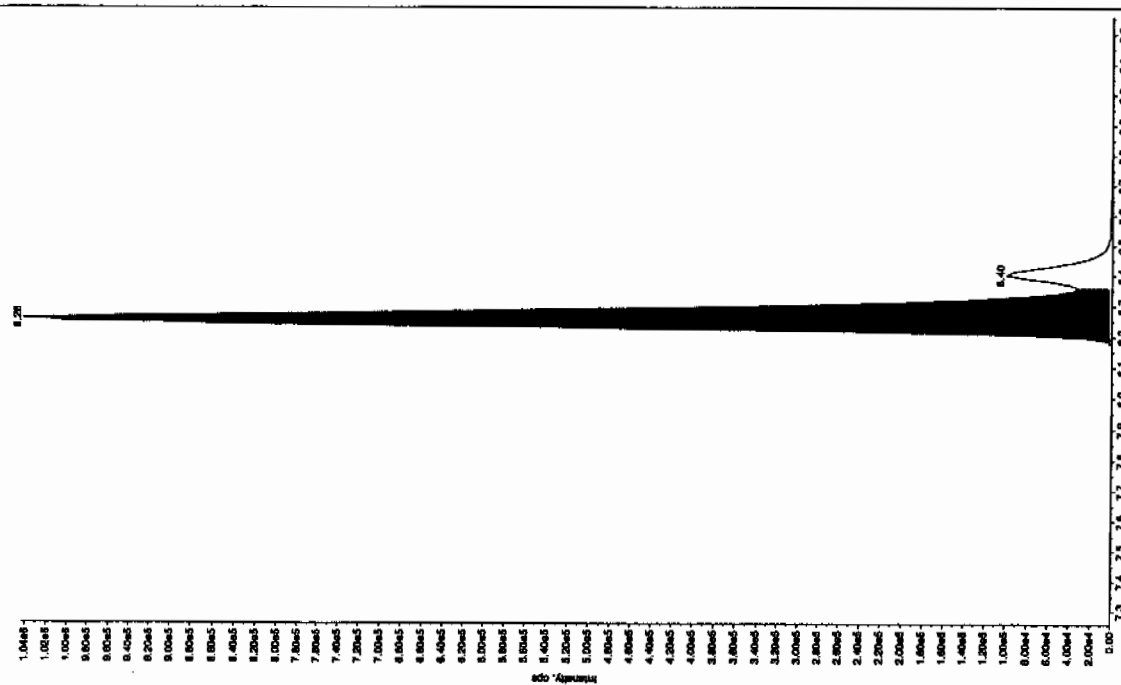
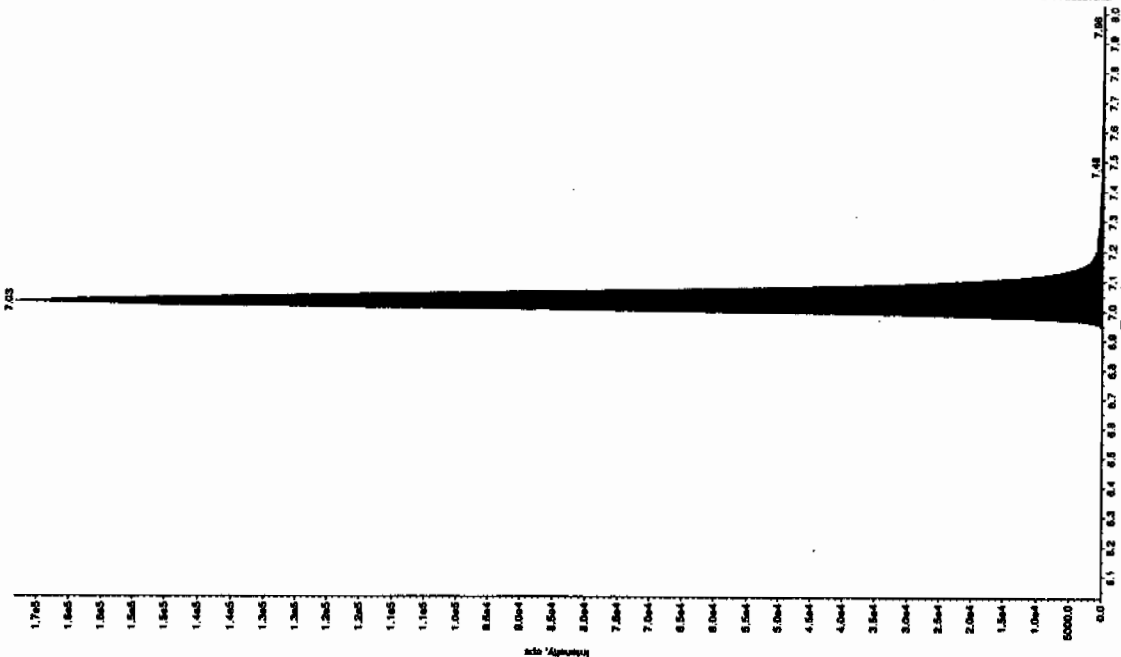


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Sample Name: "WXX100105-260CV" Sample ID: "111ER" File: "EX501050024.wif"
 Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"
 Comment: "LCMS-EXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 500. ng/mL
 Calculated Conc: 495. ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 8:31:35 PM
 Modified: Yes
 RT Window: 15.0 sec
 Expected RT: 8.26 min
 Use Relative RT: NO
 Int. Type: Manual
 Retention Time: 8.25 min
 Area: 4.21e+006 counts
 Height: 1045762.965 cps
 Start Time: 8.17 min
 End Time: 8.36 min



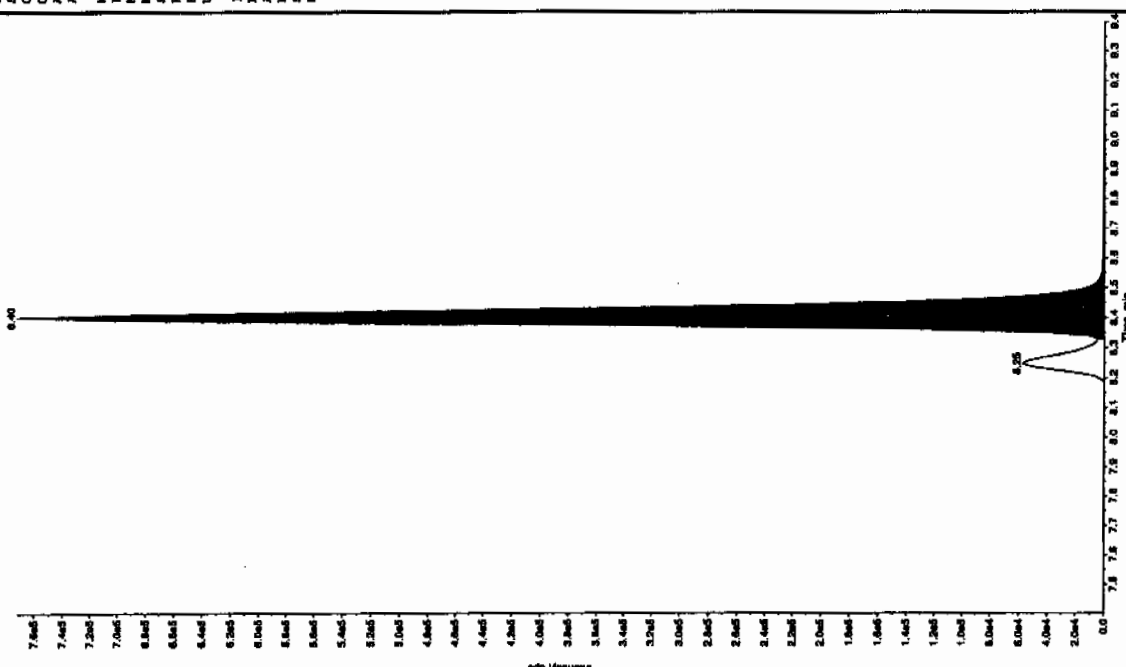
EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100105-282CV" Sample ID: "TLER" File: "EXS01050024.will"
Peak Name: "34-Dihydroquinone" Mass(es): "162.1751.8 amu"

Comment: "LCMS-EXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 236. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 8:11:35 PM
Modified: No
Integrator: Interfaced - IOA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 3.00 sec
Smoothing Width: 3.00 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.40 min
Area: 2.87e+006 counts
Height: 771296.143 cps
Start Time: 8.33 min
End Time: 8.70 min

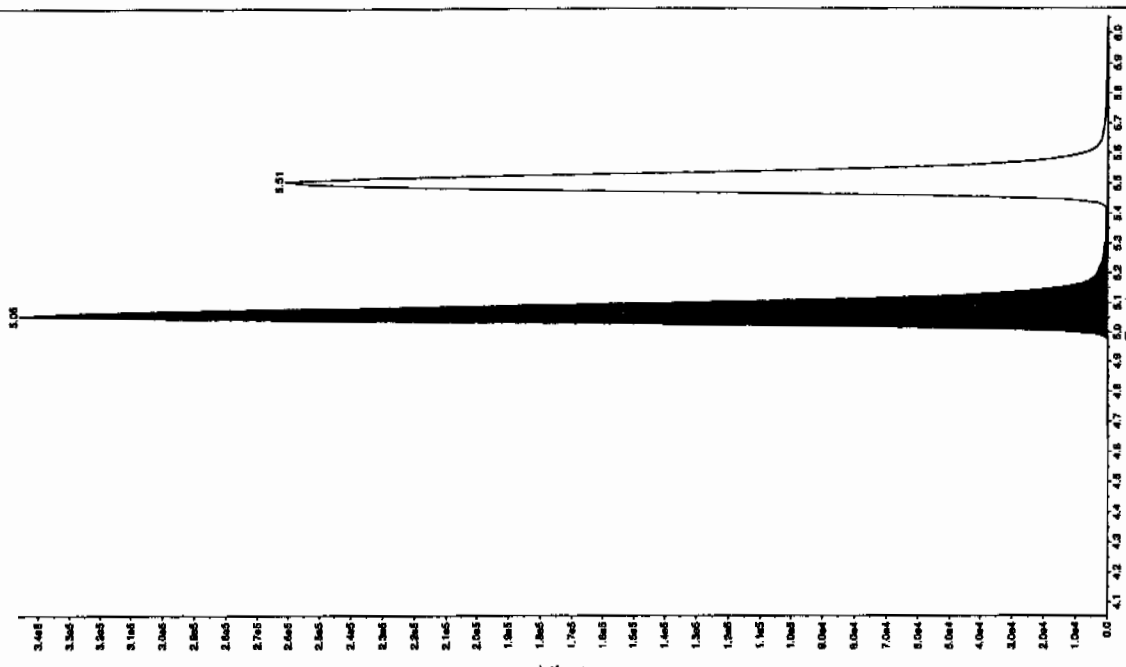


Sample Name: "WXX100105-282CV" Sample ID: "TLER" File: "EXS01050024.will"
Peak Name: "26-Diamino-4-methylphenol" Mass(es): "166.0463.0 amu"

Comment: "LCMS-EXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 425. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 8:13:15 PM
Modified: No
Integrator: Interfaced - IOA
Min. Peak Height: 450.00 cps
Min. Peak Width: 3.00 sec
Smoothing Width: 3.00 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.05 min
Area: 1.46e+006 counts
Height: 345888.123 cps
Start Time: 4.96 min
End Time: 5.34 min



Sample Name: "WXX100105-280CV" Sample ID: "11LER" File: "EXS01050024.wif"
 Peak Name: "24-Diamino-5-nitroindene" Mass(es): "166.046.0 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1

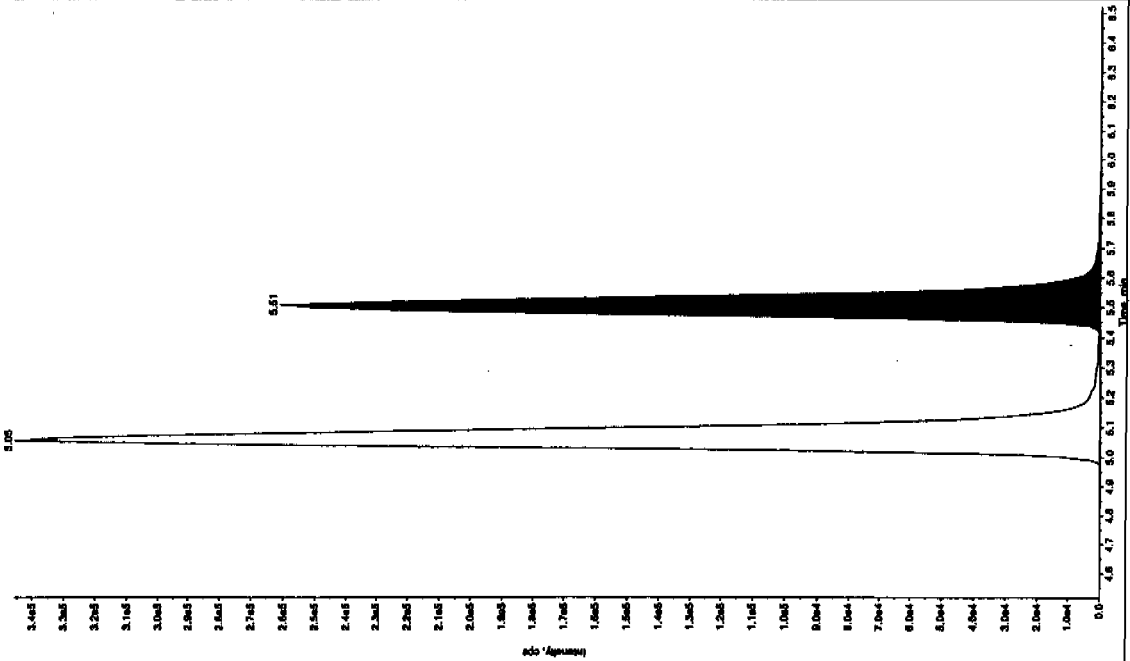
Sample Type: QC
 Concentration: 500. ng/mL
 Calculated Conc: 498. ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 8:31:35 PM

Modified: No

Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 350.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 5.52 min
 Use Relative RT: No

Int. Type: Valley

Retention Time: 5.51 min
 Area: 1.12e+006 counts
 Height: 261130.280 cps
 Start Time: 5.40 min
 End Time: 5.94 min



Sample Name: "WXX100105-280CV" Sample ID: "11LER" File: "EXS01050024.wif"
 Peak Name: "1is(o-cresyl) phosphate" Mass(es): "368.191.0 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1

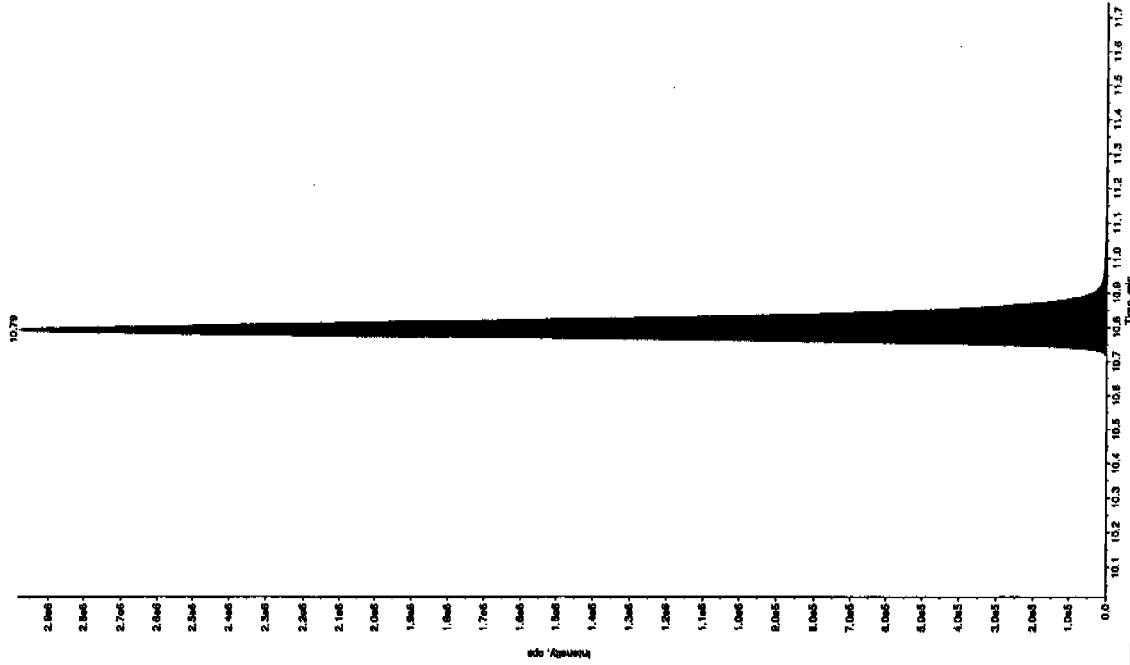
Sample Type: QC
 Concentration: 500. ng/mL
 Calculated Conc: 508. ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 8:31:35 PM

Modified: No

Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1.00e4 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 10.7 min
 Use Relative RT: No

Int. Type: Valley

Retention Time: 10.8 min
 Area: 1.15e+007 counts
 Height: 2983152.832 cps
 Start Time: 10.7 min
 End Time: 11.2 min



7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS01050026.wiff

Analysis Date: 05-JAN-10 21:03

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	89.5	90	
2,6-Diamino-4-nitrotoluene	100	93.1	93	
3,4-Dinitrotoluene	50	50.6	101	
3,5-Dinitroaniline	100	102	102	
TATB	100	104	104	
tris(o-cresyl) phosphate	100	93.4	93	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

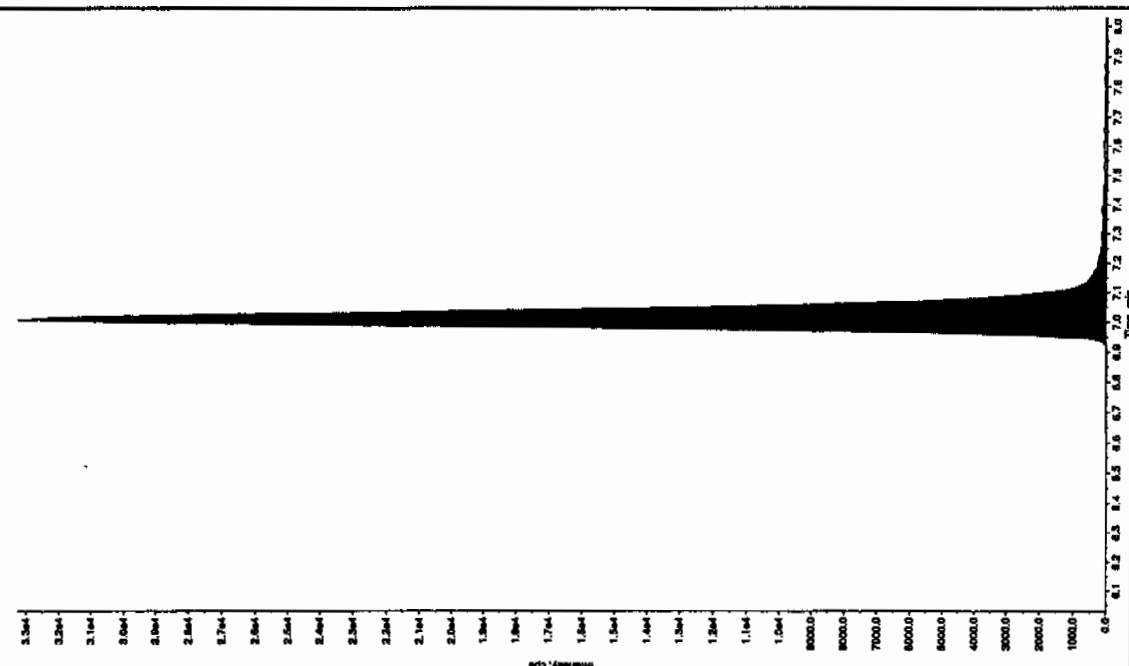
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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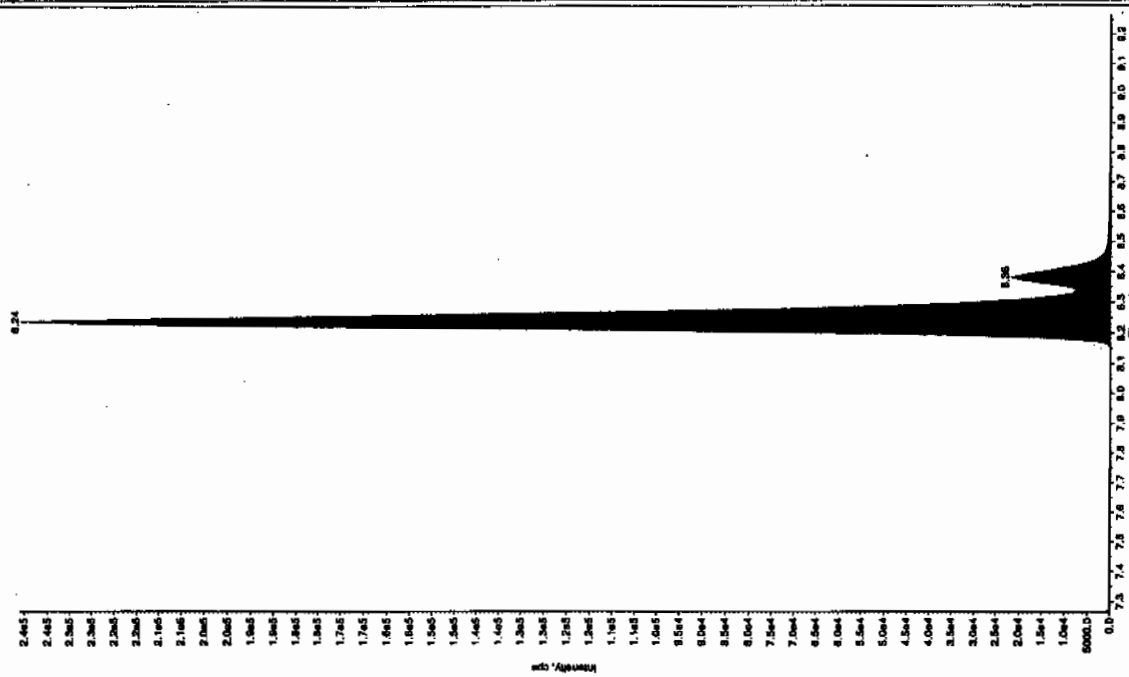
Sample Name: WXX100105-2709 Sample ID: 11111111 File: EXS01050028.wif
Peak Name: TATB Mass(es): 257.2204.8 amu
Comment: LCMSXP_C Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 9:03:00 PM
Modified: No
Proc. Algorithm: IntelliQuan - IOA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 3.00 sec
Smoother Width: 3.00 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No
Int. Type: Valley
Retention Time: 7.01 min
Area: 1.42e+005 counts
Height: 33245.010 cps
Start Time: 6.86 min
End Time: 7.50 min



Sample Name: WXX100105-2709 Sample ID: 11111111 File: EXS01050028.wif
Peak Name: 3S-Dioxocarbene Mass(es): 182.046.0 amu
Comment: LCMSXP_C Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 9:03:00 PM
Modified: No
Proc. Algorithm: IntelliQuan - IOA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 3.00 sec
Smoother Width: 3.00 points
RT Window: 15.0 sec
Expected RT: 8.27 min
Use Relative RT: No
Int. Type: Valley
Retention Time: 8.24 min
Area: 5.96e+005 counts
Height: 240835.220 cps
Start Time: 8.06 min
End Time: 8.79 min



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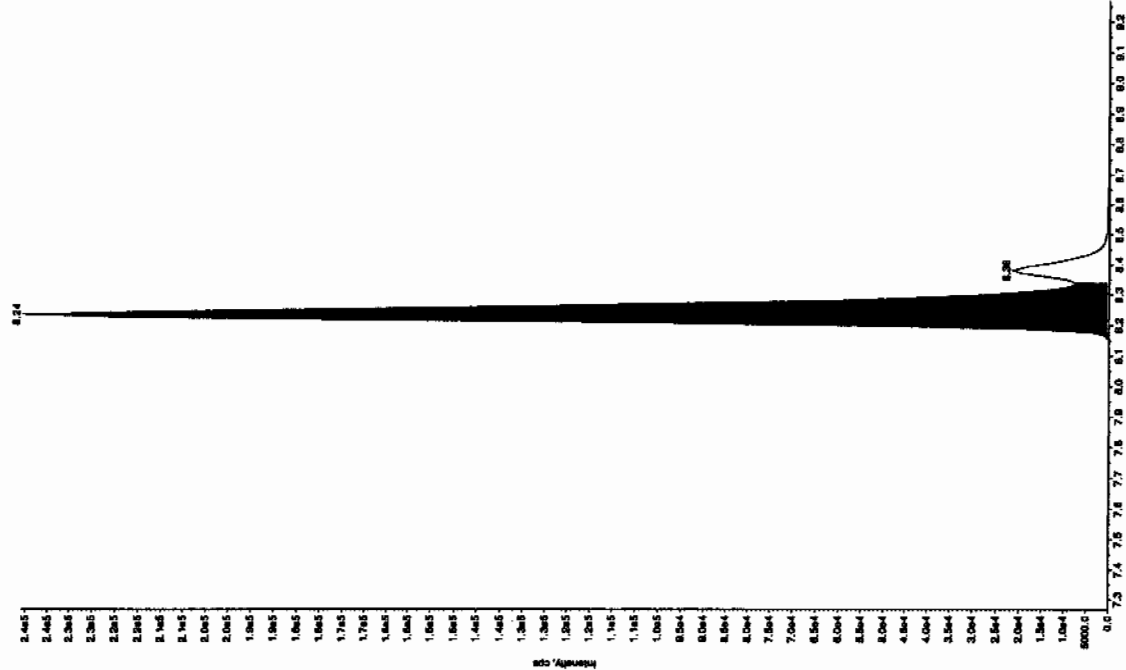
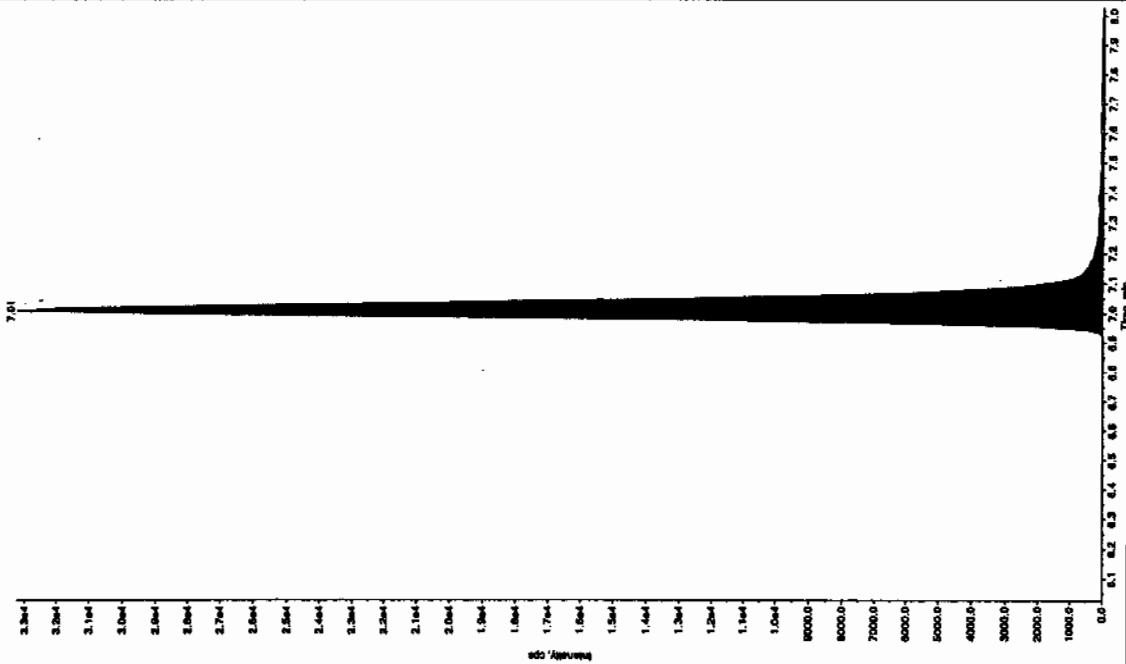
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Sample Name: 'WXX100105-27081' Sample ID: '111ER' File: 'EX501050026.wif'
Peak Name: 'T105' Mass (eg): '257.22043 amu'
Comment: 'LCMSXP_C' Annotation: ''

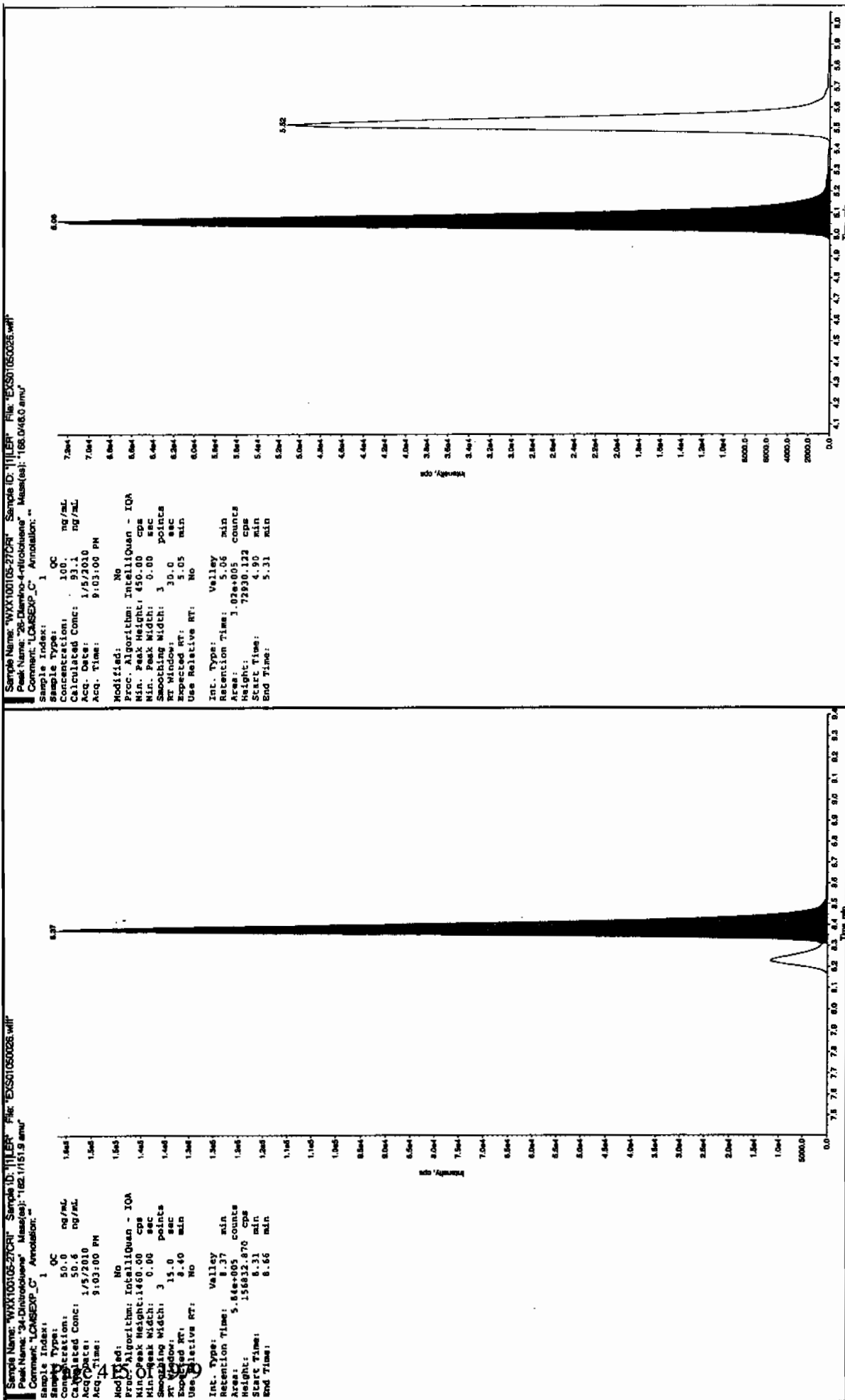
Sample Index: 1
Sample Type: 100
Concentration: 100 ng/mL
Calculated Conc: 100 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 9:03:00 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.27 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.24 min
Area: 9.04e+005 counts
Height: 240726.933 cps
Start Time: 8.15 min
End Time: 8.34 min



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Sample Name: "WXX100105-27CR" Sample ID: "111ER" File: "EX501050028.wif"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"

Comment: "LCMSXP_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 89.5 ng/mL

Acq. Date: 1/5/2010

Acq. Time: 9:03:00 PM

Modified: NO

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 35.0 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 0.00 points

RT Window: 30.0 sec

Expected RT: 5.52 min

Use Relative RT: NO

Int. Type: Valley

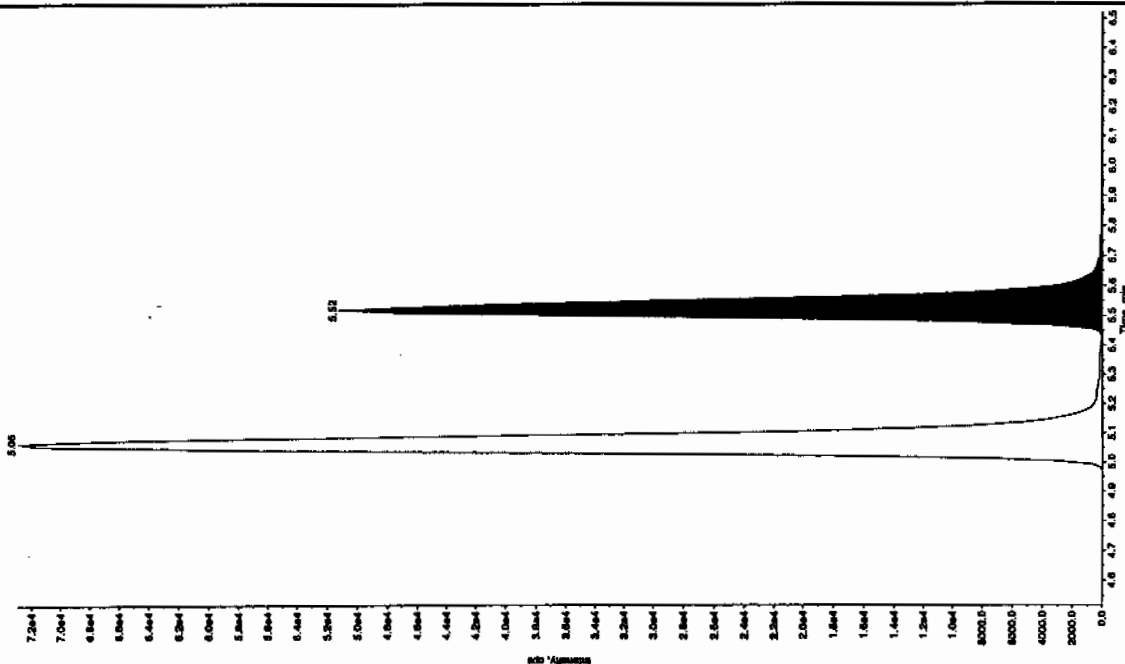
Retention Time: 5.52 min

Area: 2.11e+005 counts

Height: 51217.140 cps

Start Time: 5.43 min

End Time: 5.90 min



Sample Name: "WXX100105-27CR" Sample ID: "111ER" File: "EX501050028.wif"
Peak Name: "bis(o-cresyl) phosphate" Mass(es): "359.151.0 amu"

Comment: "LCMSXP_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 93.4 ng/mL

Acq. Date: 1/5/2010

Acq. Time: 9:03:00 PM

Modified: YES

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 1.00e4 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 0.00 points

RT Window: 30.0 sec

Expected RT: 11.0 min

Use Relative RT: NO

Int. Type: Valley

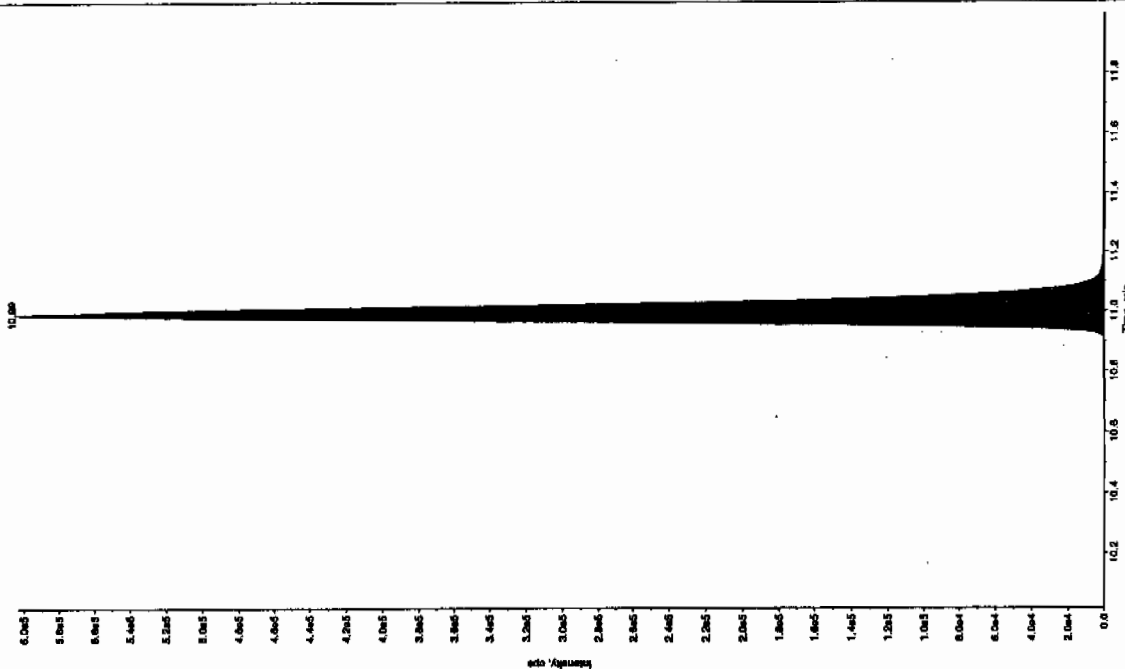
Retention Time: 11.0 min

Area: 2.34e+006 counts

Height: 603264.648 cps

Start Time: 10.9 min

End Time: 11.2 min



7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS01050037.wiff

Analysis Date: 05-JAN-10 23:55

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,5-Dinitroaniline	500	522	104	
TATB	500	521	104	
tris(o-cresyl) phosphate	500	475	95	
2,4-Diamino-6-nitrotoluene	500	469	94	
2,6-Diamino-4-nitrotoluene	500	380	76	
3,4-Dinitrotoluene	250	237	95	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

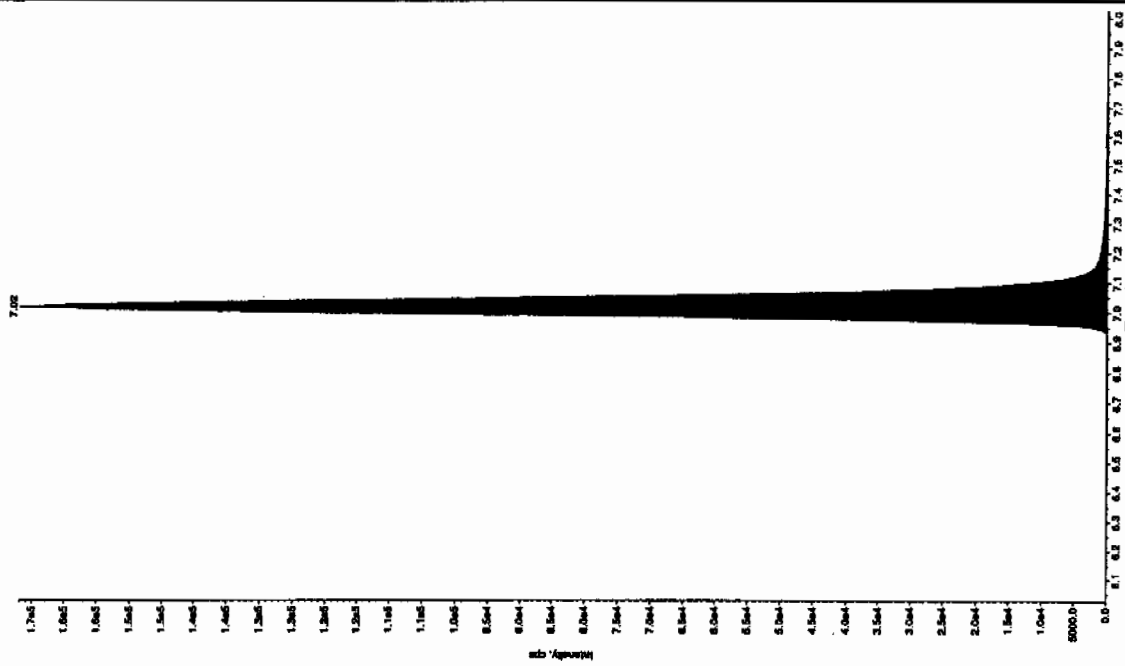
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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Sample Name: "WXX100105-26C0V" Sample ID: "111ER" File: "EXS01060037.wif"
Peak Name: "TATB" Mass(es): "257.2204.9 amu"
Comment: "LCMSDEP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 522. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 11:55:45 PM
Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
Smoother Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No
Int. Type: Valley
Retention Time: 7.03 min
Area: 7.12e+005 counts
Height: 167021596 cps
Start Time: 6.19 min
End Time: 7.53 min



IEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100105-26C0V" Sample ID: "111ER" File: "EXS01060037.wif"
Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"
Comment: "LCMSDEP_C" Annotation: ""

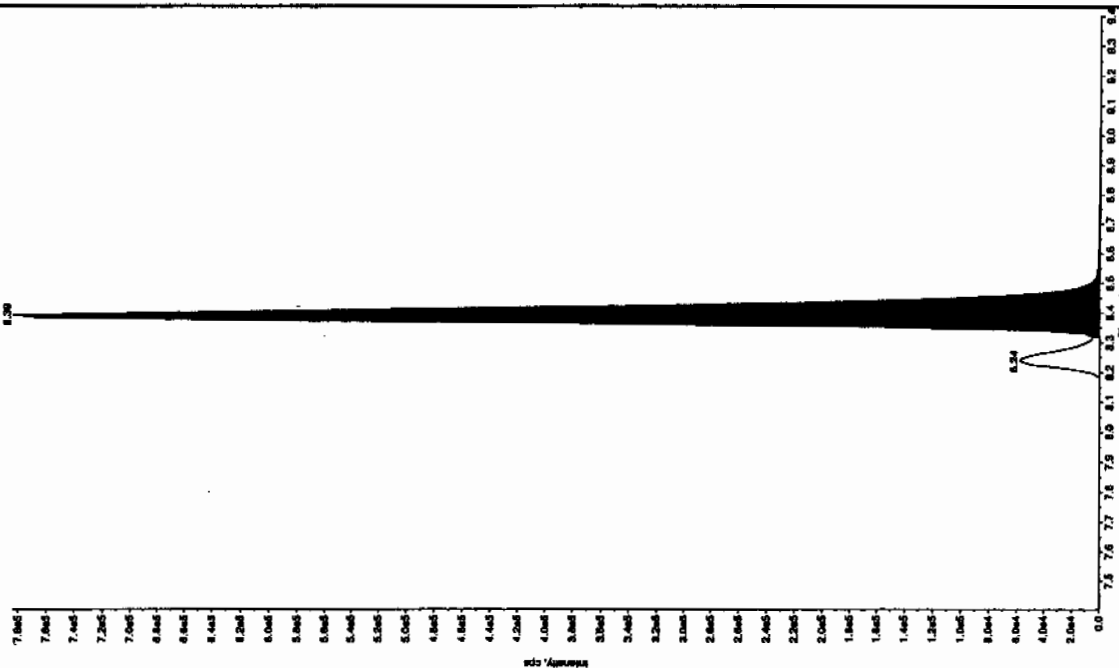
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 522. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 11:55:45 PM
Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
n. Peak Width: 0.00 sec
Smoother Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No
Int. Type: Valley
Retention Time: 8.25 min
Area: 4.43e+006 counts
Height: 1125666626 cps
Start Time: 8.15 min
End Time: 8.35 min



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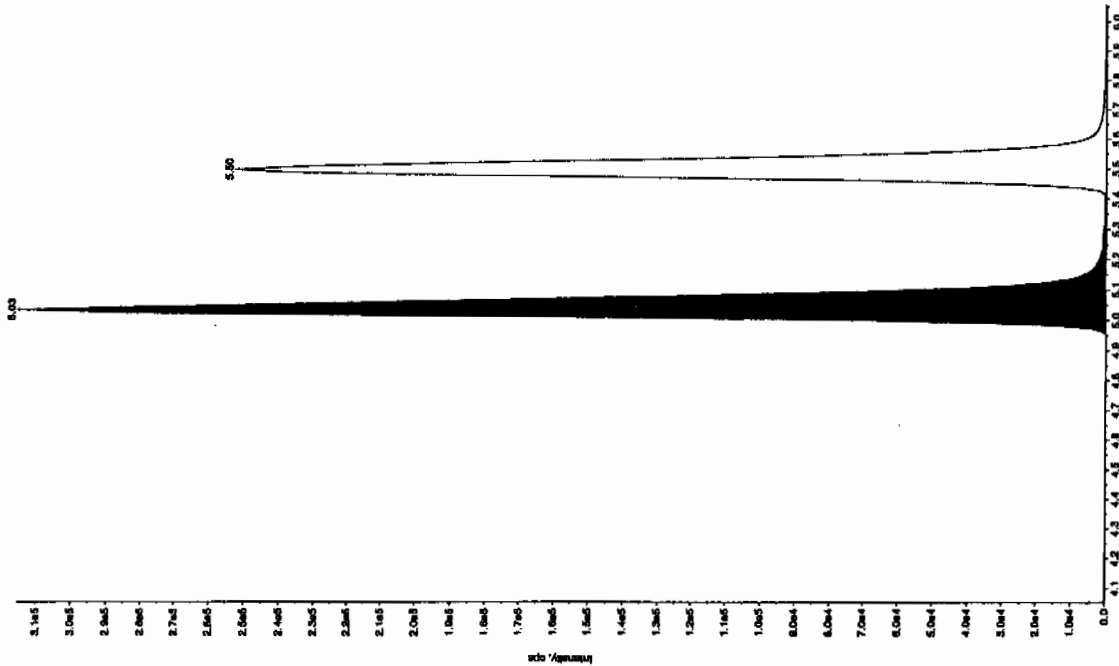
Sample Name: "WXX100105-280CV" Sample ID: "HILER" File: "EXS0106007.wif"
 Peak Name: "24-Dinitrofluorene" Mass(es): "182.1751.9 amu"
 Comment: "LCMS/EXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 250. ng/mL
 Calculated Conc: 250. ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 11:55:45 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 450.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 15.0 sec
 Expected RT: 8.40 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 8.39 min
 Area: 2.96e+006 counts
 Height: 783486.310 cps
 Start Time: 8.32 min
 End Time: 8.69 min



Sample Name: "WXX100105-280CV" Sample ID: "HILER" File: "EXS0106007.wif"
 Peak Name: "28-Diamino-4-nitrofluorene" Mass(es): "166.0463.0 amu"
 Comment: "LCMS/EXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 500. ng/mL
 Calculated Conc: 380. ng/mL
 Acq. Date: 1/5/2010
 Acq. Time: 11:55:45 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 450.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 5.05 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 5.03 min
 Area: 1.30e+006 counts
 Height: 315298.401 cps
 Start Time: 4.94 min
 End Time: 5.33 min



Sample Name: "WXX1001005-280CV" Sample ID: "J1LER" File: "EX501060037.wht"

Peak Name: "24-Diamino-6-nitrocholine" Mass(es): "186.046.0 amu"

Comment: "LCMSEXP_C" Annotation: ""

File Index: 1

Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 499. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 11:55:45 PM

Modified: NO

Proc. Algorithm: IntelliQuan - IQA

Peak Height: 350.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 1 points

Window: 30.0 sec

Expected RT: 5.52 min

Use Relative RT: NO

Int. Type: Valley

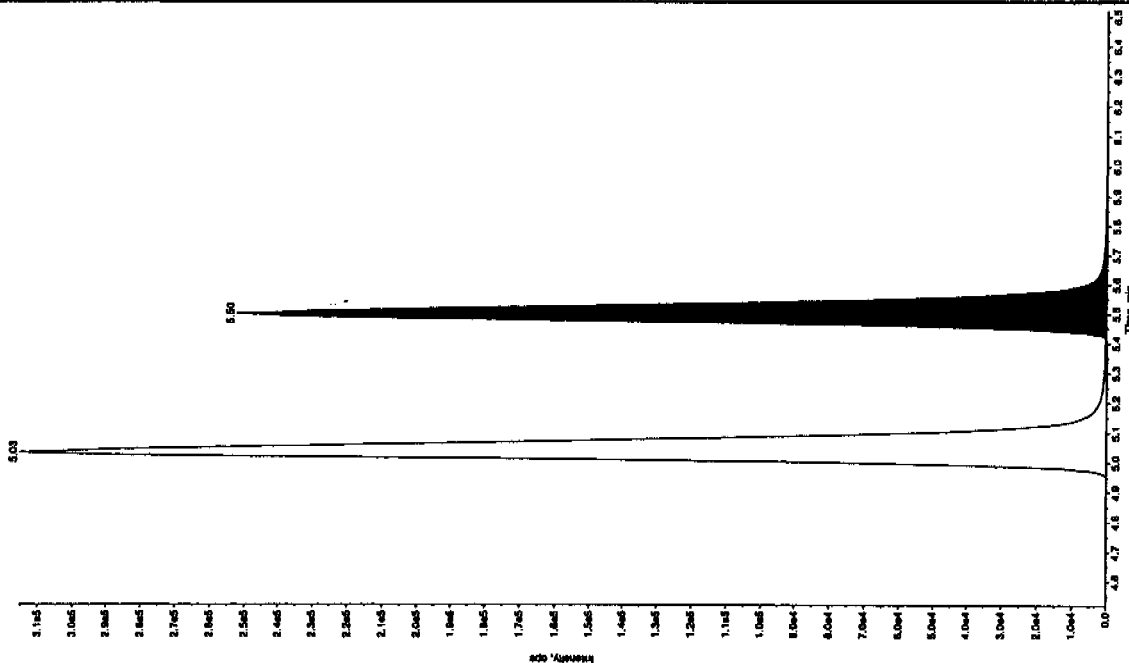
Retention Time: 5.50 min

Area: 1.05e+006 counts

Height: 252335.159 cps

Start Time: 2.41 min

End Time: 8.07 min



Sample Name: "WXX1001005-280CV" Sample ID: "J1LER" File: "EX501060037.wht"

Peak Name: "16-(1-cis)-phosphatidylcholine" Mass(es): "368.161.0 amu"

Comment: "LCMSEXP_C" Annotation: ""

File Index: 1

Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 475. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 11:55:45 PM

Modified: YES

Proc. Algorithm: IntelliQuan - IQA

Peak Height: 1.00e4 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

Window: 10.0 sec

Expected RT: 10.9 min

Use Relative RT: NO

Int. Type: Valley

Retention Time: 10.9 min

Area: 1.08e+007 counts

Height: 278883.057 cps

Start Time: 10.8 min

End Time: 11.2 min



7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS01050039.wiff

Analysis Date: 06-JAN-10 00:27

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	87.7	88	
2,6-Diamino-4-nitrotoluene	100	94.9	95	
3,4-Dinitrotoluene	50	52	104	
3,5-Dinitroaniline	100	108	108	
TATB	100	111	111	
tris(o-cresyl) phosphate	100	93.6	94	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

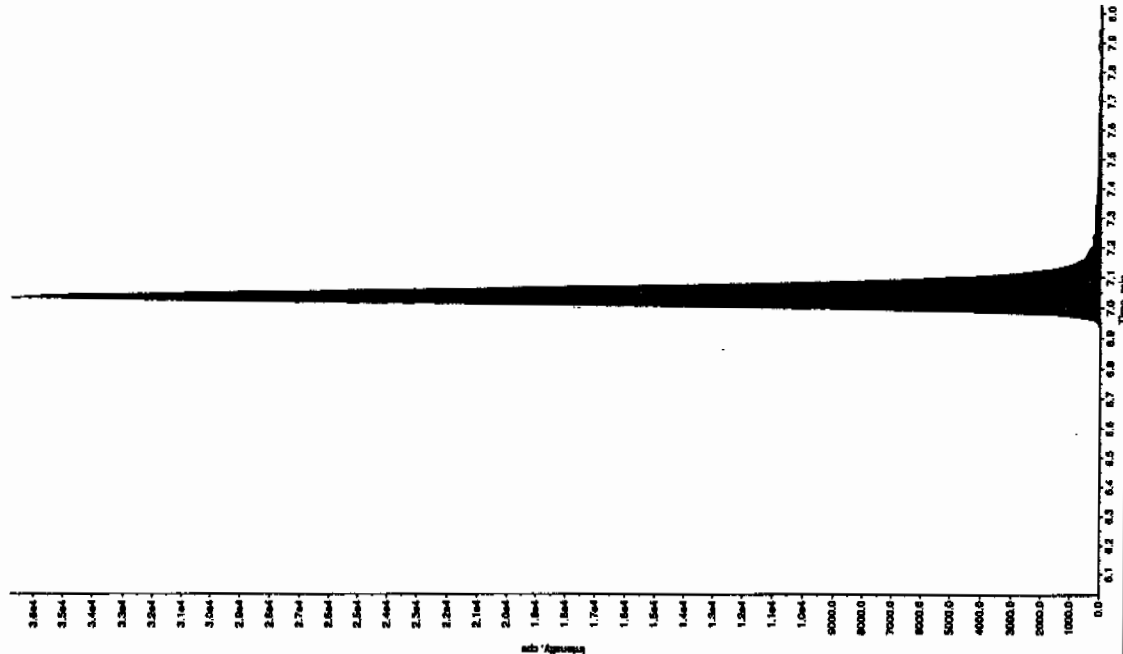
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

01/14/11
J. J. J.

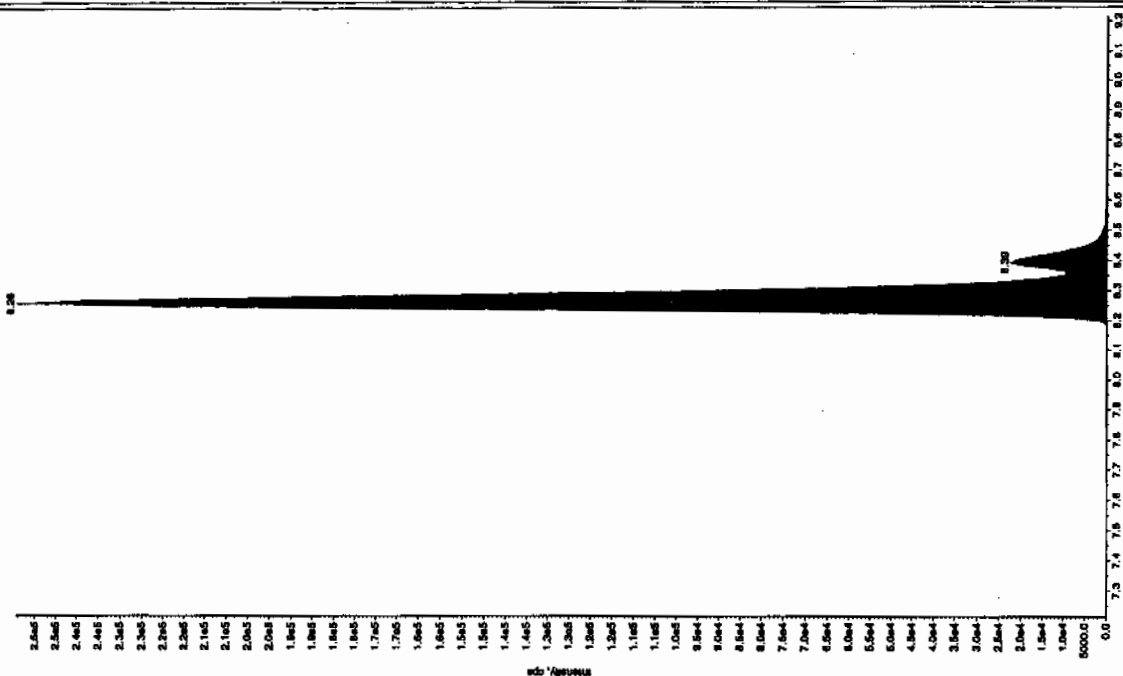
Sample Name: "WXX100105-270R" Sample ID: "111ER" File: "EXS01050339.wif"
Peak Name: "TATP" Mass(es): "257.200419 amu"
Comment: "LCMSExp_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 111. ng/mL
Acq. Date: 1/6/2010
Acq. Time: 12:27:08 AM
Modified: Yes
Proc. Algorithm: IntelliQuan - IOA
Min. Peak Height: 250.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
Ac Window: 30.0 sec
Retention RT: 7.03 min
Use Relative RT: No
Int. Type: Valley
Retention Time: 7.03 min
Area: 1.51e+005 counts
Height: 36794.006 cps
Start Time: 6.86 min
End Time: 7.49 min



Sample Name: "WXX100105-270R" Sample ID: "111ER" File: "EXS01050339.wif"
Peak Name: "5S-phosphatidyl" Mass(es): "182.0460 amu"
Comment: "LCMSExp_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 119. ng/mL
Acq. Date: 1/6/2010
Acq. Time: 12:27:08 AM
Modified: Yes
Proc. Algorithm: IntelliQuan - IOA
Min. Peak Height: 2800.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
Ac Window: 15.0 sec
Retention RT: 8.22 min
Use Relative RT: No
Int. Type: Valley
Retention Time: 8.26 min
Area: 1.05e+006 counts
Height: 254460.811 cps
Start Time: 8.11 min
End Time: 8.66 min

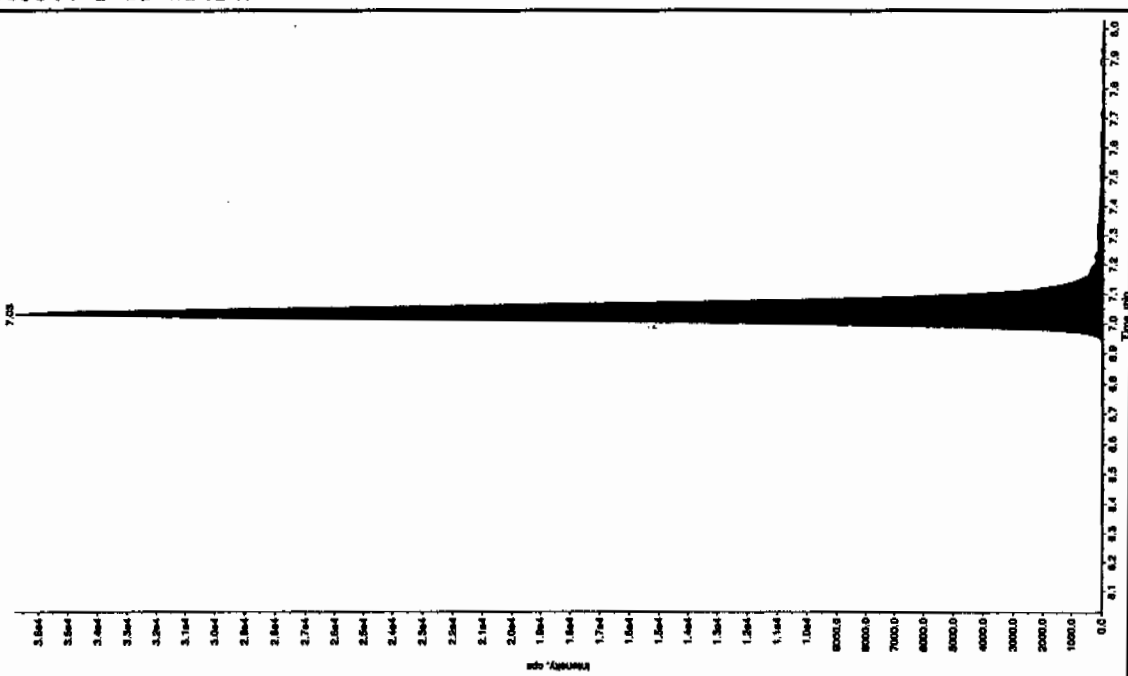


thru 01/08/10

1/7/10
2/2/10
2/2/10

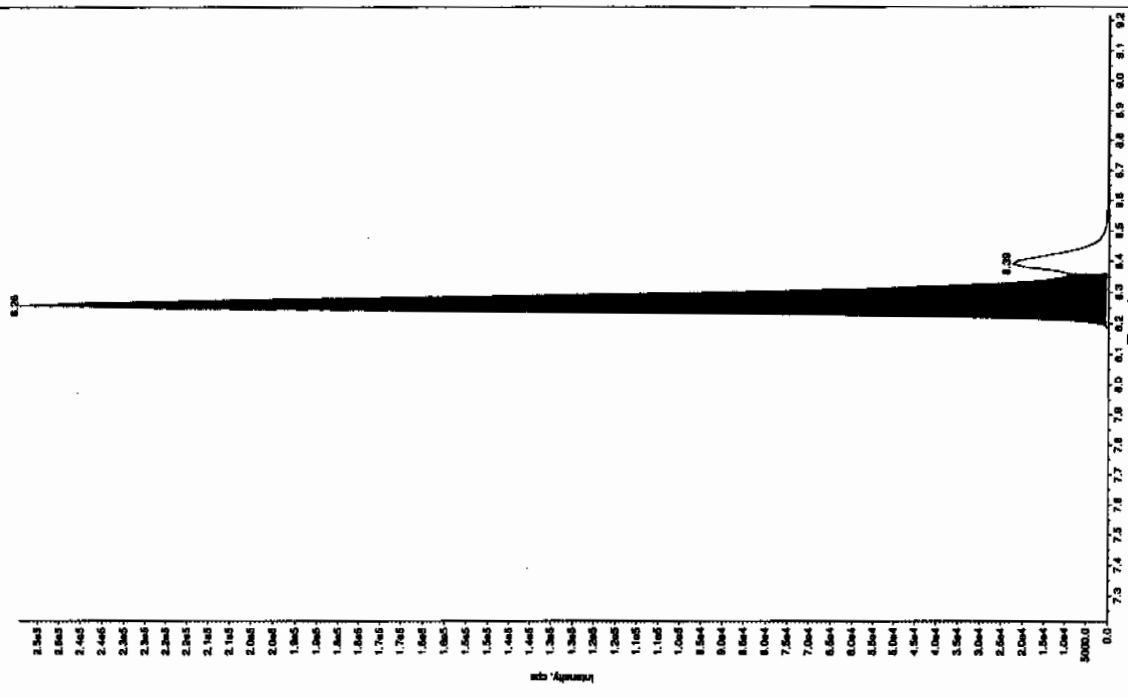
Sample Name: "W03100105-2703" Sample ID: "HLEP" File: "EXS01060039.wif"
Peak Name: "18-Deuterothine" Mass(es): "182.046.0 amu"
Comment: "LCMS-EXP-G" Annotation: ""

Sample Index: 1
Sample Type: 100
Concentration: 100 ng/mL
Calculated Conc: 100 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 12:27:08 AM
Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No
Int. Type: Manual
Retention Time: 8.26 min
Area: 9.55e+005 counts
Height: 255036.028 cps
Start Time: 8.19 min
End Time: 8.36 min



Sample Name: "W03100105-2703" Sample ID: "HLEP" File: "EXS01060039.wif"
Peak Name: "18-Deuterothine" Mass(es): "182.046.0 amu"
Comment: "LCMS-EXP-G" Annotation: ""

Sample Index: 1
Sample Type: 100
Concentration: 100 ng/mL
Calculated Conc: 100 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 12:27:08 AM
Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No
Int. Type: Manual
Retention Time: 8.26 min
Area: 9.55e+005 counts
Height: 255036.028 cps
Start Time: 8.19 min
End Time: 8.36 min

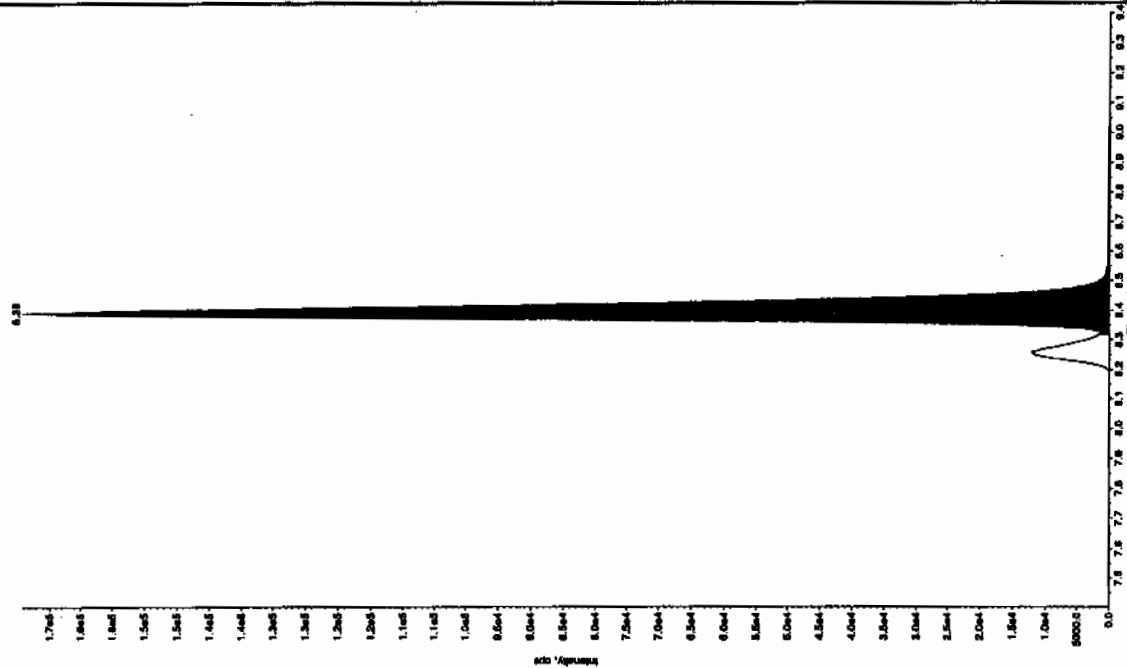


File Name: "WXX100105-27091" Sample ID: "111ER" File: "EXS01050038.wif"
Peak Name: "34-Dihydroxy-Androstane" Mass(es): "182.11519 amu"

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 52.0 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 12:27:08 AM

Modified: No
Proc. Algorithm: IntelliQuan - IOA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoother Width: 3.00 points
RT Window: 15.0 sec
Expected RT: 15.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 6.03e+005 counts
Height: 169035.904 cps
Start Time: 6.32 min
End Time: 8.70 min

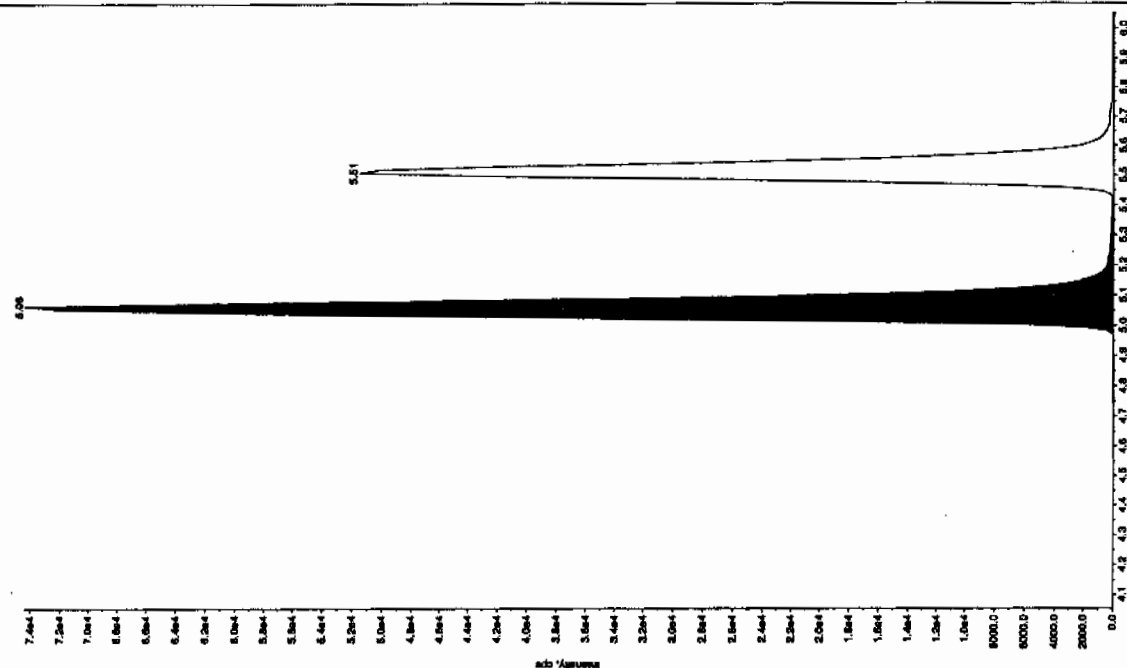


File Name: "WXX100105-27091" Sample ID: "111ER" File: "EXS01050038.wif"
Peak Name: "26-Dihydroxy-Androstane" Mass(es): "166.0460 amu"

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 94.9 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 12:27:08 AM

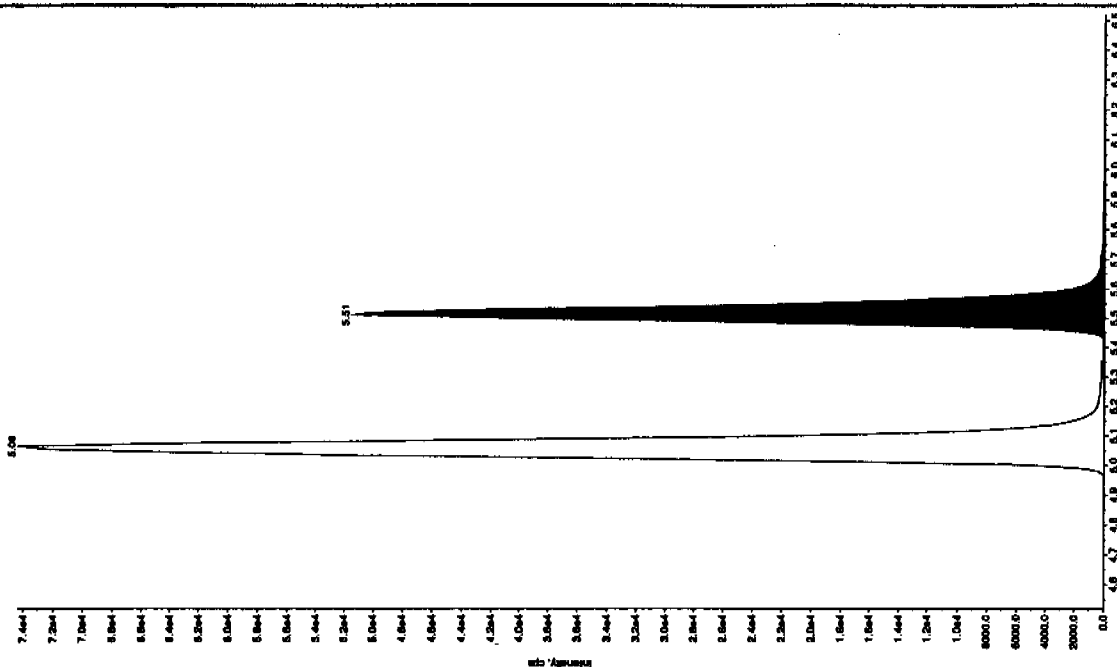
Modified: No
Proc. Algorithm: IntelliQuan - IOA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoother Width: 3.00 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.06 min
Area: 3.08e+005 counts
Height: 74357.986 cps
Start Time: 4.93 min
End Time: 5.35 min



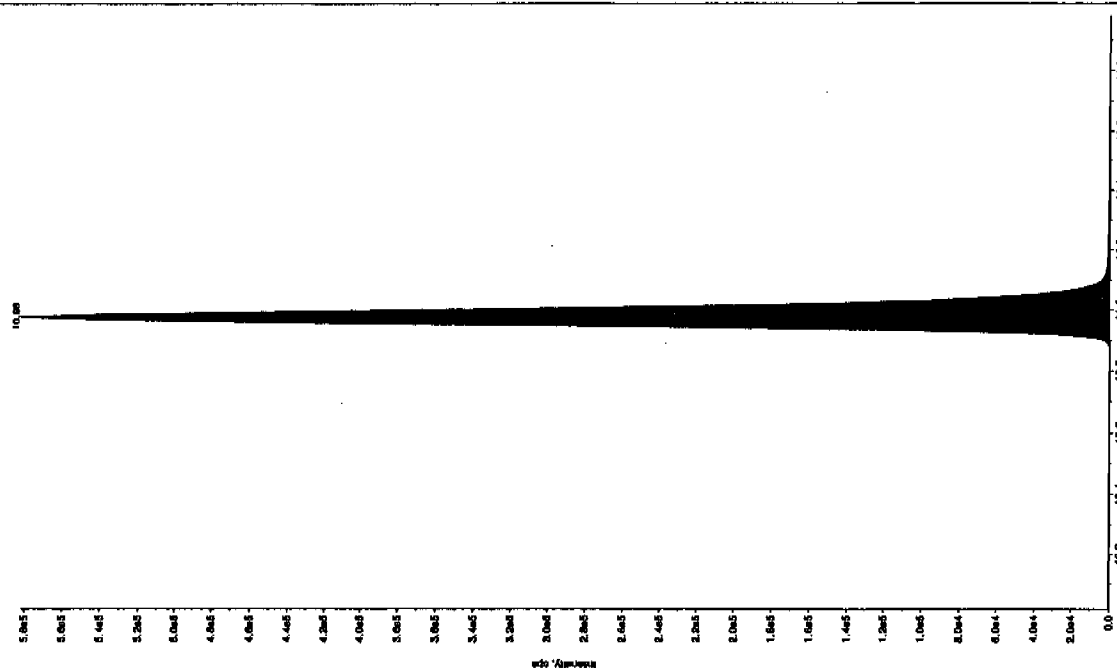
Sample Name: "WXX100105-27C81" Sample ID: "H1LFR" File: "EX301050039.wif"
 Peak Name: "24-Diamino-6-hydroxyluene" Mass(es): "166.046.0 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: OC
 Concentration: 100. ng/mL
 Calculated Conc: 93.6 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 12:27:08 AM
 Modified: Yes
 Proc Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1.00e4 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 11.0 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 11.0 min
 Area: 2.34e+006 counts
 Height: 581525.391 cps
 Start Time: 10.9 min
 End Time: 11.3 min



Sample Name: "WXX100105-27C81" Sample ID: "H1LFR" File: "EX301050039.wif"
 Peak Name: "1,6-bis(oxymethyl) phosphine" Mass(es): "366.151.0 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: OC
 Concentration: 100. ng/mL
 Calculated Conc: 93.6 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 12:27:08 AM
 Modified: Yes
 Proc Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1.00e4 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 11.0 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 11.0 min
 Area: 2.34e+006 counts
 Height: 581525.391 cps
 Start Time: 10.9 min
 End Time: 11.3 min



7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS01050050.wiff

Analysis Date: 06-JAN-10 03:19

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	479	96	
2,6-Diamino-4-nitrotoluene	500	449	90	
3,4-Dinitrotoluene	250	224	90	
3,5-Dinitroaniline	500	515	103	
TATB	500	537	107	
tris(o-cresyl) phosphate	500	476	95	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

8/24/11
117110

Sample Name: "WXX100105-2800V" Sample ID: "117110" File: "EXS01060050.will"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCMS-EXP-C" Annotation: ""

Sample Index: 1

Sample Type: 500 ng/mL

Concentration: 537 ng/mL

Calculated Conc: 1/6/2010

Acq. Date: 3:19:58 AM

Acq. Time: 3:19:58 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 7.03 min

Use Relative RT: No

Int. Type: Valley

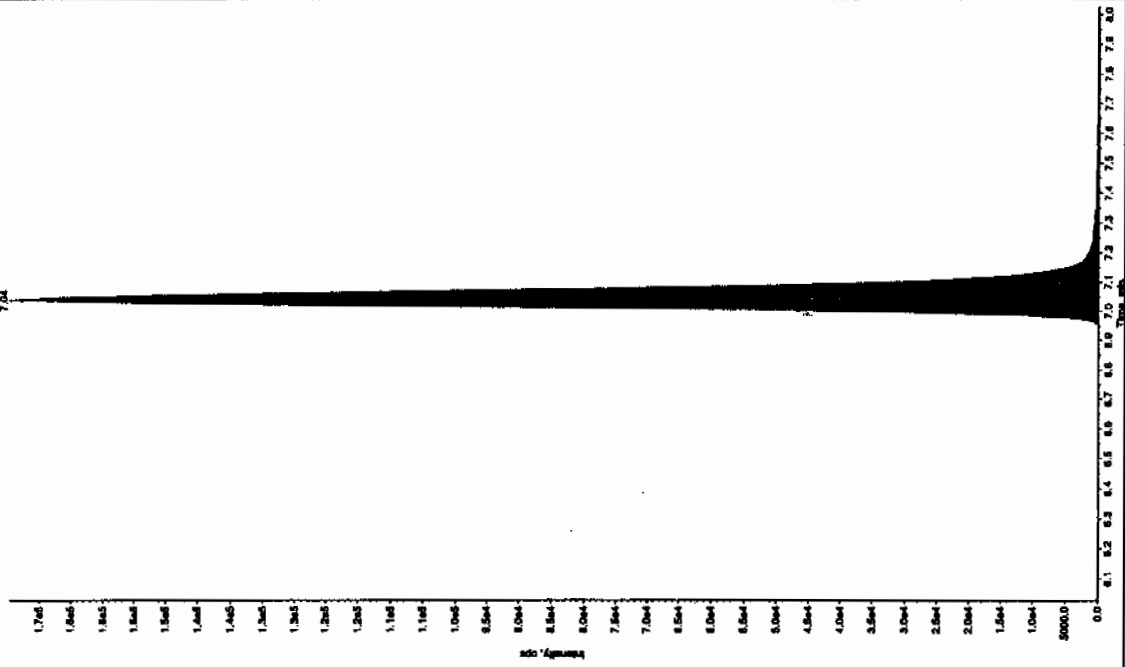
Retention Time: 7.34 min

Area: 16953.772 counts

Height: 4.90 min

Start Time: 7.75 min

End Time: 7.75 min



Sample Name: "WXX100105-2800V" Sample ID: "117110" File: "EXS01060050.will"

Peak Name: "35-Chloroaniline" Mass(es): "182.046.0 amu"

Comment: "LCMS-EXP-C" Annotation: ""

Sample Index: 1

Sample Type: 500 ng/mL

Concentration: 537 ng/mL

Calculated Conc: 1/6/2010

Acq. Date: 3:19:58 AM

Acq. Time: 3:19:58 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.27 min

Use Relative RT: No

Int. Type: Valley

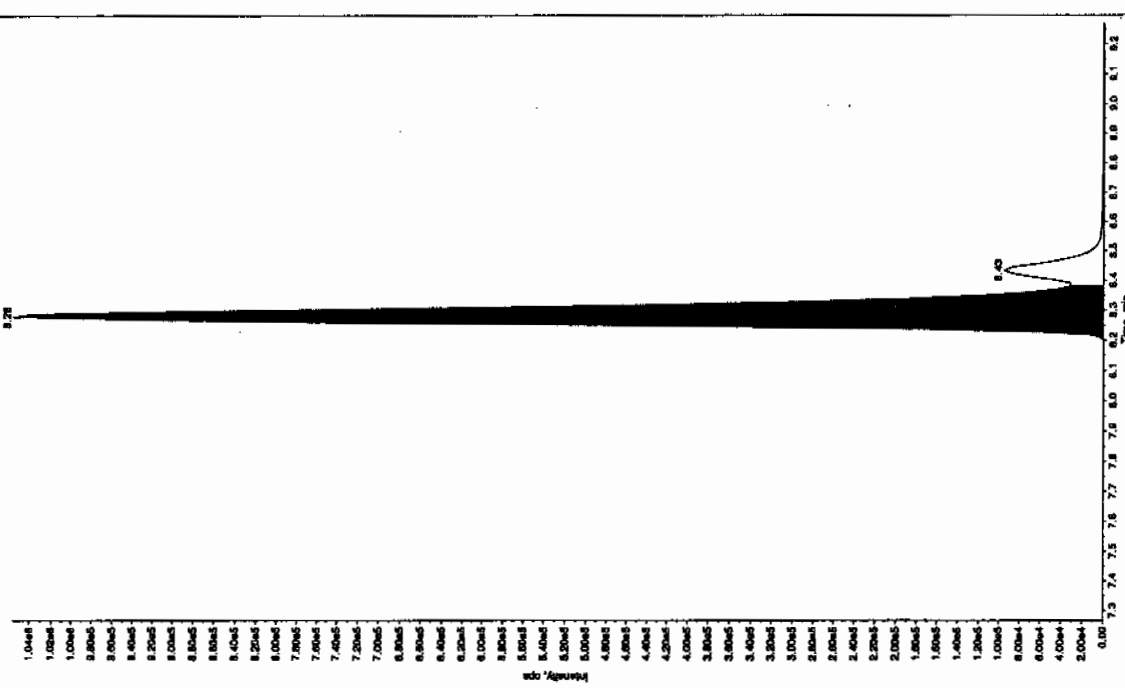
Retention Time: 8.28 min

Area: 4.37e+006 counts

Height: 1056831.398 cps

Start Time: 8.17 min

End Time: 8.38 min



Sample Name: "WXX100105-260CV" Sample ID: "1111ER" File: "EXS01060050.wif"
Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"

Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1

Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 224. ng/mL
Acq. Date: 1/6/2010
Acq. Time: 3:19:58 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 160.00 cps

Min. Peak Width: 0.00 sec

Soothing Width: 3 points

Window: 15.0 sec

Expected RT: 8.40 min

Use Relative RT: No

Int. Type: Valley

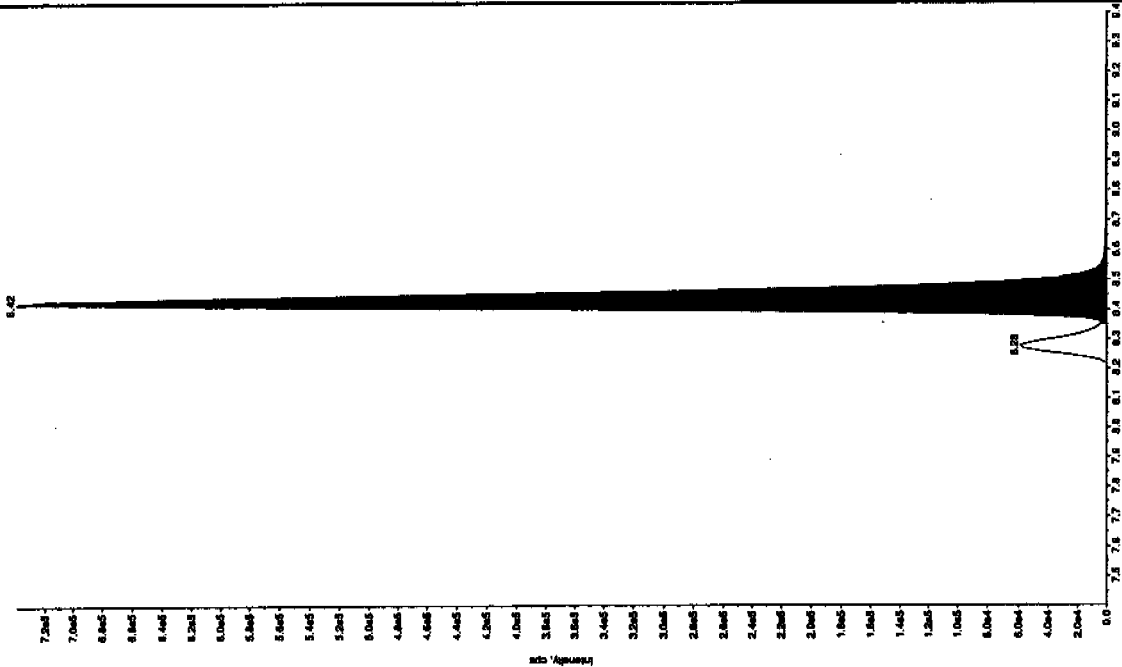
Retention Time: 8.42 min

Area: 2.80e+006 counts

Height: 739106.567 cps

Start Time: 8.35 min

End Time: 8.74 min



Sample Name: "WXX100105-260CV" Sample ID: "1111ER" File: "EXS01060050.wif"
Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "166.0/146.0 amu"

Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1

Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 449. ng/mL
Acq. Date: 1/6/2010
Acq. Time: 3:19:58 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 450.00 cps

Min. Peak Width: 0.00 sec

Soothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 5.05 min

Use Relative RT: No

Int. Type: Valley

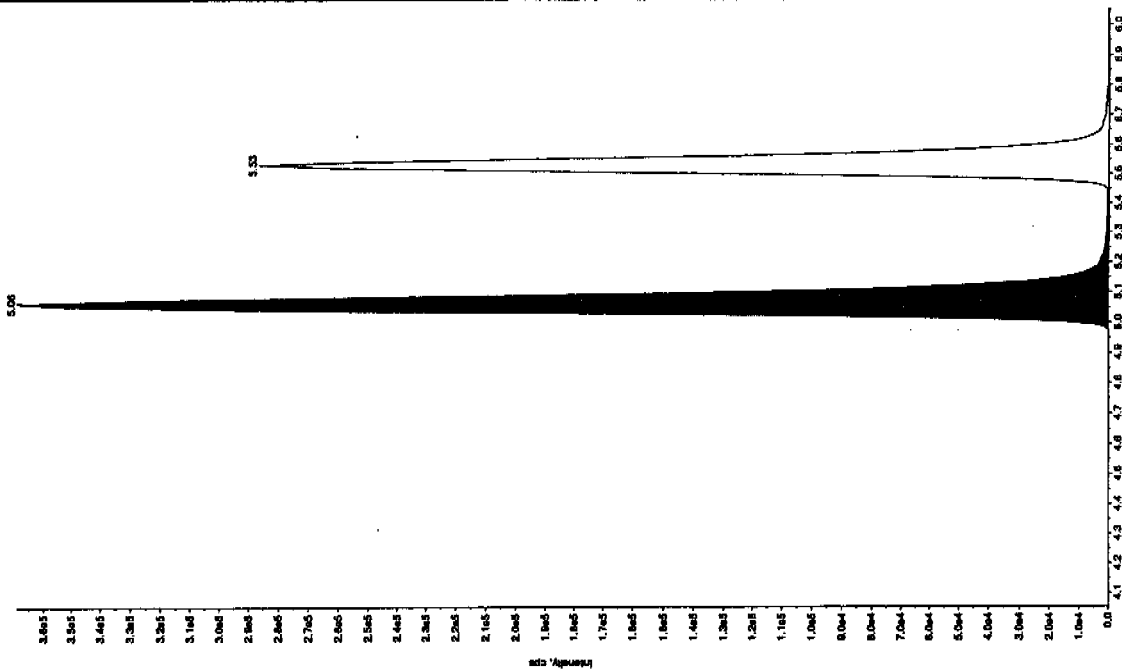
Retention Time: 5.06 min

Area: 1.54e+006 counts

Height: 369188.477 cps

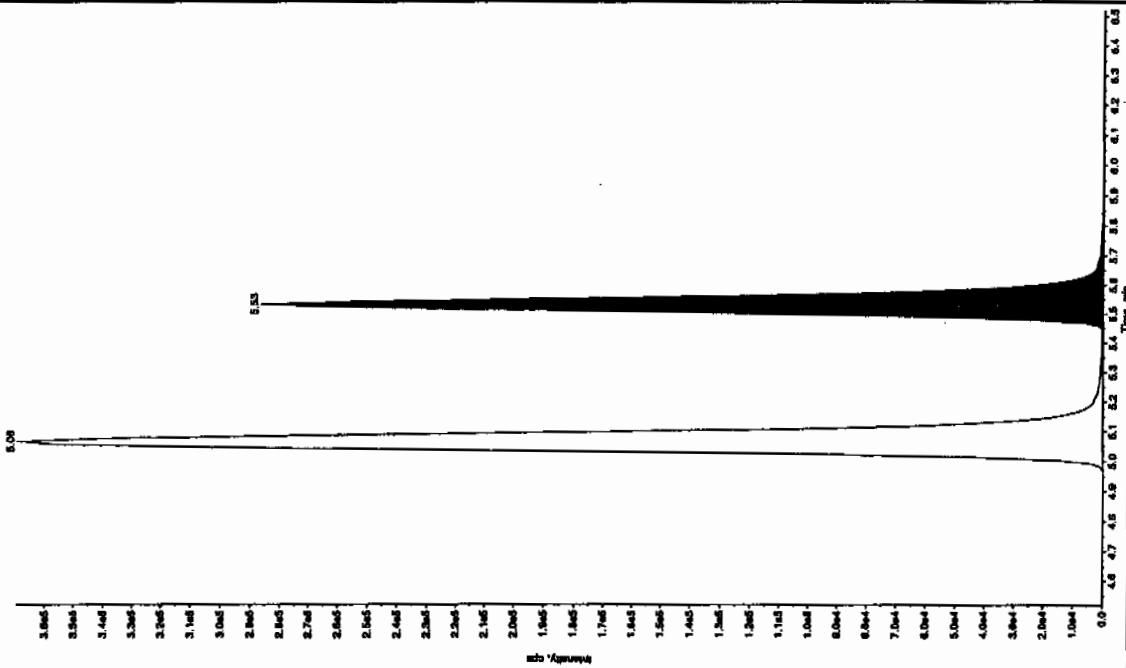
Start Time: 4.95 min

End Time: 5.36 min



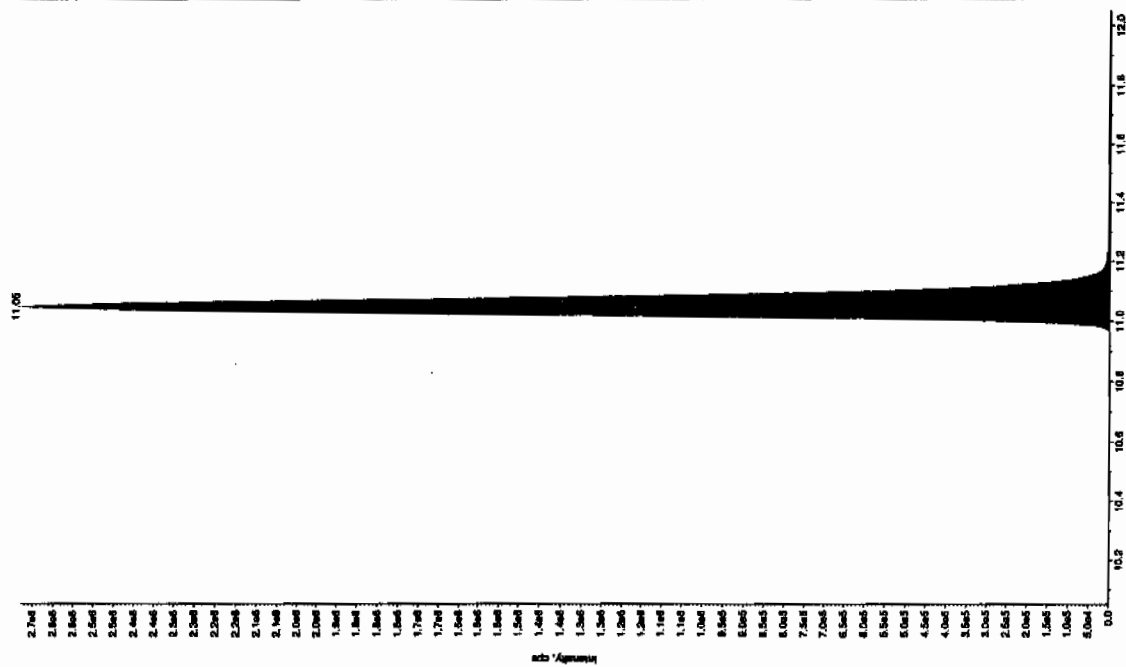
Sample Name: "WXX100105-280CV" Sample ID: "11LER" File: "EX501050050.w"
 Peak Name: "24-Diamino-6-nitrochlorine" Mass(es): "166.048.0 amu"
 Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
 Sample Type: QC
 Concentration: 500. ng/mL
 Calculated Conc: 479. ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:19:58 AM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 350.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 5.52 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 5.53 min
 Area: 1.07e+006 counts
 Height: 286485.210 cps
 Start Time: 5.44 min
 End Time: 5.62 min



Sample Name: "WXX100105-280CV" Sample ID: "11LER" File: "EX501050050.w"
 Peak Name: "bis(o-cresyl) phosphate" Mass(es): "368.191.0 amu"
 Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
 Sample Type: QC
 Concentration: 500. ng/mL
 Calculated Conc: 476. ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:19:58 AM
 Modified: Yes
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1.00e4 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 11.0 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 11.0 min
 Area: 1.08e+007 counts
 Height: 2677017.822 cps
 Start Time: 10.9 min
 End Time: 11.4 min



7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS01050052.wiff

Analysis Date: 06-JAN-10 03:51

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	80.6	81	
2,6-Diamino-4-nitrotoluene	100	86.8	87	
3,4-Dinitrotoluene	50	52	104	
3,5-Dinitroaniline	100	105	105	
TATB	100	107	107	
tris(o-cresyl) phosphate	100	97	97	

Recovery Limits:

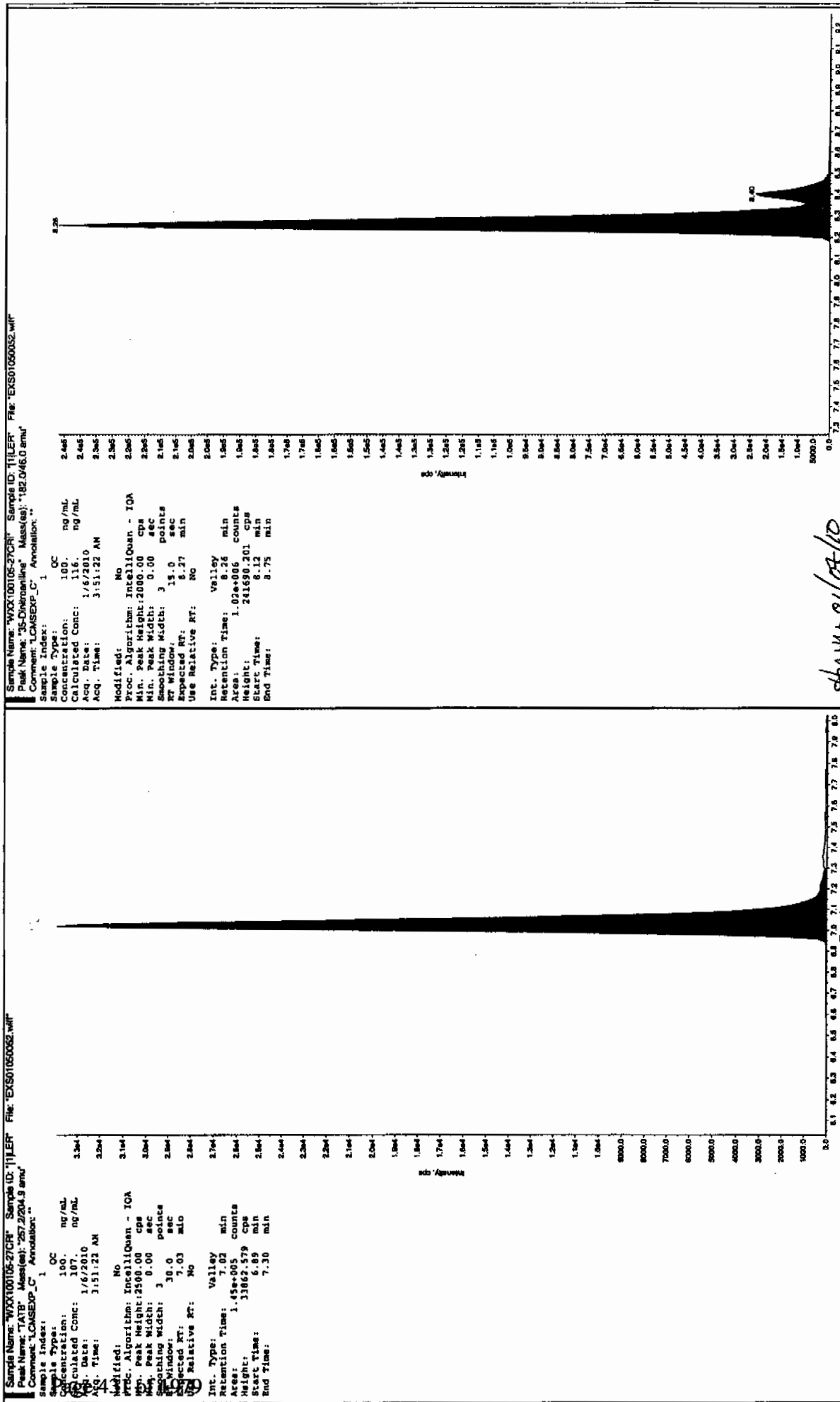
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

8/2/10
DGL

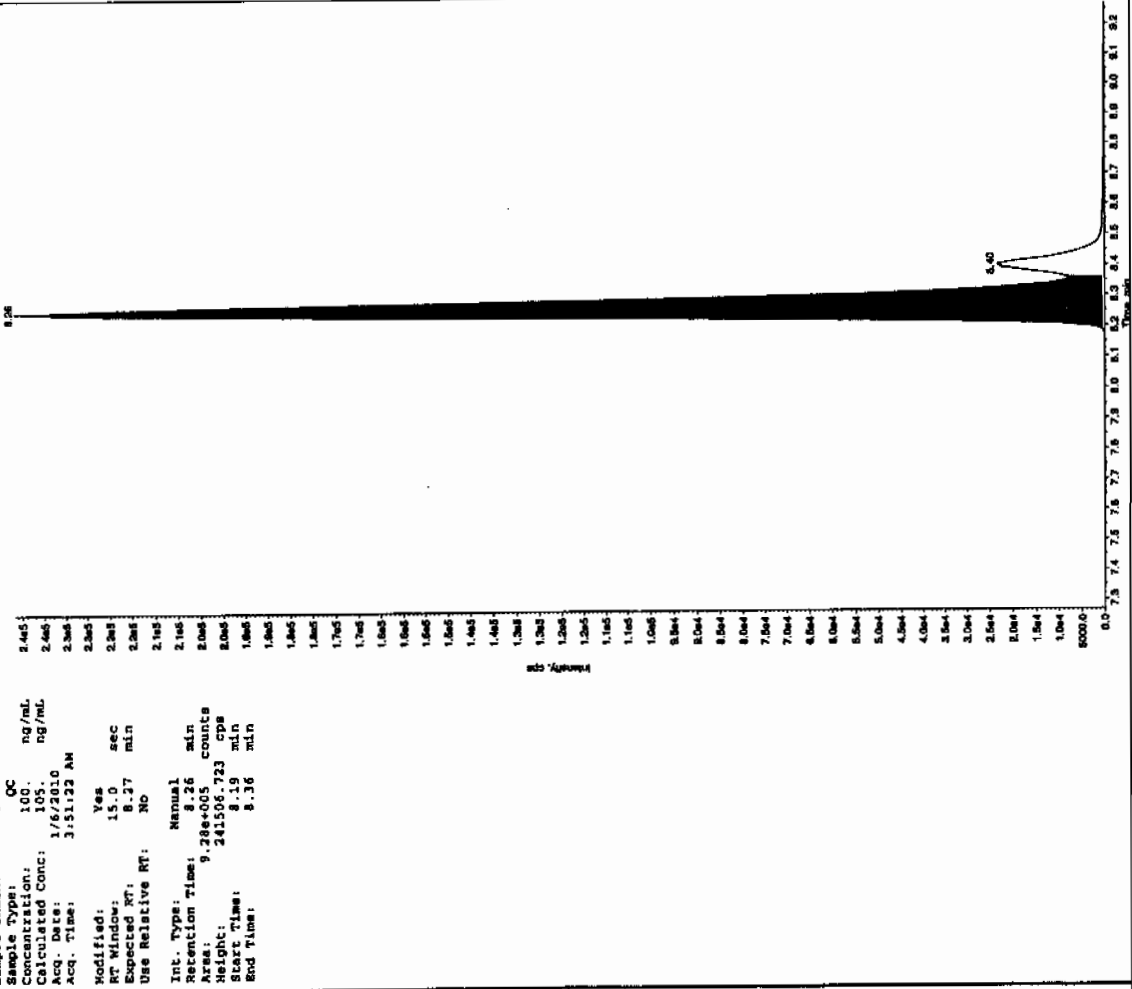
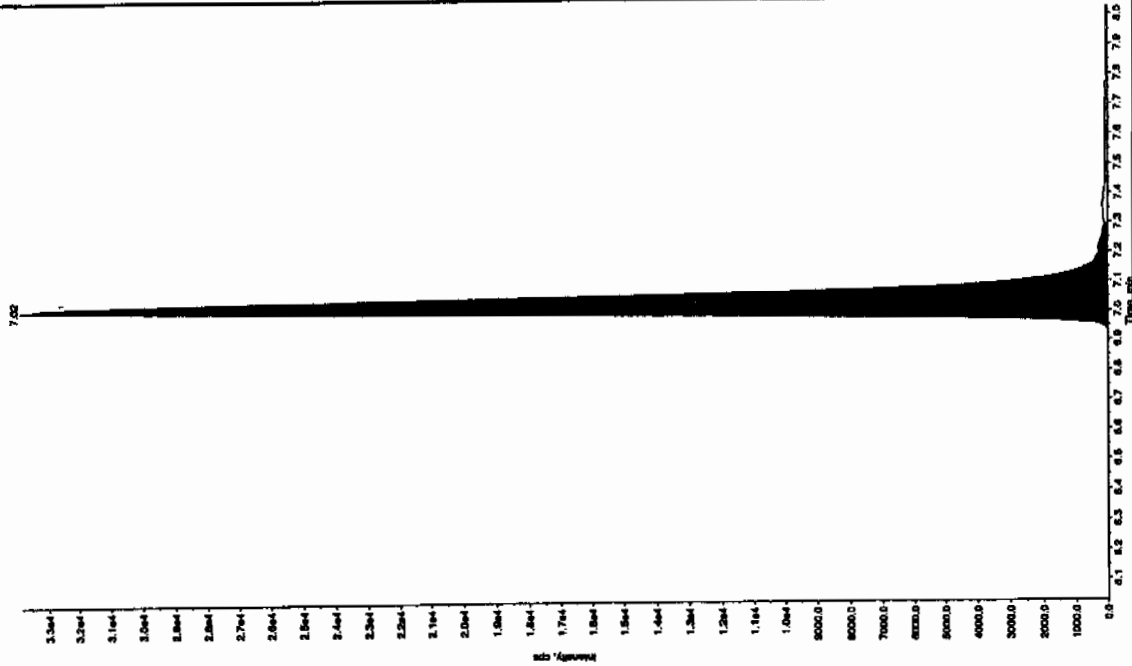


8/2/10
DGL

01/16/11
2422
2422

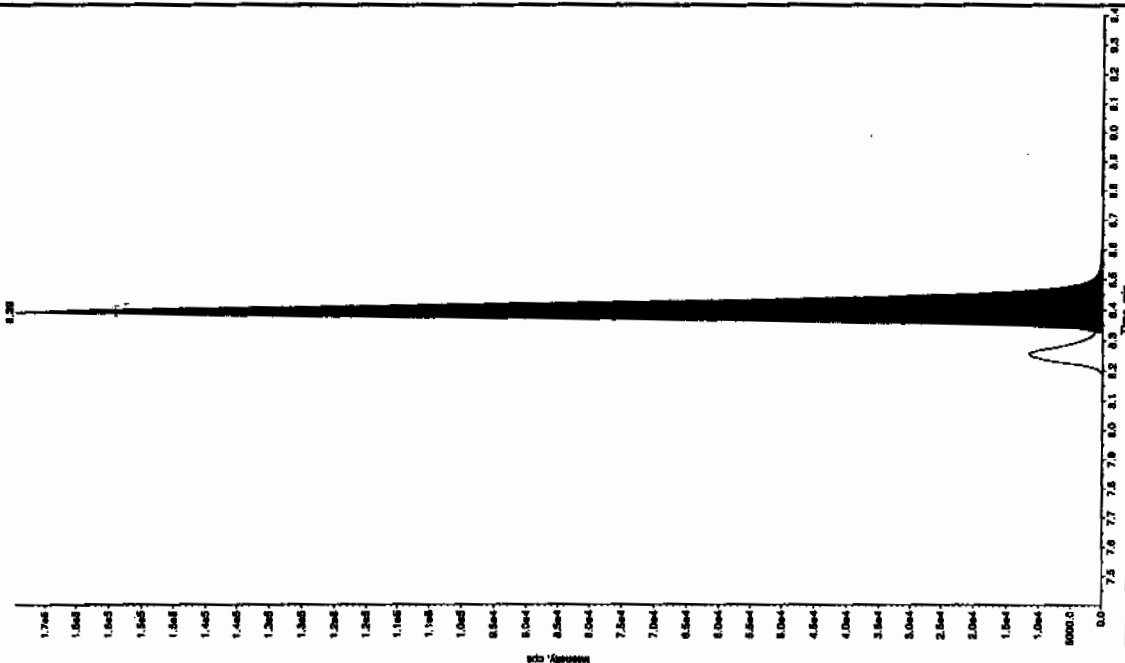
Sample Name: "WXX100105-27CR" Sample ID: "111ER" File: "EX501060062.wif"
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"
 Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1 QC
 Sample Type: 100 ng/mL
 Concentration: 100 ng/mL
 Calculated Conc: 107 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:51:22 AM
 Modified: Yes
 RT Window: 15.0 sec
 Expected RT: 8.27 min
 Use Relative RT: No
 Int. Type: Manual
 Retention Time: 8.26 min
 Area: 9.28e+005 counts
 Height: 241500.723 cps
 Start Time: 8.2 min
 End Time: 8.3 min



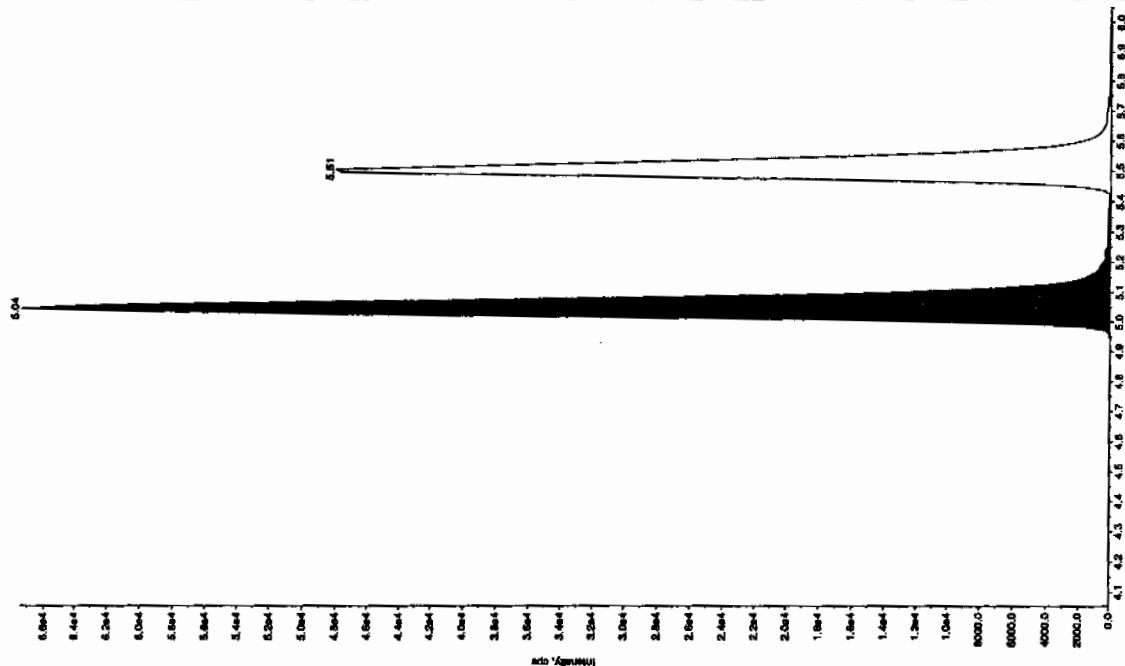
Sample Name: "WXX100105-27C1" Sample ID: "111ER" File: "EXS0105052.wif"
 Peak Name: "34-Diamino-4-nitrofluorene" Mass(es): "182.1/151.9 amu"
 Comment: "LC/MS/EXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 55.0 ng/mL
 Calculated Conc: 52.0 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:31:22 AM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 140.00 cps
 Min. Peak Width: 0.00 sec
 Scan Width: 3 points
 RT Window: 15.0 sec
 Expected RT: 8.40 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 8.39 min
 Area: 6.03e+005 counts
 Height: 16966.229 cps
 Start Time: 8.23 min
 End Time: 8.56 min



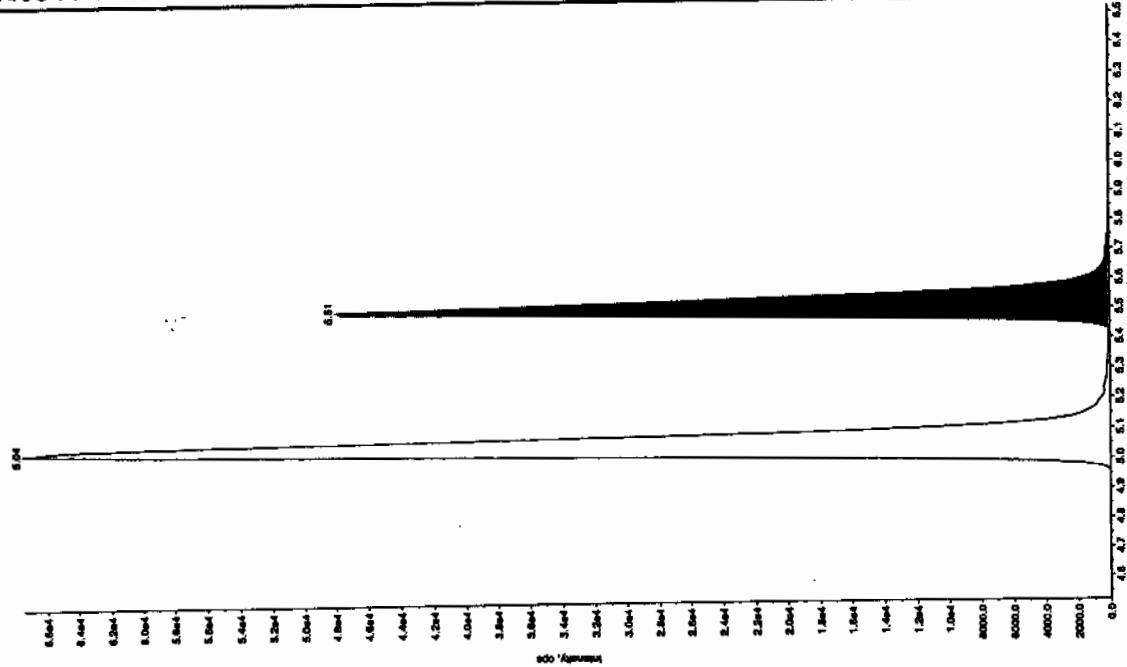
Sample Name: "WXX100105-27C1" Sample ID: "111ER" File: "EXS0105052.wif"
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.0/166.0 amu"
 Comment: "LC/MS/EXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 100. ng/mL
 Calculated Conc: 86.6 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:51:22 AM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 450.00 cps
 Min. Peak Width: 0.00 sec
 Scan Width: 3 points
 RT Window: 20.0 sec
 Expected RT: 5.05 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 5.04 min
 Area: 2.79e+005 counts
 Height: 67436.714 cps
 Start Time: 4.93 min
 End Time: 5.31 min



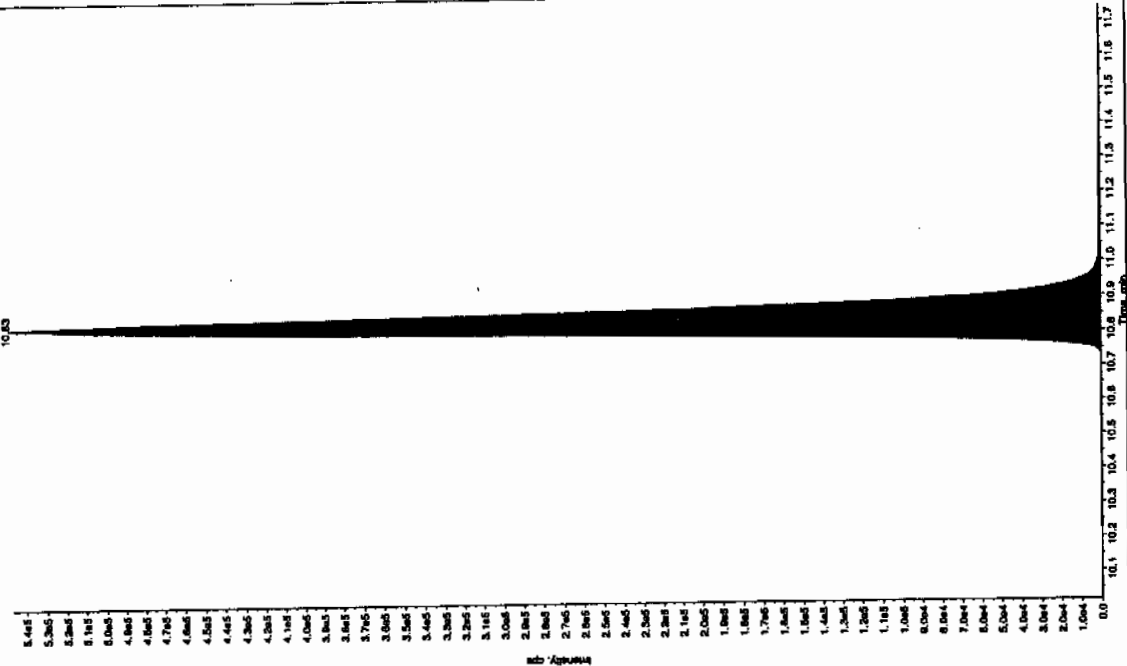
File Name: "WXX100105-27CR" Sample ID: "111ER" File: "EX501050032.wif"
 Peak Name: "24-Diamino-6-nitrophenol" Mass (m/z): 150.0460 amu
 Comment: "LCMS-EXP_C" Annotation: "

Sample Index: 1
 Sample Type: QC
 Concentration: 100. ng/mL
 Calculated Conc: 97.0 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:51:22 AM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Peak Height: 1.91e+005 cps
 Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 5.52 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 5.51 min
 Area: 1.91e+005 counts
 Height: 47888.246 cps
 Start Time: 5.45 min
 End Time: 5.56 min



Sample Name: "WXX100105-27CR" Sample ID: "111ER" File: "EX501050032.wif"
 Peak Name: "tris(o-cresyl) phosphate" Mass (m/z): 369.1910 amu
 Comment: "LCMS-EXP_C" Annotation: "

Sample Index: 1
 Sample Type: QC
 Concentration: 100. ng/mL
 Calculated Conc: 97.0 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 3:51:22 AM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Peak Height: 1.90e+006 cps
 Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 10.7 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 10.8 min
 Area: 2.43e+006 counts
 Height: 547074.951 cps
 Start Time: 10.7 min
 End Time: 11.1 min



7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS01050063.wiff

Analysis Date: 06-JAN-10 06:44

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	494	99	
2,6-Diamino-4-nitrotoluene	500	452	90	
3,4-Dinitrotoluene	250	222	89	
3,5-Dinitroaniline	500	508	102	
TATB	500	542	108	
tris(o-cresyl) phosphate	500	491	98	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

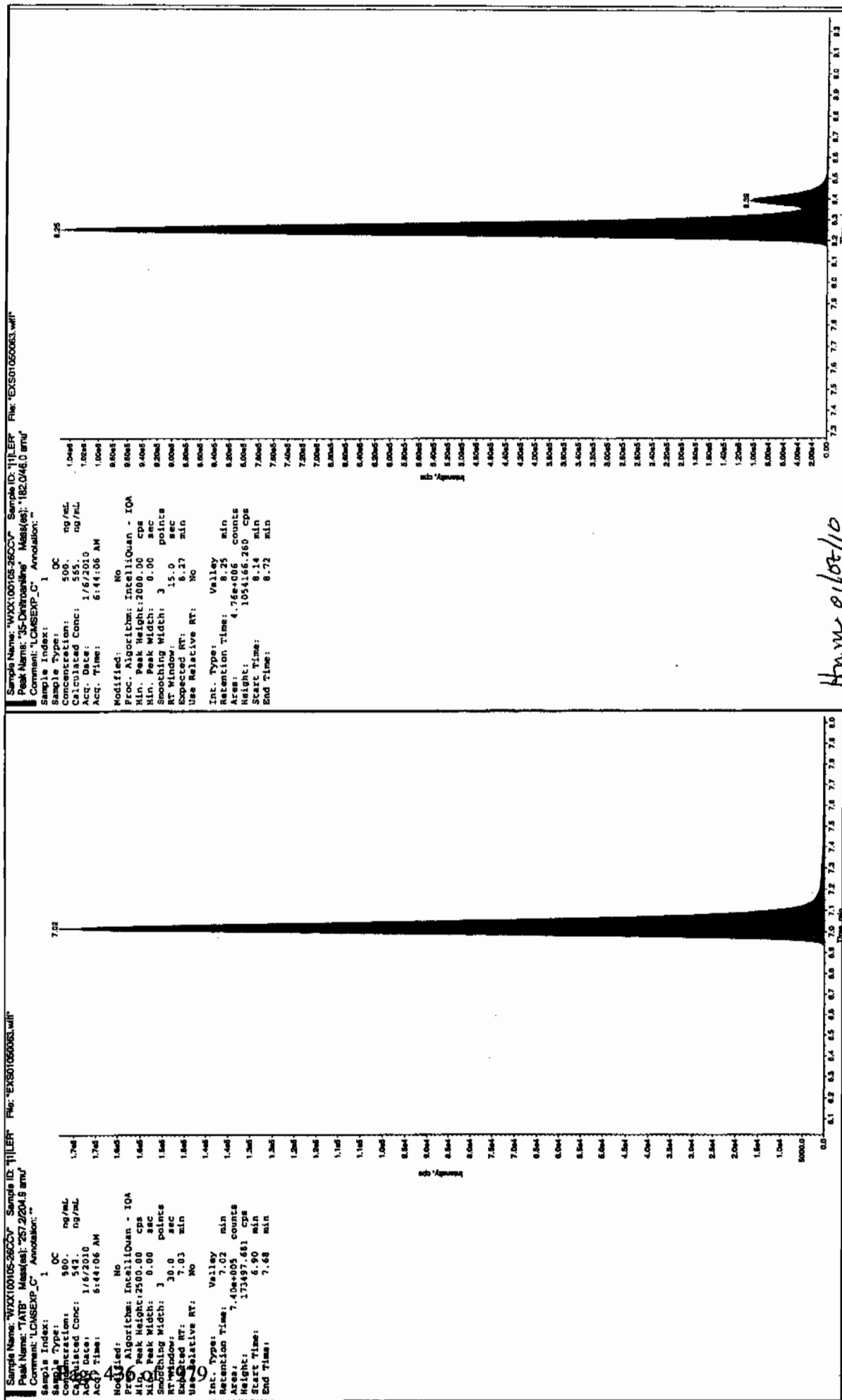
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Before
8/17/10



After 8/18/10

12/11/10
J. L. L. L.

Sample Name: "WXX100105-260CV" Sample ID: "11111" File: "EXS01050063.wif"

Peak Name: "TATP" Mass(es): "257.2254.9 amu"

Comment: "LCMSXP_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 1/6/2010

Acq. Date: 6:44:06 AM

Acq. Time: 6:44:06 AM

Modified: Yes

RT Window: 15.0 sec

Expected RT: 8.27 min

Use Relative RT: No

Int. Type: Manual

Retention Time: 8.25 min

Area: 4.31e+006 counts

Height: 1058552.755 cps

Start Time: 8.17 min

End Time: 8.35 min

Sample Name: "WXX100105-260CV" Sample ID: "11111" File: "EXS01050063.wif"

Peak Name: "TATP" Mass(es): "257.2254.9 amu"

Comment: "LCMSXP_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 1/6/2010

Acq. Date: 6:44:06 AM

Acq. Time: 6:44:06 AM

Modified: Yes

RT Window: 15.0 sec

Expected RT: 8.27 min

Use Relative RT: No

Int. Type: Manual

Retention Time: 8.25 min

Area: 4.31e+006 counts

Height: 1058552.755 cps

Start Time: 8.17 min

End Time: 8.35 min

Sample Name: "WXX100105-260CV" Sample ID: "11111" File: "EXS01050063.wif"

Peak Name: "TATP" Mass(es): "257.2254.9 amu"

Comment: "LCMSXP_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 1/6/2010

Acq. Date: 6:44:06 AM

Acq. Time: 6:44:06 AM

Modified: Yes

RT Window: 15.0 sec

Expected RT: 8.27 min

Use Relative RT: No

Int. Type: Manual

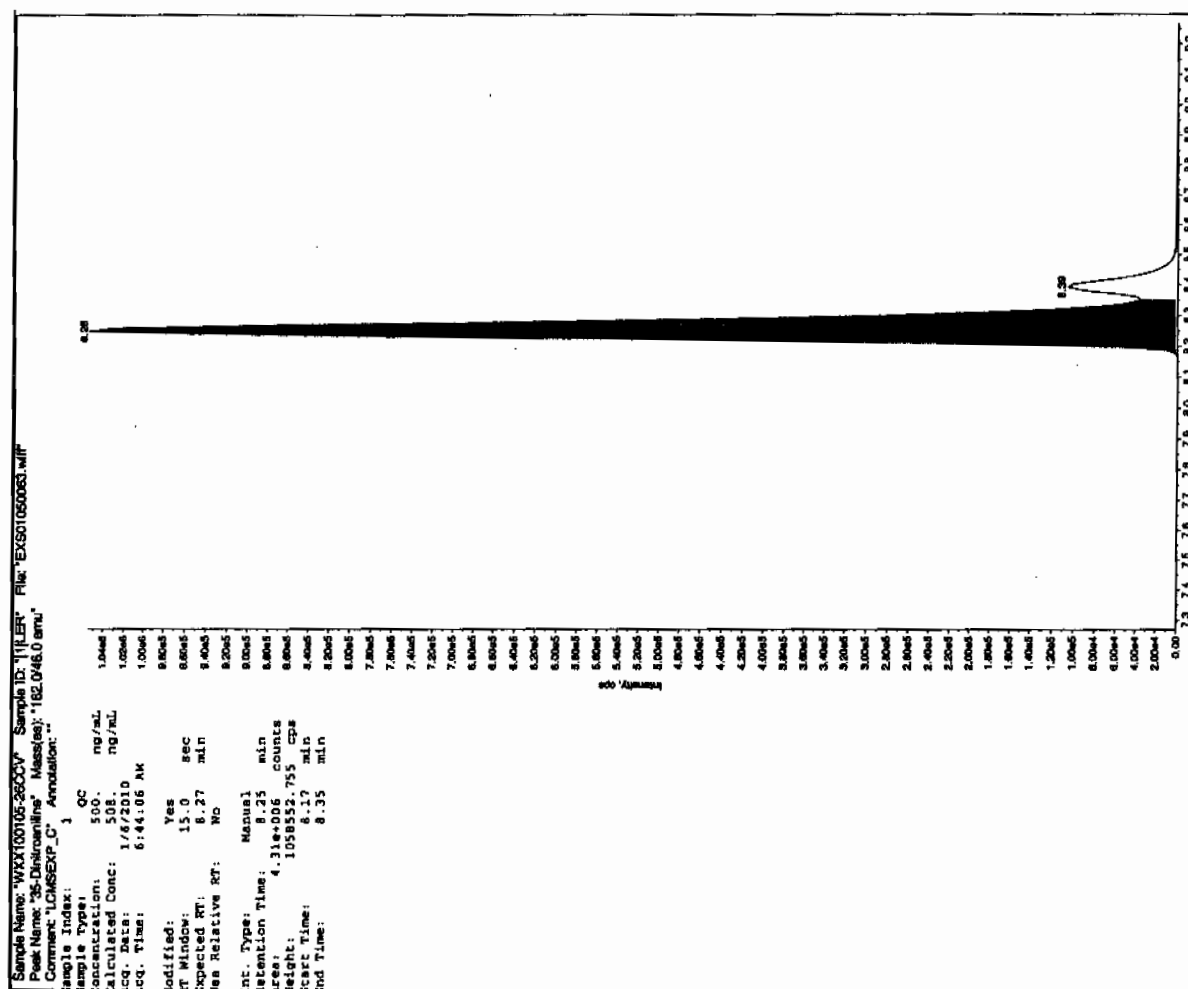
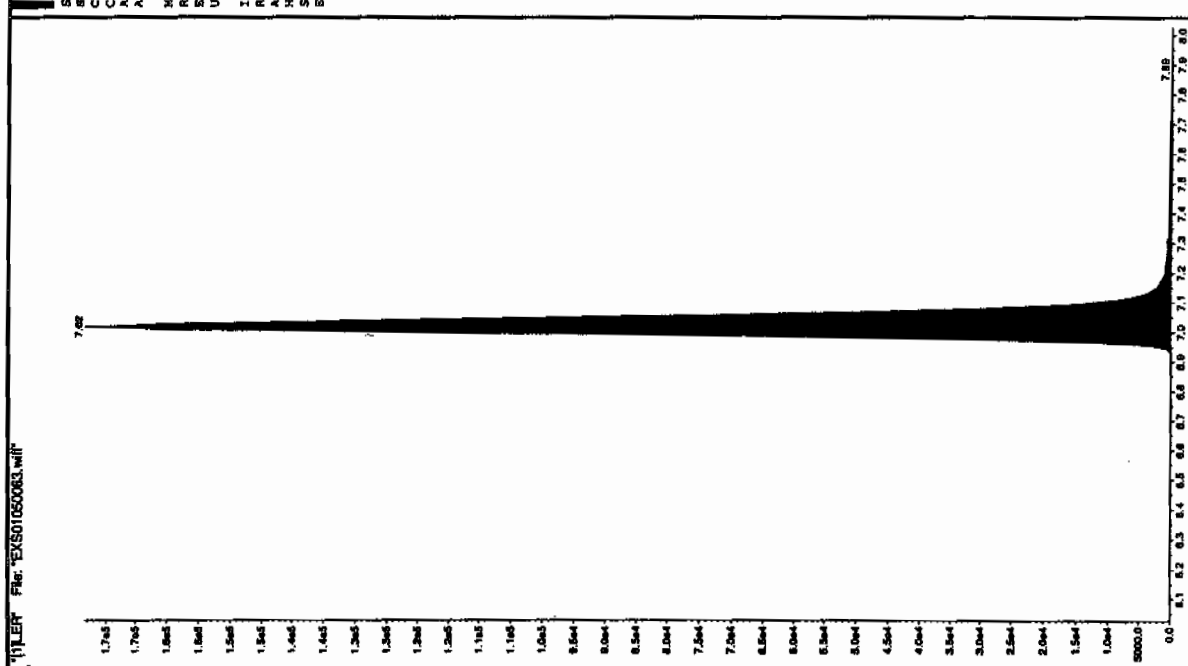
Retention Time: 8.25 min

Area: 4.31e+006 counts

Height: 1058552.755 cps

Start Time: 8.17 min

End Time: 8.35 min



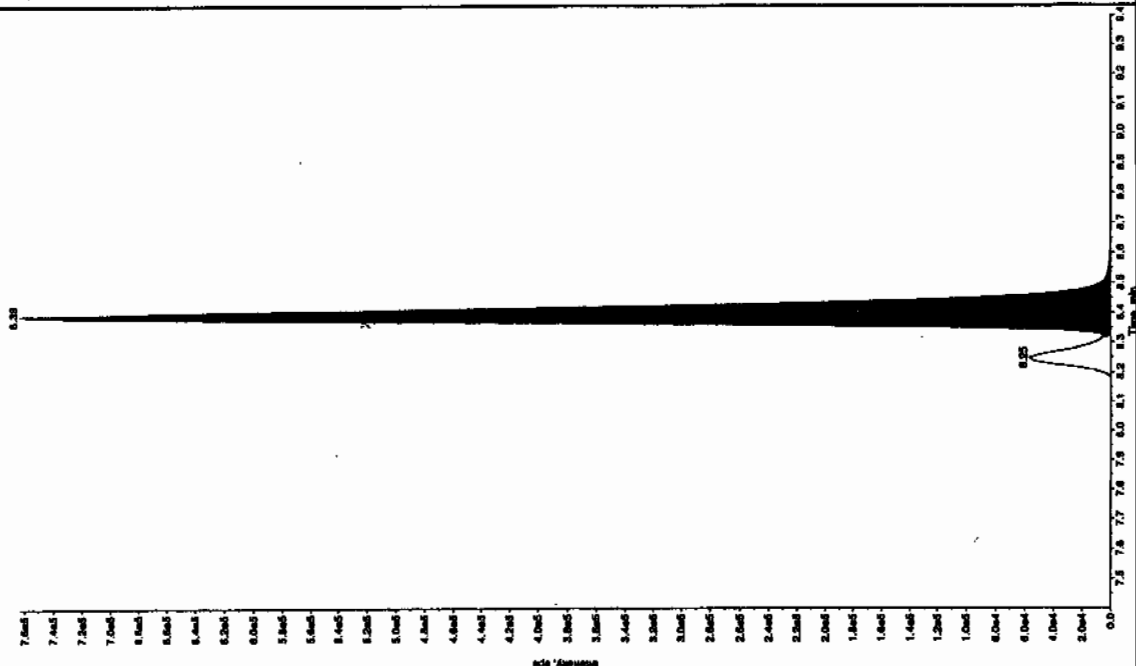
3EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "HXX100105-2800V" Sample ID: "HLEP" File: "EXS01050003.wif"
Peak Name: "28-Diamino-4-nitrobenzoate" Mass(es): "182.1151.9 amu"

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 222. ng/mL
Acq. Date: 1/6/2010
Acq. Time: 6:44:06 AM

Modified: No
Proc. Algorithm: IntelliQuan - IOA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoother Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 2.78e+006 counts
Height: 762702.087 cps
Start Time: 8.32 min
End Time: 8.72 min

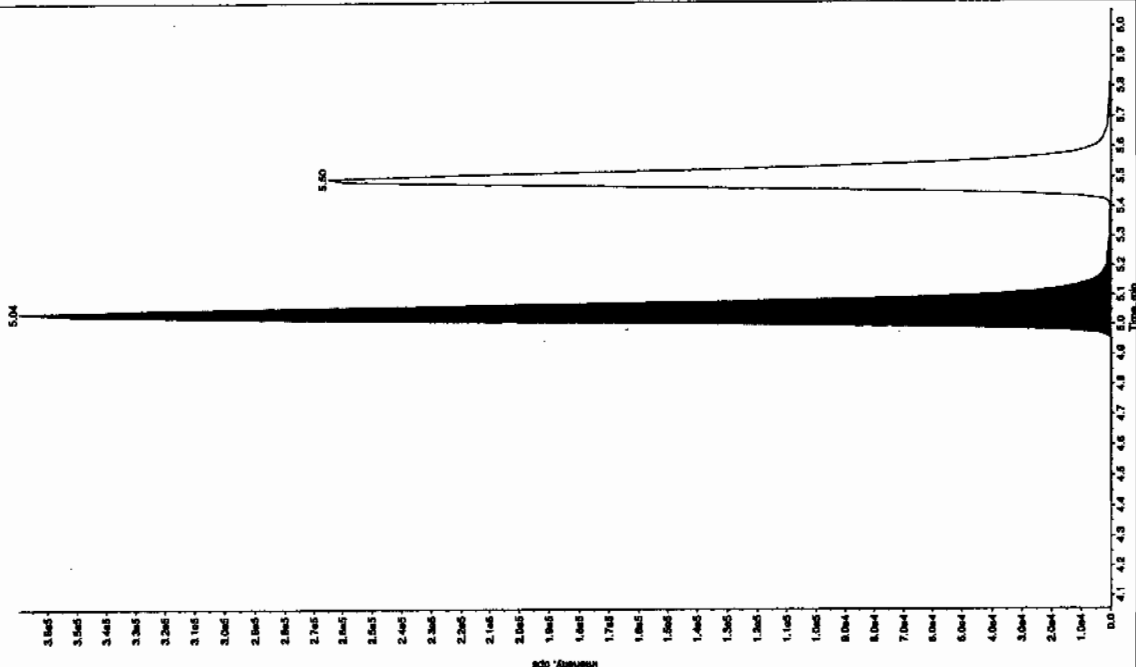


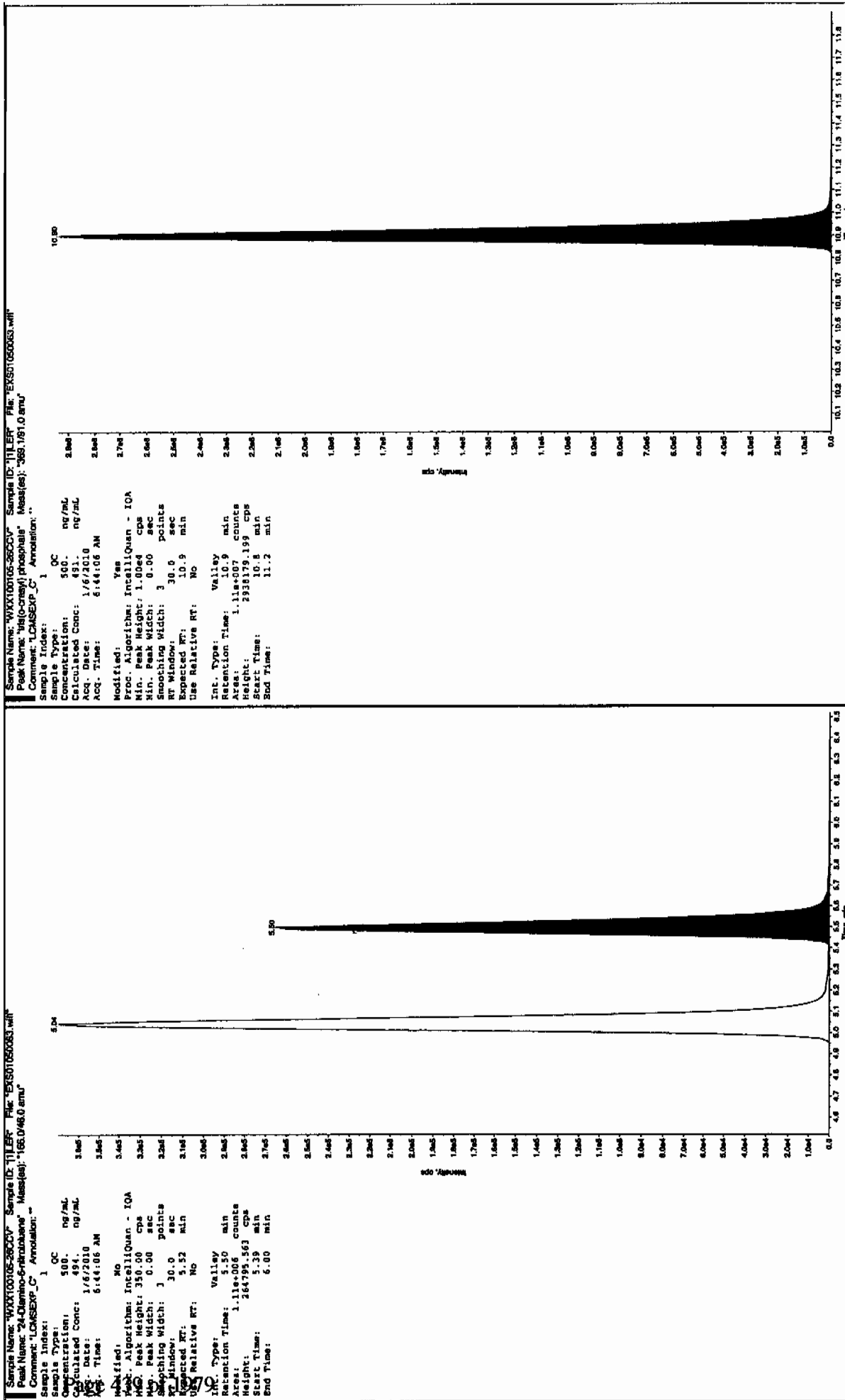
Sample Name: "HXX100105-2800V" Sample ID: "HLEP" File: "EXS01050003.wif"
Peak Name: "28-Diamino-4-nitrobenzoate" Mass(es): "185.0440.0 amu"

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 452. ng/mL
Acq. Date: 1/6/2010
Acq. Time: 6:44:06 AM

Modified: No
Proc. Algorithm: IntelliQuan - IOA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoother Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 1.55e+006 counts
Height: 389558.868 cps
Start Time: 4.93 min
End Time: 5.33 min





7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1073

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS01050065.wiff

Analysis Date: 06-JAN-10 07:15

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	82.8	83	
2,6-Diamino-4-nitrotoluene	100	92.7	93	
3,4-Dinitrotoluene	50	48.7	98	
3,5-Dinitroaniline	100	105	105	
TATB	100	110	110	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

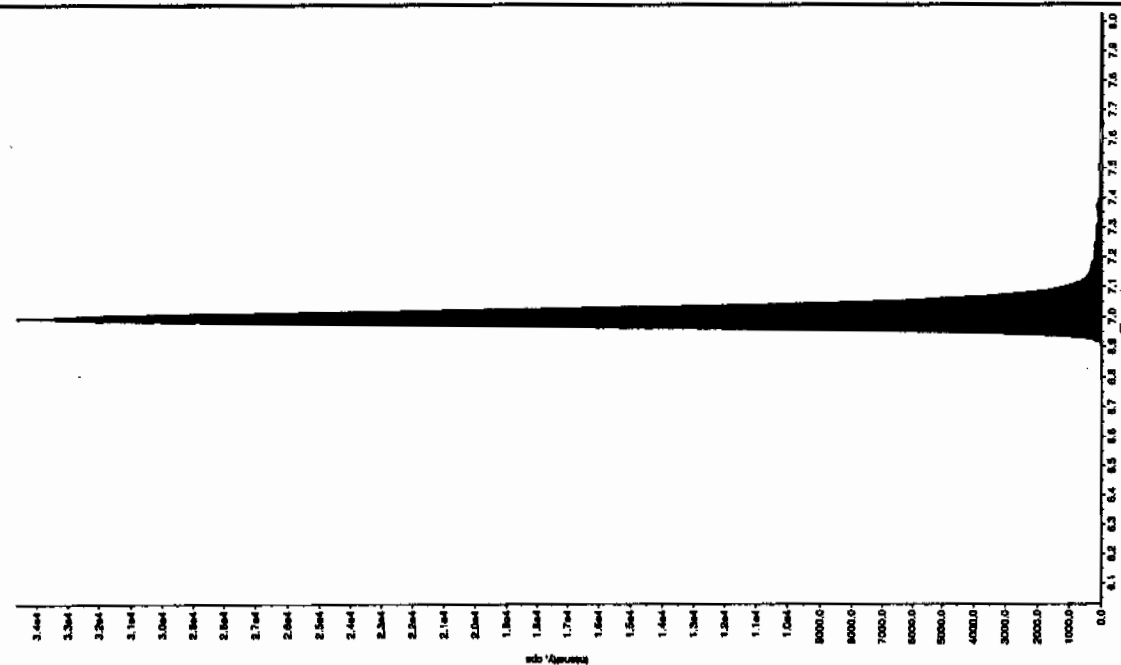
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

01/16/11
D. J. J.

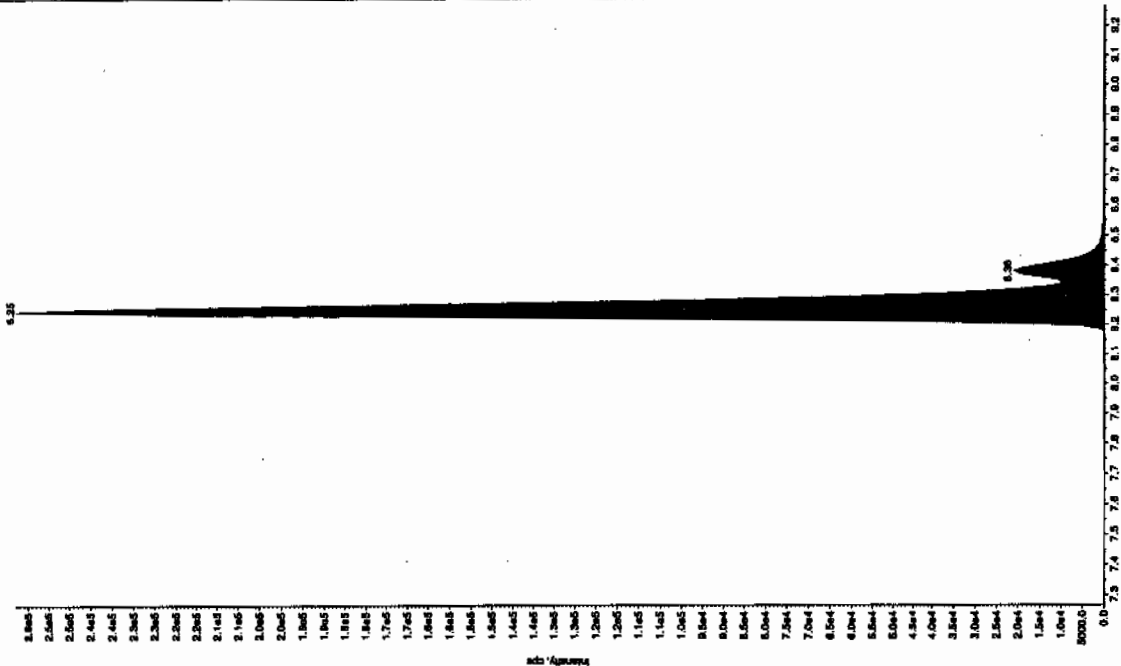
Sample Name: "WXX100105-27C91" Sample ID: "111ER" File: "EXS01050085.wif"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 1/6/2010
Acq. Time: 7:15:30 AM
Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoother Width: 3 points
RT Window: 10.0 sec
Expected RT: 7.03 min
Use Relative RT: No
Int. Type: Valley
Retention Time: 7.00 min
Area: 1.50e+005 counts
Height: 34694.388 cps
Start Time: 6.99 min
End Time: 7.47 min



Sample Name: "WXX100105-27C91" Sample ID: "111ER" File: "EXS01050085.wif"
Peak Name: "35-Dinitroanisole" Mass(es): "182.0/166.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 116. ng/mL
Acq. Date: 1/6/2010
Acq. Time: 7:15:30 AM
Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoother Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.27 min
Use Relative RT: No
Int. Type: Valley
Retention Time: 8.25 min
Area: 1.03e+006 counts
Height: 258032.959 cps
Start Time: 8.15 min
End Time: 8.70 min

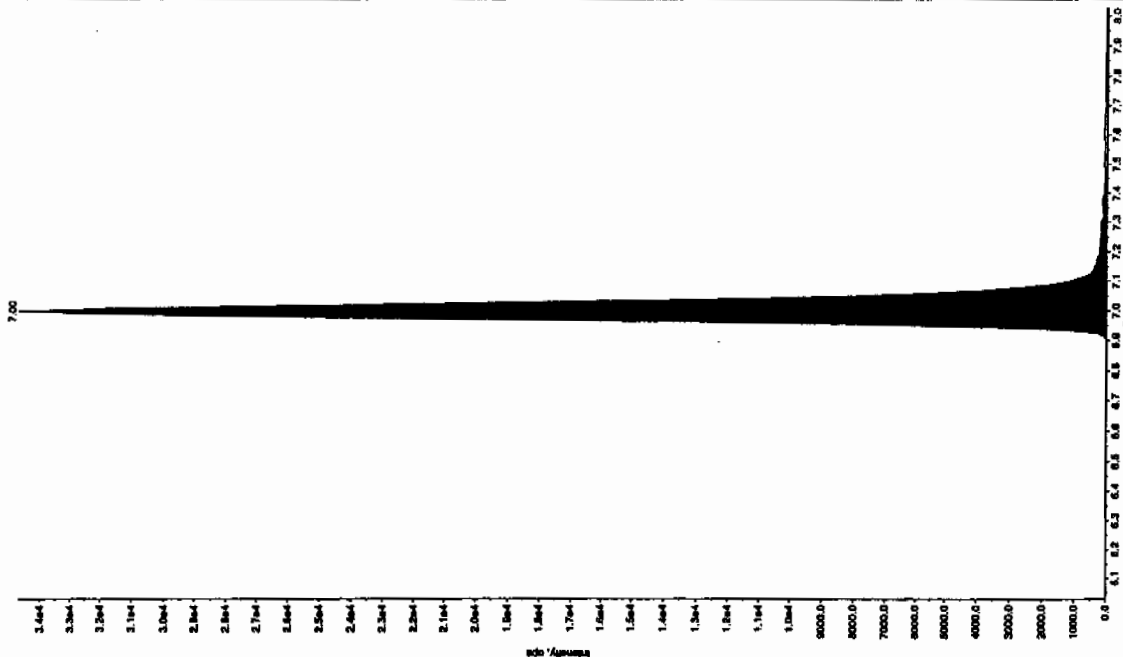


Handwritten: 01/16/11

OK 1/12/10

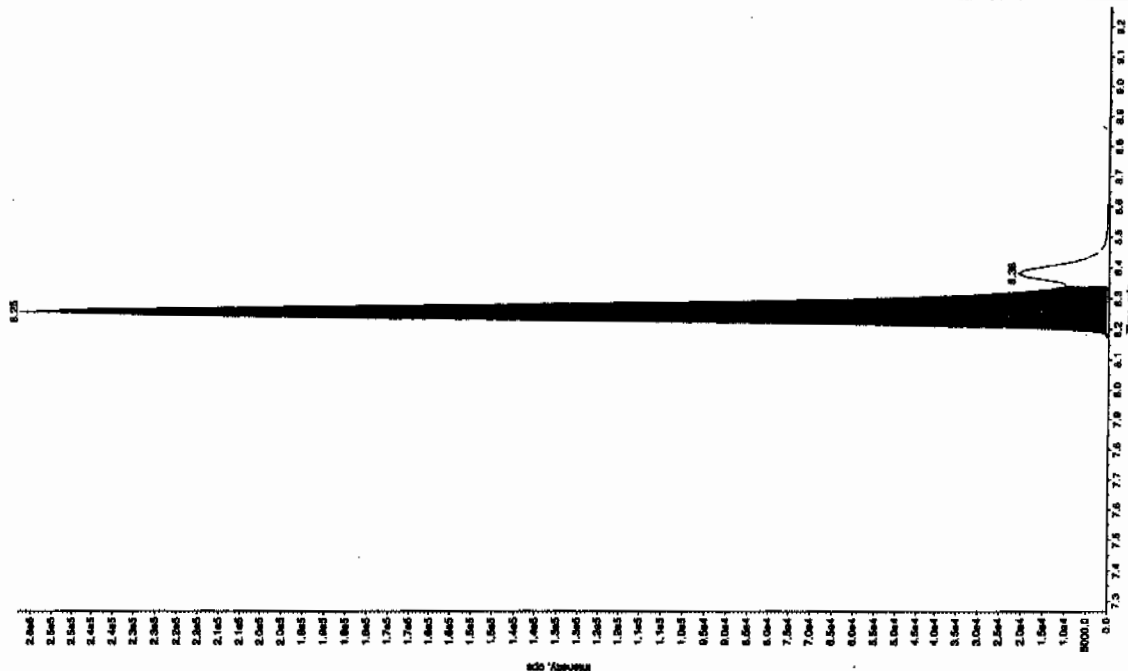
File: "EXS01050065.wif" Sample ID: "111ER" Peak Name: "WXX100105-27CR1" Mass(es): "257.2004.9 amu"

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 1/6/2010
Acq. Time: 7:15:30 AM
Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.27 min
Use Relative RT: No
Int. Type: Manual
Retention Time: 8.25 min
Area: 9.34e+005 counts
Height: 258196.970 cps
Start Time: 8.17 min
End Time: 8.34 min



File: "EXS01050065.wif" Sample ID: "111ER" Peak Name: "35-Dikrotonline" Mass(es): "182.046.0 amu"

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 1/6/2010
Acq. Time: 7:15:30 AM
Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.27 min
Use Relative RT: No
Int. Type: Manual
Retention Time: 8.25 min
Area: 9.34e+005 counts
Height: 258196.970 cps
Start Time: 8.17 min
End Time: 8.34 min

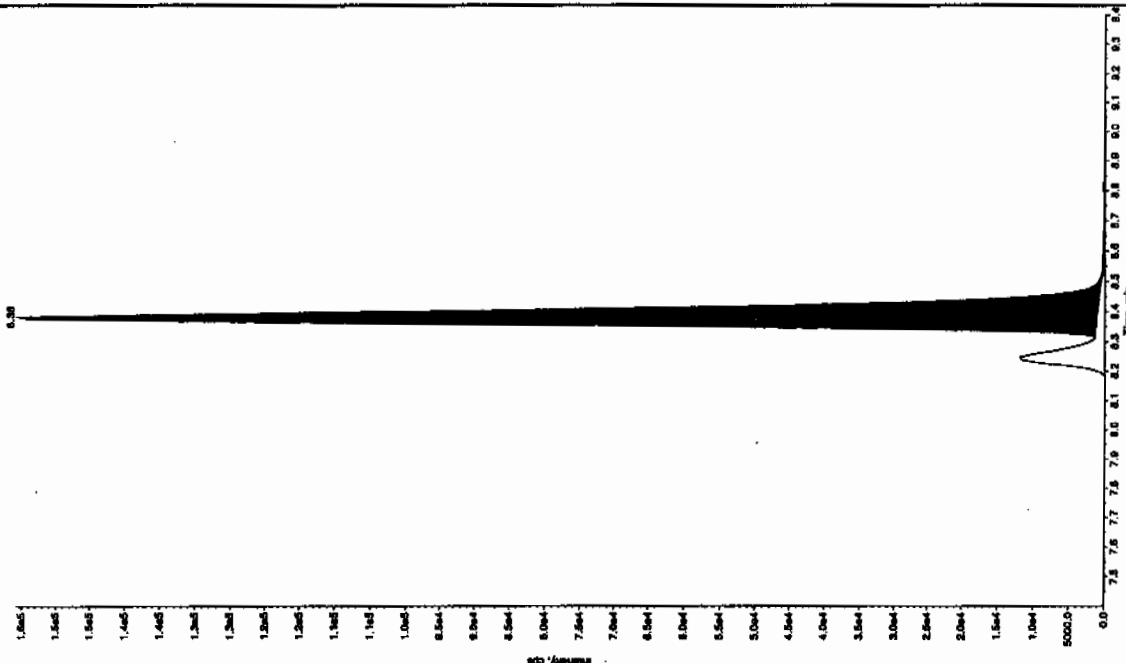


File Name: "WXX100105-27C01" Sample ID: "111ER" File: "EX301050065.wif"
 & Name: "34-Dinitrofluorene" Mass(es): "162.17151.9 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 50.0 ng/mL
 Calculated Conc: 48.7 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 7:15:30 AM

Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1460.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 15.0 sec
 Expected RT: 8.40 min
 Use Relative RT: No

Int. Type: Valley
 Retention Time: 8.38 min
 Area: 5.59e+005 counts
 Height: 154652.664 cps
 Start Time: 8.31 min
 End Time: 8.53 min

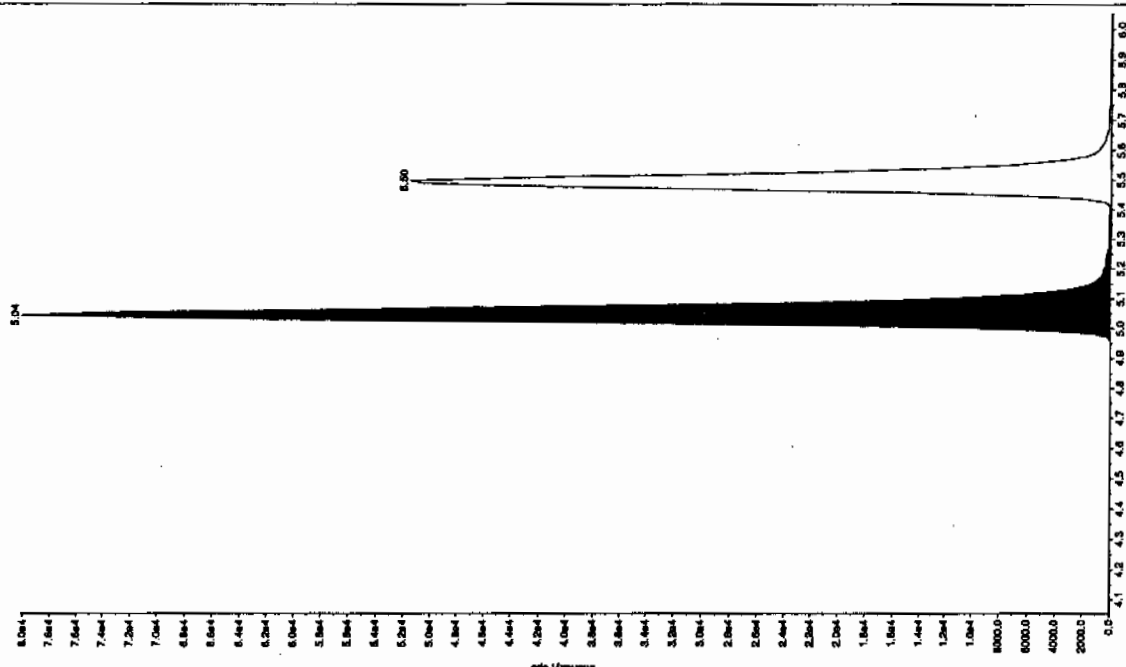


Sample Name: "WXX100105-27C01" Sample ID: "111ER" File: "EX301050065.wif"
 Peak Name: "26-Diamino-4-Nitrofluorene" Mass(es): "166.04610 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 100.0 ng/mL
 Calculated Conc: 92.7 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 7:15:30 AM

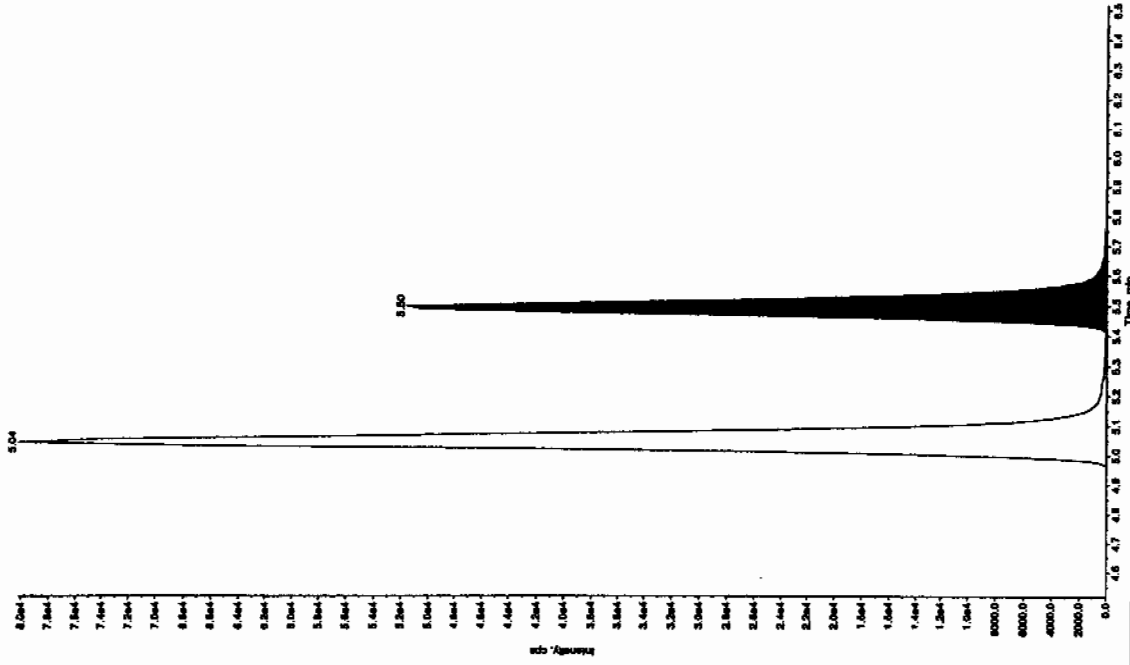
Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 450.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 5.05 min
 Use Relative RT: No

Int. Type: Valley
 Retention Time: 5.04 min
 Area: 3.00e+005 counts
 Height: 80166.191 cps
 Start Time: 4.92 min
 End Time: 5.31 min



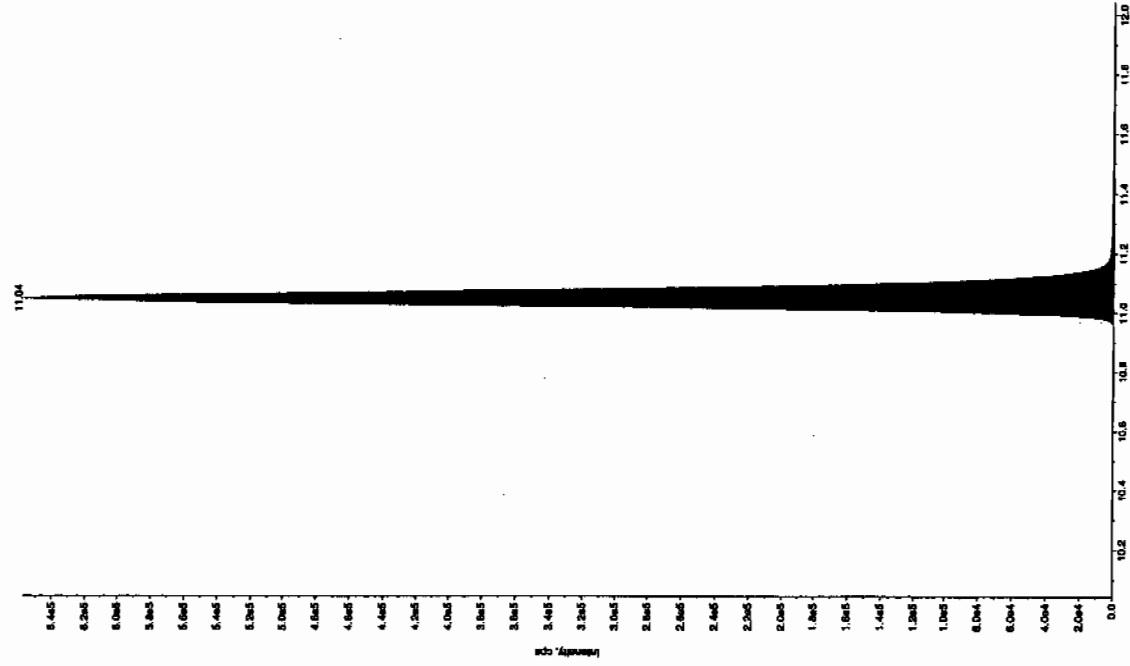
Sample Name: WXX100105-27C1P Sample ID: 111ER File: EX901050085.wif
 Peak Name: "24-Olefin-6-nitrofluene" Mass(es): 166.046.0 amu
 Comment: "LCMS EXP_C" Annotation: "

Sample Index: 1
 Sample Type: QC
 Concentration: 100. ng/mL
 Calculated Conc: 82.8 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 7:15:30 AM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 350.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 5.52 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 5.50 min
 Area: 1.96e+005 counts
 Height: 51453.793 cps
 Start Time: 5.42 min
 End Time: 5.56 min



Sample Name: WXX100105-27C1P Sample ID: 111ER File: EX901050085.wif
 Peak Name: "Islo-cresyl phosphate" Mass(es): 388.161.0 amu
 Comment: "LCMS EXP_C" Annotation: "

Sample Index: 1
 Sample Type: QC
 Concentration: 100. ng/mL
 Calculated Conc: 102. ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 7:15:30 AM
 Modified: Yes
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1.00e3 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 11.0 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 11.0 min
 Area: 2.55e+006 counts
 Height: 65687.451 cps
 Start Time: 10.9 min
 End Time: 11.4 min



QUALITY CONTROL DATA

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 937040

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 1202005126

Sample Amount 2

Moisture:

Amount Units g

Date Received: 28-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105096a

Date Analyzed: 07-JAN-10 17:58

Units: ug/kg

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

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

Quantify Sample Report

iEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Jan 08 08:09:43 2010, Page 45 of 97

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Sample: C:\MASSLYNX\NEW_EXP.PRO\data\EXP0105096a

Sample ID: 07-Jan-2010

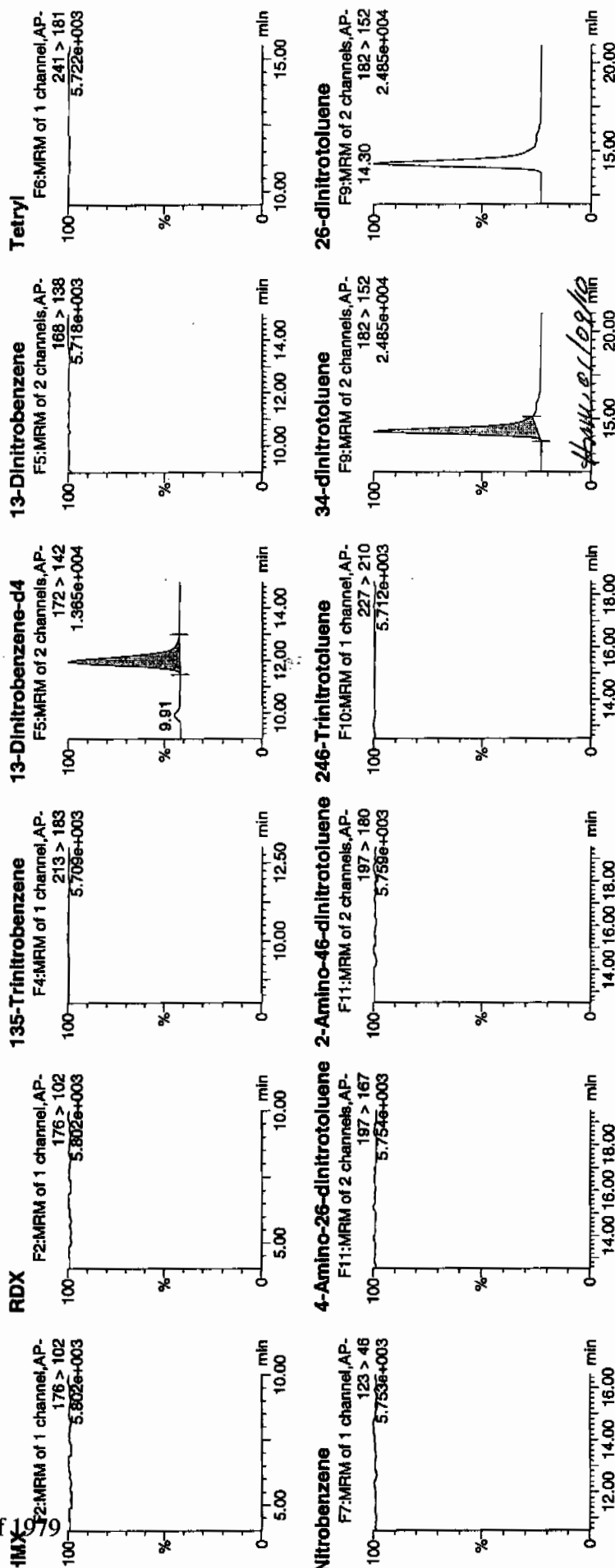
Time: 17:58:06

D: 1202005126

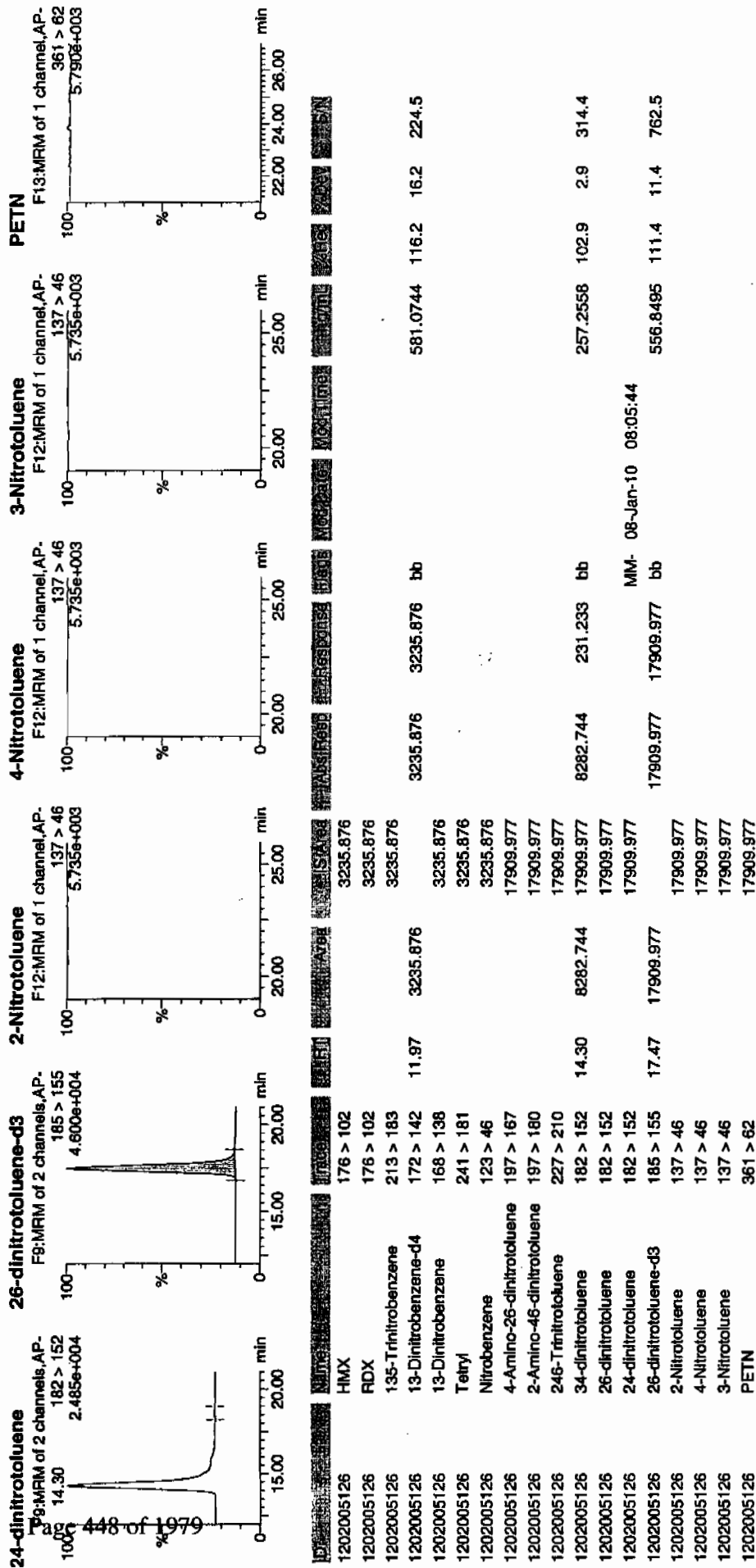
File: 3:1.A

1/8/10

937041 | 80123 | MB | 21



Dataset: C:\MASSLYNX\New_Exp\PRON10510expA2.qld, Time: Fri Jan 08 08:07:47 2010



1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 937040

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 1202005126

Sample Amount 2

Moisture:

Amount Units g

Date Received: 28-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050040.wiff

Date Analyzed: 06-JAN-10 00:42

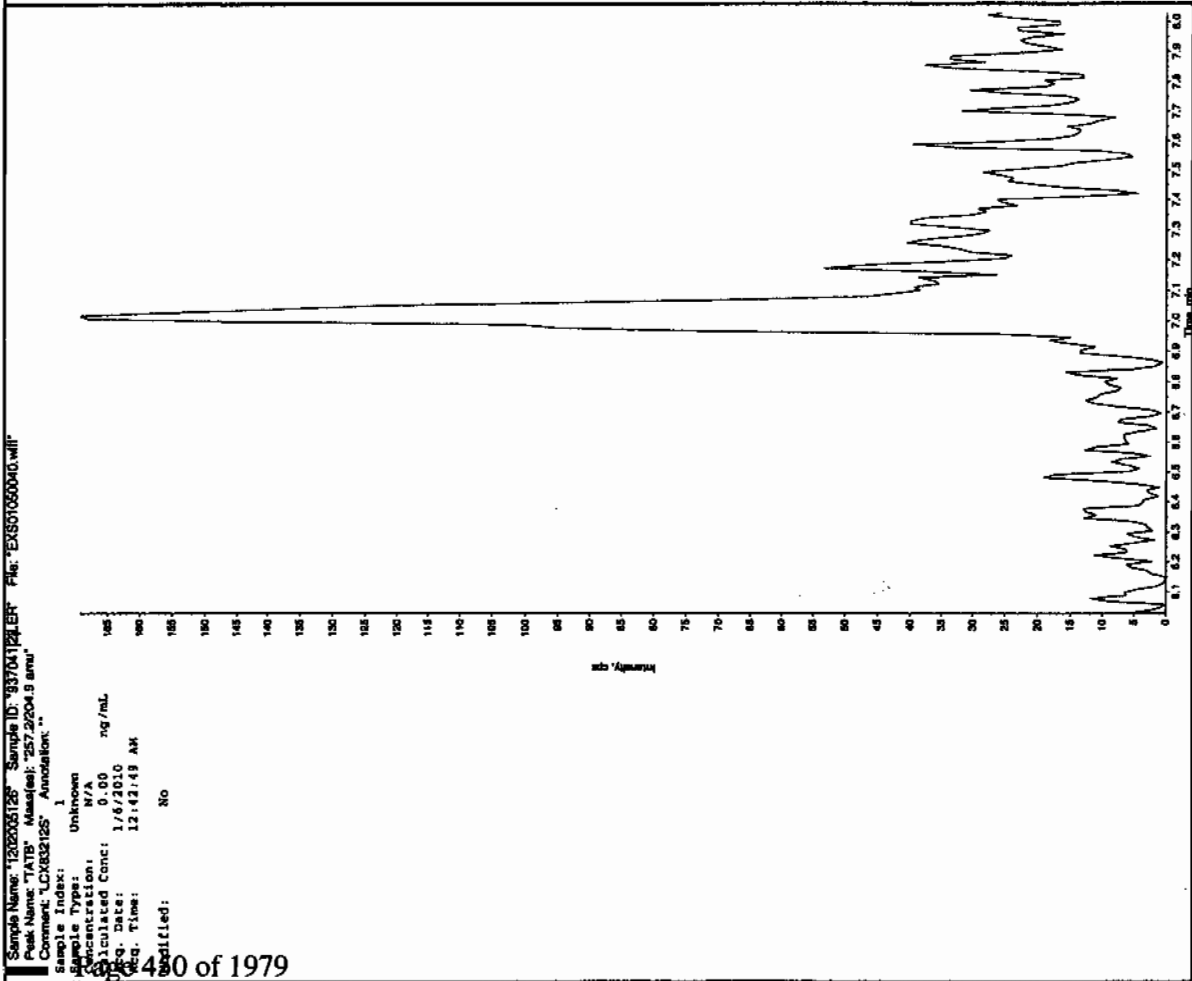
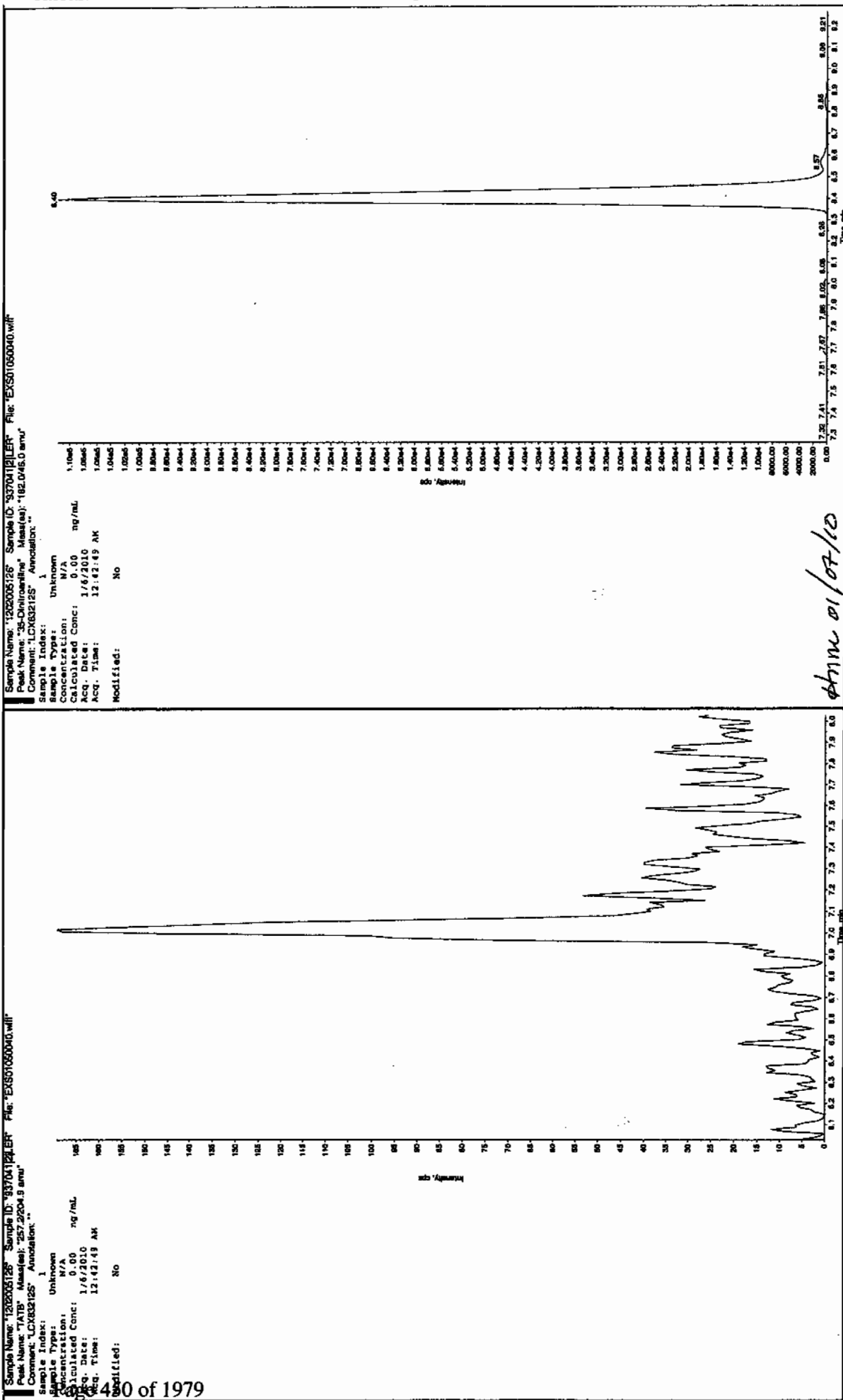
Units: ug/kg

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

*Concentration =

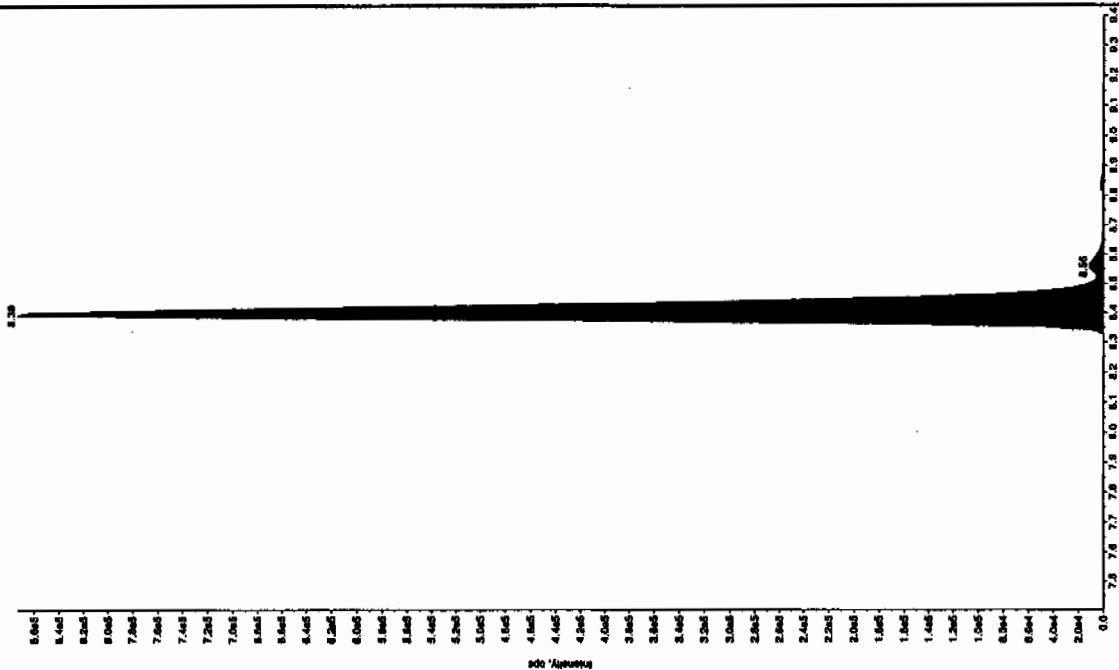
Instrument Value	X	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		<u>Sample Amount</u>		

01/27/10
2008



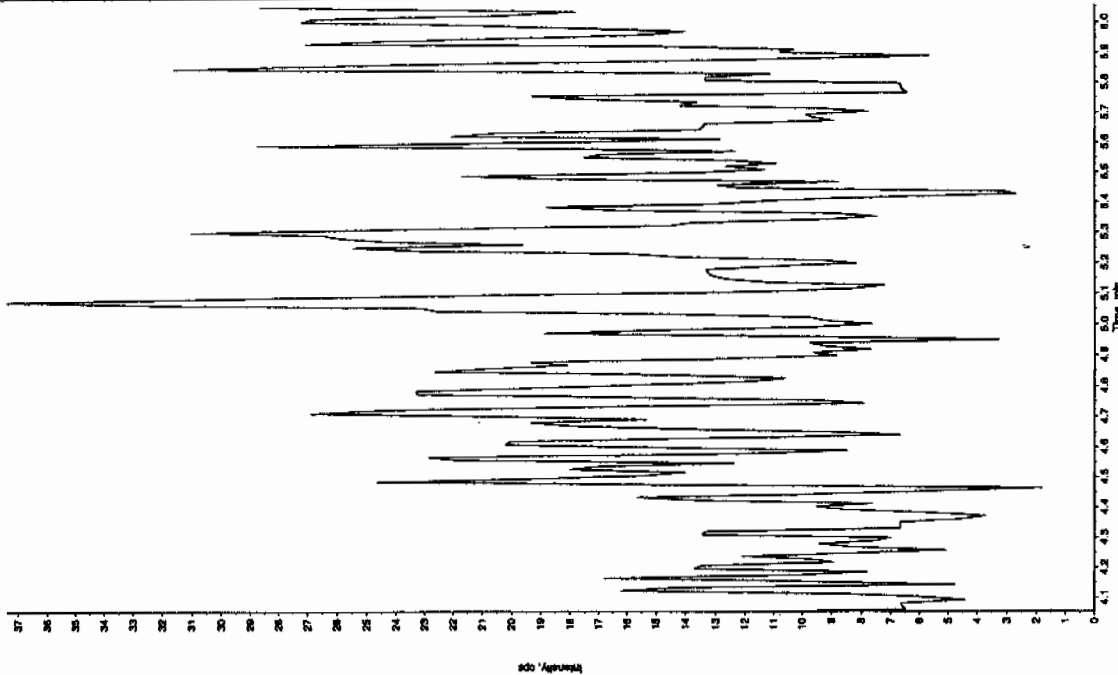
Sample Name: "120205125" Sample ID: "83704125" File: "E:\501650040.wif"
 Peak Name: "24-Dinitrofluorene" Mass(es): "182.11519 amu"
 Comment: "LCX832125" Annotation: ""

File Index: 1
 Sample Type: Unknown
 Concentration: 270. ng/mL
 Calculated Conc: 1/6/2010
 Acq. Date: 12:42:49 AM
 Acq. Time: 12:42:49 AM
 Modified: No
 c. Algorithm: IntelliQuan - IOA
 Peak Height: 1440.00 cps
 Peak Width: 0.00 sec
 Retention: 8.31 min
 Retention: 8.40 min
 Retention: 8.74 min
 Type: Valley
 Retention Time: 8.39 min
 Area: 3.35e+008 counts
 Height: 873574.036 cps
 Retention Time: 8.31 min
 Retention Time: 8.74 min



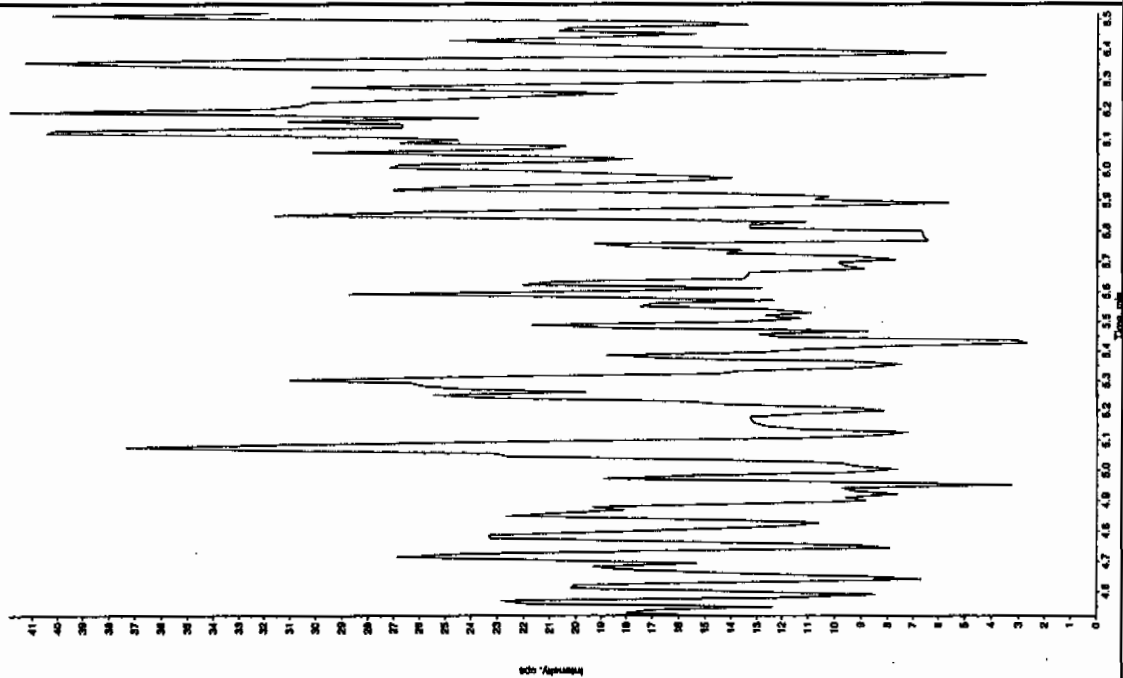
Sample Name: "120205125" Sample ID: "83704125" File: "E:\501650040.wif"
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "186.0460 amu"
 Comment: "LCX832125" Annotation: ""

File Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 1/6/2010
 Acq. Time: 12:42:49 AM
 Modified: No



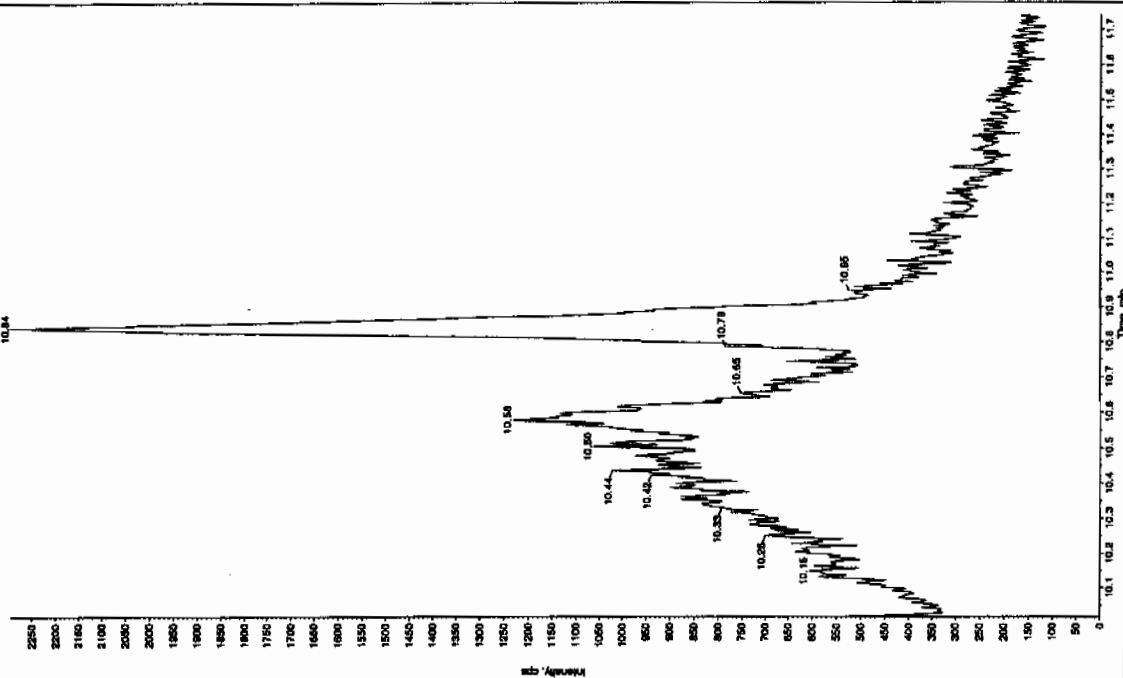
Sample Name: 1202005126 Sample ID: 9370412126 File: EX501050040.wif
Peak Name: 24-Chloro-6-nitrofluorene Mass(es): 186.046.0 amu
Comment: LCN832125 Annotation: 1

Sample Index: 1
Sample Type: Unknown
Calculation: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 12:42:49 AM
Modified: No



Sample Name: 1202005126 Sample ID: 9370412126 File: EX501050040.wif
Peak Name: Tri(n-octyl) phosphite Mass(es): 386.191.0 amu
Comment: LCN832125 Annotation: 1

Sample Index: 1
Sample Type: Unknown
Calculation: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 12:42:49 AM
Modified: No



1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 937040

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 1202005127

Sample Amount 2

Moisture:

Amount Units g

Date Received: 28-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105097a

Date Analyzed: 07-JAN-10 18:27

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4860	
121-14-2	2,4-Dinitrotoluene	4920	
121-82-4	RDX	4500	
19406-51-0	4-Amino-2,6-dinitrotoluene	4720	
2691-41-0	HMX	4060	
35572-78-2	2-Amino-4,6-dinitrotoluene	5180	
479-45-8	Tetryl	3500	
606-20-2	2,6-Dinitrotoluene	4800	
78-11-5	PETN	3870	
88-72-2	o-Nitrotoluene	4190	
98-95-3	Nitrobenzene	4130	
99-08-1	m-Nitrotoluene	4320	
99-35-4	1,3,5-Trinitrobenzene	4480	
99-65-0	m-Dinitrobenzene	4370	
99-99-0	p-Nitrotoluene	4740	

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Name: C:\MASSLYN\NEW EXP.PRO\DATA\EXP0105097a

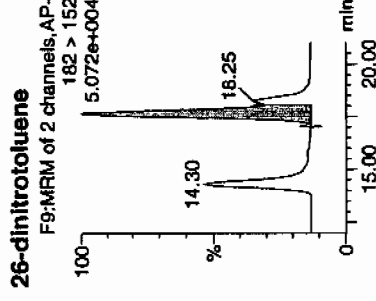
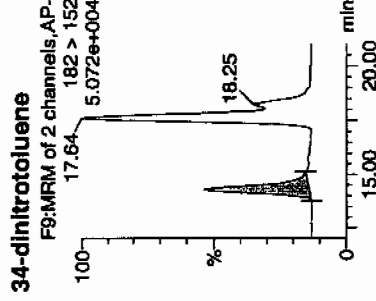
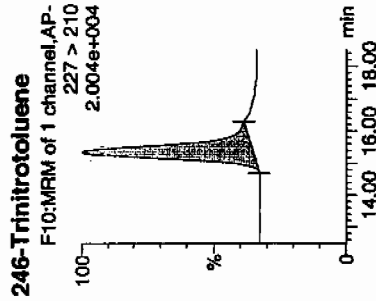
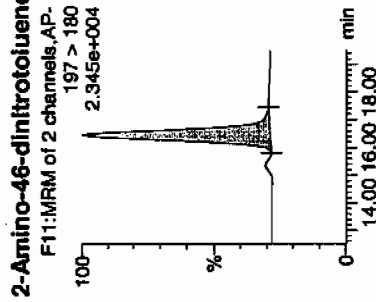
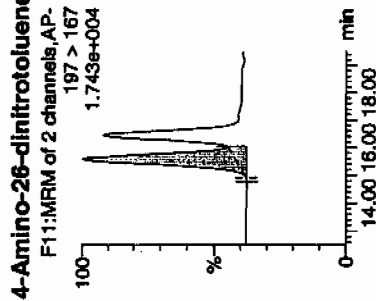
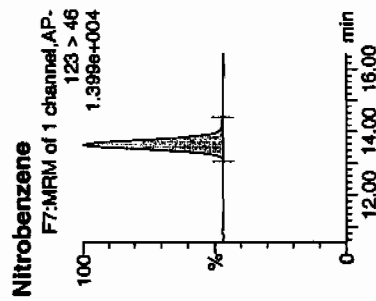
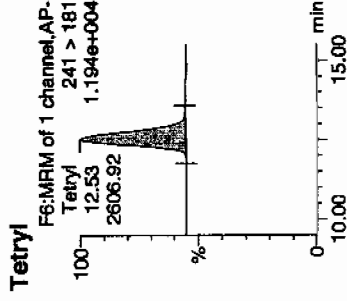
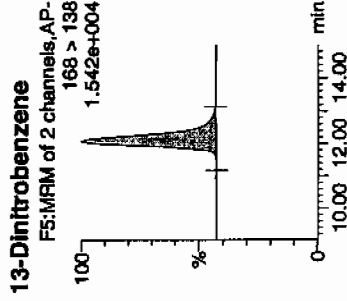
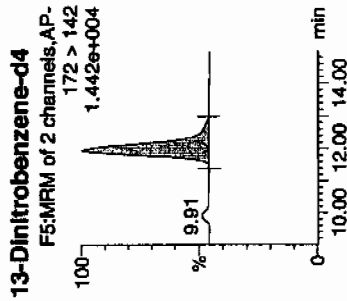
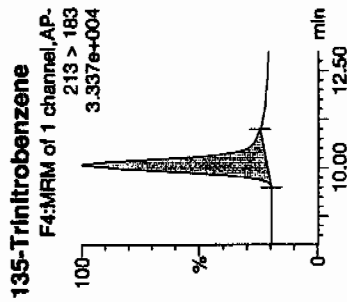
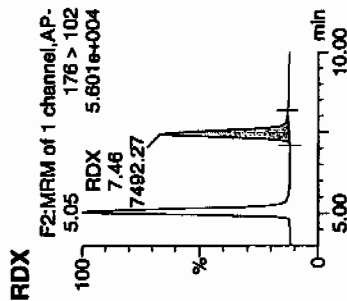
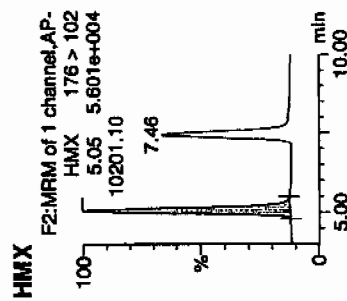
Date: 07-Jan-2010

Time: 18:27:41

ID: 1202005127

Vial: 3:1.B

0
Y:\NEW_EXP_PROJ\Data\EXP0105097a
LAW 937041 / 8033 / CG / 2 /
1/10/10
1077



2/160/10 mlt

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 937040

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 1202005127

Sample Amount 2

Moisture:

Amount Units g

Date Received: 28-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050041.wiff

Date Analyzed: 06-JAN-10 00:58

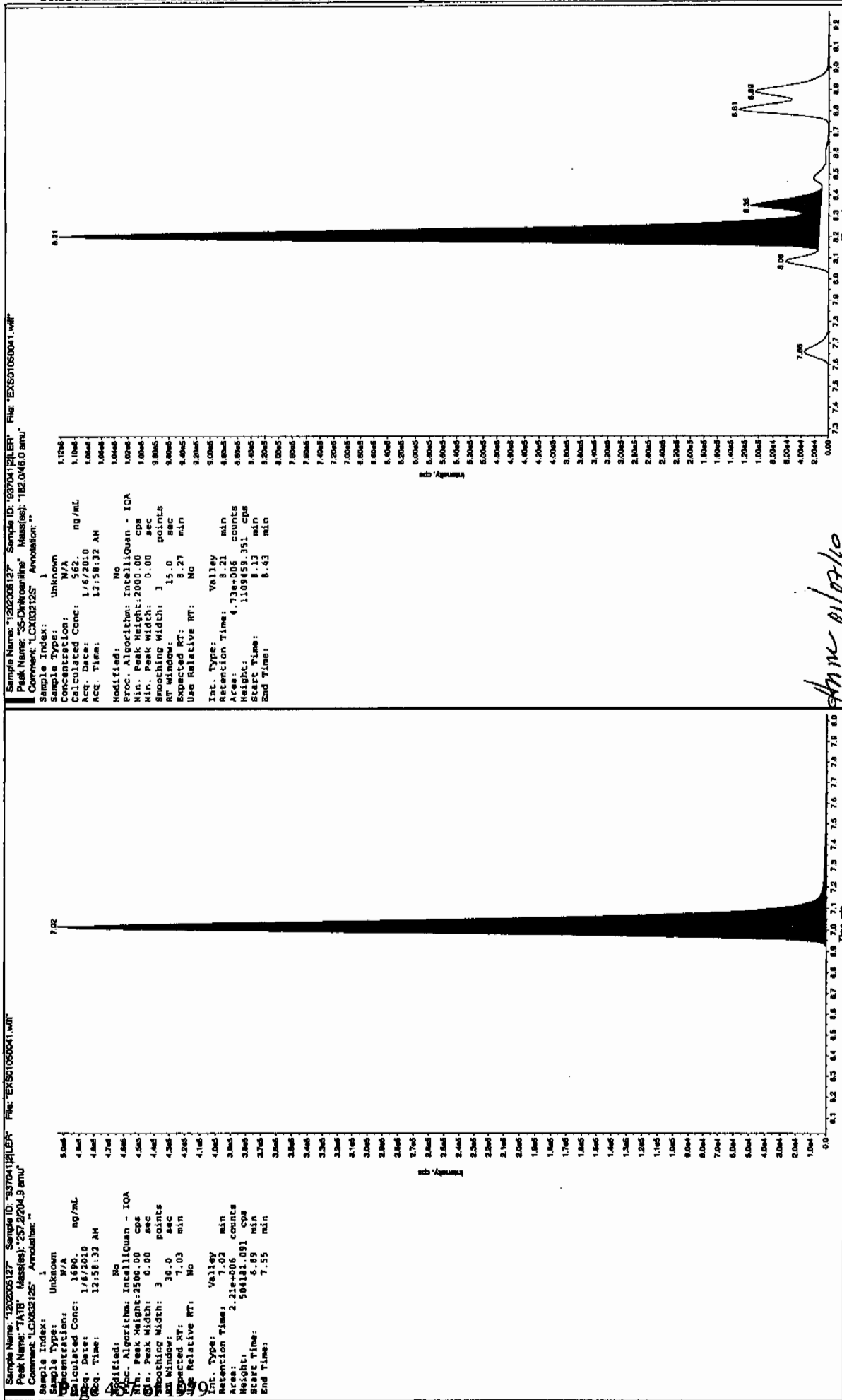
Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	16900	
59229-75-3	2,6-Diamino-4-nitrotoluene	3910	
618-87-1	3,5-Dinitroaniline	5320	
6629-29-4	2,4-Diamino-6-nitrotoluene	3410	
78-30-8	tris(o-cresyl) phosphate	5020	

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

174116
2/2/2010
2/2/2010



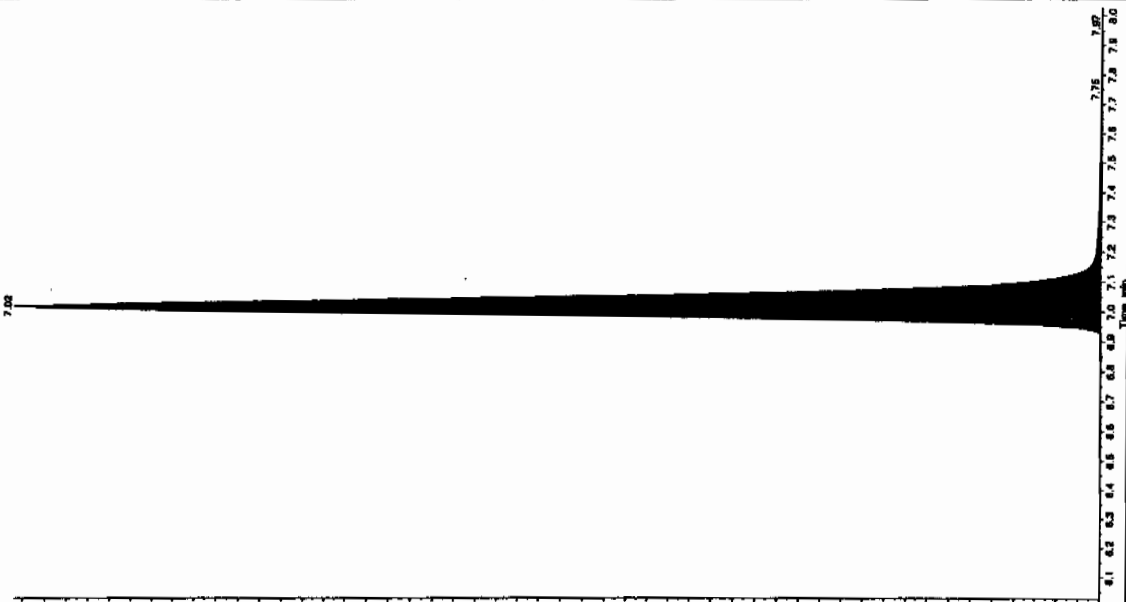
Amc 01/07/10

1/11/10
 J. J. J.
 J. J. J.

Sample Name: "1202005127" Sample ID: "93704121" File: "EXS01050041.wif"
 Peak Name: "TATB" Mass(es): "257.2004.9 amu"
 Comment: "LCX832125" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 1.672010
 Acq. Date: 1/6/2010
 Acq. Time: 12:58:32 AM
 Modified: Yes
 In Window: 15.0 sec
 Expected RT: 8.27 min
 Use Relative RT: No
 Int. Type: Manual
 Retention Time: 8.21 min
 Area: 4.50e+006 counts
 Height: 1128020.186 cps
 Start Time: 6.13 min
 End Time: 8.31 min
 L. Type: Valley
 Retention Time: 7.02 min
 Height: 2.21e+006 counts
 Light: 504181.091 cps
 Start Time: 5.53 min
 End Time: 7.53 min

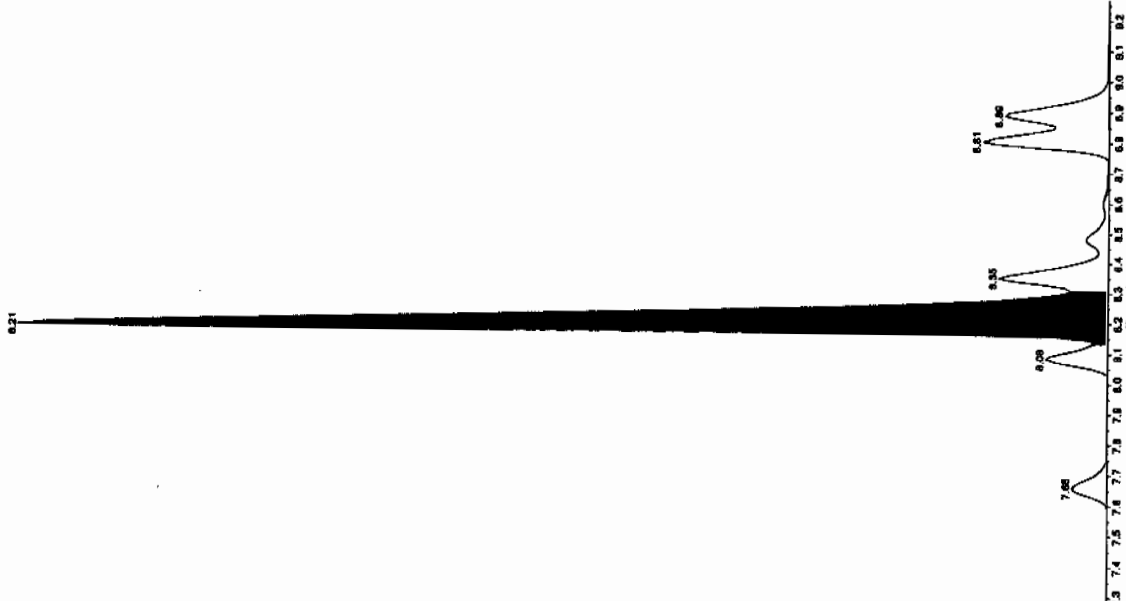
5.0e6
 4.0e6
 3.0e6
 2.0e6
 1.0e6
 0.0

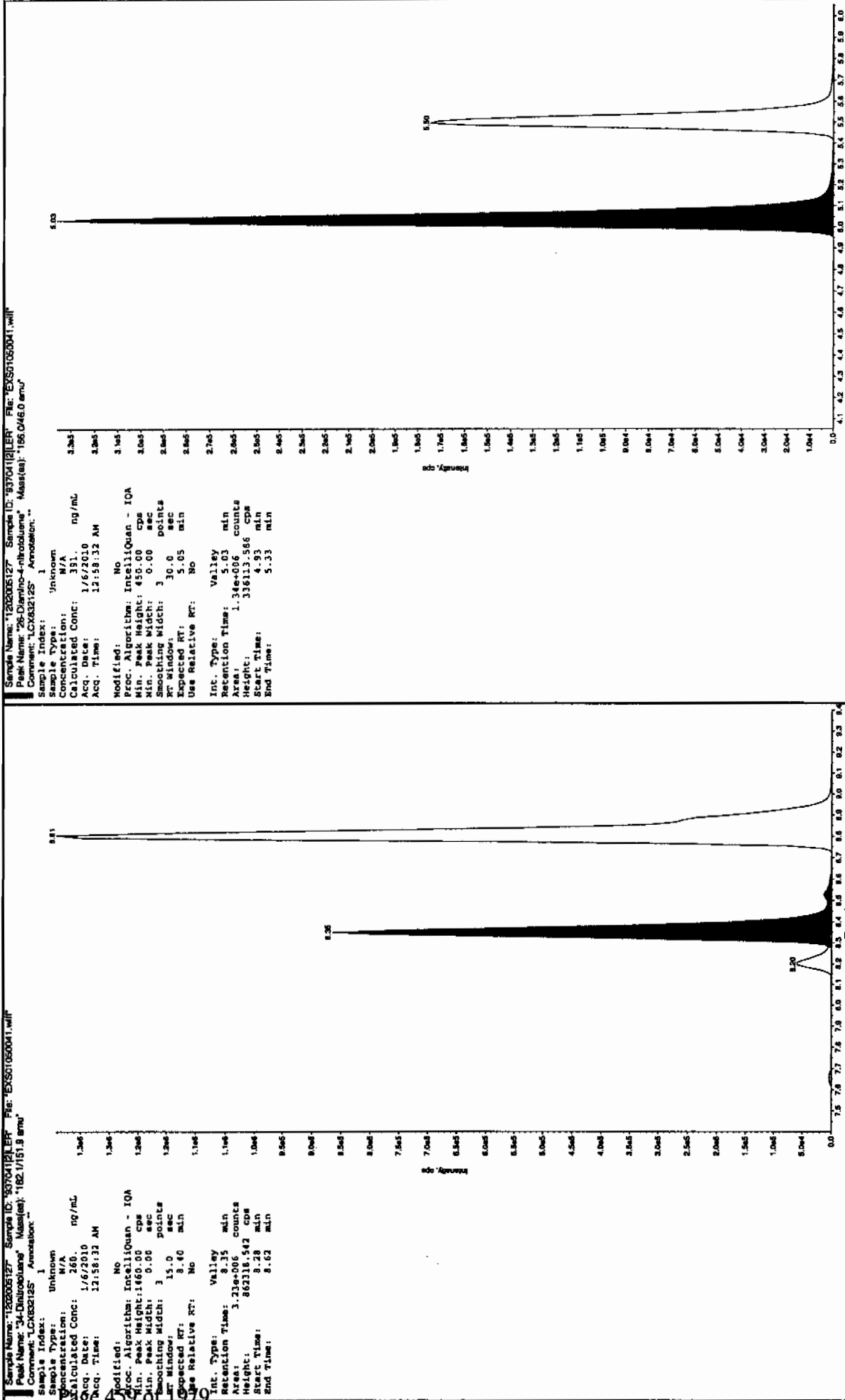


Sample Name: "1202005127" Sample ID: "93704121" File: "EXS01050041.wif"
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0465.0 amu"
 Comment: "LCX832125" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 532
 Acq. Date: 1/6/2010
 Acq. Time: 12:58:32 AM
 Modified: Yes
 In Window: 15.0 sec
 Expected RT: 8.27 min
 Use Relative RT: No
 Int. Type: Manual
 Retention Time: 8.21 min
 Area: 4.50e+006 counts
 Height: 1128020.186 cps
 Start Time: 6.13 min
 End Time: 8.31 min

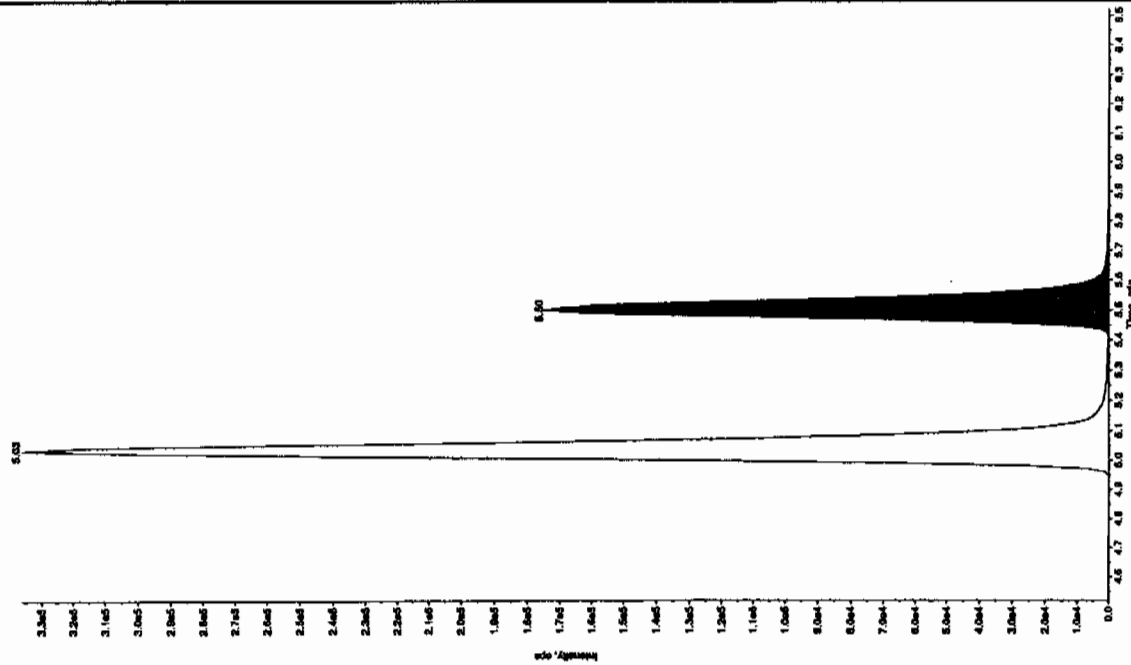
1.0e6
 8.0e5
 6.0e5
 4.0e5
 2.0e5
 0.0





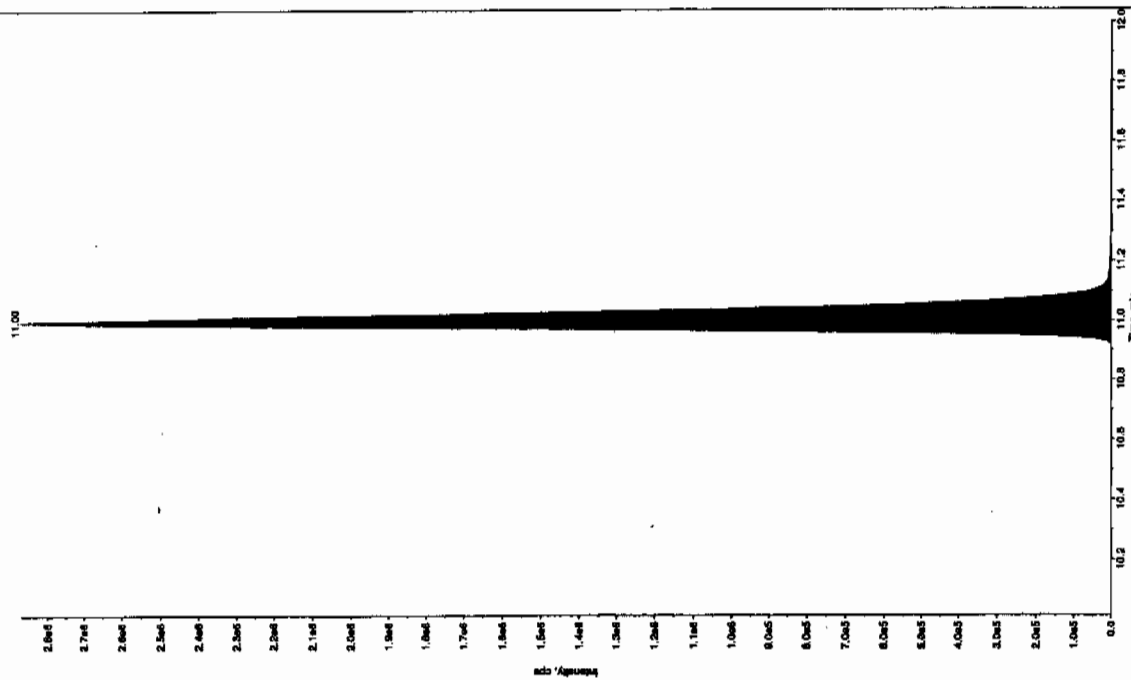
Sample Name: 1202005127 Sample ID: 93704121LRF File: EX501050041.wif
Peak Name: 24-Chloro-6-nitrobenzoate Mass(es): 166.046.0 amu
Comment: LCM832125 Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.672110 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 12:58:32 AM
Sifted: No
Proc. Algorithm: IntelliQuan - IQA
1. Peak Height: 350.00 cps
2. Peak Width: 0.00 sec
Smoother Width: 3 points
Window: 30.0 sec
Expected RT: 5.52 min
Use Relative RT: No
Int. Type: Valley
Retention Time: 5.50 min
Area: 1.67e+005 counts
Height: 17438.568 cps
Start Time: 5.41 min
End Time: 5.96 min



Sample Name: 1202005127 Sample ID: 93704121LRF File: EX501050041.wif
Peak Name: Tri(n-octyl) phosphate Mass(es): 386.1911.0 amu
Comment: LCM832125 Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.672110 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 12:58:32 AM
Sifted: No
Proc. Algorithm: IntelliQuan - IQA
1. Peak Height: 1.00e4 cps
2. Peak Width: 0.00 sec
Smoother Width: 3 points
Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No
Int. Type: Valley
Retention Time: 11.0 min
Area: 1.13e+007 counts
Height: 286533.447 cps
Start Time: 10.9 min
End Time: 11.3 min



1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7561(243517008MS)

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 1202005624

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0105104a

Date Analyzed: 07-JAN-10 21:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5470	
121-14-2	2,4-Dinitrotoluene	4650	
121-82-4	RDX	4250	
19406-51-0	4-Amino-2,6-dinitrotoluene	5570	
2691-41-0	HMX	3970	
35572-78-2	2-Amino-4,6-dinitrotoluene	5860	
479-45-8	Tetryl	3380	
606-20-2	2,6-Dinitrotoluene	4860	
78-11-5	PETN	3680	
88-72-2	o-Nitrotoluene	4550	
98-95-3	Nitrobenzene	3900	
99-08-1	m-Nitrotoluene	4660	
99-35-4	1,3,5-Trinitrobenzene	4410	
99-65-0	m-Dinitrobenzene	4580	
99-99-0	p-Nitrotoluene	4990	

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

Quantify Sample Report
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PROV010510expA2.qld, Time: Fri Jan 08 08:07:47 2010

Name: C:\MASSLYNX\NEW_EXP\PROVData\EXP0105104a

Date: 07-Jan-2010

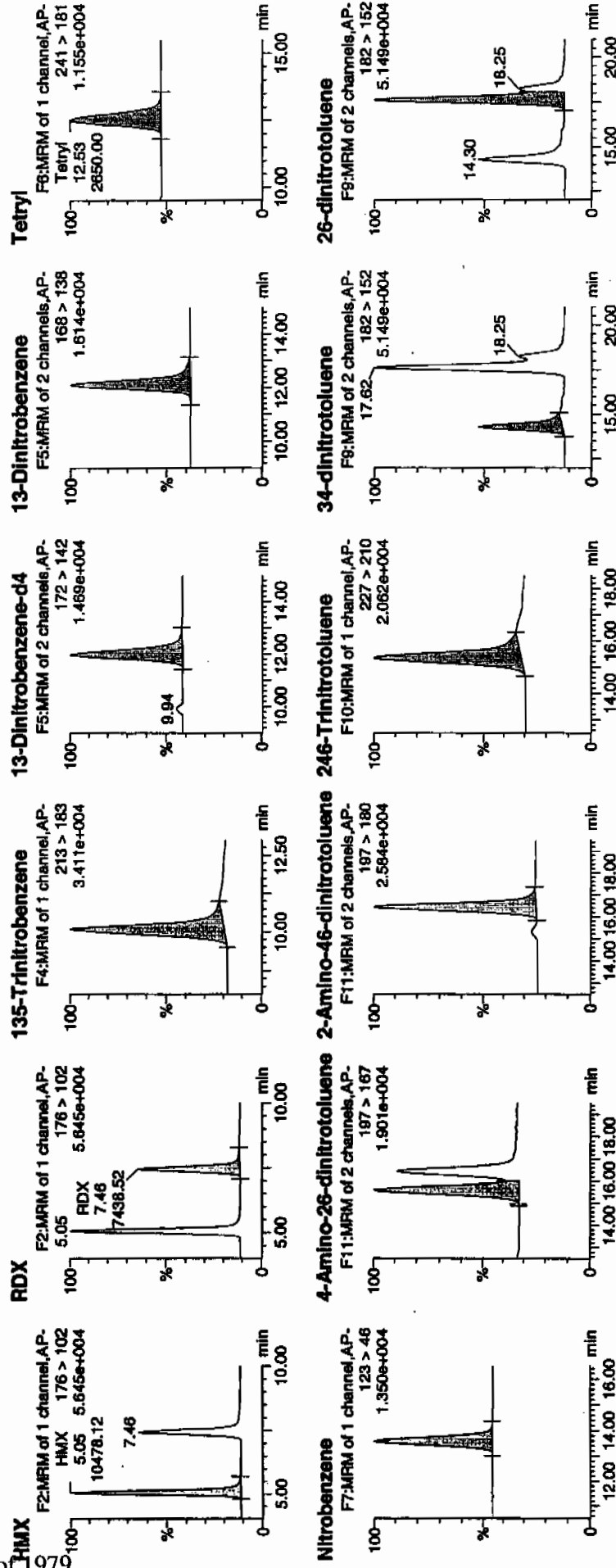
Time: 21:54:14

ID: 1202005624

CYal: 3:2,C

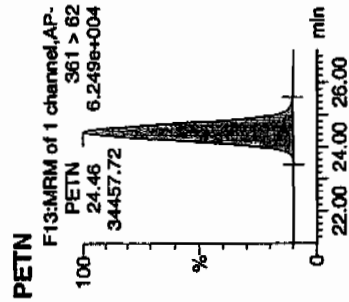
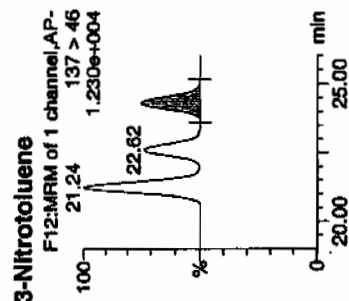
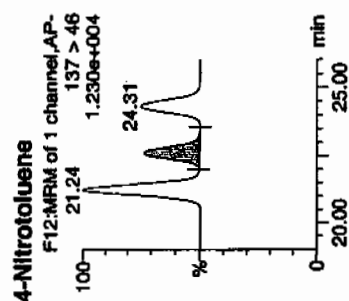
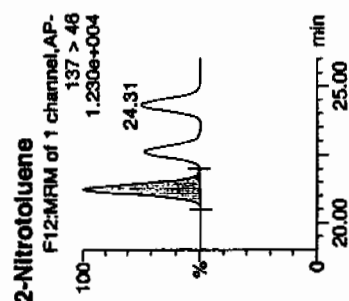
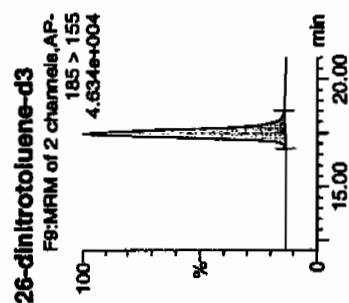
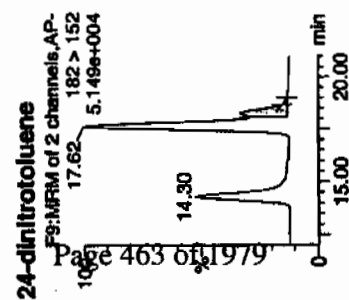
1/13/10

WAVE 937041 / 8022 / 24351700849 / 21



Amc 01/09/10

Dataset: C:\MASSLYN\New_Exp.PRO\010510expA2.qld, Time: Fri Jan 08 08:07:47 2010



ID	Name	MW	LogP	ClogP	TPSA	HBD	HBA	DPSA	PAINS	Bioassay	ADMET	Tox	Ref	
1202005624	HMX	176 > 102	5.05	10478.123	3494.357	10478.123	1499.292	db			396.8740	79.4	-20.6	643.1
1202005624	RDX	178 > 102	7.46	7438.517	3494.357	7438.517	1064.361	bb			425.1761	85.0	-15.0	384.3
1202005624	135-Trinitrobenzene	213 > 183	10.08	11088.354	3494.357	11088.354	1586.609	bb			441.2527	88.3	-11.7	545.0
1202005624	13-Dinitrobenzene-d4	172 > 142	11.97	3494.357	3494.357	3494.357	3494.357	bb			627.4905	125.5	25.5	812.7
1202005624	13-Dinitrobenzene	168 > 138	12.10	3979.712	3494.357	3979.712	569.448	bb			457.5633	91.5	-8.5	584.5
1202005624	Tenyl	241 > 181	12.53	2649.996	3494.357	2649.996	379.182	bb			337.7192	67.5	-32.5	347.7
1202005624	Nitrobenzene	123 > 46	13.58	2773.437	3494.357	2773.437	396.845	bb			389.8699	78.0	-22.0	258.4
1202005624	4-Amino-26-dinitrotoluene	197 > 167	15.59	5771.042	18137.762	5771.042	159.089	MM	08-Jan-10	07:52:18	556.6251	111.3	11.3	93.9
1202005624	2-Amino-46-dinitrotoluene	197 > 180	16.43	8409.708	18137.762	8409.708	231.829	bb			585.9447	117.2	17.2	433.5
1202005624	246-Trinitrotoluene	227 > 210	15.34	6962.940	18137.762	6962.940	191.946	bb			546.8529	109.4	9.4	612.1
1202005624	34-dinitrotoluene	182 > 152	14.30	8610.142	18137.762	8610.142	237.354	bb			264.0661	105.6	5.6	305.3
1202005624	26-dinitrotoluene	182 > 152	17.62	18960.287	18137.762	18960.287	522.674	MM	08-Jan-10	08:03:03	485.7390	97.1	-2.9	676.3
1202005624	24-dinitrotoluene	182 > 152	16.25	4457.956	18137.762	4457.956	122.892	MM	08-Jan-10	08:05:29	464.7883	93.0	-7.0	157.8
1202005624	26-dinitrotoluene-d3	185 > 155	17.47	18137.762	18137.762	18137.762	18137.762	bb			563.9317	112.8	12.8	1453.4
1202005624	2-Nitrotoluene	137 > 46	21.24	2874.488	18137.762	2874.488	79.240	bb			455.3658	91.1	-8.9	324.3
1202005624	4-Nitrotoluene	137 > 46	22.62	1439.419	18137.762	1439.419	39.680	bb			498.9055	99.8	-0.2	147.6
1202005624	3-Nitrotoluene	137 > 46	24.31	1610.883	18137.762	1610.883	44.407	bb			465.9432	93.2	-6.8	157.3
1202005624	PETN	361 > 62	24.46	34457.723	18137.762	34457.723	949.889	bb			368.1014	73.6	-28.4	1900.6

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7561(243517008MS)

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 1202005624

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050048.wiff

Date Analyzed: 06-JAN-10 02:48

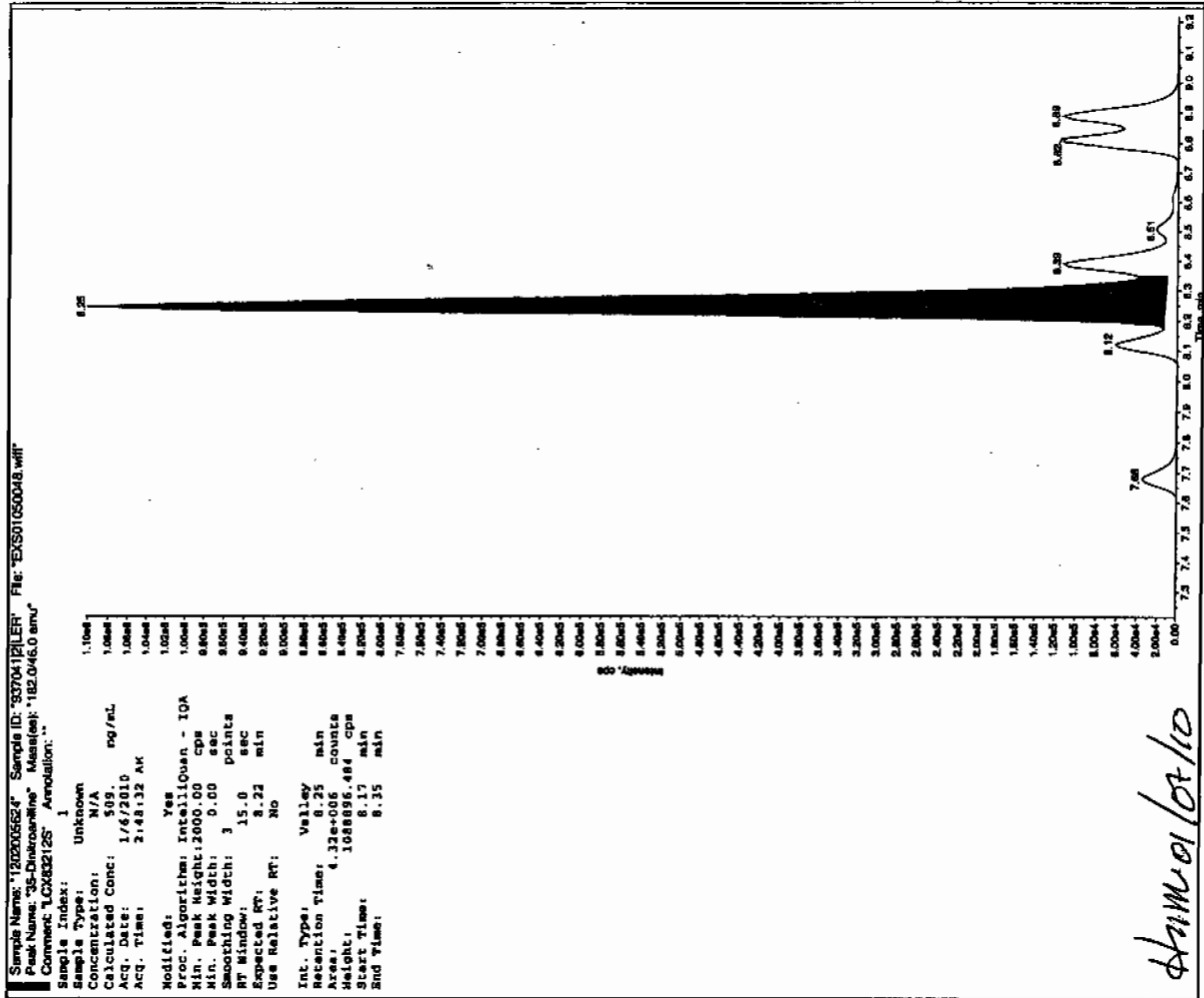
Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	9390	
59229-75-3	2,6-Diamino-4-nitrotoluene	4450	
618-87-1	3,5-Dinitroaniline	5210	
6629-29-4	2,4-Diamino-6-nitrotoluene	3820	
78-30-8	tris(o-cresyl) phosphate	5020	

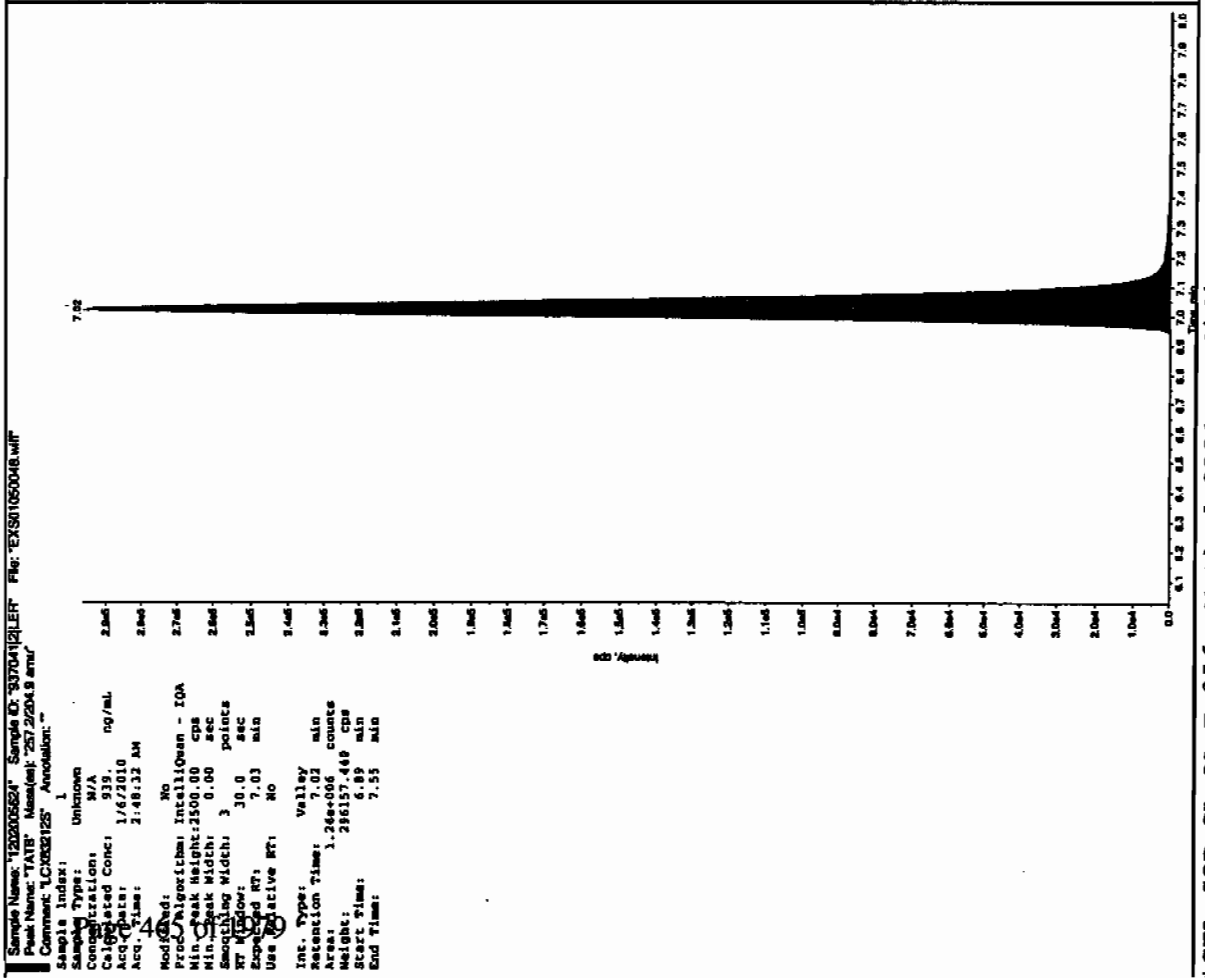
*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
------------------	---	---	---	-----------------

117110
Before



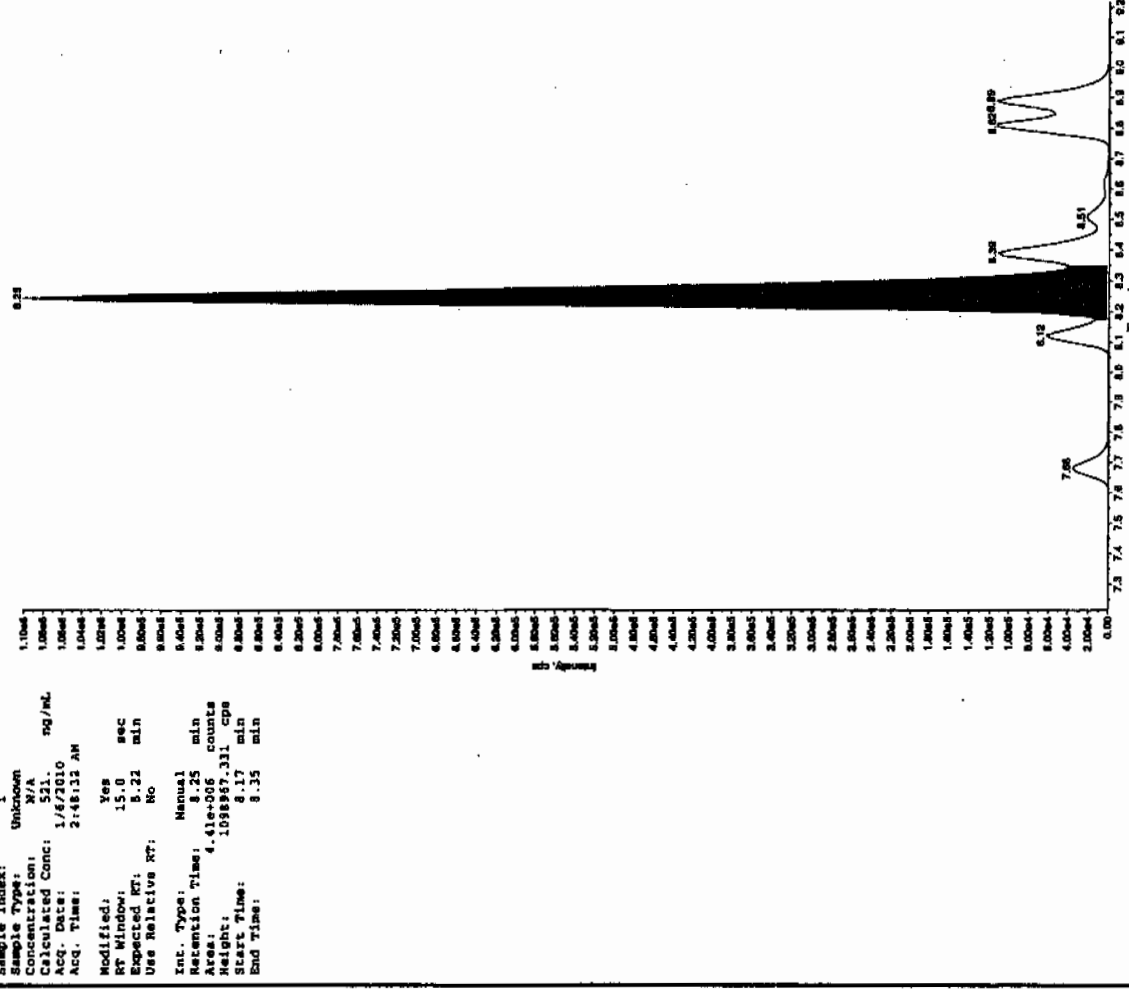
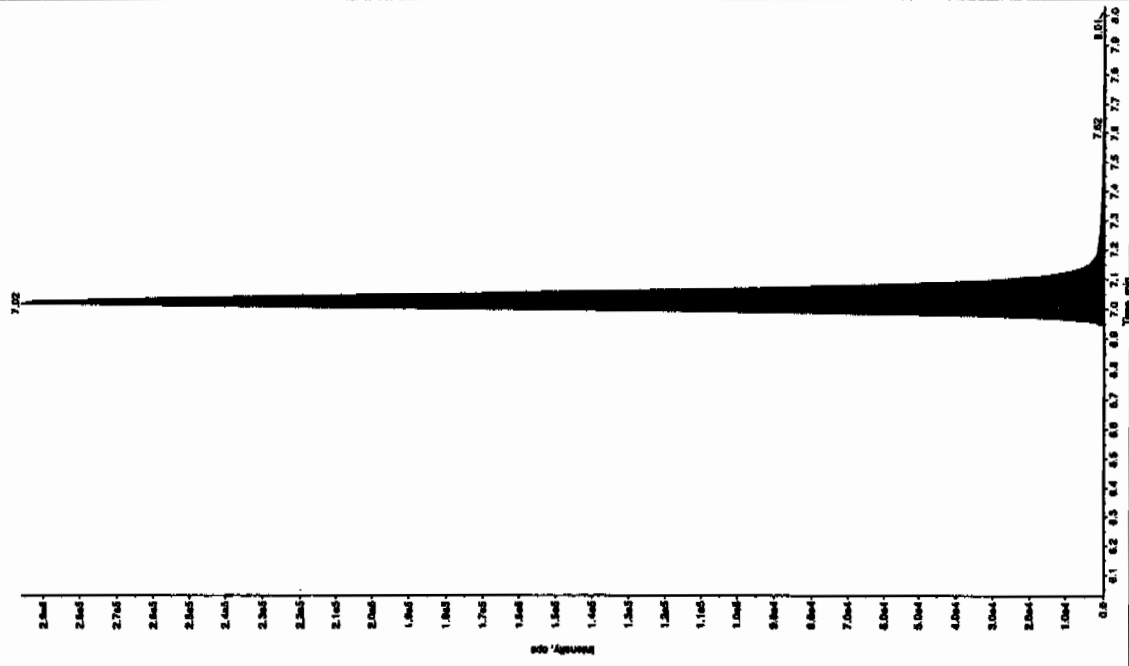
After 01/06/10



1/24/16
2/2/16
2/2/16

Sample Name: "122005824" Sample ID: "93704121L" File: "EXSD1050048.wif"
Peak Name: "122005824" Method: "122.046.0 amu"
Comment: "LCMSMS2125" Annotation: "

File Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 521. ng/mL
Acq. Date: 1/6/2010
Acq. Time: 2:48:32 AM
Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No
Int. Type: Manual
Retention Time: 8.25 min
Area: 4.41e+006 counts
Height: 1098957.331 cps
Start Time: 8.17 min
End Time: 8.35 min



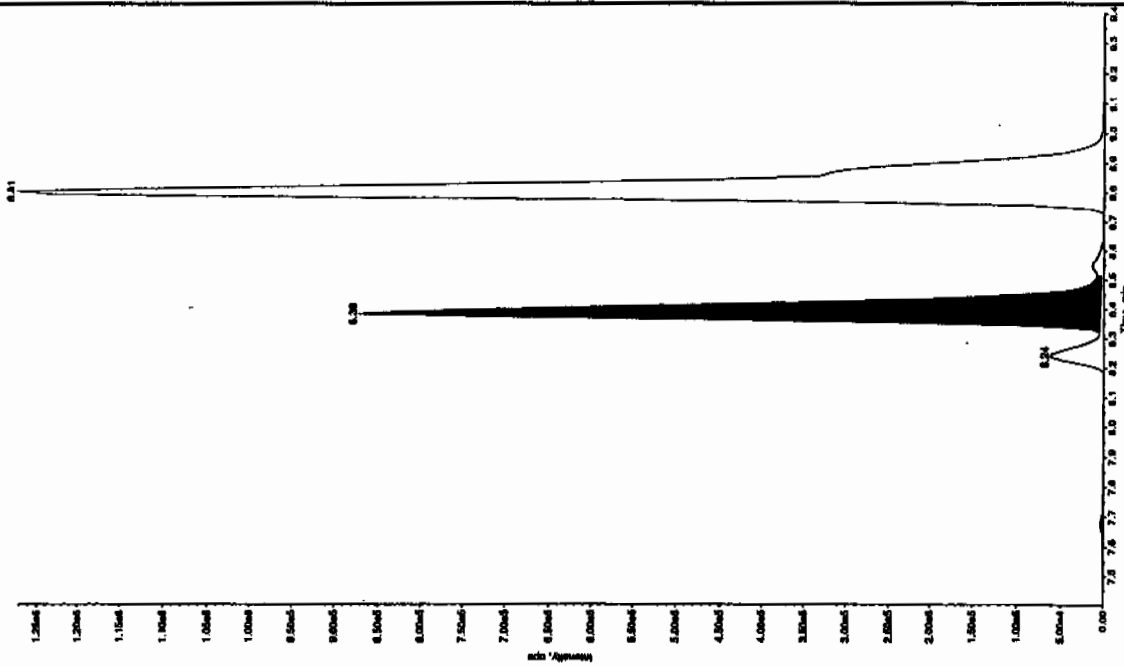
EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202050824" Sample ID: "53704121" File: "EX501050048.wif"
 Peak Name: "34-Chloro-4-nitrobenzoic acid" Mass(es): "182.1513 m/z"

Comment: "LCX03125" Acquisition: "1"
 Sample Index: 1
 Sample Type: Unknown
 Concentration: 213 ng/mL
 Calibration Date: 1/6/2010
 Acquisition Date: 2/4/2010
 Acquisition Time: 2:48:32 AM

Method: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1460.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 15.0 sec
 Expected RT: 8.40 min
 Use Relative RT: No

Int. Type: Valley
 Retention Time: 8.38 min
 Area: 3.15e+006 counts
 Height: 166941.487 cps
 Start Time: 8.32 min
 End Time: 8.52 min

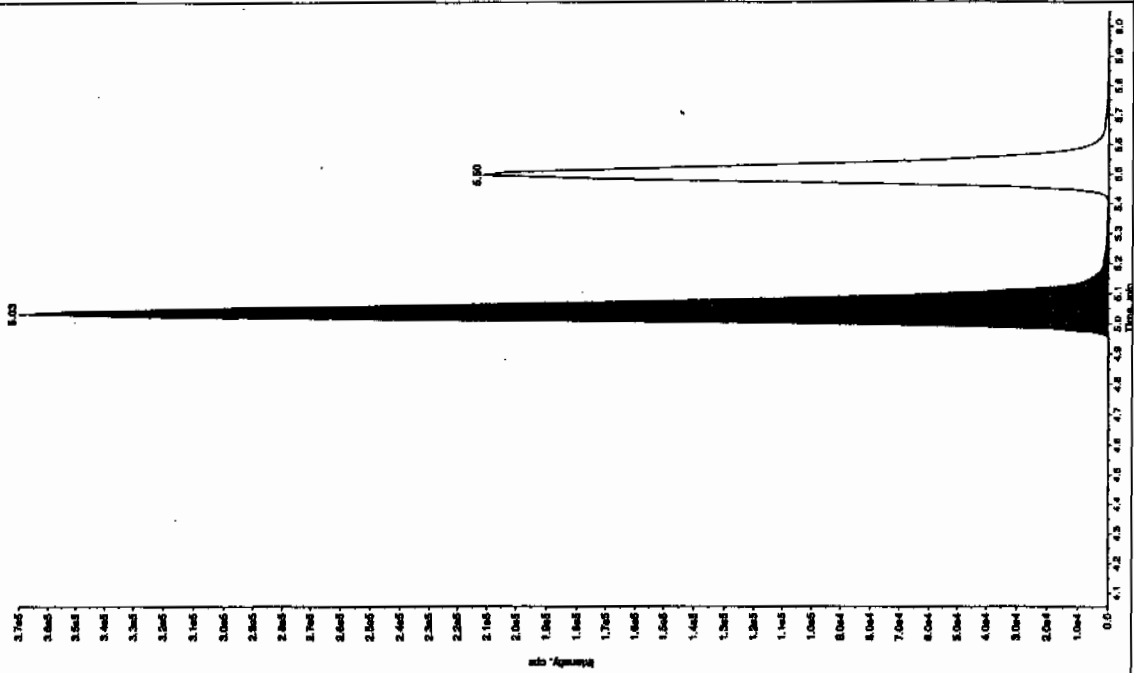


Sample Name: "1202050824" Sample ID: "53704121" File: "EX501050048.wif"
 Peak Name: "26-Chloro-4-nitrobenzoic acid" Mass(es): "186.0460 m/z"

Comment: "LCX03125" Acquisition: "1"
 Sample Index: 1
 Sample Type: Unknown
 Concentration: 414 ng/mL
 Calibration Date: 1/6/2010
 Acquisition Date: 2/4/2010
 Acquisition Time: 2:48:32 AM

Method: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 450.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 5.05 min
 Use Relative RT: No

Int. Type: Valley
 Retention Time: 5.03 min
 Area: 1.52e+006 counts
 Height: 370033.051 cps
 Start Time: 4.93 min
 End Time: 5.33 min

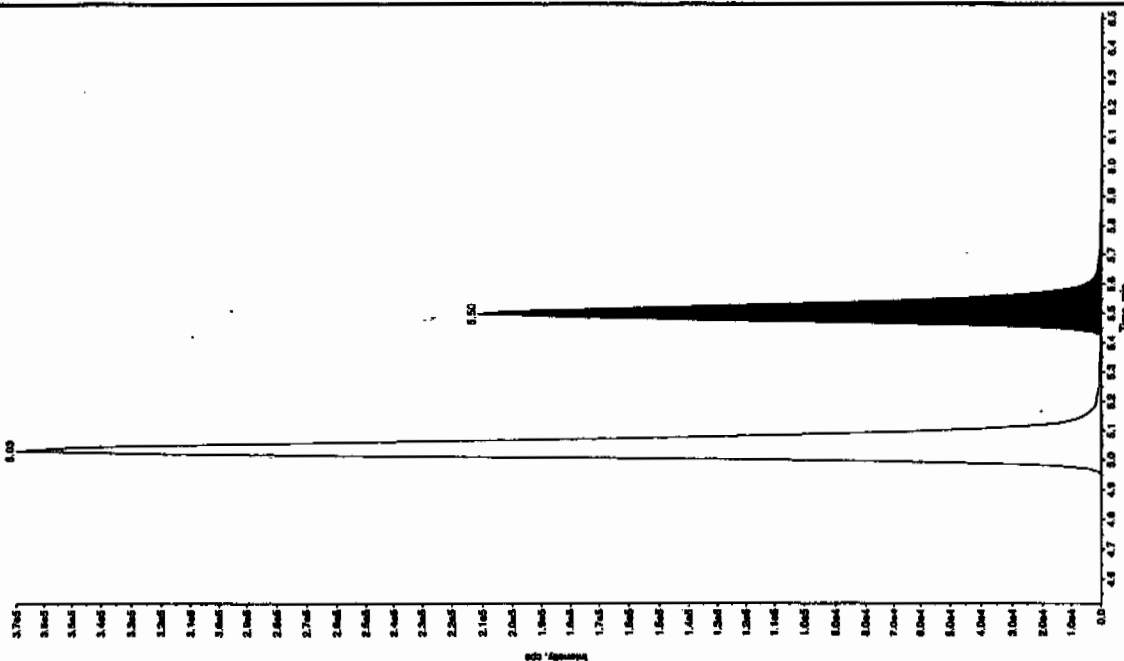


Sample Name: "120200562" Sample ID: "377041212" File: "E:\501050048.wif"
 Peak Name: "24-Chloro-6-nitrofluorene" Mass(es): "162.046.0 amu"

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 1/6/2010
 Acq. Date: 2:48:32 AM

Modified: Yes
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 350.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 5.53 min
 Use Relative RT: No

Int. Type: Valley
 Retention Time: 5.50 min
 Area: 8.58e+003 counts
 Height: 211044.575 cps
 Start Time: 5.42 min
 End Time: 5.66 min

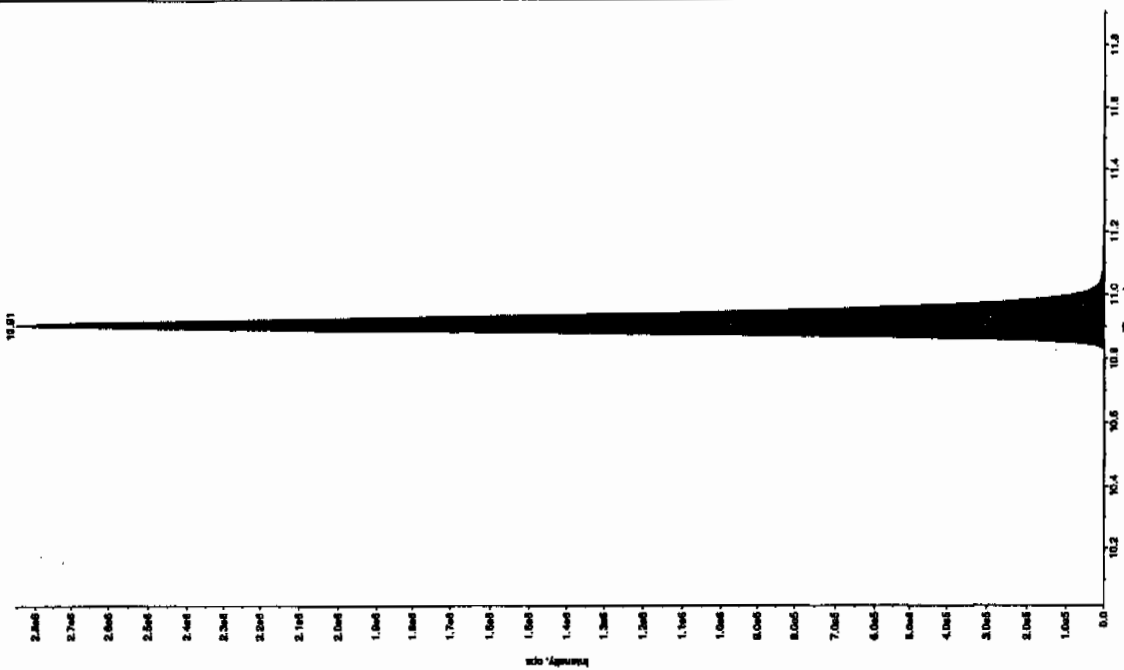


Sample Name: "120200562" Sample ID: "377041212" File: "E:\501050048.wif"
 Peak Name: "24-Chloro-6-nitrofluorene" Mass(es): "365.191.0 amu"

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 1/6/2010
 Acq. Date: 2:48:32 AM

Modified: Yes
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1.00e4 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 10.9 min
 Use Relative RT: No

Int. Type: Valley
 Retention Time: 11.13 min
 Area: 1.13e+007 counts
 Height: 285108.887 cps
 Start Time: 10.8 min
 End Time: 11.2 min



1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7561(243517008MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 1202005625

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0108013a

Date Analyzed: 08-JAN-10 23:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4730	
121-14-2	2,4-Dinitrotoluene	4880	
121-82-4	RDX	4150	
19406-51-0	4-Amino-2,6-dinitrotoluene	4450	
2691-41-0	HMX	4050	
35572-78-2	2-Amino-4,6-dinitrotoluene	4950	
479-45-8	Tetryl	3560	
606-20-2	2,6-Dinitrotoluene	4730	
78-11-5	PETN	4350	
88-72-2	o-Nitrotoluene	3930	
98-95-3	Nitrobenzene	4560	
99-08-1	m-Nitrotoluene	4060	
99-35-4	1,3,5-Trinitrobenzene	4490	
99-65-0	m-Dinitrobenzene	4820	
99-99-0	p-Nitrotoluene	4040	

*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

Dataset: C:\MASSLYNX\New_Exp\PRON010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP\PROData\EXP0108013a

Date: 08-Jan-2010

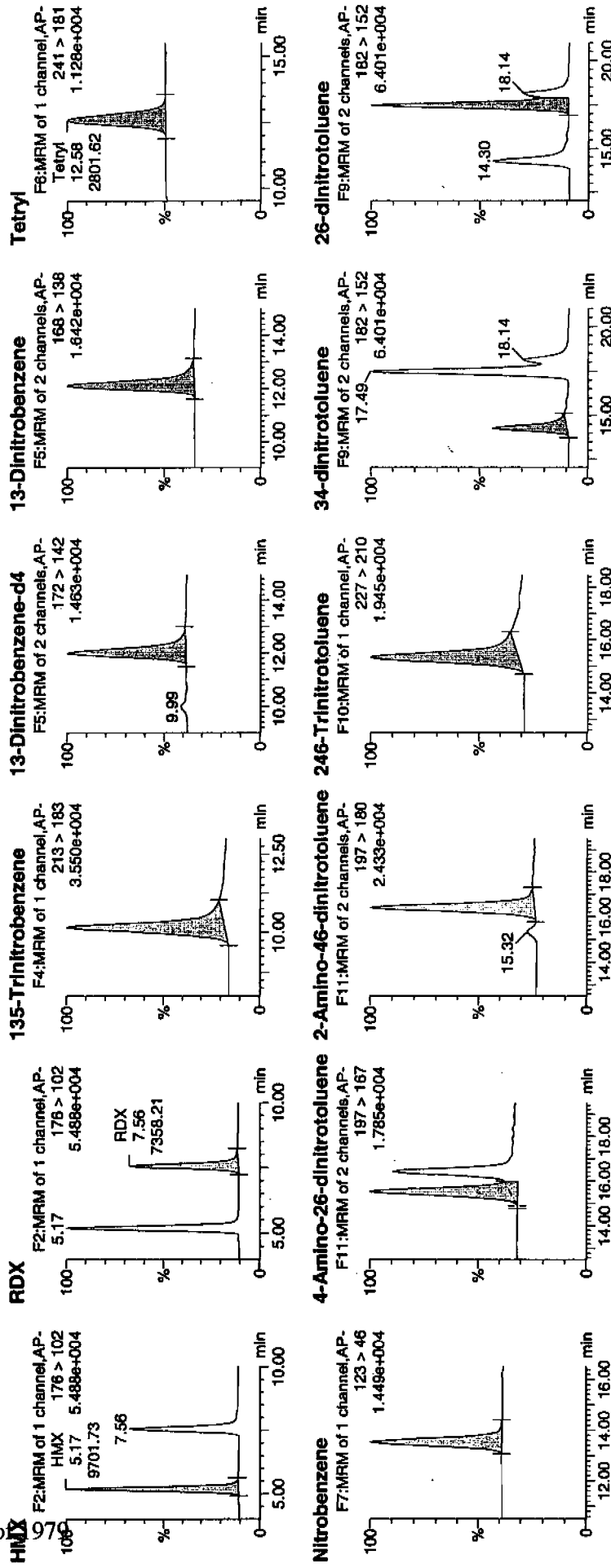
Time: 23:09:03

ID: 1202005625

View: 1:4.A

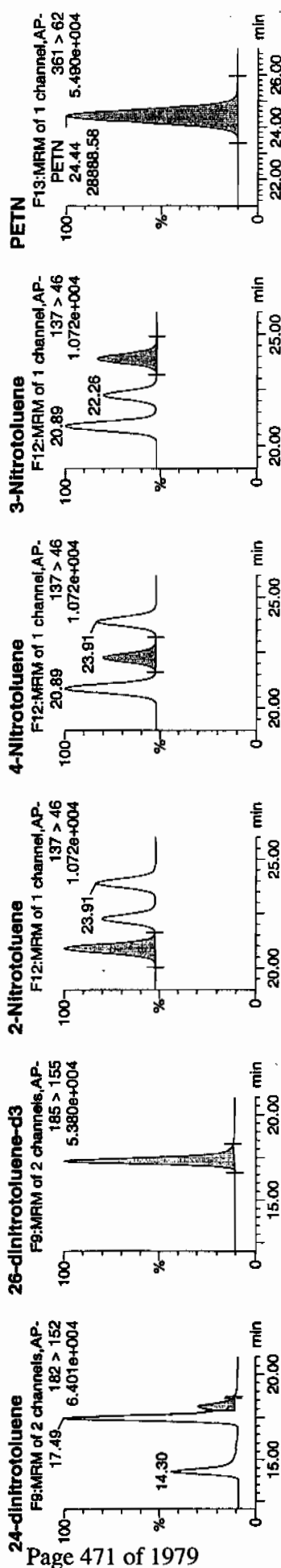
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Handwritten: *1477
1/9/10*



Handwritten: *Ann-01/09/10*

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010



ID	Name	Trace	HT	Area	Factor	Abundance	Response	Flags	Mod Date	Mod Time	Mod User	Mod Pass
1202005625	HMX	176 > 102	5.17	9701.727	3624.321	9701.727	1338.420	bb		405.3084	81.1	-18.9
1202005625	RDX	176 > 102	7.56	7358.206	3624.321	7358.206	1015.115	bb		414.6820	82.9	-17.1
1202005625	135-Trinitrobenzene	213 > 183	10.14	11246.938	3624.321	11246.938	1551.592	bb		448.8207	89.8	-10.2
1202005625	13-Dinitrobenzene-d4	172 > 142	11.97	3624.321	3624.321	3624.321	3624.321	bb		618.5842	123.7	23.7
1202005625	13-Dinitrobenzene	168 > 138	12.10	4284.856	3624.321	4284.856	591.125	bb		481.7543	96.4	-3.6
1202005625	Tetryl	241 > 181	12.58	2801.616	3624.321	2801.616	386.502	bb		356.3361	71.3	-28.7
1202005625	Nitrobenzene	123 > 46	13.54	3259.979	3624.321	3259.979	449.737	bb		455.9339	91.2	-8.8
1202005625	4-Amino-26-dinitrotoluene	197 > 167	15.53	5290.541	21071.504	5290.541	125.538	MM	09-Jan-10	11:52:10	89.0	-11.0
1202005625	2-Amino-46-dinitrotoluene	197 > 180	16.40	7688.083	21071.504	7688.083	182.428	bb		495.3881	99.1	-0.9
1202005625	246-Trinitrotoluene	227 > 210	15.34	6457.994	21071.504	6457.994	153.240	bb		473.4169	94.7	-5.3
1202005625	34-dinitrotoluene	182 > 152	14.30	9238.007	21071.504	9238.007	219.206	bb		244.3311	97.7	-2.3
1202005625	26-dinitrotoluene	182 > 152	17.49	22546.900	21071.504	22546.900	535.009	MM	09-Jan-10	11:55:13	94.5	-5.5
1202005625	24-dinitrotoluene	182 > 152	18.14	5010.514	21071.504	5010.514	118.893	MM	09-Jan-10	11:58:10	97.5	-2.5
1202005625	26-dinitrotoluene-d3	185 > 155	17.29	21071.504	21071.504	21071.504	21071.504	bb		623.9227	124.8	24.8
1202005625	2-Nitrotoluene	137 > 46	20.89	2561.915	21071.504	2561.915	60.791	bb		393.2510	78.7	-21.3
1202005625	4-Nitrotoluene	137 > 46	22.26	1436.558	21071.504	1436.558	34.088	bb		403.8359	80.8	-19.2
1202005625	3-Nitrotoluene	137 > 46	23.91	1712.883	21071.504	1712.883	40.645	bb		405.7828	81.2	-18.8
1202005625	PETN	361 > 62	24.44	28888.576	21071.504	28888.576	685.489	bb		435.1560	87.0	-13.0

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE12-10-7561(243517008MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1073

Matrix: SOIL

GEL Sample ID: 1202005625

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 24-DEC-09

Extraction Type Sonication

Extraction Batch ID: 937040

Concentrated Extract Volume (mL) 10

Date Extracted: 04-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01050049.wiff

Date Analyzed: 06-JAN-10 03:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	10600	
59229-75-3	2,6-Diamino-4-nitrotoluene	3830	
618-87-1	3,5-Dinitroaniline	5280	
6629-29-4	2,4-Diamino-6-nitrotoluene	4300	
78-30-8	tris(o-cresyl) phosphate	5050	

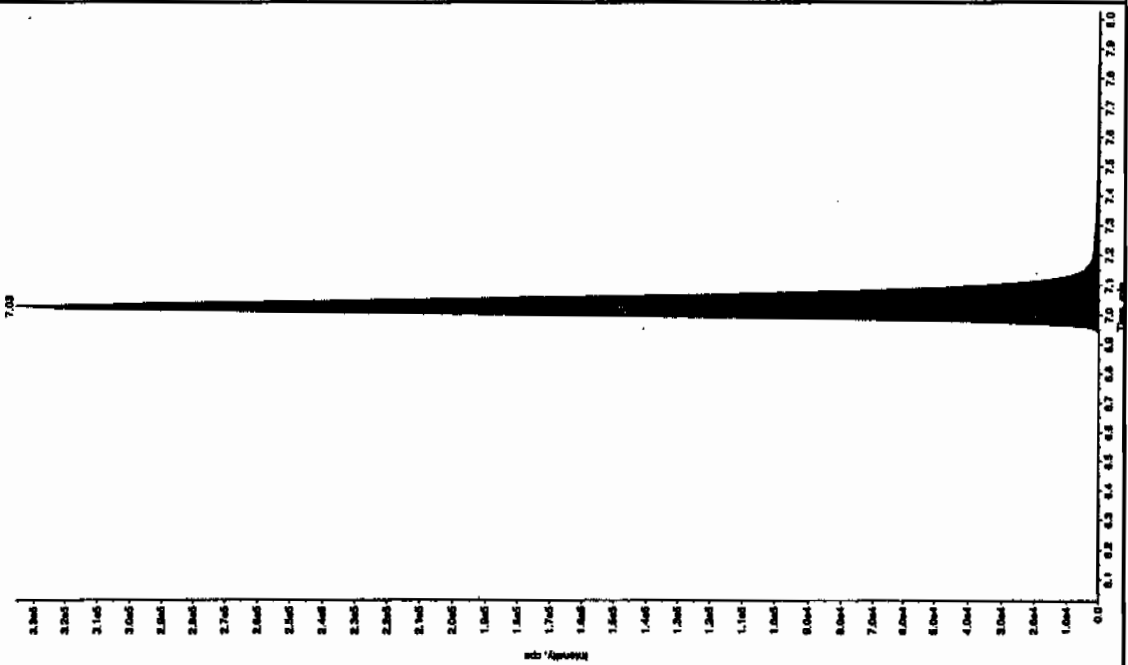
*Concentration =

Instrument Value X $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$ X Dilution Factor

1/16/10
Bayer

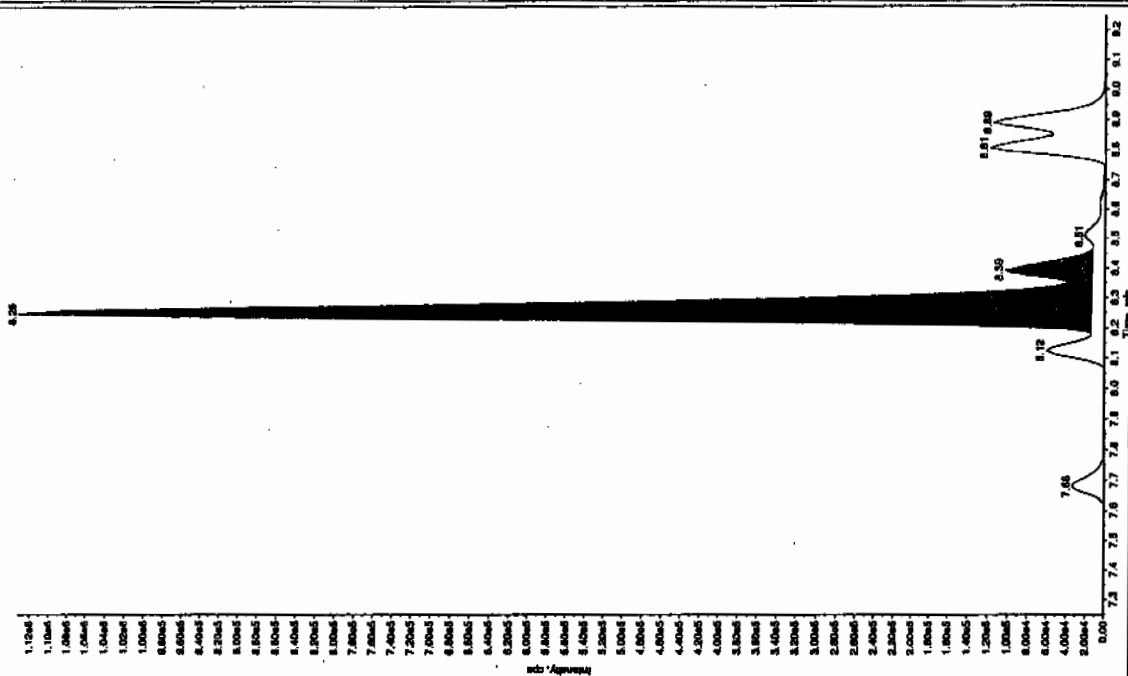
Sample Name: "120205025" Sample ID: "93704121" File: "EX001060048.wif"
Peak Name: "1A1B" Mass(es): "257.2204.9 amu"
Comment: "LCMS02125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: 554 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 3:04:15 AM
Modified: Yes
Proc. Algorithm: IntelliQuan - ION
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No
Int. Type: Valley
Retention Time: 7.03 min
Area: 1.43e+006 counts
Height: 335757.019 cps
Start Time: 6.90 min
End Time: 7.59 min



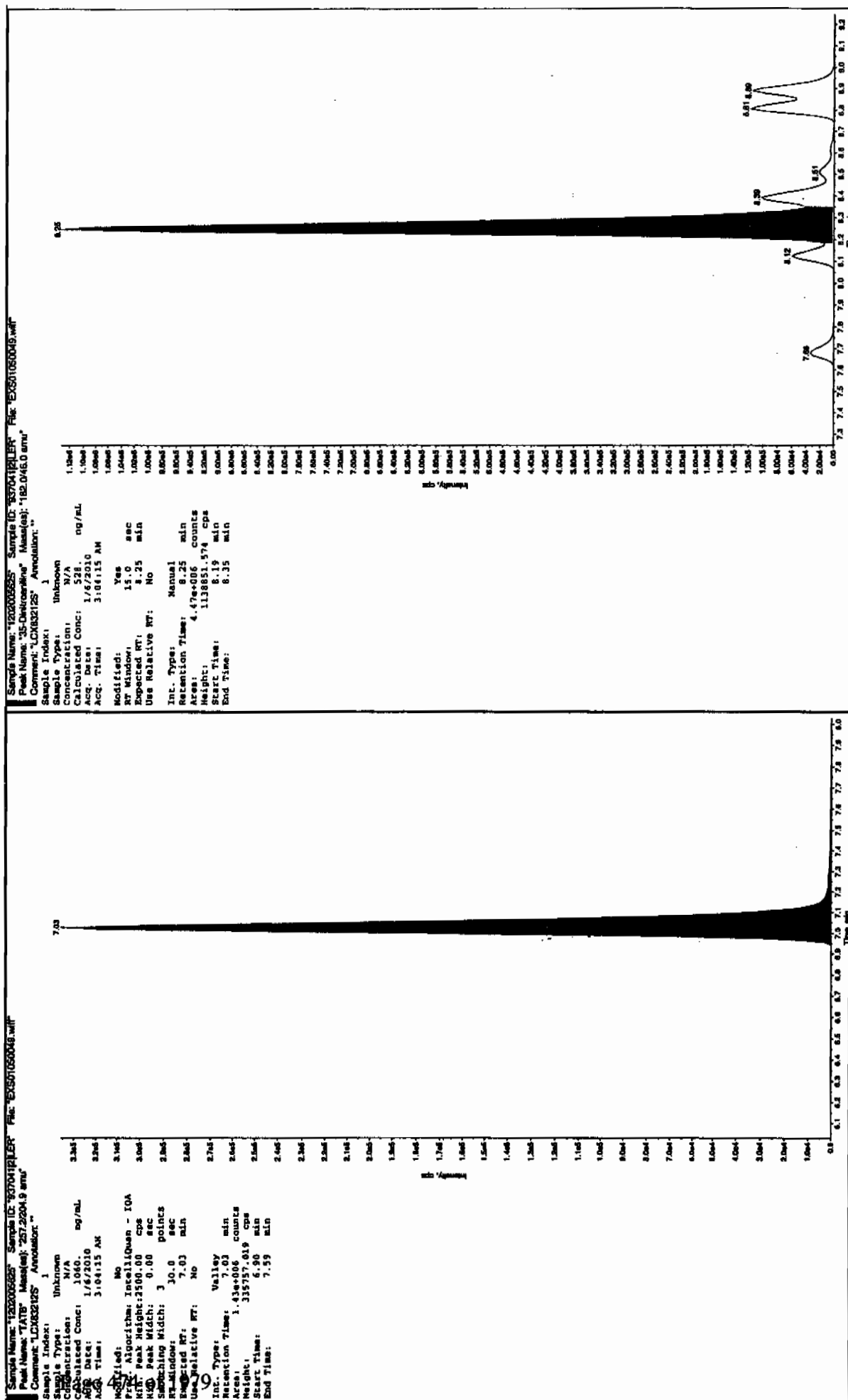
Sample Name: "120205025" Sample ID: "93704121" File: "EX001060048.wif"
Peak Name: "3S-Diethylamine" Mass(es): "102.0460.0 amu"
Comment: "LCMS02125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: 554 ng/mL
Acq. Date: 1/6/2010
Acq. Time: 3:04:15 AM
Modified: Yes
Proc. Algorithm: IntelliQuan - ION
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.25 min
Use Relative RT: No
Int. Type: Valley
Retention Time: 8.25 min
Area: 4.67e+006 counts
Height: 1110292.969 cps
Start Time: 8.17 min
End Time: 8.46 min



1/16/10
Bayer

01/16/11
2/2/11
2/2/11



Sample Name: "1203050527" Sample ID: "93704121ER" File: "EX050505049.wif"
Peak Name: "34-Diamino-6-Hydroxy" Mass(es): "106.046.0 amu"

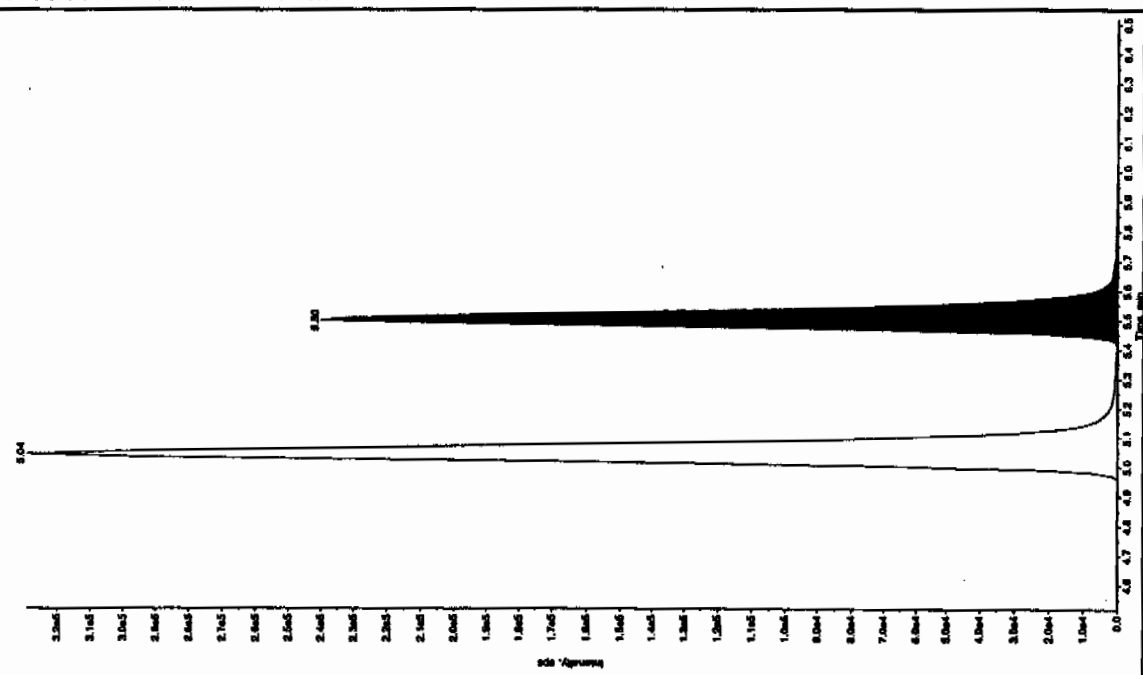
Comment: "LCX832125" Annotation: --

Sample Index: 1
Sample Type: Unknown
Concentration: 430. ng/mL
Calculated Conc: 1/6/2010
Acq. Date: 3/04/15 AM
Acq. Time: 3:04:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.52 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.52 min
Area: 9.65e+005 counts
Height: 239943.043 cps
Start Time: 5.39 min
End Time: 5.60 min



Sample Name: "1203050525" Sample ID: "93704121ER" File: "EX050505048.wif"
Peak Name: "bis(o-cresyl) phosphite" Mass(es): "368.181.0 amu"

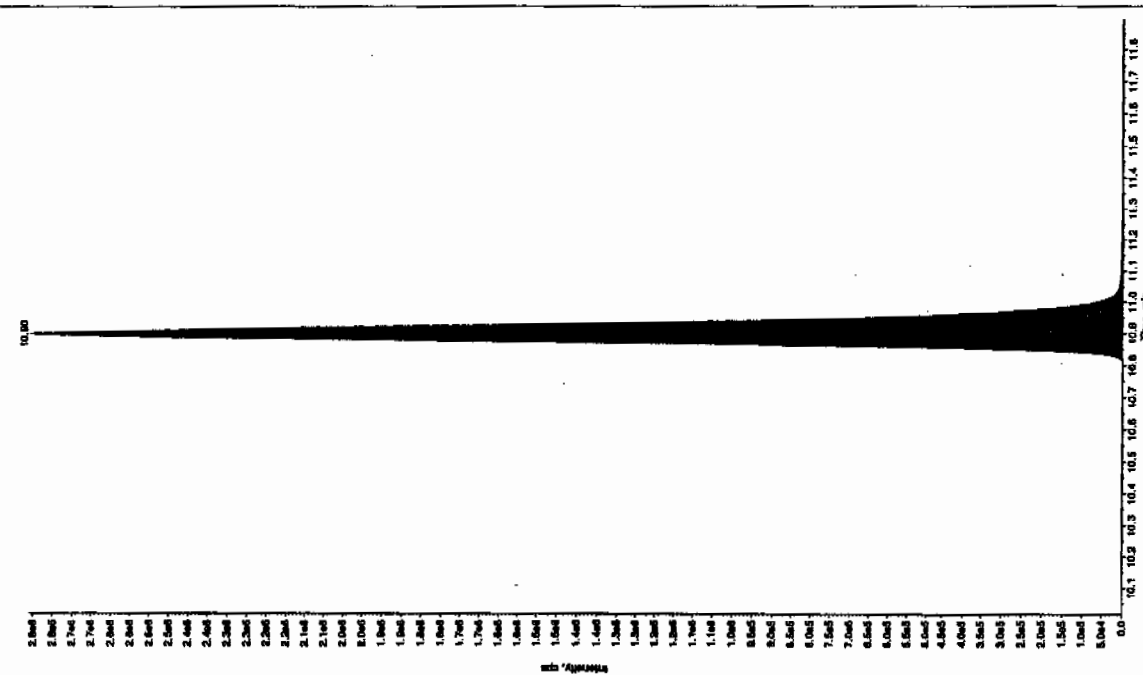
Comment: "LCX832125" Annotation: --

Sample Index: 1
Sample Type: Unknown
Concentration: 505. ng/mL
Calculated Conc: 3/6/2010
Acq. Date: 3/04/15 AM
Acq. Time: 3:04:15 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.14e+007 counts
Height: 380757.049 cps
Start Time: 10.8 min
End Time: 11.2 min



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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 937040 Verified by: _____
 Analyst: Sirena White
 Method: SW846 8330 PREP
 Lab SOP: GL-OA-E-033 REV# 17
 Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005126 MB	04-JAN-2010 14:30:57	2	10	5
1202005127 LCS	04-JAN-2010 14:30:57	2	10	5
243517003	04-JAN-2010 14:30:57	2	10	5
243517004	04-JAN-2010 14:30:57	2	10	5
243517005	04-JAN-2010 14:30:57	2	10	5
243517006	04-JAN-2010 14:30:57	2	10	5
243517007	04-JAN-2010 14:30:57	2	10	5
243517008	04-JAN-2010 14:30:57	2	10	5
1202005624 MS (243517008)	04-JAN-2010 14:30:57	2	10	5
1202005625 MSD (243517008)	04-JAN-2010 14:30:57	2	10	5
243517009	04-JAN-2010 14:30:57	2	10	5
243519001	04-JAN-2010 14:30:57	2	10	5
243519002	04-JAN-2010 14:30:57	2	10	5
243519003	04-JAN-2010 14:30:57	2	10	5
243519004	04-JAN-2010 14:30:57	2	10	5
243519005	04-JAN-2010 14:30:57	2	10	5
243519006	04-JAN-2010 14:30:57	2	10	5
243519007	04-JAN-2010 14:30:57	2	10	5
243519008	04-JAN-2010 14:30:57	2	10	5
243519009	04-JAN-2010 14:30:57	2	10	5
243519010	04-JAN-2010 14:30:57	2	10	5
243519011	04-JAN-2010 14:30:57	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202005127	8321 Explosives LCS	DX091230-03	.1	mL	Final Solvent: ACN
LCS	1202005127	8321 LANL Explosives Mix 10mg/L	UX091117-03.1	1	mL	
MS	1202005624	8321 Explosives LCS	DX091230-03	.1	mL	
MS	1202005624	8321 LANL Explosives Mix 10mg/L	UX091117-03.1	1	mL	
MSD	1202005625	8321 Explosives LCS	DX091230-03	.1	mL	
MSD	1202005625	8321 LANL Explosives Mix 10mg/L	UX091117-03.1	1	mL	
SURR	All	3,4-Dinitrotoluene (8330 Sur.) 100ppm	DX091230-02	.05	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 01/05/10

Extr. Injection Volume: 50ul

Sequence Number: 010510expA

Initial Calibration Date: 01/05/10

Method: SW846 8321A-Modified

Int. Std.: UXX091201-01.4

Mobile Phase Lot#: 1248119, 1236350

Standard-Samp Reagent Lot#: 1246693, 1233976

Reviewed BY: *Hyne*Date: *2/10/10*

SOP: GL-OA-E-056 Rev.12

Alt Check Std. ID: WXX100105-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0105001a	XIBLK01	MAP	1/5/10 18:57			1		USE	B
EXP0105002a	XIBLK01	MAP	1/5/10 19:26			1		USE	B
EXP0105003a	WXXICAL-01	MAP	1/5/10 19:56			1		USE	I
EXP0105004a	WXXICAL-02	MAP	1/5/10 20:25			1		USE	I
EXP0105005a	WXXICAL-03	MAP	1/5/10 20:55			1		USE	I
EXP0105006a	WXXICAL-04	MAP	1/5/10 21:24			1		USE	I
EXP0105007a	WXXICAL-05	MAP	1/5/10 21:54			1		USE	I
EXP0105008a	WXXICAL-06	MAP	1/5/10 22:23			1		USE	I
EXP0105009a	XIBLK02	MAP	1/5/10 22:53			1		USE	B
EXP0105010a	WXXICV	MAP	1/5/10 23:22			1		USE	C
EXP0105011a	XIBLK03	MAP	1/5/10 23:52			1		USE	B
EXP0105012a	WXXCRI	MAP	1/6/10 0:21			1		USE	C
EXP0105013a	1201993746	MAP	1/6/10 0:51	932033	Various	2	LANL	USE	S
EXP0105014a	1201993747	MAP	1/6/10 1:20	932033	Various	2	LANL	USE	S
EXP0105015a	242652005	MAP	1/6/10 1:50	932033	10-850	2	LANL	USE	S
EXP0105016a	242666005	MAP	1/6/10 2:19	932033	10-868	2	LANL	USE	S
EXP0105017a	1201993748	MAP	1/6/10 2:49	932033	10-868	2	LANL	USE	S
EXP0105018a	1201993749	MAP	1/6/10 3:18	932033	10-868	2	LANL	USE	S
EXP0105019a	242761001	MAP	1/6/10 3:47	932033	10-875	2	LANL	USE	S
EXP0105020a	WXXCCV	MAP	1/6/10 4:17			1		USE	C
EXP0105021a	XIBLK04	MAP	1/6/10 4:46			1		USE	B
EXP0105022a	WXXCRI	MAP	1/6/10 5:16			1		USE	C
EXP0105023a	1201994721	MAP	1/6/10 5:45	932553	Various	2	LANL	USE	S
EXP0105024a	1201994722	MAP	1/6/10 6:15	932553	Various	2	LANL	USE	S
EXP0105025a	242752009	MAP	1/6/10 6:44	932553	10-880	2	LANL	USE	S
EXP0105026a	242752016	MAP	1/6/10 7:14	932553	10-880	2	LANL	USE	S
EXP0105027a	242752020	MAP	1/6/10 7:43	932553	10-880	2	LANL	USE	S
EXP0105028a	242788002	MAP	1/6/10 8:13	932553	10-894	2	LANL	USE	S
EXP0105029a	242788006	MAP	1/6/10 8:42	932553	10-894	2	LANL	USE	S

EXP0105030a	1201994723	MAP	1/6/10 9:12	932553	10-894	2	LANL	USE	S
EXP0105031a	1201994724	MAP	1/6/10 9:42	932553	10-894	2	LANL	USE	S
EXP0105032a	Kaolin LCS	MAP	1/6/10 10:11	SCREEN	NA	2	GEL	USE	S
EXP0105033a	WXXCCV	MAP	1/6/10 10:41			1		USE	C
EXP0105034a	XIBLK05	MAP	1/6/10 11:10			1		USE	B
EXP0105035a	WXXCRI	MAP	1/6/10 11:40			1		USE	C
EXP0105036a	1202003502	MAP	1/6/10 12:09	936357	Various	2	LANL	USE	S
EXP0105037a	1202003503	MAP	1/6/10 12:39	936357	Various	2	LANL	DUSE-RA	S
EXP0105038a	243393002	MAP	1/6/10 13:08	936357	10-1005	2	LANL	USE	S
EXP0105039a	243399001	MAP	1/6/10 13:38	936357	10-1009-1	2	LANL	USE	S
EXP0105040a	243399002	MAP	1/6/10 14:07	936357	10-1009-1	2	LANL	USE	S
EXP0105041a	243399003	MAP	1/6/10 14:37	936357	10-1009-1	2	LANL	USE	S
EXP0105042a	243399004	MAP	1/6/10 15:06	936357	10-1009-1	2	LANL	USE	S
EXP0105043a	243399005	MAP	1/6/10 15:36	936357	10-1009-1	2	LANL	USE	S
EXP0105044a	243406002	MAP	1/6/10 16:05	936357	10-1011	2	LANL	USE	S
EXP0105045a	WXXCCV	MAP	1/6/10 16:34			1		USE	C
EXP0105046a	XIBLK06	MAP	1/6/10 17:04			1		USE	B
EXP0105047a	WXXCRI	MAP	1/6/10 17:34			1		USE	C
EXP0105048a	1202003504	MAP	1/6/10 18:03	936357	10-1011	2	LANL	USE	S
EXP0105049a	1202003505	MAP	1/6/10 18:33	936357	10-1011	2	LANL	USE	S
EXP0105050a	243406003	MAP	1/6/10 19:02	936357	10-1011	2	LANL	USE	S
EXP0105051a	243406004	MAP	1/6/10 19:31	936357	10-1011	2	LANL	USE	S
EXP0105052a	243406005	MAP	1/6/10 20:01	936357	10-1011	2	LANL	DUSE-RA	S
EXP0105053a	243406006	MAP	1/6/10 20:30	936357	10-1011	2	LANL	DUSE-RA	S
EXP0105054a	243406007	MAP	1/6/10 21:00	936357	10-1011	2	LANL	DUSE-RA	S
EXP0105055a	243406008	MAP	1/6/10 21:29	936357	10-1011	2	LANL	USE	S
EXP0105056a	243406009	MAP	1/6/10 21:59	936357	10-1011	2	LANL	USE	S
EXP0105057a	243406010	MAP	1/6/10 22:28	936357	10-1011	2	LANL	DUSE-RA	S
EXP0105058a	WXXCCV	MAP	1/6/10 22:58			1		USE	C
EXP0105059a	XIBLK07	MAP	1/6/10 23:27			1		USE	B
EXP0105060a	WXXCRI	MAP	1/6/10 23:57			1		USE	C
EXP0105061a	1202005136	MAP	1/7/10 0:26	937046	Various	2	LANL	USE	S
EXP0105062a	1202005137	MAP	1/7/10 0:56	937046	Various	2	LANL	USE	S
EXP0105063a	243535001	MAP	1/7/10 1:25	937046	10-1078	2	LANL	USE	S
EXP0105064a	243535002	MAP	1/7/10 1:55	937046	10-1078	2	LANL	USE	S
EXP0105065a	243535003	MAP	1/7/10 2:24	937046	10-1078	2	LANL	USE	S
EXP0105066a	243535004	MAP	1/7/10 2:54	937046	10-1078	2	LANL	USE	S

EXP0105067a	243535005	MAP	17/10 3:23	937046	10-1078	2	LANL	USE	S
EXP0105068a	243535006	MAP	17/10 3:53	937046	10-1078	2	LANL	USE	S
EXP0105069a	243535007	MAP	17/10 4:22	937046	10-1078	2	LANL	USE	S
EXP0105070a	243535008	MAP	17/10 4:52	937046	10-1078	2	LANL	USE	S
EXP0105071a	WXXCCV	MAP	17/10 5:21			1		USE	C
EXP0105072a	XIBLK08	MAP	17/10 5:51			1		USE	B
EXP0105073a	WXXCRI	MAP	17/10 6:21			1		USE	C
EXP0105074a	243535009	MAP	17/10 6:50	937046	10-1078	2	LANL	USE	S
EXP0105075a	243535010	MAP	17/10 7:20	937046	10-1078	2	LANL	USE	S
EXP0105076a	243540001	MAP	17/10 7:49	937046	10-1077	2	LANL	USE	S
EXP0105077a	1202005138	MAP	17/10 8:19	937046	10-1077	2	LANL	USE-RA	S
EXP0105078a	1202005139	MAP	17/10 8:49	937046	10-1077	2	LANL	USE	S
EXP0105079a	243540002	MAP	17/10 9:18	937046	10-1077	2	LANL	USE	S
EXP0105080a	243540003	MAP	17/10 9:48	937046	10-1077	2	LANL	USE	S
EXP0105081a	243546001	MAP	17/10 10:17	937046	10-1083	2	LANL	USE	S
EXP0105082a	243546002	MAP	17/10 10:47	937046	10-1083	2	LANL	USE	S
EXP0105083a	243546003	MAP	17/10 11:16	937046	10-1083	2	LANL	USE	S
EXP0105084a	WXXCCV	MAP	17/10 11:46			1		USE	C
EXP0105085a	XIBLK09	MAP	17/10 12:15			1		USE	B
EXP0105086a	WXXCRI	MAP	17/10 12:45			1		USE	C
EXP0105087a	1202003503	MAP	17/10 13:32	936357	Various	2	LANL	USE	S
EXP0105088a	243406005	MAP	17/10 14:02	936357	10-1011	2	LANL	USE	S
EXP0105089a	243406006	MAP	17/10 14:31	936357	10-1011	2	LANL	USE	S
EXP0105090a	243406007	MAP	17/10 15:01	936357	10-1011	2	LANL	USE	S
EXP0105091a	243406010	MAP	17/10 15:30	936357	10-1011	2	LANL	USE	S
EXP0105092a	1202005138	MAP	17/10 16:00	937046	10-1077	2	LANL	USE	S
EXP0105093a	WXXCCV	MAP	17/10 16:29			1		USE	C
EXP0105094a	XIBLK10	MAP	17/10 16:59			1		USE	B
EXP0105095a	WXXCRI	MAP	17/10 17:28			1		USE	C
EXP0105096a	1202005126	MAP	17/10 17:58	937041	Various	2	LANL	USE	S
EXP0105097a	1202005127	MAP	17/10 18:27	937041	Various	2	LANL	USE	S
EXP0105098a	243517003	MAP	17/10 18:57	937041	10-1073	2	LANL	USE	S
EXP0105099a	243517004	MAP	17/10 19:26	937041	10-1073	2	LANL	USE	S
EXP0105100a	243517005	MAP	17/10 19:56	937041	10-1073	2	LANL	USE	S
EXP0105101a	243517006	MAP	17/10 20:25	937041	10-1073	2	LANL	USE	S
EXP0105102a	243517007	MAP	17/10 20:54	937041	10-1073	2	LANL	USE	S
EXP0105103a	243517008	MAP	17/10 21:24	937041	10-1073	2	LANL	USE	S

EXP0105104a	1202005624	MAP	1/7/10 21:54	937041	10-1073	2	LANL	USE	S
EXP0105105a	1202005625	MAP	1/7/10 22:23	937041	10-1073	2	LANL	DUSE-RA	S
EXP0105106a	WXXCCV	MAP	1/7/10 22:53			1		USE	C
EXP0105107a	XIBLK11	MAP	1/7/10 23:22			1		USE	B
EXP0105108a	WXXCRI	MAP	1/7/10 23:52			1		USE	C
EXP0105109a	243517009	MAP	1/8/10 0:21	937041	10-1073	2	LANL	USE	S
EXP0105110a	243519001	MAP	1/8/10 0:51	937041	10-1074	2	LANL	USE	S
EXP0105111a	243519002	MAP	1/8/10 1:20	937041	10-1074	2	LANL	USE	S
EXP0105112a	243519003	MAP	1/8/10 1:50	937041	10-1074	2	LANL	USE	S
EXP0105113a	243519004	MAP	1/8/10 2:19	937041	10-1074	2	LANL	USE	S
EXP0105114a	243519005	MAP	1/8/10 2:49	937041	10-1074	2	LANL	DUSE-RA	S
EXP0105115a	243519006	MAP	1/8/10 3:18	937041	10-1074	2	LANL	USE	S
EXP0105116a	243519007	MAP	1/8/10 3:48	937041	10-1074	2	LANL	DUSE-RA	S
EXP0105117a	243519008	MAP	1/8/10 4:17	937041	10-1074	2	LANL	USE	S
EXP0105118a	243519009	MAP	1/8/10 4:47	937041	10-1074	2	LANL	USE	S
EXP0105119a	WXXCCV	MAP	1/8/10 5:16			1		USE	C
EXP0105120a	XIBLK12	MAP	1/8/10 5:46			1		USE	B
EXP0105121a	WXXCRI	MAP	1/8/10 6:15			1		USE	C
EXP0105122a	243519010	MAP	1/8/10 6:45	937041	10-1074	2	LANL	DUSE-RA	S
EXP0105123a	243519011	MAP	1/8/10 7:14	937041	10-1074	2	LANL	DUSE-RA	S
EXP0105124a	XIBLK13	MAP	1/8/10 7:44			1		DUSE	B
EXP0105125a	1201998993	MAP	1/8/10 8:13	934323	Various	2	LANL	DUSE-RA	S
EXP0105126a	1201998994	MAP	1/8/10 8:43	934323	Various	2	LANL	DUSE-RA	S
EXP0105127a	243012005	MAP	1/8/10 9:12	934323	10-937	2	LANL	DUSE-RA	S
EXP0105128a	243016003	MAP	1/8/10 9:42	934323	10-932	2	LANL	DUSE-RA	S
EXP0105129a	1201998995	MAP	1/8/10 10:11	934323	10-932	2	LANL	DUSE-RA	S
EXP0105130a	1201998996	MAP	1/8/10 10:41	934323	10-932	2	LANL	DUSE-RA	S
EXP0105131a	243016007	MAP	1/8/10 11:10	934323	10-932	2	LANL	DUSE-RA	S
EXP0105132a	WXXCCV	MAP	1/8/10 11:40			1		DUSE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 01/08/10
 Extr. Injection Volume: 50uL
 Sequence Number: 010810expA
 Initial Calibration Date: 01/08/10

Method: SW846 8321A-Modified
 Int. Std.: UXX091201-01.4
 Mobile Phase Lot#: 1250684, 1236350
 Standard-Samp Reagent Lot#: 1246693, 1246195

Reviewed BY: *Amc*
 Date: *01/09/10*
 SOP: GL-OA-E-056 Rev.12
 Alt Check Std. ID: WXX100108-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0108001a	XIBLK01	MAP	1/8/10 17:15			1		USE	B
EXP0108002a	XIBLK01	MAP	1/8/10 17:44			1		USE	B
EXP0108003a	WXXICAL-01	MAP	1/8/10 18:14			1		USE	I
EXP0108004a	WXXICAL-02	MAP	1/8/10 18:43			1		USE	I
EXP0108005a	WXXICAL-03	MAP	1/8/10 19:13			1		USE	I
EXP0108006a	WXXICAL-04	MAP	1/8/10 19:42			1		USE	I
EXP0108007a	WXXICAL-05	MAP	1/8/10 20:12			1		USE	I
EXP0108008a	WXXICAL-06	MAP	1/8/10 20:41			1		USE	I
EXP0108009a	XIBLK02	MAP	1/8/10 21:11			1		USE	B
EXP0108010a	WXXICV	MAP	1/8/10 21:40			1		USE	C
EXP0108011a	XIBLK03	MAP	1/8/10 22:10			1		USE	B
EXP0108012a	WXXCRI	MAP	1/8/10 22:39			1		USE	C
EXP0108013a	1202005625	MAP	1/8/10 23:09	937041	10-1073	2	LANL	USE	S
EXP0108014a	243519005	MAP	1/8/10 23:38	937041	10-1074	2	LANL	USE	S
EXP0108015a	243519007	MAP	1/9/10 0:08	937041	10-1074	2	LANL	USE	S
EXP0108016a	243519010	MAP	1/9/10 0:37	937041	10-1074	2	LANL	USE	S
EXP0108017a	243519011	MAP	1/9/10 1:07	937041	10-1074	2	LANL	USE	S
EXP0108018a	WXXCCV	MAP	1/9/10 1:36			1		USE	C
EXP0108019a	XIBLK04	MAP	1/9/10 2:05			1		USE	B
EXP0108020a	WXXCRI	MAP	1/9/10 2:35			1		USE	C
EXP0108021a	1201998993	MAP	1/9/10 3:04	934323	Various	2	LANL	USE	S
EXP0108022a	1201998994	MAP	1/9/10 3:34	934323	Various	2	LANL	USE	S
EXP0108023a	243012005	MAP	1/9/10 4:03	934323	10-937	2	LANL	USE	S
EXP0108024a	243016003	MAP	1/9/10 4:33	934323	10-932	2	LANL	USE	S
EXP0108025a	1201998995	MAP	1/9/10 5:02	934323	10-932	2	LANL	USE	S
EXP0108026a	1201998996	MAP	1/9/10 5:32	934323	10-932	2	LANL	USE	S
EXP0108027a	243016007	MAP	1/9/10 6:01	934323	10-932	2	LANL	USE	S
EXP0108028a	WXXCCV	MAP	1/9/10 6:31			1		USE	C
EXP0108029a	XIBLK05	MAP	1/9/10 7:00			1		USE	B
EXP0108030a	WXXCRI	MAP	1/9/10 7:30			1		USE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 01/05/10

Extr. Injection Volume: 10uL

Method: 8321A-Modified

Sequence Number: 010510exs

Int. Std.: N/A

Mobile Phase Lot#: 1236350, 1246467

Initial Calibration Date: 010510 Standard-Samp Reagent Lot#: 1233976, 1246693

Reviewed By: *shml*
Date: *2/12/10*
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100105-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS01050001.wiff	XIBLK01	LER	1/5/2010 14:30			1		USE	B
EXS01050002.wiff	XIBLK01	LER	1/5/2010 14:46			1		USE	B
EXS01050003.wiff	WXXICAL-19	LER	1/5/2010 15:01			1		USE	I
EXS01050004.wiff	WXXICAL-20	LER	1/5/2010 15:17			1		USE	I
EXS01050005.wiff	WXXICAL-21	LER	1/5/2010 15:33			1		USE	I
EXS01050006.wiff	WXXICAL-22	LER	1/5/2010 15:49			1		USE	I
EXS01050007.wiff	WXXICAL-23	LER	1/5/2010 16:04			1		USE	I
EXS01050008.wiff	WXXICAL-24	LER	1/5/2010 16:20			1		USE	I
EXS01050009.wiff	WXXICAL-25	LER	1/5/2010 16:36			1		USE	I
EXS01050010.wiff	XIBLK02	LER	1/5/2010 16:51			1		USE	B
EXS01050011.wiff	WXXICV	LER	1/5/2010 17:07			1		USE	C
EXS01050012.wiff	XIBLK03	LER	1/5/2010 17:23			1		USE	B
EXS01050013.wiff	WXXCRI	LER	1/5/2010 17:38			1		USE	C
EXS01050014.wiff	1202005136	LER	1/5/2010 17:54	937046	VARIOUS	2	LANL	USE	S
EXS01050015.wiff	1202005137	LER	1/5/2010 18:10	937046	VARIOUS	2	LANL	USE	S
EXS01050016.wiff	243535001	LER	1/5/2010 18:25	937046	10-1078	2	LANL	USE	S
EXS01050017.wiff	243535002	LER	1/5/2010 18:41	937046	10-1078	2	LANL	USE	S
EXS01050018.wiff	243535003	LER	1/5/2010 18:57	937046	10-1078	2	LANL	USE	S
EXS01050019.wiff	243535004	LER	1/5/2010 19:13	937046	10-1078	2	LANL	USE	S
EXS01050020.wiff	243535005	LER	1/5/2010 19:28	937046	10-1078	2	LANL	USE	S
EXS01050021.wiff	243535006	LER	1/5/2010 19:44	937046	10-1078	2	LANL	USE	S
EXS01050022.wiff	243535007	LER	1/5/2010 20:00	937046	10-1078	2	LANL	USE	S
EXS01050023.wiff	243535008	LER	1/5/2010 20:15	937046	10-1078	2	LANL	USE	S
EXS01050024.wiff	WXXCCV	LER	1/5/2010 20:31			1		USE	C
EXS01050025.wiff	XIBLK04	LER	1/5/2010 20:47			1		USE	B
EXS01050026.wiff	WXXCRI	LER	1/5/2010 21:03			1		USE	C
EXS01050027.wiff	243535009	LER	1/5/2010 21:18	937046	10-1078	2	LANL	USE	S
EXS01050028.wiff	243535010	LER	1/5/2010 21:34	937046	10-1078	2	LANL	USE	S
EXS01050029.wiff	243540001	LER	1/5/2010 21:50	937046	10-1077	2	LANL	USE	S
EXS01050030.wiff	1202005138	LER	1/5/2010 22:05	937046	10-1077	2	LANL	USE	S

EXS01050031.wiff	1202005139	LER	1/5/2010 22:21	937046	10-1077	2	LANL	USE	S
EXS01050032.wiff	243540002	LER	1/5/2010 22:37	937046	10-1077	2	LANL	USE	S
EXS01050033.wiff	243540003	LER	1/5/2010 22:52	937046	10-1077	2	LANL	USE	S
EXS01050034.wiff	243546001	LER	1/5/2010 23:08	937046	10-1083	2	LANL	USE	S
EXS01050035.wiff	243546002	LER	1/5/2010 23:24	937046	10-1083	2	LANL	USE	S
EXS01050036.wiff	243546003	LER	1/5/2010 23:40	937046	10-1083	2	LANL	USE	S
EXS01050037.wiff	WXXCCV	LER	1/5/2010 23:55			1		USE	C
EXS01050038.wiff	XIBLK05	LER	1/6/2010 0:11			1		USE	B
EXS01050039.wiff	WXXCRI	LER	1/6/2010 0:27			1		USE	C
EXS01050040.wiff	1202005126	LER	1/6/2010 0:42	937041	VARIOUS	2	LANL	USE	S
EXS01050041.wiff	1202005127	LER	1/6/2010 0:58	937041	VARIOUS	2	LANL	USE	S
EXS01050042.wiff	243517003	LER	1/6/2010 1:14	937041	10-1073	2	LANL	USE	S
EXS01050043.wiff	243517004	LER	1/6/2010 1:29	937041	10-1073	2	LANL	USE	S
EXS01050044.wiff	243517005	LER	1/6/2010 1:45	937041	10-1073	2	LANL	USE	S
EXS01050045.wiff	243517006	LER	1/6/2010 2:01	937041	10-1073	2	LANL	USE	S
EXS01050046.wiff	243517007	LER	1/6/2010 2:17	937041	10-1073	2	LANL	USE	S
EXS01050047.wiff	243517008	LER	1/6/2010 2:32	937041	10-1073	2	LANL	USE	S
EXS01050048.wiff	1202005624	LER	1/6/2010 2:48	937041	10-1073	2	LANL	USE	S
EXS01050049.wiff	1202005625	LER	1/6/2010 3:04	937041	10-1073	2	LANL	USE	S
EXS01050050.wiff	WXXCCV	LER	1/6/2010 3:19			1		USE	C
EXS01050051.wiff	XIBLK06	LER	1/6/2010 3:35			1		USE	B
EXS01050052.wiff	WXXCRI	LER	1/6/2010 3:51			1		USE	C
EXS01050053.wiff	243517009	LER	1/6/2010 4:07	937041	10-1073	2	LANL	USE	S
EXS01050054.wiff	243519001	LER	1/6/2010 4:22	937041	10-1074	2	LANL	USE	S
EXS01050055.wiff	243519002	LER	1/6/2010 4:38	937041	10-1074	2	LANL	USE	S
EXS01050056.wiff	243519003	LER	1/6/2010 4:54	937041	10-1074	2	LANL	USE	S
EXS01050057.wiff	243519004	LER	1/6/2010 5:09	937041	10-1074	2	LANL	USE	S
EXS01050058.wiff	243519005	LER	1/6/2010 5:25	937041	10-1074	2	LANL	USE	S
EXS01050059.wiff	243519006	LER	1/6/2010 5:41	937041	10-1074	2	LANL	USE	S
EXS01050060.wiff	243519007	LER	1/6/2010 5:56	937041	10-1074	2	LANL	USE	S
EXS01050061.wiff	243519008	LER	1/6/2010 6:12	937041	10-1074	2	LANL	USE	S
EXS01050062.wiff	243519009	LER	1/6/2010 6:28	937041	10-1074	2	LANL	USE	S
EXS01050063.wiff	WXXCCV	LER	1/6/2010 6:44			1		USE	C
EXS01050064.wiff	XIBLK07	LER	1/6/2010 6:59			1		USE	B
EXS01050065.wiff	WXXCRI	LER	1/6/2010 7:15			1		USE	C
EXS01050066.wiff	243519010	LER	1/6/2010 7:31	937041	10-1074	2	LANL	USE	S
EXS01050067.wiff	243519011	LER	1/6/2010 7:46	937041	10-1074	2	LANL	USE	S

EXS01050068.wiff	XIBLK08	LER	1/6/2010 8:02	SCREEN	SOLID	1	USE	B
EXS01050069.wiff	kaolin screen	LER	1/6/2010 8:18			1	USE	C
EXS01050070.wiff	WXXCCV	LER	1/6/2010 8:34			1	USE	C
EXS01050071.wiff	XIBLK08	LER	1/6/2010 8:49			1	USE	B
EXS01050072.wiff	WXXCRI	LER	1/6/2010 9:05			1	USE	C
EXS01050073.wiff	1202005106	LER	1/6/2010 9:21	937031	VARIOUS	2	USE	S
EXS01050074.wiff	1202005107	LER	1/6/2010 9:36	937031	VARIOUS	2	USE	S
EXS01050075.wiff	243457001	LER	1/6/2010 9:52	937031	10-1038	2	USE	S
EXS01050076.wiff	1202005108	LER	1/6/2010 10:08	937031	10-1038	2	USE	S
EXS01050077.wiff	1202005109	LER	1/6/2010 10:24	937031	10-1038	2	USE	S
EXS01050078.wiff	243457002	LER	1/6/2010 10:39	937031	10-1038	2	USE	S
EXS01050079.wiff	243457003	LER	1/6/2010 10:55	937031	10-1038	2	USE	S
EXS01050080.wiff	243457004	LER	1/6/2010 11:11	937031	10-1038	2	USE	S
EXS01050081.wiff	243502001	LER	1/6/2010 11:26	937031	10-1065	2	USE	S
EXS01050082.wiff	243502002	LER	1/6/2010 11:42	937031	10-1065	2	USE	S
EXS01050083.wiff	WXXCCV	LER	1/6/2010 11:58			1	USE	C
EXS01050084.wiff	XIBLK09	LER	1/6/2010 12:13			1	USE	B
EXS01050085.wiff	WXXCRI	LER	1/6/2010 12:29			1	USE	C
EXS01050086.wiff	243502003	LER	1/6/2010 12:45	937031	10-1065	2	USE	S
EXS01050087.wiff	243502004	LER	1/6/2010 13:01	937031	10-1065	2	USE	S
EXS01050088.wiff	243502005	LER	1/6/2010 13:16	937031	10-1065	2	USE	S
EXS01050089.wiff	243502006	LER	1/6/2010 13:32	937031	10-1065	2	USE	S
EXS01050090.wiff	243502007	LER	1/6/2010 13:48	937031	10-1065	2	USE	S
EXS01050091.wiff	243502008	LER	1/6/2010 14:03	937031	10-1065	2	USE	S
EXS01050092.wiff	243509001	LER	1/6/2010 14:19	937031	10-1069	2	USE	S
EXS01050093.wiff	243509002	LER	1/6/2010 14:35	937031	10-1069	2	USE	S
EXS01050094.wiff	243509003	LER	1/6/2010 14:50	937031	10-1069	2	USE	S
EXS01050095.wiff	WXXCCV	LER	1/6/2010 15:06			1	USE	C
EXS01050096.wiff	XIBLK10	LER	1/6/2010 15:28			1	USE	B
EXS01050097.wiff	WXXCRI	LER	1/6/2010 15:44			1	USE	C
EXS01050098.wiff	1202004626	LER	1/6/2010 15:59	936890	VARIOUS	2	USE	S
EXS01050099.wiff	1202004627	LER	1/6/2010 16:15	936890	VARIOUS	2	USE	S
EXS01050100.wiff	243490001	LER	1/6/2010 16:31	936890	10-1036	2	USE	S
EXS01050101.wiff	1202004628	LER	1/6/2010 16:47	936890	10-1036	2	USE	S
EXS01050102.wiff	1202004629	LER	1/6/2010 17:02	936890	10-1036	2	USE	S
EXS01050103.wiff	243490002	LER	1/6/2010 17:18	936890	10-1036	2	USE	S
EXS01050104.wiff	243490003	LER	1/6/2010 17:34	936890	10-1036	2	USE	S

EXS01050105.wiff	243490004	LER	1/6/2010 17:49	936890	10-1036	2	LANL	USE	S
EXS01050106.wiff	243490005	LER	1/6/2010 18:05	936890	10-1036	2	LANL	USE	S
EXS01050107.wiff	243490006	LER	1/6/2010 18:21	936890	10-1036	2	LANL	USE	S
EXS01050108.wiff	WXXCCV	LER	1/6/2010 18:37			1		USE	C
EXS01050109.wiff	XIBLK11	LER	1/6/2010 18:52			1		USE	B
EXS01050110.wiff	WXXCRI	LER	1/6/2010 19:08			1		USE	C
EXS01050111.wiff	243490007	LER	1/6/2010 19:24	936890	10-1036	2	LANL	USE	S
EXS01050112.wiff	243543001	LER	1/6/2010 19:39	936890	10-1081	2	LANL	USE	S
EXS01050113.wiff	XIBLK12	LER	1/6/2010 19:55			1		USE	B
EXS01050114.wiff	UX091229-02.1	LER	1/6/2010 20:11	SCREEN	SOLID	2	O2SI	USE	S
EXS01050115.wiff	XIBLK13	LER	1/6/2010 20:26			1		USE	B
EXS01050116.wiff	1202006213	LER	1/6/2010 20:42	937556	VARIOUS	2	LANL	USE	S
EXS01050117.wiff	1202006214	LER	1/6/2010 20:58	937556	VARIOUS	2	LANL	USE	S
EXS01050118.wiff	243611001	LER	1/6/2010 21:14	937556	10-1096	2	LANL	USE	S
EXS01050119.wiff	1202006215	LER	1/6/2010 21:29	937556	10-1096	2	LANL	USE	S
EXS01050120.wiff	1202006216	LER	1/6/2010 21:45	937556	10-1096	2	LANL	USE	S
EXS01050121.wiff	WXXCCV	LER	1/6/2010 22:01			1		USE	C
EXS01050122.wiff	XIBLK14	LER	1/6/2010 22:16			1		USE	B
EXS01050123.wiff	WXXCRI	LER	1/6/2010 22:32			1		USE	C
EXS01050124.wiff	243611002	LER	1/6/2010 22:48	937556	10-1096	2	LANL	USE	S
EXS01050125.wiff	243611003	LER	1/6/2010 23:03	937556	10-1096	2	LANL	USE	S
EXS01050126.wiff	243615001	LER	1/6/2010 23:19	937556	10-1098-1	2	LANL	USE	S
EXS01050127.wiff	243615002	LER	1/6/2010 23:35	937556	10-1098-1	2	LANL	USE	S
EXS01050128.wiff	243615003	LER	1/6/2010 23:50	937556	10-1098-1	2	LANL	USE	S
EXS01050129.wiff	243615004	LER	1/7/2010 0:06	937556	10-1098-1	2	LANL	USE	S
EXS01050130.wiff	243615005	LER	1/7/2010 0:22	937556	10-1098-1	2	LANL	USE	S
EXS01050131.wiff	243615006	LER	1/7/2010 0:38	937556	10-1098-1	2	LANL	USE	S
EXS01050132.wiff	243615007	LER	1/7/2010 0:53	937556	10-1098-1	2	LANL	USE	S
EXS01050133.wiff	243615008	LER	1/7/2010 1:09	937556	10-1098-1	2	LANL	USE	S
EXS01050134.wiff	WXXCCV	LER	1/7/2010 1:25			1		USE	C
EXS01050135.wiff	XIBLK15	LER	1/7/2010 1:40			1		USE	B
EXS01050136.wiff	WXXCRI	LER	1/7/2010 1:56			1		USE	C
EXS01050137.wiff	243615009	LER	1/7/2010 2:12	937556	10-1098-1	2	LANL	USE	S
EXS01050138.wiff	WXXCCV	LER	1/7/2010 2:27			1		USE	C
EXS01050139.wiff	XIBLK16	LER	1/7/2010 2:43			1		USE	B
EXS01050140.wiff	WXXCRI	LER	1/7/2010 2:59			1		USE	C

COMPANY - WIDE NONCONFORMANCE REPORT

Mo. Day Yr. 09-JAN-10	Division: Federal	Quality Criteria: Specifications	Type: Process
Instrument Type: LC-MS/MS	Test / Method: SW846 8321A Modified	Matrix Type: Solid	Client Code: LANL
Batch ID: 937041	Sample Numbers: 1202005127, 1202005624, 1202005625		
Potentially affected work order(s)(SDG): 243517(10-1073), 243519(10-1074) Application Issues: Failed Recovery for MSD/PSD Failed Recovery for LCS/LCSD Failed Recovery for MS/PS			
Specification and Requirements Nonconformance Description:		NRG Disposition:	
1. The Laboratory Control Sample (1202005127) did not meet spike recovery limits for TATB at 338%. The recovery limits are 47-166%. 2. The Matrix Spike (1202005624) did not meet spike recovery limits for TATB at 188%. The recovery limits are 44-166%. 3. The Matrix Spike Duplicate (1202005625) did not meet spike recovery limits for TATB at 212%. The recovery limits are 44-166%.		1., 2. & 3. While TATB exhibited a high bias in the LCS, MS and MSD, it was not detected in the associated samples. The data are reported with the appropriate NCR, and the discrepancies are noted in the case narrative.	

Originator's Name:

Michael Penny

09-JAN-10

Data Validator/Group Leader:

Herbert Maier

09-JAN-10

GC
SEMIVOLATILE
PCB
ANALYSIS

**PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1073**

Method/Analysis Information

Procedure: Analysis of Polychlorinated Biphenyls by ECD
Analytical Method: SW846 8082
Prep Method: SW846 3550B
Analytical Batch Number: 937093
Prep Batch Number: 937092

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
243517007	RE12-10-7562
243517008	RE12-10-7561
243517009	RE12-10-7563
1202005226	Method Blank (MB)
1202005227	Laboratory Control Sample (LCS)
1202005228	243547002(WST54-10-9921) Matrix Spike (MS)
1202005229	243547002(WST54-10-9921) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" 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-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising

the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration

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

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements

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

Quality Control (QC) Information

Method Blank (MB) Statement

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

Surrogate Recoveries

All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

A LANL sample of similar matrix associated with another SDG (#10-1084) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement

The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries for this SDG 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.

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.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

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

Miscellaneous Information**Electronic Package Comment**

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually 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. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. 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.

Nonconformance (NCR) Documentation

Nonconformance reports (NCRs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integrations

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD2A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD2A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

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: Andy Whitlock

Date: 1-12-2010

Roadmap for LANL 10-1073 PCB

This roadmap was analyzed by jen01212 on 12-31-2009, 11:10.

This roadmap was reviewed by rob01090 on 01-04-2010, 16:36.

This roadmap was packaged by yml on 01-12-2010, 10:37.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd2a.i/122909.b/025f2501.d	243517007	sample	29-DEC-2009	11:51	10-1073.sub	RE12-10-7562	1.00000	937093	UPLOAD BOTH, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd2a.i/122909.b/026f2601.d	243517008	sample	29-DEC-2009	12:02	10-1073.sub	RE12-10-7561	1.00000	937093	UPLOAD BOTH, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd2a.i/122909.b/027f2701.d	243517009	sample	29-DEC-2009	12:13	10-1073.sub	RE12-10-7563	1.00000	937093	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd2a.i/122909.b/025b2501.d	243517007	sample	29-DEC-2009	11:51	10-1073.sub	RE12-10-7562	1.00000	937093	UPLOAD BOTH, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd2a.i/122909.b/026b2601.d	243517008	sample	29-DEC-2009	12:02	10-1073.sub	RE12-10-7561	1.00000	937093	UPLOAD BOTH, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd2a.i/122909.b/027b2701.d	243517009	sample	29-DEC-2009	12:13	10-1073.sub	RE12-10-7563	1.00000	937093	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd2a.i/122909.b/012f1201-3.d	1202005226	mb	29-DEC-2009	09:27	10-1073.sub	PBLK01	1.00000	937093	<input type="text"/>
<input type="checkbox"/>	N	/chem/ecd2a.i/122909.b/013f1301-3.d	1202005227	lcs	29-DEC-2009	09:38	10-1073.sub	PBLK01LCS	1.00000	937093	<input type="text"/>

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd2a.i/122909.b/012b1201-3.d	1202005226	mb	29-DEC-2009	09:27	10-1073.sub	PBLK01	1.00000	937093	<input type="text"/>
<input type="checkbox"/>	N	/chem/ecd2a.i/122909.b/013b1301-3.d	1202005227	lcs	29-DEC-2009	09:38	10-1073.sub	PBLK01LCS	1.00000	937093	<input type="text"/>

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number: 10-1073
Lab Sample ID: 243517008

Date Collected: 12/21/2009 12:00
Date Received: 12/24/2009 09:30
Client: LANL010
Method: SW846 8082
Inst: ECD2A.I
Analyst: JAOC
Aliquot: 30.15 g
Column: 1 CLP1
2 CLP2

Matrix: R
%Moisture: 11.6
Project: LANL01004
SOP Ref: GL-OA-E-040
Dilution: 1
Inj. Vol: 1 uL
Final Volume: 1 mL
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.75	ug/kg	1.25	3.75	1
11104-28-2	Aroclor-1221	U	3.75	ug/kg	1.25	3.75	1
11141-16-5	Aroclor-1232	U	3.75	ug/kg	1.25	3.75	1
53469-21-9	Aroclor-1242		114	ug/kg	1.25	3.75	1
12672-29-6	Aroclor-1248	U	3.75	ug/kg	1.25	3.75	1
11097-69-1	Aroclor-1254		109	ug/kg	1.25	3.75	1
11096-82-5	Aroclor-1260	P	47.7	ug/kg	1.25	3.75	2

PCB
Certificate of Analysis
Sample Summary

SDG Number: 10-1073
Lab Sample ID: 243517007

Date Collected: 12/21/2009 12:00
Date Received: 12/24/2009 09:30
Client: LANL010
Method: SW846 8082
Inst: ECD2A.1
Analyst: JAOC
Aliquot: 30.14 g
Column: 1 CLP1
2 CLP2

Matrix: R
% Moisture: 9.9
Project: LANL01004
SOP Ref: GL-OA-E-040
Dilution: 1
Inj. Vol: 1 uL
Final Volume: 1 mL
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.68	ug/kg	1.23	3.68	1
11104-28-2	Aroclor-1221	U	3.68	ug/kg	1.23	3.68	1
11141-16-5	Aroclor-1232	U	3.68	ug/kg	1.23	3.68	1
53469-21-9	Aroclor-1242	U	3.68	ug/kg	1.23	3.68	1
12672-29-6	Aroclor-1248	U	3.68	ug/kg	1.23	3.68	1
11097-69-1	Aroclor-1254	U	3.68	ug/kg	1.23	3.68	1
11096-82-5	Aroclor-1260	U	3.68	ug/kg	1.23	3.68	1

PCB

Page 1 of 1

Certificate of Analysis

Sample Summary

SDG Number: 10-1073
Lab Sample ID: 243517009

Date Collected: 12/21/2009 12:00

Matrix: R

Date Received: 12/24/2009 09:30

%Moisture: 12.3

Client: LANL010

Project: LANL01004

Method: SW846 8082

SOP Ref: GL-OA-E-040

Inst: ECD2A.I

Dilution: 1

Analyst: JAOC

Inj. Vol: 1 uL

Aliquot: 30.01 g

Final Volume: 1 mL

Column: 1 CLP1

Level: LOW

Data File: 027f2701.d

2 CLP2

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.80	ug/kg	1.26	3.80	1
11104-28-2	Aroclor-1221	U	3.80	ug/kg	1.26	3.80	1
11141-16-5	Aroclor-1232	U	3.80	ug/kg	1.26	3.80	1
53469-21-9	Aroclor-1242	U	3.80	ug/kg	1.26	3.80	1
12672-29-6	Aroclor-1248	U	3.80	ug/kg	1.26	3.80	1
11097-69-1	Aroclor-1254	U	3.80	ug/kg	1.26	3.80	1
11096-82-5	Aroclor-1260	U	3.80	ug/kg	1.26	3.80	1

QUALITY CONTROL SUMMARY

PCB

Page 1 of 1

Surrogate Recovery Report

SDG Number: 10-1073

Matrix Type: SOLID

CAP Column (1) : CLP1

CAP Column (2) : CLP2

Sample ID	Client ID	4CMX 1	4CMX 2	DCB 1	DCB 2
		%REC #	%REC #	%REC #	%REC #
1202005226	MB for batch 937092	65	69	71	81
1202005227	LCS for batch 937092	66	69	70	79
243517007	RE12-10-7562	58	59	66	71
243517008	RE12-10-7561	57	60	59	62
243517009	RE12-10-7563	56	59	67	67

Surrogate

Acceptance Limits

4CMX = 4cmx

(34%-105%)

DCB = Decachlorobiphenyl

(33%-115%)

* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

PCB

Page 1 of 1

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1073

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 937092

Matrix: SOIL

Lab Sample ID:1202005227

Instrument: ECD2A.I

Analysis Date: 12/29/2009 09:38

Dilution: 1

Analyst: JAOC

Prep Batch ID 937092

Inj. Vol: 1 uL

Batch ID: 937093

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS Aroclor-1016	33.3	0.0	21.1	63	41-110
11096-82-5	LCS Aroclor-1260	33.3	0.0	26.3	79	48-110

PCB

Page 1 of 2

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1073

Client ID: WST54-10-9921MS

Lab Sample ID: 1202005228

Instrument: ECD2A.I

Analyst: JAOC

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 11.1

Analysis Date: 12/29/2009 13:53

Dilution: 1

Prep Batch ID: 937092

Batch ID: 937093

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS Aroclor-1016	37.3	0.00 U	22.4	60	23-117
11096-82-5	MS Aroclor-1260	37.3	0.00 U	29.7	80	27-116

PCB

Page 2 of 2

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1073

Client ID: WST54-10-9921MSD

Lab Sample ID: 1202005229

Instrument: ECD2A.I

Analyst: JAOC

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 11.1

Analysis Date: 12/29/2009 14:04

Dilution: 1

Pre Batch ID: 937092

Batch ID: 937093

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	37.3	0.00	U	24.1	65	23-117	7	0-30
11096-82-5	MSD Aroclor-1260	37.3	0.00	U	30.7	82	27-116	3	0-30

Method Blank Summary

Page 1 of 1

SDG Number:	10-1073	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937092	Instrument ID:	ECD2A.I_2	Data File:	012b1201-1.d
Lab Sample ID:	1202005226		ECD2A.I_1		012f1201-1.d
Column:	CLP2	Prep Date:	12/28/2009 20:43	Analyzed:	12/29/09 09:27
	CLP1	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937092	1202005227	013f1301-1.d 013b1301-1.d	12/29/09	0938
02 RE12-10-7562	243517007	025f2501.d 025b2501.d	12/29/09	1151
03 RE12-10-7561	243517008	026f2601.d 026b2601.d	12/29/09	1202
04 RE12-10-7563	243517009	027f2701.d 027b2701.d	12/29/09	1213

SAMPLE DATA

PCB

Page 1 of 1

Certificate of Analysis

Sample Summary

SDG Number: 10-1073
Lab Sample ID: 243517008

Date Collected: 12/21/2009 12:00
Date Received: 12/24/2009 09:30

Matrix: R
%Moisture: 11.6
Project: LANL01004
SOP Ref: GL-OA-E-040

Client ID: RE12-10-7561
Batch ID: 937093
Run Date: 12/29/2009 12:02
Prep Date: 12/28/2009 20:43
Data File: 026f2601.d
026b2601.d

Client: LANL010
Method: SW846 8082
Inst: ECD2A.I
Analyst: JAOC
Aliquot: 30.15 g
Column: 1 CLP1
2 CLP2

Dilution: 1
Inj. Vol: 1 uL
Final Volume: 1 mL
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.75	ug/kg	1.25	3.75	1
11104-28-2	Aroclor-1221	U	3.75	ug/kg	1.25	3.75	1
11141-16-5	Aroclor-1232	U	3.75	ug/kg	1.25	3.75	1
53469-21-9	Aroclor-1242		114	ug/kg	1.25	3.75	1
12672-29-6	Aroclor-1248	U	3.75	ug/kg	1.25	3.75	1
11097-69-1	Aroclor-1254		109	ug/kg	1.25	3.75	1
11096-82-5	Aroclor-1260	P	47.7	ug/kg	1.25	3.75	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/026f2601.d
 Lab Smp Id: 243517008 Client Smp ID: RE12-10-7561
 Inj Date : 29-DEC-2009 12:02
 Operator : JAOB Inst ID: ecd2a.i
 Smp Info : |243517008|1|
 Misc Info : |ECD82P_1S|937093|SVA|LANL|SOIL|RE12-10-7561|||
 Comment :
 Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
 Meth Date : 29-Dec-2009 14:49 jen01212 Quant Type: ESTD
 Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
 Als bottle: 26
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 10-1073.sub
 Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weight of sample extracted (g)
M	11.61020	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
min	min	min	min	min	min	min	min	
\$ 11 4cmx					CAS #: 877-09-8			
1.774	1.771	0.003	7066979	113.450	4.2	80.00- 120.00	100.00 (M)	

\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.608	5.607	0.001	6361633	117.565	4.4	80.00- 120.00	100.00	

4 Aroclor-1242					CAS #: 53469-21-9			
2.276	2.274	0.002	2668916	1539.66	57.8	80.00- 120.00	100.00 (M)	
2.690	2.689	0.001	3060427	2061.90	77.4	62.58- 102.58	114.67	
2.731	2.731	0.000	1579543	1743.82	65.4	31.01- 71.01	59.18	
2.825	2.824	0.001	3958348	5445.55	204	20.24- 60.24	148.31	
2.971	2.976	-0.005	5022331	4486.19	168	43.39- 83.39	188.18	
Average of Peak Concentrations =					114			

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Aroclor-1254					CAS #: 11097-69-1			
3.242	3.242	0.000	5075738	2440.20	91.6	80.00- 120.00	100.00 (M)	
3.424	3.424	0.000	7327040	2643.10	99.2	112.81- 152.81	144.35	
3.694	3.694	0.000	9835259	2628.06	98.6	162.96- 202.96	193.77	
3.886	3.886	0.000	7417015	2665.40	100	113.41- 153.41	146.13	
4.014	4.015	-0.001	11449234	4148.21	156	117.11- 157.11	225.57	
Average of Peak Concentrations =					109			

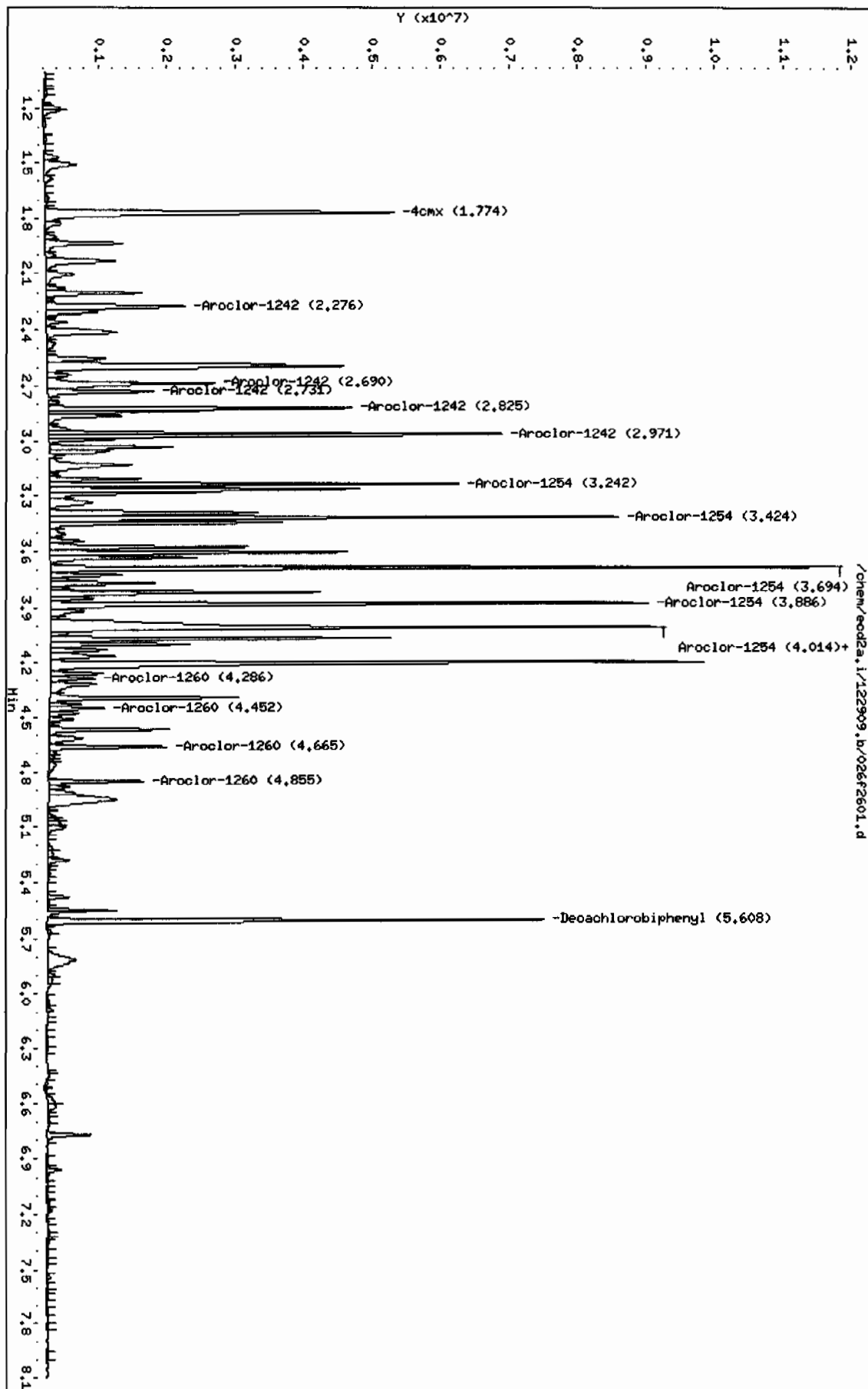
7 Aroclor-1260					CAS #: 11096-82-5			
4.014	4.014	0.000	11449234	2748.85	103	80.00- 120.00	100.00 (M)	
4.286	4.286	0.000	618402	238.713	9.0	42.92- 82.92	5.40	
4.452	4.451	0.001	728336	276.807	10.4	46.15- 86.15	6.36	
4.665	4.664	0.001	1587793	260.824	9.8	132.63- 172.63	13.87	
4.855	4.853	0.002	1260702	428.497	16.1	53.77- 93.77	11.01	
Average of Peak Concentrations =					29.7			

QC Flag Legend

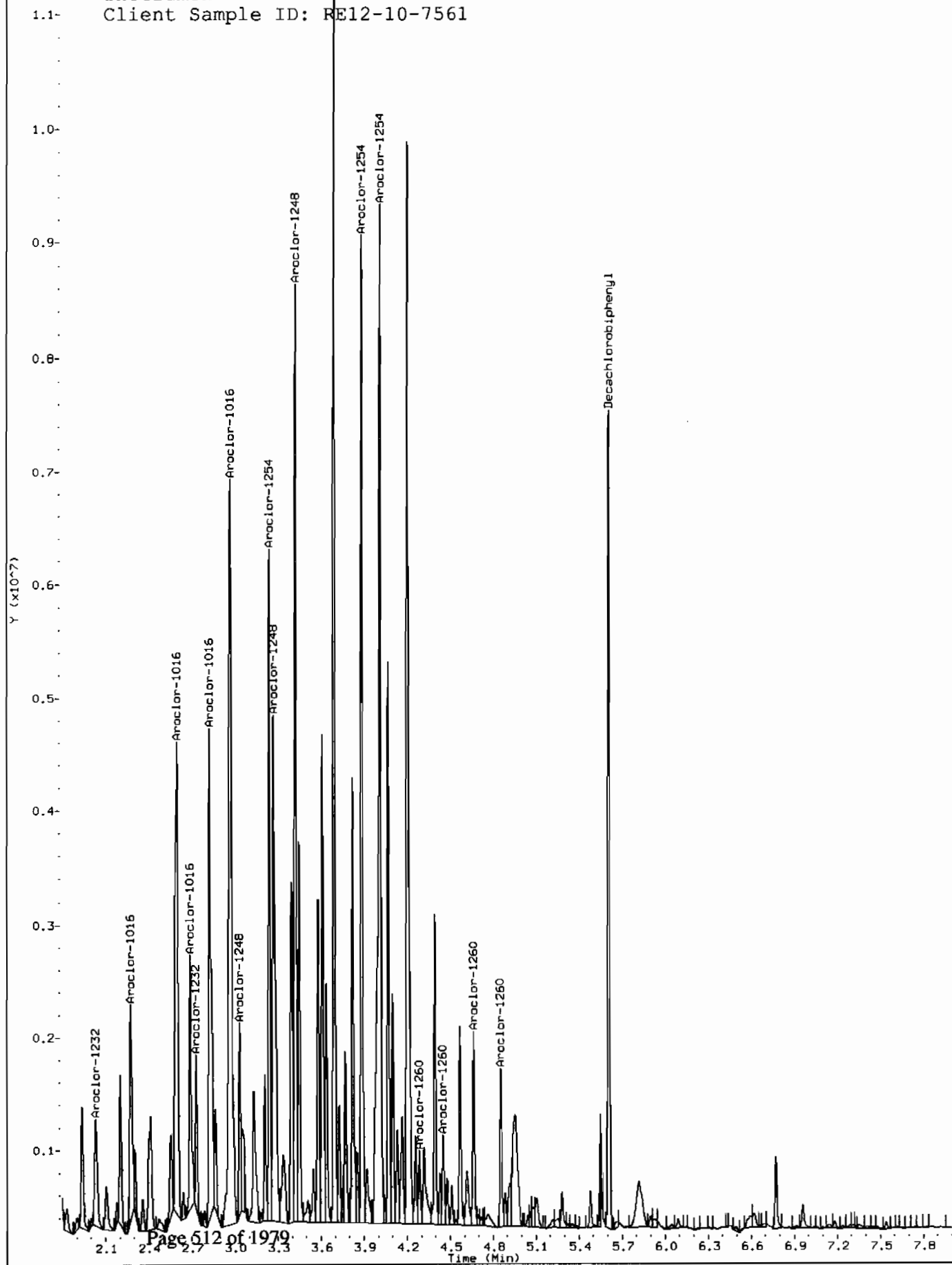
M - Compound response manually integrated.

Data File: /chem/eod2a.i/122909.b/026f2601.d
Date: 29-DEC-2009 12:02
Client ID: REL2-10-7561
Sample Info: 124351700811
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: eod2a.i
Operator: JHOC
Column diameter: 0.25



Comment: Before manual integration
Data File: /chem/ecdd2a.i/122909.b/orig-026f2601.d
Operator: JAOC
Injection Date: 29-DEC-2009 12:02
Instrument: ecd2a.i
Client Sample ID: RE12-10-7561



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/026b2601.d

Lab Smp Id: 243517008

Client Smp ID: RE12-10-7561

Inj Date : 29-DEC-2009 12:02

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |243517008|1|

Misc Info : |ECD82P_1S|937093|SVA|LANL|SOIL|RE12-10-7561|||

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m

Meth Date : 29-Dec-2009 14:47 jen01212 Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012b1201.d

Als bottle: 26

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1073.sub

Target Version: 3.50

Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weight of sample extracted (g)
M	11.61020	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/Kg)	TARGET RANGE	RATIO	
----	-----	-----	-----	-----	-----	-----	-----	
\$ 11	4cmx				CAS #: 877-09-8			
2.071	2.068	0.003	15482312	119.723	4.5	80.00-	120.00	100.00 (M)

\$ 12	Decachlorobiphenyl				CAS #: 2051-24-3			
6.301	6.300	0.001	13915892	123.386	4.6	80.00-	120.00	100.00

4 Aroclor-1242					CAS #: 53469-21-9			
2.747	2.746	0.001	5603725	1626.49	61.0	80.00-	120.00	100.00 (M)
3.181	3.181	0.000	5482800	2044.69	76.7	55.12-	95.12	97.84
3.253	3.253	0.000	3424082	2092.21	78.5	24.89-	64.89	61.10
3.332	3.331	0.001	8916137	5911.99	222	22.15-	62.15	159.11
3.518	3.518	0.000	7659904	3571.15	134	41.83-	81.83	136.69
Average of Peak Concentrations =					114			

CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
6 Aroclor-1254					CAS #: 11097-69-1		
3.818	3.818	0.000	14706634	2950.00	111	80.00~ 120.00	100.00 (M)
3.959	3.959	0.000	15700715	2707.51	102	94.15~ 134.15	106.76
4.196	4.196	0.000	10831078	2692.30	101	61.56~ 101.56	73.65
4.276	4.277	-0.001	19866872	2569.64	96.4	136.04~ 176.04	135.09
4.439	4.440	-0.001	16024491	2857.28	107	93.71~ 133.71	108.96
Average of Peak Concentrations =					103		

7 Aroclor-1260					CAS #: 11096-82-5		
4.413	4.414	-0.001	8069826	1399.33	52.5	80.00~ 120.00	100.00 (M)
4.566	4.565	0.001	9459096	1327.80	49.8	107.94~ 147.94	117.22
4.677	4.677	0.000	13508945	2803.44	105	67.11~ 107.11	167.40
4.875	4.874	0.001	2678692	475.641	17.8	80.57~ 120.57	33.19
5.501	5.500	0.001	3233296	357.764	13.4	146.62~ 186.62	40.07
Average of Peak Concentrations =					47.7		

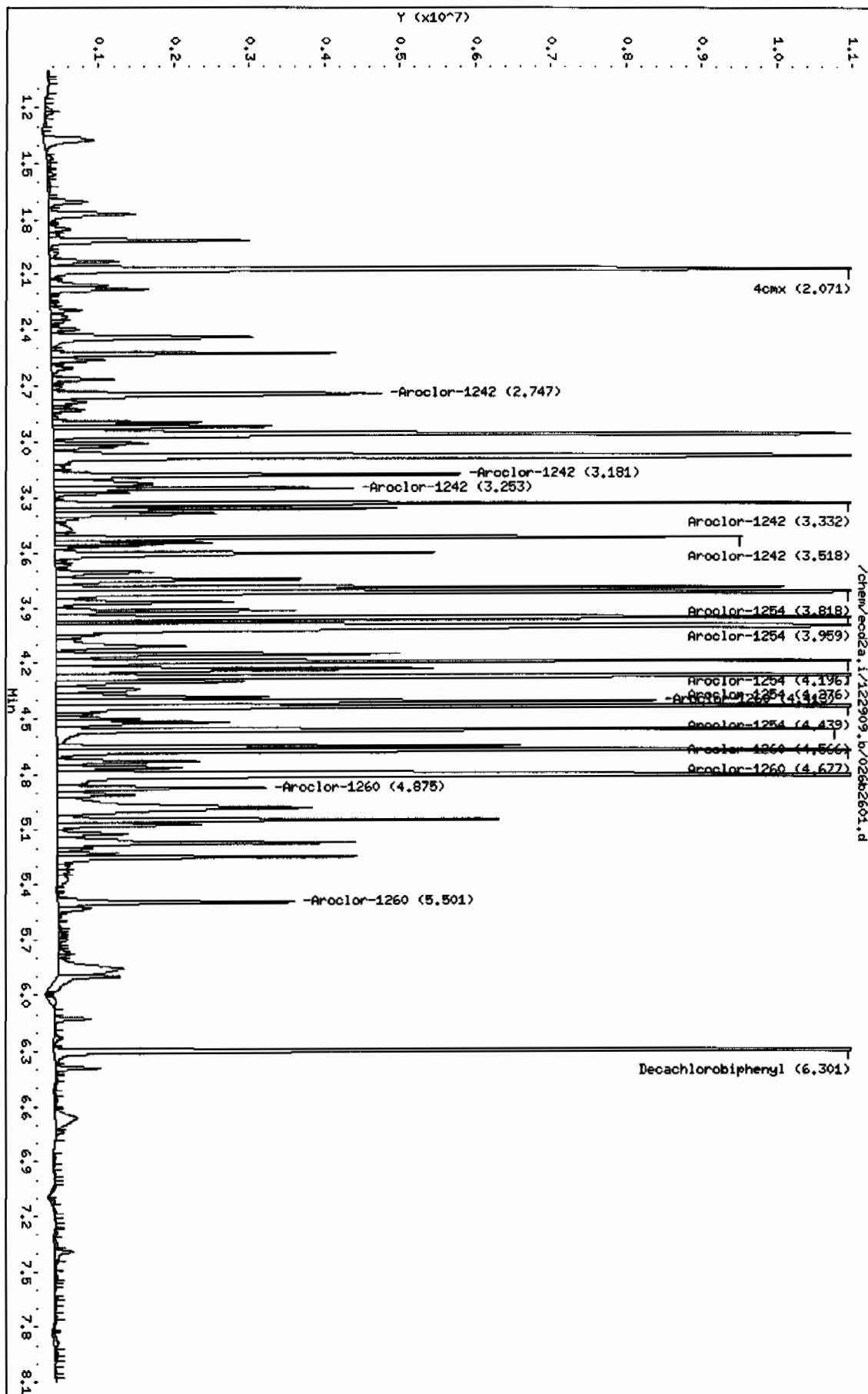
QC Flag Legend

M - Compound response manually integrated.

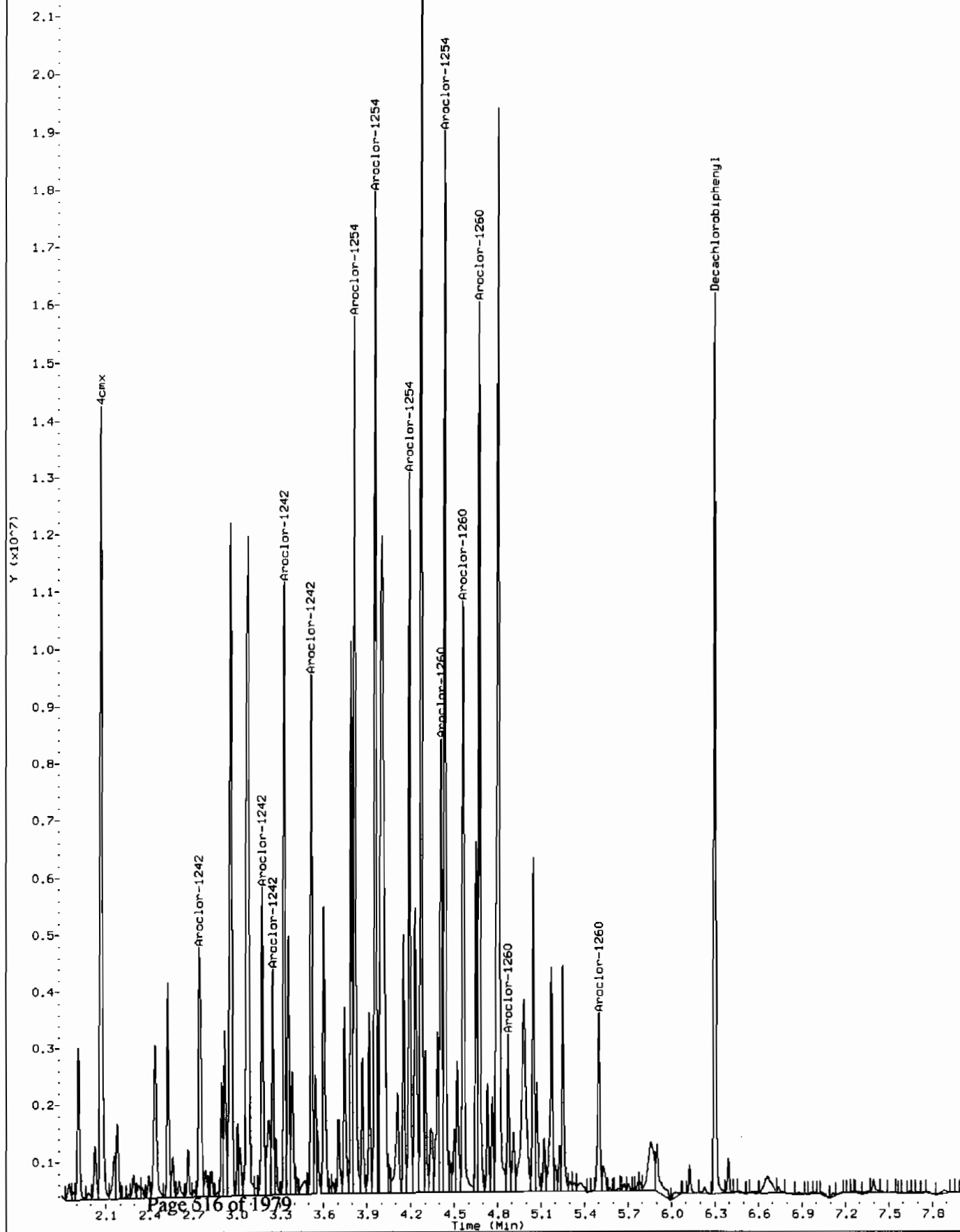
Data File: /chem/ecod2a.i/122909.b/026b2601.d
Date : 29-DEC-2009 12:02
Client ID: RE12-10-7561
Sample Info: 124351700811
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecod2a.i
Operator: JMC
Column diameter: 0.25

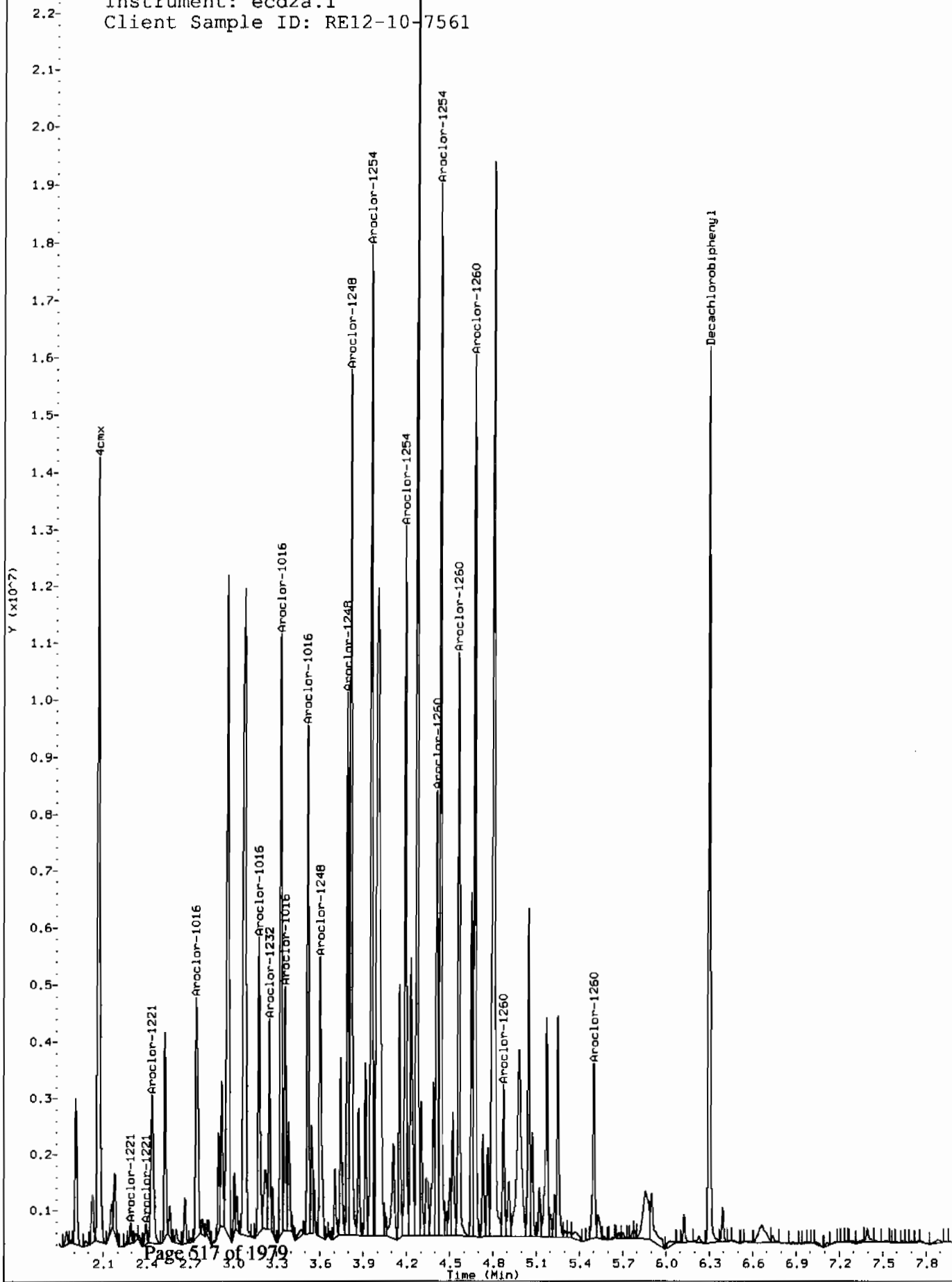
Page 1



Comment: Manually Integrated
Data File: /chem/ecd2a.i/122909.b/026b2601.d
Operator: JAOC
Injection Date: 29-DEC-2009 12:02
Instrument: ecd2a.i
Client Sample ID: RE12-10-7561



Comment: Before manual integration
Data File: /chem/ecd2a.i/122909.b/orig-026b2601.d
Operator: JAOC
Injection Date: 29-DEC-2009 12:02
Instrument: ecd2a.i
Client Sample ID: RE12-10-7561



PCB
Certificate of Analysis
Sample Summary

Page 1 of 1

SDG Number: 10-1073
 Lab Sample ID: 243517007

Date Collected: 12/21/2009 12:00
 Date Received: 12/24/2009 09:30
 Client: LANL010
 Method: SW846 8082
 Inst: ECD2A.J
 Analyst: JAOC
 Aliquot: 30.14 g
 Column: 1 CLP1
 2 CLP2

Matrix: R
 %Moisture: 9.9
 Project: LANL01004
 SOP Ref: GL-OA-E-040
 Dilution: 1
 Inj. Vol: 1 uL
 Final Volume: 1 mL
 Level: LOW

Client ID: RE12-10-7562
 Batch ID: 937093
 Run Date: 12/29/2009 11:51
 Prep Date: 12/28/2009 20:43
 Data File: 025f2501.d
 025b2501.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.68	ug/kg	1.23	3.68	1
11104-28-2	Aroclor-1221	U	3.68	ug/kg	1.23	3.68	1
11141-16-5	Aroclor-1232	U	3.68	ug/kg	1.23	3.68	1
53469-21-9	Aroclor-1242	U	3.68	ug/kg	1.23	3.68	1
12672-29-6	Aroclor-1248	U	3.68	ug/kg	1.23	3.68	1
11097-69-1	Aroclor-1254	U	3.68	ug/kg	1.23	3.68	1
11096-82-5	Aroclor-1260	U	3.68	ug/kg	1.23	3.68	1

Data File: /chem/ecd2a.i/122909.b/025f2501.d
Report Date: 31-Dec-2009 09:11

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/025f2501.d

Lab Smp Id: 243517007

Client Smp ID: RE12-10-7562

Inj Date : 29-DEC-2009 11:51

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |243517007|1|

Misc Info : |ECD82P_1S|937093|SVA|LANL|SOIL|RE12-10-7562|||

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m

Meth Date : 29-Dec-2009 14:49 jen01212 Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012f1201.d

Als bottle: 25

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1073.sub

Target Version: 3.50

Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	9.87940	% Moisture

Cpnd Variable

Local Compound Variable

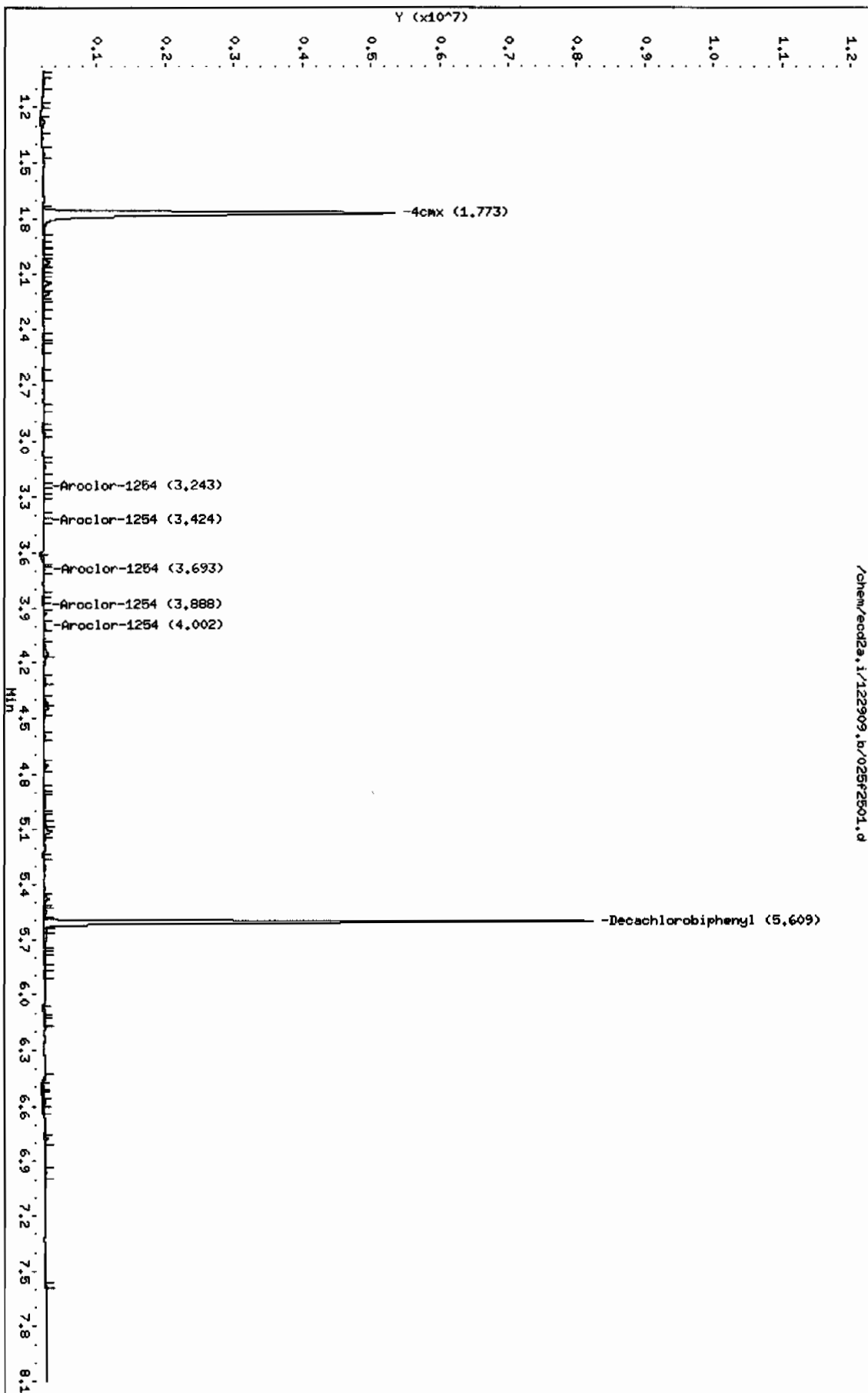
CONCENTRATIONS

RT	EXP RT	DLT RT	RESPONSE	ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
\$ 11 4cmx						CAS #: 877-09-8	
1.773	1.771	0.002	7247769	116.352	4.3	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl						CAS #: 2051-24-3	
5.609	5.607	0.002	7151225	132.157	4.9	80.00- 120.00	100.00

Data File: /chem/eod2a.i/122909.b/025f2501.d
Date: 29-DEC-2009 11:51
Client ID: RE12-10-7562
Sample Info: 124351700711
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: eod2a.i
Operator: JHOC
Column diameter: 0.25

Page 1



Data File: /chem/ecd2a.i/122909.b/025b2501.d
Report Date: 31-Dec-2009 09:11

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/025b2501.d

Lab Smp Id: 243517007

Client Smp ID: RE12-10-7562

Inj Date : 29-DEC-2009 11:51

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |243517007|1|

Misc Info : |ECD82P_1S|937093|SVA|LANL|SOIL|RE12-10-7562|

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m

Meth Date : 29-Dec-2009 14:47 jen01212 Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012b1201.d

Als bottle: 25

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1073.sub

Target Version: 3.50

Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt / (Vi * Ws * (100 - M) / 100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	9.87940	% Moisture

Cpnd Variable

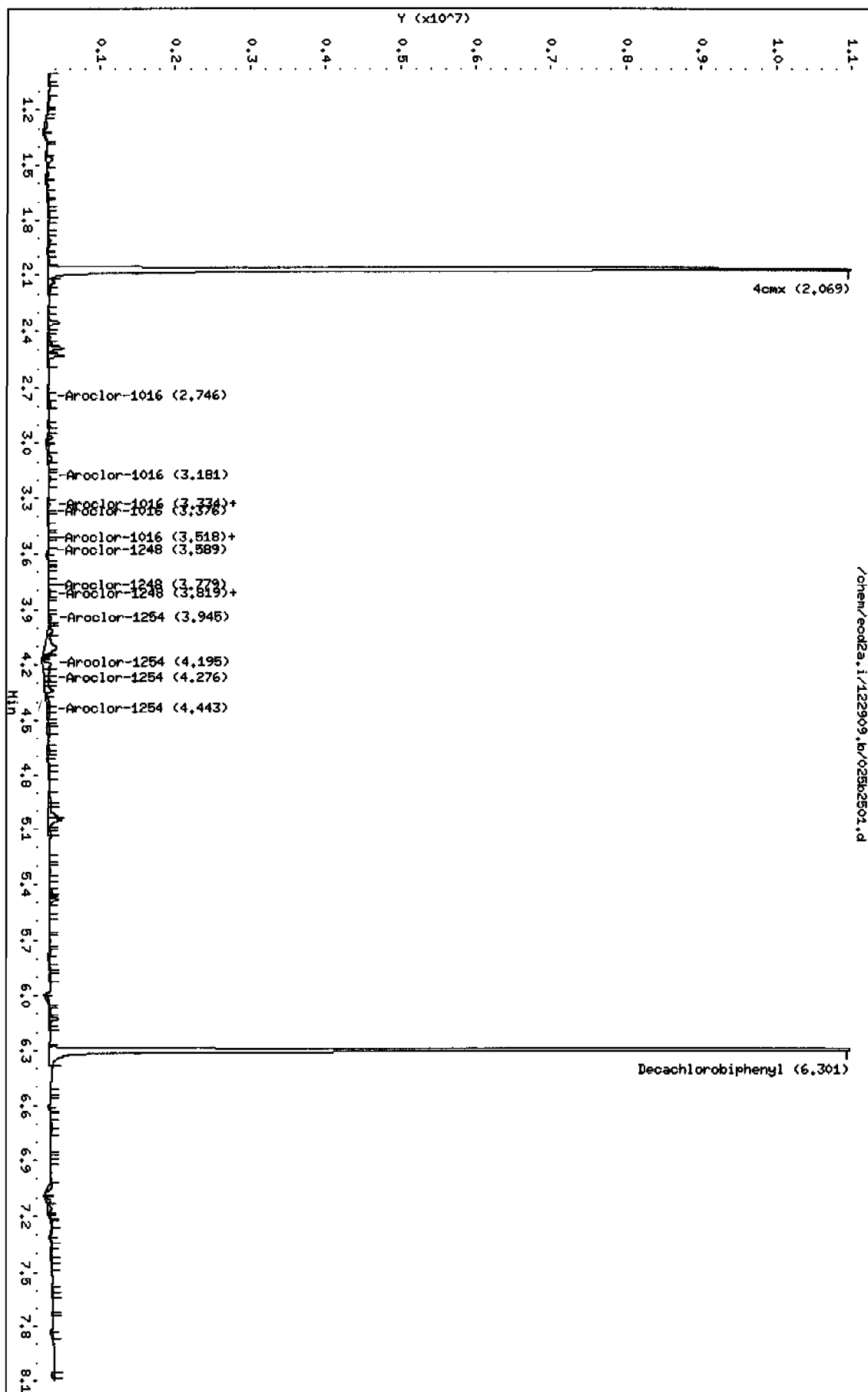
Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	RESPONSE (ug/L)	(ug/Kg)	TARGET RANGE	RATIO
\$ 11 4cmx							CAS #: 877-09-8	
2.069	2.068	0.001	15354988	118.738	4.4	80.00- 120.00	100.00	
\$ 12 Decachlorobiphenyl							CAS #: 2051-24-3	
6.301	6.300	0.001	15902772	141.003	5.2	80.00- 120.00	100.00	

Data File: /chem/eod2a.i/122909.b/02502501.d
Date : 29-DEC-2009 11:51
Client ID: RE12-10-7562
Sample Info: 124351700711
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: eod2a.i
Operator: JMC
Column diameter: 0.25



PCB
Certificate of Analysis
Sample Summary

SDG Number: 10-1073
Lab Sample ID: 243517009

Date Collected: 12/21/2009 12:00
Date Received: 12/24/2009 09:30
Client: LANL010
Method: SW846 8082
Inst: ECD2A.1
Analyst: JAOC
Aliquot: 30.01 g
Column: 1 CLP1
2 CLP2

Matrix: R
%Moisture: 12.3
Project: LANL01004
SOP Ref: GL-OA-E-040
Dilution: 1
Inj. Vol: 1 uL
Final Volume: 1 mL
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.80	ug/kg	1.26	3.80	1
11104-28-2	Aroclor-1221	U	3.80	ug/kg	1.26	3.80	1
11141-16-5	Aroclor-1232	U	3.80	ug/kg	1.26	3.80	1
53469-21-9	Aroclor-1242	U	3.80	ug/kg	1.26	3.80	1
12672-29-6	Aroclor-1248	U	3.80	ug/kg	1.26	3.80	1
11097-69-1	Aroclor-1254	U	3.80	ug/kg	1.26	3.80	1
11096-82-5	Aroclor-1260	U	3.80	ug/kg	1.26	3.80	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/027f2701.d
Lab Smp Id: 243517009 Client Smp ID: RE12-10-7563
Inj Date : 29-DEC-2009 12:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243517009|1|
Misc Info : |ECD82P_1S|937093|SVA|LANL|SOIL|RE12-10-7563|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 14:49 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1073.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	12.25730	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
		ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8		
1.773	1.771	0.002	6985251 112.138	4.2	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.608	5.607	0.001	7218068 133.392	5.1	80.00- 120.00	100.00

Data File: /chem/ecod2a.i/122909.b/0272701.d

Date: 29-DEC-2009 12:13

Client ID: RE12-10-7563

Sample Info: 1243517009111

Volume Injected (uL): 1.0

Column phase: CLP1

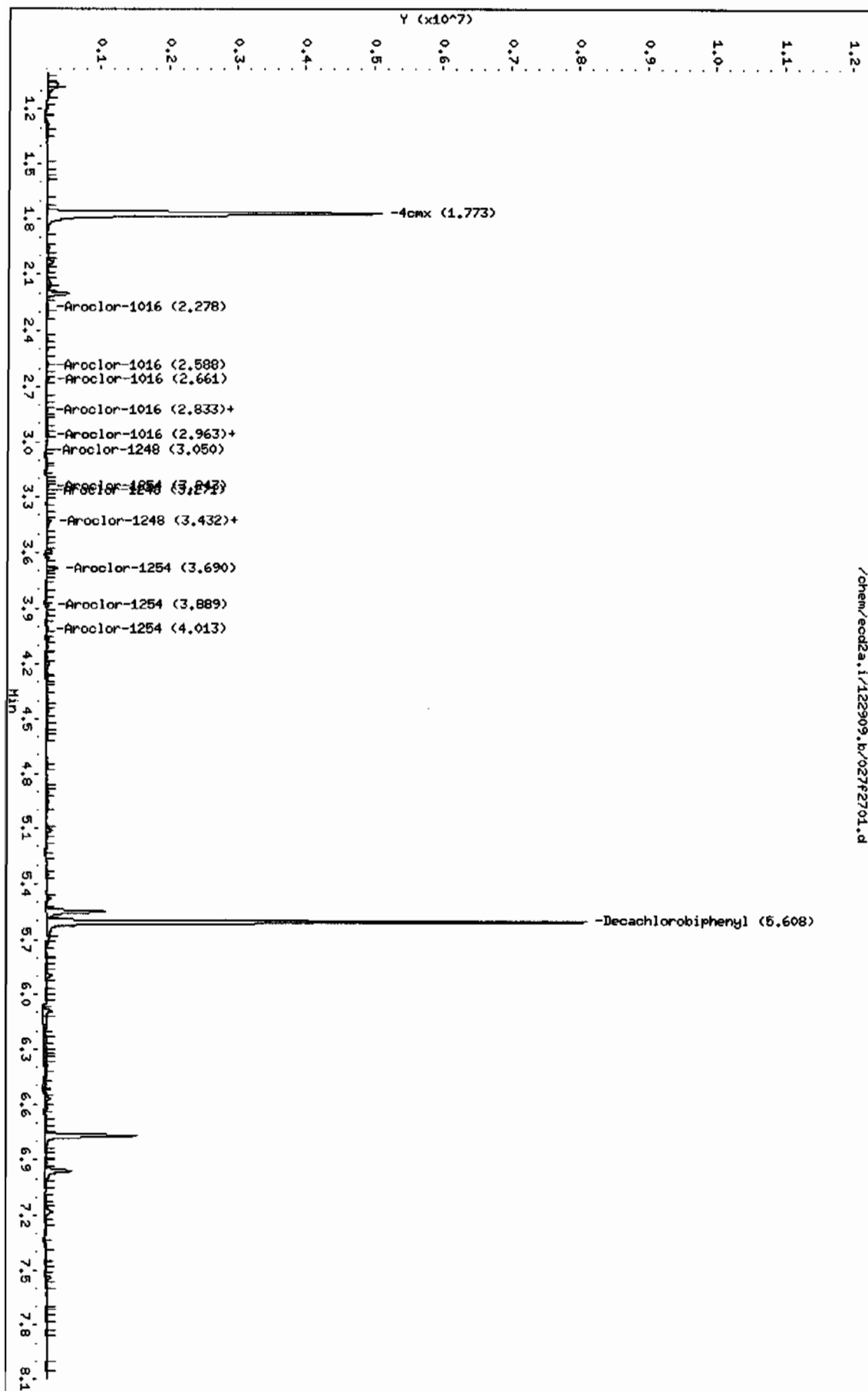
Instrument: ecod2a.i

Operator: JHOC

Column diameter: 0.25

/chem/ecod2a.i/122909.b/0272701.d

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL
 Data file : /chem/ecd2a.i/122909.b/027b2701.d
 Lab Smp Id: 243517009 Client Smp ID: RE12-10-7563
 Inj Date : 29-DEC-2009 12:13
 Operator : JAOC Inst ID: ecd2a.i
 Smp Info : |243517009|1|
 Misc Info : |ECD82P_1S|937093|SVA|LANL|SOIL|RE12-10-7563|||
 Comment :
 Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
 Meth Date : 29-Dec-2009 14:47 jen01212 Quant Type: ESTD
 Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
 Als bottle: 27
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 10-1073.sub
 Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt / (Vi * Ws * (100 - M) / 100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	12.25730	% Moisture

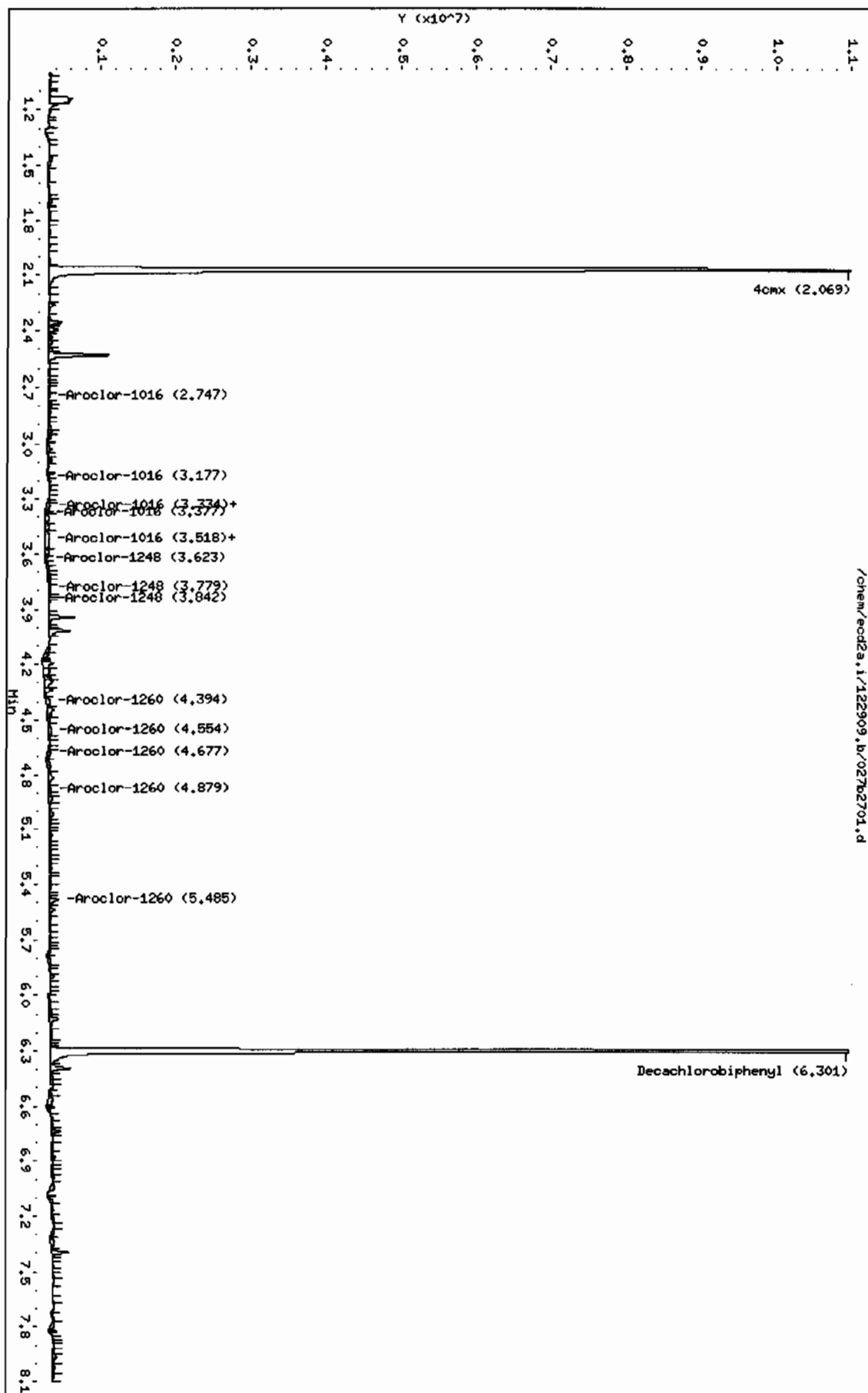
Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE (ug/L)	(ug/Kg)	TARGET RANGE	RATIO		
-----	-----	-----	-----	-----	-----	-----		
\$ 11 4cmx				CAS #: 877-09-8				
2.069	2.068	0.001	15327232	118.524	4.5 80.00- 120.00	100.00		

\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3				
6.301	6.300	0.001	15071961	133.637	5.1 80.00- 120.00	100.00		

Data File: /chem/eod2a.i/122909.b/027b2701.d
 Date: 29-DEC-2009 12:13
 Client ID: RE12-10-7563
 Sample Info: 1243517009111
 Volume Injected (uL): 1.0
 Column phase: CLP2

Instrument: eod2a.i
 Operator: JAO
 Column diameter: 0.25



STANDARDS DATA

Report Date: 31-Dec-2009 09:15

Calibration History

Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008f0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035f3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011f1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023f2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003f0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009f0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036f3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012f1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024f2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004f0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010f1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037f3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013f1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025f2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005f0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014f1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026f2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006f0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014f1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010f1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038f3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011f1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007f0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012f1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039f3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015f1501.d

12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027f2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007f0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 14:26	AR1660	/chem/ecd2a.i/122909.b/039f3901.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 13:19	AR1660	/chem/ecd2a.i/122909.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 11:17	AR1660	/chem/ecd2a.i/122909.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 08:50	AR1268	/chem/ecd2a.i/122909.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 08:39	AR1262	/chem/ecd2a.i/122909.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 08:28	AR1221	/chem/ecd2a.i/122909.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 08:17	AR1232	/chem/ecd2a.i/122909.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 07:59	AR1248	/chem/ecd2a.i/122909.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 07:48	AR1242	/chem/ecd2a.i/122909.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 07:37	AR1254	/chem/ecd2a.i/122909.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 07:26	AR1660	/chem/ecd2a.i/122909.b/002f0201.d

Report Date: 31-Dec-2009 09:15

Calibration History

Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008b0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035b3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011b1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023b2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003b0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011b1101.d

Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009b0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036b3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012b1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024b2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004b0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012b1201.d

Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010b1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037b3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013b1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025b2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005b0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013b1301.d

Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014b1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026b2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006b0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014b1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010b1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038b3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011b1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007b0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006b0601.d

Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012b1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039b3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015b1501.d
12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027b2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007b0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000		
| 29-DEC-2009 14:26 | AR1660	| /chem/ecd2a.i/122909.b/039b3901.d	|
| Ccal Level: 4 , Ccal Amount: 1000		
| 29-DEC-2009 13:19 | AR1660	| /chem/ecd2a.i/122909.b/033b3301.d	|
| Ccal Level: 4 , Ccal Amount: 1000		
| 29-DEC-2009 11:17 | AR1660	| /chem/ecd2a.i/122909.b/022b2201.d	|
| Ccal Level: 4 , Ccal Amount: 1000		
| 29-DEC-2009 08:17 | AR1232	| /chem/ecd2a.i/122909.b/006b0601.d	|
| Ccal Level: 4 , Ccal Amount: 1000		
| 29-DEC-2009 07:59 | AR1248	| /chem/ecd2a.i/122909.b/005b0501.d	|
| Ccal Level: 4 , Ccal Amount: 1000		
| 29-DEC-2009 07:48 | AR1242	| /chem/ecd2a.i/122909.b/004b0401.d	|
| Ccal Level: 4 , Ccal Amount: 1000		
| 29-DEC-2009 07:37 | AR1254	| /chem/ecd2a.i/122909.b/003b0301.d	|
| Ccal Level: 4 , Ccal Amount: 1000		
| 29-DEC-2009 07:26 | AR1660	| /chem/ecd2a.i/122909.b/002b0201.d	|
| Ccal Level: 4 , Ccal Amount: 1000		
| 29-DEC-2009 08:50 | AR1268	| /chem/ecd2a.i/122909.b/009b0901.d	|
| Ccal Level: 4 , Ccal Amount: 1000		
| 29-DEC-2009 08:39 | AR1262	| /chem/ecd2a.i/122909.b/008b0801.d	|
| Ccal Level: 4 , Ccal Amount: 1000		
| 29-DEC-2009 08:28 | AR1221	| /chem/ecd2a.i/122909.b/007b0701.d	|

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
 Quant Method : ESTD Target Version : 3.50
 Last Update : 29-Dec-2009 14:49 Number of Cpnds : 15
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events

Values

 Initial:Start Threshold 500.000000
 Initial:End Threshold 250.000000
 Initial:Area Threshold 10000.000000
 Initial:P-P Resolution 1.000000
 Initial:Bunch Factor 2.000000
 Initial:Negative Peaks OFF
 Initial:Tension 1.100000
 8.500:Bunch Factor 2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.273	2.243-2.303	2.238e+03
	2.597	2.567-2.627	4.685e+03
	2.688	2.658-2.718	1.901e+03
	2.823	2.793-2.853	9.760e+02
	2.974	2.944-3.004	1.458e+03
2 Aroclor-1221	1.436	1.406-1.466	4.641e+02
	1.898	1.868-1.928	6.570e+02
	1.997	1.967-2.027	3.467e+02
3 Aroclor-1232	2.027	1.997-2.057	1.165e+03
	2.277	2.247-2.307	9.314e+02
	2.693	2.663-2.723	8.004e+02
	2.736	2.706-2.766	5.102e+02
4 Aroclor-1242	2.981	2.951-3.011	5.840e+02
	2.274	2.244-2.304	1.733e+03
	2.689	2.659-2.719	1.484e+03
	2.731	2.701-2.761	9.058e+02
	2.824	2.794-2.854	7.269e+02
5 Aroclor-1248	2.976	2.946-3.006	1.120e+03
	2.825	2.795-2.855	1.527e+03
	2.975	2.945-3.005	2.027e+03
	3.035	3.005-3.065	1.571e+03
	3.270	3.240-3.300	2.218e+03
	3.424	3.394-3.454	1.913e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.242	3.212-3.272	2.080e+03
	3.424	3.394-3.454	2.772e+03
	3.694	3.664-3.724	3.742e+03
	3.886	3.856-3.916	2.783e+03
	4.015	3.985-4.045	2.760e+03
7 Aroclor-1260	4.014	3.984-4.044	4.165e+03
	4.286	4.256-4.316	2.591e+03
	4.451	4.421-4.481	2.631e+03
	4.664	4.634-4.694	6.088e+03
	4.853	4.823-4.883	2.942e+03
8 Aroclor-1262	3.824	3.794-3.854	2.273e+03
	4.017	3.987-4.047	3.072e+03
	4.288	4.258-4.318	4.004e+03
	4.453	4.423-4.483	3.573e+03
	4.856	4.826-4.886	2.501e+03
9 Aroclor-1268	4.884	4.854-4.914	9.392e+03
	4.910	4.880-4.940	9.361e+03
	5.043	5.013-5.073	7.073e+03
	5.281	5.251-5.311	3.056e+03
	5.478	5.448-5.508	2.201e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	1.771	1.741-1.801	6.229e+04
\$ 12 Decachlorobiphenyl	5.607	5.577-5.637	5.411e+04
13 4,4'-DDT	4.229	4.209-4.249	5.006e+04
14 4,4'-DDD	4.036	4.016-4.056	7.298e+04
15 4,4'-DDE	3.632	3.612-3.652	7.426e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
 Quant Method : ESTD Target Version : 3.50
 Last Update : 29-Dec-2009 14:47 Number of Cpnds : 15
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events

Values

```

-----
Initial:Start Threshold      1000.000000
Initial:End Threshold        500.000000
Initial:Area Threshold       500.000000
Initial:P-P Resolution       0.000000
Initial:Bunch Factor         3.000000
Initial:Negative Peaks       OFF
Initial:Tension              4.000000
  4.200:Tension              1.000000
  
```

Compound	RT	RT Window	RF
1 Aroclor-1016	2.745	2.715-2.775	4.538e+03
	3.179	3.149-3.209	3.602e+03
	3.330	3.300-3.360	2.053e+03
	3.359	3.329-3.389	2.137e+03
	3.518	3.488-3.548	2.871e+03
2 Aroclor-1221	2.292	2.262-2.322	1.263e+03
	2.397	2.367-2.427	7.739e+02
	2.442	2.412-2.472	3.051e+03
3 Aroclor-1232	2.442	2.412-2.472	2.061e+03
	2.747	2.717-2.777	1.960e+03
	3.183	3.153-3.213	1.498e+03
	3.254	3.224-3.284	9.309e+02
4 Aroclor-1242	3.521	3.491-3.551	1.107e+03
	2.746	2.716-2.776	3.445e+03
	3.181	3.151-3.211	2.681e+03
	3.253	3.223-3.283	1.637e+03
	3.331	3.301-3.361	1.508e+03
5 Aroclor-1248	3.518	3.488-3.548	2.145e+03
	3.332	3.302-3.362	3.282e+03
	3.519	3.489-3.549	4.187e+03
	3.605	3.575-3.635	4.451e+03
	3.795	3.765-3.825	4.697e+03
	3.824	3.794-3.854	5.389e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.818	3.788-3.848	4.985e+03
	3.959	3.929-3.989	5.799e+03
	4.196	4.166-4.226	4.023e+03
	4.277	4.247-4.307	7.731e+03
	4.440	4.410-4.470	5.608e+03
7 Aroclor-1260	4.414	4.384-4.444	5.767e+03
	4.565	4.535-4.595	7.124e+03
	4.677	4.647-4.707	4.819e+03
	4.874	4.844-4.904	5.632e+03
	5.500	5.470-5.530	9.038e+03
8 Aroclor-1262	4.415	4.385-4.445	4.703e+03
	4.567	4.537-4.597	5.853e+03
	4.875	4.845-4.905	8.946e+03
	5.076	5.046-5.106	7.772e+03
	5.254	5.224-5.284	1.672e+04
9 Aroclor-1268	5.498	5.468-5.528	2.032e+04
	5.531	5.501-5.561	2.018e+04
	5.703	5.673-5.733	1.496e+04
	5.903	5.873-5.933	6.438e+03
	6.127	6.097-6.157	4.409e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	2.068	2.038-2.098	1.293e+05
\$ 12 Decachlorobiphenyl	6.300	6.270-6.330	1.128e+05
13 4,4'-DDT	4.814	4.794-4.834	8.705e+04
14 4,4'-DDD	4.600	4.580-4.620	1.499e+05
15 4,4'-DDE	4.195	4.175-4.215	1.504e+05

GEL Laboratories LLC
INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
 End Cal Date : 14-DEC-2009 09:35
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : Falcon
 Method file : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
 Cal Date : 29-Dec-2009 14:49 jen01212
 Curve Type : Average

Calibration File Names:

Level 1: /chem/ecd2a.i/120209.b/008f0801.d
 Level 2: /chem/ecd2a.i/120209.b/009f0901.d
 Level 3: /chem/ecd2a.i/120209.b/010f1001.d
 Level 4: /chem/ecd2a.i/113009a.b/014f1401.d
 Level 5: /chem/ecd2a.i/120209.b/012f1201.d

Compound	100.000	250.000	500.000	1000.000	4000.000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
1 Aroclor-1016(1)	2466	2335	2250	2152	1986	2238	8.133
(2)	4869	4683	4664	4616	4594	4685	2.323
(3)	2072	1962	1892	1818	1764	1901	6.365
(4)	1061	990	984	930	915	976	5.885
(5)	1595	1490	1441	1389	1375	1458	6.121
2 Aroclor-1221(1)	++++	++++	++++	464	++++	464	0.000
(2)	++++	++++	++++	657	++++	657	0.000
(3)	++++	++++	++++	347	++++	347	0.000
3 Aroclor-1232(1)	++++	++++	++++	1165	++++	1165	0.000
(2)	++++	++++	++++	931	++++	931	0.000
(3)	++++	++++	++++	800	++++	800	0.000
(4)	++++	++++	++++	510	++++	510	0.000
(5)	++++	++++	++++	584	++++	584	0.000
4 Aroclor-1242(1)	1990	1799	1692	1619	1566	1733	9.686
(2)	1678	1536	1439	1387	1381	1484	8.410
(3)	1015	931	874	843	866	906	7.639
(4)	817	761	714	669	673	727	8.615
(5)	1272	1143	1059	1036	1087	1120	8.434
5 Aroclor-1248(1)	1738	1529	1527	1515	1325	1527	9.560
(2)	2238	2070	1990	2006	1832	2027	7.247
(3)	1706	1611	1571	1551	1415	1571	6.718
(4)	2322	2198	2161	2230	2178	2218	2.874
(5)	2083	1922	1902	1885	1770	1913	5.861
6 Aroclor-1254(1)	2304	2118	2048	2007	1924	2080	6.888
(2)	2981	2797	2739	2702	2642	2772	4.677
(3)	3870	3712	3711	3744	3675	3742	2.011
(4)	2886	2776	2725	2760	2767	2783	2.186
(5)	2994	2820	2741	2711	2533	2760	6.080

GEL Laboratories LLC
INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
 End Cal Date : 14-DEC-2009 09:35
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : Falcon
 Method file : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
 Cal Date : 29-Dec-2009 14:49 jen01212
 Curve Type : Average

	100.000	250.000	500.000	1000.000	4000.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
=====							
7 Aroclor-1260(1)	4187	4145	4185	4134	4175	4165	0.584
(2)	2696	2603	2589	2529	2536	2591	2.593
(3)	2699	2626	2625	2591	2614	2631	1.539
(4)	5867	6003	6142	6129	6296	6088	2.650
(5)	2925	2904	2929	2920	3034	2942	1.769
8 Aroclor-1262(1)	2530	2266	2239	2239	2092	2273	6.993
(2)	3295	3066	3031	3051	2917	3072	4.482
(3)	4237	3997	3977	3997	3815	4004	3.763
(4)	3754	3532	3556	3594	3430	3573	3.295
(5)	2578	2453	2481	2538	2454	2501	2.217
9 Aroclor-1268(1)	9077	9136	9272	9373	10103	9392	4.409
(2)	9332	9272	9238	9197	9765	9361	2.470
(3)	6985	6923	6953	6984	7523	7073	3.568
(4)	3112	3015	2984	2964	3207	3056	3.331
(5)	21397	21592	21760	21851	23464	22013	3.767
10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
13 4,4'-DDT	++++	++++	++++	50063	++++	50063	0.000
14 4,4'-DDD	++++	++++	++++	72978	++++	72978	0.000
15 4,4'-DDE	++++	++++	++++	74262	++++	74262	0.000
=====							
11 4cmx	61300	61246	62868	63075	62969	62292	1.498
12 Decachlorobiphenyl	55102	53352	54400	53360	54345	54112	1.389

GEL Laboratories LLC
INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
 End Cal Date : 14-DEC-2009 09:35
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : Falcon
 Method file : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
 Cal Date : 29-Dec-2009 14:47 jen01212
 Curve Type : Average

Calibration File Names:

Level 1: /chem/ecd2a.i/120209.b/008b0801.d
 Level 2: /chem/ecd2a.i/120209.b/009b0901.d
 Level 3: /chem/ecd2a.i/120209.b/010b1001.d
 Level 4: /chem/ecd2a.i/113009a.b/014b1401.d
 Level 5: /chem/ecd2a.i/120209.b/012b1201.d

Compound	100.000	250.000	500.000	1000.000	4000.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5		
1 Aroclor-1016(1)	4662	4582	4609	4551	4285	4538	3.244
(2)	3647	3696	3564	3575	3528	3602	1.886
(3)	2078	2044	2044	2059	2041	2053	0.760
(4)	2149	2125	2133	2140	2138	2137	0.428
(5)	2852	2832	2882	2908	2879	2871	1.025
2 Aroclor-1221(1)	++++	++++	++++	1263	++++	1263	0.000
(2)	++++	++++	++++	774	++++	774	0.000
(3)	++++	++++	++++	3051	++++	3051	0.000
3 Aroclor-1232(1)	++++	++++	++++	2061	++++	2061	0.000
(2)	++++	++++	++++	1960	++++	1960	0.000
(3)	++++	++++	++++	1498	++++	1498	0.000
(4)	++++	++++	++++	931	++++	931	0.000
(5)	++++	++++	++++	1107	++++	1107	0.000
4 Aroclor-1242(1)	3674	3489	3409	3384	3271	3445	4.346
(2)	2815	2677	2634	2637	2644	2681	2.863
(3)	1696	1624	1594	1606	1663	1637	2.599
(4)	1601	1513	1471	1467	1487	1508	3.655
(5)	2235	2100	2068	2141	2180	2145	3.068
5 Aroclor-1248(1)	3439	3315	3263	3296	3099	3282	3.723
(2)	4291	4205	4192	4250	3996	4187	2.717
(3)	4601	4495	4377	4484	4299	4451	2.609
(4)	4665	4612	4696	4831	4682	4697	1.733
(5)	5471	5399	5390	5477	5208	5389	2.022
6 Aroclor-1254(1)	5121	4955	4998	5025	4828	4985	2.145
(2)	5885	5693	5812	5852	5753	5799	1.330
(3)	4010	3906	3992	4126	4082	4023	2.109
(4)	7559	7611	7766	7925	7797	7731	1.909
(5)	5659	5569	5439	5821	5553	5608	2.538

GEL Laboratories LLC
INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
 End Cal Date : 14-DEC-2009 09:35
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : Falcon
 Method file : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
 Cal Date : 29-Dec-2009 14:47 jen01212
 Curve Type : Average

Compound	100.000	250.000	500.000	1000.000	4000.000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
7 Aroclor-1260 (1)	5735	5627	5779	5816	5877	5767	1.626
(2)	6687	7031	7243	7286	7372	7124	3.855
(3)	4572	4701	4890	4942	4988	4819	3.647
(4)	5377	5518	5714	5746	5803	5632	3.163
(5)	8369	8607	9231	9252	9728	9038	6.039
8 Aroclor-1262 (1)	4855	4536	4634	4812	4677	4703	2.776
(2)	5760	5648	5834	6083	5942	5853	2.859
(3)	8687	8674	9001	9349	9021	8946	3.121
(4)	7559	7507	7790	8124	7880	7772	3.221
(5)	15890	16154	16824	17584	17141	16719	4.167
9 Aroclor-1268 (1)	18829	19584	20101	20533	22559	20321	6.904
(2)	18822	19343	20333	20389	22025	20182	6.077
(3)	13874	14365	14864	15141	16565	14962	6.808
(4)	5734	6115	6404	6840	7097	6438	8.497
(5)	40707	42777	43856	44408	48724	44094	6.689
10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
13 4,4'-DDT	++++	++++	++++	87046	++++	87046	0.000
14 4,4'-DDD	++++	++++	++++	149858	++++	149858	0.000
15 4,4'-DDE	++++	++++	++++	150414	++++	150414	0.000
11 4cmx	118604	126358	131414	133891	136323	129318	5.440
12 Decachlorobiphenyl	109662	108705	113295	113170	119083	112783	3.614

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073
 Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 0726
 Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09
 Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	1979.810	0.01	-11.5	15.0
(2)	4685.268	4181.732	0.01	-10.7	15.0
(3)	1901.482	1665.482	0.01	-12.4	15.0
(4)	975.978	854.977	0.01	-12.4	15.0
(5)	1457.866	1264.967	0.01	-13.2	15.0
Aroclor-1260	4165.097	4064.277	0.01	-2.4	15.0
(2)	2590.571	2586.356	0.01	-0.2	15.0
(3)	2631.205	2655.669	0.01	0.9	15.0
(4)	6087.596	6276.714	0.01	3.1	15.0
(5)	2942.150	3010.974	0.01	2.3	15.0
4cmx	62291.660	63833.220	0.01	2.5	15.0
Decachlorobiphenyl	54111.563	60710.230	0.01	12.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073
 Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 0726
 Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09
 Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4194.660	0.01	-7.6	15.0
(2)	3602.166	3292.312	0.01	-8.6	15.0
(3)	2053.230	1911.309	0.01	-6.9	15.0
(4)	2137.091	2011.780	0.01	-5.9	15.0
(5)	2870.516	2685.788	0.01	-6.4	15.0
Aroclor-1260	5766.921	5686.021	0.01	-1.4	15.0
(2)	7123.891	7269.875	0.01	2.0	15.0
(3)	4818.707	4996.379	0.01	3.7	15.0
(4)	5631.757	5755.064	0.01	2.2	15.0
(5)	9037.511	9498.759	0.01	5.1	15.0
4cmx	129318.03	138216.34	0.01	6.9	15.0
Decachlorobiphenyl	112782.99	128323.67	0.01	13.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073
 Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 0737
 Lab File ID: 003F0301 Init. Calib. Date(s): 11/30/09 11/30/09
 Heated Purge: (Y/N) N Init. Calib. Times: 0843 0927
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	2080.052	1956.243	0.01	-6.0	15.0
(2)	2772.138	2598.081	0.01	-6.3	15.0
(3)	3742.400	3579.086	0.01	-4.4	15.0
(4)	2782.705	2609.856	0.01	-6.2	15.0
(5)	2760.043	2682.182	0.01	-2.8	15.0
4cmx	62291.660	67448.930	0.01	8.3	15.0
Decachlorobiphenyl	54111.563	64356.870	0.01	18.9	15.0 <-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073
 Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 0737
 Lab File ID: 003B0301 Init. Calib. Date(s): 11/30/09 11/30/09
 Heated Purge: (Y/N) N Init. Calib. Times: 0843 0927
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1254	4985.297	4876.217	0.01	-2.2	15.0
(2)	5798.946	5566.214	0.01	-4.0	15.0
(3)	4022.990	3977.097	0.01	-1.1	15.0
(4)	7731.372	7608.694	0.01	-1.6	15.0
(5)	5608.308	5544.908	0.01	-1.1	15.0
=====	=====	=====	=====	=====	=====
4cmx	129318.03	147043.14	0.01	13.7	15.0
Decachlorobiphenyl	112782.99	135608.39	0.01	20.2	15.0
=====	=====	=====	=====	=====	=====

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FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073
 Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 0748
 Lab File ID: 004F0401 Init. Calib. Date(s): 11/12/09 11/12/09
 Heated Purge: (Y/N) N Init. Calib. Times: 1409 1453
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	1733.449	1765.815	0.01	1.9	15.0
(2)	1484.278	1458.151	0.01	-1.8	15.0
(3)	905.797	900.745	0.01	-0.6	15.0
(4)	726.896	710.652	0.01	-2.2	15.0
(5)	1119.508	1119.352	0.01	-0.0	15.0
4cmx	62291.660	67737.850	0.01	8.7	15.0
Decachlorobiphenyl	54111.563	64748.250	0.01	19.6	15.0 <-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073
 Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 0748
 Lab File ID: 004B0401 Init. Calib. Date(s): 11/12/09 11/12/09
 Heated Purge: (Y/N) N Init. Calib. Times: 1409 1453
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	3445.297	3718.888	0.01	7.9	15.0
(2)	2681.488	2793.608	0.01	4.2	15.0
(3)	1636.589	1669.349	0.01	2.0	15.0
(4)	1508.146	1567.550	0.01	3.9	15.0
(5)	2144.941	2299.357	0.01	7.2	15.0
4cmx	129318.03	146962.92	0.01	13.6	15.0
Decachlorobiphenyl	112782.99	137028.37	0.01	21.5	15.0

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FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073
 Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 1117
 Lab File ID: 022F2201 Init. Calib. Date(s): 12/14/09 12/14/09
 Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2015.417	0.01	-9.9	15.0
(2)	4685.268	4292.741	0.01	-8.4	15.0
(3)	1901.482	1720.292	0.01	-9.5	15.0
(4)	975.978	868.251	0.01	-11.0	15.0
(5)	1457.866	1328.140	0.01	-8.9	15.0
Aroclor-1260	4165.097	4128.858	0.01	-0.9	15.0
(2)	2590.571	2595.442	0.01	0.2	15.0
(3)	2631.205	2674.422	0.01	1.6	15.0
(4)	6087.596	6344.394	0.01	4.2	15.0
(5)	2942.150	3057.700	0.01	3.9	15.0
4cmx	62291.660	64591.400	0.01	3.7	15.0
Decachlorobiphenyl	54111.563	59777.760	0.01	10.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073
 Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 1117
 Lab File ID: 022B2201 Init. Calib. Date(s): 12/14/09 12/14/09
 Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4206.631	0.01	-7.3	15.0
(2)	3602.166	3357.192	0.01	-6.8	15.0
(3)	2053.230	1937.576	0.01	-5.6	15.0
(4)	2137.091	2015.700	0.01	-5.7	15.0
(5)	2870.516	2726.459	0.01	-5.0	15.0
Aroclor-1260	5766.921	5723.117	0.01	-0.8	15.0
(2)	7123.891	7231.224	0.01	1.5	15.0
(3)	4818.707	4952.700	0.01	2.8	15.0
(4)	5631.757	5709.014	0.01	1.4	15.0
(5)	9037.511	9420.244	0.01	4.2	15.0
4cmx	129318.03	138965.45	0.01	7.5	15.0
Decachlorobiphenyl	112782.99	126206.43	0.01	11.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073
 Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 1319
 Lab File ID: 033F3301 Init. Calib. Date(s): 12/14/09 12/14/09
 Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	1993.207	0.01	-10.9	15.0
(2)	4685.268	4235.451	0.01	-9.6	15.0
(3)	1901.482	1681.845	0.01	-11.6	15.0
(4)	975.978	855.469	0.01	-12.3	15.0
(5)	1457.866	1272.409	0.01	-12.7	15.0
Aroclor-1260	4165.097	4051.908	0.01	-2.7	15.0
(2)	2590.571	2534.869	0.01	-2.2	15.0
(3)	2631.205	2598.438	0.01	-1.2	15.0
(4)	6087.596	6222.715	0.01	2.2	15.0
(5)	2942.150	2984.601	0.01	1.4	15.0
4cmx	62291.660	63890.880	0.01	2.6	15.0
Decachlorobiphenyl	54111.563	59712.280	0.01	10.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073
 Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 1319
 Lab File ID: 033B3301 Init. Calib. Date(s): 12/14/09 12/14/09
 Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4214.100	0.01	-7.1	15.0
(2)	3602.166	3324.513	0.01	-7.7	15.0
(3)	2053.230	1908.470	0.01	-7.0	15.0
(4)	2137.091	1986.637	0.01	-7.0	15.0
(5)	2870.516	2683.627	0.01	-6.5	15.0
Aroclor-1260	5766.921	5648.155	0.01	-2.0	15.0
(2)	7123.891	7199.691	0.01	1.1	15.0
(3)	4818.707	4916.596	0.01	2.0	15.0
(4)	5631.757	5644.741	0.01	0.2	15.0
(5)	9037.511	9437.102	0.01	4.4	15.0
4cmx	129318.03	138879.46	0.01	7.4	15.0
Decachlorobiphenyl	112782.99	126108.28	0.01	11.8	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/002f0201.d

Lab Smp Id: WAR091211-60 01

Client Smp ID: AR166001

Inj Date : 29-DEC-2009 07:26

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |WAR091211-60 01

Misc Info : |PCB_CVS|1660||CVS|

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m

Meth Date : 29-Dec-2009 13:37 jen01212 Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012f1201.d

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS							
			CAL-AMT		ON-COL		
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====

\$ 11 4cmx					CAS #: 877-09-8		
1.771	1.771	0.000	6383322	100.000	102	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.607	5.607	0.000	6071023	100.000	112	80.00- 120.00	100.00

1 Aroclor-1016					CAS #: 12674-11-2		
2.273	2.273	0.000	1979809	1000.00	885	80.00- 120.00	100.00
2.597	2.597	0.000	4181731	1000.00	892	192.49- 232.49	211.22
2.688	2.688	0.000	1665482	1000.00	876	64.38- 104.38	84.12
2.823	2.823	0.000	854976	1000.00	876	22.92- 62.92	43.18
2.974	2.974	0.000	1264967	1000.00	868	43.84- 83.84	63.89
Average of Peak Amounts =					879		

7 Aroclor-1260					CAS #: 11096-82-5		
4.014	4.014	0.000	4064277	1000.00	976	80.00- 120.00	100.00
4.286	4.286	0.000	2586356	1000.00	998	42.56- 82.56	63.64
4.451	4.451	0.000	2655669	1000.00	1010	44.13- 84.13	65.34
4.664	4.664	0.000	6276714	1000.00	1030	133.57- 173.57	154.44
4.853	4.853	0.000	3010973	1000.00	1020	53.66- 93.66	74.08
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecod2a.i/122909.b/002f0201.d

Date: 29-DEC-2009 07:26

Client ID: AR166001

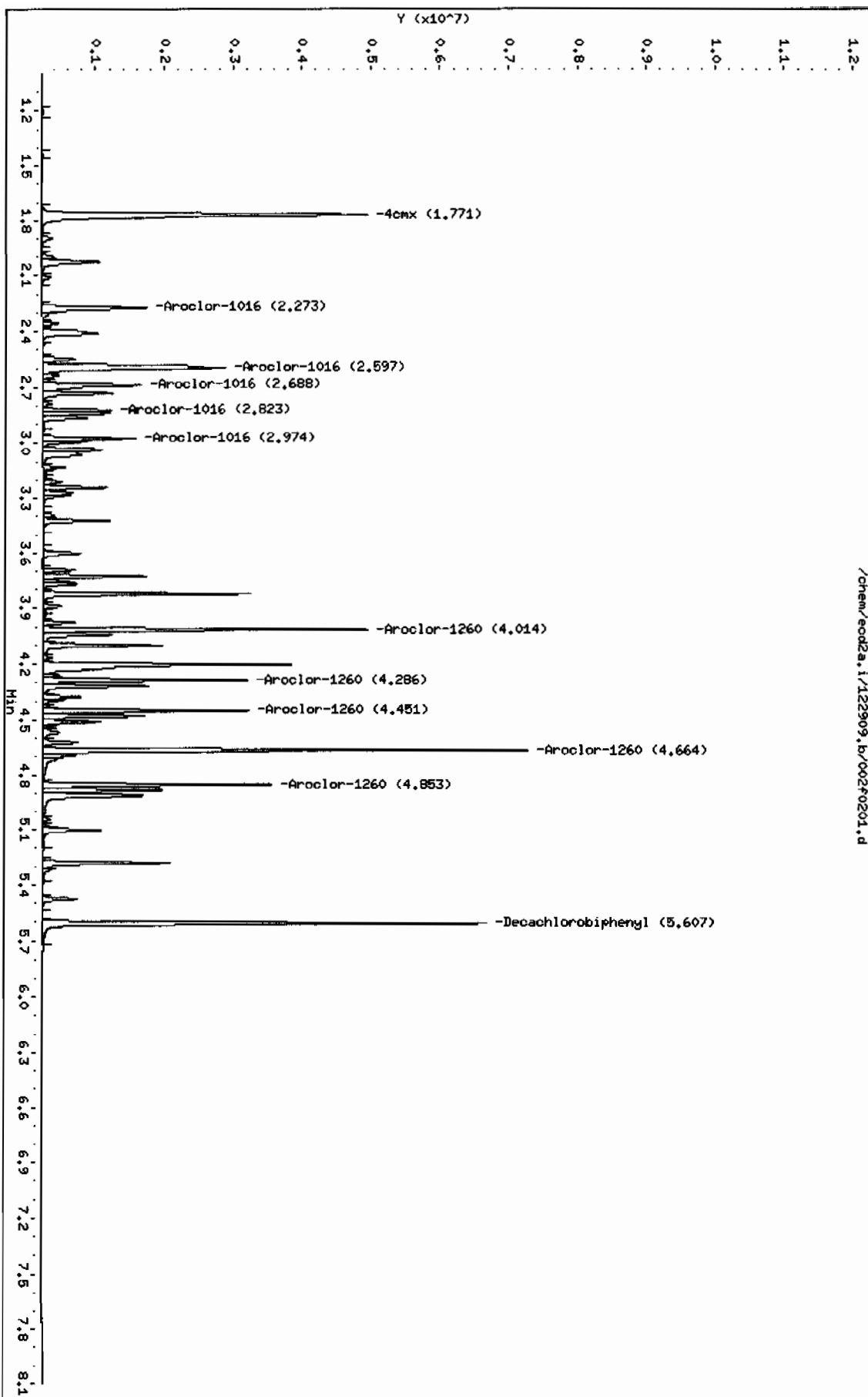
Sample Info: 1M8091211-60 01

Column phase: CLP1

Instrument: ecod2a.i

Operator: JROC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/002b0201.d

Lab Smp Id: WAR091211-60 01

Client Smp ID: AR166001

Inj Date : 29-DEC-2009 07:26

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |WAR091211-60 01

Misc Info : |PCB_CVS|1660||CVS|

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m

Meth Date : 29-Dec-2009 14:41 jen01212

Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012b1201.d

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/L)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
11 4cmx					CAS #: 877-09-8			
2.068	2.068	0.000	13821634	100.000	107	80.00-	120.00	100.00

12 Decachlorobiphenyl					CAS #: 2051-24-3			
6.300	6.300	0.000	12832367	100.000	114	80.00-	120.00	100.00

1 Aroclor-1016					CAS #: 12674-11-2			
2.745	2.745	0.000	4194660	1000.00	924	80.00-	120.00	100.00
3.179	3.179	0.000	3292312	1000.00	914	58.49-	98.49	78.49
3.330	3.330	0.000	1911309	1000.00	931	25.57-	65.57	45.57
3.359	3.359	0.000	2011780	1000.00	941	27.96-	67.96	47.96
3.518	3.518	0.000	2685788	1000.00	936	44.03-	84.03	64.03
Average of Peak Amounts =					929			

7 Aroclor-1260					CAS #: 11096-82-5			
4.414	4.414	0.000	5686021	1000.00	986	80.00-	120.00	100.00
4.565	4.565	0.000	7269875	1000.00	1020	107.86-	147.86	127.86
4.677	4.677	0.000	4996379	1000.00	1040	67.87-	107.87	87.87
4.874	4.874	0.000	5755064	1000.00	1020	81.21-	121.21	101.21
5.500	5.500	0.000	9498759	1000.00	1050	147.05-	187.05	167.05
Average of Peak Amounts =					1.02e+03			

Data File: /chem/eod2a.i/122909.b/002b0201.d

Date: 29-DEC-2009 07:26

Client ID: PR16001

Sample Info: 1MAR091211-60 01

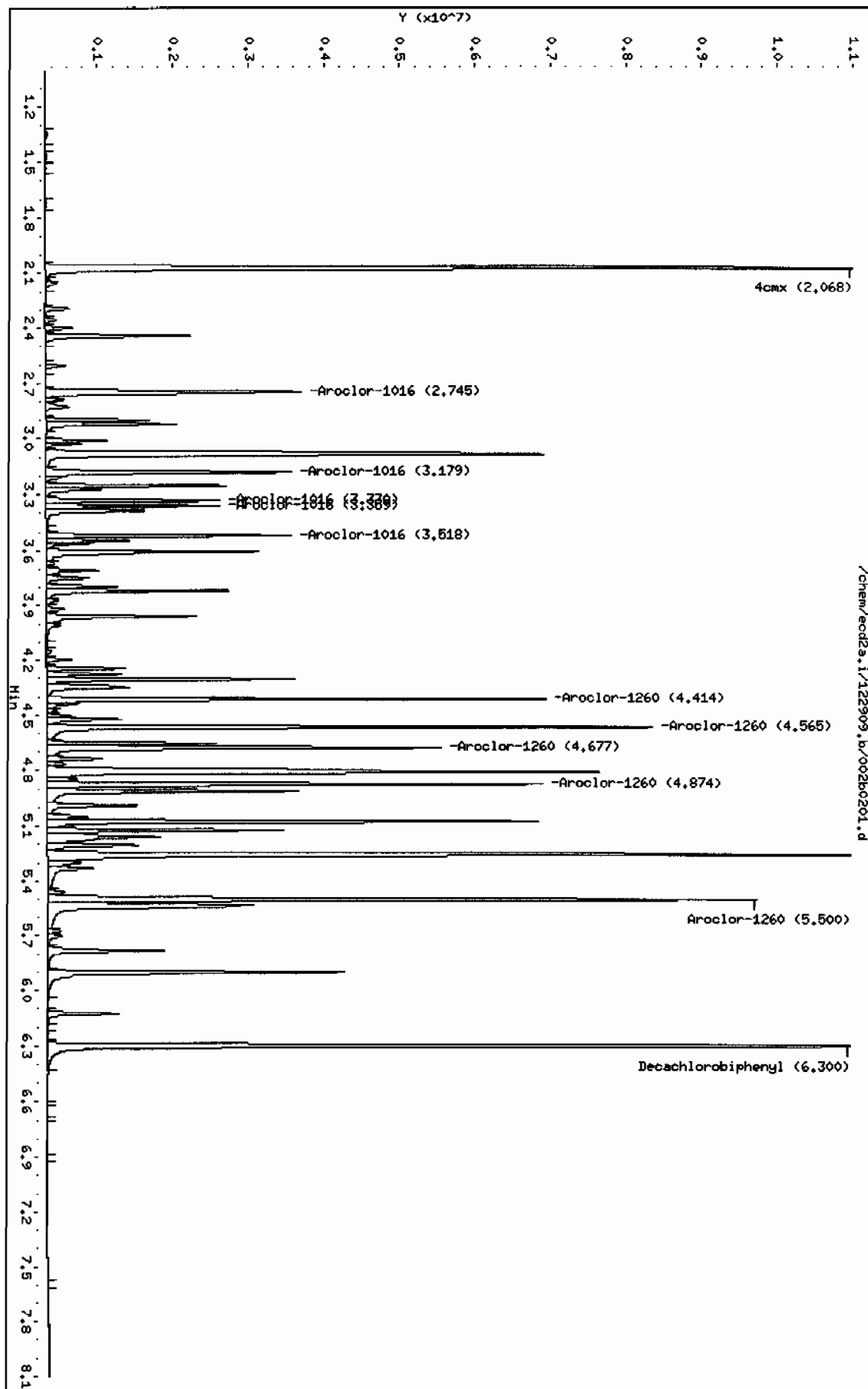
Column phase: CLP2

Instrument: eod2a.i

Operator: JHOC

Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/003f0301.d

Lab Smp Id: WAR091216-54

Client Smp ID: AR125401

Inj Date : 29-DEC-2009 07:37

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |WAR091216-54

Misc Info : |PCB_CVS|1254||CVS|

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m

Meth Date : 29-Dec-2009 13:37 jen01212

Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012f1201.d

Als bottle: 3

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1254.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/L)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8			
1.771	1.771	0.000	6744893	100.000	108	80.00- 120.00		100.00

\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.608	5.607	0.001	6435687	100.000	119	80.00- 120.00		100.00

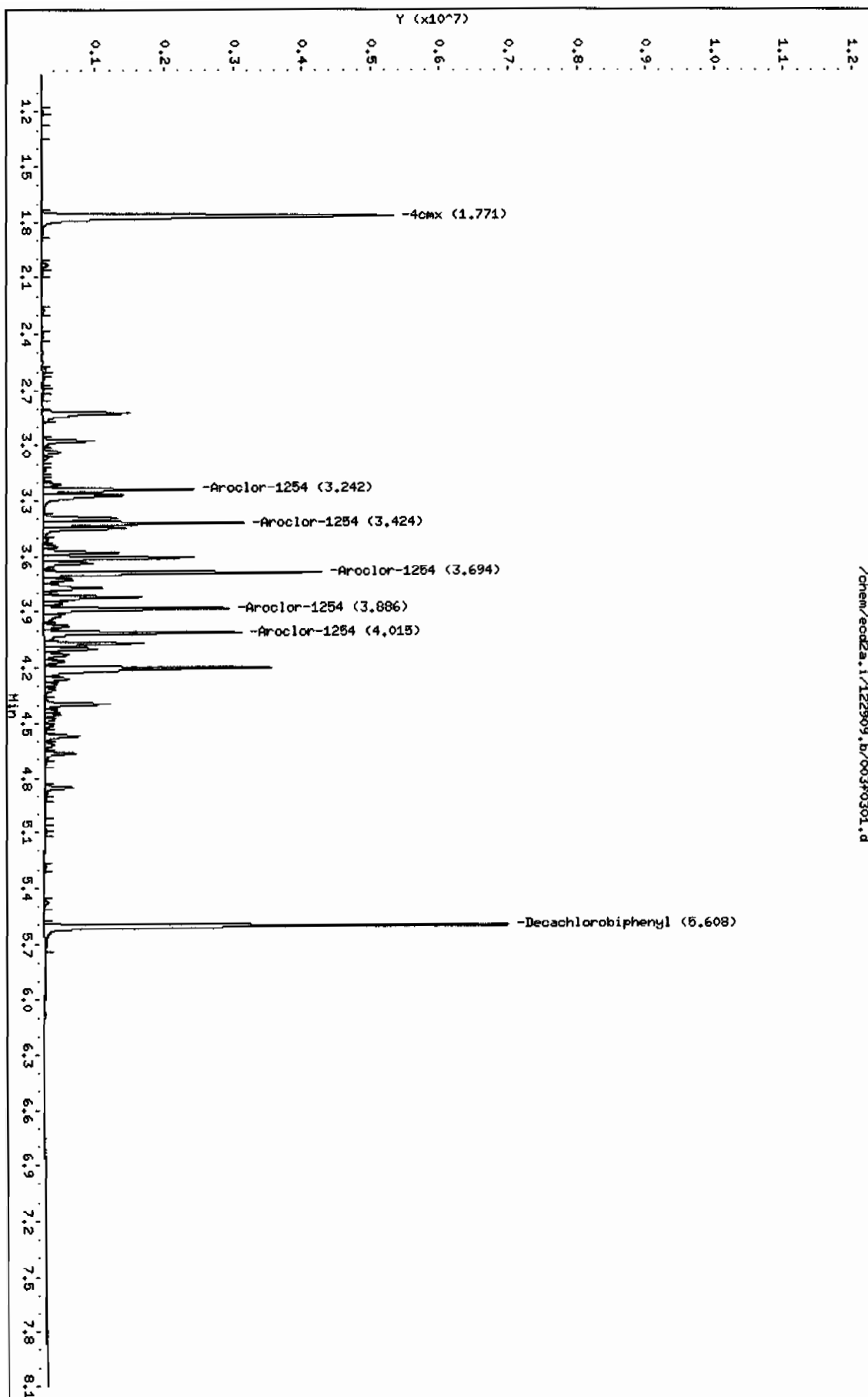
6 Aroclor-1254					CAS #: 11097-69-1			
3.242	3.242	0.000	1956242	1000.00	940	80.00- 120.00		100.00
3.424	3.424	0.000	2598080	1000.00	937	112.81- 152.81		132.81
3.694	3.694	0.000	3579085	1000.00	956	162.96- 202.96		182.96
3.886	3.886	0.000	2609855	1000.00	938	113.41- 153.41		133.41
4.015	4.015	0.000	2682182	1000.00	972	117.11- 157.11		137.11
Average of Peak Amounts =					949			

Data File: /chem/eod2a.i/122909.b/003f0301.d
Date: 29-DEC-2009 07:37
Client ID: AR125401
Sample Info: 148091216-54

Column phase: CLP1

Instrument: eod2a.i
Operator: JROC
Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/003b0301.d
 Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
 Inj Date : 29-DEC-2009 07:37
 Operator : JAOC Inst ID: ecd2a.i
 Smp Info : |WAR091216-54
 Misc Info : |PCB_CVS|1254||CVS|
 Comment :
 Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
 Meth Date : 29-Dec-2009 14:42 jen01212 Quant Type: ESTD
 Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
 Als bottle: 3 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: AR1254.sub
 Target Version: 3.50 Sample Matrix: None
 Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT	ON-COL	TARGET RANGE	RATIO
			RESPONSE (ug/L)	(ug/L)		
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8		
2.068	2.068	0.000	14704314 100.000	114	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
6.301	6.300	0.001	13560839 100.000	120	80.00- 120.00	100.00

6 Aroclor-1254				CAS #: 11097-69-1		
3.818	3.818	0.000	4876217 1000.00	978	80.00- 120.00	100.00
3.959	3.959	0.000	5566214 1000.00	960	94.15- 134.15	114.15
4.196	4.196	0.000	3977097 1000.00	988	61.56- 101.56	81.56
4.277	4.277	0.000	7608694 1000.00	984	136.04- 176.04	156.04
4.440	4.440	0.000	5544908 1000.00	989	93.71- 133.71	113.71
Average of Peak Amounts *				980		

Data File: /chem/eod2a.i/122909.b/003b0301.d

Date: 29-DEC-2009 07:37

Client ID: AR125401

Sample Info: IWR091216-54

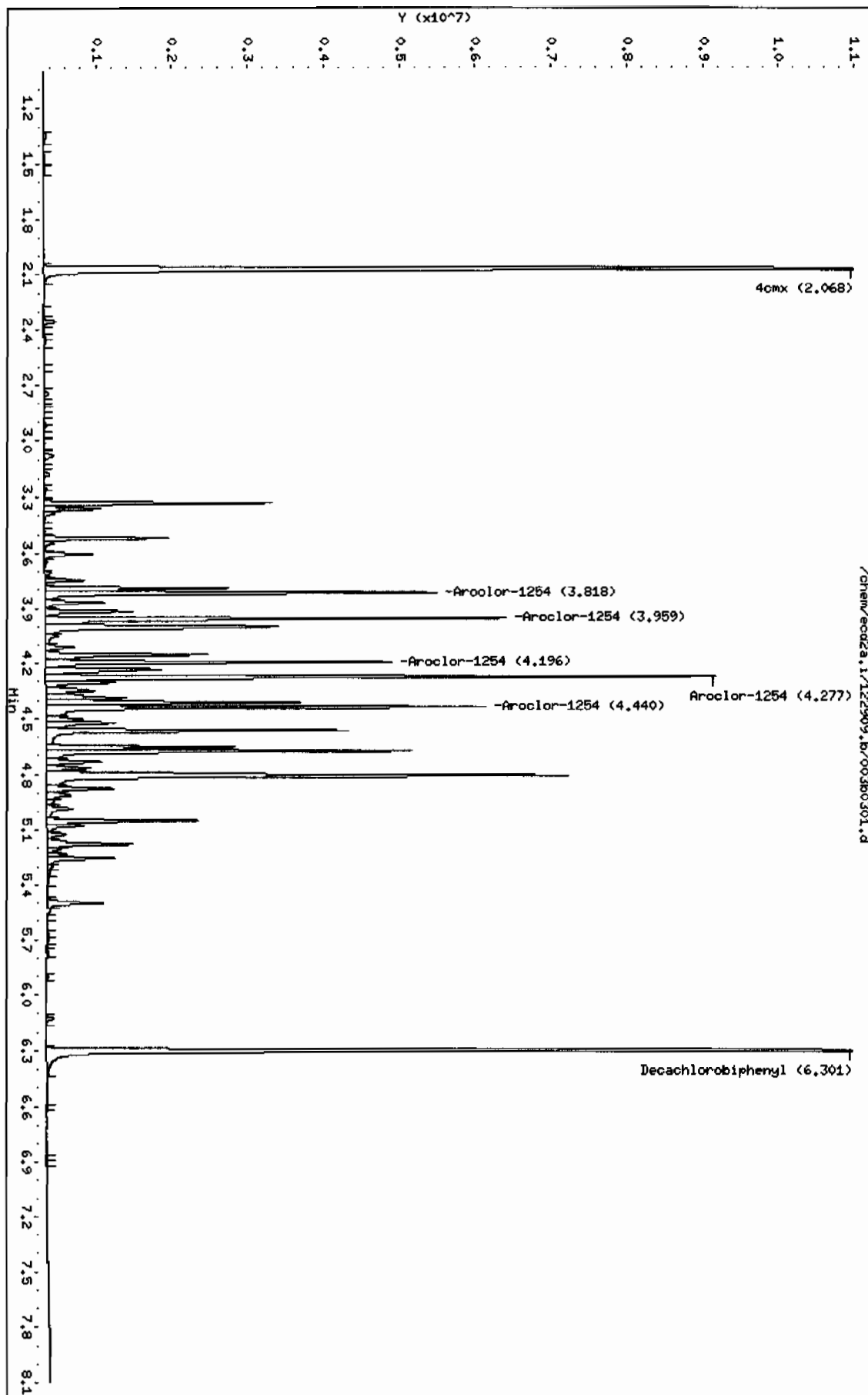
Column phase: CLP2

Instrument: eod2a.i

Operator: JROC

Column diameter: 0.25

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/004f0401.d

Lab Smp Id: WAR091217-42

Client Smp ID: AR124201

Inj Date : 29-DEC-2009 07:48

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |WAR091217-42

Misc Info : |PCB_CVS|1242||CVS|

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m

Meth Date : 29-Dec-2009 13:37 jen01212

Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012f1201.d

Als bottle: 4

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1242.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/L)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8			
1.771	1.771	0.000	6773785	100.000	109	80.00-	120.00	100.00

\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.609	5.607	0.002	6474825	100.000	120	80.00-	120.00	100.00

4 Aroclor-1242					CAS #: 53469-21-9			
2.274	2.274	0.000	1765815	1000.00	1020	80.00-	120.00	100.00
2.689	2.689	0.000	1458150	1000.00	982	62.58-	102.58	82.58
2.731	2.731	0.000	900745	1000.00	994	31.01-	71.01	51.01
2.824	2.824	0.000	710651	1000.00	978	20.24-	60.24	40.24
2.976	2.976	0.000	1119351	1000.00	1000	43.39-	83.39	63.39
Average of Peak Amounts =					995			

Data File: /chem/ecd2a.i/122909.b/004f0401.d

Date : 29-DEC-2009 07:48

Client ID: AR124201

Sample Info: IWR091217-42

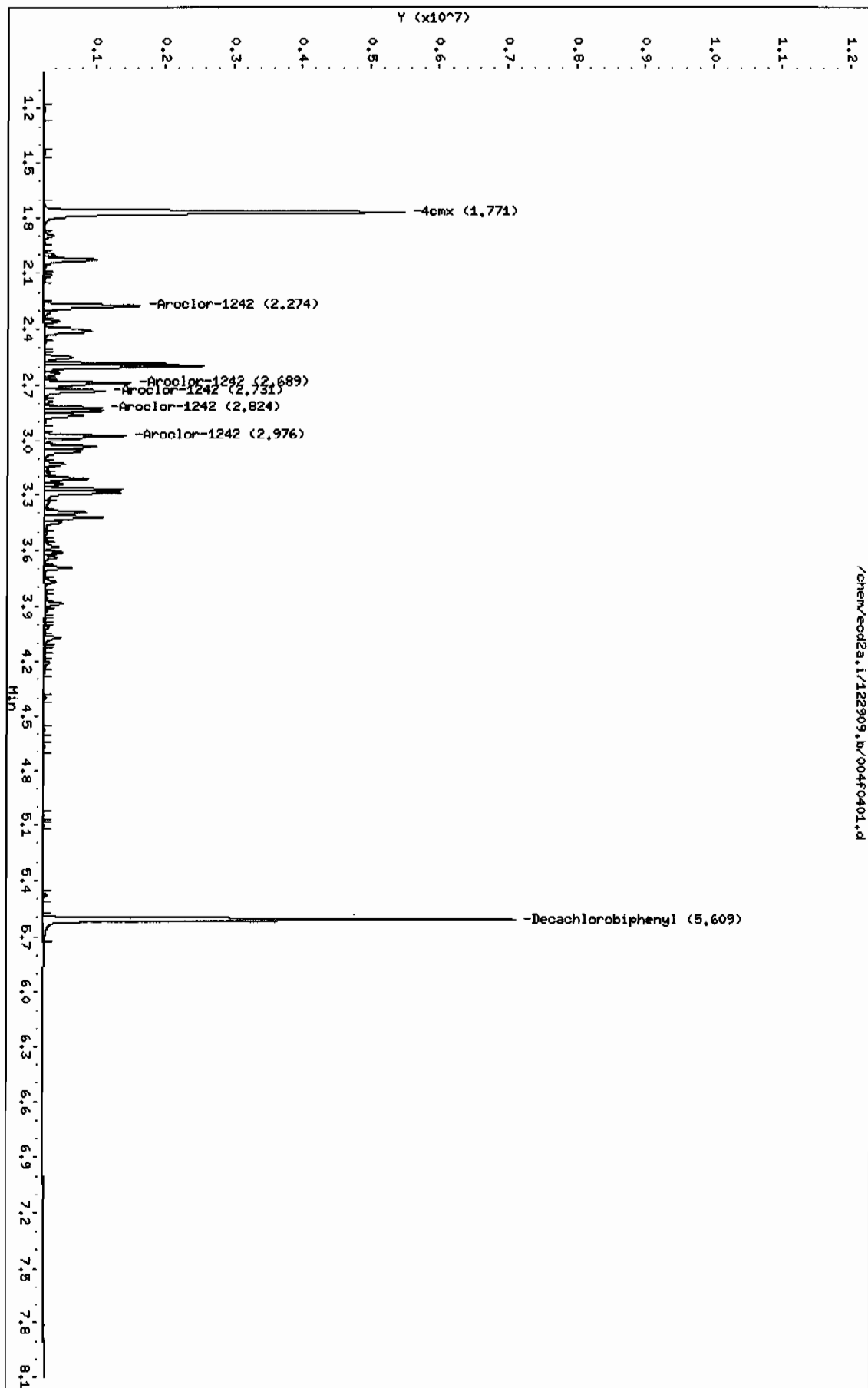
Column phase: CLP1

Instrument: ecd2a.i

Operator: JMO

Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/004b0401.d

Lab Smp Id: WAR091217-42

Client Smp ID: AR124201

Inj Date : 29-DEC-2009 07:48

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |WAR091217-42

Misc Info : |PCB_CVS|1242||CVS|

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m

Meth Date : 29-Dec-2009 14:43 jen01212

Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012b1201.d

Als bottle: 4

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1242.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
xx	xxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxx

\$ 11 4cmx				CAS #: 877-09-8		
2.069	2.068	0.001	14696292 100.000	114	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
6.302	6.300	0.002	13702837 100.000	121	80.00- 120.00	100.00

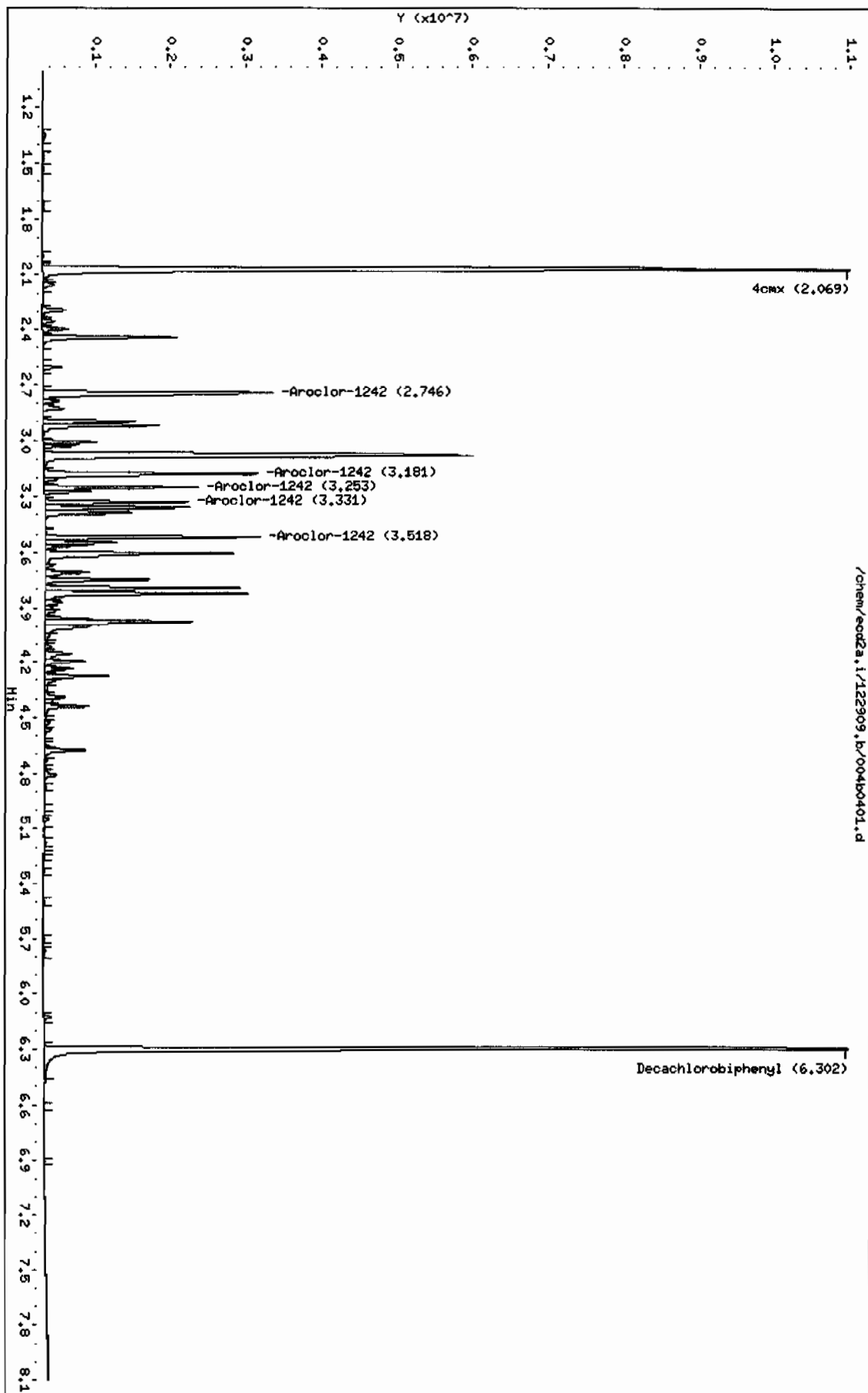
4 Aroclor-1242				CAS #: 53469-21-9		
2.746	2.746	0.000	3718888 1000.00	1080	80.00- 120.00	100.00
3.181	3.181	0.000	2793608 1000.00	1040	55.12- 95.12	75.12
3.253	3.253	0.000	1669349 1000.00	1020	24.89- 64.89	44.89
3.331	3.331	0.000	1567550 1000.00	1040	22.15- 62.15	42.15
3.518	3.518	0.000	2299357 1000.00	1070	41.83- 81.83	61.83
Average of Peak Amounts =				1.05e+03		

Data File: /chem/ecod2a.i/122909.b/004b0401.d
Date : 29-DEC-2009 07:48
Client ID: AR124201
Sample Info: IMR091217-42

Column phase: CLP2

Instrument: ecod2a.i
Operator: JHOC
Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/005f0501.d

Lab Smp Id: WAR091217-48

Client Smp ID: AR124801

Inj Date : 29-DEC-2009 07:59

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |WAR091217-48

Misc Info : |PCB_CVS|1248||CVS|

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m

Meth Date : 29-Dec-2009 13:37 jen01212

Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012f1201.d

Als bottle: 5

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1248.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
---	-----	-----	-----	-----	-----	-----	-----
\$ 11 4cmx					CAS #: 877-09-8		
1.770	1.771	-0.001	7360215	100.000	118	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.607	0.003	7090053	100.000	131	80.00- 120.00	100.00

5 Aroclor-1248					CAS #: 12672-29-6		
2.825	2.825	0.000	1468344	1000.00	962	80.00- 120.00	100.00
2.975	2.975	0.000	1982668	1000.00	978	115.03- 155.03	135.03
3.035	3.035	0.000	1519725	1000.00	967	83.50- 123.50	103.50
3.270	3.270	0.000	2078664	1000.00	937	121.57- 161.57	141.57
3.424	3.424	0.000	1799011	1000.00	940	102.52- 142.52	122.52
Average of Peak Amounts =					957		

Data File: /chem/eod2a.i/122909.b/005f0501.d

Date: 29-DEC-2009 07:59

Client ID: AR124801

Sample Info: 1W6R091217-48

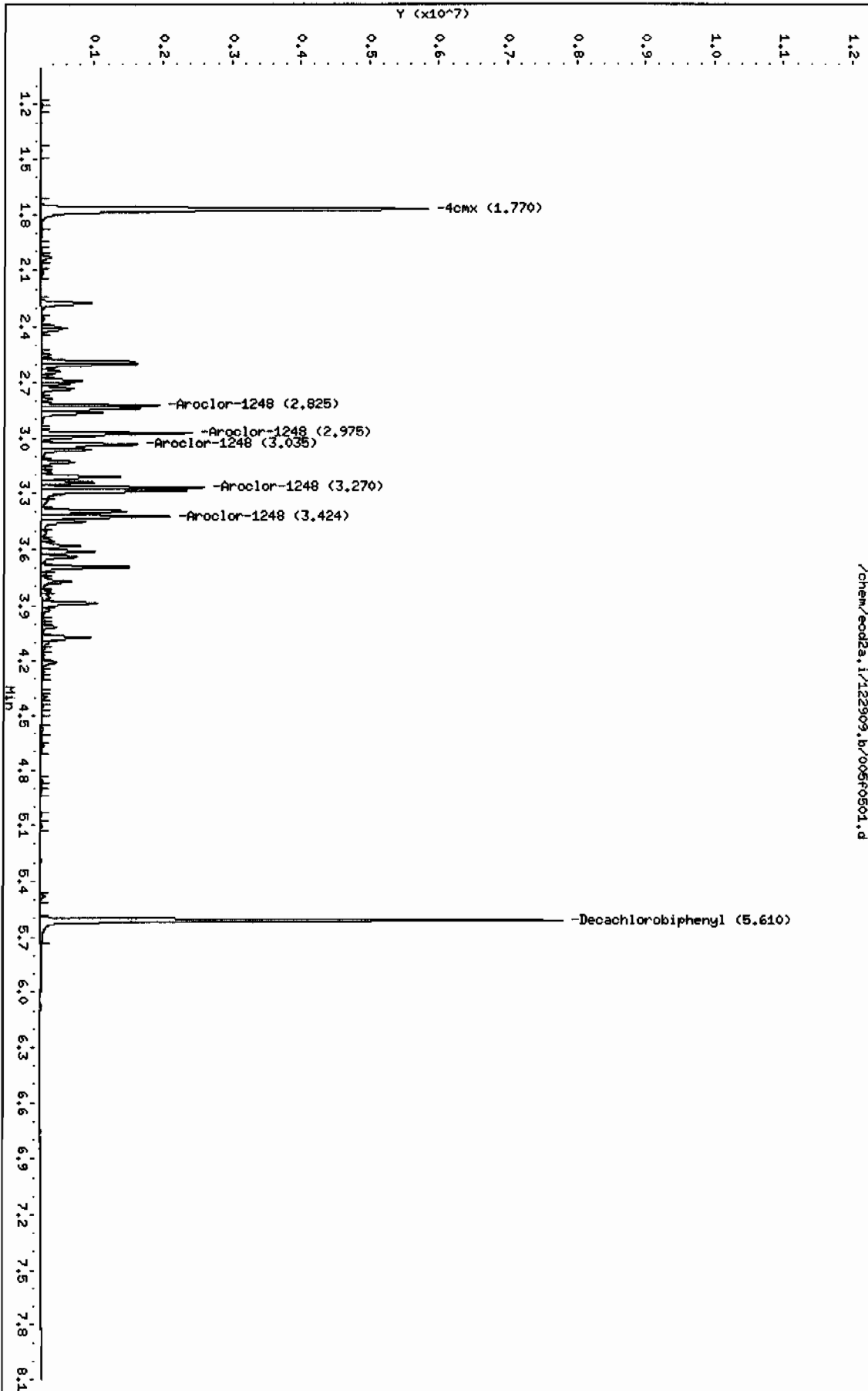
Column phase: CLP1

Instrument: eod2a.i

Operator: JHOC

Column diameter: 0.25

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Data File: /chem/ecd2a.i/122909.b/005b0501.d
 Report Date: 29-Dec-2009 14:43

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/005b0501.d

Lab Smp Id: WAR091217-48

Client Smp ID: AR124801

Inj Date : 29-DEC-2009 07:59

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |WAR091217-48

Misc Info : |PCB_CVS|1248||CVS|

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m

Meth Date : 29-Dec-2009 14:43 jen01212 Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012b1201.d

Als bottle: 5

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1248.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/L)	TARGET RANGE		RATIO
*****	*****	*****	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8			
2.069	2.068	0.001	16057466	100.000	124	80.00-	120.00	100.00

\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
6.302	6.300	0.002	14981334	100.000	133	80.00-	120.00	100.00

5 Aroclor-1248					CAS #: 12672-29-6			
3.332	3.332	0.000	3275090	1000.00	998	80.00-	120.00	100.00
3.519	3.519	0.000	4196280	1000.00	1000	108.13-	148.13	128.13
3.605	3.605	0.000	4475627	1000.00	1000	116.66-	156.66	136.66
3.795	3.795	0.000	4536185	1000.00	966	118.51-	158.51	138.51
3.824	3.824	0.000	5374355	1000.00	997	144.10-	184.10	164.10
Average of Peak Amounts =					994			

Data File: /chem/eod2a.i/122909.b/0050501.d

Date: 29-DEC-2009 07:59

Client ID: AR124801

Sample Info: IWR091217-48

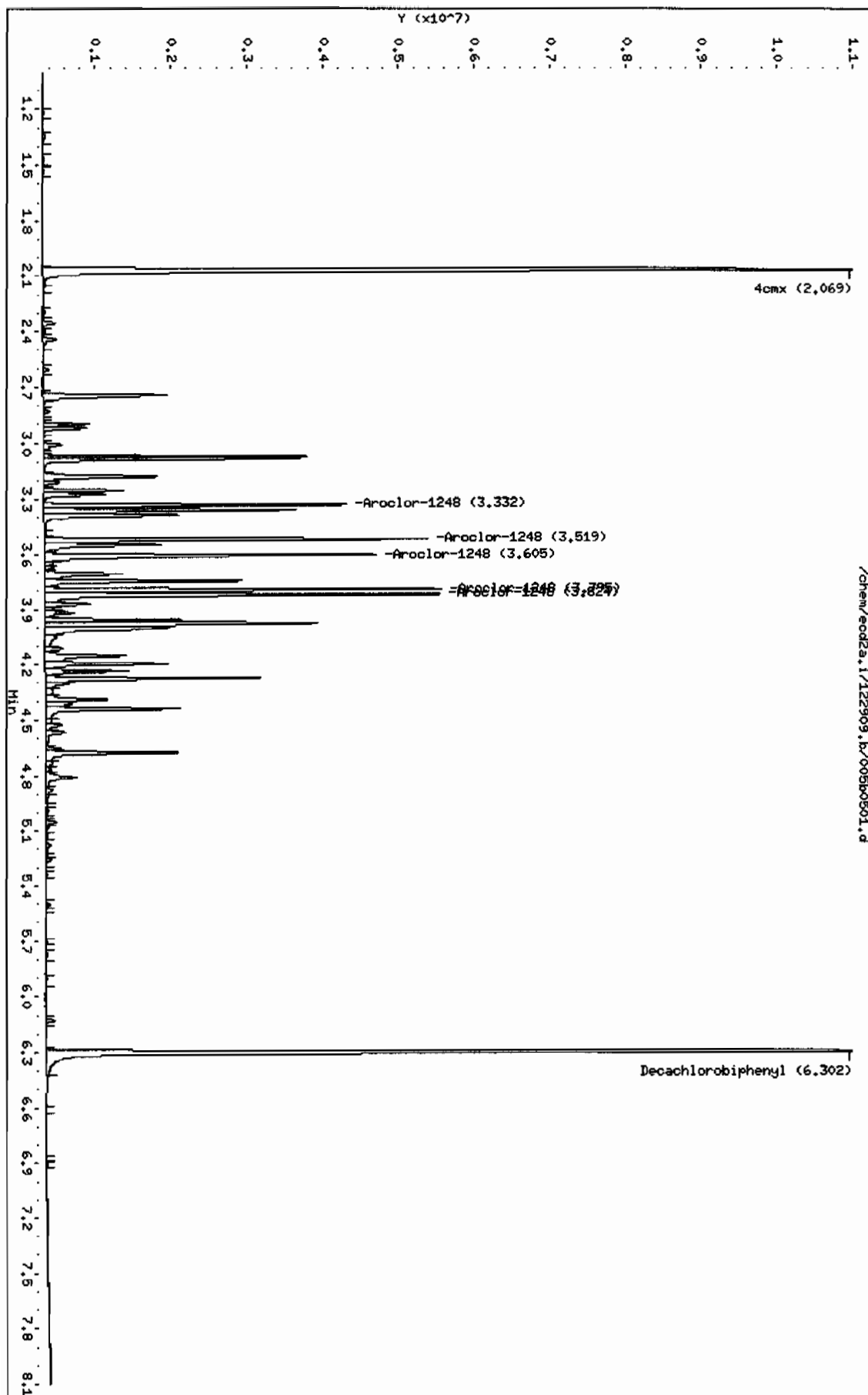
Column phase: CLP2

Instrument: eod2a.i

Operator: JAC

Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/006f0601.d
 Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
 Inj Date : 29-DEC-2009 08:17
 Operator : JAOC Inst ID: ecd2a.i
 Smp Info : |WAR090930-32
 Misc Info : |PCB_CVS|1232|CVS|
 Comment :
 Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
 Meth Date : 29-Dec-2009 13:37 jen01212 Quant Type: ESTD
 Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
 Als bottle: 6 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: AR1232.sub
 Target Version: 3.50 Sample Matrix: None

AMOUNTS							
			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)	(ug/L)	TARGET RANGE	RATIO	
==	=====	=====	-----	-----	-----	-----	-----

\$ 11 4cmx				CAS #: 877-09-8			
1.772	1.771	0.001	10114890	100.000	162 80.00-	120.00	100.00

\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.616	5.607	0.009	9874511	100.000	182 80.00-	120.00	100.00

3 Aroclor-1232				CAS #: 11141-16-5			
2.027	2.027	0.000	1546440	1000.00	1330 80.00-	120.00	100.00
2.277	2.277	0.000	1232894	1000.00	1320 59.72-	99.72	79.72
2.693	2.693	0.000	1048268	1000.00	1310 47.79-	87.79	67.79
2.736	2.736	0.000	666971	1000.00	1310 23.13-	63.13	43.13
2.981	2.981	0.000	767292	1000.00	1310 29.62-	69.62	49.62
Average of Peak Amounts =				1.32e+03			

Data File: /chem/ecd2a.i/122909.b/006f0601.d

Date: 29-DEC-2009 08:17

Client ID: PR123201

Sample Info: I4AR090930-32

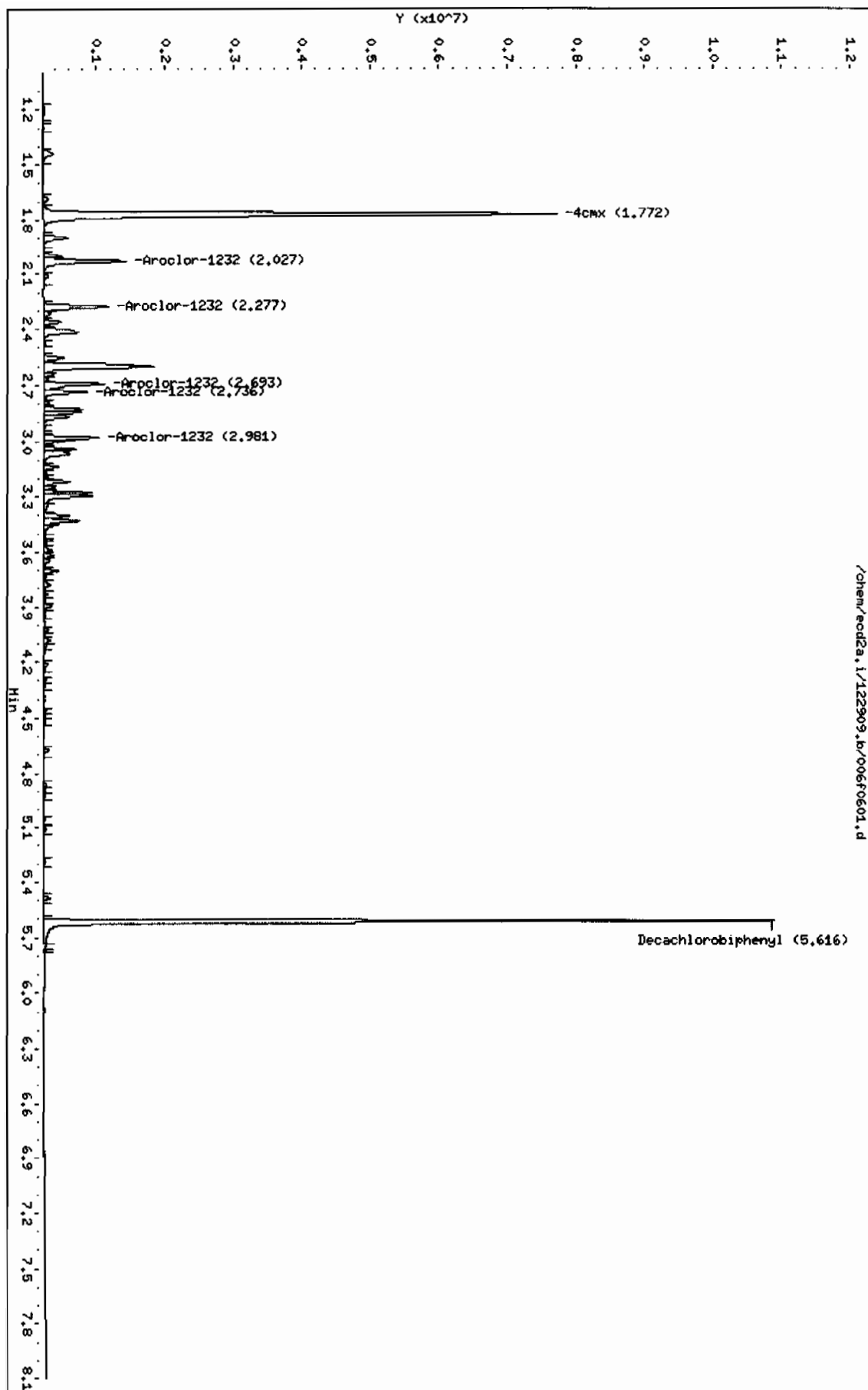
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAC

Column diameter: 0.25

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Data File: /chem/ecd2a.i/122909.b/006b0601.d
Report Date: 29-Dec-2009 14:44

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 29-DEC-2009 08:17
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

AMOUNTS						
			CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE (ug/L)	(ug/L)	TARGET RANGE	RATIO
==	=====	=====	*****	*****	=====	=====
\$ 11 4cmx				CAS #: 877-09-8		
2.069	2.068	0.001	22199517 100.000	172	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
6.304	6.300	0.004	21227910 100.000	188	80.00- 120.00	100.00

3 Aroclor-1232				CAS #: 11141-16-5		
2.442	2.442	0.000	2893358 1000.00	1400	80.00- 120.00	100.00
2.747	2.747	0.000	2666991 1000.00	1360	72.18- 112.18	92.18
3.183	3.183	0.000	1975790 1000.00	1320	48.29- 88.29	68.29
3.254	3.254	0.000	1214623 1000.00	1300	21.98- 61.98	41.98
3.521	3.521	0.000	1476417 1000.00	1330	31.03- 71.03	51.03
Average of Peak Amounts =				1.34e+03		

Data File: /chem/ecad2a.i/122309.b/006b0601.d

Date: 29-DEC-2009 08:17

Client ID: AR423204

Sample Info: 1MAR09030-32

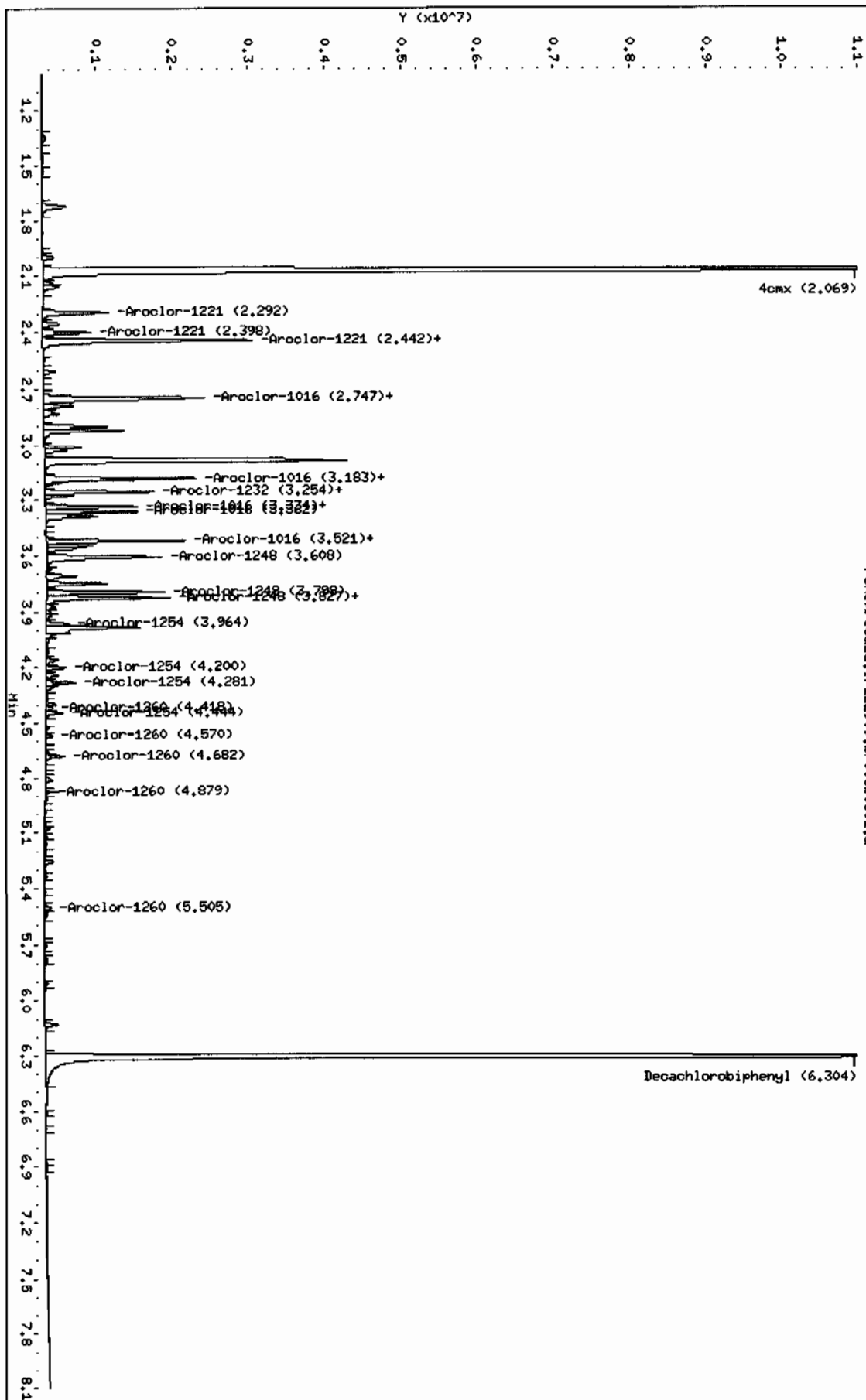
Column phase: CLP2

Instrument: ecad2a.i

Operator: JAC

Column diameter: 0.25

/chem/ecad2a.i/122309.b/006b0601.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/007f0701.d

Lab Smp Id: WAR091111-21

Client Smp ID: AR122101

Inj Date : 29-DEC-2009 08:28

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |WAR091111-21

Misc Info : |PCB_CVS|1262||CVS|

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m

Meth Date : 29-Dec-2009 13:37 jen01212

Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012f1201.d

Als bottle: 7

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1221.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/L)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====

\$ 11 4cmx					CAS #: 877-09-8			
1.770	1.771	-0.001	7024932	100.000	113	80.00-	120.00	100.00

\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.610	5.607	0.003	6697965	100.000	124	80.00-	120.00	100.00

2 Aroclor-1221					CAS #: 11104-28-2			
1.436	1.436	0.000	558071	1000.00	1200	80.00-	120.00	100.00
1.898	1.898	0.000	800768	1000.00	1220	123.49-	163.49	143.49
1.997	1.997	0.000	428834	1000.00	1240	56.84-	96.84	76.84
Average of Peak Amounts =					1.22e+03			

Data File: /chem/ecod2a.i/122909.b/007f0701.d

Date: 29-DEC-2009 08:28

Client ID: AR122101

Sample Info: 1H8091111-21

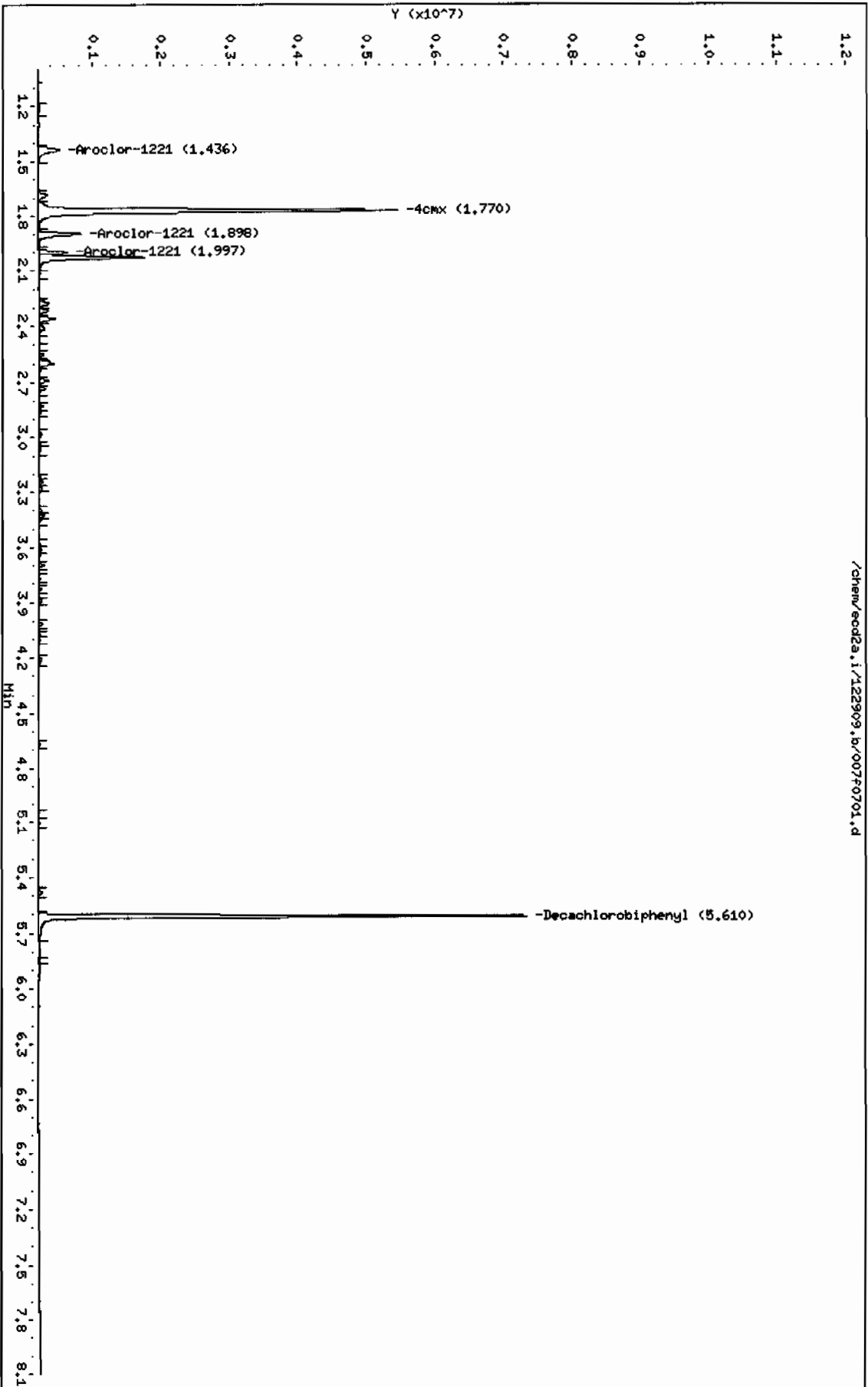
Column phase: CLP1

Instrument: ecod2a.i

Operator: JHOC

Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/007b0701.d

Lab Smp Id: WAR091111-21

Client Smp ID: AR122101

Inj Date : 29-DEC-2009 08:28

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |WAR091111-21

Misc Info : |PCB_CVS|1262||CVS|

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m

Meth Date : 29-Dec-2009 13:36 jen01212

Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012b1201.d

Als bottle: 7

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1221.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/L)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8			
2.068	2.068	0.000	14992798	100.000	116	80.00-	120.00	100.00

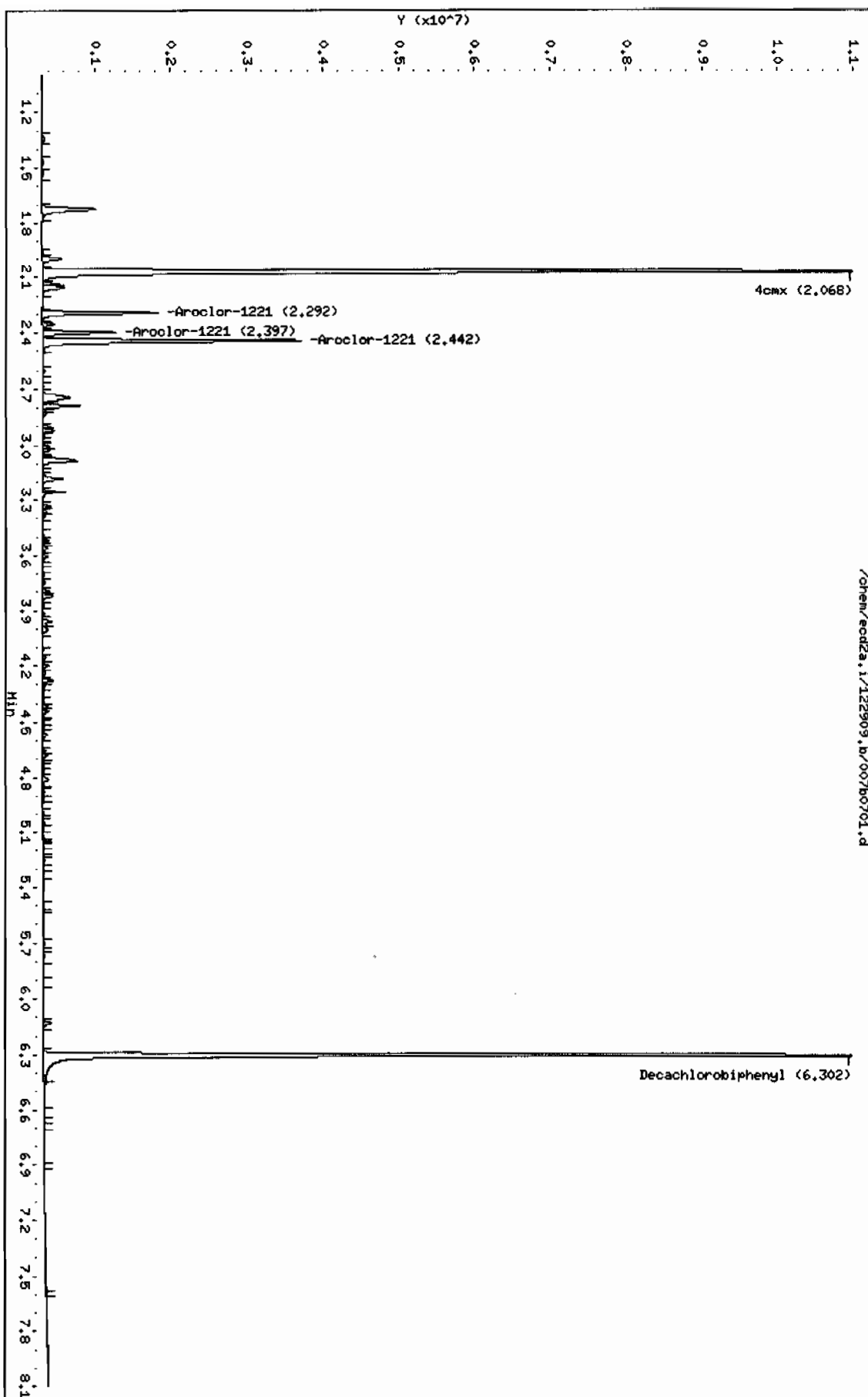
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
6.302	6.300	0.002	14125451	100.000	125	80.00-	120.00	100.00

2 Aroclor-1221					CAS #: 11104-28-2			
2.292	2.292	0.000	1486678	1000.00	1180	80.00-	120.00	100.00
2.397	2.397	0.000	909190	1000.00	1170	41.16-	81.16	61.16
2.442	2.442	0.000	3573346	1000.00	1170	220.36-	260.36	240.36
Average of Peak Amounts =					1.17e+03			

Data File: /chem/eod2a,i/122909,b/007b0701.d
Date: 29-DEC-2009 08:28
Client ID: AR122101
Sample Info: 1MAR091111-21

Column phase: CLP2

Instrument: eod2a.i
Operator: JHOC
Column diameter: 0.25



Data File: /chem/ecd2a.i/122909.b/022f2201.d
 Report Date: 29-Dec-2009 14:40

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/022f2201.d

Lab Smp Id: WAR091211-60 02

Client Smp ID: AR166002

Inj Date : 29-DEC-2009 11:17

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |WAR091211-60 02

Misc Info : |PCB_CVS|1660||CVS|

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m

Meth Date : 29-Dec-2009 13:37 jen01212

Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012f1201.d

Als bottle: 22

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====
<hr/>								
\$ 11 4cmx					CAS #: 877-09-8			
1.775	1.771	0.004	6459140	100.000	104	80.00-	120.00	100.00
<hr/>								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.610	5.607	0.003	5977776	100.000	110	80.00-	120.00	100.00
<hr/>								
1 Aroclor-1016					CAS #: 12674-11-2			
2.276	2.273	0.003	2015417	1000.00	901	80.00-	120.00	100.00
2.600	2.597	0.003	4292741	1000.00	916	192.49-	232.49	213.00
2.691	2.688	0.003	1720292	1000.00	905	64.38-	104.38	85.36
2.826	2.823	0.003	868251	1000.00	890	22.92-	62.92	43.08
2.976	2.974	0.002	1328140	1000.00	911	43.84-	83.84	65.90
Average of Peak Amounts =					904			
<hr/>								
7 Aroclor-1260					CAS #: 11096-82-5			
4.016	4.014	0.002	4128857	1000.00	991	80.00-	120.00	100.00
4.287	4.286	0.001	2595441	1000.00	1000	42.56-	82.56	62.86
4.453	4.451	0.002	2674421	1000.00	1020	44.13-	84.13	64.77
4.666	4.664	0.002	6344393	1000.00	1040	133.57-	173.57	153.66
4.855	4.853	0.002	3057700	1000.00	1040	53.66-	93.66	74.06
Average of Peak Amounts =					1.02e+03			
<hr/>								

Data File: /chem/eod2a.i/122909.b/022f2201.d

Date: 29-DEC-2009 11:17

Client ID: AR166002

Sample Info: 1MAR091211-60 02

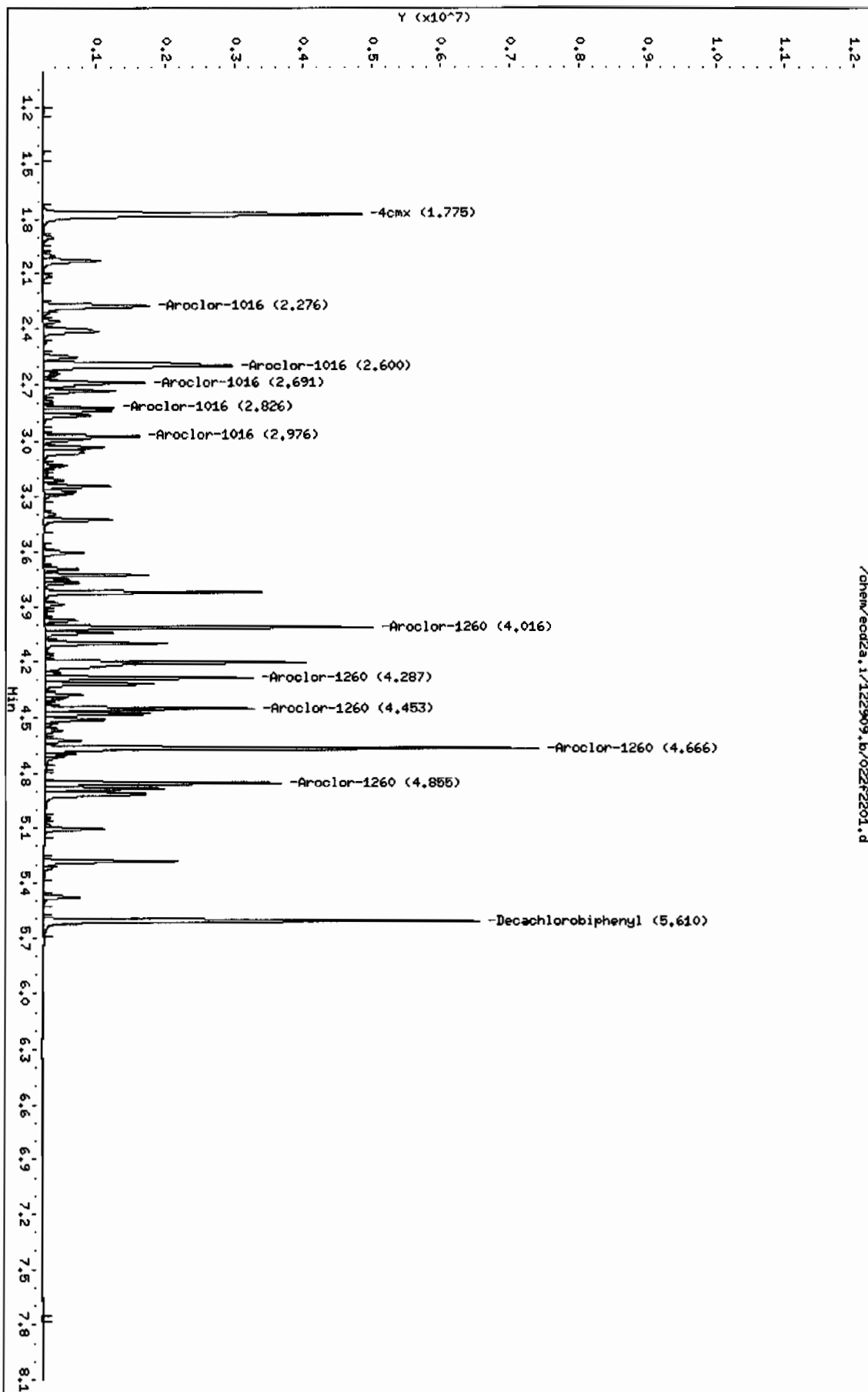
Column phase: CLP1

Instrument: eod2a.i

Operator: JHOC

Column diameter: 0.25

/chem/eod2a.i/122909.b/022f2201.d



Data File: /chem/ecd2a.i/122909.b/022b2201.d
Report Date: 29-Dec-2009 14:45

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/022b2201.d
Lab Smp Id: WAR091211-60 02 Client Smp ID: AR166002
Inj Date : 29-DEC-2009 11:17
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 02
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:45 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

AMOUNTS							
			CAL-AMT		ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
---	-----	-----	-----	-----	-----	-----	-----
<hr/>							
\$ 11 4cmx					CAS #: 877-09-8		
2.071	2.068	0.003	13896545	100.000	107	80.00- 120.00	100.00
<hr/>							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.300	0.002	12620643	100.000	112	80.00- 120.00	100.00
<hr/>							
1 Aroclor-1016					CAS #: 12674-11-2		
2.747	2.745	0.002	4206631	1000.00	927	80.00- 120.00	100.00
3.182	3.179	0.003	3357192	1000.00	932	59.81- 99.81	79.81
3.332	3.330	0.002	1937576	1000.00	944	26.06- 66.06	46.06
3.361	3.359	0.002	2015700	1000.00	943	27.92- 67.92	47.92
3.519	3.518	0.001	2726459	1000.00	950	44.81- 84.81	64.81
Average of Peak Amounts =					939		
<hr/>							
7 Aroclor-1260					CAS #: 11096-82-5		
4.415	4.414	0.001	5723117	1000.00	992	80.00- 120.00	100.00
4.566	4.565	0.001	7231224	1000.00	1020	106.35- 146.35	126.35
4.678	4.677	0.001	4952700	1000.00	1030	66.54- 106.54	86.54
4.875	4.874	0.001	5709014	1000.00	1010	79.75- 119.75	99.75
5.501	5.500	0.001	9420244	1000.00	1040	144.60- 184.60	164.60
Average of Peak Amounts =					1.02e+03		
<hr/>							

Data File: /chem/eod2a.i/122909.b/022b2201.d

Date: 29-DEC-2009 11:17

Client ID: AR166002

Sample Info: 14AR091213-60 02

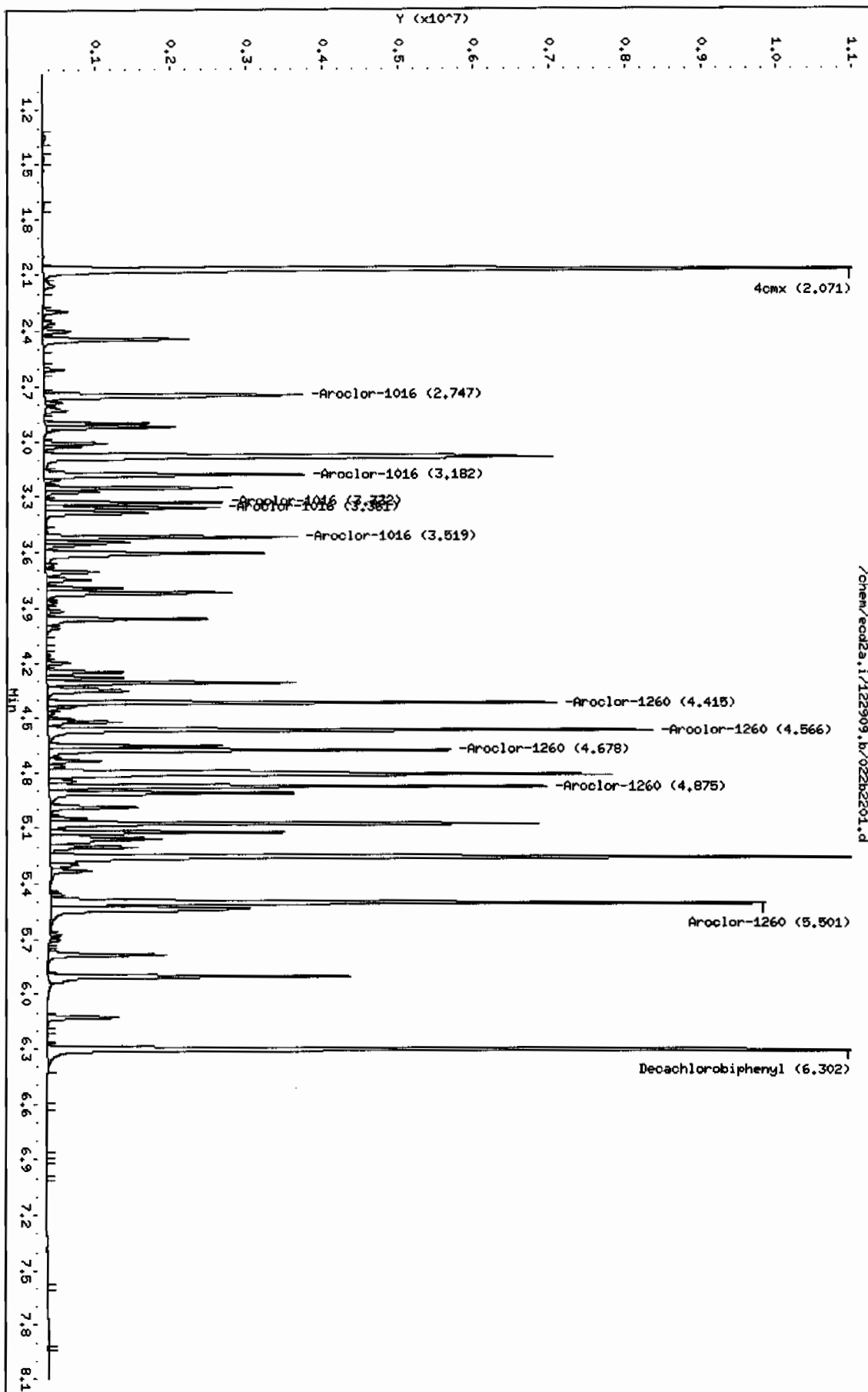
Column phase: CLP2

Instrument: eod2a.i

Operator: JAC

Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/033f3301.d
Lab Smp Id: WAR091211-60 03 Client Smp ID: AR166003
Inj Date : 29-DEC-2009 13:19
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 03
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 14:49 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

			CAL-AMT		ON-COL		
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/L)	TARGET RANGE	RATIO
==			-----		-----	-----	-----
\$ 11 4cmx			CAS #: 877-09-8				
1.773	1.771	0.002	6389088	100.000	102	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3				
5.609	5.607	0.002	5971228	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016			CAS #: 12674-11-2				
2.275	2.273	0.002	1993207	1000.00	891	80.00- 120.00	100.00
2.599	2.597	0.002	4235450	1000.00	904	191.82- 231.82	212.49
2.690	2.688	0.002	1681845	1000.00	884	64.77- 104.77	84.38
2.825	2.823	0.002	855469	1000.00	876	22.45- 62.45	42.92
2.976	2.974	0.002	1272408	1000.00	873	43.69- 83.69	63.84
Average of Peak Amounts =			886				
7 Aroclor-1260			CAS #: 11096-82-5				
4.016	4.014	0.002	4051908	1000.00	973	80.00- 120.00	100.00
4.288	4.286	0.002	2534868	1000.00	978	42.92- 82.92	62.56
4.453	4.451	0.002	2598438	1000.00	988	46.15- 86.15	64.13
4.666	4.664	0.002	6222714	1000.00	1020	132.63- 172.63	153.57
4.855	4.853	0.002	2984601	1000.00	1010	53.77- 93.77	73.66
Average of Peak Amounts =			995				

Data File: /chem/ecod2a.i/122909.b/033f3301.d

Date : 29-DEC-2009 13:19

Client ID: AR166003

Sample Info: 14AR091211-60 03

Column phase: CLP1

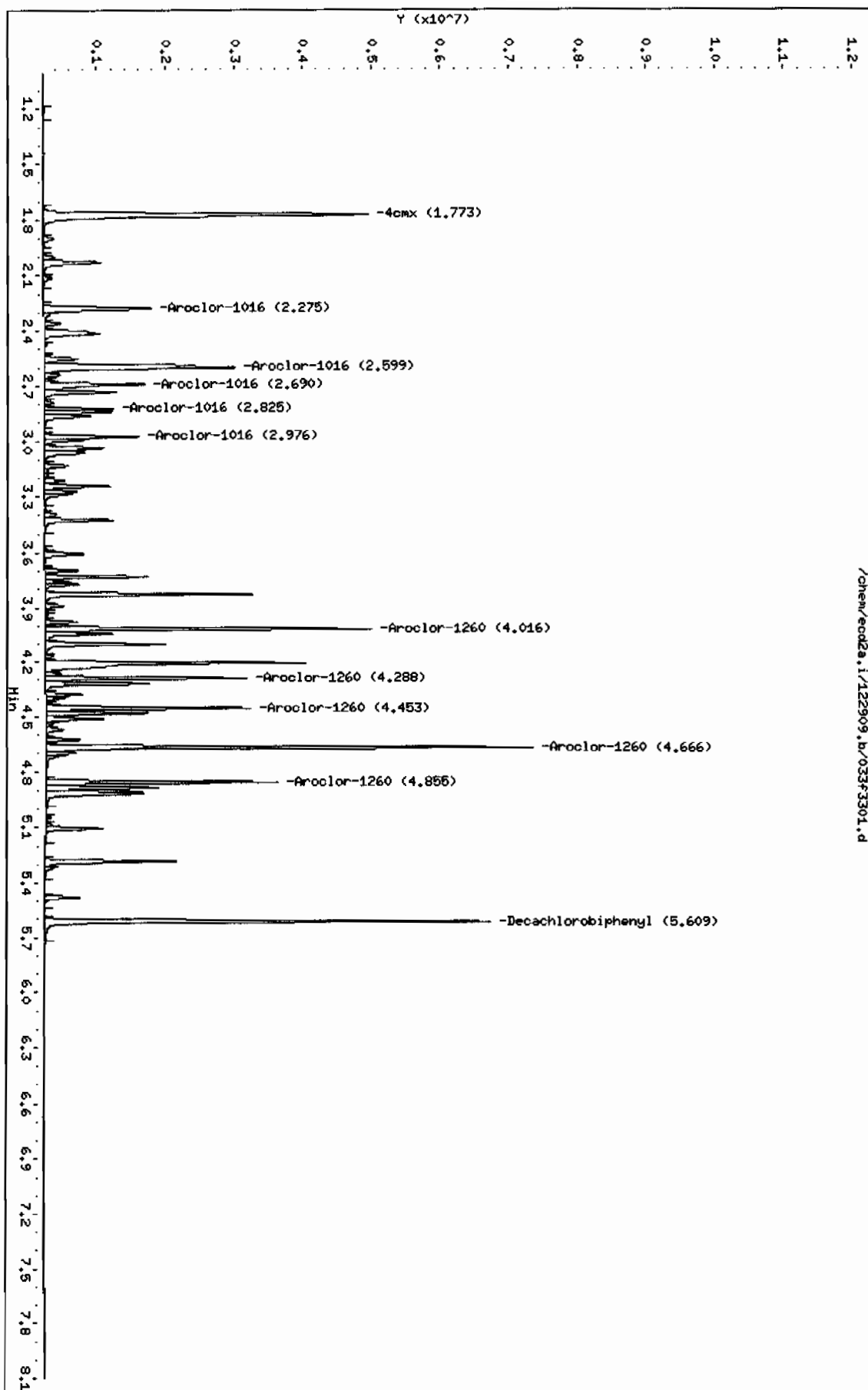
Instrument: ecod2a.i

Operator: JHOC

Column diameter: 0.25

/chem/ecod2a.i/122909.b/033f3301.d

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/033b3301.d

Lab Smp Id: WAR091211-60 03

Client Smp ID: AR166003

Inj Date : 29-DEC-2009 13:19

Operator : JAOC

Inst ID: ecd2a.i

Smp Info : |WAR091211-60 03

Misc Info : |PCB_CVS|1660||CVS|

Comment :

Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m

Meth Date : 29-Dec-2009 14:47 jen01212

Quant Type: ESTD

Cal Date : 02-DEC-2009 07:50

Cal File: 012b1201.d

Als bottle: 33

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

				CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/L)	TARGET RANGE		RATIO	
==	=====	=====	=====	=====	=====	=====		=====	
\$ 11 4cmx						CAS #: 877-09-8			
2.070	2.068	0.002	13887946	100.000	107	80.00-	120.00	100.00	

\$ 12 Decachlorobiphenyl						CAS #: 2051-24-3			
6.301	6.300	0.001	12610828	100.000	112	80.00-	120.00	100.00	

1 Aroclor-1016						CAS #: 12674-11-2			
2.747	2.745	0.002	4214100	1000.00	929	80.00-	120.00	100.00	
3.182	3.179	0.003	3324513	1000.00	923	58.34-	98.34	78.89	
3.332	3.330	0.002	1908470	1000.00	929	24.56-	64.56	45.29	
3.361	3.359	0.002	1986637	1000.00	930	26.71-	66.71	47.14	
3.519	3.518	0.001	2683627	1000.00	935	43.42-	83.42	63.68	
Average of Peak Amounts =					929				

7 Aroclor-1260						CAS #: 11096-82-5			
4.415	4.414	0.001	5648155	1000.00	979	80.00-	120.00	100.00	
4.566	4.565	0.001	7199691	1000.00	1010	107.94-	147.94	127.47	
4.678	4.677	0.001	4916596	1000.00	1020	67.11-	107.11	87.05	
4.876	4.874	0.002	5644741	1000.00	1000	80.57-	120.57	99.94	
5.502	5.500	0.002	9437102	1000.00	1040	146.62-	186.62	167.08	
Average of Peak Amounts =					1.01e+03				

Data File: /chem/eod2a.i/122909.b/033b3301.d

Date: 29-DEC-2009 13:19

Client ID: AR166003

Sample Info: 148091211-60 03

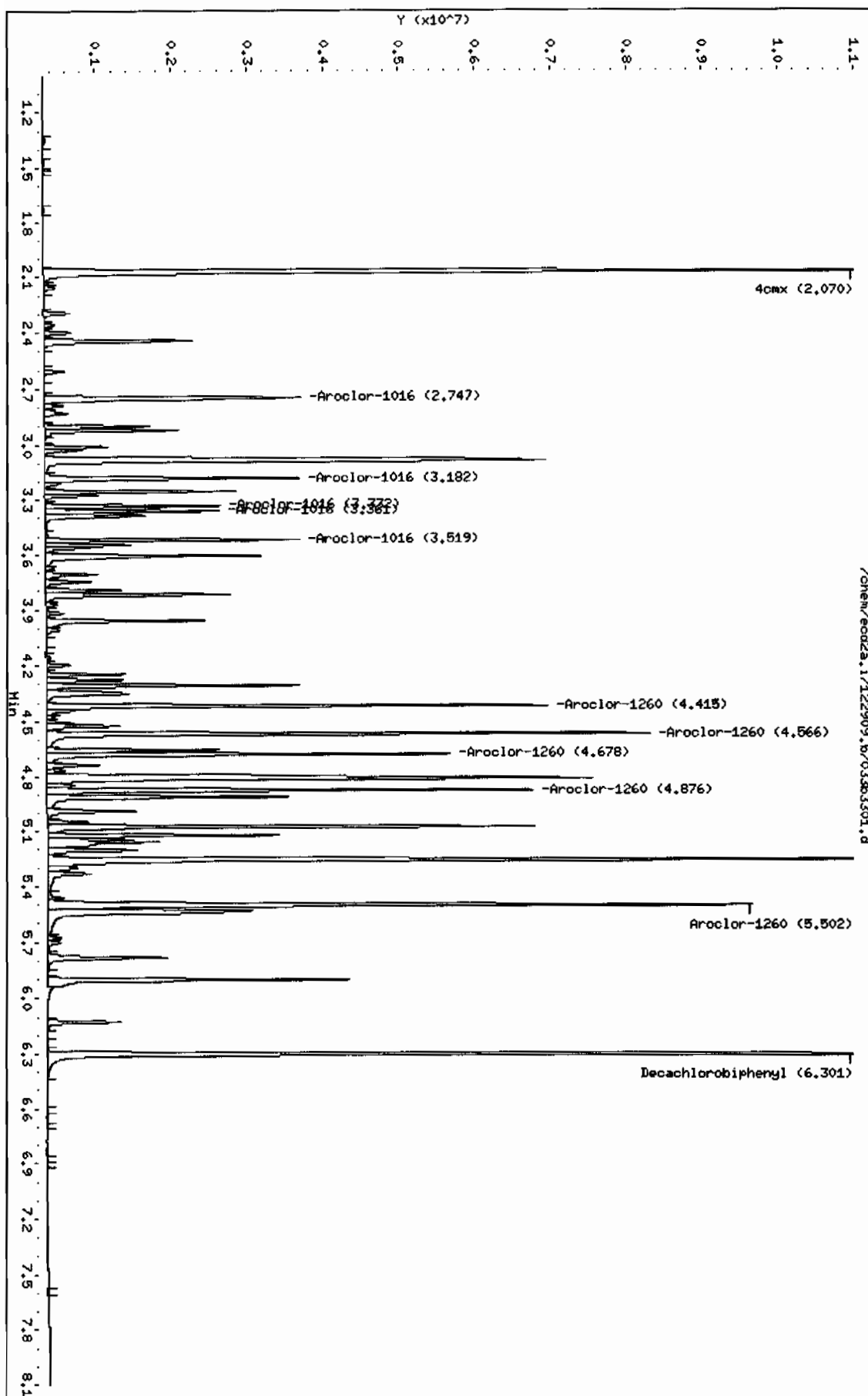
Column phase: CLP2

Instrument: eod2a.i

Operator: JHOC

Column diameter: 0.25

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8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 11/12/09 11/12/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 1.78			DCB: 5.61			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #	
01	PIBLK01	WAR090916-99	11/12/09	1005	1.78	5.60
02	ZZZZZ	ZZZZZ	11/12/09	1016	1.78	5.61
03	ZZZZZ	ZZZZZ	11/12/09	1027	1.78	5.61
04	ZZZZZ	ZZZZZ	11/12/09	1038	1.78	5.61
05	ZZZZZ	ZZZZZ	11/12/09	1049	1.78	5.61
06	AR123201	WAR090930-32	11/12/09	1100	1.78	5.61
07	AR122101	WAR091111-21	11/12/09	1111	1.78	5.61
08	AR126201	WAR091111-62	11/12/09	1122	1.78	5.61
09	ZZZZZ	ZZZZZ	11/12/09	1133	1.78	5.61
10	DDTANALOGSTD	WAR091020-DD	11/12/09	1145		
11	AR166001	WAR091112-01	11/12/09	1156	1.78	5.61
12	AR166002	WAR091112-02	11/12/09	1207	1.78	5.61
13	AR166003	WAR091112-03	11/12/09	1218	1.78	5.61
14	AR166004	WAR091112-04	11/12/09	1229	1.78	5.61
15	AR166005	IAR091102-01	11/12/09	1240	1.78	5.61
16	AR166001	WAR091102-60	11/12/09	1251	1.78	5.61
17	AR125401	WAR091112-05	11/12/09	1302	1.78	5.61
18	AR125402	WAR091112-06	11/12/09	1313	1.78	5.61
19	AR125403	WAR091112-07	11/12/09	1325	1.78	5.61
20	AR125404	WAR091112-08	11/12/09	1336	1.78	5.61
21	AR125405	IAR091027-01	11/12/09	1347	1.78	5.61
22	AR125401	WAR091102-54	11/12/09	1358	1.78	5.61
23	AR124201	WAR091112-09	11/12/09	1409	1.78	5.61
24	AR124202	WAR091112-10	11/12/09	1420	1.78	5.61
25	AR124203	WAR091112-11	11/12/09	1431	1.78	5.61
26	AR124204	WAR091112-12	11/12/09	1442	1.78	5.61
27	AR124205	IAR091111-01	11/12/09	1453	1.78	5.61
28	AR124201	WAR091102-42	11/12/09	1505	1.78	5.61
29	AR124801	WAR091112-13	11/12/09	1516	1.78	5.61
30	AR124802	WAR091112-14	11/12/09	1527	1.78	5.61
31	AR124803	WAR091112-15	11/12/09	1538	1.78	5.61
32	AR124804	WAR091112-16	11/12/09	1549	1.78	5.61

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 11/12/09 11/12/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 1.78			DCB: 5.61		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR091027-02	11/12/09	1600	1.78
02	AR124801	WAR091027-48	11/12/09	1611	1.78
03	AR126801	WAR091112-17	11/12/09	1622	1.78
04	AR126802	WAR091112-18	11/12/09	1633	1.78
05	AR126803	WAR091112-19	11/12/09	1644	1.78
06	AR126804	WAR091112-20	11/12/09	1655	1.78
07	AR126805	IAR090817-02	11/12/09	1707	1.78
08	AR126801	WAR091106-68	11/12/09	1718	1.78
09	PIBLK02	WAR090916-99	11/12/09	1729	1.78
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

S1 = 4cmx
DCB = Decachlorobiphenyl

QC LIMITS
(+/- 0.03 MINUTES)
(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 11/12/09 11/12/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 2.08			DCB: 6.31		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR090916-99	11/12/09 1005	2.07	6.30
02	ZZZZZ	ZZZZZ	11/12/09 1016	2.08	6.31
03	ZZZZZ	ZZZZZ	11/12/09 1027	2.08	6.31
04	ZZZZZ	ZZZZZ	11/12/09 1038	2.08	6.31
05	ZZZZZ	ZZZZZ	11/12/09 1049	2.08	6.31
06	AR123201	WAR090930-32	11/12/09 1100	2.08	6.31
07	AR122101	WAR091111-21	11/12/09 1111	2.07	6.31
08	AR126201	WAR091111-62	11/12/09 1122	2.08	6.31
09	ZZZZZ	ZZZZZ	11/12/09 1133	2.08	6.31
10	DDTANALOGSTD	WAR091020-DD	11/12/09 1145		
11	AR166001	WAR091112-01	11/12/09 1156	2.08	6.31
12	AR166002	WAR091112-02	11/12/09 1207	2.08	6.31
13	AR166003	WAR091112-03	11/12/09 1218	2.07	6.31
14	AR166004	WAR091112-04	11/12/09 1229	2.08	6.31
15	AR166005	IAR091102-01	11/12/09 1240	2.08	6.31
16	AR166001	WAR091102-60	11/12/09 1251	2.08	6.31
17	AR125401	WAR091112-05	11/12/09 1302	2.07	6.31
18	AR125402	WAR091112-06	11/12/09 1313	2.08	6.31
19	AR125403	WAR091112-07	11/12/09 1325	2.07	6.31
20	AR125404	WAR091112-08	11/12/09 1336	2.08	6.31
21	AR125405	IAR091027-01	11/12/09 1347	2.08	6.31
22	AR125401	WAR091102-54	11/12/09 1358	2.08	6.31
23	AR124201	WAR091112-09	11/12/09 1409	2.08	6.31
24	AR124202	WAR091112-10	11/12/09 1420	2.08	6.31
25	AR124203	WAR091112-11	11/12/09 1431	2.07	6.31
26	AR124204	WAR091112-12	11/12/09 1442	2.08	6.31
27	AR124205	IAR091111-01	11/12/09 1453	2.08	6.31
28	AR124201	WAR091102-42	11/12/09 1505	2.08	6.31
29	AR124801	WAR091112-13	11/12/09 1516	2.08	6.31
30	AR124802	WAR091112-14	11/12/09 1527	2.08	6.31
31	AR124803	WAR091112-15	11/12/09 1538	2.07	6.31
32	AR124804	WAR091112-16	11/12/09 1549	2.08	6.31

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 11/12/09 11/12/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.08			DCB: 6.31			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT
01	AR124805	IAR091027-02	11/12/09	1600	2.08	6.31
02	AR124801	WAR091027-48	11/12/09	1611	2.08	6.31
03	AR126801	WAR091112-17	11/12/09	1622	2.08	6.31
04	AR126802	WAR091112-18	11/12/09	1633	2.08	6.31
05	AR126803	WAR091112-19	11/12/09	1644	2.07	6.31
06	AR126804	WAR091112-20	11/12/09	1655	2.08	6.31
07	AR126805	IAR090817-02	11/12/09	1707	2.08	6.31
08	AR126801	WAR091106-68	11/12/09	1718	2.08	6.31
09	PIBLK02	WAR090916-99	11/12/09	1729	2.08	6.31
10						
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29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 11/30/09 11/30/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 1.78				DCB: 5.61			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	SI RT	#	DCB RT	#
01	PIBLK01	WAR090916-99	11/30/09	0821	1.78	5.62	
02	ZZZZZ	ZZZZZ	11/30/09	0832	1.78	5.61	
03	AR125401	WAR091130-05	11/30/09	0843	1.78	5.61	
04	AR125402	WAR091130-06	11/30/09	0854	1.78	5.61	
05	AR125403	WAR091130-07	11/30/09	0905	1.78	5.61	
06	AR125404	WAR091130-08	11/30/09	0916	1.78	5.61	
07	AR125405	IAR091027-01	11/30/09	0927	1.78	5.61	
08	AR125401	WAR091102-54	11/30/09	0938	1.78	5.61	
09	AR124201	WAR091102-42	11/30/09	0950	1.78	5.61	
10	AR166001	WAR091119-60	11/30/09	1001	1.78	5.61	
11	AR124801	WAR091130-13	11/30/09	1012	1.78	5.61	
12	AR124802	WAR091130-14	11/30/09	1023	1.78	5.61	
13	AR124803	WAR091130-15	11/30/09	1034	1.78	5.61	
14	AR124804	WAR091130-16	11/30/09	1045	1.78	5.61	
15	AR124805	IAR091027-02	11/30/09	1056	1.78	5.61	
16	ZZZZZ	ZZZZZ	11/30/09	1107	1.78	5.61	
17	AR123201	WAR090930-32	11/30/09	1118	1.78	5.61	
18	AR124801	WAR091027-48	11/30/09	1129	1.78	5.61	
19	AR122101	WAR091111-21	11/30/09	1140	1.78	5.61	
20	AR126201	WAR091111-62	11/30/09	1151	1.78	5.61	
21	AR126801	WAR091106-68	11/30/09	1202	1.78	5.61	
22	DDTANALOGSTD	WAR091020-DD	11/30/09	1213			
23	PIBLK02	WAR090916-99	11/30/09	1225	1.78	5.61	
24	ZZZZZ	ZZZZZ	11/30/09	1236	1.78	5.61	
25	ZZZZZ	ZZZZZ	11/30/09	1247	1.78	5.61	
26	ZZZZZ	ZZZZZ	11/30/09	1258	1.78	5.61	
27	ZZZZZ	ZZZZZ	11/30/09	1309	1.78	5.61	
28	ZZZZZ	ZZZZZ	11/30/09	1320	1.78	5.61	
29	AR166002	WAR091119-60	11/30/09	1336	1.78	5.61	
30	PIBLK03	WAR090916-99	11/30/09	1347	1.78	5.61	
31	ZZZZZ	ZZZZZ	11/30/09	1358	1.78	5.61	
32	ZZZZZ	ZZZZZ	11/30/09	1409	1.78	5.61	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 11/30/09 11/30/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.08			DCB: 6.30			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT
=====	=====	=====	=====	=====	=====	=====
01	PIBLK01	WAR090916-99	11/30/09	0821	2.08	6.31
02	ZZZZZ	ZZZZZ	11/30/09	0832	2.08	6.31
03	AR125401	WAR091130-05	11/30/09	0843	2.08	6.31
04	AR125402	WAR091130-06	11/30/09	0854	2.08	6.31
05	AR125403	WAR091130-07	11/30/09	0905	2.08	6.31
06	AR125404	WAR091130-08	11/30/09	0916	2.08	6.31
07	AR125405	IAR091027-01	11/30/09	0927	2.08	6.31
08	AR125401	WAR091102-54	11/30/09	0938	2.08	6.30
09	AR124201	WAR091102-42	11/30/09	0950	2.08	6.31
10	AR166001	WAR091119-60	11/30/09	1001	2.08	6.30
11	AR124801	WAR091130-13	11/30/09	1012	2.08	6.30
12	AR124802	WAR091130-14	11/30/09	1023	2.08	6.31
13	AR124803	WAR091130-15	11/30/09	1034	2.08	6.31
14	AR124804	WAR091130-16	11/30/09	1045	2.08	6.31
15	AR124805	IAR091027-02	11/30/09	1056	2.08	6.31
16	ZZZZZ	ZZZZZ	11/30/09	1107	2.08	6.31
17	AR123201	WAR090930-32	11/30/09	1118	2.08	6.31
18	AR124801	WAR091027-48	11/30/09	1129	2.08	6.31
19	AR122101	WAR091111-21	11/30/09	1140	2.08	6.30
20	AR126201	WAR091111-62	11/30/09	1151	2.08	6.31
21	AR126801	WAR091106-68	11/30/09	1202	2.08	6.30
22	DDTANALOGSTD	WAR091020-DD	11/30/09	1213		
23	PIBLK02	WAR090916-99	11/30/09	1225	2.08	6.31
24	ZZZZZ	ZZZZZ	11/30/09	1236	2.07	6.30
25	ZZZZZ	ZZZZZ	11/30/09	1247	2.08	6.30
26	ZZZZZ	ZZZZZ	11/30/09	1258	2.08	6.30
27	ZZZZZ	ZZZZZ	11/30/09	1309	2.08	6.31
28	ZZZZZ	ZZZZZ	11/30/09	1320	2.08	6.30
29	AR166002	WAR091119-60	11/30/09	1336	2.07	6.30
30	PIBLK03	WAR090916-99	11/30/09	1347	2.08	6.30
31	ZZZZZ	ZZZZZ	11/30/09	1358	2.07	6.30
32	ZZZZZ	ZZZZZ	11/30/09	1409	2.08	6.30

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 1.77			DCB: 5.61			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT
01	PIBLK01	WAR091130-99	12/14/09	0700	1.77	5.61
02	ZZZZZ	ZZZZZ	12/14/09	0711	1.77	5.61
03	AR125401	WAR091102-54	12/14/09	0722	1.77	5.61
04	AR124201	WAR091102-42	12/14/09	0733	1.77	5.61
05	AR124801	WAR091027-48	12/14/09	0744	1.77	5.61
06	AR123201	WAR090930-32	12/14/09	0755	1.77	5.61
07	AR122101	WAR091111-21	12/14/09	0807	1.77	5.61
08	ZZZZZ	ZZZZZ	12/14/09	0818	1.77	5.61
09	AR126201	WAR091111-62	12/14/09	0829	1.77	5.61
10	AR126801	WAR091106-68	12/14/09	0840	1.77	5.61
11	AR166001	WAR091214-01	12/14/09	0851	1.77	5.61
12	AR166002	WAR091214-02	12/14/09	0902	1.77	5.61
13	AR166003	WAR091214-03	12/14/09	0913	1.77	5.61
14	AR166004	WAR091214-04	12/14/09	0924	1.77	5.61
15	AR166005	WAR091102-01	12/14/09	0935	1.77	5.61
16	AR166001	WAR091211-60	12/14/09	0946	1.77	5.61
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	1.77	5.61
19	ZZZZZ	ZZZZZ	12/14/09	1020	1.77	5.61
20	ZZZZZ	ZZZZZ	12/14/09	1031	1.77	5.61
21	ZZZZZ	ZZZZZ	12/14/09	1042	1.77	
22	ZZZZZ	ZZZZZ	12/14/09	1053	1.76	
23	ZZZZZ	ZZZZZ	12/14/09	1104	1.76	
24	ZZZZZ	ZZZZZ	12/14/09	1115	1.77	5.61
25	ZZZZZ	ZZZZZ	12/14/09	1126	1.77	5.61
26	ZZZZZ	ZZZZZ	12/14/09	1137	1.76	
27	ZZZZZ	ZZZZZ	12/14/09	1148	1.77	5.61
28	ZZZZZ	ZZZZZ	12/14/09	1159	1.76	5.62
29	AR166002	WAR091211-60	12/14/09	1211	1.77	5.61
30	PIBLK03	WAR091130-99	12/14/09	1222	1.77	5.61
31	ZZZZZ	ZZZZZ	12/14/09	1233	1.77	5.61
32	ZZZZZ	ZZZZZ	12/14/09	1244	1.76	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.07			DCB: 6.30			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #	
01	PIBLK01	WAR091130-99	12/14/09	0700	2.07	6.31
02	ZZZZZ	ZZZZZ	12/14/09	0711	2.07	6.30
03	AR125401	WAR091102-54	12/14/09	0722	2.07	6.30
04	AR124201	WAR091102-42	12/14/09	0733	2.07	6.30
05	AR124801	WAR091027-48	12/14/09	0744	2.07	6.30
06	AR123201	WAR090930-32	12/14/09	0755	2.07	6.30
07	AR122101	WAR091111-21	12/14/09	0807	2.07	6.30
08	ZZZZZ	ZZZZZ	12/14/09	0818	2.07	6.30
09	AR166201	WAR091111-62	12/14/09	0829	2.07	6.30
10	AR126801	WAR091106-68	12/14/09	0840	2.07	6.30
11	AR166001	WAR091214-01	12/14/09	0851	2.07	6.30
12	AR166002	WAR091214-02	12/14/09	0902	2.07	6.30
13	AR166003	WAR091214-03	12/14/09	0913	2.07	6.30
14	AR166004	WAR091214-04	12/14/09	0924	2.07	6.30
15	AR166005	IAR091102-01	12/14/09	0935	2.07	6.30
16	AR166001	WAR091211-60	12/14/09	0946	2.07	6.30
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	2.07	6.30
19	ZZZZZ	ZZZZZ	12/14/09	1020	2.07	6.30
20	ZZZZZ	ZZZZZ	12/14/09	1031	2.07	6.30
21	ZZZZZ	ZZZZZ	12/14/09	1042	2.07	
22	ZZZZZ	ZZZZZ	12/14/09	1053	2.07	
23	ZZZZZ	ZZZZZ	12/14/09	1104	2.06	
24	ZZZZZ	ZZZZZ	12/14/09	1115	2.07	6.30
25	ZZZZZ	ZZZZZ	12/14/09	1126	2.07	6.31
26	ZZZZZ	ZZZZZ	12/14/09	1137	2.07	
27	ZZZZZ	ZZZZZ	12/14/09	1148	2.07	6.30
28	ZZZZZ	ZZZZZ	12/14/09	1159	2.06	6.30
29	AR166002	WAR091211-60	12/14/09	1211	2.07	6.30
30	PIBLK03	WAR091130-99	12/14/09	1222	2.07	6.30
31	ZZZZZ	ZZZZZ	12/14/09	1233	2.07	6.31
32	ZZZZZ	ZZZZZ	12/14/09	1244	2.07	

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 11/12/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 1.77			DCB: 5.61		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09 0715	1.77	5.60
02	AR166001	WAR091211-60	12/29/09 0726	1.77	5.61
03	AR125401	WAR091216-54	12/29/09 0737	1.77	5.61
04	AR124201	WAR091217-42	12/29/09 0748	1.77	5.61
05	AR124801	WAR091217-48	12/29/09 0759	1.77	5.61
06	AR123201	WAR090930-32	12/29/09 0817	1.77	5.62
07	AR122101	WAR091111-21	12/29/09 0828	1.77	5.61
08	AR126201	WAR091111-62	12/29/09 0839	1.77	5.61
09	AR126801	WAR091106-68	12/29/09 0850	1.77	5.61
10	DDTANALOGSTD	WAR091219-DD	12/29/09 0901		
11	PIBLK02	WAR091130-99	12/29/09 0913	1.77	5.61
12	PBLK01	1202005226	12/29/09 0927	1.77	5.61
13	PBLK01LCS	1202005227	12/29/09 0938	1.77	5.61
14	ZZZZZ	ZZZZZ	12/29/09 0949	1.77	5.61
15	ZZZZZ	ZZZZZ	12/29/09 1000	1.77	5.61
16	ZZZZZ	ZZZZZ	12/29/09 1011	1.77	5.61
17	ZZZZZ	ZZZZZ	12/29/09 1022	1.77	5.61
18	ZZZZZ	ZZZZZ	12/29/09 1033	1.77	5.61
19	ZZZZZ	ZZZZZ	12/29/09 1044	1.77	5.61
20	ZZZZZ	ZZZZZ	12/29/09 1055	1.77	5.61
21	ZZZZZ	ZZZZZ	12/29/09 1106	1.77	5.61
22	AR166002	WAR091211-60	12/29/09 1117	1.77	5.61
23	PIBLK03	WAR091130-99	12/29/09 1128	1.77	5.61
24	ZZZZZ	ZZZZZ	12/29/09 1140	1.77	5.61
25	RE12-10-7562	243517007	12/29/09 1151	1.77	5.61
26	RE12-10-7561	243517008	12/29/09 1202	1.77	5.61
27	RE12-10-7563	243517009	12/29/09 1213	1.77	5.61
28	ZZZZZ	ZZZZZ	12/29/09 1224	1.77	5.61
29	ZZZZZ	ZZZZZ	12/29/09 1235	1.77	5.61
30	ZZZZZ	ZZZZZ	12/29/09 1246	1.77	5.61
31	ZZZZZ	ZZZZZ	12/29/09 1257	1.77	5.61
32	ZZZZZ	ZZZZZ	12/29/09 1308	1.77	5.61

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 11/12/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 1.77			DCB: 5.61			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT
01	AR166003	WAR091211-60	12/29/09	1319	1.77	5.61
02	PIBLK04	WAR091130-99	12/29/09	1330	1.77	5.61
03	ZZZZZ	ZZZZZ	12/29/09	1342	1.77	5.61
04	ZZZZZ	ZZZZZ	12/29/09	1353	1.77	5.61
05	ZZZZZ	ZZZZZ	12/29/09	1404	1.77	5.61
06	ZZZZZ	ZZZZZ	12/29/09	1415	1.77	5.61
07	AR166004	WAR091211-60	12/29/09	1426	1.77	5.61
08	PIBLK05	WAR091130-99	12/29/09	1437	1.77	5.61
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 11/12/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 2.07				DCB: 6.30			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT	#
01	PIBLK01	WAR091130-99	12/29/09	0715	2.07	6.30	
02	AR166001	WAR091211-60	12/29/09	0726	2.07	6.30	
03	AR125401	WAR091216-54	12/29/09	0737	2.07	6.30	
04	AR124201	WAR091217-42	12/29/09	0748	2.07	6.30	
05	AR124801	WAR091217-48	12/29/09	0759	2.07	6.30	
06	AR123201	WAR090930-32	12/29/09	0817	2.07	6.30	
07	AR122101	WAR091111-21	12/29/09	0828	2.07	6.30	
08	AR126201	WAR091111-62	12/29/09	0839	2.07	6.30	
09	AR126801	WAR091106-68	12/29/09	0850	2.07	6.30	
10	DDTANALOGSTD	WAR091219-DD	12/29/09	0901			
11	PIBLK02	WAR091130-99	12/29/09	0913	2.07	6.30	
12	PBLK01	1202005226	12/29/09	0927	2.07	6.30	
13	PBLK01LCS	1202005227	12/29/09	0938	2.07	6.30	
14	ZZZZZ	ZZZZZ	12/29/09	0949	2.07	6.30	
15	ZZZZZ	ZZZZZ	12/29/09	1000	2.07	6.30	
16	ZZZZZ	ZZZZZ	12/29/09	1011	2.07	6.30	
17	ZZZZZ	ZZZZZ	12/29/09	1022	2.07	6.30	
18	ZZZZZ	ZZZZZ	12/29/09	1033	2.07	6.30	
19	ZZZZZ	ZZZZZ	12/29/09	1044	2.07	6.30	
20	ZZZZZ	ZZZZZ	12/29/09	1055	2.07	6.30	
21	ZZZZZ	ZZZZZ	12/29/09	1106	2.07	6.30	
22	AR166002	WAR091211-60	12/29/09	1117	2.07	6.30	
23	PIBLK03	WAR091130-99	12/29/09	1128	2.07	6.30	
24	ZZZZZ	ZZZZZ	12/29/09	1140	2.07	6.30	
25	RE12-10-7562	243517007	12/29/09	1151	2.07	6.30	
26	RE12-10-7561	243517008	12/29/09	1202	2.07	6.30	
27	RE12-10-7563	243517009	12/29/09	1213	2.07	6.30	
28	ZZZZZ	ZZZZZ	12/29/09	1224	2.07	6.30	
29	ZZZZZ	ZZZZZ	12/29/09	1235	2.07	6.30	
30	ZZZZZ	ZZZZZ	12/29/09	1246	2.07	6.30	
31	ZZZZZ	ZZZZZ	12/29/09	1257	2.07	6.30	
32	ZZZZZ	ZZZZZ	12/29/09	1308	2.07	6.30	

S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1073

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 11/12/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.07			DCB: 6.30			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT
01	AR166003	WAR091211-60	12/29/09	1319	2.07	6.30
02	PIBLK04	WAR091130-99	12/29/09	1330	2.07	6.30
03	ZZZZZ	ZZZZZ	12/29/09	1342	2.07	6.30
04	ZZZZZ	ZZZZZ	12/29/09	1353	2.07	6.30
05	ZZZZZ	ZZZZZ	12/29/09	1404	2.07	6.30
06	ZZZZZ	ZZZZZ	12/29/09	1415	2.07	6.30
07	AR166004	WAR091211-60	12/29/09	1426	2.07	6.30
08	PIBLK05	WAR091130-99	12/29/09	1437	2.07	6.30
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

Page 1 of 1

SDG Number: 10-1073

Client ID: LCS for batch 937092

Lab Sample ID: 1202005227

Data File: 013f1301.d

Data File: 013b1301.d

Inst: ECD2A.I_1

Inst: ECD2A.I_2

Column: CLP1

Column: CLP2

Analyzed: 29-DEC-09 09:38

Analyzed: 29-DEC-09 09:38

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							.673
Column 1	1	2.28	2.24 - 2.3	21.8		ug/kg	
	2	2.6	2.57 - 2.63	21.1		ug/kg	
	3	2.69	2.66 - 2.72	20.8		ug/kg	
	4	2.83	2.79 - 2.85	21.1		ug/kg	
	5	2.98	2.94 - 3	20.9		ug/kg	
					21.2		
Column 2	1	2.75	2.72 - 2.78	21.1		ug/kg	
	2	3.18	3.15 - 3.21	20.7		ug/kg	
	3	3.33	3.3 - 3.36	21.2		ug/kg	
	4	3.36	3.33 - 3.39	20.8		ug/kg	
	5	3.52	3.49 - 3.55	21.2		ug/kg	
					21		
Aroclor-1260							2.56
Column 1	1	4.02	3.98 - 4.04	25.4		ug/kg	
	2	4.29	4.26 - 4.32	25.9		ug/kg	
	3	4.45	4.42 - 4.48	26.3		ug/kg	
	4	4.67	4.63 - 4.69	27.5		ug/kg	
	5	4.86	4.82 - 4.88	26.3		ug/kg	
					26.3		
Column 2	1	4.42	4.38 - 4.44	24.4		ug/kg	
	2	4.57	4.54 - 4.6	25.5		ug/kg	
	3	4.68	4.65 - 4.71	25.2		ug/kg	
	4	4.88	4.84 - 4.9	25.6		ug/kg	
	5	5.5	5.47 - 5.53	27.3		ug/kg	
					25.6		

Identification Summary

Page 1 of 2

SDG Number: 10-1073

Client ID: RE12-10-7561

Lab Sample ID: 243517008

Data File: 026f2601.d

Data File: 026b2601.d

Inst: ECD2AJ_1

Inst: ECD2AJ_2

Column: CLP1

Column: CLP2

Analyzed: 29-DEC-09 12:02

Analyzed: 29-DEC-09 12:02

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1242							.201
Column 1	1	2.28	2.24 – 2.3	57.8		ug/kg	
	2	2.69	2.66 – 2.72	77.4		ug/kg	
	3	2.73	2.7 – 2.76	65.4		ug/kg	
	4	2.82	2.79 – 2.85	204		ug/kg	
	5	2.97	2.95 – 3.01	168		ug/kg	
					115		
Column 2	1	2.75	2.72 – 2.78	61		ug/kg	
	2	3.18	3.15 – 3.21	76.7		ug/kg	
	3	3.25	3.22 – 3.28	78.5		ug/kg	
	4	3.33	3.3 – 3.36	222		ug/kg	
	5	3.52	3.49 – 3.55	134		ug/kg	
					114		
Aroclor-1254							5.29
Column 1	1	3.24	3.21 – 3.27	91.6		ug/kg	
	2	3.42	3.39 – 3.45	99.2		ug/kg	
	3	3.69	3.66 – 3.72	98.6		ug/kg	
	4	3.89	3.86 – 3.92	100		ug/kg	
	5	4.01	3.98 – 4.04	156		ug/kg	
					109		
Column 2	1	3.82	3.79 – 3.85	111		ug/kg	
	2	3.96	3.93 – 3.99	102		ug/kg	
	3	4.2	4.17 – 4.23	101		ug/kg	
	4	4.28	4.25 – 4.31	96.4		ug/kg	
	5	4.44	4.41 – 4.47	107		ug/kg	
					103		

Identification Summary

Page 2 of 2

SDG Number: 10-1073

Client ID: RE12-10-7561

Lab Sample ID: 243517008

Data File: 026f2601.d

Data File: 026b2601.d

Inst: ECD2A.J_1

Inst: ECD2A.J_2

Column: CLP1

Column: CLP2

Analyzed: 29-DEC-09 12:02

Analyzed: 29-DEC-09 12:02

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1260							46.7
Column 1	1	4.01	3.98 - 4.04	103		ug/kg	
	2	4.29	4.26 - 4.32	8.96		ug/kg	
	3	4.45	4.42 - 4.48	10.4		ug/kg	
	4	4.66	4.63 - 4.69	9.79		ug/kg	
	5	4.85	4.82 - 4.88	16.1		ug/kg	
					29.7		
Column 2	1	4.41	4.38 - 4.44	52.5		ug/kg	
	2	4.57	4.54 - 4.6	49.8		ug/kg	
	3	4.68	4.65 - 4.71	105		ug/kg	
	4	4.88	4.84 - 4.9	17.8		ug/kg	
	5	5.5	5.47 - 5.53	13.4		ug/kg	
					47.8		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number: 10-1073

Lab Sample ID: 1202005226

Client Sample: QC for batch 937092

Client ID: MB for batch 937092

Batch ID: 937093

Run Date: 12/29/2009 09:27

Prep Date: 12/28/2009 20:43

Data File: 012f1201-1.d

012b1201-1.d

Client: LANL010
Method: SW846 8082
Inst: ECD2A.I
Analyst: JAOC
Aliquot: 30 g
Column: 1 CLP1
2 CLP2

Matrix: SOIL

Project: QC

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

Data File: /chem/ecd2a.i/122909.b/012f1201-3.d
Report Date: 30-Dec-2009 10:13

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/012f1201-3.d
Lab Smp Id: 1202005226 Client Smp ID: PBLK01
Inj Date : 29-DEC-2009 09:27
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005226|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 14:49 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1073.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1pl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

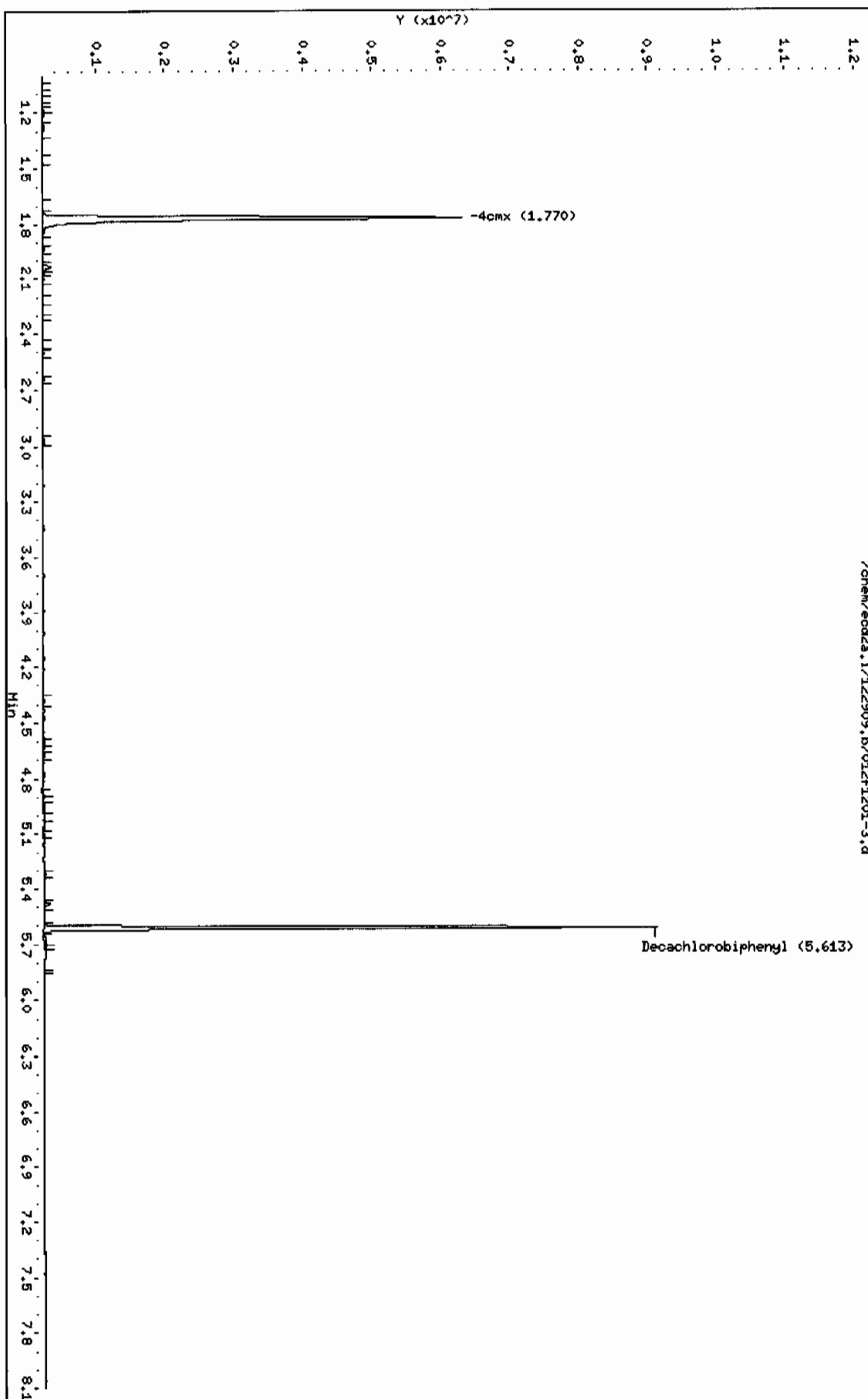
CONCENTRATIONS						
		ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx CAS #: 877-09-8						
1.770	1.771	-0.001	8143925 130.739	4.4	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.613	5.607	0.006	7671039 141.763	4.7	80.00- 120.00	100.00

Data File: /chem/eod2a.i/122909.b/012F1201-3.d
Date: 29-DEC-2009 09:27
Client ID: PBLK01
Sample Info: 1120200522611
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: eod2a.i
Operator: JHOC
Column diameter: 0.25

Page 1



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/012b1201-3.d
 Lab Smp Id: 1202005226 Client Smp ID: PBLK01
 Inj Date : 29-DEC-2009 09:27
 Operator : JAOC Inst ID: ecd2a.i
 Smp Info : |1202005226|1|
 Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|MB|||
 Comment :
 Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
 Meth Date : 29-Dec-2009 14:47 jen01212 Quant Type: ESTD
 Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
 Als bottle: 12 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 10-1073.sub
 Target Version: 3.50 Sample Matrix: Soil
 Processing Host: hpc1p1

Concentration Formula: $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE (ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx CAS #: 877-09-8						
2.066	2.068	-0.002	17916708	138.548	4.6 80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
6.303	6.300	0.003	18327481	162.502	5.4 80.00- 120.00	100.00

Data File: /chem/eod2a.i/122909.b/012b1201-3.d

Date: 29-DEC-2009 09:27

Client ID: PBLK01

Sample Info: 11202006226111

Volume Injected (uL): 1.0

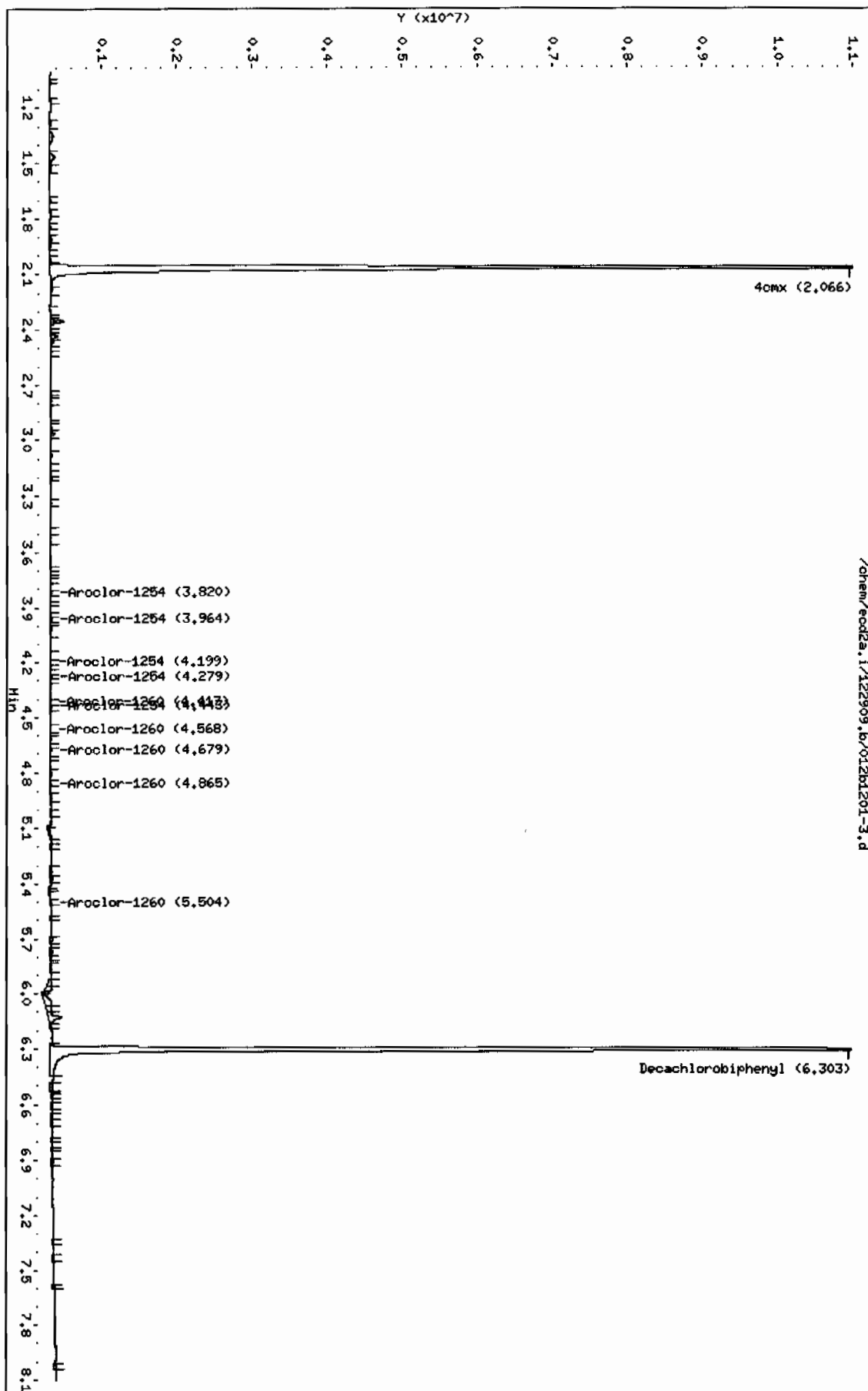
Column phase: CLP2

Instrument: eod2a.i

Operator: JHOC

Column diameter: 0.25

Page 1



PCB
Certificate of Analysis
Sample Summary

Page 1 of 1

SDG Number: 10-1073

Lab Sample ID: 1202005227

Client Sample: QC for batch 937092

Client ID: LCS for batch 937092

Batch ID: 937093

Run Date: 12/29/2009 09:38

Prep Date: 12/28/2009 20:43

Data File: 013f1301-1.d

013b1301-1.d

Client: LANL010
Method: SW846 8082
Inst: ECD2A.I
Analyst: JAOC
Aliquot: 30 g
Column: 1 CLP1
2 CLP2

Matrix: SOIL

Project: QC

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		21.1	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		26.3	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL
 Data file : /chem/ecd2a.i/122909.b/013f1301-3.d
 Lab Smp Id: 1202005227 Client Smp ID: PBLK01LCS
 Inj Date : 29-DEC-2009 09:38
 Operator : JAOC Inst ID: ecd2a.i
 Smp Info : |1202005227|1|
 Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|LCS|||
 Comment :
 Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
 Meth Date : 29-Dec-2009 14:49 jen01212 Quant Type: ESTD
 Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
 Als bottle: 13 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 10-1073.sub
 Target Version: 3.50 Sample Matrix: Soil
 Processing Host: hpc1pl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS

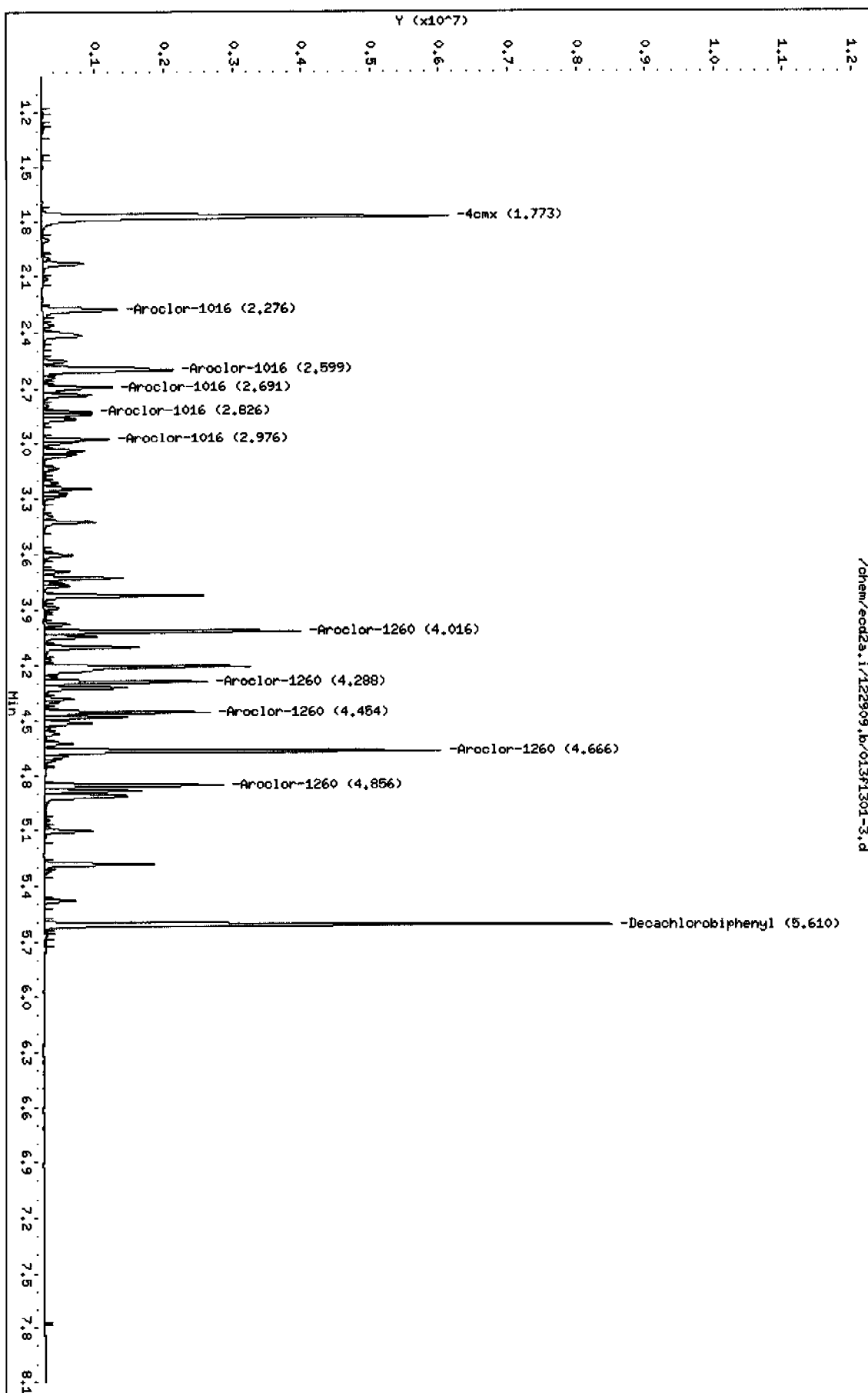
RT	EXP RT	DLT RT	RESPONSE (ug/L)	ON-COL	FINAL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8			
1.773	1.771	0.002	8184621 131.392	4.4	80.00- 120.00	100.00	
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.610	5.607	0.003	7531097 139.177	4.6	80.00- 120.00	100.00	
1 Aroclor-1016				CAS #: 12674-11-2			
2.276	2.273	0.003	1464235 654.351	21.8	80.00- 120.00	100.00	
2.599	2.597	0.002	2965794 633.004	21.1	191.82- 231.82	202.55	
2.691	2.688	0.003	1186756 624.122	20.8	64.77- 104.77	81.05	
2.826	2.823	0.003	618759 633.989	21.1	22.45- 62.45	42.26	

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/Kg)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
2.976	2.974	0.002	915257	627.806	20.9	43.69-	83.69	62.51
Average of Peak Concentrations =					21.2			

7 Aroclor-1260					CAS #: 11096-82-5			
4.016	4.014	0.002	3171930	761.550	25.4	80.00-	120.00	100.00
4.288	4.286	0.002	2014984	777.815	25.9	42.92-	82.92	63.53
4.454	4.451	0.003	2076929	789.345	26.3	46.15-	86.15	65.48
4.666	4.664	0.002	5017946	824.290	27.5	132.63-	172.63	158.20
4.856	4.853	0.003	2320195	788.605	26.3	53.77-	93.77	73.15
Average of Peak Concentrations =					26.3			

Data File: /chem/ecod2a.i/122909.b/013F1301-3.d
Date: 29-DEC-2009 09:38
Client ID: PBLK01LCS
Sample Info: 12020006227141
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecod2a.i
Operator: JAOC
Column diameter: 0.25



Data File: /chem/ecd2a.i/122909.b/013b1301-3.d
Report Date: 30-Dec-2009 10:11

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL
Data file : /chem/ecd2a.i/122909.b/013b1301-3.d
Lab Smp Id: 1202005227 Client Smp ID: PBLK01LCS
Inj Date : 29-DEC-2009 09:38
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005227|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1073.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt / (Vi * Ws * (100 - M) / 100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

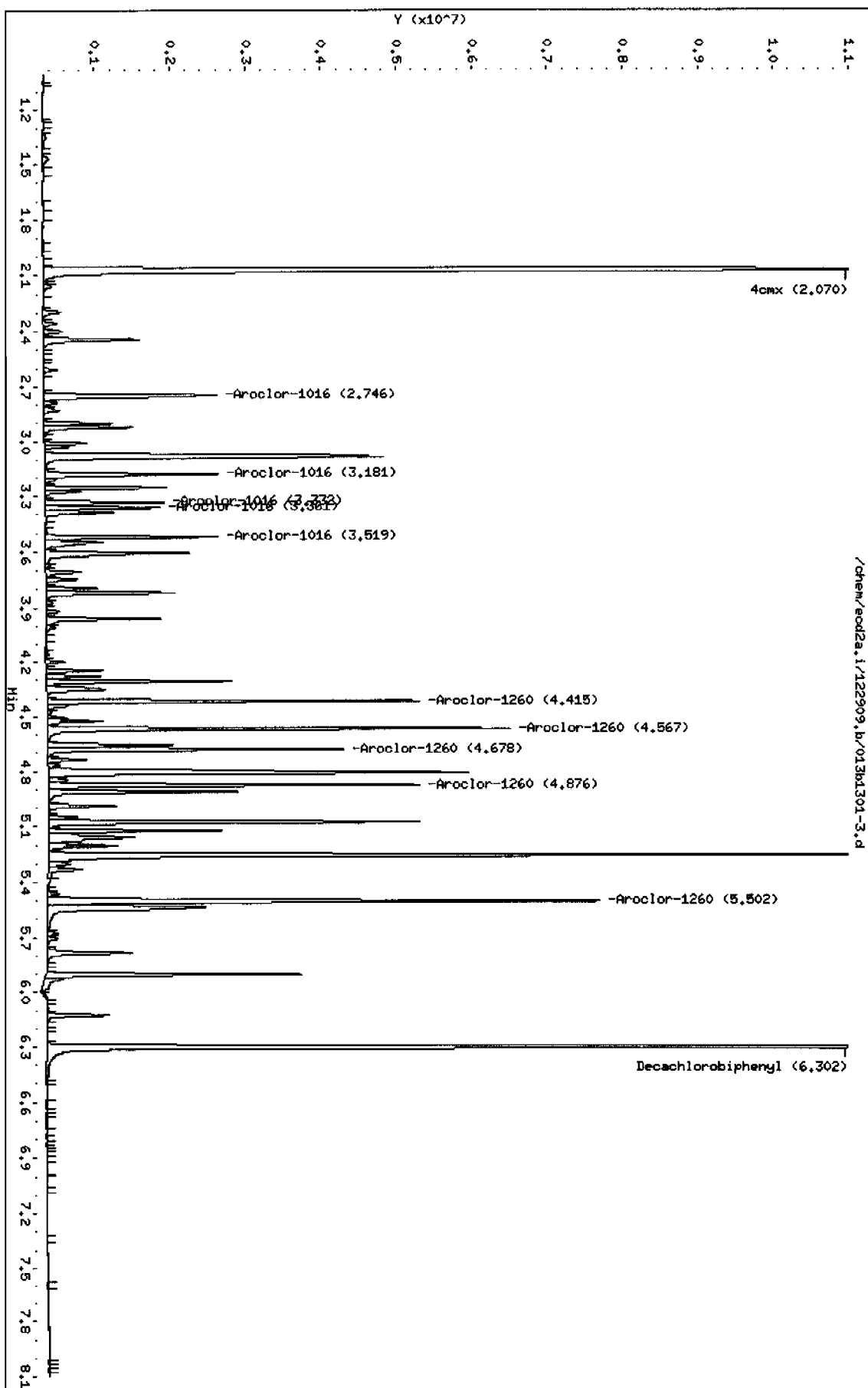
CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx					CAS #: 877-09-8		
2.070	2.068	0.002	17898820 138.409	4.6	80.00- 120.00	100.00	
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.300	0.002	17817344 157.979	5.3	80.00- 120.00	100.00	
1 Aroclor-1016					CAS #: 12674-11-2		
2.746	2.745	0.001	2879212 634.492	21.1	80.00- 120.00	100.00	
3.181	3.179	0.002	2234760 620.393	20.7	58.34- 98.34	77.62	
3.332	3.330	0.002	1305611 635.882	21.2	24.56- 64.56	45.35	
3.361	3.359	0.002	1333055 623.771	20.8	26.71- 66.71	46.30	

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/Kg)	TARGET	RANGE	RATIO	
==	=====	*****	=====	=====	=====	*****	=====	=====	=====
1 Aroclor-1016 (continued)									
3.519	3.518	0.001	1829775	637.438	21.2	43.42-	83.42	63.55	
Average of Peak Concentrations =					21.0				

7 Aroclor-1260					CAS #: 11096-82-5				
4.415	4.414	0.001	4221981	732.103	24.4	80.00-	120.00	100.00	
4.567	4.565	0.002	5453794	765.564	25.5	107.94-	147.94	129.18	
4.678	4.677	0.001	3640930	755.582	25.2	67.11-	107.11	86.24	
4.876	4.874	0.002	4331800	769.174	25.6	80.57-	120.57	102.60	
5.502	5.500	0.002	7406477	819.526	27.3	146.62-	186.62	175.43	
Average of Peak Concentrations =					25.6				

Data File: /chem/eod2a.i/122909.b/013b1301-3.d
Date : 29-DEC-2009 09:38
Client ID: PBLK01LCS
Sample Info: 1120200522711
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: eod2a.i
Operator: JHOC
Column diameter: 0.25



MISCELLANEOUS DATA

GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD2

DATE: 11/13/2009

METHOD: ECD2-F-8082-111209A.m

OPERATOR: YS1

REVIEWED BY: _____

DATE: _____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT: CZ600

ALUMINA LOT: 1193715-A

COPPER LOT: 091020-A

Calibration & QC Information

Initial Calibration Dates: See Calibration History and Standards Log

Initial Calibration Std ID's: See Calibration History and Standards Log

GEL SOP GL-OA-E-040

EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography

Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR090916-99 IB	YS1	12-NOV-2009 10:05		111209a	1.0	CLEAN	
002f0201.d	WAR091102-60 1	YS1	12-NOV-2009 10:16		111209a	1.0	DUSE RE-ICAL	
003f0301.d	WAR091102-54	YS1	12-NOV-2009 10:27		111209a	1.0	DUSE RE-ICAL	
004f0401.d	WAR091102-42	YS1	12-NOV-2009 10:38		111209a	1.0	DUSE RE-ICAL	
005f0501.d	WAR091027-48	YS1	12-NOV-2009 10:49		111209a	1.0	DUSE RE-ICAL	
006f0601.d	WAR090930-32	YS1	12-NOV-2009 11:00		111209a	1.0	PATTERN ONLY	
007f0701.d	WAR091111-21	YS1	12-NOV-2009 11:11		111209a	1.0	PATTERN ONLY	
008f0801.d	WAR091111-62	YS1	12-NOV-2009 11:22		111209a	1.0	PATTERN ONLY	
009f0901.d	WAR091106-68	YS1	12-NOV-2009 11:33		111209a	1.0	DUSE RE-ICAL	
010f1001.d	WAR091020-DDT	YS1	12-NOV-2009 11:45		111209a	1.0	DDT ANALOG STANDARD	
011f1101.d	WAR091112-01 60	YS1	12-NOV-2009 11:56		111209a	1.0	ARI660 I-CAL LEVEL 1	
012f1201.d	WAR091112-02 60	YS1	12-NOV-2009 12:07		111209a	1.0	ARI660 I-CAL LEVEL 2	
013f1301.d	WAR091112-03 60	YS1	12-NOV-2009 12:18		111209a	1.0	ARI660 I-CAL LEVEL 3	
014f1401.d	WAR091112-04 60	YS1	12-NOV-2009 12:29		111209a	1.0	ARI660 I-CAL LEVEL 4	
015f1501.d	WAR091102-01	YS1	12-NOV-2009 12:40		111209a	1.0	ARI660 I-CAL LEVEL 5	

Instrument Batch: /chem/ecd2a.i/111209a.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR091102-60 01	YS1	12-NOV-2009 12:51		111209a	1.0	PASSED ON BOTH COLUMNS	

|017f1701.d |	WAR091112-05 54	|YS1	|12-NOV-2009 13:02	|	|111209a	|	1.0|	|AR1254 I-CAL LEVEL 1	|
|018f1801.d |	WAR091112-06 54	|YS1	|12-NOV-2009 13:13	|	|111209a	|	1.0|	|AR1254 I-CAL LEVEL 2	|
|019f1901.d |	WAR091112-07 54	|YS1	|12-NOV-2009 13:25	|	|111209a	|	1.0|	|AR1254 I-CAL LEVEL 3	|
|020f2001.d |	WAR091112-08 54	|YS1	|12-NOV-2009 13:36	|	|111209a	|	1.0|	|AR1254 I-CAL LEVEL 4	|
|021f2101.d |	IAR091027-01	|YS1	|12-NOV-2009 13:47	|	|111209a	|	1.0|	|AR1254 I-CAL LEVEL 5	|
|022f2201.d |	WAR091102-54	|YS1	|12-NOV-2009 13:58	|	|111209a	|	1.0|	|PASSED ON BOTH COLUMNS	|
|023f2301.d |	WAR091112-09 42	|YS1	|12-NOV-2009 14:09	|	|111209a	|	1.0|	|AR1242 I-CAL LEVEL 1	|
|024f2401.d |	WAR091112-10 42	|YS1	|12-NOV-2009 14:20	|	|111209a	|	1.0|	|AR1242 I-CAL LEVEL 2	|
|025f2501.d |	WAR091112-11 42	|YS1	|12-NOV-2009 14:31	|	|111209a	|	1.0|	|AR1242 I-CAL LEVEL 3	|
|026f2601.d |	WAR091112-12 42	|YS1	|12-NOV-2009 14:42	|	|111209a	|	1.0|	|AR1242 I-CAL LEVEL 4	|
|027f2701.d |	IAR091111-01	|YS1	|12-NOV-2009 14:53	|	|111209a	|	1.0|	|AR1242 I-CAL LEVEL 5	|
|028f2801.d |	WAR091102-42	|YS1	|12-NOV-2009 15:05	|	|111209a	|	1.0|	|PASSED ON BOTH COLUMNS	|
|029f2901.d |	WAR091112-13 48	|YS1	|12-NOV-2009 15:16	|	|111209a	|	1.0|	|AR1248 I-CAL LEVEL 1	|
|030f3001.d |	WAR091112-14 48	|YS1	|12-NOV-2009 15:27	|	|111209a	|	1.0|	|AR1248 I-CAL LEVEL 2	|
|031f3101.d |	WAR091112-15 48	|YS1	|12-NOV-2009 15:38	|	|111209a	|	1.0|	|AR1248 I-CAL LEVEL 3	|
|032f3201.d |	WAR091112-16 48	|YS1	|12-NOV-2009 15:49	|	|111209a	|	1.0|	|AR1248 I-CAL LEVEL 4	|
|033f3301.d |	IAR091027-02	|YS1	|12-NOV-2009 16:00	|	|111209a	|	1.0|	|AR1248 I-CAL LEVEL 5	|
|034f3401.d |	WAR091027-48	|YS1	|12-NOV-2009 16:11	|	|111209a	|	1.0|	|PASSED ON BOTH COLUMNS	|
|035f3501.d |	WAR091112-17 68	|YS1	|12-NOV-2009 16:22	|	|111209a	|	1.0|	|AR1268 I-CAL LEVEL 1	|
|037f3701.d |	WAR091112-19 68	|YS1	|12-NOV-2009 16:44	|	|111209a	|	1.0|	|AR1268 I-CAL LEVEL 3	|
|038f3801.d |	WAR091112-20 68	|YS1	|12-NOV-2009 16:55	|	|111209a	|	1.0|	|AR1268 I-CAL LEVEL 4	|
|039f3901.d |	IAR090817-02	|YS1	|12-NOV-2009 17:07	|	|111209a	|	1.0|	|AR1268 I-CAL LEVEL 5	|
|040f4001.d |	WAR091106-68	|YS1	|12-NOV-2009 17:18	|	|111209a	|	1.0|	|PASSED ON BOTH COLUMNS	|
|041f4101.d |	WAR090916-99 02	|YS1	|12-NOV-2009 17:29	|	|111209a	|	1.0|	|CLEAN	|

Instrument Batch: /chem/ecd2a.i/111209a.b

GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD2

DATE: 12/01/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:JAOC REVIEWED BY: _____
 HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
 ALUMINA LOT:1206399-A
 COPPER LOT:207783-A

Calibration & QC Information
 Initial Calibration Dates: See Calibration History and Standards Log
 Initial Calibration Std ID's: See Calibration History and Standards Log
 GEL SOP GL-OA-E-040
 EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
 Sequence Number:113009A Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR090916-99 IB	JAOC	30-NOV-2009 08:21		1113009a	1.0l	CLEAN	
002f0201.d	WAR091119-60 01	JAOC	30-NOV-2009 08:32		1113009a	1.0l	DUSE	
003f0301.d	WAR091130-05 54	JAOC	30-NOV-2009 08:43		1113009a	1.0l	1254 LEVEL 1	
004f0401.d	WAR091130-06 54	JAOC	30-NOV-2009 08:54		1113009a	1.0l	1254 LEVEL 2	
005f0501.d	WAR091130-07 54	JAOC	30-NOV-2009 09:05		1113009a	1.0l	1254 LEVEL 3	
006f0601.d	WAR091130-08 54	JAOC	30-NOV-2009 09:16		1113009a	1.0l	1254 LEVEL 4	
007f0701.d	WAR091027-01 54	JAOC	30-NOV-2009 09:27		1113009a	1.0l	1254 LEVEL 5	
008f0801.d	WAR091102-54	JAOC	30-NOV-2009 09:38		1113009a	1.0l	PASSES BOTH COLUMNS	
009f0901.d	WAR091102-42	JAOC	30-NOV-2009 09:50		1113009a	1.0l	PASSES BOTH COLUMNS	
010f1001.d	WAR091119-60 01	JAOC	30-NOV-2009 10:01		1113009a	1.0l	PASSES BOTH COLUMNS	
011f1101.d	WAR091130-13 48	JAOC	30-NOV-2009 10:12		1113009a	1.0l	1248 LEVEL 1	
012f1201.d	WAR091130-14 48	JAOC	30-NOV-2009 10:23		1113009a	1.0l	1248 LEVEL 2	
013f1301.d	WAR091130-15 48	JAOC	30-NOV-2009 10:34		1113009a	1.0l	1248 LEVEL 3	
014f1401.d	WAR091130-16 48	JAOC	30-NOV-2009 10:45		1113009a	1.0l	1248 LEVEL 4	
015f1501.d	WAR091027-02 48	JAOC	30-NOV-2009 10:56		1113009a	1.0l	1248 LEVEL 5	

Instrument Batch: /chem/ecd2a.i/113009a.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
015f1601.d	WAR091027-48	JAOC	30-NOV-2009 11:07		1113009a	1.0l	DUSE	

1017f1701.d	WAR090930-32	JAO	30-NOV-2009 11:18		113009a	1.0	PATTERN ONLY
1019f1801.d	WAR091027-48	JAO	30-NOV-2009 11:29		113009a	1.0	PASSES BOTH COLUMNS
1019f1901.d	WAR091111-21	JAO	30-NOV-2009 11:40		113009a	1.0	PATTERN ONLY
1020f2001.d	WAR091111-62	JAO	30-NOV-2009 11:51		113009a	1.0	PATTERN ONLY
1021f2101.d	WAR091106-68	JAO	30-NOV-2009 12:02		113009a	1.0	PATTERN ONLY
1022f2201.d	WAR091020-DDT	JAO	30-NOV-2009 12:13		113009a	1.0	DOT
1023f2301.d	WAR090916-99 02	JAO	30-NOV-2009 12:25		113009a	1.0	CLEAN
1024f2401.d	1201981402	JAO	30-NOV-2009 12:36	1926725	EUI-7399	1.0	QC A | UPLOAD BOTH, USE HIGHER
1025f2501.d	1201981405	JAO	30-NOV-2009 12:47	1926725	EUI-7399	1.0	QC A | UPLOAD BOTH, USE HIGHER
1026f2601.d	1241672001	JAO	30-NOV-2009 12:58	1926725	EUI-7399	200.0	CARE | UPLOAD BOTH, USE HIGHER
1027f2701.d	1201981403	JAO	30-NOV-2009 13:09	1926725	EUI-7399	200.0	QC A | UPLOAD BOTH, USE HIGHER
1028f2801.d	1201981404	JAO	30-NOV-2009 13:20	1926725	EUI-7399	200.0	QC A | UPLOAD BOTH, USE HIGHER
1029f2901.d	WAR091119-60 02	JAO	30-NOV-2009 13:36		113009a	1.0	PASSES BOTH COLUMNS
1030f3001.d	WAR090916-99 03	JAO	30-NOV-2009 13:47		113009a	1.0	CLEAN
1031f3101.d	1201981478	JAO	30-NOV-2009 13:58	1926760	1241688	1.0	QC A | UPLOAD BOTH, USE HIGHER
1032f3201.d	1201981479	JAO	30-NOV-2009 14:09	1926760	1241688	1.0	QC A | UPLOAD BOTH, USE HIGHER
1033f3301.d	1201981480	JAO	30-NOV-2009 14:34	1926760	1241688	1.0	QC A | UPLOAD BOTH, USE HIGHER
1034f3401.d	1241688001	JAO	30-NOV-2009 14:45	1926760	1241688	1000.0	ROI T | UPLOAD BOTH, USE HIGHER
1035f3501.d	1241688002	JAO	30-NOV-2009 14:56	1926760	1241688	1000.0	ROI T | UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/113009a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091119-60 03	JAO	30-NOV-2009 15:12		113009a	1.0		PASSES BOTH COLUMNS
037f3701.d	WAR090916-99 04	JAO	30-NOV-2009 15:23		113009a	1.0		CLEAN
038f3801.d	241034012	JAO	30-NOV-2009 15:34	925599	110-463	100.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	241034013	JAO	30-NOV-2009 15:45	925599	110-463	1.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	241034014	JAO	30-NOV-2009 15:56	925599	110-463	5.0	LANL	UPLOAD BOTH, USE HIGHER
041f4101.d	241034015	JAO	30-NOV-2009 16:07	925599	110-463	20.0	LANL	UPLOAD BOTH, USE HIGHER

1066f6601.d	1241183003	JAC	30-NOV-2009 20:49	926712	10-519	10.0	LANL	UPLOAD BOTH, USE HIGHER
1067f6701.d	1241183004	JAC	30-NOV-2009 21:00	926712	10-519	1.0	LANL	UPLOAD BOTH, USE HIGHER
1068f6801.d	1241318001	JAC	30-NOV-2009 21:11	926712	10-543	10.0	LANL	UPLOAD BOTH, USE HIGHER
1069f6901.d	1241318002	JAC	30-NOV-2009 21:22	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
1070f7001.d	1241318003	JAC	30-NOV-2009 21:33	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
1071f7101.d	1241318004	JAC	30-NOV-2009 21:44	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
1072f7201.d	1241318005	JAC	30-NOV-2009 21:55	926712	10-543	1.0	LANL	PASSES BOTH COLUMNS
1073f7301.d	1241318006	JAC	30-NOV-2009 22:07	926712	10-543	1.0	LANL	CLEAN
1074f7401.d	1241318007	JAC	30-NOV-2009 22:18	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
1075f7501.d	1241318008	JAC	30-NOV-2009 22:29	926712	10-543	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/113009a.b

1076f7601.d	1241318007	JAC	30-NOV-2009 22:40	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
1077f7701.d	1241318008	JAC	30-NOV-2009 22:51	926712	10-543	1.0	LANL	UPLOAD BOTH, USE HIGHER
1078f7801.d	1241318009	JAC	30-NOV-2009 23:02	926712	10-543	1.0	LANL	UPLOAD BOTH, USE HIGHER
1079f7901.d	1241318010	JAC	30-NOV-2009 23:13	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
1080f8001.d	1241318013	JAC	30-NOV-2009 23:24	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
1081f8101.d	1241318014	JAC	30-NOV-2009 23:36	926712	10-543	1.0	LANL	UPLOAD BOTH, USE HIGHER
1082f8201.d	1241336001	JAC	30-NOV-2009 23:47	926712	10-546	1.0	LANL	UPLOAD BOTH, USE HIGHER
1083f8301.d	1241336002	JAC	30-NOV-2009 23:58	926712	10-546	5.0	LANL	UPLOAD BOTH, USE HIGHER
1084f8401.d	1241336003	JAC	01-DEC-2009 00:09	926712	10-546	1.0	LANL	PASSES BOTH COLUMNS
1085f8501.d	1241336004	JAC	01-DEC-2009 00:20	926712	10-546	1.0	LANL	CLEAN
1086f8601.d	1241417001	JAC	01-DEC-2009 00:31	926712	10-575	10.0	LANL	UPLOAD BOTH, USE HIGHER
1087f8701.d	1201981384	JAC	01-DEC-2009 00:42	926712	10-575	10.0	QC A	UPLOAD BOTH, USE HIGHER
1088f8801.d	1201981385	JAC	01-DEC-2009 00:53	926712	10-575	10.0	QC A	UPLOAD BOTH, USE HIGHER
1089f8901.d	1241417002	JAC	01-DEC-2009 01:05	926712	10-575	1.0	LANL	UPLOAD BOTH, USE HIGHER
1090f9001.d	1241417003	JAC	01-DEC-2009 01:16	926712	10-575	1.0	LANL	PASSES BOTH COLUMNS

GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD2

DATE: 12/14/2009

METHOD: ECD2-F-8082-111209A.m

OPERATOR: YS1

REVIEWED BY: _____

DATE: _____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT: DA385
ALUMINA LOT: 1230997-A
COPPER LOT: 236547-A

Calibration & QC Information

Initial Calibration Dates: See Calibration History and Standards Log

Initial Calibration Std ID's: See Calibration History and Standards Log

GEL SOP GL-OA-E-040

EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography

Sequence Number: _____

Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	YS1	14-DEC-2009 07:00		121409	1.0	CLEAN	
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0	DUSE RE-I-CAL	
003f0301.d	WAR091102-54	YS1	14-DEC-2009 07:22		121409	1.0	PASSED ON BOTH COLUMNS	
004f0401.d	WAR091102-42	YS1	14-DEC-2009 07:33		121409	1.0	PASSED ON BOTH COLUMNS	
005f0501.d	WAR091027-48	YS1	14-DEC-2009 07:44		121409	1.0	PASSED ON BOTH COLUMNS	
006f0601.d	WAR090930-32	YS1	14-DEC-2009 07:55		121409	1.0	PATTERN ONLY	
007f0701.d	WAR091111-21	YS1	14-DEC-2009 08:07		121409	1.0	PATTERN ONLY	
008f0801.d	ARI660-4	YS1	14-DEC-2009 08:18		121409	1.0	DUSE SCREEN	
009f0901.d	WAR091111-62	YS1	14-DEC-2009 08:29		121409	1.0	PATTERN ONLY	
010f1001.d	WAR091106-68	YS1	14-DEC-2009 08:40		121409	1.0	PATTERN ONLY	
011f1101.d	WAR091214-01 60	YS1	14-DEC-2009 08:51		121409	1.0	ARI660 I-CAL LEVEL 1	
012f1201.d	WAR091214-02 60	YS1	14-DEC-2009 09:02		121409	1.0	ARI660 I-CAL LEVEL 2	
013f1301.d	WAR091214-03 60	YS1	14-DEC-2009 09:13		121409	1.0	ARI660 I-CAL LEVEL 3	
014f1401.d	WAR091214-04 60	YS1	14-DEC-2009 09:24		121409	1.0	ARI660 I-CAL LEVEL 4	
015f1501.d	WAR091102-01	YS1	14-DEC-2009 09:35		121409	1.0	ARI660 I-CAL LEVEL 5	

Instrument Batch: /chem/ecd2a.i/121409.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR091211-60 01	YS1	14-DEC-2009 09:46		121409	1.0	PASSED ON BOTH COLUMNS	

017f1701.d	WAR091020-DDT	YS1	14-DEC-2009 09:58		121409	1.0	IDDT ANALOG STANDARD	
018f1801.d	WAR091130-99 02	YS1	14-DEC-2009 10:09	SOLV	121409	1.0	IB	CLEAN
019f1901.d	1201992205	YS1	14-DEC-2009 10:20	931371	241934	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	11201992206	YS1	14-DEC-2009 10:31	931371	241934	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	241934001	YS1	14-DEC-2009 10:42	931371	241934	10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	1201992207	YS1	14-DEC-2009 10:53	931371	241934	10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1201992208	YS1	14-DEC-2009 11:04	931371	241934	10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	241934002	YS1	14-DEC-2009 11:15	931371	241934	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	241934003	YS1	14-DEC-2009 11:26	931371	241934	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	241934004	YS1	14-DEC-2009 11:37	931371	241934	10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	241934005	YS1	14-DEC-2009 11:48	931371	241934	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	241934006	YS1	14-DEC-2009 11:59	931371	241934	20.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	WAR091211-60 02	YS1	14-DEC-2009 12:11	1660	121409	1.0	CVS	PASSED ON BOTH COLUMNS
030f3001.d	WAR091130-99 03	YS1	14-DEC-2009 12:22	SOLV	121409	1.0	IB	CLEAN
031f3101.d	241934007	YS1	14-DEC-2009 12:33	931371	241934	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	241934008	YS1	14-DEC-2009 12:44	931371	241934	10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	241934009	YS1	14-DEC-2009 13:00	931371	241934	1.0	NREA	DUSE RR5X AFTER MORE SULFUR CLEANED
034f3401.d	241934010	YS1	14-DEC-2009 13:11	931371	241934	10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	241934011	YS1	14-DEC-2009 13:27	931371	241934	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd2a.i/121409.b

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Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	241935001	YS1	14-DEC-2009 13:43	931371	241935	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	241935004	YS1	14-DEC-2009 13:54	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	241935005	YS1	14-DEC-2009 14:05	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	241935006	YS1	14-DEC-2009 14:21	931371	241935	50.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	241935007	YS1	14-DEC-2009 14:36	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	WAR091211-60 03	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS

1042f4201.d	14-DEC-2009 15:03	121409	1.01B	1CLEAN	1
1043f4301.d	14-DEC-2009 15:14	1241934	5.01NREA	1UPLOAD BOTH COLUMNS, USE HIGHER	1
1044f4401.d	14-DEC-2009 15:30	1241935	20000.01NREA	1UPLOAD BOTH COLUMNS, USE HIGHER	1
1045f4501.d	14-DEC-2009 15:45	121409	1.01	1PASSED ON BOTH COLUMNS	1

GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD2

DATE: 12/30/2009

METHOD: ECD2-F-8082-111209A.m

OPERATOR:JAOC

REVIEWED BY: _____

DATE: _____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT:DA385

ALUMINA LOT:1230997-A

COPPER LOT:236547-A

Calibration & QC Information

Initial Calibration Dates: See Calibration History and Standards Log

Initial Calibration Std ID's: See Calibration History and Standards Log

GEL SOP GL-OA-E-040

EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography

Sequence Number:122909 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 1B	JAOC	129-DEC-2009 07:15		122909	1.0	CLEAN	
002f0201.d	WAR091211-60 01	JAOC	129-DEC-2009 07:26		122909	1.0	PASSES BOTH COLUMNS	
003f0301.d	WAR091216-54	JAOC	129-DEC-2009 07:37		122909	1.0	PASSES BOTH COLUMNS	
004f0401.d	WAR091217-42	JAOC	129-DEC-2009 07:48		122909	1.0	PASSES BOTH COLUMNS	
005f0501.d	WAR091217-48	JAOC	129-DEC-2009 07:59		122909	1.0	PASSES BOTH COLUMNS	
006f0601.d	WAR090930-32	JAOC	129-DEC-2009 08:17		122909	1.0	PATTERN ONLY	
007f0701.d	WAR091111-21	JAOC	129-DEC-2009 08:28		122909	1.0	PATTERN ONLY	
008f0801.d	WAR091111-62	JAOC	129-DEC-2009 08:39		122909	1.0	PATTERN ONLY	
009f0901.d	WAR091106-68	JAOC	129-DEC-2009 08:50		122909	1.0	PATTERN ONLY	
010f1001.d	WAR091219-DDT	JAOC	129-DEC-2009 09:01		122909	1.0	DOT	
011f1101.d	WAR091130-99 02	JAOC	129-DEC-2009 09:13		122909	1.0	CLEAN	
012f1201.d	1202005226	JAOC	129-DEC-2009 09:27	937093	10-1036	1.0	QC A	UPLOAD BOTH, USE HIGHER
013f1301.d	1202005227	JAOC	129-DEC-2009 09:38	937093	10-1036	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	243457003	JAOC	129-DEC-2009 09:49	937093	10-1038	1.0	LANL	UPLOAD BOTH, USE HIGHER
015f1501.d	243457004	JAOC	129-DEC-2009 10:00	937093	10-1038	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/122909.b

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Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	243472001	JAOC	129-DEC-2009 10:11	937093	10-1057	1.0	LANL	UPLOAD BOTH, USE HIGHER

1017f1701.d	1243472002	IJAOC	129-DEC-2009 10:22	937093	10-1057	1.0	LANL	UPLOAD BOTH, USE HIGHER
1018f1801.d	1243472003	IJAOC	129-DEC-2009 10:33	937093	10-1057	1.0	LANL	UPLOAD BOTH, USE HIGHER
1019f1901.d	1243490001	IJAOC	129-DEC-2009 10:44	937093	10-1036	1.0	LANL	UPLOAD BOTH, USE HIGHER
1020f2001.d	1243490002	IJAOC	129-DEC-2009 10:55	937093	10-1036	1.0	LANL	UPLOAD BOTH, USE HIGHER
1021f2101.d	1243490003	IJAOC	129-DEC-2009 11:06	937093	10-1036	1.0	LANL	UPLOAD BOTH, USE HIGHER
1022f2201.d	1243490004	IJAOC	129-DEC-2009 11:17	937093	10-1036	1.0	LANL	UPLOAD BOTH, USE HIGHER
1023f2301.d	1243517000	IJAOC	129-DEC-2009 11:28	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1024f2401.d	1243517001	IJAOC	129-DEC-2009 11:40	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1025f2501.d	1243517002	IJAOC	129-DEC-2009 11:51	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1026f2601.d	1243517003	IJAOC	129-DEC-2009 12:02	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1027f2701.d	1243517004	IJAOC	129-DEC-2009 12:13	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1028f2801.d	1243517005	IJAOC	129-DEC-2009 12:24	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1029f2901.d	1243517006	IJAOC	129-DEC-2009 12:35	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1030f3001.d	1243517007	IJAOC	129-DEC-2009 12:46	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1031f3101.d	1243517008	IJAOC	129-DEC-2009 12:57	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1032f3201.d	1243517009	IJAOC	129-DEC-2009 13:08	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1033f3301.d	1243517010	IJAOC	129-DEC-2009 13:19	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1034f3401.d	1243517011	IJAOC	129-DEC-2009 13:30	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1035f3501.d	1243517012	IJAOC	129-DEC-2009 13:42	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1036f3601.d	1243517013	IJAOC	129-DEC-2009 13:53	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1037f3701.d	1243517014	IJAOC	129-DEC-2009 14:04	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1038f3801.d	1243517015	IJAOC	129-DEC-2009 14:15	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1039f3901.d	1243517016	IJAOC	129-DEC-2009 14:26	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
1040f4001.d	1243517017	IJAOC	129-DEC-2009 14:37	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/122909.b Page: 2

Data File: /chem/ecd2a.i/122909.b/036b3601.d
Report Date: 31-Dec-2009 09:19

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL
Data file : /chem/ecd2a.i/122909.b/036b3601.d
Lab Smp Id: 1202005228 Client Smp ID: WST54-10-9921MS
Inj Date : 29-DEC-2009 13:53
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005228|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1084.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	11.09100	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
-----	-----	-----	-----	-----	-----	-----	-----	-----
\$ 11 4cmx					CAS #: 877-09-8			
2.068	2.068	0.000	17126572	132.438	4.9	80.00- 120.00	100.00	

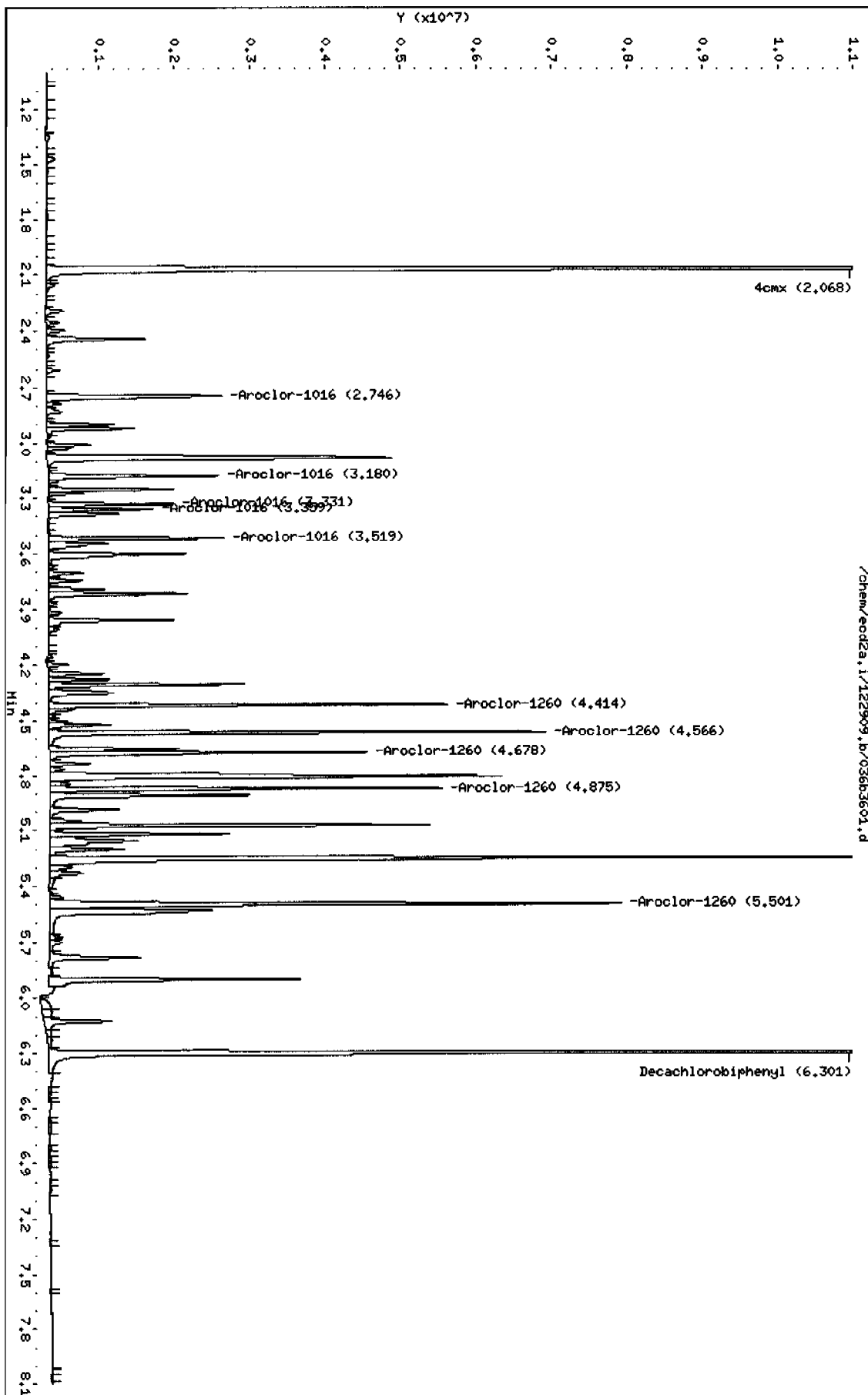
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
6.301	6.300	0.001	17171358	152.251	5.7	80.00- 120.00	100.00	

1 Aroclor-1016					CAS #: 12674-11-2			
2.746	2.745	0.001	2830727	623.808	23.3	80.00- 120.00	100.00	
3.180	3.179	0.001	2217386	615.570	23.0	58.34- 98.34	78.33	
3.331	3.330	0.001	1337551	651.438	24.3	24.56- 64.56	47.25	
3.359	3.359	0.000	1208015	565.261	21.1	26.71- 66.71	42.68	
3.519	3.518	0.001	1875453	653.350	24.4	43.42- 83.42	66.25	
Average of Peak Concentrations =					23.2			

CONCENTRATIONS							
			ON-COL		FINAL		
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
7 Aroclor-1260			CAS #: 11096-82-5				
4.414	4.414	0.000	4459338	773.261	28.8	80.00- 120.00	100.00
4.566	4.565	0.001	5860124	822.602	30.7	107.94- 147.94	131.41
4.678	4.677	0.001	3877434	804.663	30.0	67.11- 107.11	86.95
4.875	4.874	0.001	4545278	807.080	30.1	80.57- 120.57	101.93
5.501	5.500	0.001	7616995	842.820	31.4	146.62- 186.62	170.81
Average of Peak Concentrations =					30.2		

Data File: /chem/eod2a.i/122909.b/036b3601.d
Date : 29-DEC-2009 13:53
Client ID: MST54-10-992LMS
Sample Info: 1120200622811
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: eod2a.i
Operator: JHOC
Column diameter: 0.25



Data File: /chem/ecd2a.i/122909.b/036f3601.d
Report Date: 31-Dec-2009 09:20

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL
Data file : /chem/ecd2a.i/122909.b/036f3601.d
Lab Smp Id: 1202005228 Client Smp ID: WST54-10-9921MS
Inj Date : 29-DEC-2009 13:53
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005228|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 14:49 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1084.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt / (Vi * Ws * (100 - M) / 100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	11.09100	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	DLT RT	ON-COL RESPONSE (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO		
==	=====	=====	=====	=====	=====	=====		
\$ 11 4cmx					CAS #: 877-09-8			
1.771	1.771	0.000	7821503	125.563	4.7	80.00~	120.00	100.00

\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.609	5.607	0.002	7461180	137.885	5.1	80.00~	120.00	100.00

1 Aroclor-1016					CAS #: 12674-11-2			
2.274	2.273	0.001	1358669	607.175	22.6	80.00~	120.00	100.00(M)
2.598	2.597	0.001	2913922	621.933	23.2	191.82~	231.82	214.47
2.688	2.688	0.000	1173723	617.268	23.0	64.77~	104.77	86.39
2.824	2.823	0.001	604102	618.971	23.1	22.45~	62.45	44.46
2.976	2.974	0.002	793559	544.329	20.3	43.69~	83.69	58.41
Average of Peak Concentrations =					22.4			

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE (ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
7 Aroclor-1260				CAS #: 11096-82-5		
4.016	4.014	0.002	3324493	798.179	29.8 80.00- 120.00	100.00
4.287	4.286	0.001	2060507	795.387	29.7 42.92- 82.92	61.98
4.452	4.451	0.001	2108687	801.415	29.9 46.15- 86.15	63.43
4.665	4.664	0.001	5154171	846.668	31.6 132.63- 172.63	155.04
4.855	4.853	0.002	2180887	741.256	27.7 53.77- 93.77	65.60
Average of Peak Concentrations =				29.7		

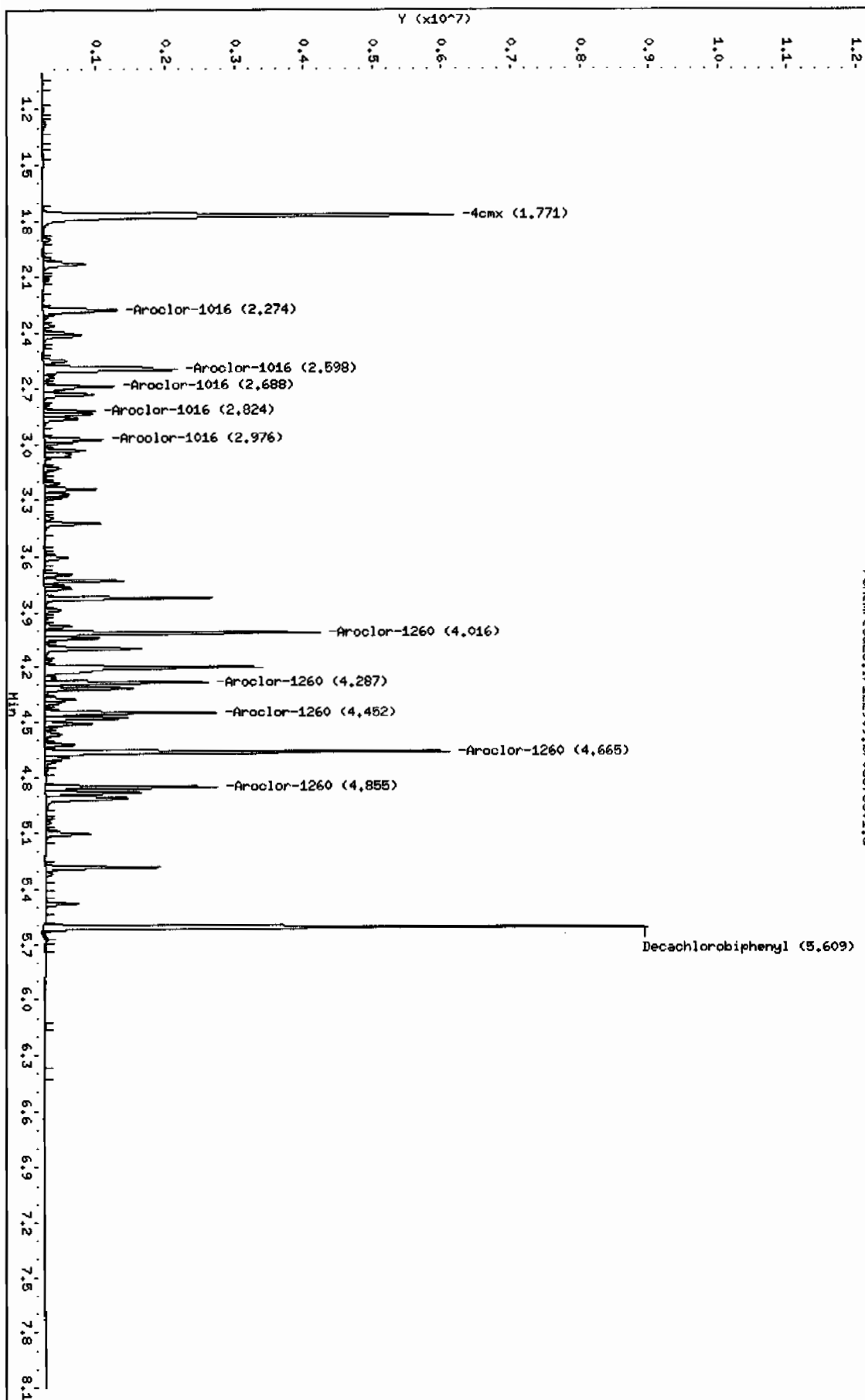
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecad2a.i/122909.b/036f3601.d
Date: 29-DEC-2009 13:53
Client ID: MST54-10-992LHS
Sample Info: 1120200622811
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecad2a.i
Operator: JHOC
Column diameter: 0.25

/chem/ecad2a.i/122909.b/036f3601.d



Data File: /chem/ecd2a.i/122909.b/037b3701.d
Report Date: 31-Dec-2009 09:20

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL
Data file : /chem/ecd2a.i/122909.b/037b3701.d
Lab Smp Id: 1202005229 Client Smp ID: WST54-10-9921MSD
Inj Date : 29-DEC-2009 14:04
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005229|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|MSD|1|1|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1084.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	11.09100	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
RT	EXP RT	DLT RT	ON-COL RESPONSE (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO

\$ 11 4cmx				CAS #: 877-09-8		
2.069	2.068	0.001	18247734	141.107	5.3 80.00- 120.00	100.00

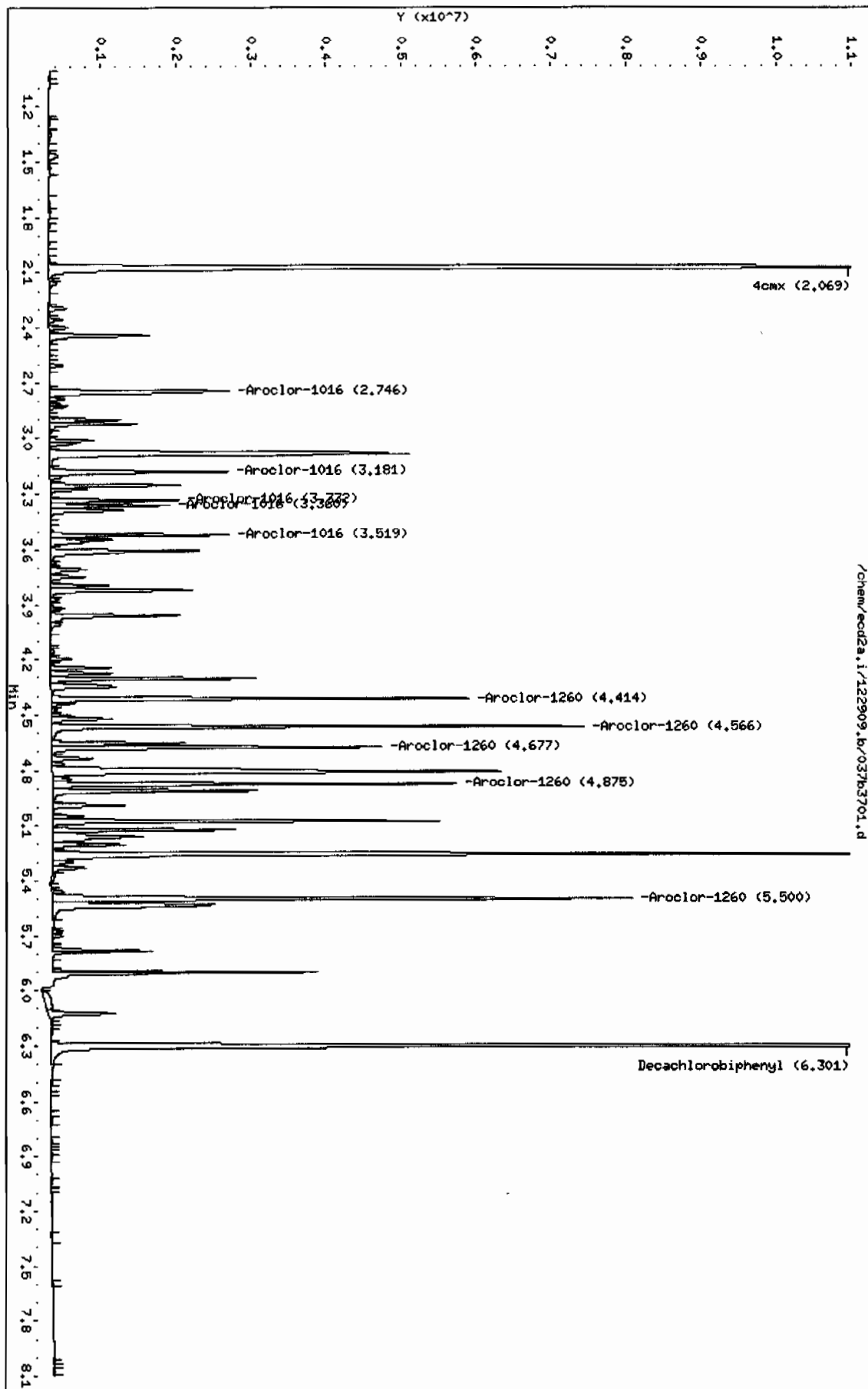
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
6.301	6.300	0.001	17814926	157.958	5.9 80.00- 120.00	100.00

1 Aroclor-1016				CAS #: 12674-11-2		
2.746	2.745	0.001	2912309	641.786	23.9 80.00- 120.00	100.00
3.181	3.179	0.002	2339521	649.476	24.2 58.34- 98.34	80.33
3.332	3.330	0.002	1388934	676.463	25.2 24.56- 64.56	47.69
3.360	3.359	0.001	1402698	656.359	24.5 26.71- 66.71	48.16
3.519	3.518	0.001	1933785	673.672	25.1 43.42- 83.42	66.40
Average of Peak Concentrations =				24.6		

			CONCENTRATIONS					
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/Kg)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
7 Aroclor-1260					CAS #: 11096-82-5			
4.414	4.414	0.000	4606360	798.755	29.8	80.00-	120.00	100.00
4.566	4.565	0.001	6012028	843.925	31.5	107.94-	147.94	130.52
4.677	4.677	0.000	3959627	821.720	30.6	67.11-	107.11	85.96
4.875	4.874	0.001	4649139	825.522	30.8	80.57-	120.57	100.93
5.500	5.500	0.000	7728487	855.157	31.9	146.62-	186.62	167.78
Average of Peak Concentrations =					30.9			

Data File: /chem/ecod2a.i/122909.b/037b3701.d
Date: 29-DEC-2009 14:04
Client ID: MST94-10-9921MSD
Sample Info: 11202005229111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecod2a.i
Operator: JMO
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/037f3701.d
 Lab Smp Id: 1202005229 Client Smp ID: WST54-10-9921MSD
 Inj Date : 29-DEC-2009 14:04
 Operator : JAOC Inst ID: ecd2a.i
 Smp Info : |1202005229|1|
 Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|MSD|1|1|
 Comment :
 Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
 Meth Date : 29-Dec-2009 14:49 jen01212 Quant Type: ESTD
 Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
 Als bottle: 37 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 10-1084.sub
 Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	11.09100	% Moisture

Cpnd Variable Local Compound Variable

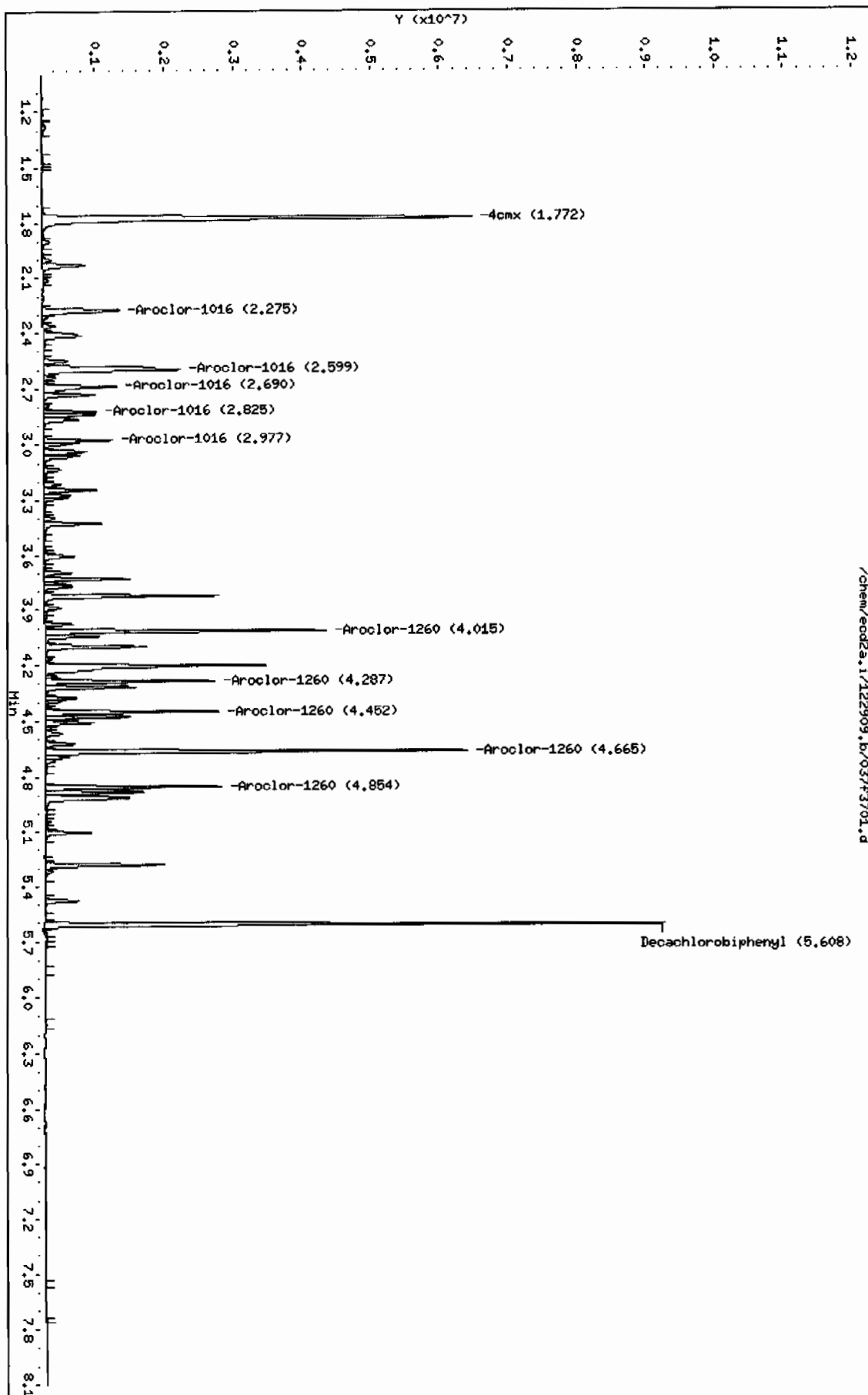
CONCENTRATIONS							
RT	EXP RT	DLT RT	RESPONSE (ug/L)	ON-COL	FINAL	TARGET RANGE	RATIO
\$ 11 4cmx						CAS #: 877-09-8	
1.772	1.771	0.001	8299557	133.237	5.0	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl						CAS #: 2051-24-3	
5.608	5.607	0.001	7807358	144.283	5.4	80.00- 120.00	100.00
1 Aroclor-1016						CAS #: 12674-11-2	
2.275	2.273	0.002	1410986	630.555	23.5	80.00- 120.00	100.00
2.599	2.597	0.002	3065472	654.279	24.4	191.82- 231.82	217.26
2.690	2.688	0.002	1214242	638.577	23.8	64.77- 104.77	86.06
2.825	2.823	0.002	632311	647.874	24.2	22.45- 62.45	44.81
2.977	2.974	0.003	960167	658.611	24.6	43.69- 83.69	68.05
Average of Peak Concentrations =				24.1			

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/Kg)	TARGET	RANGE	RATIO	
=====									
7 Aroclor-1260					CAS #: 11096-82-5				
4.015	4.014	0.001	3436575	825.089	30.8	80.00-	120.00	100.00	
4.287	4.286	0.001	2150260	830.033	30.9	42.92-	82.92	62.57	
4.452	4.451	0.001	2183682	829.917	30.9	46.15-	86.15	63.54	
4.665	4.664	0.001	5313352	872.816	32.5	132.63-	172.63	154.61	
4.854	4.853	0.001	2261311	768.591	28.6	53.77-	93.77	65.80	
Average of Peak Concentrations =					30.7				

Data File: /chem/eod2a.i/122909.b/0373701.d
Date: 29-DEC-2009 14:04
Client ID: NST54-10-9924MSD
Sample Info: 1120200522911
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: eod2a.i
Operator: JROC
Column diameter: 0.25

Page 1



Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 937092
 Analyst: Andrew Schwemlin
 Method: SW846 3550B

Verified by: _____

Lab SOP: GL-OA-E-010 REV# 18
 Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005226 MB	28-DEC-2009 20:43:58	30	H2SO4/KM2	2	9	1	0.03333	
1202005227 LCS	28-DEC-2009 20:43:58	30	H2SO4/KM2	2	9	1	0.03333	
243457003	28-DEC-2009 20:43:58	30.02	H2SO4/KM2	2	9	1	0.0331	
243457004	28-DEC-2009 20:43:58	30.19	H2SO4/KM2	2	9	1	0.03312	
243472001	28-DEC-2009 20:43:58	30.02	H2SO4/KM2	2	9	1	0.03331	
243472002	28-DEC-2009 20:43:58	30.03	H2SO4/KM2	2	9	1	0.0333	
243472003	28-DEC-2009 20:43:58	30.12	H2SO4/KM2	2	9	1	0.0332	
243490001	28-DEC-2009 20:43:58	30.08	H2SO4/KM2	2	9	1	0.03324	
243490002	28-DEC-2009 20:43:58	30.14	H2SO4/KM2	2	9	1	0.03318	
243490003	28-DEC-2009 20:43:58	30.05	H2SO4/KM2	2	9	1	0.03328	
243517007	28-DEC-2009 20:43:58	30.14	H2SO4/KM2	2	9	1	0.03318	
243517008	28-DEC-2009 20:43:58	30.15	H2SO4/KM2	2	9	1	0.03317	
243517009	28-DEC-2009 20:43:58	30.01	H2SO4/KM2	2	9	1	0.03332	
243519001	28-DEC-2009 20:43:58	30.17	H2SO4/KM2	2	9	1	0.03315	
243519002	28-DEC-2009 20:43:58	30.19	H2SO4/KM2	2	9	1	0.03312	
243519003	28-DEC-2009 20:43:58	30.04	H2SO4/KM2	2	9	1	0.03329	
243519004	28-DEC-2009 20:43:58	30.01	H2SO4/KM2	2	9	1	0.03332	
243519005	28-DEC-2009 20:43:58	30.11	H2SO4/KM2	2	9	1	0.03321	
243547002	28-DEC-2009 20:43:58	30.04	H2SO4/KM2	2	9	1	0.03329	
1202005228 MS (243547002)	28-DEC-2009 20:43:58	30.14	H2SO4/KM2	2	9	1	0.03318	
1202005229 MSD (243547002)	28-DEC-2009 20:43:58	30.17	H2SO4/KM2	2	9	1	0.03315	
243547003	28-DEC-2009 20:43:58	30.04	H2SO4/KM2	2	9	1	0.03329	

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202005227	PCB Laboratory Control	WE091210-07	1	mL	Clean up Date: 12/28/09
MS	1202005228	PCB Laboratory Control	WE091210-07	1	mL	Clean up Initials: AJS
MSD	1202005229	PCB Laboratory Control	WE091210-07	1	mL	Verified By: AV
SURR	AI	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	1	mL	Final Solvent: Hexane
REGNT	AI	1:1 sulfuric acid	1133264a	5	mL	Clean Up SOP: GL-OA-E-037
REGNT	AI	Acetone	1233927	150	mL	
REGNT	AI	Hexane	1241300-B2	150	mL	
REGNT	AI	5% Potassium Permanganate	B1202457-F	5	mL	
SOURC	AI	SODIUM SULFATE	1242582	30	g	

Metals Analysis

Case Narrative

**Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1073**

Sample Analysis

Sample ID	Client ID
243517003	RE12-10-7557
243517004	RE12-10-7558
243517005	RE12-10-7555
243517006	RE12-10-7556
243517007	RE12-10-7562
243517008	RE12-10-7561
243517009	RE12-10-7563
1202004339	Method Blank (MB) ICP
1202004340	Laboratory Control Sample (LCS)
1202004343	243542001(RE16-10-968L) Serial Dilution (SD)
1202004341	243542001(RE16-10-968D) Sample Duplicate (DUP)
1202004342	243542001(RE16-10-968S) Matrix Spike (MS)
1202004344	243542001(RE16-10-968SD) Matrix Spike Duplicate (MSD)
1202004355	Method Blank (MB) ICP-MS
1202004356	Laboratory Control Sample (LCS)
1202004359	243542001(RE16-10-968L) Serial Dilution (SD)
1202004357	243542001(RE16-10-968D) Sample Duplicate (DUP)
1202004358	243542001(RE16-10-968S) Matrix Spike (MS)
1202004360	243542001(RE16-10-968SD) Matrix Spike Duplicate (MSD)
1202006370	Method Blank (MB) CVAA

1202006375	Laboratory Control Sample (LCS)
1202006372	243517003(RE12-10-7557L) Serial Dilution (SD)
1202006371	243517003(RE12-10-7557D) Sample Duplicate (DUP)
1202006373	243517003(RE12-10-7557S) Matrix Spike (MS)
1202006374	243517003(RE12-10-7557SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch:	936768, 936773 and 937611
Prep Batch :	936766, 936772 and 937608
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/- 7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

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

Calibration Information

Instrument Calibration

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

CRDL Requirements

All CRDL standard(s) met the referenced advisory control limits with the exception of magnesium, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement

All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements

All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements

All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement

The following samples were selected as the quality control (QC) samples for this SDG: 243542001 and 243517003.

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 magnesium, as indicated by the "N" qualifier.

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 exception of barium, magnesium and potassium as indicated by the "N" qualifier.

MS/MSD Relative Percent Difference (RPD) Statement

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

Duplicate Relative Percent Difference (RPD) Statement

The 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 exception of zinc and uranium, 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. The sample 243517007 required a dilution for nickel due to high internal standard failures.

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: 778417 and 779822. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments

Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Kristen Panson Date: 1/13/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517003

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7557

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7200000	ug/Kg		7450	21900	21900	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-36-0	Antimony	1100	ug/Kg	U	362	1100	1100	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-38-2	Arsenic	2.09	mg/kg		0.227	1.13	1.13	2	MS	SKJ	01/12/10 17:45	100112-6	936773
7440-39-3	Barium	81500	ug/Kg		110	548	548	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-41-7	Beryllium	0.804	mg/kg		0.0227	0.113	0.113	2	MS	SKJ	01/12/10 15:24	100112-4	936773
7440-43-9	Cadmium	548	ug/Kg	U	110	548	548	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-70-2	Calcium	1530000	ug/Kg		8770	27400	27400	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-47-3	Chromium	8490	ug/Kg		164	548	548	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-48-4	Cobalt	5020	ug/Kg		164	548	548	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-50-8	Copper	5500	ug/Kg		329	1100	1100	1	P	HSC	01/07/10 07:28	010610A-1	936768
7439-89-6	Iron	11600000	ug/Kg		8770	27400	27400	1	P	HSC	01/07/10 07:28	010610A-1	936768
7439-92-1	Lead	11800	ug/Kg		274	1100	1100	1	P	HSC	01/07/10 07:28	010610A-1	936768
7439-95-4	Magnesium	1440000	ug/Kg		9310	32900	32900	1	P	HSC	01/07/10 07:28	010610A-1	936768
7439-96-5	Manganese	295000	ug/Kg		219	1100	1100	1	P	HSC	01/07/10 07:28	010610A-1	936768
7439-97-6	Mercury	12.8	ug/kg		4.29	12.6	12.6	1	AV	JXL1	01/07/10 13:13	010710S2-7	937611
7440-02-0	Nickel	5.64	mg/kg		0.113	0.454	0.454	2	MS	SKJ	01/07/10 21:53	100107-2	936773
7440-09-7	Potassium	1380000	ug/Kg		7010	27400	27400	1	P	HSC	01/07/10 07:28	010610A-1	936768
7782-49-2	Selenium	1.13	mg/kg	U	0.567	1.13	1.13	2	MS	SKJ	01/07/10 21:53	100107-2	936773
7440-22-4	Silver	318	ug/Kg	J	110	548	548	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-23-5	Sodium	73100	ug/Kg		7670	27400	27400	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-28-0	Thallium	0.244	mg/kg		0.0681	0.227	0.227	2	MS	SKJ	01/07/10 21:53	100107-2	936773
7440-61-1	Uranium	1.69	mg/kg		0.015	0.0454	0.0454	2	MS	SKJ	01/07/10 21:53	100107-2	936773
7440-62-2	Vanadium	23900	ug/Kg		110	548	548	1	P	HSC	01/07/10 07:28	010610A-1	936768
7440-66-6	Zinc	23900	ug/Kg		362	1100	1100	1	P	HSC	01/07/10 07:28	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.531	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.513	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.553	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517004

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7558

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 92

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8840000	ug/Kg		7070	20800	20800	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-36-0	Antimony	1040	ug/Kg	U	343	1040	1040	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-38-2	Arsenic	2.3	mg/kg		0.208	1.04	1.04	2	MS	SKJ	01/12/10 17:47	100112-6	936773
7440-39-3	Barium	161000	ug/Kg		104	520	520	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-41-7	Beryllium	0.882	mg/kg		0.0208	0.104	0.104	2	MS	SKJ	01/12/10 15:25	100112-4	936773
7440-43-9	Cadmium	520	ug/Kg	U	104	520	520	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-70-2	Calcium	4530000	ug/Kg		8320	26000	26000	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-47-3	Chromium	6880	ug/Kg		156	520	520	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-48-4	Cobalt	3020	ug/Kg		156	520	520	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-50-8	Copper	4460	ug/Kg		312	1040	1040	1	P	HSC	01/07/10 07:35	010610A-1	936768
7439-89-6	Iron	12700000	ug/Kg		8320	26000	26000	1	P	HSC	01/07/10 07:35	010610A-1	936768
7439-92-1	Lead	5450	ug/Kg		260	1040	1040	1	P	HSC	01/07/10 07:35	010610A-1	936768
7439-95-4	Magnesium	1860000	ug/Kg		8840	31200	31200	1	P	HSC	01/07/10 07:35	010610A-1	936768
7439-96-5	Manganese	233000	ug/Kg		208	1040	1040	1	P	HSC	01/07/10 07:35	010610A-1	936768
7439-97-6	Mercury	14.8	ug/kg		4.06	12	12	1	AV	JXLJ	01/07/10 13:23	010710S2-7	937611
7440-02-0	Nickel	6.46	mg/kg		0.104	0.416	0.416	2	MS	SKJ	01/07/10 21:59	100107-2	936773
7440-09-7	Potassium	1460000	ug/Kg		6650	26000	26000	1	P	HSC	01/07/10 07:35	010610A-1	936768
7782-49-2	Selenium	1.04	mg/kg	U	0.52	1.04	1.04	2	MS	SKJ	01/07/10 21:59	100107-2	936773
7440-22-4	Silver	394	ug/Kg	J	104	520	520	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-23-5	Sodium	294000	ug/Kg		7280	26000	26000	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-28-0	Thallium	0.196	mg/kg	J	0.0624	0.208	0.208	2	MS	SKJ	01/07/10 21:59	100107-2	936773
7440-61-1	Uranium	0.631	mg/kg		0.0137	0.0416	0.0416	2	MS	SKJ	01/07/10 21:59	100107-2	936773
7440-62-2	Vanadium	15600	ug/Kg		104	520	520	1	P	HSC	01/07/10 07:35	010610A-1	936768
7440-66-6	Zinc	31000	ug/Kg		343	1040	1040	1	P	HSC	01/07/10 07:35	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.523	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.523	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.546	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517005

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7555

LEVEL: Low

DATE RECEIVED 24-DEC-09

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	8280000	ug/Kg		7660	22500	22500	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-36-0	Antimony	1130	ug/Kg	U	372	1130	1130	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-38-2	Arsenic	1.88	mg/kg		0.227	1.13	1.13	2	MS	SKJ	01/12/10 17:53	100112-6	936773
7440-39-3	Barium	107000	ug/Kg		113	564	564	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-41-7	Beryllium	0.950	mg/kg		0.0227	0.113	0.113	2	MS	SKJ	01/12/10 15:30	100112-4	936773
7440-43-9	Cadmium	564	ug/Kg	U	113	564	564	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-70-2	Calcium	1520000	ug/Kg		9020	28200	28200	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-47-3	Chromium	9110	ug/Kg		169	564	564	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-48-4	Cobalt	5200	ug/Kg		169	564	564	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-50-8	Copper	4110	ug/Kg		338	1130	1130	1	P	HSC	01/07/10 07:42	010610A-1	936768
7439-89-6	Iron	11200000	ug/Kg		9020	28200	28200	1	P	HSC	01/07/10 07:42	010610A-1	936768
7439-92-1	Lead	11200	ug/Kg		282	1130	1130	1	P	HSC	01/07/10 07:42	010610A-1	936768
7439-95-4	Magnesium	1350000	ug/Kg		9580	33800	33800	1	P	HSC	01/07/10 07:42	010610A-1	936768
7439-96-5	Manganese	323000	ug/Kg		225	1130	1130	1	P	HSC	01/07/10 07:42	010610A-1	936768
7439-97-6	Mercury	13.8	ug/kg	U	4.69	13.8	13.8	1	AV	JXLJ	01/07/10 13:25	010710S2-7	937611
7440-02-0	Nickel	5.88	mg/kg		0.113	0.453	0.453	2	MS	SKJ	01/07/10 22:05	100107-2	936773
7440-09-7	Potassium	1300000	ug/Kg		7210	28200	28200	1	P	HSC	01/07/10 07:42	010610A-1	936768
7782-49-2	Selenium	1.13	mg/kg	U	0.567	1.13	1.13	2	MS	SKJ	01/07/10 22:05	100107-2	936773
7440-22-4	Silver	322	ug/Kg	J	113	564	564	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-23-5	Sodium	71100	ug/Kg		7890	28200	28200	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-28-0	Thallium	0.212	mg/kg	J	0.068	0.227	0.227	2	MS	SKJ	01/07/10 22:05	100107-2	936773
7440-61-1	Uranium	1.29	mg/kg		0.015	0.0453	0.0453	2	MS	SKJ	01/07/10 22:05	100107-2	936773
7440-62-2	Vanadium	23500	ug/Kg		113	564	564	1	P	HSC	01/07/10 07:42	010610A-1	936768
7440-66-6	Zinc	20200	ug/Kg		372	1130	1130	1	P	HSC	01/07/10 07:42	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.521	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.518	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.511	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517006

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7556

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 91.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8220000	ug/Kg		7320	21500	21500	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-36-0	Antimony	1080	ug/Kg	U	355	1080	1080	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-38-2	Arsenic	1.89	mg/kg		0.206	1.03	1.03	2	MS	SKJ	01/12/10 17:56	100112-6	936773
7440-39-3	Barium	92400	ug/Kg		108	538	538	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-41-7	Beryllium	0.781	mg/kg		0.0206	0.103	0.103	2	MS	SKJ	01/12/10 15:32	100112-4	936773
7440-43-9	Cadmium	538	ug/Kg	U	108	538	538	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-70-2	Calcium	1740000	ug/Kg		8610	26900	26900	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-47-3	Chromium	6730	ug/Kg		161	538	538	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-48-4	Cobalt	3160	ug/Kg		161	538	538	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-50-8	Copper	3770	ug/Kg		323	1080	1080	1	P	HSC	01/07/10 07:49	010610A-1	936768
7439-89-6	Iron	12100000	ug/Kg		8610	26900	26900	1	P	HSC	01/07/10 07:49	010610A-1	936768
7439-92-1	Lead	5360	ug/Kg		269	1080	1080	1	P	HSC	01/07/10 07:49	010610A-1	936768
7439-95-4	Magnesium	1480000	ug/Kg		9150	32300	32300	1	P	HSC	01/07/10 07:49	010610A-1	936768
7439-96-5	Manganese	219000	ug/Kg		215	1080	1080	1	P	HSC	01/07/10 07:49	010610A-1	936768
7439-97-6	Mercury	8.47	ug/kg	J	4.2	12.4	12.4	1	AV	JXL1	01/07/10 13:31	010710S2-7	937611
7440-02-0	Nickel	5.23	mg/kg		0.103	0.413	0.413	2	MS	SKJ	01/07/10 22:11	100107-2	936773
7440-09-7	Potassium	1340000	ug/Kg		6890	26900	26900	1	P	HSC	01/07/10 07:49	010610A-1	936768
7782-49-2	Selenium	1.03	mg/kg	U	0.516	1.03	1.03	2	MS	SKJ	01/07/10 22:11	100107-2	936773
7440-22-4	Silver	465	ug/Kg	J	108	538	538	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-23-5	Sodium	182000	ug/Kg		7540	26900	26900	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-28-0	Thallium	0.141	mg/kg	J	0.0619	0.206	0.206	2	MS	SKJ	01/07/10 22:11	100107-2	936773
7440-61-1	Uranium	0.489	mg/kg		0.0136	0.0413	0.0413	2	MS	SKJ	01/07/10 22:11	100107-2	936773
7440-62-2	Vanadium	14300	ug/Kg		108	538	538	1	P	HSC	01/07/10 07:49	010610A-1	936768
7440-66-6	Zinc	28500	ug/Kg		355	1080	1080	1	P	HSC	01/07/10 07:49	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.506	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.528	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.529	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517007

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7562

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 90.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10800000	ug/Kg		7410	21800	21800	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-36-0	Antimony	1090	ug/Kg	U	360	1090	1090	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-38-2	Arsenic	2.26	mg/kg		0.217	1.09	1.09	2	MS	SKJ	01/12/10 17:58	100112-6	936773
7440-39-3	Barium	144000	ug/Kg		109	545	545	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-41-7	Beryllium	1.21	mg/kg		0.0217	0.109	0.109	2	MS	SKJ	01/12/10 15:34	100112-4	936773
7440-43-9	Cadmium	545	ug/Kg	U	109	545	545	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-70-2	Calcium	2300000	ug/Kg		8720	27300	27300	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-47-3	Chromium	8050	ug/Kg		164	545	545	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-48-4	Cobalt	3560	ug/Kg		164	545	545	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-50-8	Copper	5360	ug/Kg		327	1090	1090	1	P	HSC	01/07/10 07:56	010610A-1	936768
7439-89-6	Iron	13800000	ug/Kg		8720	27300	27300	1	P	HSC	01/07/10 07:56	010610A-1	936768
7439-92-1	Lead	6060	ug/Kg		273	1090	1090	1	P	HSC	01/07/10 07:56	010610A-1	936768
7439-95-4	Magnesium	2100000	ug/Kg		9270	32700	32700	1	P	HSC	01/07/10 07:56	010610A-1	936768
7439-96-5	Manganese	226000	ug/Kg		218	1090	1090	1	P	HSC	01/07/10 07:56	010610A-1	936768
7439-97-6	Mercury	24.7	ug/kg		4.03	11.8	11.8	1	AV	JXL1	01/07/10 13:33	010710S2-7	937611
7440-02-0	Nickel	9.26	mg/kg		0.543	2.17	2.17	10	MS	SKJ	01/11/10 17:00	100111-3	936773
7440-09-7	Potassium	1540000	ug/Kg		6980	27300	27300	1	P	HSC	01/07/10 07:56	010610A-1	936768
7782-49-2	Selenium	1.09	mg/kg	U	0.543	1.09	1.09	2	MS	SKJ	01/07/10 22:18	100107-2	936773
7440-22-4	Silver	364	ug/Kg	J	109	545	545	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-23-5	Sodium	204000	ug/Kg		7630	27300	27300	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-28-0	Thallium	0.169	mg/kg	J	0.0651	0.217	0.217	2	MS	SKJ	01/07/10 22:18	100107-2	936773
7440-61-1	Uranium	0.627	mg/kg		0.0143	0.0434	0.0434	2	MS	SKJ	01/07/10 22:18	100107-2	936773
7440-62-2	Vanadium	16900	ug/Kg		109	545	545	1	P	HSC	01/07/10 07:56	010610A-1	936768
7440-66-6	Zinc	33300	ug/Kg		360	1090	1090	1	P	HSC	01/07/10 07:56	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.509	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.511	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.562	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517008

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7561

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9240000	ug/Kg		7590	22300	22300	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-36-0	Antimony	1120	ug/Kg	U	368	1120	1120	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-38-2	Arsenic	2.3	mg/kg		0.221	1.1	1.1	2	MS	SKJ	01/12/10 18:00	100112-6	936773
7440-39-3	Barium	107000	ug/Kg		112	558	558	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-41-7	Beryllium	1.04	mg/kg		0.0221	0.11	0.11	2	MS	SKJ	01/12/10 15:35	100112-4	936773
7440-43-9	Cadmium	558	ug/Kg	U	112	558	558	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-70-2	Calcium	1710000	ug/Kg		8930	27900	27900	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-47-3	Chromium	9700	ug/Kg		167	558	558	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-48-4	Cobalt	6260	ug/Kg		167	558	558	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-50-8	Copper	5610	ug/Kg		335	1120	1120	1	P	HSC	01/07/10 04:40	010610A-1	936768
7439-89-6	Iron	11500000	ug/Kg		8930	27900	27900	1	P	HSC	01/07/10 04:40	010610A-1	936768
7439-92-1	Lead	14200	ug/Kg		279	1120	1120	1	P	HSC	01/07/10 04:40	010610A-1	936768
7439-95-4	Magnesium	1490000	ug/Kg		9480	33500	33500	1	P	HSC	01/07/10 04:40	010610A-1	936768
7439-96-5	Manganese	354000	ug/Kg		223	1120	1120	1	P	HSC	01/07/10 04:40	010610A-1	936768
7439-97-6	Mercury	12.1	ug/kg	J	4.57	13.4	13.4	1	AV	JXL1	01/07/10 13:35	010710S2-7	937611
7440-02-0	Nickel	6.94	mg/kg		0.11	0.442	0.442	2	MS	SKJ	01/07/10 22:36	100107-2	936773
7440-09-7	Potassium	1410000	ug/Kg		7140	27900	27900	1	P	HSC	01/07/10 04:40	010610A-1	936768
7782-49-2	Selenium	1.1	mg/kg	U	0.552	1.1	1.1	2	MS	SKJ	01/07/10 22:36	100107-2	936773
7440-22-4	Silver	184	ug/Kg	J	112	558	558	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-23-5	Sodium	76700	ug/Kg		7810	27900	27900	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-28-0	Thallium	0.258	mg/kg		0.0663	0.221	0.221	2	MS	SKJ	01/07/10 22:36	100107-2	936773
7440-61-1	Uranium	2	mg/kg		0.0146	0.0442	0.0442	2	MS	SKJ	01/07/10 22:36	100107-2	936773
7440-62-2	Vanadium	23900	ug/Kg		112	558	558	1	P	HSC	01/07/10 04:40	010610A-1	936768
7440-66-6	Zinc	22600	ug/Kg		368	1120	1120	1	P	HSC	01/07/10 04:40	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.507	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.512	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.505	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1073

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243517009

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7563

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8070000	ug/Kg		7690	22600	22600	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-36-0	Antimony	1130	ug/Kg	U	373	1130	1130	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-38-2	Arsenic	2.63	mg/kg		0.217	1.09	1.09	2	MS	SKJ	01/12/10 18:03	100112-6	936773
7440-39-3	Barium	93000	ug/Kg		113	565	565	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-41-7	Beryllium	1.13	mg/kg		0.0217	0.109	0.109	2	MS	SKJ	01/12/10 15:37	100112-4	936773
7440-43-9	Cadmium	565	ug/Kg	U	113	565	565	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-70-2	Calcium	1530000	ug/Kg		9050	28300	28300	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-47-3	Chromium	9520	ug/Kg		170	565	565	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-48-4	Cobalt	5510	ug/Kg		170	565	565	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-50-8	Copper	5570	ug/Kg		339	1130	1130	1	P	HSC	01/07/10 04:47	010610A-1	936768
7439-89-6	Iron	11800000	ug/Kg		9050	28300	28300	1	P	HSC	01/07/10 04:47	010610A-1	936768
7439-92-1	Lead	12000	ug/Kg		283	1130	1130	1	P	HSC	01/07/10 04:47	010610A-1	936768
7439-95-4	Magnesium	1540000	ug/Kg		9610	33900	33900	1	P	HSC	01/07/10 04:47	010610A-1	936768
7439-96-5	Manganese	302000	ug/Kg		226	1130	1130	1	P	HSC	01/07/10 04:47	010610A-1	936768
7439-97-6	Mercury	12.4	ug/kg	J	4.24	12.5	12.5	1	AV	JXLI	01/07/10 13:37	010710S2-7	937611
7440-02-0	Nickel	6.72	mg/kg		0.109	0.434	0.434	2	MS	SKJ	01/07/10 22:43	100107-2	936773
7440-09-7	Potassium	1420000	ug/Kg		7240	28300	28300	1	P	HSC	01/07/10 04:47	010610A-1	936768
7782-49-2	Selenium	1.09	mg/kg	U	0.543	1.09	1.09	2	MS	SKJ	01/07/10 22:43	100107-2	936773
7440-22-4	Silver	267	ug/Kg	J	113	565	565	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-23-5	Sodium	80400	ug/Kg		7910	28300	28300	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-28-0	Thallium	0.206	mg/kg	J	0.0651	0.217	0.217	2	MS	SKJ	01/07/10 22:43	100107-2	936773
7440-61-1	Uranium	1.56	mg/kg		0.0143	0.0434	0.0434	2	MS	SKJ	01/07/10 22:43	100107-2	936773
7440-62-2	Vanadium	24200	ug/Kg		113	565	565	1	P	HSC	01/07/10 04:47	010610A-1	936768
7440-66-6	Zinc	23400	ug/Kg		373	1130	1130	1	P	HSC	01/07/10 04:47	010610A-1	936768

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936768	936766	SW846 3050B	0.504	g	50	mL	12/29/09	FGA
936773	936772	SW846 3050B	0.525	g	50	mL	12/29/09	FGA
937611	937608	SW846 7471A Prep	0.548	g	30	mL	01/06/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Aluminum	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Barium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Cadmium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Iron	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Lead	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Magnesium	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Manganese	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Potassium	2480	ug/L	2500	ug/L	99.2	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Silver	257	ug/L	250	ug/L	102.6	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Sodium	2590	ug/L	2500	ug/L	103.5	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	06-JAN-10 10:37	010610A-1
	Mercury	5.05	ug/L	5	ug/L	101	90.0 – 110.0	AV	07-JAN-10 10:28	010710S2-7
	Nickel	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	07-JAN-10 18:15	100107-2
	Selenium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	07-JAN-10 18:15	100107-2
	Thallium	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	07-JAN-10 18:15	100107-2
	Uranium	54.1	ug/L	50	ug/L	108.1	90.0 – 110.0	MS	07-JAN-10 18:15	100107-2
	Nickel	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	11-JAN-10 16:22	100111-3
	Beryllium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	12-JAN-10 15:08	100112-4
	Arsenic	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	12-JAN-10 17:27	100112-6
CCV01										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Antimony	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Cadmium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: JCPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Chromium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Copper	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Iron	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Lead	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Magnesium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Manganese	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Potassium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Zinc	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Mercury	5.01	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	07-JAN-10 10:33	010710S2-7
	Nickel	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	07-JAN-10 18:46	100107-2
	Selenium	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	07-JAN-10 18:46	100107-2
	Thallium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	07-JAN-10 18:46	100107-2
	Uranium	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	07-JAN-10 18:46	100107-2
	Nickel	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	11-JAN-10 16:33	100111-3
	Beryllium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	12-JAN-10 15:17	100112-4
	Arsenic	47.3	ug/L	50	ug/L	94.5	90.0 – 110.0	MS	12-JAN-10 17:36	100112-6
CCV02	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Antimony	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Barium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Calcium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Chromium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Cobalt	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Lead	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Magnesium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Manganese	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Potassium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Vanadium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Zinc	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Mercury	5.28	ug/L	5	ug/L	105.7	80.0 – 120.0	AV	07-JAN-10 10:57	010710S2-7
	Nickel	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	07-JAN-10 19:05	100107-2
	Selenium	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	07-JAN-10 19:05	100107-2
	Thallium	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	07-JAN-10 19:05	100107-2
	Uranium	55	ug/L	50	ug/L	110	90.0 – 110.0	MS	07-JAN-10 19:05	100107-2
	Nickel	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	11-JAN-10 16:49	100111-3
	Beryllium	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	12-JAN-10 15:27	100112-4
	Arsenic	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	12-JAN-10 17:49	100112-6
CCV03	Aluminum	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Antimony	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Barium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Cadmium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Calcium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Cobalt	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Lead	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Magnesium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	06-JAN-10 14:17	010610A-1
	Mercury	5.47	ug/L	5	ug/L	109.4	80.0 – 120.0	AV	07-JAN-10 11:21	010710S2-7
	Nickel	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	07-JAN-10 19:55	100107-2
	Selenium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	07-JAN-10 19:55	100107-2
	Thallium	50	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	07-JAN-10 19:55	100107-2
	Uranium	54.4	ug/L	50	ug/L	108.7	90.0 – 110.0	MS	07-JAN-10 19:55	100107-2
	Nickel	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	11-JAN-10 17:02	100111-3
	Beryllium	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	12-JAN-10 15:39	100112-4
	Arsenic	48.8	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	12-JAN-10 18:05	100112-6
CCV04	Aluminum	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Antimony	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Cadmium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Calcium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Chromium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Copper	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Lead	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Manganese	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Silver	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Vanadium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	06-JAN-10 14:45	010610A-1
	Mercury	5.48	ug/L	5	ug/L	109.6	80.0 - 120.0	AV	07-JAN-10 11:45	010710S2-7
	Nickel	51.1	ug/L	50	ug/L	102.1	90.0 - 110.0	MS	07-JAN-10 20:44	100107-2
	Selenium	49.8	ug/L	50	ug/L	99.6	90.0 - 110.0	MS	07-JAN-10 20:44	100107-2
	Thallium	49.3	ug/L	50	ug/L	98.6	90.0 - 110.0	MS	07-JAN-10 20:44	100107-2
	Uranium	53.1	ug/L	50	ug/L	106.2	90.0 - 110.0	MS	07-JAN-10 20:44	100107-2
	Beryllium	52.6	ug/L	50	ug/L	105.3	90.0 - 110.0	MS	12-JAN-10 15:51	100112-4
	Arsenic	47.4	ug/L	50	ug/L	94.9	90.0 - 110.0	MS	12-JAN-10 18:21	100112-6
CCV05	Aluminum	5210	ug/L	5000	ug/L	104.3	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Antimony	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Barium	505	ug/L	500	ug/L	101	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Cadmium	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Chromium	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Cobalt	500	ug/L	500	ug/L	100	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Copper	505	ug/L	500	ug/L	100.9	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Iron	4870	ug/L	5000	ug/L	97.3	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Lead	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Manganese	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Silver	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Zinc	500	ug/L	500	ug/L	100	90.0 - 110.0	P	06-JAN-10 15:54	010610A-1
	Mercury	5.06	ug/L	5	ug/L	101.3	80.0 - 120.0	AV	07-JAN-10 12:09	010710S2-7
	Nickel	50.9	ug/L	50	ug/L	101.8	90.0 - 110.0	MS	07-JAN-10 21:28	100107-2
	Selenium	47.4	ug/L	50	ug/L	94.9	90.0 - 110.0	MS	07-JAN-10 21:28	100107-2
	Thallium	50.6	ug/L	50	ug/L	101.1	90.0 - 110.0	MS	07-JAN-10 21:28	100107-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV06	Uranium	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	07-JAN-10 21:28	100107-2
	Aluminum	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Antimony	522	ug/L	500	ug/L	104.5	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Barium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Cadmium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Calcium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Chromium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Copper	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Iron	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Lead	518	ug/L	500	ug/L	103.7	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Magnesium	5240	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Manganese	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Potassium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Silver	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Sodium	10600	ug/L	10000	ug/L	105.5	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Vanadium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Zinc	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	06-JAN-10 16:55	010610A-1
	Mercury	5.08	ug/L	5	ug/L	101.5	80.0 – 120.0	AV	07-JAN-10 12:33	010710S2-7
	Nickel	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	07-JAN-10 22:24	100107-2
CCV07	Selenium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	07-JAN-10 22:24	100107-2
	Thallium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	07-JAN-10 22:24	100107-2
	Uranium	54.6	ug/L	50	ug/L	109.1	90.0 – 110.0	MS	07-JAN-10 22:24	100107-2
	Aluminum	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Antimony	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Cadmium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Calcium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Chromium	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	06-JAN-10 17:59	010610A-1
	Cobalt	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	06-JAN-10 17:59	010610A-1
	Copper	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	06-JAN-10 17:59	010610A-1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 - 110.0	P	06-JAN-10 17:59	010610A-1
	Lead	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	06-JAN-10 17:59	010610A-1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 - 110.0	P	06-JAN-10 17:59	010610A-1
	Manganese	512	ug/L	500	ug/L	102.4	90.0 - 110.0	P	06-JAN-10 17:59	010610A-1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	06-JAN-10 17:59	010610A-1
	Silver	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	06-JAN-10 17:59	010610A-1
	Sodium	10400	ug/L	10000	ug/L	104	90.0 - 110.0	P	06-JAN-10 17:59	010610A-1
	Vanadium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	06-JAN-10 17:59	010610A-1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	06-JAN-10 17:59	010610A-1
	Mercury	5.11	ug/L	5	ug/L	102.3	80.0 - 120.0	AV	07-JAN-10 12:50	010710S2-7
	Nickel	50.6	ug/L	50	ug/L	101.1	90.0 - 110.0	MS	07-JAN-10 23:20	100107-2
	Selenium	49.5	ug/L	50	ug/L	99	90.0 - 110.0	MS	07-JAN-10 23:20	100107-2
	Thallium	50.5	ug/L	50	ug/L	101	90.0 - 110.0	MS	07-JAN-10 23:20	100107-2
	Uranium	54.3	ug/L	50	ug/L	108.6	90.0 - 110.0	MS	07-JAN-10 23:20	100107-2
CCV08	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	06-JAN-10 19:15	010610A-1
	Antimony	532	ug/L	500	ug/L	106.5	90.0 - 110.0	P	06-JAN-10 19:15	010610A-1
	Barium	531	ug/L	500	ug/L	106.2	90.0 - 110.0	P	06-JAN-10 19:15	010610A-1
	Cadmium	529	ug/L	500	ug/L	105.7	90.0 - 110.0	P	06-JAN-10 19:15	010610A-1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 - 110.0	P	06-JAN-10 19:15	010610A-1
	Chromium	528	ug/L	500	ug/L	105.7	90.0 - 110.0	P	06-JAN-10 19:15	010610A-1
	Cobalt	522	ug/L	500	ug/L	104.5	90.0 - 110.0	P	06-JAN-10 19:15	010610A-1
	Copper	531	ug/L	500	ug/L	106.3	90.0 - 110.0	P	06-JAN-10 19:15	010610A-1
	Iron	4850	ug/L	5000	ug/L	97	90.0 - 110.0	P	06-JAN-10 19:15	010610A-1
	Lead	529	ug/L	500	ug/L	105.9	90.0 - 110.0	P	06-JAN-10 19:15	010610A-1
	Magnesium	5160	ug/L	5000	ug/L	103.2	90.0 - 110.0	P	06-JAN-10 19:15	010610A-1
	Manganese	535	ug/L	500	ug/L	107.1	90.0 - 110.0	P	06-JAN-10 19:15	010610A-1

METALS
 ~2a~
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Silver	530	ug/L	500	ug/L	106.1	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Sodium	9840	ug/L	10000	ug/L	98.4	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Vanadium	534	ug/L	500	ug/L	106.7	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Zinc	528	ug/L	500	ug/L	105.6	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Mercury	4.57	ug/L	5	ug/L	91.4	80.0 – 120.0	AV	07-JAN-10 13:03	010710S2-7
CCV09										
	Aluminum	5500	ug/L	5000	ug/L	110	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Antimony	539	ug/L	500	ug/L	107.8	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Barium	532	ug/L	500	ug/L	106.4	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Cadmium	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Calcium	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Chromium	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Cobalt	528	ug/L	500	ug/L	105.6	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Copper	531	ug/L	500	ug/L	106.2	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Iron	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Lead	534	ug/L	500	ug/L	106.9	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Magnesium	5420	ug/L	5000	ug/L	108.4	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Manganese	536	ug/L	500	ug/L	107.2	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Potassium	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Silver	530	ug/L	500	ug/L	106.1	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Sodium	10400	ug/L	10000	ug/L	104.1	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Vanadium	534	ug/L	500	ug/L	106.8	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Zinc	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	06-JAN-10 20:32	010610A-1
	Mercury	5.08	ug/L	5	ug/L	101.6	80.0 – 120.0	AV	07-JAN-10 13:27	010710S2-7
CCV10										
	Aluminum	5490	ug/L	5000	ug/L	109.7	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Antimony	531	ug/L	500	ug/L	106.2	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Barium	526	ug/L	500	ug/L	105.3	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Cadmium	524	ug/L	500	ug/L	104.8	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV11	Calcium	5330	ug/L	5000	ug/L	106.5	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Chromium	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Cobalt	520	ug/L	500	ug/L	104	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Copper	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Iron	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Lead	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Magnesium	5350	ug/L	5000	ug/L	107.1	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Manganese	530	ug/L	500	ug/L	106	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Potassium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Silver	526	ug/L	500	ug/L	105.2	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Sodium	10200	ug/L	10000	ug/L	102.4	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Vanadium	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Zinc	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	06-JAN-10 21:40	010610A-1
	Mercury	5.09	ug/L	5	ug/L	101.8	80.0 – 120.0	AV	07-JAN-10 13:44	010710S2-7
	Aluminum	5330	ug/L	5000	ug/L	106.7	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
CCV11	Antimony	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Barium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Cadmium	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Calcium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Chromium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Cobalt	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Copper	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Lead	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Manganese	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Potassium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Silver	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Vanadium	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
	Zinc	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	06-JAN-10 22:56	010610A-1
CCV12										
	Aluminum	5690	ug/L	5000	ug/L	113.8	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Antimony	540	ug/L	500	ug/L	108.1	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Barium	533	ug/L	500	ug/L	106.7	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Cadmium	531	ug/L	500	ug/L	106.2	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Calcium	5510	ug/L	5000	ug/L	110.2	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Chromium	532	ug/L	500	ug/L	106.5	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Cobalt	530	ug/L	500	ug/L	106	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Copper	532	ug/L	500	ug/L	106.4	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Iron	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Lead	537	ug/L	500	ug/L	107.4	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Magnesium	5500	ug/L	5000	ug/L	110.1	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Manganese	537	ug/L	500	ug/L	107.5	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Potassium	5340	ug/L	5000	ug/L	106.9	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Silver	533	ug/L	500	ug/L	106.5	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Sodium	10400	ug/L	10000	ug/L	104.3	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Vanadium	537	ug/L	500	ug/L	107.4	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
	Zinc	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	06-JAN-10 23:57	010610A-1
CCV13										
	Aluminum	5650	ug/L	5000	ug/L	112.9	90.0 – 110.0	P	07-JAN-10 01:06	010610A-1
	Antimony	534	ug/L	500	ug/L	106.8	90.0 – 110.0	P	07-JAN-10 01:06	010610A-1
	Barium	534	ug/L	500	ug/L	106.8	90.0 – 110.0	P	07-JAN-10 01:06	010610A-1
	Cadmium	531	ug/L	500	ug/L	106.3	90.0 – 110.0	P	07-JAN-10 01:06	010610A-1
	Calcium	5410	ug/L	5000	ug/L	108.1	90.0 – 110.0	P	07-JAN-10 01:06	010610A-1
	Chromium	532	ug/L	500	ug/L	106.4	90.0 – 110.0	P	07-JAN-10 01:06	010610A-1
	Cobalt	526	ug/L	500	ug/L	105.1	90.0 – 110.0	P	07-JAN-10 01:06	010610A-1
	Copper	533	ug/L	500	ug/L	106.6	90.0 – 110.0	P	07-JAN-10 01:06	010610A-1
	Iron	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	07-JAN-10 01:06	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Lead	531	ug/L	500	ug/L	106.2	90.0 - 110.0	P	07-JAN-10 01:06	010610A-1
	Magnesium	5430	ug/L	5000	ug/L	108.6	90.0 - 110.0	P	07-JAN-10 01:06	010610A-1
	Manganese	538	ug/L	500	ug/L	107.6	90.0 - 110.0	P	07-JAN-10 01:06	010610A-1
	Potassium	5240	ug/L	5000	ug/L	104.8	90.0 - 110.0	P	07-JAN-10 01:06	010610A-1
	Silver	533	ug/L	500	ug/L	106.6	90.0 - 110.0	P	07-JAN-10 01:06	010610A-1
	Sodium	10200	ug/L	10000	ug/L	101.8	90.0 - 110.0	P	07-JAN-10 01:06	010610A-1
	Vanadium	537	ug/L	500	ug/L	107.4	90.0 - 110.0	P	07-JAN-10 01:06	010610A-1
	Zinc	529	ug/L	500	ug/L	105.7	90.0 - 110.0	P	07-JAN-10 01:06	010610A-1
CCV14	Aluminum	5590	ug/L	5000	ug/L	111.9	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Antimony	537	ug/L	500	ug/L	107.3	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Barium	531	ug/L	500	ug/L	106.3	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Cadmium	528	ug/L	500	ug/L	105.5	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Calcium	5400	ug/L	5000	ug/L	108	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Chromium	529	ug/L	500	ug/L	105.7	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Cobalt	527	ug/L	500	ug/L	105.3	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Copper	531	ug/L	500	ug/L	106.3	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Iron	5120	ug/L	5000	ug/L	102.3	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Lead	533	ug/L	500	ug/L	106.7	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Magnesium	5290	ug/L	5000	ug/L	105.8	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Manganese	535	ug/L	500	ug/L	107	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Silver	531	ug/L	500	ug/L	106.3	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Sodium	10100	ug/L	10000	ug/L	101.1	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Vanadium	536	ug/L	500	ug/L	107.1	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
	Zinc	526	ug/L	500	ug/L	105.1	90.0 - 110.0	P	07-JAN-10 02:15	010610A-1
CCV15	Aluminum	5530	ug/L	5000	ug/L	110.5	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Antimony	533	ug/L	500	ug/L	106.6	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Barium	528	ug/L	500	ug/L	105.7	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cadmium	526	ug/L	500	ug/L	105.2	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Calcium	5300	ug/L	5000	ug/L	106	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Chromium	525	ug/L	500	ug/L	105.1	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Cobalt	522	ug/L	500	ug/L	104.4	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Copper	527	ug/L	500	ug/L	105.5	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Iron	5010	ug/L	5000	ug/L	100.2	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Lead	529	ug/L	500	ug/L	105.8	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Magnesium	5280	ug/L	5000	ug/L	105.6	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Manganese	532	ug/L	500	ug/L	106.4	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Silver	528	ug/L	500	ug/L	105.6	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Vanadium	532	ug/L	500	ug/L	106.4	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
	Zinc	523	ug/L	500	ug/L	104.6	90.0 - 110.0	P	07-JAN-10 03:24	010610A-1
CCV16	Aluminum	5270	ug/L	5000	ug/L	105.4	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Antimony	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Barium	512	ug/L	500	ug/L	102.3	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Cadmium	510	ug/L	500	ug/L	101.9	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Calcium	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Chromium	510	ug/L	500	ug/L	101.9	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Cobalt	505	ug/L	500	ug/L	100.9	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Copper	511	ug/L	500	ug/L	102.3	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Iron	4840	ug/L	5000	ug/L	96.7	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Lead	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Manganese	515	ug/L	500	ug/L	103.1	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Potassium	4960	ug/L	5000	ug/L	99.2	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Silver	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Vanadium	515	ug/L	500	ug/L	103.1	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
	Zinc	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	07-JAN-10 04:26	010610A-1
CCV17										
	Aluminum	5420	ug/L	5000	ug/L	108.4	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Antimony	517	ug/L	500	ug/L	103.3	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Barium	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Cadmium	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Calcium	5210	ug/L	5000	ug/L	104.2	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Chromium	512	ug/L	500	ug/L	102.4	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Cobalt	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Copper	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Iron	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Lead	513	ug/L	500	ug/L	102.7	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Magnesium	5150	ug/L	5000	ug/L	103.1	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Manganese	518	ug/L	500	ug/L	103.6	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Silver	516	ug/L	500	ug/L	103.1	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Vanadium	519	ug/L	500	ug/L	103.7	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
	Zinc	509	ug/L	500	ug/L	101.9	90.0 - 110.0	P	07-JAN-10 05:36	010610A-1
CCV18										
	Aluminum	5490	ug/L	5000	ug/L	109.8	90.0 - 110.0	P	07-JAN-10 06:46	010610A-1
	Antimony	529	ug/L	500	ug/L	105.8	90.0 - 110.0	P	07-JAN-10 06:46	010610A-1
	Barium	525	ug/L	500	ug/L	105	90.0 - 110.0	P	07-JAN-10 06:46	010610A-1
	Cadmium	523	ug/L	500	ug/L	104.5	90.0 - 110.0	P	07-JAN-10 06:46	010610A-1
	Calcium	5330	ug/L	5000	ug/L	106.6	90.0 - 110.0	P	07-JAN-10 06:46	010610A-1
	Chromium	524	ug/L	500	ug/L	104.8	90.0 - 110.0	P	07-JAN-10 06:46	010610A-1
	Cobalt	522	ug/L	500	ug/L	104.3	90.0 - 110.0	P	07-JAN-10 06:46	010610A-1
	Copper	524	ug/L	500	ug/L	104.9	90.0 - 110.0	P	07-JAN-10 06:46	010610A-1
	Iron	5270	ug/L	5000	ug/L	105.3	90.0 - 110.0	P	07-JAN-10 06:46	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Lead	530	ug/L	500	ug/L	106	90.0 – 110.0	P	07-JAN-10 06:46	010610A-1
	Magnesium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	07-JAN-10 06:46	010610A-1
	Manganese	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	07-JAN-10 06:46	010610A-1
	Potassium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	07-JAN-10 06:46	010610A-1
	Silver	527	ug/L	500	ug/L	105.3	90.0 – 110.0	P	07-JAN-10 06:46	010610A-1
	Sodium	10600	ug/L	10000	ug/L	106	90.0 – 110.0	P	07-JAN-10 06:46	010610A-1
	Vanadium	531	ug/L	500	ug/L	106.1	90.0 – 110.0	P	07-JAN-10 06:46	010610A-1
	Zinc	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	07-JAN-10 06:46	010610A-1
CCV19	Aluminum	5200	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Antimony	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Barium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Cadmium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Calcium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Chromium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Cobalt	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Iron	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Lead	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Magnesium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Manganese	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Potassium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Silver	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
	Zinc	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	07-JAN-10 07:00	010610A-1
CCV20	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Antimony	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Barium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cadmium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Chromium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Iron	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Magnesium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Manganese	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Potassium	4690	ug/L	5000	ug/L	93.9	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Silver	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Sodium	10200	ug/L	10000	ug/L	102	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Vanadium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	07-JAN-10 08:10	010610A-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Mercury	.201	ug/L	.2	ug/L	100.5	70.0 – 130.0	AV	07-JAN-10 10:31	010710S2-7
	Nickel	2.23	ug/L	2	ug/L	111.3	70.0 – 130.0	MS	07-JAN-10 18:28	100107-2
	Selenium	5.12	ug/L	5	ug/L	102.5	70.0 – 130.0	MS	07-JAN-10 18:28	100107-2
	Uranium	.205	ug/L	.2	ug/L	102.5	70.0 – 130.0	MS	07-JAN-10 18:28	100107-2
	Thallium	1.05	ug/L	1	ug/L	105.4	70.0 – 130.0	MS	07-JAN-10 18:28	100107-2
	Nickel	2.16	ug/L	2	ug/L	108	70.0 – 130.0	MS	11-JAN-10 16:26	100111-3
	Beryllium	.532	ug/L	.5	ug/L	106.4	70.0 – 130.0	MS	12-JAN-10 15:12	100112-4
	Arsenic	5.69	ug/L	5	ug/L	113.8	70.0 – 130.0	MS	12-JAN-10 17:30	100112-6
PQL01										
	Aluminum	214	ug/L	200	ug/L	107.1	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Iron	104	ug/L	100	ug/L	103.8	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Lead	8.41	ug/L	10	ug/L	84.1	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Magnesium	395	ug/L	300	ug/L	131.5	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Manganese	10.5	ug/L	10	ug/L	105.1	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Chromium	4.92	ug/L	5	ug/L	98.4	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Cadmium	4.91	ug/L	5	ug/L	98.2	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Barium	5.23	ug/L	5	ug/L	104.6	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Antimony	12.5	ug/L	10	ug/L	124.9	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Sodium	308	ug/L	300	ug/L	102.6	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Potassium	147	ug/L	150	ug/L	98.2	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Silver	4.94	ug/L	5	ug/L	98.9	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Cobalt	4.75	ug/L	5	ug/L	95	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Copper	10.6	ug/L	10	ug/L	106.3	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Vanadium	5.42	ug/L	5	ug/L	108.4	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Zinc	10.6	ug/L	10	ug/L	106.4	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Calcium	210	ug/L	200	ug/L	104.8	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	06-JAN-10 10:44	010610A-1
	Antimony	3.8	+/-10	J	3.3	10.0	SOL	P	06-JAN-10 10:44	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 10:44	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 10:44	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 10:44	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 10:44	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 10:44	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	06-JAN-10 10:44	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 10:44	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	06-JAN-10 10:44	010610A-1
	Magnesium	121.5	+/-300	J	85.0	300	SOL	P	06-JAN-10 10:44	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	06-JAN-10 10:44	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	06-JAN-10 10:44	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 10:44	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	06-JAN-10 10:44	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 10:44	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 10:44	010610A-1
	Mercury	-0.073	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 10:29	010710S2-7
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	07-JAN-10 18:22	100107-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	07-JAN-10 18:22	100107-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	07-JAN-10 18:22	100107-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	07-JAN-10 18:22	100107-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	11-JAN-10 16:24	100111-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	12-JAN-10 15:10	100112-4
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-JAN-10 17:29	100112-6
CCB01										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	06-JAN-10 11:47	010610A-1
	Antimony	7.27	+/-10	J	3.3	10.0	SOL	P	06-JAN-10 11:47	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 11:47	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 11:47	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 11:47	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 11:47	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 11:47	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	06-JAN-10 11:47	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 11:47	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	06-JAN-10 11:47	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	06-JAN-10 11:47	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	06-JAN-10 11:47	010610A-1
	Potassium	88.07	+/-250	J	64.0	250	SOL	P	06-JAN-10 11:47	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 11:47	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	06-JAN-10 11:47	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 11:47	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 11:47	010610A-1
	Mercury	-0.077	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 10:35	010710S2-7
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	07-JAN-10 18:53	100107-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	07-JAN-10 18:53	100107-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	07-JAN-10 18:53	100107-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	07-JAN-10 18:53	100107-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	11-JAN-10 16:35	100111-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	12-JAN-10 15:18	100112-4
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-JAN-10 17:38	100112-6
CCB02	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	06-JAN-10 13:06	010610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 13:06	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 13:06	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 13:06	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 13:06	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 13:06	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 13:06	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	06-JAN-10 13:06	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 13:06	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	06-JAN-10 13:06	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ng/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	06-JAN-10 13:06	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	06-JAN-10 13:06	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	06-JAN-10 13:06	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 13:06	010610A-1
	Sodium	82.66	+/-250	J	70.0	250	SOL	P	06-JAN-10 13:06	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 13:06	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 13:06	010610A-1
	Mercury	-0.119	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 10:59	010710S2-7
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	07-JAN-10 19:11	100107-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	07-JAN-10 19:11	100107-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	07-JAN-10 19:11	100107-2
	Uranium	0.124	+/-2	J	0.066	0.2	SOL	MS	07-JAN-10 19:11	100107-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	11-JAN-10 16:51	100111-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	12-JAN-10 15:29	100112-4
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-JAN-10 17:51	100112-6
CCB03	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	06-JAN-10 14:24	010610A-1
	Antimony	3.95	+/-10	J	3.3	10.0	SOL	P	06-JAN-10 14:24	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 14:24	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 14:24	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 14:24	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 14:24	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 14:24	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	06-JAN-10 14:24	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 14:24	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	06-JAN-10 14:24	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	06-JAN-10 14:24	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	06-JAN-10 14:24	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	06-JAN-10 14:24	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 14:24	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	06-JAN-10 14:24	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ng/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 14:24	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 14:24	010610A-1
	Mercury	-0.148	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 11:23	010710S2-7
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	07-JAN-10 20:01	100107-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	07-JAN-10 20:01	100107-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	07-JAN-10 20:01	100107-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	07-JAN-10 20:01	100107-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	11-JAN-10 17:05	100111-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	12-JAN-10 15:40	100112-4
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-JAN-10 18:07	100112-6
CCB04	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	06-JAN-10 14:52	010610A-1
	Antimony	3.8	+/-10	J	3.3	10.0	SOL	P	06-JAN-10 14:52	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 14:52	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 14:52	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 14:52	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 14:52	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 14:52	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	06-JAN-10 14:52	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 14:52	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	06-JAN-10 14:52	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	06-JAN-10 14:52	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	06-JAN-10 14:52	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	06-JAN-10 14:52	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 14:52	010610A-1
	Sodium	82.38	+/-250	J	70.0	250	SOL	P	06-JAN-10 14:52	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 14:52	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 14:52	010610A-1
	Mercury	-0.164	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 11:47	010710S2-7
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	07-JAN-10 20:50	100107-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	07-JAN-10 20:50	100107-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	07-JAN-10 20:50	100107-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	07-JAN-10 20:50	100107-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	12-JAN-10 15:52	100112-4
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-JAN-10 18:23	100112-6
CCB05	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	06-JAN-10 16:00	010610A-1
	Antimony	3.67	+/-10	J	3.3	10.0	SOL	P	06-JAN-10 16:00	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 16:00	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 16:00	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 16:00	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 16:00	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 16:00	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	06-JAN-10 16:00	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 16:00	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	06-JAN-10 16:00	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	06-JAN-10 16:00	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	06-JAN-10 16:00	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	06-JAN-10 16:00	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 16:00	010610A-1
	Sodium	82.04	+/-250	J	70.0	250	SOL	P	06-JAN-10 16:00	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 16:00	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 16:00	010610A-1
	Mercury	-0.181	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 12:11	010710S2-7
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	07-JAN-10 21:34	100107-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	07-JAN-10 21:34	100107-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	07-JAN-10 21:34	100107-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	07-JAN-10 21:34	100107-2
CCB06	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	06-JAN-10 17:02	010610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 17:02	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 17:02	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 17:02	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 17:02	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 17:02	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 17:02	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	06-JAN-10 17:02	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 17:02	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	06-JAN-10 17:02	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	06-JAN-10 17:02	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	06-JAN-10 17:02	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	06-JAN-10 17:02	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 17:02	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	06-JAN-10 17:02	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 17:02	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 17:02	010610A-1
	Mercury	-0.21	+/-2		0.068	0.2	SOL	AV	07-JAN-10 12:35	010710S2-7
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	07-JAN-10 22:30	100107-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	07-JAN-10 22:30	100107-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	07-JAN-10 22:30	100107-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	07-JAN-10 22:30	100107-2
CCB07	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	06-JAN-10 18:06	010610A-1
	Antimony	4.7	+/-10	J	3.3	10.0	SOL	P	06-JAN-10 18:06	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 18:06	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 18:06	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 18:06	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 18:06	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 18:06	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	06-JAN-10 18:06	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 18:06	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	06-JAN-10 18:06	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	06-JAN-10 18:06	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ng/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	06-JAN-10 18:06	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	06-JAN-10 18:06	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 18:06	010610A-1
	Sodium	84.56	+/-250	J	70.0	250	SOL	P	06-JAN-10 18:06	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 18:06	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 18:06	010610A-1
	Mercury	-0.215	+/-2		0.068	0.2	SOL	AV	07-JAN-10 12:52	010710S2-7
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	07-JAN-10 23:26	100107-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	07-JAN-10 23:26	100107-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	07-JAN-10 23:26	100107-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	07-JAN-10 23:26	100107-2
CCB08	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	06-JAN-10 19:21	010610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 19:21	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 19:21	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 19:21	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 19:21	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 19:21	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 19:21	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	06-JAN-10 19:21	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 19:21	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	06-JAN-10 19:21	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	06-JAN-10 19:21	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	06-JAN-10 19:21	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	06-JAN-10 19:21	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 19:21	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	06-JAN-10 19:21	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 19:21	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 19:21	010610A-1
	Mercury	-0.165	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 13:05	010710S2-7

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB09										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	06-JAN-10 20:38	010610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 20:38	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 20:38	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 20:38	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 20:38	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 20:38	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 20:38	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	06-JAN-10 20:38	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 20:38	010610A-1
	Lead	-3.4	+/-10	J	2.5	10.0	SOL	P	06-JAN-10 20:38	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	06-JAN-10 20:38	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	06-JAN-10 20:38	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	06-JAN-10 20:38	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 20:38	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	06-JAN-10 20:38	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 20:38	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 20:38	010610A-1
	Mercury	-0.147	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 13:29	010710S2-7
CCB10										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	06-JAN-10 21:47	010610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 21:47	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 21:47	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 21:47	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 21:47	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 21:47	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 21:47	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	06-JAN-10 21:47	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 21:47	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	06-JAN-10 21:47	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	06-JAN-10 21:47	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	06-JAN-10 21:47	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB11	Potassium	64.0	+/-250	U	64.0	250	SOL	P	06-JAN-10 21:47	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 21:47	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	06-JAN-10 21:47	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 21:47	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 21:47	010610A-1
	Mercury	-0.15	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 13:46	010710S2-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	06-JAN-10 23:02	010610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 23:02	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 23:02	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 23:02	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 23:02	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 23:02	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	06-JAN-10 23:02	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	06-JAN-10 23:02	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	06-JAN-10 23:02	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	06-JAN-10 23:02	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	06-JAN-10 23:02	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	06-JAN-10 23:02	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	06-JAN-10 23:02	010610A-1
CCB12	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 23:02	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	06-JAN-10 23:02	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	06-JAN-10 23:02	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	06-JAN-10 23:02	010610A-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	07-JAN-10 00:04	010610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 00:04	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 00:04	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 00:04	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 00:04	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 00:04	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB13	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 00:04	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	07-JAN-10 00:04	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 00:04	010610A-1
	Lead	-2.52	+/-10	J	2.5	10.0	SOL	P	07-JAN-10 00:04	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	07-JAN-10 00:04	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	07-JAN-10 00:04	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	07-JAN-10 00:04	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 00:04	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	07-JAN-10 00:04	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 00:04	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 00:04	010610A-1
CCB13	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	07-JAN-10 01:13	010610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 01:13	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 01:13	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 01:13	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 01:13	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 01:13	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 01:13	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	07-JAN-10 01:13	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 01:13	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	07-JAN-10 01:13	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	07-JAN-10 01:13	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	07-JAN-10 01:13	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	07-JAN-10 01:13	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 01:13	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	07-JAN-10 01:13	010610A-1
CCB14	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 01:13	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 01:13	010610A-1
CCB14	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	07-JAN-10 02:22	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> ug/L	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 02:22	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 02:22	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 02:22	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 02:22	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 02:22	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 02:22	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	07-JAN-10 02:22	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 02:22	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	07-JAN-10 02:22	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	07-JAN-10 02:22	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	07-JAN-10 02:22	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	07-JAN-10 02:22	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 02:22	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	07-JAN-10 02:22	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 02:22	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 02:22	010610A-1
CCB15	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	07-JAN-10 03:31	010610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 03:31	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 03:31	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 03:31	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 03:31	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 03:31	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 03:31	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	07-JAN-10 03:31	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 03:31	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	07-JAN-10 03:31	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	07-JAN-10 03:31	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	07-JAN-10 03:31	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	07-JAN-10 03:31	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 03:31	010610A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB16	Sodium	70.0	+/-250	U	70.0	250	SOL	P	07-JAN-10 03:31	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 03:31	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 03:31	010610A-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	07-JAN-10 04:33	010610A-1
	Antimony	3.51	+/-10	J	3.3	10.0	SOL	P	07-JAN-10 04:33	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 04:33	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 04:33	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 04:33	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 04:33	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 04:33	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	07-JAN-10 04:33	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 04:33	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	07-JAN-10 04:33	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	07-JAN-10 04:33	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	07-JAN-10 04:33	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	07-JAN-10 04:33	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 04:33	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	07-JAN-10 04:33	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 04:33	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 04:33	010610A-1
CCB17	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	07-JAN-10 05:43	010610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 05:43	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 05:43	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 05:43	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 05:43	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 05:43	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 05:43	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	07-JAN-10 05:43	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 05:43	010610A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB18	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	07-JAN-10 05:43	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	07-JAN-10 05:43	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	07-JAN-10 05:43	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	07-JAN-10 05:43	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 05:43	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	07-JAN-10 05:43	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 05:43	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 05:43	010610A-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	07-JAN-10 06:53	010610A-1
	Antimony	4.96	+/-10	J	3.3	10.0	SOL	P	07-JAN-10 06:53	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 06:53	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 06:53	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 06:53	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 06:53	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 06:53	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	07-JAN-10 06:53	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 06:53	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	07-JAN-10 06:53	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	07-JAN-10 06:53	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	07-JAN-10 06:53	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	07-JAN-10 06:53	010610A-1
CCB19	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 06:53	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	07-JAN-10 06:53	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 06:53	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 06:53	010610A-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	07-JAN-10 07:07	010610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 07:07	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 07:07	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 07:07	010610A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 07:07	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 07:07	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 07:07	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	07-JAN-10 07:07	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 07:07	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	07-JAN-10 07:07	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	07-JAN-10 07:07	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	07-JAN-10 07:07	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	07-JAN-10 07:07	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 07:07	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	07-JAN-10 07:07	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 07:07	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 07:07	010610A-1
CCB20	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	07-JAN-10 08:17	010610A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 08:17	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 08:17	010610A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 08:17	010610A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 08:17	010610A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 08:17	010610A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	07-JAN-10 08:17	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	07-JAN-10 08:17	010610A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	07-JAN-10 08:17	010610A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	07-JAN-10 08:17	010610A-1
	Magnesium	85.19	+/-300	J	85.0	300	SOL	P	07-JAN-10 08:17	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	07-JAN-10 08:17	010610A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	07-JAN-10 08:17	010610A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 08:17	010610A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	07-JAN-10 08:17	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	07-JAN-10 08:17	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	07-JAN-10 08:17	010610A-1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1073
Contract: LANL01004
Matrix: SOIL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M</u>	<u>MDL</u>	<u>RDL</u>
1202004339	Aluminum	6760	ug/Kg	+/-19900	U	P	6760	19900
	Antimony	328	ug/Kg	+/-994	U	P	328	994
	Barium	99.4	ug/Kg	+/-497	U	P	99.4	497
	Cadmium	99.4	ug/Kg	+/-497	U	P	99.4	497
	Calcium	7950	ug/Kg	+/-24900	U	P	7950	24900
	Chromium	149	ug/Kg	+/-497	U	P	149	497
	Cobalt	149	ug/Kg	+/-497	U	P	149	497
	Copper	298	ug/Kg	+/-994	U	P	298	994
	Iron	7950	ug/Kg	+/-24900	U	P	7950	24900
	Lead	249	ug/Kg	+/-994	U	P	249	994
	Magnesium	8450	ug/Kg	+/-29800	U	P	8450	29800
	Manganese	316	ug/Kg	+/-994	J	P	199	994
	Potassium	6360	ug/Kg	+/-24900	U	P	6360	24900
	Silver	99.4	ug/Kg	+/-497	U	P	99.4	497
	Sodium	6960	ug/Kg	+/-24900	U	P	6960	24900
	Vanadium	99.4	ug/Kg	+/-497	U	P	99.4	497
	Zinc	347	ug/Kg	+/-994	J	P	328	994
1202004355	Arsenic	0.195	mg/kg	+/-0.977	U	MS	0.195	0.977
	Beryllium	0.0195	mg/kg	+/-0.0977	U	MS	0.0195	0.0977
	Nickel	0.0977	mg/kg	+/-0.391	U	MS	0.0977	0.391
	Selenium	0.488	mg/kg	+/-0.977	U	MS	0.488	0.977
	Thallium	0.0586	mg/kg	+/-0.195	U	MS	0.0586	0.195
	Uranium	0.0129	mg/kg	+/-0.0391	U	MS	0.0129	0.0391
1202006370	Mercury	-9.96	ug/kg	+/-10.3	J	AV	3.52	10.3

METALS

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Interference Check Sample

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Aluminum	524000	ug/L	500000	ug/L	105	80.0 - 120.0	06-JAN-10 10:58	010610A-1
	Antimony	1.14	ug/L					06-JAN-10 10:58	010610A-1
	Barium	-1.32	ug/L					06-JAN-10 10:58	010610A-1
	Cadmium	-2.61	ug/L					06-JAN-10 10:58	010610A-1
	Calcium	490000	ug/L	500000	ug/L	98.1	80.0 - 120.0	06-JAN-10 10:58	010610A-1
	Chromium	1.56	ug/L					06-JAN-10 10:58	010610A-1
	Cobalt	-1.75	ug/L					06-JAN-10 10:58	010610A-1
	Copper	0.788	ug/L					06-JAN-10 10:58	010610A-1
	Iron	191000	ug/L	200000	ug/L	95.6	80.0 - 120.0	06-JAN-10 10:58	010610A-1
	Lead	-11.5	ug/L					06-JAN-10 10:58	010610A-1
	Magnesium	494000	ug/L	500000	ug/L	98.9	80.0 - 120.0	06-JAN-10 10:58	010610A-1
	Manganese	8.64	ug/L					06-JAN-10 10:58	010610A-1
	Potassium	-8.89	ug/L					06-JAN-10 10:58	010610A-1
	Silver	2.06	ug/L					06-JAN-10 10:58	010610A-1
	Sodium	7.21	ug/L					06-JAN-10 10:58	010610A-1
	Vanadium	-2.85	ug/L					06-JAN-10 10:58	010610A-1
	Zinc	-0.463	ug/L					06-JAN-10 10:58	010610A-1
ICSAB01									
	Aluminum	513000	ug/L	500000	ug/L	103	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Antimony	529	ug/L	500	ug/L	106	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Barium	501	ug/L	500	ug/L	100	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Cadmium	466	ug/L	500	ug/L	93.3	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Calcium	481000	ug/L	500000	ug/L	96.2	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Chromium	474	ug/L	500	ug/L	94.9	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Cobalt	463	ug/L	500	ug/L	92.5	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Copper	565	ug/L	500	ug/L	113	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Iron	186000	ug/L	200000	ug/L	92.9	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Lead	463	ug/L	500	ug/L	92.7	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Magnesium	482000	ug/L	500000	ug/L	96.3	80.0 - 120.0	06-JAN-10 11:04	010610A-1

METALS
-4-
Interference Check Sample

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

ICS:

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Manganese	504	ug/L	500	ug/L	101	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Potassium	5350	ug/L	5000	ug/L	107	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Silver	273	ug/L	250	ug/L	109	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Sodium	5430	ug/L	5000	ug/L	109	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Vanadium	508	ug/L	500	ug/L	102	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Zinc	488	ug/L	500	ug/L	97.6	80.0 - 120.0	06-JAN-10 11:04	010610A-1

METALS
-4-
Interference Check Sample

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Nickel	3.26	ug/L					07-JAN-10 18:34	100107-2
	Selenium	-0.559	ug/L					07-JAN-10 18:34	100107-2
	Thallium	-0.007	ug/L					07-JAN-10 18:34	100107-2
	Uranium	-0.034	ug/L					07-JAN-10 18:34	100107-2
ICSAB01									
	Nickel	22.0	ug/L	22.7	ug/L	96.8	80.0 - 120.0	07-JAN-10 18:40	100107-2
	Selenium	21.5	ug/L	20	ug/L	108	80.0 - 120.0	07-JAN-10 18:40	100107-2
	Thallium	18.0	ug/L	20	ug/L	89.7	80.0 - 120.0	07-JAN-10 18:40	100107-2
	Uranium	20.4	ug/L	20	ug/L	102	80.0 - 120.0	07-JAN-10 18:40	100107-2

METALS

--4--

Interference Check Sample

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Nickel	3.43	ug/L					11-JAN-10 16:28	100111-3
ICSAB01	Nickel	22.0	ug/L	22.7	ug/L	96.8	80.0 -- 120.0	11-JAN-10 16:31	100111-3

METALS

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Interference Check Sample

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Beryllium	0.047	ug/L					12-JAN-10 15:13	100112-4
ICSAB01	Beryllium	18.7	ug/L	20	ug/L	93.7	80.0 - 120.0	12-JAN-10 15:15	100112-4

METALS

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Interference Check Sample

SDG No: 10-1073

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Arsenic	0.618	ug/L					12-JAN-10 17:32	100112-6
ICSAB01	Arsenic	21.0	ug/L	20	ug/L	105	80.0 - 120.0	12-JAN-10 17:34	100112-6

METALS

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Matrix Spike Summary

SDG NO.	10-1073	Client ID	RE16-10-968S
Contract:	LANL01004	Level:	Low
Matrix:	SOIL	% Solids:	84
Sample ID:	243542001	Spike ID:	1202004342

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		14600000		9590000		567000	884	N/A	P
Antimony	ug/Kg	75-125	46200		380	U	56700	81		P
Barium	ug/Kg	75-125	244000		200000		56700	78.2		P
Cadmium	ug/Kg	75-125	53800		183	J	56700	94.5		P
Calcium	ug/Kg		6230000		5610000		567000	109	N/A	P
Chromium	ug/Kg	75-125	62600		7630		56700	97		P
Cobalt	ug/Kg	75-125	57200		4970		56700	92.1		P
Copper	ug/Kg	75-125	67600		8250		56700	105		P
Iron	ug/Kg		11200000		10300000		567000	172	N/A	P
Lead	ug/Kg	75-125	71700		19400		56700	92.2		P
Magnesium	ug/Kg	75-125	2490000		1750000		567000	130	N	P
Manganese	ug/Kg		494000		447000		56700	81.6	N/A	P
Potassium	ug/Kg	75-125	2560000		1930000		567000	111		P
Silver	ug/Kg	75-125	56300		263	J	56700	98.7		P
Sodium	ug/Kg	75-125	648000		76700		567000	101		P
Vanadium	ug/Kg	75-125	75200		18700		56700	99.7		P
Zinc	ug/Kg	75-125	89600		34000		56700	98		P

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1073 Client ID RE16-10-968SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 84

Sample ID: 243542001 Spike ID: 1202004344

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		15800000		9590000		572000	1080	N/A	P
Antimony	ug/Kg	75-125	47300		380	U	57200	82.3		P
Barium	ug/Kg	75-125	242000		200000		57200	74.5	N	P
Cadmium	ug/Kg	75-125	55000		183	J	57200	95.8		P
Calcium	ug/Kg		5670000		5610000		572000	10.6	N/A	P
Chromium	ug/Kg	75-125	65200		7630		57200	101		P
Cobalt	ug/Kg	75-125	59400		4970		57200	95.1		P
Copper	ug/Kg	75-125	69600		8250		57200	107		P
Iron	ug/Kg		12800000		10300000		572000	443	N/A	P
Lead	ug/Kg	75-125	73900		19400		57200	95.3		P
Magnesium	ug/Kg	75-125	2550000		1750000		572000	139	N	P
Manganese	ug/Kg		545000		447000		57200	171	N/A	P
Potassium	ug/Kg	75-125	2710000		1930000		572000	137	N	P
Silver	ug/Kg	75-125	57800		263	J	57200	101		P
Sodium	ug/Kg	75-125	649000		76700		572000	100		P
Vanadium	ug/Kg	75-125	80400		18700		57200	108		P
Zinc	ug/Kg	75-125	93500		34000		57200	104		P

METALS

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Matrix Spike Summary

SDG NO. 10-1073

Client ID RE16-10-968S

Contract: LANL01004

Level: Low

Matrix: SOIL

% Solids: 84

Sample ID: 243542001

Spike ID: 1202004358

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M</u>
Arsenic	mg/kg	75-125	12.4		2.49		9.13	109		MS
Beryllium	mg/kg	75-125	6.77		0.945		5.71	102		MS
Nickel	mg/kg	75-125	12.6		7.01		5.71	98		MS
Selenium	mg/kg	75-125	2		0.579	U	2.28	84.8		MS
Thallium	mg/kg	75-125	10.4		0.181	J	11.4	89.6		MS
Uranium	mg/kg	75-125	8.04		2.48		5.71	97.4		MS

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1073 Client ID RE16-10-968SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 84

Sample ID: 243542001 Spike ID: 1202004360

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	12		2.49		9.27	103		MS
Beryllium	mg/kg	75-125	6.82		0.945		5.79	101		MS
Nickel	mg/kg	75-125	12.1		7.01		5.79	87.4		MS
Selenium	mg/kg	75-125	2.09		0.579	U	2.32	87.5		MS
Thallium	mg/kg	75-125	10.6		0.181	J	11.6	89.8		MS
Uranium	mg/kg	75-125	8.37		2.48		5.79	102		MS

METALS

--5a--

Matrix Spike Summary

SDG NO. 10-1073 **Client ID** RE12-10-7557S**Contract:** LANL01004 **Level:** Low**Matrix:** SOIL **% Solids:** 86**Sample ID:** 243517003 **Spike ID:** 1202006373

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M</u>
Mercury	ug/kg	75-125	152		12.8		124	112		AV

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1073 **Client ID** RE12-10-7557SD

Contract: LANL01004 **Level:** Low**Matrix:** SOIL **% Solids:** 86**Sample ID:** 243517003 **Spike ID:** 1202006374

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M</u>
Mercury	ug/kg	75-125	161		12.8		134	111		AV

Metals

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Duplicate Sample Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE16-10-968D

Sample ID: 243542001

Duplicate ID: 1202004341

Percent Solids for Dup: 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	9590000		8640000		10.5		P
Antimony	ug/Kg		380 U		462 J		200		P
Barium	ug/Kg	+/-20%	200000		186000		7.34		P
Cadmium	ug/Kg	+/-584	183 J		156 J		16.1		P
Calcium	ug/Kg	+/-20%	5610000		5350000		4.66		P
Chromium	ug/Kg	+/-20%	7630		8220		7.4		P
Cobalt	ug/Kg	+/-20%	4970		4320		14		P
Copper	ug/Kg	+/-20%	8250		8480		2.73		P
Iron	ug/Kg	+/-20%	10300000		11100000		7.5		P
Lead	ug/Kg	+/-20%	19400		20500		5.44		P
Magnesium	ug/Kg	+/-20%	1750000		1860000		5.94		P
Manganese	ug/Kg	+/-20%	447000		472000		5.44		P
Potassium	ug/Kg	+/-20%	1930000		1900000		1.77		P
Silver	ug/Kg	+/-584	263 J		323 J		20.6		P
Sodium	ug/Kg	+/-29200	76700		75900		1.04		P
Vanadium	ug/Kg	+/-20%	18700		19100		2.27		P
Zinc	ug/Kg	+/-20%	34000		41600		20.1	*	P

Metals

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Duplicate Sample Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE16-10-968SD

Sample ID: 1202004342

Duplicate ID: 1202004344

Percent Solids for Dup: 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	14600000		15800000		7.68		P
Antimony	ug/Kg	+/-20	46200		47300		2.4		P
Barium	ug/Kg	+/-20	244000		242000		.732		P
Cadmium	ug/Kg	+/-20	53800		55000		2.16		P
Calcium	ug/Kg	+/-20	6230000		5670000		9.39		P
Chromium	ug/Kg	+/-20	62600		65200		3.97		P
Cobalt	ug/Kg	+/-20	57200		59400		3.68		P
Copper	ug/Kg	+/-20	67600		69600		2.88		P
Iron	ug/Kg	+/-20	11200000		12800000		13		P
Lead	ug/Kg	+/-20	71700		73900		3.03		P
Magnesium	ug/Kg	+/-20	2490000		2550000		2.37		P
Manganese	ug/Kg	+/-20	494000		545000		9.87		P
Potassium	ug/Kg	+/-20	2560000		2710000		5.72		P
Silver	ug/Kg	+/-20	56300		57800		2.62		P
Sodium	ug/Kg	+/-20	648000		649000		.192		P
Vanadium	ug/Kg	+/-20	75200		80400		6.58		P
Zinc	ug/Kg	+/-20	89600		93500		4.25		P

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE16-10-968D

Sample ID: 243542001

Duplicate ID: 1202004357

Percent Solids for Dup: 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-1.16	2.49		2.73		9.35		MS
Beryllium	mg/kg	+/-20%	0.945		0.874		7.76		MS
Nickel	mg/kg	+/-20%	7.01		6.75		3.76		MS
Selenium	mg/kg		0.579 U		0.578 U				MS
Thallium	mg/kg	+/-0.231	0.181 J		0.172 J		5.44		MS
Uranium	mg/kg	+/-20%	2.48		3.1		22	*	MS

Metals

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Duplicate Sample Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE16-10-968SD

Sample ID: 1202004358

Duplicate ID: 1202004360

Percent Solids for Dup: 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	12.4		12		3.36		MS
Beryllium	mg/kg	+/-20	6.77		6.82		.714		MS
Nickel	mg/kg	+/-20	12.6		12.1		4.25		MS
Selenium	mg/kg	+/-20	2		2.09		4.48		MS
Thallium	mg/kg	+/-20	10.4		10.6		1.7		MS
Uranium	mg/kg	+/-20	8.04		8.37		4.01		MS

Metals

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Duplicate Sample Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7557D

Sample ID: 243517003

Duplicate ID: 1202006371

Percent Solids for Dup: 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-13.9	12.8		11.6	J	9.76		AV

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1073

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7557SD

Sample ID: 1202006373

Duplicate ID: 1202006374

Percent Solids for Dup: 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	152		161		6.15		AV

METALS

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Laboratory Control Sample Summary

SDG NO. 10-1073

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202004340								
	Antimony	ug/Kg	173000	137000		79.1	71-130	P
	Barium	ug/Kg	198000	195000		98.4	80-120	P
	Cadmium	ug/Kg	60700	55400		91.3	81-120	P
	Calcium	ug/Kg	9870000	9460000		95.9	83-117	P
	Chromium	ug/Kg	236000	229000		96.8	80-120	P
	Cobalt	ug/Kg	91200	88300		96.8	81-120	P
	Copper	ug/Kg	174000	179000		103	81-118	P
	Aluminum	ug/Kg	10500000	8860000		84.4	56-144	P
	Iron	ug/Kg	18000000	18300000		102	51-149	P
	Lead	ug/Kg	86000	80400		93.5	79-121	P
	Magnesium	ug/Kg	4000000	3600000		89.9	79-122	P
	Manganese	ug/Kg	558000	512000		91.7	81-119	P
	Potassium	ug/Kg	4300000	3890000		90.5	74-127	P
	Silver	ug/Kg	30100	30400		101	66-134	P
	Sodium	ug/Kg	1020000	1030000		101	74-127	P
	Vanadium	ug/Kg	115000	117000		101	79-121	P
	Zinc	ug/Kg	594000	566000		95.2	80-121	P

METALS

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Laboratory Control Sample Summary

SDG NO. 10-1073

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202004356								
	Arsenic	mg/kg	104	110		105	83-120	MS
	Beryllium	mg/kg	77.6	91.2		118	81.2-126.8	MS
	Nickel	mg/kg	134	145		108	83.3-121.4	MS
	Selenium	mg/kg	286	289		101	80.2-125.9	MS
	Thallium	mg/kg	121	127		105	78-123.2	MS
	Uranium	mg/kg	2.13	1.74		81.9	61.9-130.7	MS

METALS

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Laboratory Control Sample Summary

SDG NO. 10-1073

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202006375	Mercury	ug/kg	5150	5440		106	71.6-128.3	AV

METALS

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Serial Dilution Sample Summary

SDG NO. 10-1073 Client ID RE16-10-968L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 243542001 Serial Dilution ID: 1202004343

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	83400		78000		6.47		10	P
Antimony	3.3	U	16.5	U				P
Barium	1740		1690		3.16		10	P
Cadmium	1.59	J	5	U	100			P
Calcium	48700		46300		4.93		10	P
Chromium	66.4		64		3.61			P
Cobalt	43.2		42.3		2.2			P
Copper	71.7		64		10.7			P
Iron	89300		88000		1.46		10	P
Lead	169		160		5.62		10	P
Magnesium	15300		15000		1.96		10	P
Manganese	3890		3890		.129		10	P
Potassium	16800		15600		7.14		10	P
Silver	2.29	J	5	U	100			P
Sodium	667		845	J	26.7			P
Vanadium	162		158		2.78		10	P
Zinc	295		288		2.54		10	P

METALS

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Serial Dilution Sample Summary

SDG NO. 10-1073 **Client ID** RE16-10-968L**Contract:** LANL01004**Matrix:** SOLID **Level:** Low**Sample ID:** 243542001 **Serial Dilution ID:** 1202004359

<u>Analyte</u>	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Arsenic	10.7		14.8	J	38.3			MS
Beryllium	4.08		4.75		16.3			MS
Nickel	30.3		34.2		12.9			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.783	J	1.5	U	100			MS
Uranium	10.7		10.9		1.4		10	MS

METALS

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Serial Dilution Sample Summary

SDG NO. 10-1073 Client ID RE12-10-7557L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 243517003 Serial Dilution ID: 1202006372

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.203		.34	U	100			AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-1073

Method Type: P

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 936766							
1202004339	MB for batch 936766	MB	S	29-DEC-09	.503g	50mL	
1202004340	LCS for batch 936766	LCS	S	29-DEC-09	.513g	50mL	
1202004342	RE16-10-968S	MS	S	29-DEC-09	.524g	50mL	
1202004344	RE16-10-968SD	MSD	S	29-DEC-09	.52g	50mL	
1202004341	RE16-10-968D	DUP	S	29-DEC-09	.509g	50mL	
243517003	RE12-10-7557	SAMPLE	S	29-DEC-09	.531g	50mL	
243517004	RE12-10-7558	SAMPLE	S	29-DEC-09	.523g	50mL	
243517005	RE12-10-7555	SAMPLE	S	29-DEC-09	.521g	50mL	
243517006	RE12-10-7556	SAMPLE	S	29-DEC-09	.506g	50mL	
243517007	RE12-10-7562	SAMPLE	S	29-DEC-09	.509g	50mL	
243517008	RE12-10-7561	SAMPLE	S	29-DEC-09	.507g	50mL	
243517009	RE12-10-7563	SAMPLE	S	29-DEC-09	.504g	50mL	

SW846

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-1073

Method Type: MS

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 936772							
1202004355	MB for batch 936772	MB	S	29-DEC-09	.512g	50mL	
1202004356	LCS for batch 936772	LCS	S	29-DEC-09	.501g	50mL	
1202004358	RE16-10-968S	MS	S	29-DEC-09	.521g	50mL	
1202004360	RE16-10-968SD	MSD	S	29-DEC-09	.513g	50mL	
1202004357	RE16-10-968D	DUP	S	29-DEC-09	.514g	50mL	
243517003	RE12-10-7557	SAMPLE	S	29-DEC-09	.513g	50mL	
243517004	RE12-10-7558	SAMPLE	S	29-DEC-09	.523g	50mL	
243517005	RE12-10-7555	SAMPLE	S	29-DEC-09	.518g	50mL	
243517006	RE12-10-7556	SAMPLE	S	29-DEC-09	.528g	50mL	
243517007	RE12-10-7562	SAMPLE	S	29-DEC-09	.511g	50mL	
243517008	RE12-10-7561	SAMPLE	S	29-DEC-09	.512g	50mL	
243517009	RE12-10-7563	SAMPLE	S	29-DEC-09	.525g	50mL	

SW846

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-1073

Method Type: AV

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 937608							
1202006370	MB for batch 937608	MB	S	06-JAN-10	.58g	30mL	
1202006375	LCS for batch 937608	LCS	S	06-JAN-10	.206g	30mL	
1202006373	RE12-10-7557S	MS	S	06-JAN-10	.561g	30mL	
1202006374	RE12-10-7557SD	MSD	S	06-JAN-10	.521g	30mL	
1202006371	RE12-10-7557D	DUP	S	06-JAN-10	.502g	30mL	
243517003	RE12-10-7557	SAMPLE	S	06-JAN-10	.553g	30mL	
243517004	RE12-10-7558	SAMPLE	S	06-JAN-10	.546g	30mL	
243517005	RE12-10-7555	SAMPLE	S	06-JAN-10	.511g	30mL	
243517006	RE12-10-7556	SAMPLE	S	06-JAN-10	.529g	30mL	
243517007	RE12-10-7562	SAMPLE	S	06-JAN-10	.562g	30mL	
243517008	RE12-10-7561	SAMPLE	S	06-JAN-10	.505g	30mL	
243517009	RE12-10-7563	SAMPLE	S	06-JAN-10	.548g	30mL	

SW846

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 12-JAN-10

End Date: 12-JAN-10

Client Sdg: 10-1073

Method MS

Data File: 100112-4

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	15:04					X																			
S10	1	15:05					X																			
S100	1	15:07					X																			
ICV01	1	15:08					X																			
ICB01	1	15:10					X																			
CRDL01	1	15:12					X																			
ICSA01	1	15:13					X																			
ICSAB01	1	15:15					X																			
CCV01	1	15:17					X																			
CCB01	1	15:18					X																			
1202004355	2	15:20					X																			
1202004356	40	15:22					X																			
243517003	2	15:24					X																			
243517004	2	15:25					X																			
CCV02	1	15:27					X																			
CCB02	1	15:29					X																			
243517005	2	15:30					X																			
243517006	2	15:32					X																			
243517007	2	15:34					X																			
243517008	2	15:35					X																			
243517009	2	15:37					X																			
CCV03	1	15:39					X																			
CCB03	1	15:40					X																			
ZZZZZZ	2	15:42																								
1202004357	2	15:44					X																			
1202004358	2	15:46					X																			
1202004360	2	15:47					X																			
1202004359	10	15:49					X																			
CCV04	1	15:51					X																			
CCB04	1	15:52					X																			

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 12-JAN-10

End Date: 12-JAN-10

Client Sdg: 10-1073

Method MS

Data File: 100112-6

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	17:21			X																					
S10	1	17:23			X																					
S100	1	17:25			X																					
ICV01	1	17:27			X																					
ICB01	1	17:29			X																					
CRDL01	1	17:30			X																					
ICSA01	1	17:32			X																					
ICSAB01	1	17:34			X																					
CCV01	1	17:36			X																					
CCB01	1	17:38			X																					
1202004355	2	17:40			X																					
1202004356	40	17:42			X																					
243517003	2	17:45			X																					
243517004	2	17:47			X																					
CCV02	1	17:49			X																					
CCB02	1	17:51			X																					
243517005	2	17:53			X																					
243517006	2	17:56			X																					
243517007	2	17:58			X																					
243517008	2	18:00			X																					
243517009	2	18:03			X																					
CCV03	1	18:05			X																					
CCB03	1	18:07			X																					
ZZZZZZ	2	18:09																								
1202004357	2	18:11			X																					
1202004358	2	18:14			X																					
1202004360	2	18:16			X																					
1202004359	10	18:19			X																					
CCV04	1	18:21			X																					
CCB04	1	18:23			X																					

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA3

Start Date: 06-JAN-10

End Date: 07-JAN-10

Client Sdg: 10-1073

Method P

Data File: 010610A-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	10:05	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	10:12		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	10:18	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	10:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	10:32	X						X				X		X							X				
ICV01	1	10:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	10:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	10:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	10:58	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	11:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	11:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	11:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
777777	1	11:22																								
777777	1	11:29																								
CCV01	1	11:40	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	11:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
777777	1	11:56																								
777777	1	12:03																								
777777	1	12:11																								
777777	1	12:18																								
777777	1	12:25																								
777777	1	12:32																								
777777	1	12:39																								
777777	1	12:46																								
777777	1	12:53																								
CCV02	1	13:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	13:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
777777	2	13:16																								
777777	2	13:23																								
777777	2	13:29																								
777777	2	13:36																								
777777	10	13:43																								
777777	2	13:50																								
777777	2	13:57																								
777777	2	14:03																								
777777	2	14:10																								
CCV03	1	14:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	14:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV04	1	14:45	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	14:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

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Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	19:35																								
ZZZZZZ	1	19:43																								
ZZZZZZ	1	19:50																								
ZZZZZZ	1	19:57																								
ZZZZZZ	1	20:04																								
ZZZZZZ	1	20:10																								
ZZZZZZ	1	20:18																								
ZZZZZZ	1	20:25																								
CCV09	1	20:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	20:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:45																								
ZZZZZZ	1	20:52																								
ZZZZZZ	1	20:59																								
ZZZZZZ	1	21:06																								
ZZZZZZ	1	21:13																								
ZZZZZZ	1	21:19																								
ZZZZZZ	1	21:26																								
ZZZZZZ	1	21:33																								
CCV10	1	21:40	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	21:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:54																								
ZZZZZZ	1	22:01																								
ZZZZZZ	1	22:08																								
ZZZZZZ	1	22:15																								
ZZZZZZ	1	22:21																								
ZZZZZZ	5	22:28																								
ZZZZZZ	1	22:35																								
ZZZZZZ	1	22:42																								
ZZZZZZ	1	22:49																								
CCV11	1	22:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	23:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	23:09																								
ZZZZZZ	1	23:16																								
ZZZZZZ	1	23:23																								
ZZZZZZ	1	23:30																								
ZZZZZZ	1	23:37																								
ZZZZZZ	5	23:44																								
ZZZZZZ	1	23:50																								
CCV12	1	23:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB12	1	00:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Samp No.	D/F	Run Time																		
TTTTT	1	00:11																		
TTTTT	1	00:18																		
TTTTT	1	00:24																		
TTTTTT	1	00:31																		
TTTTT	1	00:38																		
TTTTT	1	00:45																		
TTTTT	1	00:52																		
TTTTTT	1	00:59																		
CCV13	1	01:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB13	1	01:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TTTTT	1	01:20																		
TTTTT	1	01:26																		
TTTTT	1	01:34																		
TTTTTT	1	01:40																		
TTTTT	1	01:47																		
TTTTT	1	01:54																		
TTTTTT	1	02:01																		
TTTTTT	1	02:08																		
CCV14	1	02:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB14	1	02:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TTTTT	1	02:29																		
TTTTT	1	02:36																		
TTTTT	1	02:43																		
TTTTT	1	02:50																		
TTTTTT	1	02:57																		
TTTTTT	1	03:04																		
TTTTTT	1	03:11																		
TTTTTT	5	03:18																		
CCV15	1	03:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB15	1	03:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TTTTTT	1	03:38																		
TTTTTT	1	03:45																		
TTTTT	1	03:51																		
TTTTTT	1	03:58																		
TTTTTT	1	04:05																		
TTTTTT	1	04:12																		
TTTTTT	1	04:19																		
CCV16	1	04:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB16	1	04:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
243517008	1	04:40	X	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
243517009	1	04:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	04:54																								
1202004341	1	05:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202004342	1	05:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202004344	1	05:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202004343	5	05:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	05:29																								
CCV17	1	05:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB17	1	05:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	05:50																								
ZZZZZZ	1	05:57																								
ZZZZZZ	1	06:03																								
ZZZZZZ	1	06:10																								
ZZZZZZ	1	06:18																								
ZZZZZZ	1	06:25																								
ZZZZZZ	1	06:32																								
ZZZZZZ	1	06:39																								
CCV18	1	06:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB18	1	06:53	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV19	1	07:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB19	1	07:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202004339	1	07:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202004340	1	07:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
243517003	1	07:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
243517004	1	07:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
243517005	1	07:42	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
243517006	1	07:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
243517007	1	07:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	5	08:03																								
CCV20	1	08:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB20	1	08:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: MER536

Start Date: 07-JAN-10

End Date: 07-JAN-10

Client Sdg: 10-1073

Method AV

Data File: 010710S2-7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	10:16															X									
S0.2	1	10:17															X									
S0.5	1	10:19															X									
S2.0	1	10:21															X									
S5.0	1	10:23															X									
S10	1	10:25															X									
ICV01	1	10:28															X									
ICB01	1	10:29															X									
CRDL01	1	10:31															X									
CCV01	1	10:33															X									
CCB01	1	10:35															X									
ZZZZZZ	1	10:37																								
ZZZZZZ	10	10:39																								
ZZZZZZ	1	10:41																								
ZZZZZZ	1	10:44																								
ZZZZZZ	1	10:46																								
ZZZZZZ	1	10:48																								
ZZZZZZ	5	10:49																								
ZZZZZZ	1	10:51																								
ZZZZZZ	1	10:53																								
ZZZZZZ	1	10:55																								
CCV02	1	10:57															X									
CCB02	1	10:59															X									
ZZZZZZ	1	11:01																								
ZZZZZZ	1	11:03																								
ZZZZZZ	1	11:05																								
ZZZZZZ	1	11:07																								
ZZZZZZ	1	11:09																								
ZZZZZZ	1	11:11																								
ZZZZZZ	1	11:13																								
ZZZZZZ	1	11:15																								
ZZZZZZ	10	11:17																								
ZZZZZZ	1	11:19																								
CCV03	1	11:21															X									
CCB03	1	11:23															X									
ZZZZZZ	1	11:25																								
ZZZZZZ	1	11:27																								
ZZZZZZ	1	11:29																								
ZZZZZZ	5	11:31																								
ZZZZZZ	1	11:33																								

Samp No.	D/F	Run Time
ZZZZZZ	1	11:35
ZZZZZZ	1	11:37
ZZZZZZ	1	11:39
ZZZZZZ	1	11:41
ZZZZZZ	1	11:43
CCV04	1	11:45
CCB04	1	11:47
ZZZZZZ	1	11:49
ZZZZZZ	1	11:51
ZZZZZZ	1	11:53
ZZZZZZ	1	11:55
ZZZZZZ	1	11:57
ZZZZZZ	1	11:59
ZZZZZZ	1	12:01
ZZZZZZ	1	12:03
ZZZZZZ	1	12:05
ZZZZZZ	1	12:07
CCV05	1	12:09
CCB05	1	12:11
ZZZZZZ	1	12:13
ZZZZZZ	1	12:15
ZZZZZZ	10	12:17
ZZZZZZ	1	12:19
ZZZZZZ	1	12:21
ZZZZZZ	1	12:23
ZZZZZZ	1	12:25
ZZZZZZ	5	12:27
ZZZZZZ	1	12:29
ZZZZZZ	1	12:31
CCV06	1	12:33
CCB06	1	12:35
ZZZZZZ	1	12:37
ZZZZZZ	1	12:39
ZZZZZZ	1	12:41
ZZZZZZ	1	12:43
ZZZZZZ	1	12:45
ZZZZZZ	1	12:46
ZZZZZZ	1	12:48
CCV07	1	12:50
CCB07	1	12:52

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
CCV08	1	13:03															X									
CCB08	1	13:05															X									
ZZZZZZ	1	13:07																								
1202006370	1	13:09															X									
1202006375	10	13:11															X									
243517003	1	13:13															X									
1202006371	1	13:15															X									
1202006373	1	13:17															X									
1202006374	1	13:19															X									
1202006372	5	13:21															X									
243517004	1	13:23															X									
243517005	1	13:25															X									
CCV09	1	13:27															X									
CCB09	1	13:29															X									
243517006	1	13:31															X									
243517007	1	13:33															X									
243517008	1	13:35															X									
243517009	1	13:37															X									
ZZZZZZ	1	13:39																								
ZZZZZZ	1	13:40																								
ZZZZZZ	1	13:42																								
CCV10	1	13:44															X									
CCB10	1	13:46															X									

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS4

Start Date: 07-JAN-10

End Date: 07-JAN-10

Client Sdg: 10-1073

Method MS

Data File: 100107-2

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	17:57																X		X			X	X		
S10	1	18:03																X		X			X	X		
S100	1	18:09																X		X			X	X		
ICV01	1	18:15																X		X			X	X		
ICB01	1	18:22																X		X			X	X		
CRDL01	1	18:28																X		X			X	X		
JCSA01	1	18:34																X		X			X	X		
JCSAB01	1	18:40																X		X			X	X		
CCV01	1	18:46																X		X			X	X		
CCB01	1	18:53																X		X			X	X		
LR01	1	18:59																X		X			X	X		
CCV02	1	19:05																X		X			X	X		
CCB02	1	19:11																X		X			X	X		
ZZZZZZ	2	19:17																								
ZZZZZZ	40	19:23																								
ZZZZZZ	2	19:30																								
ZZZZZZ	2	19:36																								
ZZZZZZ	2	19:42																								
ZZZZZZ	2	19:48																								
CCV03	1	19:55																X		X			X	X		
CCB03	1	20:01																X		X			X	X		
ZZZZZZ	10	20:07																								
ZZZZZZ	2	20:13																								
ZZZZZZ	2	20:19																								
ZZZZZZ	2	20:26																								
ZZZZZZ	2	20:32																								
ZZZZZZ	2	20:38																								
CCV04	1	20:44																X		X			X	X		
CCB04	1	20:50																X		X			X	X		
ZZZZZZ	2	20:57																								
ZZZZZZ	2	21:03																								
ZZZZZZ	2	21:09																								
ZZZZZZ	2	21:15																								
ZZZZZZ	2	21:22																								
CCV05	1	21:28																X		X			X	X		
CCB05	1	21:34																X		X			X	X		
1202004355	2	21:40																X		X			X	X		
1202004356	40	21:46																X		X			X	X		
243517003	2	21:53																X		X			X	X		
243517004	2	21:59																X		X			X	X		

Samp No.	D/F	Run Time
243517005	2	22:05
243517006	2	22:11
243517007	2	22:18
CCV06	1	22:24
CCB06	1	22:30
243517008	2	22:36
243517009	2	22:43
ZZZZZ	2	22:49
1202004357	2	22:55
1202004358	2	23:01
1202004360	2	23:07
1202004359	10	23:14
CCV07	1	23:20
CCB07	1	23:26

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS4

Start Date: 11-JAN-10

End Date: 11-JAN-10

Client Sdg: 10-1073

Method MS

Data File: 100111-3

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	16:15																X								
S10	1	16:17																X								
S100	1	16:20																X								
ICV01	1	16:22																X								
ICB01	1	16:24																X								
CRDL01	1	16:26																X								
ICSA01	1	16:28																X								
ICSAB01	1	16:31																X								
CCV01	1	16:33																X								
CCB01	1	16:35																X								
ZZZZZZ	2	16:38																								
ZZZZZZ	40	16:40																								
ZZZZZZ	10	16:42																								
ZZZZZZ	10	16:44																								
ZZZZZZ	10	16:46																								
CCV02	1	16:49																X								
CCB02	1	16:51																X								
ZZZZZZ	2	16:53																								
ZZZZZZ	40	16:56																								
ZZZZZZ	10	16:58																								
243517007	10	17:00																X								
CCV03	1	17:02																X								
CCB03	1	17:05																X								

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1073

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP/MS	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1073

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 15-JUN-09

	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u> <u>ug/L</u>	<u>RDL</u> <u>ug/L</u>
MERCURY				
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1073

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1073

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-NOV-09

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	0.02738	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	-0.44940	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	-0.22121	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	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1073

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-NOV-09

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	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	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	0.38952	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	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
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	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1073**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-NOV-09**

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	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1073**Contract: **LANL01004**Instrument: **OPTIMA3**Effective Dates: **01-NOV-09**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Nickel	Phosphorous	Potassium	Selenium	Silicon
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1073**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-NOV-09**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1073

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-NOV-09

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-1073

Contract: LANL01004

Lab Code: GEL

Instrument ID ICPMS5

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	1	50000	ug/L	01-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09

METALS
-12-
Linear Ranges

SDG NO. 10-1073

Contract: LANL01004

Lab Code: GEL

Instrument ID OPTIMA3

<u>Analyte</u>	<u>Integration Time (sec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	20	500000	ug/L	01-NOV-09
Antimony	20	10000	ug/L	01-NOV-09
Arsenic	20	10000	ug/L	01-NOV-09
Barium	20	15000	ug/L	01-NOV-09
Beryllium	20	3000	ug/L	01-NOV-09
Cadmium	20	10000	ug/L	01-NOV-09
Calcium	20	500000	ug/L	01-NOV-09
Chromium	20	25000	ug/L	01-NOV-09
Cobalt	20	10000	ug/L	01-NOV-09
Copper	20	20000	ug/L	01-NOV-09
Iron	20	500000	ug/L	01-NOV-09
Lead	20	25000	ug/L	01-NOV-09
Magnesium	20	500000	ug/L	01-NOV-09
Manganese	20	10000	ug/L	01-NOV-09
Nickel	20	10000	ug/L	01-NOV-09
Potassium	20	300000	ug/L	01-NOV-09
Selenium	20	10000	ug/L	01-NOV-09
Silver	20	1000	ug/L	01-NOV-09
Sodium	20	500000	ug/L	01-NOV-09
Thallium	20	10000	ug/L	01-NOV-09
Uranium	20	15000	ug/L	01-NOV-09
Vanadium	20	10000	ug/L	01-NOV-09
Zinc	20	15000	ug/L	01-NOV-09

METALS
-12-
Linear Ranges

SDG NO. 10-1073

Contract: LANL01004

Lab Code: GEL

Instrument ID ICPMS4

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Thallium	1000	500	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09
Aluminum	1	50000	ug/L	01-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09

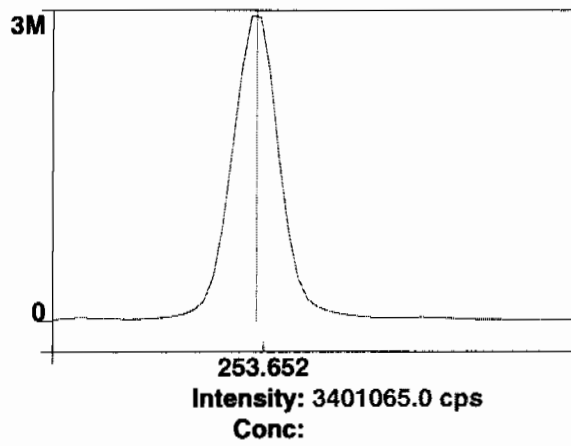
Raw Data

Method: Hg_ReAlign
Result: 011310

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1



1

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Reprocessing Begun

Logged In Analyst: Optima3

Technique: ICP Continuous

Results Data Set (original): 010610

Results Library (original): C:\pe\Optima3\Results\Results.mdb

Results Data Set (reprocessed): 010610A

Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

=====

Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 1/6/2010 11:54:05

IEC File: 101209.iec

MSF File:

Method Description:

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

=====

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 1/6/2010 10:05:16

Analyst:

Data Type: Reprocessed on 1/6/2010 11:55:25

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	884204.5	884204.5	99.729 %	10:08:26
1	Sc Radial	4647.0	4647.0	99.6 %	10:07:09
1	Y 371.029	760145.0	760145.0	99.788 %	10:08:26
1	Y RADIAL	4888.3	4888.3	99.10 %	10:07:09
1	Ag 328.068†	383.7	384.7	[0.00] ug/L	10:08:31

1	Al 396.153Radial†	-35.8	-36.0	[0.00] ug/L	10:07:09
1	As 188.979†	-40.4	-40.5	[0.00] ug/L	10:08:51
1	B 249.677†	-622.0	-623.7	[0.00] ug/L	10:08:31
1	Ba 233.527†	18.5	18.5	[0.00] ug/L	10:08:51
1	Be 313.107†	-4379.0	-4390.9	[0.00] ug/L	10:08:31
1	Ca 317.933Radial†	10.1	10.2	[0.00] ug/L	10:07:29
1	Cd 226.502†	-233.2	-233.9	[0.00] ug/L	10:08:51
1	Co 228.616†	-82.3	-82.5	[0.00] ug/L	10:08:51
1	Cr 267.716†	129.2	129.6	[0.00] ug/L	10:08:31
1	Cu 324.752†	8059.5	8081.4	[0.00] ug/L	10:08:31
1	Fe 238.204 Radial†	13.7	13.7	[0.00] ug/L	10:07:29
1	K 766.490 Radial†	3438.5	3453.7	[0.00] ug/L	10:07:09
1	Mg 279.077 IEC†	2.0	2.0	[0.00] ug/L	10:07:29
1	Mn 257.610†	555.5	557.0	[0.00] ug/L	10:08:31
1	Mo 202.031†	22.3	22.3	[0.00] ug/L	10:08:51
1	Na 589.592 Radial†	-1748.6	-1756.4	[0.00] ug/L	10:07:09
1	Ni 231.604†	114.8	115.1	[0.00] ug/L	10:08:51
1	P 214.914†	248.4	249.1	[0.00] ug/L	10:08:51
1	Pb 220.353†	-93.7	-94.0	[0.00] ug/L	10:08:51
1	S 181.975 Axial†	53.6	53.8	[0.00] ug/L	10:08:51
1	Sb 206.836†	40.2	40.3	[0.00] ug/L	10:08:51
1	Se 196.026†	-36.2	-36.3	[0.00] ug/L	10:08:51
1	Si 251.611†	623.9	625.6	[0.00] ug/L	10:08:51
1	Sn 189.927†	3.5	3.5	[0.00] ug/L	10:08:51
1	Sr 421.552†	33.7	33.8	[0.00] ug/L	10:07:09
1	Ti 334.940†	-1810.6	-1815.5	[0.00] ug/L	10:08:31
1	Tl 190.801†	-47.9	-48.0	[0.00] ug/L	10:08:51
1	U 409.014†	-2556.5	-2563.4	[0.00] ug/L	10:08:26
1	V 292.402†	-1786.0	-1790.8	[0.00] ug/L	10:08:31
1	Zn 213.857†	844.0	846.3	[0.00] ug/L	10:08:51
1	SiO2†	616.3	618.0	[0.00] ug/L	10:09:57
2	Sc 361.383	888077.5	888077.5	100.17 %	10:08:56
2	Sc Radial	4701.9	4701.9	101 %	10:07:34
2	Y 371.029	762915.3	762915.3	100.15 %	10:08:56
2	Y RADIAL	4987.9	4987.9	101.1 %	10:07:34
2	Ag 328.068†	601.4	600.4	[0.00] ug/L	10:09:01
2	Al 396.153Radial†	-6.8	-6.8	[0.00] ug/L	10:07:34
2	As 188.979†	-32.7	-32.6	[0.00] ug/L	10:09:21
2	B 249.677†	-682.2	-681.0	[0.00] ug/L	10:09:01
2	Ba 233.527†	-2.0	-1.9	[0.00] ug/L	10:09:21
2	Be 313.107†	-4308.2	-4301.1	[0.00] ug/L	10:09:01
2	Ca 317.933Radial†	14.5	14.4	[0.00] ug/L	10:07:54
2	Cd 226.502†	-234.7	-234.3	[0.00] ug/L	10:09:21
2	Co 228.616†	-75.6	-75.4	[0.00] ug/L	10:09:21
2	Cr 267.716†	138.6	138.4	[0.00] ug/L	10:09:01
2	Cu 324.752†	7960.6	7947.4	[0.00] ug/L	10:09:01
2	Fe 238.204 Radial†	12.8	12.7	[0.00] ug/L	10:07:54
2	K 766.490 Radial†	3279.2	3255.3	[0.00] ug/L	10:07:34
2	Mg 279.077 IEC†	2.5	2.5	[0.00] ug/L	10:07:54
2	Mn 257.610†	504.7	503.9	[0.00] ug/L	10:09:01
2	Mo 202.031†	7.4	7.4	[0.00] ug/L	10:09:21
2	Na 589.592 Radial†	-1789.0	-1775.9	[0.00] ug/L	10:07:34
2	Ni 231.604†	139.5	139.3	[0.00] ug/L	10:09:21
2	P 214.914†	244.1	243.7	[0.00] ug/L	10:09:21
2	Pb 220.353†	-73.5	-73.4	[0.00] ug/L	10:09:21
2	S 181.975 Axial†	64.8	64.7	[0.00] ug/L	10:09:21
2	Sb 206.836†	33.6	33.5	[0.00] ug/L	10:09:21
2	Se 196.026†	-33.5	-33.5	[0.00] ug/L	10:09:21
2	Si 251.611†	597.2	596.2	[0.00] ug/L	10:09:21
2	Sn 189.927†	6.0	6.0	[0.00] ug/L	10:09:21
2	Sr 421.552†	25.1	24.9	[0.00] ug/L	10:07:34
2	Ti 334.940†	-1812.8	-1809.8	[0.00] ug/L	10:09:01
2	Tl 190.801†	-65.1	-65.0	[0.00] ug/L	10:09:21
2	U 409.014†	-2701.8	-2697.3	[0.00] ug/L	10:08:56
2	V 292.402†	-1773.9	-1771.0	[0.00] ug/L	10:09:01
2	Zn 213.857†	830.2	828.8	[0.00] ug/L	10:09:21
2	SiO2†	650.9	649.9	[0.00] ug/L	10:10:02
3	Sc 361.383	887546.5	887546.5	100.11 %	10:09:27
3	Sc Radial	4653.8	4653.8	99.7 %	10:07:59
3	Y 371.029	762209.6	762209.6	100.06 %	10:09:27
3	Y RADIAL	4922.5	4922.5	99.79 %	10:07:59

3	Ag 328.068†	552.4	551.9	[0.00] ug/L	10:09:32
3	Al 396.153Radial†	-37.3	-37.4	[0.00] ug/L	10:07:59
3	As 188.979†	-27.2	-27.2	[0.00] ug/L	10:09:52
3	B 249.677†	-693.6	-692.8	[0.00] ug/L	10:09:32
3	Ba 233.527†	6.0	6.0	[0.00] ug/L	10:09:52
3	Be 313.107†	-4367.1	-4362.5	[0.00] ug/L	10:09:32
3	Ca 317.933Radial†	13.0	13.1	[0.00] ug/L	10:08:19
3	Cd 226.502†	-247.2	-247.0	[0.00] ug/L	10:09:52
3	Co 228.616†	-94.0	-93.9	[0.00] ug/L	10:09:52
3	Cr 267.716†	44.2	44.1	[0.00] ug/L	10:09:32
3	Cu 324.752†	7976.6	7968.2	[0.00] ug/L	10:09:32
3	Fe 238.204 Radial†	15.1	15.2	[0.00] ug/L	10:08:19
3	K 766.490 Radial†	3291.4	3301.2	[0.00] ug/L	10:07:59
3	Mg 279.077 IEC†	0.4	0.4	[0.00] ug/L	10:08:19
3	Mn 257.610†	488.9	488.4	[0.00] ug/L	10:09:32
3	Mo 202.031†	30.1	30.1	[0.00] ug/L	10:09:52
3	Na 589.592 Radial†	-1712.9	-1718.0	[0.00] ug/L	10:07:59
3	Ni 231.604†	121.0	120.8	[0.00] ug/L	10:09:52
3	P 214.914†	253.1	252.8	[0.00] ug/L	10:09:52
3	Pb 220.353†	-66.0	-65.9	[0.00] ug/L	10:09:52
3	S 181.975 Axial†	61.3	61.2	[0.00] ug/L	10:09:52
3	Sb 206.836†	37.5	37.5	[0.00] ug/L	10:09:52
3	Se 196.026†	-30.1	-30.0	[0.00] ug/L	10:09:52
3	Si 251.611†	628.5	627.8	[0.00] ug/L	10:09:52
3	Sn 189.927†	0.7	0.7	[0.00] ug/L	10:09:52
3	Sr 421.552†	-10.8	-10.8	[0.00] ug/L	10:07:59
3	Ti 334.940†	-1828.6	-1826.7	[0.00] ug/L	10:09:32
3	Tl 190.801†	-47.3	-47.2	[0.00] ug/L	10:09:52
3	U 409.014†	-2748.3	-2745.4	[0.00] ug/L	10:09:27
3	V 292.402†	-1845.7	-1843.7	[0.00] ug/L	10:09:32
3	Zn 213.857†	820.8	820.0	[0.00] ug/L	10:09:52
3	SiO2†	640.9	640.3	[0.00] ug/L	10:10:07

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	886609.5	2099.64	0.24%	100.00 %
Sc Radial	4667.6	29.96	0.64%	100 %
Y 371.029	761756.6	1439.64	0.19%	100.00 %
Y RADIAL	4932.9	50.59	1.03%	100.0 %
Ag 328.068†	512.3	113.13	22.08%	[0.00] ug/L
Al 396.153Radial†	-26.7	17.27	64.64%	[0.00] ug/L
As 188.979†	-33.4	6.69	20.02%	[0.00] ug/L
B 249.677†	-665.8	37.00	5.56%	[0.00] ug/L
Ba 233.527†	7.5	10.31	137.44%	[0.00] ug/L
Be 313.107†	-4351.5	45.91	1.06%	[0.00] ug/L
Ca 317.933Radial†	12.6	2.15	17.15%	[0.00] ug/L
Cd 226.502†	-238.4	7.44	3.12%	[0.00] ug/L
Co 228.616†	-84.0	9.33	11.12%	[0.00] ug/L
Cr 267.716†	104.0	52.08	50.06%	[0.00] ug/L
Cu 324.752†	7999.0	72.12	0.90%	[0.00] ug/L
Fe 238.204 Radial†	13.9	1.22	8.80%	[0.00] ug/L
K 766.490 Radial†	3336.7	103.88	3.11%	[0.00] ug/L
Mg 279.077 IEC†	1.6	1.09	66.14%	[0.00] ug/L
Mn 257.610†	516.4	35.95	6.96%	[0.00] ug/L
Mo 202.031†	19.9	11.55	57.98%	[0.00] ug/L
Na 589.592 Radial†	-1750.1	29.46	1.68%	[0.00] ug/L
Ni 231.604†	125.1	12.63	10.10%	[0.00] ug/L
P 214.914†	248.6	4.57	1.84%	[0.00] ug/L
Pb 220.353†	-77.8	14.53	18.68%	[0.00] ug/L
S 181.975 Axial†	59.9	5.58	9.32%	[0.00] ug/L
Sb 206.836†	37.1	3.40	9.17%	[0.00] ug/L
Se 196.026†	-33.3	3.12	9.39%	[0.00] ug/L
Si 251.611†	616.6	17.63	2.86%	[0.00] ug/L
Sn 189.927†	3.4	2.63	77.27%	[0.00] ug/L
Sr 421.552†	16.0	23.64	147.88%	[0.00] ug/L
Ti 334.940†	-1817.4	8.59	0.47%	[0.00] ug/L
Tl 190.801†	-53.4	10.02	18.78%	[0.00] ug/L
U 409.014†	-2668.7	94.31	3.53%	[0.00] ug/L
V 292.402†	-1801.8	37.61	2.09%	[0.00] ug/L

Zn 213.857†	831.7	13.39	1.61%	[0.00] ug/L
SiO2†	636.0	16.37	2.57%	[0.00] ug/L

Sequence No.: 2

Sample ID: S0.1

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 1/6/2010 10:12:18

Data Type: Reprocessed on 1/6/2010 11:55:26

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	858980.9	858980.9	96.884 %	10:14:42
1	Sc Radial	4680.0	4680.0	100 %	10:14:15
1	Y 371.029	737496.5	737496.5	96.815 %	10:14:42
1	Y RADIAL	4959.7	4959.7	100.5 %	10:14:15
1	Ag 328.068†	23297.9	23534.9	[100] ug/L	10:14:42
1	As 188.979†	245.5	286.8	[100] ug/L	10:15:02
1	B 249.677†	3857.1	4647.0	[100] ug/L	10:14:42
1	Ba 233.527†	13535.2	13963.1	[100] ug/L	10:14:42
1	Be 313.107†	285272.4	298799.6	[100] ug/L	10:14:42
1	Cd 226.502†	9981.9	10541.4	[100] ug/L	10:15:02
1	Co 228.616†	5125.3	5374.1	[100] ug/L	10:15:02
1	Cr 267.716†	9927.5	10142.7	[100] ug/L	10:14:42
1	Cu 324.752†	40691.6	34001.4	[100] ug/L	10:14:42
1	K 766.490 Radial†	8407.9	5048.9	[1000] ug/L	10:14:10
1	Mn 257.610†	95334.8	97884.8	[100] ug/L	10:14:42
1	Mo 202.031†	1605.3	1637.0	[100] ug/L	10:15:02
1	Ni 231.604†	4633.5	4657.5	[100] ug/L	10:15:02
1	P 214.914†	1254.4	1046.2	[500] ug/L	10:15:02
1	Pb 220.353†	853.5	958.8	[100] ug/L	10:15:02
1	S 181.975 Axial†	233.2	180.8	[200] ug/L	10:15:02
1	Sb 206.836†	367.3	342.0	[100] ug/L	10:15:02
1	Se 196.026†	151.8	190.0	[100] ug/L	10:15:02
1	Si 251.611†	17526.4	17473.5	[500] ug/L	10:14:42
1	Sn 189.927†	662.1	680.0	[100] ug/L	10:15:02
1	Sr 421.552†	13727.0	13674.7	[100] ug/L	10:14:15
1	Ti 334.940†	60372.6	64131.8	[100] ug/L	10:14:42
1	Tl 190.801†	306.6	369.9	[100] ug/L	10:15:02
1	U 409.014†	488.3	3172.7	[100] ug/L	10:14:42
1	V 292.402†	13700.9	15943.5	[100] ug/L	10:14:42
1	Zn 213.857†	12421.0	11988.8	[100] ug/L	10:15:02
1	SiO2†	17631.3	17562.4	[1069.5] ug/L	10:15:58
2	Sc 361.383	855417.8	855417.8	96.482 %	10:15:07
2	Sc Radial	4654.0	4654.0	99.7 %	10:14:25
2	Y 371.029	735371.7	735371.7	96.536 %	10:15:07
2	Y RADIAL	4912.1	4912.1	99.58 %	10:14:25
2	Ag 328.068†	22993.6	23319.8	[100] ug/L	10:15:07
2	As 188.979†	244.4	286.7	[100] ug/L	10:15:27
2	B 249.677†	3820.7	4625.8	[100] ug/L	10:15:07
2	Ba 233.527†	13432.1	13914.4	[100] ug/L	10:15:07
2	Be 313.107†	283600.2	298292.9	[100] ug/L	10:15:07
2	Cd 226.502†	9983.4	10585.8	[100] ug/L	10:15:27
2	Co 228.616†	5125.5	5396.4	[100] ug/L	10:15:27
2	Cr 267.716†	9891.3	10148.0	[100] ug/L	10:15:07
2	Cu 324.752†	40378.4	33851.7	[100] ug/L	10:15:07
2	K 766.490 Radial†	8231.9	4919.2	[1000] ug/L	10:14:20
2	Mn 257.610†	94787.7	97727.6	[100] ug/L	10:15:07
2	Mo 202.031†	1588.4	1626.4	[100] ug/L	10:15:27
2	Ni 231.604†	4613.6	4656.7	[100] ug/L	10:15:27
2	P 214.914†	1234.6	1031.1	[500] ug/L	10:15:27
2	Pb 220.353†	854.4	963.3	[100] ug/L	10:15:27
2	S 181.975 Axial†	222.7	170.9	[200] ug/L	10:15:27
2	Sb 206.836†	368.9	345.2	[100] ug/L	10:15:27
2	Se 196.026†	149.3	188.0	[100] ug/L	10:15:27
2	Si 251.611†	17335.2	17350.7	[500] ug/L	10:15:07
2	Sn 189.927†	671.0	692.0	[100] ug/L	10:15:27
2	Sr 421.552†	13682.9	13706.8	[100] ug/L	10:14:25
2	Ti 334.940†	60014.8	64020.5	[100] ug/L	10:15:07
2	Tl 190.801†	307.2	371.8	[100] ug/L	10:15:27

2	U 409.014†	295.8	2975.3	[100]	ug/L	10:15:07
2	V 292.402†	13528.2	15823.3	[100]	ug/L	10:15:07
2	Zn 213.857†	12466.1	12089.0	[100]	ug/L	10:15:27
2	SiO2†	17384.6	17382.5	[1069.5]	ug/L	10:16:03
3	Sc 361.383	859958.1	859958.1	96.994	%	10:15:33
3	Sc Radial	4766.0	4766.0	102	%	10:14:35
3	Y 371.029	739304.7	739304.7	97.053	%	10:15:33
3	Y RADIAL	5003.2	5003.2	101.4	%	10:14:35
3	Ag 328.068†	23212.3	23419.4	[100]	ug/L	10:15:33
3	As 188.979†	253.6	294.9	[100]	ug/L	10:15:53
3	B 249.677†	3961.8	4750.4	[100]	ug/L	10:15:33
3	Ba 233.527†	13535.7	13947.7	[100]	ug/L	10:15:33
3	Be 313.107†	285383.3	298579.3	[100]	ug/L	10:15:33
3	Cd 226.502†	9988.9	10536.8	[100]	ug/L	10:15:53
3	Co 228.616†	5127.3	5370.2	[100]	ug/L	10:15:53
3	Cr 267.716†	9938.8	10142.8	[100]	ug/L	10:15:33
3	Cu 324.752†	40815.8	34081.7	[100]	ug/L	10:15:33
3	K 766.490 Radial†	8372.8	4863.1	[1000]	ug/L	10:14:30
3	Mn 257.610†	95438.6	97880.0	[100]	ug/L	10:15:33
3	Mo 202.031†	1597.4	1627.0	[100]	ug/L	10:15:53
3	Ni 231.604†	4590.6	4607.8	[100]	ug/L	10:15:53
3	P 214.914†	1236.1	1025.8	[500]	ug/L	10:15:53
3	Pb 220.353†	853.0	957.2	[100]	ug/L	10:15:53
3	S 181.975 Axial†	215.4	162.1	[200]	ug/L	10:15:53
3	Sb 206.836†	363.9	338.1	[100]	ug/L	10:15:53
3	Se 196.026†	147.6	185.4	[100]	ug/L	10:15:53
3	Si 251.611†	17460.2	17384.8	[500]	ug/L	10:15:33
3	Sn 189.927†	668.8	686.1	[100]	ug/L	10:15:53
3	Sr 421.552†	13921.0	13617.4	[100]	ug/L	10:14:35
3	Ti 334.940†	60486.7	64178.6	[100]	ug/L	10:15:33
3	Tl 190.801†	311.4	374.4	[100]	ug/L	10:15:53
3	U 409.014†	310.2	2988.5	[100]	ug/L	10:15:33
3	V 292.402†	13652.1	15877.1	[100]	ug/L	10:15:33
3	Zn 213.857†	12472.9	12027.8	[100]	ug/L	10:15:53
3	SiO2†	17487.2	17393.2	[1069.5]	ug/L	10:16:08

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	858118.9	2389.74	0.28%	96.787	%
Sc Radial	4700.0	58.64	1.25%	101	%
Y 371.029	737391.0	1968.61	0.27%	96.801	%
Y RADIAL	4958.3	45.59	0.92%	100.5	%
Ag 328.068†	23424.7	107.68	0.46%	[100]	ug/L
As 188.979†	289.5	4.67	1.61%	[100]	ug/L
B 249.677†	4674.4	66.66	1.43%	[100]	ug/L
Ba 233.527†	13941.7	24.90	0.18%	[100]	ug/L
Be 313.107†	298557.2	254.08	0.09%	[100]	ug/L
Cd 226.502†	10554.7	27.08	0.26%	[100]	ug/L
Co 228.616†	5380.2	14.13	0.26%	[100]	ug/L
Cr 267.716†	10144.5	2.99	0.03%	[100]	ug/L
Cu 324.752†	33978.3	116.72	0.34%	[100]	ug/L
K 766.490 Radial†	4943.7	95.30	1.93%	[1000]	ug/L
Mn 257.610†	97830.8	89.39	0.09%	[100]	ug/L
Mo 202.031†	1630.1	5.97	0.37%	[100]	ug/L
Ni 231.604†	4640.7	28.47	0.61%	[100]	ug/L
P 214.914†	1034.4	10.58	1.02%	[500]	ug/L
Pb 220.353†	959.8	3.20	0.33%	[100]	ug/L
S 181.975 Axial†	171.3	9.35	5.46%	[200]	ug/L
Sb 206.836†	341.8	3.59	1.05%	[100]	ug/L
Se 196.026†	187.8	2.27	1.21%	[100]	ug/L
Si 251.611†	17403.0	63.40	0.36%	[500]	ug/L
Sn 189.927†	686.0	6.02	0.88%	[100]	ug/L
Sr 421.552†	13666.3	45.28	0.33%	[100]	ug/L
Ti 334.940†	64110.3	81.19	0.13%	[100]	ug/L
Tl 190.801†	372.0	2.28	0.61%	[100]	ug/L
U 409.014†	3045.5	110.39	3.62%	[100]	ug/L
V 292.402†	15881.3	60.18	0.38%	[100]	ug/L
Zn 213.857†	12035.2	50.50	0.42%	[100]	ug/L
SiO2†	17446.0	100.94	0.58%	[1069.5]	ug/L

Sequence No.: 3

Sample ID: S0.5

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 1/6/2010 10:18:19

Data Type: Reprocessed on 1/6/2010 11:55:28

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc 361.383	883512.7	883512.7	99.651 %		10:21:31
1	Sc Radial	4601.8	4601.8	98.6 %		10:20:12
1	Y 371.029	752079.9	752079.9	98.730 %		10:21:31
1	Y RADIAL	4817.5	4817.5	97.66 %		10:20:12
1	Ag 328.068†	114385.8	114274.4	[500] ug/L		10:21:31
1	Al 396.153Radial†	5563.1	5669.3	[5000] ug/L		10:20:12
1	As 188.979†	1380.3	1418.6	[500] ug/L		10:21:51
1	B 249.677†	22915.8	23661.9	[500] ug/L		10:21:31
1	Ba 233.527†	67394.6	67623.3	[500] ug/L		10:21:31
1	Be 313.107†	1463962.1	1473445.0	[500] ug/L		10:21:31
1	Ca 317.933Radial†	3026.4	3057.1	[5000] ug/L		10:20:32
1	Cd 226.502†	52091.1	52512.1	[500] ug/L		10:21:31
1	Co 228.616†	25883.0	26057.7	[500] ug/L		10:21:51
1	Cr 267.716†	49100.1	49168.1	[500] ug/L		10:21:31
1	Cu 324.752†	173485.5	166094.6	[500] ug/L		10:21:31
1	K 766.490 Radial†	28039.4	25103.4	[5000] ug/L		10:20:12
1	Mg 279.077 IEC†	160.2	160.9	[5000] ug/L		10:20:32
1	Mn 257.610†	471058.4	472193.1	[500] ug/L		10:21:31
1	Mo 202.031†	7928.7	7936.5	[500] ug/L		10:21:51
1	Ni 231.604†	22462.4	22416.0	[500] ug/L		10:21:51
1	P 214.914†	5312.3	5082.3	[2500] ug/L		10:21:51
1	Pb 220.353†	4719.2	4813.5	[500] ug/L		10:21:51
1	S 181.975 Axial†	934.0	877.4	[1000] ug/L		10:21:51
1	Sb 206.836†	1674.2	1643.0	[500] ug/L		10:21:51
1	Se 196.026†	933.0	969.5	[500] ug/L		10:21:51
1	Si 251.611†	86137.1	85822.4	[2500] ug/L		10:21:31
1	Sn 189.927†	3339.3	3347.7	[500] ug/L		10:21:51
1	Sr 421.552†	68394.0	69355.4	[500] ug/L		10:20:12
1	Ti 334.940†	312108.2	315019.5	[500] ug/L		10:21:31
1	Tl 190.801†	1747.5	1807.0	[500] ug/L		10:21:51
1	U 409.014†	13304.8	16020.2	[500] ug/L		10:21:31
1	V 292.402†	76303.3	78372.6	[500] ug/L		10:21:31
1	Zn 213.857†	60967.6	60349.6	[500] ug/L		10:21:31
1	SiO2†	86414.0	86080.9	[5347.5] ug/L		10:22:51
2	Sc 361.383	887225.8	887225.8	100.07 %		10:21:58
2	Sc Radial	4740.4	4740.4	102 %		10:20:37
2	Y 371.029	754809.6	754809.6	99.088 %		10:21:58
2	Y RADIAL	4960.4	4960.4	100.6 %		10:20:37
2	Ag 328.068†	115157.8	114565.5	[500] ug/L		10:21:58
2	Al 396.153Radial†	5682.9	5622.3	[5000] ug/L		10:20:37
2	As 188.979†	1369.6	1402.0	[500] ug/L		10:22:18
2	B 249.677†	23171.9	23821.6	[500] ug/L		10:21:58
2	Ba 233.527†	67955.3	67900.6	[500] ug/L		10:21:58
2	Be 313.107†	1474743.7	1478070.7	[500] ug/L		10:21:58
2	Ca 317.933Radial†	3029.9	2970.9	[5000] ug/L		10:20:57
2	Cd 226.502†	52500.4	52702.3	[500] ug/L		10:21:58
2	Co 228.616†	25759.0	25825.1	[500] ug/L		10:22:18
2	Cr 267.716†	49400.6	49262.3	[500] ug/L		10:21:58
2	Cu 324.752†	174589.1	166468.8	[500] ug/L		10:21:58
2	K 766.490 Radial†	28831.9	25052.4	[5000] ug/L		10:20:37
2	Mg 279.077 IEC†	165.0	160.9	[5000] ug/L		10:20:57
2	Mn 257.610†	474451.9	473605.9	[500] ug/L		10:21:58
2	Mo 202.031†	7868.6	7843.2	[500] ug/L		10:22:18
2	Ni 231.604†	22362.2	22221.6	[500] ug/L		10:22:18
2	P 214.914†	5271.4	5019.2	[2500] ug/L		10:22:18
2	Pb 220.353†	4679.9	4754.4	[500] ug/L		10:22:18
2	S 181.975 Axial†	927.7	867.1	[1000] ug/L		10:22:18
2	Sb 206.836†	1664.7	1626.5	[500] ug/L		10:22:18

2	Se 196.026†	938.7	971.3	[500]	ug/L	10:22:18
2	Si 251.611†	86879.3	86202.4	[2500]	ug/L	10:21:58
2	Sn 189.927†	3327.1	3321.4	[500]	ug/L	10:22:18
2	Sr 421.552†	70252.9	69158.0	[500]	ug/L	10:20:37
2	Ti 334.940†	313954.4	315553.7	[500]	ug/L	10:21:58
2	Tl 190.801†	1748.5	1800.6	[500]	ug/L	10:22:18
2	U 409.014†	13260.1	15919.6	[500]	ug/L	10:21:58
2	V 292.402†	76752.0	78500.6	[500]	ug/L	10:21:58
2	Zn 213.857†	61417.5	60543.2	[500]	ug/L	10:21:58
2	SiO2†	85934.5	85238.8	[5347.5]	ug/L	10:22:56
3	Sc 361.383	884330.4	884330.4	99.743	%	10:22:26
3	Sc Radial	4562.7	4562.7	97.8	%	10:21:02
3	Y 371.029	752217.8	752217.8	98.748	%	10:22:26
3	Y RADIAL	4788.6	4788.6	97.07	%	10:21:02
3	Ag 328.068†	114779.6	114563.1	[500]	ug/L	10:22:26
3	Al 396.153Radial†	5525.6	5679.3	[5000]	ug/L	10:21:02
3	As 188.979†	1366.0	1403.0	[500]	ug/L	10:22:46
3	B 249.677†	22910.0	23634.9	[500]	ug/L	10:22:26
3	Ba 233.527†	67647.5	67814.4	[500]	ug/L	10:22:26
3	Be 313.107†	1467958.9	1476093.6	[500]	ug/L	10:22:26
3	Ca 317.933Radial†	3015.8	3072.5	[5000]	ug/L	10:21:22
3	Cd 226.502†	52364.8	52738.1	[500]	ug/L	10:22:26
3	Co 228.616†	25760.2	25910.5	[500]	ug/L	10:22:46
3	Cr 267.716†	49276.5	49299.5	[500]	ug/L	10:22:26
3	Cu 324.752†	173800.1	166249.0	[500]	ug/L	10:22:26
3	K 766.490 Radial†	28001.8	25308.7	[5000]	ug/L	10:21:02
3	Mg 279.077 IEC†	162.2	164.3	[5000]	ug/L	10:21:22
3	Mn 257.610†	472600.3	473301.9	[500]	ug/L	10:22:26
3	Mo 202.031†	7885.0	7885.4	[500]	ug/L	10:22:46
3	Ni 231.604†	22342.5	22275.0	[500]	ug/L	10:22:46
3	P 214.914†	5269.3	5034.3	[2500]	ug/L	10:22:46
3	Pb 220.353†	4660.7	4750.4	[500]	ug/L	10:22:46
3	S 181.975 Axial†	923.8	866.3	[1000]	ug/L	10:22:46
3	Sb 206.836†	1679.2	1646.4	[500]	ug/L	10:22:46
3	Se 196.026†	930.9	966.5	[500]	ug/L	10:22:46
3	Si 251.611†	86364.9	85970.9	[2500]	ug/L	10:22:26
3	Sn 189.927†	3331.4	3336.5	[500]	ug/L	10:22:46
3	Sr 421.552†	68237.4	69789.8	[500]	ug/L	10:21:02
3	Ti 334.940†	312680.8	315304.0	[500]	ug/L	10:22:26
3	Tl 190.801†	1748.9	1806.8	[500]	ug/L	10:22:46
3	U 409.014†	13013.2	15715.4	[500]	ug/L	10:22:26
3	V 292.402†	76468.7	78467.6	[500]	ug/L	10:22:26
3	Zn 213.857†	61087.2	60413.0	[500]	ug/L	10:22:26
3	SiO2†	86458.6	86045.4	[5347.5]	ug/L	10:23:02

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	885023.0	1951.07	0.22%	99.821	%
Sc Radial	4635.0	93.36	2.01%	99.3	%
Y 371.029	753035.8	1537.71	0.20%	98.855	%
Y RADIAL	4855.5	92.01	1.89%	98.43	%
Ag 328.068†	114467.6	167.37	0.15%	[500]	ug/L
Al 396.153Radial†	5657.0	30.41	0.54%	[5000]	ug/L
As 188.979†	1407.9	9.28	0.66%	[500]	ug/L
B 249.677†	23706.2	100.93	0.43%	[500]	ug/L
Ba 233.527†	67779.4	141.90	0.21%	[500]	ug/L
Be 313.107†	1475869.8	2320.96	0.16%	[500]	ug/L
Ca 317.933Radial†	3033.5	54.79	1.81%	[5000]	ug/L
Cd 226.502†	52650.8	121.47	0.23%	[500]	ug/L
Co 228.616†	25931.1	117.66	0.45%	[500]	ug/L
Cr 267.716†	49243.3	67.70	0.14%	[500]	ug/L
Cu 324.752†	166270.8	188.05	0.11%	[500]	ug/L
K 766.490 Radial†	25154.8	135.66	0.54%	[5000]	ug/L
Mg 279.077 IEC†	162.0	1.99	1.23%	[5000]	ug/L
Mn 257.610†	473033.6	743.59	0.16%	[500]	ug/L
Mo 202.031†	7888.4	46.74	0.59%	[500]	ug/L
Ni 231.604†	22304.2	100.46	0.45%	[500]	ug/L
P 214.914†	5045.3	32.96	0.65%	[2500]	ug/L
Pb 220.353†	4772.8	35.35	0.74%	[500]	ug/L

S 181.975 Axial†	870.3	6.18	0.71%	[1000]	ug/L
Sb 206.836†	1638.6	10.67	0.65%	[500]	ug/L
Se 196.026†	969.1	2.40	0.25%	[500]	ug/L
Si 251.611†	85998.6	191.49	0.22%	[2500]	ug/L
Sn 189.927†	3335.2	13.17	0.39%	[500]	ug/L
Sr 421.552†	69434.4	323.18	0.47%	[500]	ug/L
Ti 334.940†	315292.4	267.26	0.08%	[500]	ug/L
Tl 190.801†	1804.8	3.61	0.20%	[500]	ug/L
U 409.014†	15885.1	155.29	0.98%	[500]	ug/L
V 292.402†	78446.9	66.45	0.08%	[500]	ug/L
Zn 213.857†	60435.3	98.69	0.16%	[500]	ug/L
SiO2†	85788.4	476.26	0.56%	[5347.5]	ug/L

Sequence No.: 4
 Sample ID: SCAL
 Analyst:
 Logged In Analyst (Original) : Optima3
 Initial Sample Wt:
 Dilution:

Autosampler Location: 4
 Date Collected: 1/6/2010 10:25:12
 Data Type: Reprocessed on 1/6/2010 11:55:29
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	854575.1	854575.1	96.387 %	10:28:28
1	Sc Radial	4579.0	4579.0	98.1 %	10:27:25
1	Y 371.029	728537.8	728537.8	95.639 %	10:28:28
1	Y RADIAL	4758.3	4758.3	96.46 %	10:27:25
1	Ag 328.068†	225908.9	233865.0	[1000] ug/L	10:28:28
1	Al 396.153Radial†	10920.1	11158.0	[10000] ug/L	10:27:05
1	As 188.979†	2738.1	2874.1	[1000] ug/L	10:28:49
1	B 249.677†	46350.1	48753.4	[1000] ug/L	10:28:28
1	Ba 233.527†	132639.6	137604.2	[1000] ug/L	10:28:28
1	Be 313.107†	2851071.1	2962297.1	[1000] ug/L	10:28:23
1	Ca 317.933Radial†	5910.2	6011.9	[10000] ug/L	10:27:25
1	Cd 226.502†	102524.3	106605.9	[1000] ug/L	10:28:28
1	Co 228.616†	51547.3	53563.6	[1000] ug/L	10:28:28
1	Cr 267.716†	96715.8	100237.2	[1000] ug/L	10:28:28
1	Cu 324.752†	334819.6	339371.6	[1000] ug/L	10:28:28
1	Fe 238.204 Radial†	1132.1	1140.1	[10000] ug/L	10:27:25
1	K 766.490 Radial†	52192.2	49864.5	[10000] ug/L	10:27:05
1	Mg 279.077 IEC†	320.5	325.0	[10000] ug/L	10:27:25
1	Mn 257.610†	916466.8	950304.8	[1000] ug/L	10:28:23
1	Mo 202.031†	15444.9	16003.9	[1000] ug/L	10:28:49
1	Na 589.592 Radial†	30756.6	33101.3	[10000] ug/L	10:27:05
1	Ni 231.604†	44283.7	45818.7	[1000] ug/L	10:28:28
1	P 214.914†	10191.8	10325.2	[5000] ug/L	10:28:49
1	Pb 220.353†	9273.6	9699.0	[1000] ug/L	10:28:49
1	S 181.975 Axial†	1777.1	1783.8	[2000] ug/L	10:28:49
1	Sb 206.836†	3289.2	3375.4	[1000] ug/L	10:28:49
1	Se 196.026†	1867.2	1970.5	[1000] ug/L	10:28:49
1	Si 251.611†	169164.9	174889.6	[5000] ug/L	10:28:28
1	Sn 189.927†	6538.0	6779.7	[1000] ug/L	10:28:49
1	Sr 421.552†	132173.6	134713.1	[1000] ug/L	10:27:05
1	Ti 334.940†	605418.2	629930.1	[1000] ug/L	10:28:28
1	Tl 190.801†	3494.5	3678.9	[1000] ug/L	10:28:49
1	U 409.014†	30337.2	34143.1	[1000] ug/L	10:28:28
1	V 292.402†	152445.1	159961.5	[1000] ug/L	10:28:28
1	Zn 213.857†	118494.0	122104.1	[1000] ug/L	10:28:28
1	SiO2†	169704.7	175430.1	[10695] ug/L	10:29:57
2	Sc 361.383	858196.3	858196.3	96.795 %	10:29:00
2	Sc Radial	4524.0	4524.0	96.9 %	10:27:50
2	Y 371.029	732256.6	732256.6	96.127 %	10:29:00
2	Y RADIAL	4715.6	4715.6	95.59 %	10:27:50
2	Ag 328.068†	226859.1	233857.6	[1000] ug/L	10:29:00
2	Al 396.153Radial†	10942.0	11316.0	[10000] ug/L	10:27:30
2	As 188.979†	2707.6	2830.6	[1000] ug/L	10:29:20
2	B 249.677†	46591.3	48799.7	[1000] ug/L	10:29:00
2	Ba 233.527†	133100.4	137499.6	[1000] ug/L	10:29:00
2	Be 313.107†	2844083.0	2942596.8	[1000] ug/L	10:28:54
2	Ca 317.933Radial†	5868.1	6041.8	[10000] ug/L	10:27:50
2	Cd 226.502†	102682.4	106320.4	[1000] ug/L	10:29:00
2	Co 228.616†	51719.3	53515.6	[1000] ug/L	10:29:00
2	Cr 267.716†	96914.5	100019.1	[1000] ug/L	10:29:00
2	Cu 324.752†	336569.7	339713.9	[1000] ug/L	10:29:00
2	Fe 238.204 Radial†	1122.1	1143.9	[10000] ug/L	10:27:50
2	K 766.490 Radial†	52429.8	50757.1	[10000] ug/L	10:27:30
2	Mg 279.077 IEC†	314.1	322.4	[10000] ug/L	10:27:50
2	Mn 257.610†	914632.9	944398.2	[1000] ug/L	10:28:54
2	Mo 202.031†	15333.9	15821.6	[1000] ug/L	10:29:20
2	Na 589.592 Radial†	30925.2	33656.9	[10000] ug/L	10:27:30
2	Ni 231.604†	44461.0	45808.0	[1000] ug/L	10:29:00

2	P 214.914†	10085.9	10171.2	[5000]	ug/L	10:29:20
2	Pb 220.353†	9186.3	9568.2	[1000]	ug/L	10:29:20
2	S 181.975 Axial†	1757.9	1756.2	[2000]	ug/L	10:29:20
2	Sb 206.836†	3244.2	3314.5	[1000]	ug/L	10:29:20
2	Se 196.026†	1837.0	1931.0	[1000]	ug/L	10:29:20
2	Si 251.611†	170090.1	175104.9	[5000]	ug/L	10:29:00
2	Sn 189.927†	6497.8	6709.5	[1000]	ug/L	10:29:20
2	Sr 421.552†	132770.8	136968.8	[1000]	ug/L	10:27:30
2	Ti 334.940†	608846.1	630821.2	[1000]	ug/L	10:29:00
2	Tl 190.801†	3461.5	3629.5	[1000]	ug/L	10:29:20
2	U 409.014†	30543.7	34223.7	[1000]	ug/L	10:29:00
2	V 292.402†	152968.7	159835.0	[1000]	ug/L	10:29:00
2	Zn 213.857†	118722.7	121821.7	[1000]	ug/L	10:29:00
2	SiO2†	170248.2	175248.8	[10695]	ug/L	10:30:02
3	Sc 361.383	848819.7	848819.7	95.738	%	10:29:32
3	Sc Radial	4499.1	4499.1	96.4	%	10:28:16
3	Y 371.029	724197.9	724197.9	95.069	%	10:29:32
3	Y RADIAL	4687.7	4687.7	95.03	%	10:28:16
3	Ag 328.068†	224046.8	233509.2	[1000]	ug/L	10:29:32
3	Al 396.153Radial†	10912.2	11347.6	[10000]	ug/L	10:27:56
3	As 188.979†	2741.3	2896.8	[1000]	ug/L	10:29:52
3	B 249.677†	46090.8	48808.7	[1000]	ug/L	10:29:32
3	Ba 233.527†	131592.1	137443.1	[1000]	ug/L	10:29:32
3	Be 313.107†	2844415.3	2975401.5	[1000]	ug/L	10:29:26
3	Ca 317.933Radial†	5826.7	6032.3	[10000]	ug/L	10:28:16
3	Cd 226.502†	101521.4	106279.5	[1000]	ug/L	10:29:32
3	Co 228.616†	51116.9	53476.7	[1000]	ug/L	10:29:32
3	Cr 267.716†	95939.3	100106.5	[1000]	ug/L	10:29:32
3	Cu 324.752†	331317.2	338068.6	[1000]	ug/L	10:29:32
3	Fe 238.204 Radial†	1112.8	1140.6	[10000]	ug/L	10:28:16
3	K 766.490 Radial†	51979.0	50588.9	[10000]	ug/L	10:27:56
3	Mg 279.077 IEC†	309.4	319.3	[10000]	ug/L	10:28:16
3	Mn 257.610†	913765.8	953930.6	[1000]	ug/L	10:29:26
3	Mo 202.031†	15519.8	16190.8	[1000]	ug/L	10:29:52
3	Na 589.592 Radial†	30476.4	33367.8	[10000]	ug/L	10:27:56
3	Ni 231.604†	43886.2	45715.0	[1000]	ug/L	10:29:32
3	P 214.914†	10188.8	10393.9	[5000]	ug/L	10:29:52
3	Pb 220.353†	9282.8	9773.9	[1000]	ug/L	10:29:52
3	S 181.975 Axial†	1773.5	1792.6	[2000]	ug/L	10:29:52
3	Sb 206.836†	3297.2	3406.9	[1000]	ug/L	10:29:52
3	Se 196.026†	1859.1	1975.1	[1000]	ug/L	10:29:52
3	Si 251.611†	167775.3	174628.2	[5000]	ug/L	10:29:32
3	Sn 189.927†	6568.9	6858.0	[1000]	ug/L	10:29:52
3	Sr 421.552†	131436.1	136342.3	[1000]	ug/L	10:27:56
3	Ti 334.940†	600971.6	629544.5	[1000]	ug/L	10:29:32
3	Tl 190.801†	3500.4	3709.6	[1000]	ug/L	10:29:52
3	U 409.014†	30036.8	34042.8	[1000]	ug/L	10:29:32
3	V 292.402†	151366.7	159907.4	[1000]	ug/L	10:29:32
3	Zn 213.857†	117155.4	121539.5	[1000]	ug/L	10:29:32
3	SiO2†	167148.2	173953.7	[10695]	ug/L	10:30:08

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	853863.7	4728.60	0.55%	96.307 %
Sc Radial	4534.0	40.91	0.90%	97.1 %
Y 371.029	728330.8	4033.35	0.55%	95.612 %
Y RADIAL	4720.6	35.55	0.75%	95.70 %
Ag 328.068†	233743.9	203.34	0.09%	[1000] ug/L
Al 396.153Radial†	11273.9	101.59	0.90%	[10000] ug/L
As 188.979†	2867.2	33.62	1.17%	[1000] ug/L
B 249.677†	48787.3	29.65	0.06%	[1000] ug/L
Ba 233.527†	137515.6	81.75	0.06%	[1000] ug/L
Be 313.107†	2960098.5	16512.52	0.56%	[1000] ug/L
Ca 317.933Radial†	6028.6	15.28	0.25%	[10000] ug/L
Cd 226.502†	106401.9	177.79	0.17%	[1000] ug/L
Co 228.616†	53518.6	43.54	0.08%	[1000] ug/L
Cr 267.716†	100120.9	109.77	0.11%	[1000] ug/L
Cu 324.752†	339051.3	868.12	0.26%	[1000] ug/L
Fe 238.204 Radial†	1141.5	2.02	0.18%	[10000] ug/L

K 766.490 Radial†	50403.5	474.29	0.94%	[10000]	ug/L
Mg 279.077 IEC†	322.3	2.85	0.88%	[10000]	ug/L
Mn 257.610†	949544.6	4811.46	0.51%	[1000]	ug/L
Mo 202.031†	16005.4	184.60	1.15%	[1000]	ug/L
Na 589.592 Radial†	33375.3	277.85	0.83%	[10000]	ug/L
Ni 231.604†	45780.5	57.00	0.12%	[1000]	ug/L
P 214.914†	10296.8	114.02	1.11%	[5000]	ug/L
Pb 220.353†	9680.4	104.09	1.08%	[1000]	ug/L
S 181.975 Axial†	1777.5	19.00	1.07%	[2000]	ug/L
Sb 206.836†	3365.6	46.99	1.40%	[1000]	ug/L
Se 196.026†	1958.9	24.22	1.24%	[1000]	ug/L
Si 251.611†	174874.3	238.73	0.14%	[5000]	ug/L
Sn 189.927†	6782.4	74.28	1.10%	[1000]	ug/L
Sr 421.552†	136008.0	1164.39	0.86%	[1000]	ug/L
Ti 334.940†	630098.6	654.84	0.10%	[1000]	ug/L
Tl 190.801†	3672.7	40.46	1.10%	[1000]	ug/L
U 409.014†	34136.5	90.64	0.27%	[1000]	ug/L
V 292.402†	159901.3	63.47	0.04%	[1000]	ug/L
Zn 213.857†	121821.8	282.30	0.23%	[1000]	ug/L
SiO2†	174877.5	805.17	0.46%	[10695]	ug/L

Sequence No.: 5

Sample ID: S10

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 1/6/2010 10:32:18

Data Type: Reprocessed on 1/6/2010 11:55:30

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	861751.7	861751.7	97.196 %	10:35:29
1	Sc Radial	4571.4	4571.4	97.9 %	10:34:32
1	Y 371.029	729816.8	729816.8	95.807 %	10:35:29
1	Y RADIAL	4793.7	4793.7	97.18 %	10:34:32
1	Al 396.153Radial†	54896.5	56078.0	[50000] ug/L	10:34:12
1	Ca 317.933Radial†	29031.6	29629.7	[50000] ug/L	10:34:12
1	Fe 238.204 Radial†	2245.0	2278.4	[20000] ug/L	10:34:32
1	Mg 279.077 IEC†	1543.0	1573.8	[50000] ug/L	10:34:32
1	Na 589.592 Radial†	62736.0	65805.8	[20000] ug/L	10:34:12
2	Sc 361.383	845745.1	845745.1	95.391 %	10:35:34
2	Sc Radial	4549.2	4549.2	97.5 %	10:34:57
2	Y 371.029	716040.3	716040.3	93.999 %	10:35:34
2	Y RADIAL	4774.2	4774.2	96.78 %	10:34:57
2	Al 396.153Radial†	54557.8	56003.9	[50000] ug/L	10:34:37
2	Ca 317.933Radial†	28909.0	29648.5	[50000] ug/L	10:34:37
2	Fe 238.204 Radial†	2233.3	2277.5	[20000] ug/L	10:34:57
2	Mg 279.077 IEC†	1522.9	1560.9	[50000] ug/L	10:34:57
2	Na 589.592 Radial†	62157.3	65524.6	[20000] ug/L	10:34:37
3	Sc 361.383	859471.0	859471.0	96.939 %	10:35:40
3	Sc Radial	4549.1	4549.1	97.5 %	10:35:22
3	Y 371.029	728245.3	728245.3	95.601 %	10:35:40
3	Y RADIAL	4768.4	4768.4	96.66 %	10:35:22
3	Al 396.153Radial†	55563.5	57036.8	[50000] ug/L	10:35:02
3	Ca 317.933Radial†	29433.3	30187.0	[50000] ug/L	10:35:02
3	Fe 238.204 Radial†	2223.3	2267.3	[20000] ug/L	10:35:22
3	Mg 279.077 IEC†	1511.5	1549.2	[50000] ug/L	10:35:22
3	Na 589.592 Radial†	63482.8	66885.7	[20000] ug/L	10:35:02

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	855655.9	8658.47	1.01%	96.509 %
Sc Radial	4556.6	12.84	0.28%	97.6 %
Y 371.029	724700.8	7541.27	1.04%	95.135 %
Y RADIAL	4778.7	13.24	0.28%	96.87 %
Al 396.153Radial†	56372.9	576.17	1.02%	[50000] ug/L
Ca 317.933Radial†	29821.8	316.47	1.06%	[50000] ug/L
Fe 238.204 Radial†	2274.4	6.14	0.27%	[20000] ug/L
Mg 279.077 IEC†	1561.3	12.27	0.79%	[50000] ug/L
Na 589.592 Radial†	66072.1	718.58	1.09%	[20000] ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	232.8	0.00000	0.999966	
Al 396.153Radial	3	Lin Thru 0	0.0	1.127	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	2.857	0.00000	0.999974	
B 249.677	3	Lin Thru 0	0.0	48.50	0.00000	0.999931	
Ba 233.527	3	Lin Thru 0	0.0	137.1	0.00000	0.999983	
Be 313.107	3	Lin Thru 0	0.0	2959	0.00000	0.999999	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5968	0.00000	0.999997	
Cd 226.502	3	Lin Thru 0	0.0	106.2	0.00000	0.999991	
Co 228.616	3	Lin Thru 0	0.0	53.19	0.00000	0.999923	
Cr 267.716	3	Lin Thru 0	0.0	99.81	0.00000	0.999978	
Cu 324.752	3	Lin Thru 0	0.0	337.8	0.00000	0.999970	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1138	0.00000	0.999999	

K 766.490 Radial	3	Lin Thru 0	0.0	5.038	0.00000	0.999998
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0313	0.00000	0.999975
Mn 257.610	3	Lin Thru 0	0.0	949.1	0.00000	0.999995
Mo 202.031	3	Lin Thru 0	0.0	15.96	0.00000	0.999982
Na 589.592 Radia	2	Lin Thru 0	0.0	3.310	0.00000	0.999992
Ni 231.604	3	Lin Thru 0	0.0	45.55	0.00000	0.999946
P 214.914	3	Lin Thru 0	0.0	2.051	0.00000	0.999968
Pb 220.353	3	Lin Thru 0	0.0	9.653	0.00000	0.999984
S 181.975 Axial	3	Lin Thru 0	0.0	0.8848	0.00000	0.999961
Sb 206.836	3	Lin Thru 0	0.0	3.348	0.00000	0.999943
Se 196.026	3	Lin Thru 0	0.0	1.954	0.00000	0.999985
Si 251.611	3	Lin Thru 0	0.0	34.86	0.00000	0.999978
Sn 189.927	3	Lin Thru 0	0.0	6.761	0.00000	0.999977
Sr 421.552	3	Lin Thru 0	0.0	136.6	0.00000	0.999965
Ti 334.940	3	Lin Thru 0	0.0	630.3	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	3.661	0.00000	0.999975
U 409.014	3	Lin Thru 0	0.0	33.64	0.00000	0.999572
V 292.402	3	Lin Thru 0	0.0	159.3	0.00000	0.999972
Zn 213.857	3	Lin Thru 0	0.0	121.6	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	16.29	0.00000	0.999972

Sequence No.: 6

Sample ID: ICV

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 1/6/2010 10:37:51

Data Type: Reprocessed on 1/6/2010 11:55:31

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	875249.9	875249.9	98.719 %		10:41:01
1	Sc Radial	4611.4	4611.4	98.8 %		10:39:44
1	Y 371.029	746029.3	746029.3	97.935 %		10:41:01
1	Y RADIAL	4861.5	4861.5	98.55 %		10:39:44
1	Ag 328.068†	58592.2	58840.3	255.97 ug/L	255.97 ppb	10:41:01
1	Al 396.153Radial†	5658.3	5754.0	5080.5 ug/L	5080.5 ppb	10:39:44
1	As 188.979†	1300.3	1350.6	477.00 ug/L	477.00 ppb	10:41:21
1	B 249.677†	23792.7	24767.3	508.73 ug/L	508.73 ppb	10:41:01
1	Ba 233.527†	68181.7	69059.1	504.81 ug/L	504.81 ppb	10:41:01
1	Be 313.107†	750258.5	764347.5	259.32 ug/L	259.32 ppb	10:41:01
1	Ca 317.933Radial†	2964.6	2988.2	5007.2 ug/L	5007.2 ppb	10:40:04
1	Cd 226.502†	51645.3	52554.0	494.77 ug/L	494.77 ppb	10:41:01
1	Co 228.616†	26107.0	26529.8	499.07 ug/L	499.07 ppb	10:41:21
1	Cr 267.716†	47678.5	48193.3	483.68 ug/L	483.68 ppb	10:41:01
1	Cu 324.752†	174605.9	168873.0	500.23 ug/L	500.23 ppb	10:41:01
1	Fe 238.204 Radial†	594.9	588.3	5184.9 ug/L	5184.9 ppb	10:40:04
1	K 766.490 Radial†	15727.6	12582.4	2492.3 ug/L	2492.3 ppb	10:39:44
1	Mg 279.077 IEC†	164.0	164.4	5262.6 ug/L	5262.6 ppb	10:40:04
1	Mn 257.610†	479368.3	485073.5	511.51 ug/L	511.51 ppb	10:41:01
1	Mo 202.031†	8416.8	8506.1	533.38 ug/L	533.38 ppb	10:41:21
1	Na 589.592 Radial†	6799.8	8632.7	2607.8 ug/L	2607.8 ppb	10:39:44
1	Ni 231.604†	22404.2	22569.9	495.15 ug/L	495.15 ppb	10:41:21
1	P 214.914†	5293.0	5113.1	2417.4 ug/L	2417.4 ppb	10:41:21
1	Pb 220.353†	4662.5	4800.8	498.97 ug/L	498.97 ppb	10:41:21
1	S 181.975 Axial†	2212.8	2181.6	2464.5 ug/L	2464.5 ppb	10:41:21
1	Sb 206.836†	1689.6	1674.4	509.06 ug/L	509.06 ppb	10:41:21
1	Se 196.026†	4904.6	5001.5	2577.8 ug/L	2577.8 ppb	10:41:21
1	Si 251.611†	164206.4	165721.0	4742.2 ug/L	4742.2 ppb	10:41:01
1	Sn 189.927†	3563.3	3606.1	533.98 ug/L	533.98 ppb	10:41:21
1	Sr 421.552†	72600.4	73468.6	537.87 ug/L	537.87 ppb	10:39:44
1	Ti 334.940†	306956.3	312757.6	496.10 ug/L	496.10 ppb	10:41:01
1	Tl 190.801†	1835.3	1912.5	525.70 ug/L	525.70 ppb	10:41:21
1	U 409.014†	13384.3	16226.8	480.81 ug/L	480.81 ppb	10:41:01
1	V 292.402†	76997.8	79799.0	508.10 ug/L	508.10 ppb	10:41:01
1	Zn 213.857†	61557.9	61525.2	501.66 ug/L	501.66 ppb	10:41:01
1	SiO2†	163209.8	164692.0	10085 ug/L	10085 ppb	10:42:19
2	Sc 361.383	875752.3	875752.3	98.775 %		10:41:27
2	Sc Radial	4643.7	4643.7	99.5 %		10:40:09
2	Y 371.029	745923.5	745923.5	97.922 %		10:41:27
2	Y RADIAL	4862.5	4862.5	98.57 %		10:40:09
2	Ag 328.068†	58994.0	59213.1	257.54 ug/L	257.54 ppb	10:41:27
2	Al 396.153Radial†	5570.1	5625.5	4966.6 ug/L	4966.6 ppb	10:40:09
2	As 188.979†	1303.5	1353.1	477.90 ug/L	477.90 ppb	10:41:47
2	B 249.677†	24003.0	24966.4	512.85 ug/L	512.85 ppb	10:41:27
2	Ba 233.527†	68768.7	69613.7	508.87 ug/L	508.87 ppb	10:41:27
2	Be 313.107†	757527.9	771271.0	261.67 ug/L	261.67 ppb	10:41:27
2	Ca 317.933Radial†	2967.9	2970.6	4977.8 ug/L	4977.8 ppb	10:40:29
2	Cd 226.502†	51932.9	52815.1	497.24 ug/L	497.24 ppb	10:41:27
2	Co 228.616†	26075.2	26482.4	498.17 ug/L	498.17 ppb	10:41:47
2	Cr 267.716†	48078.8	48570.9	487.47 ug/L	487.47 ppb	10:41:27
2	Cu 324.752†	176133.4	170318.0	504.51 ug/L	504.51 ppb	10:41:27
2	Fe 238.204 Radial†	587.9	577.0	5086.0 ug/L	5086.0 ppb	10:40:29
2	K 766.490 Radial†	15626.5	12370.1	2450.1 ug/L	2450.1 ppb	10:40:09
2	Mg 279.077 IEC†	163.2	162.4	5197.8 ug/L	5197.8 ppb	10:40:29
2	Mn 257.610†	483197.1	488671.2	515.30 ug/L	515.30 ppb	10:41:27
2	Mo 202.031†	8421.6	8506.1	533.37 ug/L	533.37 ppb	10:41:47
2	Na 589.592 Radial†	6730.1	8514.8	2572.2 ug/L	2572.2 ppb	10:40:09
2	Ni 231.604†	22358.8	22511.0	493.85 ug/L	493.85 ppb	10:41:47

2	P 214.914†	5291.5	5108.5	2414.5 ug/L	2414.5 ppb	10:41:47
2	Pb 220.353†	4645.7	4781.1	496.91 ug/L	496.91 ppb	10:41:47
2	S 181.975 Axial†	2208.4	2175.9	2458.1 ug/L	2458.1 ppb	10:41:47
2	Sb 206.836†	1662.2	1645.7	500.33 ug/L	500.33 ppb	10:41:47
2	Se 196.026†	4899.9	4993.9	2573.6 ug/L	2573.6 ppb	10:41:47
2	Si 251.611†	165602.3	167038.8	4780.0 ug/L	4780.0 ppb	10:41:27
2	Sn 189.927†	3536.1	3576.5	529.60 ug/L	529.60 ppb	10:41:47
2	Sr 421.552†	71798.5	72151.8	528.23 ug/L	528.23 ppb	10:40:09
2	Ti 334.940†	309702.6	315359.5	500.22 ug/L	500.22 ppb	10:41:27
2	Tl 190.801†	1842.0	1918.3	527.32 ug/L	527.32 ppb	10:41:47
2	U 409.014†	13830.5	16670.7	494.02 ug/L	494.02 ppb	10:41:27
2	V 292.402†	77815.0	80581.6	513.04 ug/L	513.04 ppb	10:41:27
2	Zn 213.857†	62091.2	62029.3	505.82 ug/L	505.82 ppb	10:41:27
2	SiO2†	164649.5	166054.7	10168 ug/L	10168 ppb	10:42:24
3	Sc 361.383	876292.2	876292.2	98.836 %		10:41:53
3	Sc Radial	4648.7	4648.7	99.6 %		10:40:34
3	Y 371.029	748097.3	748097.3	98.207 %		10:41:53
3	Y RADIAL	4889.0	4889.0	99.11 %		10:40:34
3	Ag 328.068†	58712.7	58891.7	256.18 ug/L	256.18 ppb	10:41:53
3	Al 396.153Radial†	5662.3	5712.0	5043.4 ug/L	5043.4 ppb	10:40:34
3	As 188.979†	1287.3	1335.9	471.85 ug/L	471.85 ppb	10:42:13
3	B 249.677†	23901.6	24848.9	510.43 ug/L	510.43 ppb	10:41:53
3	Ba 233.527†	68267.4	69063.7	504.85 ug/L	504.85 ppb	10:41:53
3	Be 313.107†	752113.5	765320.3	259.65 ug/L	259.65 ppb	10:41:53
3	Ca 317.933Radial†	2982.5	2982.1	4997.0 ug/L	4997.0 ppb	10:40:54
3	Cd 226.502†	51696.0	52543.0	494.66 ug/L	494.66 ppb	10:41:53
3	Co 228.616†	25907.2	26296.2	494.67 ug/L	494.67 ppb	10:42:13
3	Cr 267.716†	47758.4	48216.6	483.92 ug/L	483.92 ppb	10:41:53
3	Cu 324.752†	174915.4	168975.9	500.54 ug/L	500.54 ppb	10:41:53
3	Fe 238.204 Radial†	596.9	585.4	5159.8 ug/L	5159.8 ppb	10:40:54
3	K 766.490 Radial†	15874.5	12602.1	2496.2 ug/L	2496.2 ppb	10:40:34
3	Mg 279.077 IEC†	169.1	168.1	5381.8 ug/L	5381.8 ppb	10:40:54
3	Mn 257.610†	479775.8	484908.2	511.34 ug/L	511.34 ppb	10:41:53
3	Mo 202.031†	8365.9	8444.5	529.52 ug/L	529.52 ppb	10:42:13
3	Na 589.592 Radial†	6779.6	8557.2	2585.0 ug/L	2585.0 ppb	10:40:34
3	Ni 231.604†	22192.2	22328.4	489.85 ug/L	489.85 ppb	10:42:13
3	P 214.914†	5264.0	5077.4	2399.9 ug/L	2399.9 ppb	10:42:13
3	Pb 220.353†	4633.2	4765.5	495.30 ug/L	495.30 ppb	10:42:13
3	S 181.975 Axial†	2187.9	2153.8	2433.1 ug/L	2433.1 ppb	10:42:13
3	Sb 206.836†	1651.0	1633.3	496.56 ug/L	496.56 ppb	10:42:13
3	Se 196.026†	4863.7	4954.2	2553.5 ug/L	2553.5 ppb	10:42:13
3	Si 251.611†	164437.9	165757.4	4743.3 ug/L	4743.3 ppb	10:41:53
3	Sn 189.927†	3512.5	3550.4	525.74 ug/L	525.74 ppb	10:42:13
3	Sr 421.552†	72663.7	72942.4	534.01 ug/L	534.01 ppb	10:40:34
3	Ti 334.940†	307375.9	312812.2	496.18 ug/L	496.18 ppb	10:41:53
3	Tl 190.801†	1835.3	1910.3	525.13 ug/L	525.13 ppb	10:42:13
3	U 409.014†	13660.4	16490.0	488.64 ug/L	488.64 ppb	10:41:53
3	V 292.402†	77277.5	79989.2	509.26 ug/L	509.26 ppb	10:41:53
3	Zn 213.857†	61683.6	61578.2	502.13 ug/L	502.13 ppb	10:41:53
3	SiO2†	163090.9	164375.0	10065 ug/L	10065 ppb	10:42:30

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	875764.8	98.777 %	0.0588			0.06%
Sc Radial	4634.6	99.3 %	0.43			0.44%
Y 371.029	746683.4	98.021 %	0.1609			0.16%
Y RADIAL	4871.0	98.75 %	0.316			0.32%
Ag 328.068†	58981.7	256.56 ug/L	0.856	256.56 ppb	0.856	0.33%
QC value within limits for Ag 328.068 Recovery = 102.63%						
Al 396.153Radial†	5697.1	5030.2 ug/L	58.13	5030.2 ppb	58.13	1.16%
QC value within limits for Al 396.153Radial Recovery = 100.60%						
As 188.979†	1346.5	475.58 ug/L	3.265	475.58 ppb	3.265	0.69%
QC value within limits for As 188.979 Recovery = 95.12%						
B 249.677†	24860.9	510.67 ug/L	2.071	510.67 ppb	2.071	0.41%
QC value within limits for B 249.677 Recovery = 102.13%						
Ba 233.527†	69245.5	506.18 ug/L	2.330	506.18 ppb	2.330	0.46%
QC value within limits for Ba 233.527 Recovery = 101.24%						
Be 313.107†	766979.6	260.21 ug/L	1.271	260.21 ppb	1.271	0.49%
QC value within limits for Be 313.107 Recovery = 104.08%						

Ca 317.933Radial†	2980.3	4994.0 ug/L	14.95	4994.0 ppb	14.95	0.30%
QC value within limits for Ca 317.933Radial Recovery = 99.88%						
Cd 226.502†	52637.4	495.56 ug/L	1.456	495.56 ppb	1.456	0.29%
QC value within limits for Cd 226.502 Recovery = 99.11%						
Co 228.616†	26436.1	497.30 ug/L	2.326	497.30 ppb	2.326	0.47%
QC value within limits for Co 228.616 Recovery = 99.46%						
Cr 267.716†	48326.9	485.02 ug/L	2.122	485.02 ppb	2.122	0.44%
QC value within limits for Cr 267.716 Recovery = 97.00%						
Cu 324.752†	169389.0	501.76 ug/L	2.384	501.76 ppb	2.384	0.48%
QC value within limits for Cu 324.752 Recovery = 100.35%						
Fe 238.204 Radial†	583.6	5143.6 ug/L	51.43	5143.6 ppb	51.43	1.00%
QC value within limits for Fe 238.204 Radial Recovery = 102.87%						
K 766.490 Radial†	12518.2	2479.5 ug/L	25.56	2479.5 ppb	25.56	1.03%
QC value within limits for K 766.490 Radial Recovery = 99.18%						
Mg 279.077 IEC†	165.0	5280.7 ug/L	93.33	5280.7 ppb	93.33	1.77%
QC value within limits for Mg 279.077 IEC Recovery = 105.61%						
Mn 257.610†	486217.6	512.72 ug/L	2.237	512.72 ppb	2.237	0.44%
QC value within limits for Mn 257.610 Recovery = 102.54%						
Mo 202.031†	8485.6	532.09 ug/L	2.226	532.09 ppb	2.226	0.42%
QC value within limits for Mo 202.031 Recovery = 106.42%						
Na 589.592 Radial†	8568.3	2588.3 ug/L	18.04	2588.3 ppb	18.04	0.70%
QC value within limits for Na 589.592 Radial Recovery = 103.53%						
Ni 231.604†	22469.8	492.95 ug/L	2.762	492.95 ppb	2.762	0.56%
QC value within limits for Ni 231.604 Recovery = 98.59%						
P 214.914†	5099.7	2410.6 ug/L	9.41	2410.6 ppb	9.41	0.39%
QC value within limits for P 214.914 Recovery = 96.42%						
Pb 220.353†	4782.5	497.06 ug/L	1.840	497.06 ppb	1.840	0.37%
QC value within limits for Pb 220.353 Recovery = 99.41%						
S 181.975 Axial†	2170.4	2451.9 ug/L	16.61	2451.9 ppb	16.61	0.68%
QC value within limits for S 181.975 Axial Recovery = 98.08%						
Sb 206.836†	1651.1	501.98 ug/L	6.414	501.98 ppb	6.414	1.28%
QC value within limits for Sb 206.836 Recovery = 100.40%						
Se 196.026†	4983.2	2568.3 ug/L	12.98	2568.3 ppb	12.98	0.51%
QC value within limits for Se 196.026 Recovery = 102.73%						
Si 251.611†	166172.4	4755.2 ug/L	21.52	4755.2 ppb	21.52	0.45%
QC value within limits for Si 251.611 Recovery = 95.10%						
Sn 189.927†	3577.7	529.77 ug/L	4.123	529.77 ppb	4.123	0.78%
QC value within limits for Sn 189.927 Recovery = 105.95%						
Sr 421.552†	72854.3	533.37 ug/L	4.852	533.37 ppb	4.852	0.91%
QC value within limits for Sr 421.552 Recovery = 106.67%						
Ti 334.940†	313643.1	497.50 ug/L	2.355	497.50 ppb	2.355	0.47%
QC value within limits for Ti 334.940 Recovery = 99.50%						
Tl 190.801†	1913.7	526.05 ug/L	1.138	526.05 ppb	1.138	0.22%
QC value within limits for Tl 190.801 Recovery = 105.21%						
U 409.014†	16462.5	487.82 ug/L	6.639	487.82 ppb	6.639	1.36%
QC value within limits for U 409.014 Recovery = 97.56%						
V 292.402†	80123.3	510.13 ug/L	2.587	510.13 ppb	2.587	0.51%
QC value within limits for V 292.402 Recovery = 102.03%						
Zn 213.857†	61710.9	503.21 ug/L	2.277	503.21 ppb	2.277	0.45%
QC value within limits for Zn 213.857 Recovery = 100.64%						
SiO2†	165040.6	10106 ug/L	54.7	10106 ppb	54.7	0.54%
QC value within limits for SiO2 Recovery = 94.49%						
All analyte(s) passed QC.						

Sequence No.: 7
 Sample ID: ICB
 Analyst:
 Logged In Analyst (Original) : Optima3
 Initial Sample Wt:
 Dilution:

Autosampler Location: 10
 Date Collected: 1/6/2010 10:44:40
 Data Type: Reprocessed on 1/6/2010 11:55:32
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	887280.4	887280.4	100.08 %		10:47:50
1	Sc Radial	4700.6	4700.6	101 %		10:46:33
1	Y 371.029	762353.6	762353.6	100.08 %		10:47:50
1	Y RADIAL	4975.1	4975.1	100.9 %		10:46:33
1	Ag 328.068†	578.7	66.0	0.2835 ug/L	0.2835 ppb	10:47:55
1	Al 396.153Radial†	6.3	33.0	29.215 ug/L	29.215 ppb	10:46:33
1	As 188.979†	-34.7	-1.2	-0.4330 ug/L	-0.4330 ppb	10:48:15
1	B 249.677†	-414.0	252.1	5.2003 ug/L	5.2003 ppb	10:47:55
1	Ba 233.527†	32.2	24.6	0.1800 ug/L	0.1800 ppb	10:48:15
1	Be 313.107†	-4259.0	95.7	0.0324 ug/L	0.0324 ppb	10:47:55
1	Ca 317.933Radial†	23.7	11.0	18.355 ug/L	18.355 ppb	10:46:53
1	Cd 226.502†	-236.8	1.8	0.0179 ug/L	0.0179 ppb	10:48:15
1	Co 228.616†	-93.5	-9.5	-0.1754 ug/L	-0.1754 ppb	10:48:15
1	Cr 267.716†	169.9	65.7	0.6597 ug/L	0.6597 ppb	10:47:55
1	Cu 324.752†	7947.1	-57.9	-0.1719 ug/L	-0.1719 ppb	10:47:55
1	Fe 238.204 Radial†	12.8	-1.1	-9.8464 ug/L	-9.8464 ppb	10:46:53
1	K 766.490 Radial†	3328.9	-31.3	-6.2120 ug/L	-6.2120 ppb	10:46:33
1	Mg 279.077 IEC†	5.2	3.5	111.29 ug/L	111.29 ppb	10:46:53
1	Mn 257.610†	576.1	59.3	0.0594 ug/L	0.0594 ppb	10:47:55
1	Mo 202.031†	34.6	14.6	0.9162 ug/L	0.9162 ppb	10:48:15
1	Na 589.592 Radial†	-1693.2	68.9	20.802 ug/L	20.802 ppb	10:46:33
1	Ni 231.604†	154.8	29.6	0.6495 ug/L	0.6495 ppb	10:48:15
1	P 214.914†	270.5	21.7	10.641 ug/L	10.641 ppb	10:48:15
1	Pb 220.353†	-87.1	-9.2	-0.9477 ug/L	-0.9477 ppb	10:48:15
1	S 181.975 Axial†	57.7	-2.3	-2.5814 ug/L	-2.5814 ppb	10:48:15
1	Sb 206.836†	46.0	8.9	2.6823 ug/L	2.6823 ppb	10:48:15
1	Se 196.026†	-28.9	4.4	2.2057 ug/L	2.2057 ppb	10:48:15
1	Si 251.611†	668.3	51.3	1.4538 ug/L	1.4538 ppb	10:48:15
1	Sn 189.927†	9.4	6.0	0.8890 ug/L	0.8890 ppb	10:48:15
1	Sr 421.552†	31.7	15.5	0.1132 ug/L	0.1132 ppb	10:46:33
1	Ti 334.940†	-1819.0	-0.3	0.0015 ug/L	0.0015 ppb	10:47:55
1	Tl 190.801†	-44.2	9.2	2.5136 ug/L	2.5136 ppb	10:48:15
1	U 409.014†	-2765.4	-94.6	-2.8110 ug/L	-2.8110 ppb	10:47:50
1	V 292.402†	-1751.4	51.8	0.3365 ug/L	0.3365 ppb	10:47:55
1	Zn 213.857†	904.4	72.0	0.5850 ug/L	0.5850 ppb	10:48:15
1	SiO2†	710.9	74.3	4.5260 ug/L	4.5260 ppb	10:49:21
2	Sc 361.383	883890.9	883890.9	99.693 %		10:48:20
2	Sc Radial	4679.7	4679.7	100 %		10:46:58
2	Y 371.029	758461.0	758461.0	99.567 %		10:48:20
2	Y RADIAL	4921.0	4921.0	99.76 %		10:46:58
2	Ag 328.068†	470.6	-40.3	-0.1638 ug/L	-0.1638 ppb	10:48:25
2	Al 396.153Radial†	-17.6	9.1	8.0671 ug/L	8.0671 ppb	10:46:58
2	As 188.979†	-29.7	3.6	1.2519 ug/L	1.2519 ppb	10:48:45
2	B 249.677†	-379.8	284.8	5.8698 ug/L	5.8698 ppb	10:48:25
2	Ba 233.527†	-1.7	-9.3	-0.0668 ug/L	-0.0668 ppb	10:48:45
2	Be 313.107†	-4371.6	-33.6	-0.0115 ug/L	-0.0115 ppb	10:48:25
2	Ca 317.933Radial†	27.7	15.1	25.290 ug/L	25.290 ppb	10:47:18
2	Cd 226.502†	-245.6	-8.0	-0.0772 ug/L	-0.0772 ppb	10:48:45
2	Co 228.616†	-81.3	2.5	0.0475 ug/L	0.0475 ppb	10:48:45
2	Cr 267.716†	72.3	-31.5	-0.3142 ug/L	-0.3142 ppb	10:48:25
2	Cu 324.752†	8005.0	30.6	0.0918 ug/L	0.0918 ppb	10:48:25
2	Fe 238.204 Radial†	16.5	2.5	22.405 ug/L	22.405 ppb	10:47:18
2	K 766.490 Radial†	3266.9	-78.2	-15.531 ug/L	-15.531 ppb	10:46:58
2	Mg 279.077 IEC†	6.2	4.6	146.57 ug/L	146.57 ppb	10:47:18
2	Mn 257.610†	547.8	33.1	0.0344 ug/L	0.0344 ppb	10:48:25
2	Mo 202.031†	28.2	8.4	0.5288 ug/L	0.5288 ppb	10:48:45
2	Na 589.592 Radial†	-1736.9	17.6	5.3292 ug/L	5.3292 ppb	10:46:58
2	Ni 231.604†	122.0	-2.7	-0.0600 ug/L	-0.0600 ppb	10:48:45

2	P 214.914†	252.5	4.7	2.2638 ug/L	2.2638 ppb	10:48:45
2	Pb 220.353†	-87.6	-10.1	-1.0474 ug/L	-1.0474 ppb	10:48:45
2	S 181.975 Axial†	60.1	0.4	0.4845 ug/L	0.4845 ppb	10:48:45
2	Sb 206.836†	44.0	7.0	2.1190 ug/L	2.1190 ppb	10:48:45
2	Se 196.026†	-31.9	1.3	0.7134 ug/L	0.7134 ppb	10:48:45
2	Si 251.611†	664.7	50.2	1.4339 ug/L	1.4339 ppb	10:48:45
2	Sn 189.927†	6.7	3.3	0.4945 ug/L	0.4945 ppb	10:48:45
2	Sr 421.552†	19.9	3.9	0.0283 ug/L	0.0283 ppb	10:46:58
2	Ti 334.940†	-1853.3	-41.7	-0.0638 ug/L	-0.0638 ppb	10:48:25
2	Tl 190.801†	-47.7	5.6	1.5221 ug/L	1.5221 ppb	10:48:45
2	U 409.014†	-2732.6	-72.2	-2.1498 ug/L	-2.1498 ppb	10:48:20
2	V 292.402†	-1788.5	7.8	0.0523 ug/L	0.0523 ppb	10:48:25
2	Zn 213.857†	890.3	61.4	0.4990 ug/L	0.4990 ppb	10:48:45
2	SiO2†	656.1	22.1	1.3473 ug/L	1.3473 ppb	10:49:26
3	Sc 361.383	881844.3	881844.3	99.463 %		10:48:51
3	Sc Radial	4730.7	4730.7	101 %		10:47:23
3	Y 371.029	757223.1	757223.1	99.405 %		10:48:51
3	Y RADIAL	4981.0	4981.0	101.0 %		10:47:23
3	Ag 328.068†	598.1	89.0	0.3682 ug/L	0.3682 ppb	10:48:56
3	Al 396.153Radial†	-39.0	-11.7	-10.402 ug/L	-10.402 ppb	10:47:23
3	As 188.979†	-23.7	9.6	3.3395 ug/L	3.3395 ppb	10:49:16
3	B 249.677†	-385.7	278.1	5.7395 ug/L	5.7395 ppb	10:48:56
3	Ba 233.527†	2.2	-5.2	-0.0390 ug/L	-0.0390 ppb	10:49:16
3	Be 313.107†	-4297.4	30.9	0.0105 ug/L	0.0105 ppb	10:48:56
3	Ca 317.933Radial†	17.4	4.6	7.6932 ug/L	7.6932 ppb	10:47:43
3	Cd 226.502†	-225.4	11.7	0.1141 ug/L	0.1141 ppb	10:49:16
3	Co 228.616†	-92.2	-8.7	-0.1625 ug/L	-0.1625 ppb	10:49:16
3	Cr 267.716†	121.8	18.4	0.1828 ug/L	0.1828 ppb	10:48:56
3	Cu 324.752†	8074.5	119.1	0.3507 ug/L	0.3507 ppb	10:48:56
3	Fe 238.204 Radial†	9.9	-4.1	-36.031 ug/L	-36.031 ppb	10:47:43
3	K 766.490 Radial†	3300.1	-80.7	-16.033 ug/L	-16.033 ppb	10:47:23
3	Mg 279.077 IEC†	5.0	3.3	106.65 ug/L	106.65 ppb	10:47:43
3	Mn 257.610†	527.8	14.3	0.0095 ug/L	0.0095 ppb	10:48:56
3	Mo 202.031†	25.2	5.4	0.3373 ug/L	0.3373 ppb	10:49:16
3	Na 589.592 Radial†	-1666.8	105.5	31.869 ug/L	31.869 ppb	10:47:23
3	Ni 231.604†	115.1	-9.3	-0.2042 ug/L	-0.2042 ppb	10:49:16
3	P 214.914†	245.4	-1.8	-0.9247 ug/L	-0.9247 ppb	10:49:16
3	Pb 220.353†	-100.2	-23.0	-2.3814 ug/L	-2.3814 ppb	10:49:16
3	S 181.975 Axial†	55.0	-4.6	-5.1525 ug/L	-5.1525 ppb	10:49:16
3	Sb 206.836†	58.9	22.1	6.6083 ug/L	6.6083 ppb	10:49:16
3	Se 196.026†	-24.7	8.4	4.1781 ug/L	4.1781 ppb	10:49:16
3	Si 251.611†	670.0	57.0	1.6361 ug/L	1.6361 ppb	10:49:16
3	Sn 189.927†	1.5	-1.9	-0.2812 ug/L	-0.2812 ppb	10:49:16
3	Sr 421.552†	-14.3	-30.1	-0.2203 ug/L	-0.2203 ppb	10:47:23
3	Ti 334.940†	-1775.1	32.6	0.0509 ug/L	0.0509 ppb	10:48:56
3	Tl 190.801†	-51.0	2.1	0.5852 ug/L	0.5852 ppb	10:49:16
3	U 409.014†	-2560.8	94.1	2.8018 ug/L	2.8018 ppb	10:48:51
3	V 292.402†	-1781.6	10.6	0.0843 ug/L	0.0843 ppb	10:48:56
3	Zn 213.857†	874.0	47.1	0.3862 ug/L	0.3862 ppb	10:49:16
3	SiO2†	736.2	104.1	6.3943 ug/L	6.3943 ppb	10:49:31

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	884338.5	99.744 %	0.3097			0.31%
Sc Radial	4703.7	101 %	0.5			0.55%
Y 371.029	759345.9	99.684 %	0.3515			0.35%
Y RADIAL	4959.1	100.5 %	0.67			0.67%
Ag 328.068†	38.2	0.1626 ug/L	0.28587	0.1626 ppb	0.28587	175.79%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	10.1	8.9600 ug/L	19.82374	8.9600 ppb	19.82374	221.25%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	4.0	1.3861 ug/L	1.88986	1.3861 ppb	1.88986	136.34%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	271.7	5.6032 ug/L	0.35498	5.6032 ppb	0.35498	6.34%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	3.4	0.0247 ug/L	0.13521	0.0247 ppb	0.13521	546.69%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	31.0	0.0105 ug/L	0.02191	0.0105 ppb	0.02191	209.31%
QC value within limits for Be 313.107 Recovery = Not calculated						

Ca 317.933Radial†	10.2	17.113 ug/L	8.8641	17.113 ppb	8.8641	51.80%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	1.8	0.0183 ug/L	0.09567	0.0183 ppb	0.09567	523.59%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-5.2	-0.0968 ug/L	0.12513	-0.0968 ppb	0.12513	129.26%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	17.5	0.1761 ug/L	0.48700	0.1761 ppb	0.48700	276.53%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	30.6	0.0902 ug/L	0.26132	0.0902 ppb	0.26132	289.73%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.9	-7.8241 ug/L	29.27009	-7.8241 ppb	29.27009	374.10%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-63.4	-12.592 ug/L	5.5311	-12.592 ppb	5.5311	43.92%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	3.8	121.50 ug/L	21.831	121.50 ppb	21.831	17.97%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	35.5	0.0344 ug/L	0.02496	0.0344 ppb	0.02496	72.55%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	9.5	0.5941 ug/L	0.29489	0.5941 ppb	0.29489	49.64%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	64.0	19.333 ug/L	13.3307	19.333 ppb	13.3307	68.95%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	5.8	0.1284 ug/L	0.45698	0.1284 ppb	0.45698	355.80%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	8.2	3.9933 ug/L	5.97360	3.9933 ppb	5.97360	149.59%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-14.1	-1.4589 ug/L	0.80054	-1.4589 ppb	0.80054	54.87%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-2.1	-2.4165 ug/L	2.82211	-2.4165 ppb	2.82211	116.79%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	12.7	3.8032 ug/L	2.44553	3.8032 ppb	2.44553	64.30%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	4.7	2.3657 ug/L	1.73788	2.3657 ppb	1.73788	73.46%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	52.8	1.5080 ug/L	0.11146	1.5080 ppb	0.11146	7.39%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.5	0.3674 ug/L	0.59538	0.3674 ppb	0.59538	162.04%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-3.6	-0.0263 ug/L	0.17334	-0.0263 ppb	0.17334	659.55%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-3.1	-0.0038 ug/L	0.05750	-0.0038 ppb	0.05750	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	5.6	1.5403 ug/L	0.96431	1.5403 ppb	0.96431	62.60%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-24.2	-0.7197 ug/L	3.06754	-0.7197 ppb	3.06754	426.23%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	23.4	0.1577 ug/L	0.15568	0.1577 ppb	0.15568	98.71%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	60.2	0.4901 ug/L	0.09967	0.4901 ppb	0.09967	20.34%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	66.9	4.0892 ug/L	2.55169	4.0892 ppb	2.55169	62.40%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 8
 Sample ID: PQL
 Analyst:
 Logged In Analyst (Original) : Optima3
 Initial Sample Wt:
 Dilution:

Autosampler Location: 11
 Date Collected: 1/6/2010 10:51:42
 Data Type: Reprocessed on 1/6/2010 11:55:33
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	864890.2	864890.2	97.550 %		10:54:52
1	Sc Radial	4615.5	4615.5	98.9 %		10:53:35
1	Y 371.029	744403.8	744403.8	97.722 %		10:54:52
1	Y RADIAL	4870.5	4870.5	98.73 %		10:53:35
1	Ag 328.068†	1666.1	1195.6	5.1487 ug/L	5.1487 ppb	10:54:52
1	Al 396.153Radial†	219.5	248.7	220.16 ug/L	220.16 ppb	10:53:35
1	As 188.979†	48.9	83.6	29.265 ug/L	29.265 ppb	10:55:12
1	B 249.677†	1786.7	2497.4	51.469 ug/L	51.469 ppb	10:55:12
1	Ba 233.527†	713.3	723.7	5.2911 ug/L	5.2911 ppb	10:55:12
1	Be 313.107†	10181.7	14788.9	5.0087 ug/L	5.0087 ppb	10:54:52
1	Ca 317.933Radial†	139.5	128.5	215.32 ug/L	215.32 ppb	10:53:55
1	Cd 226.502†	270.6	515.8	4.8513 ug/L	4.8513 ppb	10:55:12
1	Co 228.616†	165.6	253.7	4.7842 ug/L	4.7842 ppb	10:55:12
1	Cr 267.716†	602.9	514.0	5.1464 ug/L	5.1464 ppb	10:55:12
1	Cu 324.752†	11320.6	3605.9	10.681 ug/L	10.681 ppb	10:54:52
1	Fe 238.204 Radial†	24.7	11.1	97.487 ug/L	97.487 ppb	10:53:55
1	K 766.490 Radial†	4010.4	718.9	142.49 ug/L	142.49 ppb	10:53:35
1	Mg 279.077 IEC†	12.5	11.0	351.81 ug/L	351.81 ppb	10:53:55
1	Mn 257.610†	10207.6	9947.6	10.484 ug/L	10.484 ppb	10:54:52
1	Mo 202.031†	173.7	158.1	9.9167 ug/L	9.9167 ppb	10:55:12
1	Na 589.592 Radial†	-812.7	928.3	280.42 ug/L	280.42 ppb	10:53:35
1	Ni 231.604†	359.3	243.3	5.3375 ug/L	5.3375 ppb	10:55:12
1	P 214.914†	560.6	326.1	157.39 ug/L	157.39 ppb	10:55:12
1	Pb 220.353†	11.0	89.0	9.2802 ug/L	9.2802 ppb	10:55:12
1	S 181.975 Axial†	145.2	88.9	100.43 ug/L	100.43 ppb	10:55:12
1	Sb 206.836†	76.5	41.3	12.599 ug/L	12.599 ppb	10:55:12
1	Se 196.026†	34.9	69.1	35.713 ug/L	35.713 ppb	10:55:12
1	Si 251.611†	4048.3	3533.4	101.11 ug/L	101.11 ppb	10:55:12
1	Sn 189.927†	66.4	64.7	9.5959 ug/L	9.5959 ppb	10:55:12
1	Sr 421.552†	681.4	673.1	4.9260 ug/L	4.9260 ppb	10:53:35
1	Ti 334.940†	1405.7	3258.4	5.1599 ug/L	5.1599 ppb	10:54:52
1	Tl 190.801†	23.8	77.8	21.321 ug/L	21.321 ppb	10:55:12
1	U 409.014†	-1169.6	1469.8	43.672 ug/L	43.672 ppb	10:54:52
1	V 292.402†	-943.7	834.4	5.4501 ug/L	5.4501 ppb	10:55:12
1	Zn 213.857†	2094.7	1315.6	10.754 ug/L	10.754 ppb	10:55:12
1	SiO2†	4055.3	3521.1	215.61 ug/L	215.61 ppb	10:56:08
2	Sc 361.383	862681.9	862681.9	97.301 %		10:55:18
2	Sc Radial	4754.1	4754.1	102 %		10:54:00
2	Y 371.029	742521.1	742521.1	97.475 %		10:55:18
2	Y RADIAL	5002.0	5002.0	101.4 %		10:54:00
2	Ag 328.068†	1578.1	1109.5	4.7828 ug/L	4.7828 ppb	10:55:18
2	Al 396.153Radial†	210.6	233.5	206.60 ug/L	206.60 ppb	10:54:00
2	As 188.979†	48.6	83.4	29.197 ug/L	29.197 ppb	10:55:38
2	B 249.677†	1770.5	2485.5	51.222 ug/L	51.222 ppb	10:55:38
2	Ba 233.527†	700.4	712.3	5.2089 ug/L	5.2089 ppb	10:55:38
2	Be 313.107†	10220.4	14855.4	5.0311 ug/L	5.0311 ppb	10:55:18
2	Ca 317.933Radial†	134.8	119.8	200.76 ug/L	200.76 ppb	10:54:20
2	Cd 226.502†	289.3	535.7	5.0374 ug/L	5.0374 ppb	10:55:38
2	Co 228.616†	167.8	256.4	4.8384 ug/L	4.8384 ppb	10:55:38
2	Cr 267.716†	566.5	478.2	4.7880 ug/L	4.7880 ppb	10:55:38
2	Cu 324.752†	11291.1	3605.3	10.680 ug/L	10.680 ppb	10:55:18
2	Fe 238.204 Radial†	26.8	12.5	109.61 ug/L	109.61 ppb	10:54:20
2	K 766.490 Radial†	4121.7	710.0	140.70 ug/L	140.70 ppb	10:54:00
2	Mg 279.077 IEC†	14.7	12.8	410.58 ug/L	410.58 ppb	10:54:20
2	Mn 257.610†	10171.1	9936.8	10.473 ug/L	10.473 ppb	10:55:18
2	Mo 202.031†	193.2	178.6	11.199 ug/L	11.199 ppb	10:55:38
2	Na 589.592 Radial†	-664.3	1097.9	331.66 ug/L	331.66 ppb	10:54:00
2	Ni 231.604†	359.6	244.5	5.3646 ug/L	5.3646 ppb	10:55:38

2	F 214.914†	540.0	306.4	147.80 ug/L	147.80 ppb	10:55:38
2	Pb 220.353†	-4.4	73.3	7.6473 ug/L	7.6473 ppb	10:55:38
2	S 181.975 Axial†	153.9	98.2	110.96 ug/L	110.96 ppb	10:55:38
2	Sb 206.836†	82.6	47.8	14.571 ug/L	14.571 ppb	10:55:38
2	Se 196.026†	23.0	56.9	29.508 ug/L	29.508 ppb	10:55:38
2	Si 251.611†	4055.7	3551.6	101.61 ug/L	101.61 ppb	10:55:38
2	Sn 189.927†	69.5	68.0	10.077 ug/L	10.077 ppb	10:55:38
2	Sr 421.552†	680.6	652.3	4.7737 ug/L	4.7737 ppb	10:54:00
2	Ti 334.940†	1359.5	3214.5	5.0894 ug/L	5.0894 ppb	10:55:18
2	Tl 190.801†	32.2	86.5	23.700 ug/L	23.700 ppb	10:55:38
2	U 409.014†	-1144.5	1492.5	44.347 ug/L	44.347 ppb	10:55:18
2	V 292.402†	-926.4	849.7	5.5654 ug/L	5.5654 ppb	10:55:38
2	Zn 213.857†	2085.8	1312.0	10.721 ug/L	10.721 ppb	10:55:38
2	SiO2†	4086.4	3563.7	218.18 ug/L	218.18 ppb	10:56:13
3	Sc 361.383	872526.3	872526.3	98.412 %		10:55:43
3	Sc Radial	4661.1	4661.1	99.9 %		10:54:26
3	Y 371.029	750241.4	750241.4	98.488 %		10:55:43
3	Y RADIAL	4937.4	4937.4	100.1 %		10:54:26
3	Ag 328.068†	1623.4	1137.3	4.9014 ug/L	4.9014 ppb	10:55:43
3	Al 396.153Radial†	216.7	243.8	215.75 ug/L	215.75 ppb	10:54:26
3	As 188.979†	47.1	81.3	28.469 ug/L	28.469 ppb	10:56:03
3	B 249.677†	1751.4	2445.5	50.399 ug/L	50.399 ppb	10:56:03
3	Ba 233.527†	706.2	710.1	5.1916 ug/L	5.1916 ppb	10:56:03
3	Be 313.107†	10363.1	14881.9	5.0399 ug/L	5.0399 ppb	10:55:43
3	Ca 317.933Radial†	139.2	126.9	212.59 ug/L	212.59 ppb	10:54:46
3	Cd 226.502†	272.7	515.5	4.8480 ug/L	4.8480 ppb	10:56:03
3	Co 228.616†	158.4	245.0	4.6209 ug/L	4.6209 ppb	10:56:03
3	Cr 267.716†	576.9	482.2	4.8283 ug/L	4.8283 ppb	10:56:03
3	Cu 324.752†	11366.5	3551.0	10.518 ug/L	10.518 ppb	10:55:43
3	Fe 238.204 Radial†	25.7	11.8	104.23 ug/L	104.23 ppb	10:54:46
3	K 766.490 Radial†	4132.4	801.4	158.86 ug/L	158.86 ppb	10:54:26
3	Mg 279.077 IEC†	14.8	13.2	421.14 ug/L	421.14 ppb	10:54:46
3	Mn 257.610†	10368.6	10019.5	10.560 ug/L	10.560 ppb	10:55:43
3	Mo 202.031†	183.5	166.6	10.445 ug/L	10.445 ppb	10:56:03
3	Na 589.592 Radial†	-719.9	1029.2	310.91 ug/L	310.91 ppb	10:54:26
3	Ni 231.604†	357.1	237.8	5.2178 ug/L	5.2178 ppb	10:56:03
3	P 214.914†	529.6	289.5	139.61 ug/L	139.61 ppb	10:56:03
3	Pb 220.353†	1.8	79.6	8.3021 ug/L	8.3021 ppb	10:56:03
3	S 181.975 Axial†	142.6	85.0	96.017 ug/L	96.017 ppb	10:56:03
3	Sb 206.836†	69.5	33.5	10.312 ug/L	10.312 ppb	10:56:03
3	Se 196.026†	31.2	64.9	33.613 ug/L	33.613 ppb	10:56:03
3	Si 251.611†	4006.5	3454.6	98.832 ug/L	98.832 ppb	10:56:03
3	Sn 189.927†	76.4	74.3	11.010 ug/L	11.010 ppb	10:56:03
3	Sr 421.552†	673.2	658.2	4.8171 ug/L	4.8171 ppb	10:54:26
3	Ti 334.940†	1360.9	3200.2	5.0685 ug/L	5.0685 ppb	10:55:43
3	Tl 190.801†	31.5	85.3	23.387 ug/L	23.387 ppb	10:56:03
3	U 409.014†	-1259.2	1389.2	41.277 ug/L	41.277 ppb	10:55:43
3	V 292.402†	-985.6	800.3	5.2394 ug/L	5.2394 ppb	10:56:03
3	Zn 213.857†	2075.9	1277.8	10.440 ug/L	10.440 ppb	10:56:03
3	SiO2†	4122.9	3553.4	217.55 ug/L	217.55 ppb	10:56:18

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	866699.4	97.754 %	0.5826			0.60%
Sc Radial	4676.9	100 %	1.5			1.51%
Y 371.029	745722.1	97.895 %	0.5284			0.54%
Y RADIAL	4936.6	100.1 %	1.33			1.33%
Ag 328.068†	1147.5	4.9443 ug/L	0.18669	4.9443 ppb	0.18669	3.78%
QC value within limits for Ag 328.068 Recovery = 98.89%						
Al 396.153Radial†	242.0	214.17 ug/L	6.917	214.17 ppb	6.917	3.23%
QC value within limits for Al 396.153Radial Recovery = 107.09%						
As 188.979†	82.7	28.977 ug/L	0.4416	28.977 ppb	0.4416	1.52%
QC value within limits for As 188.979 Recovery = 96.59%						
B 249.677†	2476.1	51.030 ug/L	0.5600	51.030 ppb	0.5600	1.10%
QC value within limits for B 249.677 Recovery = 102.06%						
Ba 233.527†	715.4	5.2305 ug/L	0.05318	5.2305 ppb	0.05318	1.02%
QC value within limits for Ba 233.527 Recovery = 104.61%						
Be 313.107†	14842.1	5.0266 ug/L	0.01610	5.0266 ppb	0.01610	0.32%
QC value within limits for Be 313.107 Recovery = 100.53%						

Ca 317.933Radial†	125.1	209.56 ug/L	7.740	209.56 ppb	7.740	3.69%
QC value within limits for Ca 317.933Radial Recovery = 104.78%						
Cd 226.502†	522.3	4.9122 ug/L	0.10842	4.9122 ppb	0.10842	2.21%
QC value within limits for Cd 226.502 Recovery = 98.24%						
Co 228.616†	251.7	4.7478 ug/L	0.11318	4.7478 ppb	0.11318	2.38%
QC value within limits for Co 228.616 Recovery = 94.96%						
Cr 267.716†	491.4	4.9209 ug/L	0.19632	4.9209 ppb	0.19632	3.99%
QC value within limits for Cr 267.716 Recovery = 98.42%						
Cu 324.752†	3587.4	10.626 ug/L	0.0933	10.626 ppb	0.0933	0.88%
QC value within limits for Cu 324.752 Recovery = 106.26%						
Fe 238.204 Radial†	11.8	103.78 ug/L	6.074	103.78 ppb	6.074	5.85%
QC value within limits for Fe 238.204 Radial Recovery = 103.78%						
K 766.490 Radial†	743.5	147.35 ug/L	10.005	147.35 ppb	10.005	6.79%
QC value within limits for K 766.490 Radial Recovery = 98.23%						
Mg 279.077 IEC†	12.3	394.51 ug/L	37.353	394.51 ppb	37.353	9.47%
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 131.50%						
Mn 257.610†	9968.0	10.506 ug/L	0.0470	10.506 ppb	0.0470	0.45%
QC value within limits for Mn 257.610 Recovery = 105.06%						
Mo 202.031†	167.8	10.520 ug/L	0.6446	10.520 ppb	0.6446	6.13%
QC value within limits for Mo 202.031 Recovery = 105.20%						
Na 589.592 Radial†	1018.5	307.66 ug/L	25.776	307.66 ppb	25.776	8.38%
QC value within limits for Na 589.592 Radial Recovery = 102.55%						
Ni 231.604†	241.9	5.3066 ug/L	0.07809	5.3066 ppb	0.07809	1.47%
QC value within limits for Ni 231.604 Recovery = 106.13%						
P 214.914†	307.4	148.27 ug/L	8.897	148.27 ppb	8.897	6.00%
QC value within limits for P 214.914 Recovery = 98.84%						
Pb 220.353†	80.6	8.4099 ug/L	0.82175	8.4099 ppb	0.82175	9.77%
QC value within limits for Pb 220.353 Recovery = 84.10%						
S 181.975 Axial†	90.7	102.47 ug/L	7.681	102.47 ppb	7.681	7.50%
QC value within limits for S 181.975 Axial Recovery = 102.47%						
Sb 206.836†	40.9	12.494 ug/L	2.1317	12.494 ppb	2.1317	17.06%
QC value within limits for Sb 206.836 Recovery = 124.94%						
Se 196.026†	63.6	32.945 ug/L	3.1563	32.945 ppb	3.1563	9.58%
QC value within limits for Se 196.026 Recovery = 109.82%						
Si 251.611†	3513.2	100.52 ug/L	1.482	100.52 ppb	1.482	1.47%
QC value within limits for Si 251.611 Recovery = 100.52%						
Sn 189.927†	69.0	10.228 ug/L	0.7190	10.228 ppb	0.7190	7.03%
QC value within limits for Sn 189.927 Recovery = 102.28%						
Sr 421.552†	661.2	4.8389 ug/L	0.07843	4.8389 ppb	0.07843	1.62%
QC value within limits for Sr 421.552 Recovery = 96.78%						
Ti 334.940†	3224.4	5.1059 ug/L	0.04787	5.1059 ppb	0.04787	0.94%
QC value within limits for Ti 334.940 Recovery = 102.12%						
Tl 190.801†	83.2	22.803 ug/L	1.2930	22.803 ppb	1.2930	5.67%
QC value within limits for Tl 190.801 Recovery = 114.01%						
U 409.014†	1450.5	43.099 ug/L	1.6133	43.099 ppb	1.6133	3.74%
QC value within limits for U 409.014 Recovery = 86.20%						
V 292.402†	828.1	5.4183 ug/L	0.16533	5.4183 ppb	0.16533	3.05%
QC value within limits for V 292.402 Recovery = 108.37%						
Zn 213.857†	1301.8	10.638 ug/L	0.1721	10.638 ppb	0.1721	1.62%
QC value within limits for Zn 213.857 Recovery = 106.38%						
SiO2†	3546.1	217.11 ug/L	1.338	217.11 ppb	1.338	0.62%
QC value within limits for SiO2 Recovery = 101.93%						
QC Failed. Continue with analysis.						

Sequence No.: 9
 Sample ID: ICSA
 Analyst:
 Logged In Analyst (Original) : Optima3
 Initial Sample Wt:
 Dilution:

Autosampler Location: 13
 Date Collected: 1/6/2010 10:58:30
 Data Type: Reprocessed on 1/6/2010 11:55:34
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	753202.5	753202.5	84.953 %		11:00:55
1	Sc Radial	4258.7	4258.7	91.2 %		11:00:28
1	Y 371.029	636756.7	636756.7	83.591 %		11:00:55
1	Y RADIAL	4458.6	4458.6	90.39 %		11:00:28
1	Ag 328.068†	-10379.9	-12730.8	1.7815 ug/L	1.7815 ppb	11:00:55
1	Al 396.153Radial†	543336.5	595526.4	528190 ug/L	528190 ppb	11:00:23
1	As 188.979†	-110.8	-97.0	-4.7044 ug/L	-4.7044 ppb	11:01:15
1	B 249.677†	4.9	671.6	-11.419 ug/L	-11.419 ppb	11:00:55
1	Ba 233.527†	-722.9	-858.4	-1.4244 ug/L	-1.4244 ppb	11:01:15
1	Be 313.107†	-4139.1	-520.6	-0.2187 ug/L	-0.2187 ppb	11:00:55
1	Ca 317.933Radial†	268839.9	294637.4	493710 ug/L	493710 ppb	11:00:23
1	Cd 226.502†	1292.9	1760.3	-2.4583 ug/L	-2.4583 ppb	11:01:15
1	Co 228.616†	-10.0	72.2	-1.3635 ug/L	-1.3635 ppb	11:01:15
1	Cr 267.716†	-61.3	-176.2	1.6644 ug/L	1.6644 ppb	11:01:15
1	Cu 324.752†	4196.3	-3059.4	0.6567 ug/L	0.6567 ppb	11:00:55
1	Fe 238.204 Radial†	19787.2	21673.0	190440 ug/L	190440 ppb	11:00:28
1	K 766.490 Radial†	2915.0	-141.9	-12.209 ug/L	-12.209 ppb	11:00:23
1	Mg 279.077 IEC†	14063.0	15411.5	492600 ug/L	492600 ppb	11:00:28
1	Mn 257.610†	-569.1	-1186.3	8.5667 ug/L	8.5667 ppb	11:00:55
1	Mo 202.031†	-238.4	-300.6	-0.5758 ug/L	-0.5758 ppb	11:01:15
1	Na 589.592 Radial†	-1538.9	63.5	19.169 ug/L	19.169 ppb	11:00:28
1	Ni 231.604†	227.1	142.3	3.1234 ug/L	3.1234 ppb	11:01:15
1	P 214.914†	231.9	24.4	37.831 ug/L	37.831 ppb	11:01:15
1	Pb 220.353†	-995.9	-1094.5	-10.525 ug/L	-10.525 ppb	11:01:15
1	S 181.975 Axial†	83.4	38.2	-60.693 ug/L	-60.693 ppb	11:01:15
1	Sb 206.836†	61.5	35.3	-2.2838 ug/L	-2.2838 ppb	11:01:15
1	Se 196.026†	-1144.8	-1314.3	-4.4475 ug/L	-4.4475 ppb	11:01:15
1	Si 251.611†	537.0	15.6	0.9976 ug/L	0.9976 ppb	11:01:15
1	Sn 189.927†	-390.5	-463.1	-14.397 ug/L	-14.397 ppb	11:01:15
1	Sr 421.552†	470.2	499.4	-0.9197 ug/L	-0.9197 ppb	11:00:28
1	Ti 334.940†	-13182.1	-13699.6	4.0139 ug/L	4.0139 ppb	11:00:55
1	Tl 190.801†	-107.0	-72.6	-5.5819 ug/L	-5.5819 ppb	11:01:15
1	U 409.014†	-1998.0	316.8	-14.537 ug/L	-14.537 ppb	11:00:55
1	V 292.402†	565.4	2467.3	-2.5903 ug/L	-2.5903 ppb	11:01:15
1	Zn 213.857†	3443.4	3221.6	-0.2562 ug/L	-0.2562 ppb	11:01:15
1	SiO2†	550.4	11.8	1.9222 ug/L	1.9222 ppb	11:02:12
2	Sc 361.383	759275.0	759275.0	85.638 %		11:01:21
2	Sc Radial	4214.5	4214.5	90.3 %		11:00:38
2	Y 371.029	641859.3	641859.3	84.260 %		11:01:21
2	Y RADIAL	4476.8	4476.8	90.75 %		11:00:38
2	Ag 328.068†	-10380.1	-12633.2	2.5928 ug/L	2.5928 ppb	11:01:21
2	Al 396.153Radial†	526541.1	583169.3	517230 ug/L	517230 ppb	11:00:33
2	As 188.979†	-100.8	-84.3	-0.1464 ug/L	-0.1464 ppb	11:01:41
2	B 249.677†	87.7	768.3	-9.5295 ug/L	-9.5295 ppb	11:01:21
2	Ba 233.527†	-705.8	-831.7	-1.2098 ug/L	-1.2098 ppb	11:01:41
2	Be 313.107†	-4067.1	-397.7	-0.1780 ug/L	-0.1780 ppb	11:01:21
2	Ca 317.933Radial†	261146.2	289206.0	484610 ug/L	484610 ppb	11:00:33
2	Cd 226.502†	1288.6	1743.1	-2.7001 ug/L	-2.7001 ppb	11:01:41
2	Co 228.616†	-36.7	41.2	-1.9559 ug/L	-1.9559 ppb	11:01:41
2	Cr 267.716†	-60.1	-174.2	1.6951 ug/L	1.6951 ppb	11:01:41
2	Cu 324.752†	4267.8	-3015.4	0.8279 ug/L	0.8279 ppb	11:01:21
2	Fe 238.204 Radial†	19664.5	21764.5	191240 ug/L	191240 ppb	11:00:38
2	K 766.490 Radial†	2915.7	-107.6	-5.9274 ug/L	-5.9274 ppb	11:00:33
2	Mg 279.077 IEC†	13981.2	15482.5	494870 ug/L	494870 ppb	11:00:38
2	Mn 257.610†	-551.4	-1160.3	8.6320 ug/L	8.6320 ppb	11:01:21
2	Mo 202.031†	-236.8	-296.4	-0.2373 ug/L	-0.2373 ppb	11:01:41
2	Na 589.592 Radial†	-1549.5	34.1	10.299 ug/L	10.299 ppb	11:00:38
2	Ni 231.604†	257.1	175.1	3.8435 ug/L	3.8435 ppb	11:01:41

2	P 214.914†	255.3	49.5	45.646 ug/L	45.646 ppb	11:01:41
2	Pb 220.353†	-991.5	-1080.0	-11.551 ug/L	-11.551 ppb	11:01:41
2	S 181.975 Axial†	88.3	43.2	-52.950 ug/L	-52.950 ppb	11:01:41
2	Sb 206.836†	77.5	53.4	3.4112 ug/L	3.4112 ppb	11:01:41
2	Se 196.026†	-1139.5	-1297.3	5.0374 ug/L	5.0374 ppb	11:01:41
2	Si 251.611†	573.3	52.9	2.0679 ug/L	2.0679 ppb	11:01:41
2	Sn 189.927†	-407.9	-479.7	-17.799 ug/L	-17.799 ppb	11:01:41
2	Sr 421.552†	452.7	485.4	-0.9382 ug/L	-0.9382 ppb	11:00:38
2	Ti 334.940†	-13537.0	-13989.8	3.0739 ug/L	3.0739 ppb	11:01:21
2	Tl 190.801†	-114.3	-80.1	-7.9393 ug/L	-7.9393 ppb	11:01:41
2	U 409.014†	-1707.5	674.9	-3.9930 ug/L	-3.9930 ppb	11:01:21
2	V 292.402†	546.7	2440.3	-2.8065 ug/L	-2.8065 ppb	11:01:41
2	Zn 213.857†	3441.4	3186.9	-0.6655 ug/L	-0.6655 ppb	11:01:41
2	SiO2†	505.9	-45.3	-1.5806 ug/L	-1.5806 ppb	11:02:17
3	Sc 361.383	751186.8	751186.8	84.726 %		11:01:46
3	Sc Radial	4186.9	4186.9	89.7 %		11:00:49
3	Y 371.029	635002.1	635002.1	83.360 %		11:01:46
3	Y RADIAL	4447.4	4447.4	90.16 %		11:00:49
3	Ag 328.068†	-10460.2	-12858.3	1.7968 ug/L	1.7968 ppb	11:01:46
3	Al 396.153Radial†	532654.5	593833.3	526690 ug/L	526690 ppb	11:00:44
3	As 188.979†	-114.1	-101.3	-5.9524 ug/L	-5.9524 ppb	11:02:06
3	B 249.677†	113.1	799.4	-9.0024 ug/L	-9.0024 ppb	11:01:46
3	Ba 233.527†	-713.1	-849.2	-1.3160 ug/L	-1.3160 ppb	11:02:06
3	Be 313.107†	-4125.4	-517.6	-0.2177 ug/L	-0.2177 ppb	11:01:46
3	Ca 317.933Radial†	263738.1	294004.4	492650 ug/L	492650 ppb	11:00:44
3	Cd 226.502†	1283.9	1753.7	-2.6857 ug/L	-2.6857 ppb	11:02:06
3	Co 228.616†	-34.4	43.3	-1.9279 ug/L	-1.9279 ppb	11:02:06
3	Cr 267.716†	-93.5	-214.4	1.3088 ug/L	1.3088 ppb	11:02:06
3	Cu 324.752†	4225.0	-3012.4	0.8806 ug/L	0.8806 ppb	11:01:46
3	Fe 238.204 Radial†	19622.8	21861.8	192100 ug/L	192100 ppb	11:00:49
3	K 766.490 Radial†	2882.8	-123.0	-8.5384 ug/L	-8.5384 ppb	11:00:44
3	Mg 279.077 IEC†	13916.3	15512.4	495830 ug/L	495830 ppb	11:00:49
3	Mn 257.610†	-533.9	-1146.5	8.7140 ug/L	8.7140 ppb	11:01:46
3	Mo 202.031†	-233.8	-295.9	-0.1250 ug/L	-0.1250 ppb	11:02:06
3	Na 589.592 Radial†	-1593.1	-25.9	-7.8365 ug/L	-7.8365 ppb	11:00:49
3	Ni 231.604†	234.5	151.7	3.3293 ug/L	3.3293 ppb	11:02:06
3	P 214.914†	250.9	47.5	47.212 ug/L	47.212 ppb	11:02:06
3	Pb 220.353†	-1005.0	-1108.4	-12.435 ug/L	-12.435 ppb	11:02:06
3	S 181.975 Axial†	96.9	54.5	-42.024 ug/L	-42.024 ppb	11:02:06
3	Sb 206.836†	74.2	50.4	2.3042 ug/L	2.3042 ppb	11:02:06
3	Se 196.026†	-1143.4	-1316.3	-0.5904 ug/L	-0.5904 ppb	11:02:06
3	Si 251.611†	593.1	83.5	2.9418 ug/L	2.9418 ppb	11:02:06
3	Sn 189.927†	-395.6	-470.4	-15.565 ug/L	-15.565 ppb	11:02:06
3	Sr 421.552†	518.1	561.7	-0.4542 ug/L	-0.4542 ppb	11:00:49
3	Ti 334.940†	-13154.2	-13708.3	3.9422 ug/L	3.9422 ppb	11:01:46
3	Tl 190.801†	-98.0	-62.3	-2.8132 ug/L	-2.8132 ppb	11:02:06
3	U 409.014†	-1817.7	523.3	-8.6066 ug/L	-8.6066 ppb	11:01:46
3	V 292.402†	510.1	2403.8	-3.1522 ug/L	-3.1522 ppb	11:02:06
3	Zn 213.857†	3432.7	3219.8	-0.4685 ug/L	-0.4685 ppb	11:02:06
3	SiO2†	498.3	-47.9	-1.7492 ug/L	-1.7492 ppb	11:02:22

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	754554.8	85.106 %	0.4749			0.56%
Sc Radial	4220.0	90.4 %	0.78			0.86%
Y 371.029	637872.7	83.737 %	0.4676			0.56%
Y RADIAL	4461.0	90.43 %	0.300			0.33%
Ag 328.068†	-12740.8	2.0571 ug/L	0.46404	2.0571 ppb	0.46404	22.56%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	590843.0	524030 ug/L	5941.8	524030 ppb	5941.8	1.13%
QC value within limits for Al 396.153Radial Recovery = 104.81%						
As 188.979†	-94.2	-3.6010 ug/L	3.05620	-3.6010 ppb	3.05620	84.87%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	746.4	-9.9835 ug/L	1.27043	-9.9835 ppb	1.27043	12.73%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-846.4	-1.3167 ug/L	0.10732	-1.3167 ppb	0.10732	8.15%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-478.7	-0.2048 ug/L	0.02319	-0.2048 ppb	0.02319	11.32%
QC value within limits for Be 313.107 Recovery = Not calculated						

Ca 317.933Radial†	292615.9	490330 ug/L	4976.7	490330 ppb	4976.7	1.01%
QC value within limits for Ca 317.933Radial Recovery = 98.07%						
Cd 226.502†	1752.4	-2.6147 ug/L	0.13567	-2.6147 ppb	0.13567	5.19%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	52.2	-1.7491 ug/L	0.33421	-1.7491 ppb	0.33421	19.11%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-188.3	1.5561 ug/L	0.21472	1.5561 ppb	0.21472	13.80%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-3029.1	0.7884 ug/L	0.11705	0.7884 ppb	0.11705	14.85%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	21766.4	191260 ug/L	829.5	191260 ppb	829.5	0.43%
QC value within limits for Fe 238.204 Radial Recovery = 95.63%						
K 766.490 Radial†	-124.2	-8.8918 ug/L	3.15589	-8.8918 ppb	3.15589	35.49%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	15468.8	494430 ug/L	1657.1	494430 ppb	1657.1	0.34%
QC value within limits for Mg 279.077 IEC Recovery = 98.89%						
Mn 257.610†	-1164.4	8.6375 ug/L	0.07379	8.6375 ppb	0.07379	0.85%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-297.6	-0.3127 ug/L	0.23467	-0.3127 ppb	0.23467	75.05%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	23.9	7.2102 ug/L	13.76491	7.2102 ppb	13.76491	190.91%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	156.4	3.4321 ug/L	0.37090	3.4321 ppb	0.37090	10.81%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	40.5	43.563 ug/L	5.0252	43.563 ppb	5.0252	11.54%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-1094.3	-11.504 ug/L	0.9561	-11.504 ppb	0.9561	8.31%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	45.3	-51.889 ug/L	9.3800	-51.889 ppb	9.3800	18.08%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	46.4	1.1439 ug/L	3.01962	1.1439 ppb	3.01962	263.98%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-1309.3	-0.0001 ug/L	4.76989	-0.0001 ppb	4.76989	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	50.6	2.0024 ug/L	0.97379	2.0024 ppb	0.97379	48.63%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-471.0	-15.920 ug/L	1.7286	-15.920 ppb	1.7286	10.86%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	515.5	-0.7707 ug/L	0.27428	-0.7707 ppb	0.27428	35.59%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-13799.2	3.6767 ug/L	0.52321	3.6767 ppb	0.52321	14.23%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-71.7	-5.4448 ug/L	2.56579	-5.4448 ppb	2.56579	47.12%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	505.0	-9.0456 ug/L	5.28573	-9.0456 ppb	5.28573	58.43%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	2437.2	-2.8497 ug/L	0.28341	-2.8497 ppb	0.28341	9.95%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	3209.4	-0.4634 ug/L	0.20471	-0.4634 ppb	0.20471	44.18%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	-27.1	-0.4692 ug/L	2.07277	-0.4692 ppb	2.07277	441.76%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 10

Sample ID: ICSAB

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 14

Date Collected: 1/6/2010 11:04:33

Data Type: Reprocessed on 1/6/2010 11:55:35

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	779127.1	779127.1	87.877 %		11:06:59
1	Sc Radial	4454.4	4454.4	95.4 %		11:06:31
1	Y 371.029	656369.1	656369.1	86.165 %		11:06:59
1	Y RADIAL	4717.2	4717.2	95.63 %		11:06:31
1	Ag 328.068†	44700.6	50354.8	271.57 ug/L	271.57 ppb	11:06:59
1	Al 396.153Radial†	542854.2	568858.2	504510 ug/L	504510 ppb	11:06:26
1	As 188.979†	1186.0	1383.0	515.64 ug/L	515.64 ppb	11:07:04
1	B 249.677†	22144.7	25865.5	508.09 ug/L	508.09 ppb	11:06:59
1	Ba 233.527†	59785.3	68025.3	501.76 ug/L	501.76 ppb	11:06:59
1	Be 313.107†	638883.9	731370.9	248.18 ug/L	248.18 ppb	11:06:59
1	Ca 317.933Radial†	269440.5	282321.5	473080 ug/L	473080 ppb	11:06:26
1	Cd 226.502†	44934.9	51372.1	466.00 ug/L	466.00 ppb	11:07:04
1	Co 228.616†	21546.0	24602.3	460.14 ug/L	460.14 ppb	11:07:04
1	Cr 267.716†	41176.3	46752.7	472.42 ug/L	472.42 ppb	11:07:04
1	Cu 324.752†	172238.2	187999.8	565.85 ug/L	565.85 ppb	11:06:59
1	Fe 238.204 Radial†	19710.1	20639.4	181370 ug/L	181370 ppb	11:06:31
1	K 766.490 Radial†	28330.7	26349.7	5238.8 ug/L	5238.8 ppb	11:06:26
1	Mg 279.077 IEC†	14049.6	14720.3	470520 ug/L	470520 ppb	11:06:31
1	Mn 257.610†	413808.4	470377.9	504.94 ug/L	504.94 ppb	11:06:59
1	Mo 202.031†	6539.3	7421.5	482.32 ug/L	482.32 ppb	11:07:04
1	Na 589.592 Radial†	15160.6	17636.2	5327.5 ug/L	5327.5 ppb	11:06:31
1	Ni 231.604†	18561.1	20996.6	460.63 ug/L	460.63 ppb	11:07:04
1	P 214.914†	4828.3	5245.8	2498.8 ug/L	2498.8 ppb	11:07:04
1	Pb 220.353†	3022.4	3517.1	463.40 ug/L	463.40 ppb	11:07:04
1	S 181.975 Axial†	2097.2	2326.6	2530.2 ug/L	2530.2 ppb	11:07:04
1	Sb 206.836†	1597.3	1780.5	526.98 ug/L	526.98 ppb	11:07:04
1	Se 196.026†	3327.7	3820.0	2592.9 ug/L	2592.9 ppb	11:07:04
1	Si 251.611†	162299.0	184072.0	5269.3 ug/L	5269.3 ppb	11:06:59
1	Sn 189.927†	2534.0	2880.2	477.84 ug/L	477.84 ppb	11:07:04
1	Sr 421.552†	64399.4	67465.1	489.57 ug/L	489.57 ppb	11:06:26
1	Ti 334.940†	273893.2	313494.8	521.66 ug/L	521.66 ppb	11:06:59
1	Tl 190.801†	1424.0	1673.8	474.24 ug/L	474.24 ppb	11:07:04
1	U 409.014†	13388.8	17904.5	508.55 ug/L	508.55 ppb	11:06:59
1	V 292.402†	71020.6	82619.9	508.63 ug/L	508.63 ppb	11:06:59
1	Zn 213.857†	55652.9	62498.7	484.76 ug/L	484.76 ppb	11:07:04
1	SiO2†	160345.8	181829.9	11138 ug/L	11138 ppb	11:07:31
2	Sc 361.383	782551.7	782551.7	88.263 %		11:07:10
2	Sc Radial	4310.7	4310.7	92.4 %		11:06:41
2	Y 371.029	659175.2	659175.2	86.534 %		11:07:10
2	Y RADIAL	4569.4	4569.4	92.63 %		11:06:41
2	Ag 328.068†	44733.5	50169.5	271.97 ug/L	271.97 ppb	11:07:10
2	Al 396.153Radial†	524292.2	567719.1	503500 ug/L	503500 ppb	11:06:36
2	As 188.979†	1190.8	1382.6	516.02 ug/L	516.02 ppb	11:07:15
2	B 249.677†	22208.8	25827.8	506.84 ug/L	506.84 ppb	11:07:10
2	Ba 233.527†	59710.0	67642.3	499.05 ug/L	499.05 ppb	11:07:10
2	Be 313.107†	638538.1	727797.6	246.96 ug/L	246.96 ppb	11:07:10
2	Ca 317.933Radial†	260192.9	281718.8	472070 ug/L	472070 ppb	11:06:36
2	Cd 226.502†	45076.0	51308.3	465.04 ug/L	465.04 ppb	11:07:15
2	Co 228.616†	21732.6	24706.4	462.06 ug/L	462.06 ppb	11:07:15
2	Cr 267.716†	41362.7	46758.8	472.54 ug/L	472.54 ppb	11:07:15
2	Cu 324.752†	172268.0	187175.8	563.59 ug/L	563.59 ppb	11:07:10
2	Fe 238.204 Radial†	19447.4	21043.4	184920 ug/L	184920 ppb	11:06:41
2	K 766.490 Radial†	27448.6	26384.1	5245.5 ug/L	5245.5 ppb	11:06:36
2	Mg 279.077 IEC†	13853.6	14998.7	479420 ug/L	479420 ppb	11:06:41
2	Mn 257.610†	413221.7	467652.3	502.25 ug/L	502.25 ppb	11:07:10
2	Mo 202.031†	6615.2	7474.9	486.01 ug/L	486.01 ppb	11:07:15
2	Na 589.592 Radial†	14817.5	17794.2	5375.3 ug/L	5375.3 ppb	11:06:41
2	Ni 231.604†	18668.1	21025.4	461.26 ug/L	461.26 ppb	11:07:15

2	P 214.914†	4811.7	5202.9	2474.9 ug/L	2474.9 ppb	11:07:15
2	Pb 220.353†	3019.9	3499.2	461.03 ug/L	461.03 ppb	11:07:15
2	S 181.975 Axial†	2128.5	2351.6	2558.6 ug/L	2558.6 ppb	11:07:15
2	Sb 206.836†	1622.3	1800.9	533.15 ug/L	533.15 ppb	11:07:15
2	Se 196.026†	3297.2	3768.9	2577.5 ug/L	2577.5 ppb	11:07:15
2	Si 251.611†	162156.2	183101.9	5241.4 ug/L	5241.4 ppb	11:07:10
2	Sn 189.927†	2516.2	2847.4	472.92 ug/L	472.92 ppb	11:07:15
2	Sr 421.552†	62261.9	67399.9	489.10 ug/L	489.10 ppb	11:06:36
2	Ti 334.940†	273884.8	312121.3	519.44 ug/L	519.44 ppb	11:07:10
2	Tl 190.801†	1448.5	1694.4	479.82 ug/L	479.82 ppb	11:07:15
2	U 409.014†	13235.3	17663.9	500.95 ug/L	500.95 ppb	11:07:10
2	V 292.402†	70906.1	82136.5	505.30 ug/L	505.30 ppb	11:07:10
2	Zn 213.857†	56331.5	62990.4	488.31 ug/L	488.31 ppb	11:07:15
2	SiO2†	158587.0	179038.7	10966 ug/L	10966 ppb	11:07:36
3	Sc 361.383	775657.2	775657.2	87.486 %		11:07:21
3	Sc Radial	4197.2	4197.2	89.9 %		11:06:52
3	Y 371.029	654106.3	654106.3	85.868 %		11:07:21
3	Y RADIAL	4453.0	4453.0	90.27 %		11:06:52
3	Ag 328.068†	44493.8	50346.0	274.39 ug/L	274.39 ppb	11:07:21
3	Al 396.153Radial†	539688.6	600202.2	532310 ug/L	532310 ppb	11:06:47
3	As 188.979†	1204.7	1410.4	526.71 ug/L	526.71 ppb	11:07:26
3	B 249.677†	22061.1	25882.7	507.15 ug/L	507.15 ppb	11:07:21
3	Ba 233.527†	59567.4	68080.6	502.41 ug/L	502.41 ppb	11:07:21
3	Be 313.107†	635782.5	731078.2	248.08 ug/L	248.08 ppb	11:07:21
3	Ca 317.933Radial†	267429.2	297389.5	498320 ug/L	498320 ppb	11:06:47
3	Cd 226.502†	45046.1	51728.0	468.39 ug/L	468.39 ppb	11:07:26
3	Co 228.616†	21698.9	24886.7	465.37 ug/L	465.37 ppb	11:07:26
3	Cr 267.716†	41445.2	47269.6	477.77 ug/L	477.77 ppb	11:07:26
3	Cu 324.752†	171054.1	187523.2	564.93 ug/L	564.93 ppb	11:07:21
3	Fe 238.204 Radial†	19560.0	21738.4	191030 ug/L	191030 ppb	11:06:52
3	K 766.490 Radial†	28206.6	28031.2	5573.4 ug/L	5573.4 ppb	11:06:47
3	Mg 279.077 IEC†	13930.5	15490.2	495130 ug/L	495130 ppb	11:06:52
3	Mn 257.610†	411428.3	469763.8	504.79 ug/L	504.79 ppb	11:07:21
3	Mo 202.031†	6618.5	7545.3	491.00 ug/L	491.00 ppb	11:07:26
3	Na 589.592 Radial†	15048.5	18485.2	5584.0 ug/L	5584.0 ppb	11:06:52
3	Ni 231.604†	18707.8	21258.7	466.38 ug/L	466.38 ppb	11:07:26
3	P 214.914†	4808.0	5247.2	2501.4 ug/L	2501.4 ppb	11:07:26
3	Pb 220.353†	2979.3	3483.2	465.35 ug/L	465.35 ppb	11:07:26
3	S 181.975 Axial†	2148.9	2396.4	2603.6 ug/L	2603.6 ppb	11:07:26
3	Sb 206.836†	1590.7	1781.1	526.70 ug/L	526.70 ppb	11:07:26
3	Se 196.026†	3309.9	3816.6	2625.3 ug/L	2625.3 ppb	11:07:26
3	Si 251.611†	161445.6	183922.7	5264.7 ug/L	5264.7 ppb	11:07:21
3	Sn 189.927†	2557.6	2920.1	486.49 ug/L	486.49 ppb	11:07:26
3	Sr 421.552†	64130.0	71301.5	517.43 ug/L	517.43 ppb	11:06:47
3	Ti 334.940†	272561.7	313367.1	522.78 ug/L	522.78 ppb	11:07:21
3	Tl 190.801†	1491.8	1758.5	498.12 ug/L	498.12 ppb	11:07:26
3	U 409.014†	13359.2	17938.9	508.35 ug/L	508.35 ppb	11:07:21
3	V 292.402†	70827.0	82760.2	508.71 ug/L	508.71 ppb	11:07:21
3	Zn 213.857†	56121.4	63317.5	490.12 ug/L	490.12 ppb	11:07:26
3	SiO2†	161991.9	184527.6	11303 ug/L	11303 ppb	11:07:42

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	779112.0	87.875 %	0.3888			0.44%
Sc Radial	4320.8	92.6 %	2.76			2.98%
Y 371.029	656550.2	86.189 %	0.3333			0.39%
Y RADIAL	4579.9	92.84 %	2.683			2.89%
Ag 328.068†	50290.1	272.65 ug/L	1.527	272.65 ppb	1.527	0.56%
QC value within limits for Ag 328.068 Recovery = 109.06%						
Al 396.153Radial†	578926.5	513440 ug/L	16349.5	513440 ppb	16349.5	3.18%
QC value within limits for Al 396.153Radial Recovery = 102.69%						
As 188.979†	1392.0	519.46 ug/L	6.281	519.46 ppb	6.281	1.21%
QC value within limits for As 188.979 Recovery = 103.89%						
B 249.677†	25858.6	507.36 ug/L	0.652	507.36 ppb	0.652	0.13%
QC value within limits for B 249.677 Recovery = 101.47%						
Ba 233.527†	67916.1	501.07 ug/L	1.782	501.07 ppb	1.782	0.36%
QC value within limits for Ba 233.527 Recovery = 100.21%						
Be 313.107†	730082.2	247.74 ug/L	0.673	247.74 ppb	0.673	0.27%
QC value within limits for Be 313.107 Recovery = 99.10%						

Ca 317.933Radial†	287143.3	481160 ug/L	14877.5	481160 ppb	14877.5	3.09%
QC value within limits for Ca 317.933Radial Recovery = 96.23%						
Cd 226.502†	51469.4	466.48 ug/L	1.723	466.48 ppb	1.723	0.37%
QC value within limits for Cd 226.502 Recovery = 93.30%						
Co 228.616†	24731.8	462.53 ug/L	2.645	462.53 ppb	2.645	0.57%
QC value within limits for Co 228.616 Recovery = 92.51%						
Cr 267.716†	46927.0	474.24 ug/L	3.056	474.24 ppb	3.056	0.64%
QC value within limits for Cr 267.716 Recovery = 94.85%						
Cu 324.752†	187566.3	564.79 ug/L	1.136	564.79 ppb	1.136	0.20%
QC value within limits for Cu 324.752 Recovery = 112.96%						
Fe 238.204 Radial†	21140.4	185770 ug/L	4884.4	185770 ppb	4884.4	2.63%
QC value within limits for Fe 238.204 Radial Recovery = 92.89%						
K 766.490 Radial†	26921.7	5352.6 ug/L	191.29	5352.6 ppb	191.29	3.57%
QC value within limits for K 766.490 Radial Recovery = 107.05%						
Mg 279.077 IEC†	15069.7	481690 ug/L	12459.7	481690 ppb	12459.7	2.59%
QC value within limits for Mg 279.077 IEC Recovery = 96.34%						
Mn 257.610†	469264.6	503.99 ug/L	1.510	503.99 ppb	1.510	0.30%
QC value within limits for Mn 257.610 Recovery = 100.80%						
Mo 202.031†	7480.6	486.44 ug/L	4.356	486.44 ppb	4.356	0.90%
QC value within limits for Mo 202.031 Recovery = 97.29%						
Na 589.592 Radial†	17971.9	5428.9 ug/L	136.40	5428.9 ppb	136.40	2.51%
QC value within limits for Na 589.592 Radial Recovery = 108.58%						
Ni 231.604†	21093.6	462.76 ug/L	3.154	462.76 ppb	3.154	0.68%
QC value within limits for Ni 231.604 Recovery = 92.55%						
P 214.914†	5232.0	2491.7 ug/L	14.56	2491.7 ppb	14.56	0.58%
QC value within limits for P 214.914 Recovery = 99.67%						
Pb 220.353†	3499.9	463.26 ug/L	2.165	463.26 ppb	2.165	0.47%
QC value within limits for Pb 220.353 Recovery = 92.65%						
S 181.975 Axial†	2358.2	2564.1 ug/L	37.04	2564.1 ppb	37.04	1.44%
QC value within limits for S 181.975 Axial Recovery = 102.57%						
Sb 206.836†	1787.5	528.94 ug/L	3.648	528.94 ppb	3.648	0.69%
QC value within limits for Sb 206.836 Recovery = 105.79%						
Se 196.026†	3801.8	2598.5 ug/L	24.38	2598.5 ppb	24.38	0.94%
QC value within limits for Se 196.026 Recovery = 103.94%						
Si 251.611†	183698.9	5258.4 ug/L	14.95	5258.4 ppb	14.95	0.28%
QC value within limits for Si 251.611 Recovery = 105.17%						
Sn 189.927†	2882.5	479.08 ug/L	6.874	479.08 ppb	6.874	1.43%
QC value within limits for Sn 189.927 Recovery = 95.82%						
Sr 421.552†	68722.2	498.70 ug/L	16.219	498.70 ppb	16.219	3.25%
QC value within limits for Sr 421.552 Recovery = 99.74%						
Ti 334.940†	312994.4	521.29 ug/L	1.701	521.29 ppb	1.701	0.33%
QC value within limits for Ti 334.940 Recovery = 104.26%						
Tl 190.801†	1708.9	484.06 ug/L	12.491	484.06 ppb	12.491	2.58%
QC value within limits for Tl 190.801 Recovery = 96.81%						
U 409.014†	17835.8	505.95 ug/L	4.330	505.95 ppb	4.330	0.86%
QC value within limits for U 409.014 Recovery = 101.19%						
V 292.402†	82505.5	507.55 ug/L	1.950	507.55 ppb	1.950	0.38%
QC value within limits for V 292.402 Recovery = 101.51%						
Zn 213.857†	62935.5	487.73 ug/L	2.725	487.73 ppb	2.725	0.56%
QC value within limits for Zn 213.857 Recovery = 97.55%						
SiO2†	181798.7	11136 ug/L	168.2	11136 ppb	168.2	1.51%
QC value within limits for SiO2 Recovery = 104.12%						
All analyte(s) passed QC.						

Sequence No.: 11

Sample ID: LR1

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 15

Date Collected: 1/6/2010 11:09:52

Data Type: Reprocessed on 1/6/2010 11:55:36

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	757190.3	757190.3	85.403 %		11:12:18
1	Sc Radial	4069.5	4069.5	87.2 %		11:11:50
1	Y 371.029	639627.2	639627.2	83.967 %		11:12:18
1	Y RADIAL	4307.8	4307.8	87.33 %		11:11:50
1	Ag 328.068†	-25114.7	-29919.6	3.2743 ug/L	3.2743 ppb	11:12:18
1	Al 396.153Radial†	510246.3	585257.6	519080 ug/L	519080 ppb	11:11:45
1	As 188.979†	-226.9	-232.3	-11.379 ug/L	-11.379 ppb	11:12:38
1	B 249.677†	930.6	1755.6	-23.986 ug/L	-23.986 ppb	11:12:18
1	Ba 233.527†	-1963.0	-2306.0	-5.3258 ug/L	-5.3258 ppb	11:12:38
1	Be 313.107†	-10999.8	-8528.4	-2.9251 ug/L	-2.9251 ppb	11:12:18
1	Ca 317.933Radial†	255686.9	293249.5	491390 ug/L	491390 ppb	11:11:45
1	Cd 226.502†	3401.1	4220.8	-5.5906 ug/L	-5.5906 ppb	11:12:38
1	Co 228.616†	183.2	298.5	-0.9238 ug/L	-0.9238 ppb	11:12:38
1	Cr 267.716†	44.1	-52.4	2.8440 ug/L	2.8440 ppb	11:12:38
1	Cu 324.752†	557.6	-7346.1	1.3885 ug/L	1.3885 ppb	11:12:18
1	Fe 238.204 Radial†	45017.9	51619.7	453570 ug/L	453570 ppb	11:11:50
1	K 766.490 Radial†	3444.5	613.9	-90.690 ug/L	-90.690 ppb	11:11:45
1	Mg 279.077 IEC†	13372.4	15335.9	489960 ug/L	489960 ppb	11:11:50
1	Mn 257.610†	-26979.7	-32107.5	2.2724 ug/L	2.2724 ppb	11:12:18
1	Mo 202.031†	-544.9	-658.0	2.2543 ug/L	2.2543 ppb	11:12:18
1	Na 589.592 Radial†	1546860.8	1775933.7	536470 ug/L	536470 ppb	11:11:45
1	Ni 231.604†	305.8	233.0	5.1111 ug/L	5.1111 ppb	11:12:38
1	P 214.914†	643.8	505.2	58.913 ug/L	58.913 ppb	11:12:38
1	Pb 220.353†	-720.0	-765.3	-0.1074 ug/L	-0.1074 ppb	11:12:38
1	S 181.975 Axial†	91.6	47.4	-48.518 ug/L	-48.518 ppb	11:12:38
1	Sb 206.836†	64.7	38.7	2.6602 ug/L	2.6602 ppb	11:12:38
1	Se 196.026†	-2673.6	-3097.3	-109.20 ug/L	-109.20 ppb	11:12:38
1	Si 251.611†	-394.3	-1078.3	-30.022 ug/L	-30.022 ppb	11:12:38
1	Sn 189.927†	-428.8	-505.5	-17.410 ug/L	-17.410 ppb	11:12:38
1	Sr 421.552†	654.3	734.5	0.8228 ug/L	0.8228 ppb	11:11:50
1	Ti 334.940†	-13218.6	-13660.6	-2.6075 ug/L	-2.6075 ppb	11:12:18
1	Tl 190.801†	-112.2	-78.0	-7.5455 ug/L	-7.5455 ppb	11:12:38
1	U 409.014†	424989.0	500297.0	14816 ug/L	14816 ppb	11:12:18
1	V 292.402†	1846.6	3964.0	-4.7330 ug/L	-4.7330 ppb	11:12:18
1	Zn 213.857†	6309.6	6556.3	13.614 ug/L	13.614 ppb	11:12:38
1	SiO2†	-467.6	-1183.5	-70.679 ug/L	-70.679 ppb	11:13:35
2	Sc 361.383	747932.4	747932.4	84.359 %		11:12:44
2	Sc Radial	4162.5	4162.5	89.2 %		11:12:00
2	Y 371.029	631266.1	631266.1	82.870 %		11:12:44
2	Y RADIAL	4406.2	4406.2	89.32 %		11:12:00
2	Ag 328.068†	-24896.5	-30025.0	2.7957 ug/L	2.7957 ppb	11:12:44
2	Al 396.153Radial†	513742.4	576099.8	510960 ug/L	510960 ppb	11:11:55
2	As 188.979†	-230.4	-239.8	-14.056 ug/L	-14.056 ppb	11:13:04
2	B 249.677†	877.2	1705.6	-24.970 ug/L	-24.970 ppb	11:12:44
2	Ba 233.527†	-1965.8	-2337.8	-5.5667 ug/L	-5.5667 ppb	11:13:04
2	Be 313.107†	-10971.6	-8654.3	-2.9684 ug/L	-2.9684 ppb	11:12:44
2	Ca 317.933Radial†	256858.8	288010.2	482610 ug/L	482610 ppb	11:11:55
2	Cd 226.502†	3363.5	4225.5	-5.5103 ug/L	-5.5103 ppb	11:13:04
2	Co 228.616†	225.5	351.3	0.0756 ug/L	0.0756 ppb	11:13:04
2	Cr 267.716†	11.6	-90.3	2.4440 ug/L	2.4440 ppb	11:13:04
2	Cu 324.752†	691.5	-7179.3	1.8641 ug/L	1.8641 ppb	11:12:44
2	Fe 238.204 Radial†	46010.4	51578.8	453210 ug/L	453210 ppb	11:12:00
2	K 766.490 Radial†	3371.7	444.0	-120.26 ug/L	-120.26 ppb	11:11:55
2	Mg 279.077 IEC†	13639.9	15293.2	488600 ug/L	488600 ppb	11:12:00
2	Mn 257.610†	-26627.6	-32081.1	2.2899 ug/L	2.2899 ppb	11:12:44
2	Mo 202.031†	-533.2	-652.0	2.5949 ug/L	2.5949 ppb	11:12:44
2	Na 589.592 Radial†	1553333.5	1743544.6	526690 ug/L	526690 ppb	11:11:55
2	Ni 231.604†	303.3	234.4	5.1418 ug/L	5.1418 ppb	11:13:04

2	P 214.914†	620.8	487.3	47.656 ug/L	47.656 ppb	11:13:04
2	Pb 220.353†	-807.2	-879.1	-13.693 ug/L	-13.693 ppb	11:13:04
2	S 181.975 Axial†	115.8	77.4	-13.020 ug/L	-13.020 ppb	11:13:04
2	Sb 206.836†	71.1	47.2	5.4744 ug/L	5.4744 ppb	11:13:04
2	Se 196.026†	-2683.9	-3148.3	-137.67 ug/L	-137.67 ppb	11:13:04
2	Si 251.611†	-403.6	-1095.0	-30.500 ug/L	-30.500 ppb	11:13:04
2	Sn 189.927†	-418.3	-499.2	-17.395 ug/L	-17.395 ppb	11:13:04
2	Sr 421.552†	692.7	760.8	1.0971 ug/L	1.0971 ppb	11:12:00
2	Ti 334.940†	-13250.4	-13889.9	-3.4473 ug/L	-3.4473 ppb	11:12:44
2	Tl 190.801†	-129.1	-99.7	-13.698 ug/L	-13.698 ppb	11:13:04
2	U 409.014†	420957.2	501677.2	14857 ug/L	14857 ppb	11:12:44
2	V 292.402†	1835.9	3978.1	-4.5353 ug/L	-4.5353 ppb	11:12:44
2	Zn 213.857†	6334.6	6677.4	14.674 ug/L	14.674 ppb	11:13:04
2	SiO2†	-393.1	-1102.1	-65.675 ug/L	-65.675 ppb	11:13:40
3	Sc 361.383	755624.4	755624.4	85.226 %		11:13:10
3	Sc Radial	4203.6	4203.6	90.1 %		11:12:11
3	Y 371.029	637710.9	637710.9	83.716 %		11:13:10
3	Y RADIAL	4489.0	4489.0	91.00 %		11:12:11
3	Ag 328.068†	-24986.3	-29829.9	2.9540 ug/L	2.9540 ppb	11:13:10
3	Al 396.153Radial†	523842.6	581687.2	515910 ug/L	515910 ppb	11:12:06
3	As 188.979†	-238.1	-245.9	-16.509 ug/L	-16.509 ppb	11:13:30
3	B 249.677†	950.0	1780.5	-23.167 ug/L	-23.167 ppb	11:13:10
3	Ba 233.527†	-1897.4	-2233.8	-4.8555 ug/L	-4.8555 ppb	11:13:30
3	Be 313.107†	-10926.8	-8469.5	-2.9039 ug/L	-2.9039 ppb	11:13:10
3	Ca 317.933Radial†	261514.2	290365.6	486560 ug/L	486560 ppb	11:12:06
3	Cd 226.502†	3385.8	4211.0	-5.4515 ug/L	-5.4515 ppb	11:13:30
3	Co 228.616†	222.9	345.5	-0.0118 ug/L	-0.0118 ppb	11:13:30
3	Cr 267.716†	23.1	-76.9	2.5547 ug/L	2.5547 ppb	11:13:30
3	Cu 324.752†	722.6	-7151.2	1.8478 ug/L	1.8478 ppb	11:13:10
3	Fe 238.204 Radial†	46264.7	51357.2	451270 ug/L	451270 ppb	11:12:11
3	K 766.490 Radial†	3543.4	597.7	-92.508 ug/L	-92.508 ppb	11:12:06
3	Mg 279.077 IEC†	13726.0	15239.3	486870 ug/L	486870 ppb	11:12:11
3	Mn 257.610†	-26793.1	-31954.0	2.2617 ug/L	2.2617 ppb	11:13:10
3	Mo 202.031†	-566.7	-684.9	0.3482 ug/L	0.3482 ppb	11:13:10
3	Na 589.592 Radial†	1588770.3	1765877.1	533430 ug/L	533430 ppb	11:12:06
3	Ni 231.604†	321.7	252.4	5.5371 ug/L	5.5371 ppb	11:13:30
3	P 214.914†	641.1	503.6	58.829 ug/L	58.829 ppb	11:13:30
3	Pb 220.353†	-758.3	-811.9	-5.4667 ug/L	-5.4667 ppb	11:13:30
3	S 181.975 Axial†	105.2	63.5	-29.686 ug/L	-29.686 ppb	11:13:30
3	Sb 206.836†	58.4	31.4	0.5209 ug/L	0.5209 ppb	11:13:30
3	Se 196.026†	-2673.4	-3103.6	-119.97 ug/L	-119.97 ppb	11:13:30
3	Si 251.611†	-378.8	-1061.0	-29.495 ug/L	-29.495 ppb	11:13:30
3	Sn 189.927†	-428.5	-506.2	-18.044 ug/L	-18.044 ppb	11:13:30
3	Sr 421.552†	720.4	783.9	1.2299 ug/L	1.2299 ppb	11:12:11
3	Ti 334.940†	-12836.6	-13244.5	-2.2045 ug/L	-2.2045 ppb	11:13:10
3	Tl 190.801†	-138.0	-108.6	-15.974 ug/L	-15.974 ppb	11:13:30
3	U 409.014†	424448.1	500693.5	14828 ug/L	14828 ppb	11:13:10
3	V 292.402†	1986.5	4132.7	-3.3948 ug/L	-3.3948 ppb	11:13:10
3	Zn 213.857†	6330.3	6595.9	14.161 ug/L	14.161 ppb	11:13:30
3	SiO2†	-463.9	-1180.3	-70.415 ug/L	-70.415 ppb	11:13:45

Mean Data: LRI

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	753582.4	84.996 %	0.5589			0.66%
Sc Radial	4145.2	88.8 %	1.47			1.66%
Y 371.029	636201.4	83.518 %	0.5750			0.69%
Y RADIAL	4401.0	89.22 %	1.839			2.06%
Ag 328.068†	-29924.8	3.0080 ug/L	0.24381	3.0080 ppb	0.24381	8.11%
Al 396.153Radial†	581014.9	515320 ug/L	4093.8	515320 ppb	4093.8	0.79%
QC value within limits for Al 396.153Radial Recovery = 103.06%						
As 188.979†	-239.3	-13.981 ug/L	2.5661	-13.981 ppb	2.5661	18.35%
B 249.677†	1747.2	-24.041 ug/L	0.9025	-24.041 ppb	0.9025	3.75%
Ba 233.527†	-2292.5	-5.2493 ug/L	0.36169	-5.2493 ppb	0.36169	6.89%
Be 313.107†	-8550.7	-2.9325 ug/L	0.03287	-2.9325 ppb	0.03287	1.12%
Ca 317.933Radial†	290541.7	486850 ug/L	4397.1	486850 ppb	4397.1	0.90%
QC value within limits for Ca 317.933Radial Recovery = 97.37%						
Cd 226.502†	4219.1	-5.5175 ug/L	0.06982	-5.5175 ppb	0.06982	1.27%
Co 228.616†	331.8	-0.2866 ug/L	0.55349	-0.2866 ppb	0.55349	193.09%
Cr 267.716†	-73.2	2.6142 ug/L	0.20654	2.6142 ppb	0.20654	7.90%

Cu 324.752†	-7225.5	1.7001 ug/L	0.26998	1.7001 ppb	0.26998	15.88%
Fe 238.204 Radial†	51518.6	452680 ug/L	1240.8	452680 ppb	1240.8	0.27%
QC value within limits for Fe 238.204 Radial Recovery = 90.54%						
K 766.490 Radial†	551.9	-101.15 ug/L	16.572	-101.15 ppb	16.572	16.38%
Mg 279.077 IEC†	15289.5	488480 ug/L	1547.1	488480 ppb	1547.1	0.32%
QC value within limits for Mg 279.077 IEC Recovery = 97.70%						
Mn 257.610†	-32047.5	2.2747 ug/L	0.01421	2.2747 ppb	0.01421	0.62%
Mo 202.031†	-665.0	1.7325 ug/L	1.21083	1.7325 ppb	1.21083	69.89%
Na 589.592 Radial†	1761785.1	532200 ug/L	5007.8	532200 ppb	5007.8	0.94%
QC value within limits for Na 589.592 Radial Recovery = 106.44%						
Ni 231.604†	239.9	5.2633 ug/L	0.23757	5.2633 ppb	0.23757	4.51%
P 214.914†	498.7	55.133 ug/L	6.4747	55.133 ppb	6.4747	11.74%
Pb 220.353†	-818.8	-6.4224 ug/L	6.84309	-6.4224 ppb	6.84309	106.55%
S 181.975 Axial†	62.8	-30.408 ug/L	17.7598	-30.408 ppb	17.7598	58.40%
Sb 206.836†	39.1	2.8852 ug/L	2.48438	2.8852 ppb	2.48438	86.11%
Se 196.026†	-3116.4	-122.28 ug/L	14.375	-122.28 ppb	14.375	11.76%
Si 251.611†	-1078.1	-30.006 ug/L	0.5029	-30.006 ppb	0.5029	1.68%
Sn 189.927†	-503.7	-17.617 ug/L	0.3704	-17.617 ppb	0.3704	2.10%
Sr 421.552†	759.7	1.0499 ug/L	0.20764	1.0499 ppb	0.20764	19.78%
Ti 334.940†	-13598.3	-2.7531 ug/L	0.63406	-2.7531 ppb	0.63406	23.03%
Tl 190.801†	-95.4	-12.406 ug/L	4.3601	-12.406 ppb	4.3601	35.15%
U 409.014†	500889.3	14834 ug/L	21.1	14834 ppb	21.1	0.14%
QC value within limits for U 409.014 Recovery = 98.89%						
V 292.402†	4024.9	-4.2210 ug/L	0.72230	-4.2210 ppb	0.72230	17.11%
Zn 213.857†	6609.9	14.150 ug/L	0.5302	14.150 ppb	0.5302	3.75%
SiO2†	-1155.3	-68.923 ug/L	2.8164	-68.923 ppb	2.8164	4.09%
All analyte(s) passed QC.						

Sequence No.: 12

Sample ID: LR2

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 16

Date Collected: 1/6/2010 11:15:55

Data Type: Reprocessed on 1/6/2010 11:55:37

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 361.383	855143.5	855143.5	96.451 %		11:19:29
1	Sc Radial	4532.6	4532.6	97.1 %		11:17:52
1	Y 371.029	719027.8	719027.8	94.391 %		11:19:29
1	Y RADIAL	4745.9	4745.9	96.21 %		11:17:52
1	Ag 328.068†	-7632.1	-8425.2	3.0535 ug/L	3.0535 ppb	11:19:35
1	Al 396.153Radial†	509.7	551.6	74.517 ug/L	74.517 ppb	11:17:52
1	As 188.979†	27888.2	28947.8	10215 ug/L	10215 ppb	11:19:35
1	B 249.677†	235236.7	244558.4	5018.7 ug/L	5018.7 ppb	11:19:29
1	Ba 233.527†	1893929.7	1963611.5	14341 ug/L	14341 ppb	11:19:29
1	Be 313.107†	8254992.6	8563096.1	2913.7 ug/L	2913.7 ppb	11:19:23
1	Ca 317.933Radial†	29.4	17.7	29.623 ug/L	29.623 ppb	11:18:12
1	Cd 226.502†	994256.1	1031079.3	9717.3 ug/L	9717.3 ppb	11:19:29
1	Co 228.616†	483605.0	501483.8	9429.4 ug/L	9429.4 ppb	11:19:35
1	Cr 267.716†	2313418.7	2398439.6	24048 ug/L	24048 ppb	11:19:29
1	Cu 324.752†	6593986.3	6828620.7	20217 ug/L	20217 ppb	11:19:23
1	Fe 238.204 Radial†	-18.7	-33.1	6.3256 ug/L	6.3256 ppb	11:18:12
1	K 766.490 Radial†	1422221.0	1461231.3	289970 ug/L	289970 ppb	11:17:47
1	Mg 279.077 IEC†	0.5	-1.2	158.74 ug/L	158.74 ppb	11:18:12
1	Mn 257.610†	8734405.4	9055281.5	9541.1 ug/L	9541.1 ppb	11:19:23
1	Mo 202.031†	149158.2	154626.7	9686.9 ug/L	9686.9 ppb	11:19:35
1	Na 589.592 Radial†	-946.1	775.9	234.37 ug/L	234.37 ppb	11:17:52
1	Ni 231.604†	433885.0	449725.2	9866.6 ug/L	9866.6 ppb	11:19:29
1	P 214.914†	35103.9	36147.0	14522 ug/L	14522 ppb	11:19:35
1	Pb 220.353†	225385.4	233756.5	24224 ug/L	24224 ppb	11:19:35
1	S 181.975 Axial†	43781.0	45332.1	51232 ug/L	51232 ppb	11:19:35
1	Sb 206.836†	33207.8	34392.6	10072 ug/L	10072 ppb	11:19:35
1	Se 196.026†	19445.2	20194.0	10364 ug/L	10364 ppb	11:19:35
1	Si 251.611†	1634255.5	1693773.3	48292 ug/L	48292 ppb	11:19:29
1	Sn 189.927†	67140.8	69607.9	10296 ug/L	10296 ppb	11:19:35
1	Sr 421.552†	1283469.1	1321668.7	9676.8 ug/L	9676.8 ppb	11:17:47
1	Ti 334.940†	6020668.2	6244023.1	9898.3 ug/L	9898.3 ppb	11:19:23
1	Tl 190.801†	34515.2	35838.6	9851.2 ug/L	9851.2 ppb	11:19:35
1	U 409.014†	-1575.9	1034.8	-15.619 ug/L	-15.619 ppb	11:19:35
1	V 292.402†	1537981.1	1596374.8	10140 ug/L	10140 ppb	11:19:29
1	Zn 213.857†	1663348.7	1723721.9	14086 ug/L	14086 ppb	11:19:29
1	SiO2†	1661507.8	1722008.9	105060 ug/L	105060 ppb	11:20:22
2	Sc 361.383	852719.5	852719.5	96.178 %		11:19:49
2	Sc Radial	4559.9	4559.9	97.7 %		11:18:22
2	Y 371.029	717455.3	717455.3	94.184 %		11:19:49
2	Y RADIAL	4799.5	4799.5	97.30 %		11:18:22
2	Ag 328.068†	-7539.2	-8351.2	3.3458 ug/L	3.3458 ppb	11:19:54
2	Al 396.153Radial†	529.3	568.5	92.510 ug/L	92.510 ppb	11:18:22
2	As 188.979†	27510.7	28637.5	10106 ug/L	10106 ppb	11:19:54
2	B 249.677†	234879.8	244880.5	5025.5 ug/L	5025.5 ppb	11:19:49
2	Ba 233.527†	1886474.8	1961442.2	14325 ug/L	14325 ppb	11:19:49
2	Be 313.107†	8221762.2	8552874.5	2910.2 ug/L	2910.2 ppb	11:19:43
2	Ca 317.933Radial†	27.6	15.7	26.326 ug/L	26.326 ppb	11:18:43
2	Cd 226.502†	990836.2	1030453.7	9711.4 ug/L	9711.4 ppb	11:19:49
2	Co 228.616†	479786.7	498939.0	9381.4 ug/L	9381.4 ppb	11:19:54
2	Cr 267.716†	2306239.8	2397793.6	24042 ug/L	24042 ppb	11:19:49
2	Cu 324.752†	6556528.0	6809107.7	20159 ug/L	20159 ppb	11:19:43
2	Fe 238.204 Radial†	-21.7	-36.1	-20.921 ug/L	-20.921 ppb	11:18:43
2	K 766.490 Radial†	1435740.8	1466307.3	290980 ug/L	290980 ppb	11:18:17
2	Mg 279.077 IEC†	-6.1	-7.8	-55.841 ug/L	-55.841 ppb	11:18:43
2	Mn 257.610†	8690389.9	9035259.1	9520.0 ug/L	9520.0 ppb	11:19:43
2	Mo 202.031†	147648.8	153497.0	9616.1 ug/L	9616.1 ppb	11:19:54
2	Na 589.592 Radial†	-1022.3	703.7	212.57 ug/L	212.57 ppb	11:18:22
2	Ni 231.604†	432587.9	449655.4	9865.1 ug/L	9865.1 ppb	11:19:49

2	P 214.914†	34621.3	35748.7	14337 ug/L	14337 ppb	11:19:54
2	Pb 220.353†	223665.0	232632.0	24107 ug/L	24107 ppb	11:19:54
2	S 181.975 Axial†	43159.2	44814.6	50647 ug/L	50647 ppb	11:19:54
2	Sb 206.836†	32939.0	34211.0	10015 ug/L	10015 ppb	11:19:54
2	Se 196.026†	19215.5	20012.5	10271 ug/L	10271 ppb	11:19:54
2	Si 251.611†	1630656.6	1694847.8	48323 ug/L	48323 ppb	11:19:49
2	Sn 189.927†	66660.2	69306.1	10251 ug/L	10251 ppb	11:19:54
2	Sr 421.552†	1293913.8	1324452.0	9697.2 ug/L	9697.2 ppb	11:18:17
2	Ti 334.940†	5988704.5	6228533.4	9873.7 ug/L	9873.7 ppb	11:19:43
2	Tl 190.801†	34232.4	35646.3	9798.7 ug/L	9798.7 ppb	11:19:54
2	U 409.014†	-1574.4	1031.7	-15.694 ug/L	-15.694 ppb	11:19:54
2	V 292.402†	1532941.9	1595668.1	10134 ug/L	10134 ppb	11:19:49
2	Zn 213.857†	1658548.0	1723632.6	14085 ug/L	14085 ppb	11:19:49
2	SiO2†	1655031.2	1720171.7	104950 ug/L	104950 ppb	11:20:29
3	Sc 361.383	857798.8	857798.8	96.750 %		11:20:09
3	Sc Radial	4449.0	4449.0	95.3 %		11:18:53
3	Y 371.029	721549.0	721549.0	94.722 %		11:20:09
3	Y RADIAL	4659.1	4659.1	94.45 %		11:18:53
3	Ag 328.068†	-7591.1	-8358.3	3.2878 ug/L	3.2878 ppb	11:20:14
3	Al 396.153Radial†	549.6	603.3	121.01 ug/L	121.01 ppb	11:18:53
3	As 188.979†	27884.6	28854.6	10183 ug/L	10183 ppb	11:20:14
3	B 249.677†	236512.7	245122.2	5030.4 ug/L	5030.4 ppb	11:20:09
3	Ba 233.527†	1897433.0	1961154.3	14323 ug/L	14323 ppb	11:20:09
3	Be 313.107†	8335052.1	8619351.9	2932.9 ug/L	2932.9 ppb	11:20:02
3	Ca 317.933Radial†	32.4	21.4	35.884 ug/L	35.884 ppb	11:19:13
3	Cd 226.502†	994033.2	1027658.0	9685.1 ug/L	9685.1 ppb	11:20:09
3	Co 228.616†	484126.0	500470.3	9410.2 ug/L	9410.2 ppb	11:20:14
3	Cr 267.716†	2315895.2	2393574.8	24000 ug/L	24000 ppb	11:20:09
3	Cu 324.752†	6658558.7	6874199.8	20352 ug/L	20352 ppb	11:20:02
3	Fe 238.204 Radial†	-19.0	-33.8	0.0691 ug/L	0.0691 ppb	11:19:13
3	K 766.490 Radial†	1453148.7	1521214.6	301880 ug/L	301880 ppb	11:18:48
3	Mg 279.077 IEC†	-5.4	-7.3	-36.118 ug/L	-36.118 ppb	11:19:13
3	Mn 257.610†	8805381.2	9100610.0	9588.8 ug/L	9588.8 ppb	11:20:02
3	Mo 202.031†	149382.4	154379.7	9671.4 ug/L	9671.4 ppb	11:20:14
3	Na 589.592 Radial†	-1048.5	650.1	196.38 ug/L	196.38 ppb	11:18:53
3	Ni 231.604†	434754.6	449231.6	9855.7 ug/L	9855.7 ppb	11:20:09
3	P 214.914†	35004.0	35931.1	14395 ug/L	14395 ppb	11:20:14
3	Pb 220.353†	225554.5	233207.9	24167 ug/L	24167 ppb	11:20:14
3	S 181.975 Axial†	43866.1	45279.5	51173 ug/L	51173 ppb	11:20:14
3	Sb 206.836†	33327.1	34409.3	10077 ug/L	10077 ppb	11:20:14
3	Se 196.026†	19458.9	20145.7	10339 ug/L	10339 ppb	11:20:14
3	Si 251.611†	1642305.9	1696849.3	48376 ug/L	48376 ppb	11:20:09
3	Sn 189.927†	67120.8	69371.7	10261 ug/L	10261 ppb	11:20:14
3	Sr 421.552†	1310935.2	1375334.0	10070 ug/L	10070 ppb	11:18:48
3	Ti 334.940†	6074754.7	6280604.0	9956.3 ug/L	9956.3 ppb	11:20:02
3	Tl 190.801†	34481.6	35693.1	9812.4 ug/L	9812.4 ppb	11:20:14
3	U 409.014†	-1695.1	916.7	-19.035 ug/L	-19.035 ppb	11:20:14
3	V 292.402†	1540635.9	1594182.9	10126 ug/L	10126 ppb	11:20:09
3	Zn 213.857†	1666183.8	1721314.0	14066 ug/L	14066 ppb	11:20:09
3	SiO2†	1649310.9	1704070.0	103950 ug/L	103950 ppb	11:20:36

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	855220.6	96.460 %	0.2865			0.30%
Sc Radial	4513.8	96.7 %	1.24			1.28%
Y 371.029	719344.0	94.432 %	0.2711			0.29%
Y RADIAL	4734.8	95.98 %	1.437			1.50%
Ag 328.068†	-8378.2	3.2290 ug/L	0.15473	3.2290 ppb	0.15473	4.79%
Al 396.153Radial†	574.5	96.012 ug/L	23.4424	96.012 ppb	23.4424	24.42%
As 188.979†	28813.3	10168 ug/L	55.9	10168 ppb	55.9	0.55%
QC value within limits for As 188.979 Recovery = 101.68%						
B 249.677†	244853.7	5024.9 ug/L	5.86	5024.9 ppb	5.86	0.12%
QC value within limits for B 249.677 Recovery = 100.50%						
Ba 233.527†	1962069.3	14329 ug/L	9.8	14329 ppb	9.8	0.07%
QC value within limits for Ba 233.527 Recovery = 95.53%						
Be 313.107†	8578440.8	2918.9 ug/L	12.18	2918.9 ppb	12.18	0.42%
QC value within limits for Be 313.107 Recovery = 97.30%						
Ca 317.933Radial†	18.3	30.611 ug/L	4.8545	30.611 ppb	4.8545	15.86%
Cd 226.502†	1029730.3	9704.6 ug/L	17.16	9704.6 ppb	17.16	0.18%

QC value within limits for Cd 226.502 Recovery = 97.05%				
Co 228.616†	500297.7	9407.0 ug/L	24.15	0.26%
QC value within limits for Co 228.616 Recovery = 94.07%				
Cr 267.716†	2396602.7	24030 ug/L	26.5	0.11%
QC value within limits for Cr 267.716 Recovery = 96.12%				
Cu 324.752†	6837309.4	20243 ug/L	98.9	0.49%
QC value within limits for Cu 324.752 Recovery = 101.21%				
Fe 238.204 Radial†	-34.3	-4.8420 ug/L	14.27150	294.75%
K 766.490 Radial†	1482917.8	294280 ug/L	6602.4	2.24%
QC value within limits for K 766.490 Radial Recovery = 98.09%				
Mg 279.077 IEC†	-5.4	22.261 ug/L	118.6075	532.79%
Mn 257.610†	9063716.9	9549.9 ug/L	35.28	0.37%
QC value within limits for Mn 257.610 Recovery = 95.50%				
Mo 202.031†	154167.8	9658.1 ug/L	37.21	0.39%
QC value within limits for Mo 202.031 Recovery = 96.58%				
Na 589.592 Radial†	709.9	214.44 ug/L	19.065	8.89%
Ni 231.604†	449537.4	9862.5 ug/L	5.86	0.06%
QC value within limits for Ni 231.604 Recovery = 98.62%				
P 214.914†	35942.3	14418 ug/L	94.9	0.66%
QC value within limits for P 214.914 Recovery = 96.12%				
Pb 220.353†	233198.8	24166 ug/L	58.3	0.24%
QC value within limits for Pb 220.353 Recovery = 96.66%				
S 181.975 Axial†	45142.1	51017 ug/L	321.9	0.63%
QC value within limits for S 181.975 Axial Recovery = 102.03%				
Sb 206.836†	34337.6	10055 ug/L	34.1	0.34%
QC value within limits for Sb 206.836 Recovery = 100.55%				
Se 196.026†	20117.4	10325 ug/L	48.3	0.47%
QC value within limits for Se 196.026 Recovery = 103.25%				
Si 251.611†	1695156.8	48330 ug/L	42.8	0.09%
QC value within limits for Si 251.611 Recovery = 96.66%				
Sn 189.927†	69428.6	10269 ug/L	23.5	0.23%
QC value within limits for Sn 189.927 Recovery = 102.69%				
Sr 421.552†	1340484.9	9814.6 ug/L	221.20	2.25%
QC value within limits for Sr 421.552 Recovery = 98.15%				
Ti 334.940†	6251053.5	9909.4 ug/L	42.43	0.43%
QC value within limits for Ti 334.940 Recovery = 99.09%				
Tl 190.801†	35726.0	9820.7 ug/L	27.28	0.28%
QC value within limits for Tl 190.801 Recovery = 98.21%				
U 409.014†	994.4	-16.782 ug/L	1.9508	11.62%
V 292.402†	1595408.6	10133 ug/L	7.1	0.07%
QC value within limits for V 292.402 Recovery = 101.33%				
Zn 213.857†	1722889.5	14079 ug/L	11.3	0.08%
QC value within limits for Zn 213.857 Recovery = 93.86%				
SiO2†	1715416.9	104650 ug/L	611.0	0.58%
QC value within limits for SiO2 Recovery = 97.81%				

All analyte(s) passed QC.

Sequence No.: 15

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/6/2010 11:40:15

Data Type: Reprocessed on 1/6/2010 11:55:41

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 361.383	880607.9	880607.9	99.323 %		11:43:26
1	Sc Radial	4577.3	4577.3	98.1 %		11:42:07
1	Y 371.029	748816.6	748816.6	98.301 %		11:43:26
1	Y RADIAL	4817.1	4817.1	97.65 %		11:42:07
1	Ag 328.068†	113728.4	113991.1	492.76 ug/L	492.76 ppb	11:43:26
1	Al 396.153Radial†	5558.8	5695.1	5030.1 ug/L	5030.1 ppb	11:42:07
1	As 188.979†	1375.6	1418.4	500.79 ug/L	500.79 ppb	11:43:46
1	B 249.677†	23608.4	24435.1	501.95 ug/L	501.95 ppb	11:43:26
1	Ba 233.527†	66877.5	67325.8	492.14 ug/L	492.14 ppb	11:43:26
1	Be 313.107†	1452961.5	1467215.3	496.89 ug/L	496.89 ppb	11:43:26
1	Ca 317.933Radial†	2960.6	3006.4	5037.8 ug/L	5037.8 ppb	11:42:27
1	Cd 226.502†	51692.2	52282.8	492.23 ug/L	492.23 ppb	11:43:26
1	Co 228.616†	25597.3	25855.7	486.28 ug/L	486.28 ppb	11:43:46
1	Cr 267.716†	48593.4	48820.6	489.95 ug/L	489.95 ppb	11:43:26
1	Cu 324.752†	172560.6	165737.6	490.94 ug/L	490.94 ppb	11:43:26
1	Fe 238.204 Radial†	564.9	562.2	4955.2 ug/L	4955.2 ppb	11:42:27
1	K 766.490 Radial†	28441.4	25665.3	5086.2 ug/L	5086.2 ppb	11:42:07
1	Mg 279.077 IEC†	156.3	157.8	5049.8 ug/L	5049.8 ppb	11:42:27
1	Mn 257.610†	467681.0	470352.0	495.98 ug/L	495.98 ppb	11:43:26
1	Mo 202.031†	7795.0	7828.2	490.89 ug/L	490.89 ppb	11:43:46
1	Na 589.592 Radial†	29691.6	32027.0	9674.7 ug/L	9674.7 ppb	11:42:07
1	Ni 231.604†	22169.3	22195.3	486.93 ug/L	486.93 ppb	11:43:46
1	P 214.914†	5231.3	5018.4	2372.3 ug/L	2372.3 ppb	11:43:46
1	Pb 220.353†	4637.7	4747.1	493.32 ug/L	493.32 ppb	11:43:46
1	S 181.975 Axial†	914.5	860.8	971.85 ug/L	971.85 ppb	11:43:46
1	Sb 206.836†	1672.4	1646.7	498.92 ug/L	498.92 ppb	11:43:46
1	Se 196.026†	933.3	972.9	515.40 ug/L	515.40 ppb	11:43:46
1	Si 251.611†	85554.9	85521.4	2441.6 ug/L	2441.6 ppb	11:43:26
1	Sn 189.927†	3296.8	3315.9	491.05 ug/L	491.05 ppb	11:43:46
1	Sr 421.552†	65973.1	67257.6	492.39 ug/L	492.39 ppb	11:42:07
1	Ti 334.940†	309958.2	313888.0	497.89 ug/L	497.89 ppb	11:43:26
1	Tl 190.801†	1738.9	1804.1	496.11 ug/L	496.11 ppb	11:43:46
1	U 409.014†	13104.2	15862.3	469.99 ug/L	469.99 ppb	11:43:26
1	V 292.402†	75644.0	77961.4	495.96 ug/L	495.96 ppb	11:43:26
1	Zn 213.857†	60403.7	59983.7	489.07 ug/L	489.07 ppb	11:43:26
1	SiO2†	84375.4	84314.4	5150.3 ug/L	5150.3 ppb	11:44:46
2	Sc 361.383	881660.6	881660.6	99.442 %		11:43:54
2	Sc Radial	4591.0	4591.0	98.4 %		11:42:32
2	Y 371.029	749459.3	749459.3	98.386 %		11:43:54
2	Y RADIAL	4873.5	4873.5	98.80 %		11:42:32
2	Ag 328.068†	113707.1	113833.1	492.09 ug/L	492.09 ppb	11:43:54
2	Al 396.153Radial†	5586.7	5706.6	5040.2 ug/L	5040.2 ppb	11:42:32
2	As 188.979†	1370.8	1411.9	498.49 ug/L	498.49 ppb	11:44:14
2	B 249.677†	23565.3	24363.4	500.46 ug/L	500.46 ppb	11:43:54
2	Ba 233.527†	67254.5	67624.5	494.32 ug/L	494.32 ppb	11:43:54
2	Be 313.107†	1456068.8	1468593.5	497.35 ug/L	497.35 ppb	11:43:54
2	Ca 317.933Radial†	2992.2	3029.6	5076.6 ug/L	5076.6 ppb	11:42:52
2	Cd 226.502†	52002.1	52532.3	494.58 ug/L	494.58 ppb	11:43:54
2	Co 228.616†	25716.5	25944.8	487.96 ug/L	487.96 ppb	11:44:14
2	Cr 267.716†	48785.1	48954.9	491.30 ug/L	491.30 ppb	11:43:54
2	Cu 324.752†	172808.2	165779.2	491.06 ug/L	491.06 ppb	11:43:54
2	Fe 238.204 Radial†	569.0	564.6	4976.5 ug/L	4976.5 ppb	11:42:52
2	K 766.490 Radial†	28423.4	25560.6	5065.4 ug/L	5065.4 ppb	11:42:32
2	Mg 279.077 IEC†	156.7	157.7	5047.7 ug/L	5047.7 ppb	11:42:52
2	Mn 257.610†	469471.6	471590.5	497.29 ug/L	497.29 ppb	11:43:54
2	Mo 202.031†	7836.0	7860.0	492.88 ug/L	492.88 ppb	11:44:14
2	Na 589.592 Radial†	29774.4	32020.9	9672.9 ug/L	9672.9 ppb	11:42:32
2	Ni 231.604†	22217.9	22217.6	487.42 ug/L	487.42 ppb	11:44:14

2	P 214.914†	5265.1	5046.1	2385.8 ug/L	2385.8 ppb	11:44:14
2	Pb 220.353†	4670.1	4774.1	496.12 ug/L	496.12 ppb	11:44:14
2	S 181.975 Axial†	924.2	869.5	981.68 ug/L	981.68 ppb	11:44:14
2	Sb 206.836†	1678.1	1650.4	500.03 ug/L	500.03 ppb	11:44:14
2	Se 196.026†	922.1	960.5	509.14 ug/L	509.14 ppb	11:44:14
2	Si 251.611†	85834.1	85699.4	2446.6 ug/L	2446.6 ppb	11:43:54
2	Sn 189.927†	3300.3	3315.5	490.99 ug/L	490.99 ppb	11:44:14
2	Sr 421.552†	66332.7	67422.8	493.60 ug/L	493.60 ppb	11:42:32
2	Ti 334.940†	310595.5	314156.3	498.32 ug/L	498.32 ppb	11:43:54
2	Tl 190.801†	1745.4	1808.6	497.34 ug/L	497.34 ppb	11:44:14
2	U 409.014†	12971.1	15712.6	465.54 ug/L	465.54 ppb	11:43:54
2	V 292.402†	75758.6	77985.7	496.13 ug/L	496.13 ppb	11:43:54
2	Zn 213.857†	60678.4	60187.3	490.74 ug/L	490.74 ppb	11:43:54
2	SiO2†	85279.4	85122.1	5199.8 ug/L	5199.8 ppb	11:44:52
3	Sc 361.383	875525.0	875525.0	98.750 %		11:44:21
3	Sc Radial	4595.9	4595.9	98.5 %		11:42:57
3	Y 371.029	743592.4	743592.4	97.615 %		11:44:21
3	Y RADIAL	4837.2	4837.2	98.06 %		11:42:57
3	Ag 328.068†	113388.1	114311.3	494.11 ug/L	494.11 ppb	11:44:21
3	Al 396.153Radial†	5602.4	5716.4	5048.8 ug/L	5048.8 ppb	11:42:57
3	As 188.979†	1373.1	1423.9	502.68 ug/L	502.68 ppb	11:44:41
3	B 249.677†	23651.1	24616.4	505.68 ug/L	505.68 ppb	11:44:21
3	Ba 233.527†	66854.7	67693.6	494.82 ug/L	494.82 ppb	11:44:21
3	Be 313.107†	1447710.5	1470390.7	497.96 ug/L	497.96 ppb	11:44:21
3	Ca 317.933Radial†	2982.6	3016.6	5054.7 ug/L	5054.7 ppb	11:43:17
3	Cd 226.502†	51693.2	52586.0	495.10 ug/L	495.10 ppb	11:44:21
3	Co 228.616†	25676.6	26085.7	490.61 ug/L	490.61 ppb	11:44:41
3	Cr 267.716†	48536.4	49046.9	492.21 ug/L	492.21 ppb	11:44:21
3	Cu 324.752†	171989.4	166167.9	492.21 ug/L	492.21 ppb	11:44:21
3	Fe 238.204 Radial†	558.0	552.8	4873.3 ug/L	4873.3 ppb	11:43:17
3	K 766.490 Radial†	28341.4	25446.5	5042.8 ug/L	5042.8 ppb	11:42:57
3	Mg 279.077 IEC†	160.4	161.3	5161.7 ug/L	5161.7 ppb	11:43:17
3	Mn 257.610†	467425.0	472826.5	498.58 ug/L	498.58 ppb	11:44:21
3	Mo 202.031†	7819.0	7898.1	495.26 ug/L	495.26 ppb	11:44:41
3	Na 589.592 Radial†	29641.6	31853.8	9622.4 ug/L	9622.4 ppb	11:42:57
3	Ni 231.604†	22160.8	22316.3	489.58 ug/L	489.58 ppb	11:44:41
3	P 214.914†	5238.5	5056.3	2390.7 ug/L	2390.7 ppb	11:44:41
3	Pb 220.353†	4658.3	4795.0	498.31 ug/L	498.31 ppb	11:44:41
3	S 181.975 Axial†	919.0	870.7	983.04 ug/L	983.04 ppb	11:44:41
3	Sb 206.836†	1680.5	1664.7	504.38 ug/L	504.38 ppb	11:44:41
3	Se 196.026†	919.7	964.6	510.91 ug/L	510.91 ppb	11:44:41
3	Si 251.611†	85447.2	85912.4	2452.7 ug/L	2452.7 ppb	11:44:21
3	Sn 189.927†	3298.3	3336.7	494.12 ug/L	494.12 ppb	11:44:41
3	Sr 421.552†	66374.7	67393.4	493.39 ug/L	493.39 ppb	11:42:57
3	Ti 334.940†	309182.0	314913.7	499.52 ug/L	499.52 ppb	11:44:21
3	Tl 190.801†	1756.6	1832.2	503.78 ug/L	503.78 ppb	11:44:41
3	U 409.014†	13124.0	15958.8	472.87 ug/L	472.87 ppb	11:44:21
3	V 292.402†	75255.1	78009.7	496.34 ug/L	496.34 ppb	11:44:21
3	Zn 213.857†	60325.0	60257.1	491.30 ug/L	491.30 ppb	11:44:21
3	SiO2†	84657.8	85093.6	5198.0 ug/L	5198.0 ppb	11:44:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	879264.5	99.172 %	0.3701			0.37%
Sc Radial	4588.1	98.3 %	0.21			0.21%
Y 371.029	747289.4	98.101 %	0.4224			0.43%
Y RADIAL	4842.6	98.17 %	0.580			0.59%
Ag 328.068†	114045.2	492.99 ug/L	1.026	492.99 ppb	1.026	0.21%
QC value within limits for Ag 328.068 Recovery = 98.60%						
Al 396.153Radial†	5706.0	5039.7 ug/L	9.37	5039.7 ppb	9.37	0.19%
QC value within limits for Al 396.153Radial Recovery = 100.79%						
As 188.979†	1418.1	500.65 ug/L	2.096	500.65 ppb	2.096	0.42%
QC value within limits for As 188.979 Recovery = 100.13%						
B 249.677†	24471.6	502.70 ug/L	2.691	502.70 ppb	2.691	0.54%
QC value within limits for B 249.677 Recovery = 100.54%						
Ba 233.527†	67548.0	493.76 ug/L	1.425	493.76 ppb	1.425	0.29%
QC value within limits for Ba 233.527 Recovery = 98.75%						
Be 313.107†	1468733.2	497.40 ug/L	0.540	497.40 ppb	0.540	0.11%
QC value within limits for Be 313.107 Recovery = 99.48%						

Ca 317.933Radial†	3017.5	5056.4 ug/L	19.44	5056.4 ppb	19.44	0.38%
QC value within limits for Ca 317.933Radial Recovery = 101.13%						
Cd 226.502†	52467.1	493.97 ug/L	1.527	493.97 ppb	1.527	0.31%
QC value within limits for Cd 226.502 Recovery = 98.79%						
Co 228.616†	25962.1	488.28 ug/L	2.184	488.28 ppb	2.184	0.45%
QC value within limits for Co 228.616 Recovery = 97.66%						
Cr 267.716†	48940.8	491.15 ug/L	1.140	491.15 ppb	1.140	0.23%
QC value within limits for Cr 267.716 Recovery = 98.23%						
Cu 324.752†	165894.9	491.40 ug/L	0.700	491.40 ppb	0.700	0.14%
QC value within limits for Cu 324.752 Recovery = 98.28%						
Fe 238.204 Radial†	559.9	4935.0 ug/L	54.52	4935.0 ppb	54.52	1.10%
QC value within limits for Fe 238.204 Radial Recovery = 98.70%						
K 766.490 Radial†	25557.5	5064.8 ug/L	21.73	5064.8 ppb	21.73	0.43%
QC value within limits for K 766.490 Radial Recovery = 101.30%						
Mg 279.077 IEC†	158.9	5086.4 ug/L	65.22	5086.4 ppb	65.22	1.28%
QC value within limits for Mg 279.077 IEC Recovery = 101.73%						
Mn 257.610†	471589.6	497.29 ug/L	1.298	497.29 ppb	1.298	0.26%
QC value within limits for Mn 257.610 Recovery = 99.46%						
Mo 202.031†	7862.1	493.01 ug/L	2.187	493.01 ppb	2.187	0.44%
QC value within limits for Mo 202.031 Recovery = 98.60%						
Na 589.592 Radial†	31967.3	9656.6 ug/L	29.69	9656.6 ppb	29.69	0.31%
QC value within limits for Na 589.592 Radial Recovery = 96.57%						
Ni 231.604†	22243.0	487.98 ug/L	1.412	487.98 ppb	1.412	0.29%
QC value within limits for Ni 231.604 Recovery = 97.60%						
P 214.914†	5040.3	2383.0 ug/L	9.52	2383.0 ppb	9.52	0.40%
QC value within limits for P 214.914 Recovery = 95.32%						
Pb 220.353†	4772.1	495.91 ug/L	2.500	495.91 ppb	2.500	0.50%
QC value within limits for Pb 220.353 Recovery = 99.18%						
S 181.975 Axial†	867.0	978.86 ug/L	6.106	978.86 ppb	6.106	0.62%
QC value within limits for S 181.975 Axial Recovery = 97.89%						
Sb 206.836†	1653.9	501.11 ug/L	2.885	501.11 ppb	2.885	0.58%
QC value within limits for Sb 206.836 Recovery = 100.22%						
Se 196.026†	966.0	511.82 ug/L	3.226	511.82 ppb	3.226	0.63%
QC value within limits for Se 196.026 Recovery = 102.36%						
Si 251.611†	85711.1	2447.0 ug/L	5.58	2447.0 ppb	5.58	0.23%
QC value within limits for Si 251.611 Recovery = 97.88%						
Sn 189.927†	3322.7	492.06 ug/L	1.792	492.06 ppb	1.792	0.36%
QC value within limits for Sn 189.927 Recovery = 98.41%						
Sr 421.552†	67357.9	493.13 ug/L	0.645	493.13 ppb	0.645	0.13%
QC value within limits for Sr 421.552 Recovery = 98.63%						
Ti 334.940†	314319.4	498.58 ug/L	0.843	498.58 ppb	0.843	0.17%
QC value within limits for Ti 334.940 Recovery = 99.72%						
Tl 190.801†	1815.0	499.07 ug/L	4.120	499.07 ppb	4.120	0.83%
QC value within limits for Tl 190.801 Recovery = 99.81%						
U 409.014†	15844.6	469.47 ug/L	3.694	469.47 ppb	3.694	0.79%
QC value within limits for U 409.014 Recovery = 93.89%						
V 292.402†	77985.6	496.14 ug/L	0.192	496.14 ppb	0.192	0.04%
QC value within limits for V 292.402 Recovery = 99.23%						
Zn 213.857†	60142.7	490.37 ug/L	1.160	490.37 ppb	1.160	0.24%
QC value within limits for Zn 213.857 Recovery = 98.07%						
SiO2†	84843.4	5182.7 ug/L	28.07	5182.7 ppb	28.07	0.54%
QC value within limits for SiO2 Recovery = 96.92%						
All analyte(s) passed QC.						

Sequence No.: 16

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/6/2010 11:47:06

Data Type: Reprocessed on 1/6/2010 11:55:42

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 361.383	853425.9	853425.9	96.257 %		11:50:16
1	Sc Radial	4639.9	4639.9	99.4 %		11:48:59
1	Y 371.029	734376.1	734376.1	96.406 %		11:50:16
1	Y RADIAL	4904.2	4904.2	99.42 %		11:48:59
1	Ag 328.068†	487.6	-5.7	-0.0153 ug/L	-0.0153 ppb	11:50:16
1	Al 396.153Radial†	0.7	27.4	24.328 ug/L	24.328 ppb	11:48:59
1	As 188.979†	-20.0	12.6	4.4098 ug/L	4.4098 ppb	11:50:36
1	B 249.677†	138.9	810.2	16.706 ug/L	16.706 ppb	11:50:16
1	Ba 233.527†	2.4	-5.0	-0.0370 ug/L	-0.0370 ppb	11:50:36
1	Be 313.107†	-4320.5	-137.0	-0.0464 ug/L	-0.0464 ppb	11:50:16
1	Ca 317.933Radial†	11.6	-0.9	-1.5441 ug/L	-1.5441 ppb	11:49:19
1	Cd 226.502†	-209.8	20.4	0.1926 ug/L	0.1926 ppb	11:50:36
1	Co 228.616†	-98.8	-18.6	-0.3493 ug/L	-0.3493 ppb	11:50:36
1	Cr 267.716†	104.7	4.7	0.0501 ug/L	0.0501 ppb	11:50:16
1	Cu 324.752†	8033.0	346.3	1.0255 ug/L	1.0255 ppb	11:50:16
1	Fe 238.204 Radial†	14.2	0.4	3.1714 ug/L	3.1714 ppb	11:49:19
1	K 766.490 Radial†	3805.5	491.5	97.544 ug/L	97.544 ppb	11:48:59
1	Mg 279.077 IEC†	0.6	-1.0	-33.016 ug/L	-33.016 ppb	11:49:19
1	Mn 257.610†	560.9	66.3	0.0707 ug/L	0.0707 ppb	11:50:16
1	Mo 202.031†	24.3	5.3	0.3311 ug/L	0.3311 ppb	11:50:36
1	Na 589.592 Radial†	-1577.7	163.0	49.249 ug/L	49.249 ppb	11:48:59
1	Ni 231.604†	151.8	32.7	0.7176 ug/L	0.7176 ppb	11:50:36
1	P 214.914†	245.6	6.6	3.0816 ug/L	3.0816 ppb	11:50:36
1	Pb 220.353†	-75.7	-0.9	-0.0843 ug/L	-0.0843 ppb	11:50:36
1	S 181.975 Axial†	57.4	-0.3	-0.3460 ug/L	-0.3460 ppb	11:50:36
1	Sb 206.836†	59.7	24.9	7.4621 ug/L	7.4621 ppb	11:50:36
1	Se 196.026†	-38.5	-6.7	-3.4348 ug/L	-3.4348 ppb	11:50:36
1	Si 251.611†	660.5	69.6	1.9575 ug/L	1.9575 ppb	11:50:36
1	Sn 189.927†	6.2	3.0	0.4452 ug/L	0.4452 ppb	11:50:36
1	Sr 421.552†	31.8	16.0	0.1172 ug/L	0.1172 ppb	11:48:59
1	Ti 334.940†	-1772.5	-24.1	-0.0337 ug/L	-0.0337 ppb	11:50:16
1	Tl 190.801†	-44.0	7.7	2.1129 ug/L	2.1129 ppb	11:50:36
1	U 409.014†	-2905.4	-349.7	-10.395 ug/L	-10.395 ppb	11:50:16
1	V 292.402†	-1761.0	-27.7	-0.1902 ug/L	-0.1902 ppb	11:50:16
1	Zn 213.857†	885.4	88.2	0.7201 ug/L	0.7201 ppb	11:50:36
1	Sio2†	691.8	82.7	4.9899 ug/L	4.9899 ppb	11:51:32
2	Sc 361.383	869080.1	869080.1	98.023 %		11:50:41
2	Sc Radial	4769.4	4769.4	102 %		11:49:24
2	Y 371.029	747962.0	747962.0	98.189 %		11:50:41
2	Y RADIAL	5060.7	5060.7	102.6 %		11:49:24
2	Ag 328.068†	532.8	31.3	0.1537 ug/L	0.1537 ppb	11:50:41
2	Al 396.153Radial†	-14.9	12.1	10.712 ug/L	10.712 ppb	11:49:24
2	As 188.979†	-17.2	15.8	5.5311 ug/L	5.5311 ppb	11:51:01
2	B 249.677†	127.0	795.4	16.399 ug/L	16.399 ppb	11:50:41
2	Ba 233.527†	23.8	16.8	0.1239 ug/L	0.1239 ppb	11:51:01
2	Be 313.107†	-4341.0	-77.1	-0.0263 ug/L	-0.0263 ppb	11:50:41
2	Ca 317.933Radial†	15.1	2.2	3.7179 ug/L	3.7179 ppb	11:49:44
2	Cd 226.502†	-221.8	12.1	0.1116 ug/L	0.1116 ppb	11:51:01
2	Co 228.616†	-104.7	-22.9	-0.4282 ug/L	-0.4282 ppb	11:51:01
2	Cr 267.716†	85.2	-17.2	-0.1670 ug/L	-0.1670 ppb	11:50:41
2	Cu 324.752†	8191.6	357.8	1.0606 ug/L	1.0606 ppb	11:50:41
2	Fe 238.204 Radial†	17.0	2.8	24.255 ug/L	24.255 ppb	11:49:44
2	K 766.490 Radial†	3825.8	407.3	80.820 ug/L	80.820 ppb	11:49:24
2	Mg 279.077 IEC†	4.7	3.0	94.742 ug/L	94.742 ppb	11:49:44
2	Mn 257.610†	530.5	24.7	0.0267 ug/L	0.0267 ppb	11:50:41
2	Mo 202.031†	29.1	9.8	0.6168 ug/L	0.6168 ppb	11:51:01
2	Na 589.592 Radial†	-1515.3	267.2	80.710 ug/L	80.710 ppb	11:49:24
2	Ni 231.604†	126.0	3.5	0.0763 ug/L	0.0763 ppb	11:51:01

2	P 214.914†	258.5	15.2	7.2242 ug/L	7.2242 ppb	11:51:01
2	Pb 220.353†	-78.5	-2.3	-0.2359 ug/L	-0.2359 ppb	11:51:01
2	S 181.975 Axial†	57.2	-1.5	-1.6884 ug/L	-1.6884 ppb	11:51:01
2	Sb 206.836†	66.5	30.8	9.2191 ug/L	9.2191 ppb	11:51:01
2	Se 196.026†	-40.1	-7.6	-3.8284 ug/L	-3.8284 ppb	11:51:01
2	Si 251.611†	656.8	53.5	1.4953 ug/L	1.4953 ppb	11:51:01
2	Sn 189.927†	6.6	3.3	0.4884 ug/L	0.4884 ppb	11:51:01
2	Sr 421.552†	30.0	13.3	0.0976 ug/L	0.0976 ppb	11:49:24
2	Ti 334.940†	-1843.9	-63.8	-0.0958 ug/L	-0.0958 ppb	11:50:41
2	Tl 190.801†	-38.8	13.8	3.7753 ug/L	3.7753 ppb	11:51:01
2	U 409.014†	-2996.6	-388.3	-11.548 ug/L	-11.548 ppb	11:50:41
2	V 292.402†	-1708.0	59.3	0.3575 ug/L	0.3575 ppb	11:50:41
2	Zn 213.857†	895.7	82.1	0.6691 ug/L	0.6691 ppb	11:51:01
2	SiO2†	718.4	96.9	5.8610 ug/L	5.8610 ppb	11:51:37
3	Sc 361.383	855687.9	855687.9	96.512 %		11:51:07
3	Sc Radial	4706.5	4706.5	101 %		11:49:49
3	Y 371.029	736491.2	736491.2	96.683 %		11:51:07
3	Y RADIAL	4963.4	4963.4	100.6 %		11:49:49
3	Ag 328.068†	448.2	-47.9	-0.2025 ug/L	-0.2025 ppb	11:51:07
3	Al 396.153Radial†	-29.2	-2.2	-2.0198 ug/L	-2.0198 ppb	11:49:49
3	As 188.979†	-17.7	15.1	5.2772 ug/L	5.2772 ppb	11:51:27
3	B 249.677†	117.7	787.8	16.244 ug/L	16.244 ppb	11:51:07
3	Ba 233.527†	7.8	0.5	0.0028 ug/L	0.0028 ppb	11:51:27
3	Be 313.107†	-4264.9	-67.5	-0.0227 ug/L	-0.0227 ppb	11:51:07
3	Ca 317.933Radial†	14.7	2.0	3.3743 ug/L	3.3743 ppb	11:50:09
3	Cd 226.502†	-208.0	22.8	0.2144 ug/L	0.2144 ppb	11:51:27
3	Co 228.616†	-108.7	-28.6	-0.5356 ug/L	-0.5356 ppb	11:51:27
3	Cr 267.716†	93.3	-7.4	-0.0731 ug/L	-0.0731 ppb	11:51:07
3	Cu 324.752†	8026.2	317.2	0.9391 ug/L	0.9391 ppb	11:51:07
3	Fe 238.204 Radial†	14.2	0.2	1.8112 ug/L	1.8112 ppb	11:50:09
3	K 766.490 Radial†	3800.7	432.5	85.837 ug/L	85.837 ppb	11:49:49
3	Mg 279.077 IEC†	3.1	1.4	45.216 ug/L	45.216 ppb	11:50:09
3	Mn 257.610†	551.8	55.3	0.0576 ug/L	0.0576 ppb	11:51:07
3	Mo 202.031†	35.1	16.4	1.0303 ug/L	1.0303 ppb	11:51:27
3	Na 589.592 Radial†	-1580.0	183.2	55.348 ug/L	55.348 ppb	11:49:49
3	Ni 231.604†	110.5	-10.5	-0.2312 ug/L	-0.2312 ppb	11:51:27
3	P 214.914†	242.8	3.0	1.3094 ug/L	1.3094 ppb	11:51:27
3	Pb 220.353†	-101.4	-27.3	-2.8273 ug/L	-2.8273 ppb	11:51:27
3	S 181.975 Axial†	56.1	-1.7	-1.9684 ug/L	-1.9684 ppb	11:51:27
3	Sb 206.836†	52.3	17.1	5.1370 ug/L	5.1370 ppb	11:51:27
3	Se 196.026†	-37.0	-5.1	-2.5822 ug/L	-2.5822 ppb	11:51:27
3	Si 251.611†	671.7	79.4	2.2299 ug/L	2.2299 ppb	11:51:27
3	Sn 189.927†	4.4	1.2	0.1772 ug/L	0.1772 ppb	11:51:27
3	Sr 421.552†	3.4	-12.6	-0.0920 ug/L	-0.0920 ppb	11:49:49
3	Ti 334.940†	-1711.2	44.3	0.0730 ug/L	0.0730 ppb	11:51:07
3	Tl 190.801†	-46.9	4.8	1.3094 ug/L	1.3094 ppb	11:51:27
3	U 409.014†	-2756.2	-187.0	-5.5607 ug/L	-5.5607 ppb	11:51:07
3	V 292.402†	-1813.5	-77.2	-0.4800 ug/L	-0.4800 ppb	11:51:07
3	Zn 213.857†	870.5	70.2	0.5763 ug/L	0.5763 ppb	11:51:27
3	SiO2†	683.0	71.6	4.2941 ug/L	4.2941 ppb	11:51:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	859398.0	96.931 %	0.9543			0.98%
Sc Radial	4705.3	101 %	1.4			1.38%
Y 371.029	739609.8	97.093 %	0.9596			0.99%
Y RADIAL	4976.1	100.9 %	1.60			1.59%
Ag 328.068†	-7.5	-0.0214 ug/L	0.17817	-0.0214 ppb	0.17817	833.12%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	12.4	11.007 ug/L	13.1764	11.007 ppb	13.1764	119.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	14.5	5.0727 ug/L	0.58799	5.0727 ppb	0.58799	11.59%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	797.8	16.450 ug/L	0.2350	16.450 ppb	0.2350	1.43%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.1	0.0299 ug/L	0.08381	0.0299 ppb	0.08381	280.45%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-93.9	-0.0318 ug/L	0.01279	-0.0318 ppb	0.01279	40.26%
QC value within limits for Be 313.107 Recovery = Not calculated						

Ca 317.933Radial†	1.1	1.8494 ug/L	2.94383	1.8494 ppb	2.94383	159.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	18.4	0.1729 ug/L	0.05420	0.1729 ppb	0.05420	31.35%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-23.4	-0.4377 ug/L	0.09355	-0.4377 ppb	0.09355	21.37%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-6.6	-0.0634 ug/L	0.10892	-0.0634 ppb	0.10892	171.93%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	340.4	1.0084 ug/L	0.06251	1.0084 ppb	0.06251	6.20%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	1.1	9.7460 ug/L	12.58394	9.7460 ppb	12.58394	129.12%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	443.8	88.067 ug/L	8.5823	88.067 ppb	8.5823	9.75%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.1	35.647 ug/L	64.4140	35.647 ppb	64.4140	180.70%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	48.8	0.0517 ug/L	0.02260	0.0517 ppb	0.02260	43.71%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	10.5	0.6594 ug/L	0.35156	0.6594 ppb	0.35156	53.31%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	204.5	61.769 ug/L	16.6847	61.769 ppb	16.6847	27.01%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	8.5	0.1876 ug/L	0.48411	0.1876 ppb	0.48411	258.07%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	8.3	3.8717 ug/L	3.03553	3.8717 ppb	3.03553	78.40%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-10.2	-1.0492 ug/L	1.54178	-1.0492 ppb	1.54178	146.95%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.2	-1.3343 ug/L	0.86725	-1.3343 ppb	0.86725	65.00%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	24.3	7.2727 ug/L	2.04763	7.2727 ppb	2.04763	28.16%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-6.5	-3.2818 ug/L	0.63701	-3.2818 ppb	0.63701	19.41%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	67.5	1.8942 ug/L	0.37137	1.8942 ppb	0.37137	19.60%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.5	0.3703 ug/L	0.16858	0.3703 ppb	0.16858	45.53%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	5.6	0.0409 ug/L	0.11554	0.0409 ppb	0.11554	282.26%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-14.5	-0.0189 ug/L	0.08539	-0.0189 ppb	0.08539	452.74%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	8.8	2.3992 ug/L	1.25764	2.3992 ppb	1.25764	52.42%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-308.3	-9.1679 ug/L	3.17654	-9.1679 ppb	3.17654	34.65%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-15.2	-0.1042 ug/L	0.42535	-0.1042 ppb	0.42535	408.06%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	80.2	0.6552 ug/L	0.07293	0.6552 ppb	0.07293	11.13%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	83.7	5.0483 ug/L	0.78506	5.0483 ppb	0.78506	15.55%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 10
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 1/6/2010 13:00:07
 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	4856.0	4856.0	104 %		13:01:59
1	Y RADIAL	5121.0	5121.0	103.8 %		13:01:59
1	Al 396.153Radial†	5697.4	5503.1	4858.6 ug/L	4858.6 ppb	13:01:59
1	Ca 317.933Radial†	3059.6	2928.3	4906.9 ug/L	4906.9 ppb	13:02:19
1	Fe 238.204 Radial†	578.8	542.4	4782.6 ug/L	4782.6 ppb	13:02:19
1	K 766.490 Radial†	28302.2	23867.6	4729.0 ug/L	4729.0 ppb	13:01:59
1	Mg 279.077 IEC†	164.4	156.4	5006.5 ug/L	5006.5 ppb	13:02:19
1	Na 589.592 Radial†	31958.0	32468.4	9808.0 ug/L	9808.0 ppb	13:01:59
1	Sr 421.552†	69958.6	67228.8	492.18 ug/L	492.18 ppb	13:01:59
1	Sc 361.383	842039.2	842039.2	94.973 %		13:03:18
1	Y 371.029	715710.2	715710.2	93.955 %		13:03:18
1	Ag 328.068†	114518.0	120067.2	518.88 ug/L	518.88 ppb	13:03:18
1	As 188.979†	1365.3	1471.0	519.37 ug/L	519.37 ppb	13:03:38
1	B 249.677†	22939.8	24819.9	509.82 ug/L	509.82 ppb	13:03:18
1	Ba 233.527†	67506.8	71072.5	519.52 ug/L	519.52 ppb	13:03:18
1	Be 313.107†	1460375.3	1542026.6	522.23 ug/L	522.23 ppb	13:03:18
1	Cd 226.502†	51942.2	54929.9	517.20 ug/L	517.20 ppb	13:03:18
1	Co 228.616†	25997.5	27457.5	516.41 ug/L	516.41 ppb	13:03:38
1	Cr 267.716†	48970.5	51458.5	516.41 ug/L	516.41 ppb	13:03:18
1	Cu 324.752†	173918.9	175125.7	518.73 ug/L	518.73 ppb	13:03:18
1	Mn 257.610†	471957.9	496422.9	523.44 ug/L	523.44 ppb	13:03:18
1	Mo 202.031†	7903.7	8302.2	520.56 ug/L	520.56 ppb	13:03:38
1	Ni 231.604†	22421.0	23482.7	515.17 ug/L	515.17 ppb	13:03:38
1	P 214.914†	5291.9	5323.4	2517.0 ug/L	2517.0 ppb	13:03:38
1	Pb 220.353†	4699.1	5025.6	522.20 ug/L	522.20 ppb	13:03:38
1	S 181.975 Axial†	932.7	922.2	1041.3 ug/L	1041.3 ppb	13:03:38
1	Sb 206.836†	1677.4	1729.1	523.96 ug/L	523.96 ppb	13:03:38
1	Se 196.026†	933.1	1015.8	536.88 ug/L	536.88 ppb	13:03:38
1	Si 251.611†	86436.0	90394.6	2580.9 ug/L	2580.9 ppb	13:03:18
1	Sn 189.927†	3316.2	3488.3	516.54 ug/L	516.54 ppb	13:03:38
1	Ti 334.940†	313158.3	331551.6	525.89 ug/L	525.89 ppb	13:03:18
1	Tl 190.801†	1738.2	1883.6	517.98 ug/L	517.98 ppb	13:03:38
1	U 409.014†	13404.7	16783.0	497.34 ug/L	497.34 ppb	13:03:18
1	V 292.402†	76181.2	82015.4	521.87 ug/L	521.87 ppb	13:03:18
1	Zn 213.857†	60758.2	63142.5	514.84 ug/L	514.84 ppb	13:03:18
1	SiO2†	86463.8	90404.4	5523.1 ug/L	5523.1 ppb	13:04:39
2	Sc Radial	4805.7	4805.7	103 %		13:02:24
2	Y RADIAL	5062.2	5062.2	102.6 %		13:02:24
2	Al 396.153Radial†	5749.5	5611.0	4955.1 ug/L	4955.1 ppb	13:02:24
2	Ca 317.933Radial†	3033.6	2933.9	4916.2 ug/L	4916.2 ppb	13:02:44
2	Fe 238.204 Radial†	577.5	547.0	4822.3 ug/L	4822.3 ppb	13:02:44
2	K 766.490 Radial†	28602.5	24443.8	4843.6 ug/L	4843.6 ppb	13:02:24
2	Mg 279.077 IEC†	163.4	157.0	5027.1 ug/L	5027.1 ppb	13:02:44
2	Na 589.592 Radial†	32358.7	33178.9	10023 ug/L	10023 ppb	13:02:24
2	Sr 421.552†	70895.8	68842.4	504.00 ug/L	504.00 ppb	13:02:24
2	Sc 361.383	874072.2	874072.2	98.586 %		13:03:46
2	Y 371.029	742675.6	742675.6	97.495 %		13:03:46
2	Ag 328.068†	112980.0	114088.2	493.13 ug/L	493.13 ppb	13:03:46
2	As 188.979†	1374.2	1427.3	503.90 ug/L	503.90 ppb	13:04:06
2	B 249.677†	22603.2	23593.2	484.58 ug/L	484.58 ppb	13:03:46
2	Ba 233.527†	66392.4	67337.2	492.22 ug/L	492.22 ppb	13:03:46
2	Be 313.107†	1437065.2	1462029.4	495.14 ug/L	495.14 ppb	13:03:46
2	Cd 226.502†	50968.4	51937.9	489.00 ug/L	489.00 ppb	13:03:46
2	Co 228.616†	25908.2	26363.8	495.85 ug/L	495.85 ppb	13:04:06
2	Cr 267.716†	48182.3	48769.4	489.43 ug/L	489.43 ppb	13:03:46
2	Cu 324.752†	171662.5	166125.8	492.08 ug/L	492.08 ppb	13:03:46
2	Mn 257.610†	464646.5	470794.8	496.44 ug/L	496.44 ppb	13:03:46
2	Mo 202.031†	7877.6	7970.6	499.80 ug/L	499.80 ppb	13:04:06
2	Ni 231.604†	22351.7	22547.2	494.65 ug/L	494.65 ppb	13:04:06

2	P 214.914†	5282.5	5109.7	2416.9 ug/L	2416.9 ppb	13:04:06
2	Pb 220.353†	4655.9	4800.4	498.86 ug/L	498.86 ppb	13:04:06
2	S 181.975 Axial†	925.7	879.1	992.57 ug/L	992.57 ppb	13:04:06
2	Sb 206.836†	1683.0	1670.0	506.21 ug/L	506.21 ppb	13:04:06
2	Se 196.026†	942.5	989.3	523.42 ug/L	523.42 ppb	13:04:06
2	Si 251.611†	85091.3	85695.2	2446.4 ug/L	2446.4 ppb	13:03:46
2	Sn 189.927†	3322.8	3367.1	498.60 ug/L	498.60 ppb	13:04:06
2	Ti 334.940†	308868.6	315116.3	499.84 ug/L	499.84 ppb	13:03:46
2	Tl 190.801†	1762.5	1841.2	506.21 ug/L	506.21 ppb	13:04:06
2	U 409.014†	13158.3	16015.7	474.57 ug/L	474.57 ppb	13:03:46
2	V 292.402†	75003.8	77881.4	495.61 ug/L	495.61 ppb	13:03:46
2	Zn 213.857†	59690.5	59715.0	486.82 ug/L	486.82 ppb	13:03:46
2	SiO2†	87595.3	88215.7	5389.6 ug/L	5389.6 ppb	13:04:44
3	Sc Radial	4717.8	4717.8	101 %		13:02:50
3	Y RADIAL	4979.5	4979.5	100.9 %		13:02:50
3	Al 396.153Radial†	5700.2	5666.2	5004.1 ug/L	5004.1 ppb	13:02:50
3	Ca 317.933Radial†	3031.7	2986.8	5005.0 ug/L	5005.0 ppb	13:03:10
3	Fe 238.204 Radial†	577.5	557.4	4913.7 ug/L	4913.7 ppb	13:03:10
3	K 766.490 Radial†	28171.1	24534.3	4861.4 ug/L	4861.4 ppb	13:02:50
3	Mg 279.077 IEC†	161.3	157.9	5056.0 ug/L	5056.0 ppb	13:03:10
3	Na 589.592 Radial†	31937.2	33347.1	10073 ug/L	10073 ppb	13:02:50
3	Sr 421.552†	69652.2	68894.3	504.37 ug/L	504.37 ppb	13:02:50
3	Sc 361.383	873987.6	873987.6	98.576 %		13:04:13
3	Y 371.029	742146.3	742146.3	97.426 %		13:04:13
3	Ag 328.068†	114711.1	115855.4	500.78 ug/L	500.78 ppb	13:04:13
3	As 188.979†	1371.9	1425.1	503.21 ug/L	503.21 ppb	13:04:33
3	B 249.677†	23028.3	24026.7	493.50 ug/L	493.50 ppb	13:04:13
3	Ba 233.527†	67698.4	68668.6	501.95 ug/L	501.95 ppb	13:04:13
3	Be 313.107†	1463549.1	1489036.8	504.28 ug/L	504.28 ppb	13:04:13
3	Cd 226.502†	52057.4	53047.6	499.44 ug/L	499.44 ppb	13:04:13
3	Co 228.616†	25979.4	26438.6	497.24 ug/L	497.24 ppb	13:04:33
3	Cr 267.716†	48922.0	49524.5	497.01 ug/L	497.01 ppb	13:04:13
3	Cu 324.752†	174448.1	168968.4	500.50 ug/L	500.50 ppb	13:04:13
3	Mn 257.610†	472896.4	479209.5	505.31 ug/L	505.31 ppb	13:04:13
3	Mo 202.031†	7888.3	7982.3	500.54 ug/L	500.54 ppb	13:04:33
3	Ni 231.604†	22358.9	22556.8	494.86 ug/L	494.86 ppb	13:04:33
3	P 214.914†	5279.2	5106.9	2414.0 ug/L	2414.0 ppb	13:04:33
3	Pb 220.353†	4680.4	4825.8	501.48 ug/L	501.48 ppb	13:04:33
3	S 181.975 Axial†	927.0	880.5	994.10 ug/L	994.10 ppb	13:04:33
3	Sb 206.836†	1676.1	1663.2	503.95 ug/L	503.95 ppb	13:04:33
3	Se 196.026†	926.0	972.6	515.15 ug/L	515.15 ppb	13:04:33
3	Si 251.611†	86441.6	87073.4	2486.0 ug/L	2486.0 ppb	13:04:13
3	Sn 189.927†	3297.2	3341.5	494.83 ug/L	494.83 ppb	13:04:33
3	Ti 334.940†	313960.0	320311.5	508.08 ug/L	508.08 ppb	13:04:13
3	Tl 190.801†	1765.9	1844.8	507.28 ug/L	507.28 ppb	13:04:33
3	U 409.014†	13331.1	16192.3	479.80 ug/L	479.80 ppb	13:04:13
3	V 292.402†	76340.9	79245.2	504.17 ug/L	504.17 ppb	13:04:13
3	Zn 213.857†	60884.5	60932.1	496.81 ug/L	496.81 ppb	13:04:13
3	SiO2†	86336.1	86946.9	5311.7 ug/L	5311.7 ppb	13:04:49

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	863366.3	97.378 %	2.0832			2.14%
Sc Radial	4793.2	103 %	1.5			1.46%
Y 371.029	733510.7	96.292 %	2.0240			2.10%
Y RADIAL	5054.2	102.5 %	1.44			1.41%
Ag 328.068†	116670.3	504.27 ug/L	13.225	504.27 ppb	13.225	2.62%
QC value within limits for Ag 328.068 Recovery = 100.85%						
Al 396.153Radial†	5593.4	4939.3 ug/L	74.04	4939.3 ppb	74.04	1.50%
QC value within limits for Al 396.153Radial Recovery = 98.79%						
As 188.979†	1441.2	508.83 ug/L	9.142	508.83 ppb	9.142	1.80%
QC value within limits for As 188.979 Recovery = 101.77%						
B 249.677†	24146.6	495.97 ug/L	12.802	495.97 ppb	12.802	2.58%
QC value within limits for B 249.677 Recovery = 99.19%						
Ba 233.527†	69026.1	504.56 ug/L	13.833	504.56 ppb	13.833	2.74%
QC value within limits for Ba 233.527 Recovery = 100.91%						
Be 313.107†	1497697.6	507.22 ug/L	13.781	507.22 ppb	13.781	2.72%
QC value within limits for Be 313.107 Recovery = 101.44%						
Ca 317.933Radial†	2949.7	4942.7 ug/L	54.14	4942.7 ppb	54.14	1.10%

QC value within limits for Ca 317.933 Radial Recovery = 98.85%					
Cd	226.502†	53305.1	501.88 ug/L	14.256	501.88 ppb
QC value within limits for Cd 226.502 Recovery = 100.38%					
Co	228.616†	26753.3	503.17 ug/L	11.492	503.17 ppb
QC value within limits for Co 228.616 Recovery = 100.63%					
Cr	267.716†	49917.5	500.95 ug/L	13.915	500.95 ppb
QC value within limits for Cr 267.716 Recovery = 100.19%					
Cu	324.752†	170073.3	503.77 ug/L	13.619	503.77 ppb
QC value within limits for Cu 324.752 Recovery = 100.75%					
Fe	238.204 Radial†	549.0	4839.5 ug/L	67.25	4839.5 ppb
QC value within limits for Fe 238.204 Radial Recovery = 96.79%					
K	766.490 Radial†	24281.9	4811.3 ug/L	71.85	4811.3 ppb
QC value within limits for K 766.490 Radial Recovery = 96.23%					
Mg	279.077 IEC†	157.1	5029.8 ug/L	24.85	5029.8 ppb
QC value within limits for Mg 279.077 IEC Recovery = 100.60%					
Mn	257.610†	482142.4	508.40 ug/L	13.761	508.40 ppb
QC value within limits for Mn 257.610 Recovery = 101.68%					
Mo	202.031†	8085.0	506.97 ug/L	11.782	506.97 ppb
QC value within limits for Mo 202.031 Recovery = 101.39%					
Na	589.592 Radial†	32998.1	9968.1 ug/L	140.90	9968.1 ppb
QC value within limits for Na 589.592 Radial Recovery = 99.68%					
Ni	231.604†	22862.2	501.56 ug/L	11.789	501.56 ppb
QC value within limits for Ni 231.604 Recovery = 100.31%					
P	214.914†	5180.0	2449.3 ug/L	58.67	2449.3 ppb
QC value within limits for P 214.914 Recovery = 97.97%					
Pb	220.353†	4883.9	507.51 ug/L	12.786	507.51 ppb
QC value within limits for Pb 220.353 Recovery = 101.50%					
S	181.975 Axial†	893.9	1009.3 ug/L	27.69	1009.3 ppb
QC value within limits for S 181.975 Axial Recovery = 100.93%					
Sb	206.836†	1687.5	511.38 ug/L	10.959	511.38 ppb
QC value within limits for Sb 206.836 Recovery = 102.28%					
Se	196.026†	992.6	525.15 ug/L	10.969	525.15 ppb
QC value within limits for Se 196.026 Recovery = 105.03%					
Si	251.611†	87721.1	2504.4 ug/L	69.09	2504.4 ppb
QC value within limits for Si 251.611 Recovery = 100.18%					
Sn	189.927†	3399.0	503.33 ug/L	11.602	503.33 ppb
QC value within limits for Sn 189.927 Recovery = 100.67%					
Sr	421.552†	68321.8	500.18 ug/L	6.933	500.18 ppb
QC value within limits for Sr 421.552 Recovery = 100.04%					
Ti	334.940†	322326.5	511.27 ug/L	13.318	511.27 ppb
QC value within limits for Ti 334.940 Recovery = 102.25%					
Tl	190.801†	1856.5	510.49 ug/L	6.510	510.49 ppb
QC value within limits for Tl 190.801 Recovery = 102.10%					
U	409.014†	16330.3	483.90 ug/L	11.923	483.90 ppb
QC value within limits for U 409.014 Recovery = 96.78%					
V	292.402†	79714.0	507.22 ug/L	13.392	507.22 ppb
QC value within limits for V 292.402 Recovery = 101.44%					
Zn	213.857†	61263.2	499.49 ug/L	14.202	499.49 ppb
QC value within limits for Zn 213.857 Recovery = 99.90%					
SiO2†		88522.3	5408.1 ug/L	106.94	5408.1 ppb
QC value within limits for SiO2 Recovery = 101.13%					

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/6/2010 13:06:58

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	4723.3	4723.3	101 %		13:08:51
1	Y RADIAL	4994.7	4994.7	101.3 %		13:08:51
1	Al 396.153Radial†	-28.6	-1.5	-1.3680 ug/L	-1.3680 ppb	13:08:51
1	Ca 317.933Radial†	13.3	0.6	1.0280 ug/L	1.0280 ppb	13:09:11
1	Fe 238.204 Radial†	10.5	-3.5	-30.742 ug/L	-30.742 ppb	13:09:11
1	K 766.490 Radial†	3481.9	104.1	20.621 ug/L	20.621 ppb	13:08:51
1	Mg 279.077 IEC†	1.9	0.2	7.1369 ug/L	7.1369 ppb	13:09:11
1	Na 589.592 Radial†	-1480.5	287.1	86.728 ug/L	86.728 ppb	13:08:51
1	Sr 421.552†	-36.2	-51.8	-0.3789 ug/L	-0.3789 ppb	13:08:51
1	Sc 361.383	861858.8	861858.8	97.208 %		13:10:08
1	Y 371.029	740906.7	740906.7	97.263 %		13:10:08
1	Ag 328.068†	518.8	21.3	0.0925 ug/L	0.0925 ppb	13:10:08
1	As 188.979†	-30.5	2.0	0.6959 ug/L	0.6959 ppb	13:10:28
1	B 249.677†	-522.9	127.9	2.6417 ug/L	2.6417 ppb	13:10:08
1	Ba 233.527†	-0.1	-7.6	-0.0555 ug/L	-0.0555 ppb	13:10:28
1	Be 313.107†	-4357.5	-131.2	-0.0441 ug/L	-0.0441 ppb	13:10:08
1	Cd 226.502†	-245.3	-14.0	-0.1287 ug/L	-0.1287 ppb	13:10:28
1	Co 228.616†	-86.0	-4.5	-0.0828 ug/L	-0.0828 ppb	13:10:28
1	Cr 267.716†	103.7	2.7	0.0306 ug/L	0.0306 ppb	13:10:08
1	Cu 324.752†	8041.2	273.1	0.8070 ug/L	0.8070 ppb	13:10:08
1	Mn 257.610†	590.9	91.4	0.0931 ug/L	0.0931 ppb	13:10:08
1	Mo 202.031†	33.1	14.1	0.8822 ug/L	0.8822 ppb	13:10:28
1	Ni 231.604†	114.2	-7.6	-0.1660 ug/L	-0.1660 ppb	13:10:28
1	P 214.914†	245.4	3.8	1.7810 ug/L	1.7810 ppb	13:10:28
1	Pb 220.353†	-73.6	2.0	0.2157 ug/L	0.2157 ppb	13:10:28
1	S 181.975 Axial†	59.9	1.7	1.9633 ug/L	1.9633 ppb	13:10:28
1	Sb 206.836†	49.1	13.5	4.0644 ug/L	4.0644 ppb	13:10:28
1	Se 196.026†	-39.0	-6.8	-3.5885 ug/L	-3.5885 ppb	13:10:28
1	Si 251.611†	654.5	56.7	1.5997 ug/L	1.5997 ppb	13:10:28
1	Sn 189.927†	12.2	9.1	1.3525 ug/L	1.3525 ppb	13:10:28
1	Ti 334.940†	-1683.9	85.1	0.1401 ug/L	0.1401 ppb	13:10:08
1	Tl 190.801†	-40.6	11.7	3.1853 ug/L	3.1853 ppb	13:10:28
1	U 409.014†	-2971.5	-388.1	-11.533 ug/L	-11.533 ppb	13:10:08
1	V 292.402†	-1701.2	51.8	0.3202 ug/L	0.3202 ppb	13:10:08
1	Zn 213.857†	814.7	6.4	0.0545 ug/L	0.0545 ppb	13:10:28
1	SiO2†	659.4	42.3	2.5374 ug/L	2.5374 ppb	13:11:24
2	Sc Radial	4629.7	4629.7	99.2 %		13:09:16
2	Y RADIAL	4889.1	4889.1	99.11 %		13:09:16
2	Al 396.153Radial†	-12.2	14.4	12.777 ug/L	12.777 ppb	13:09:16
2	Ca 317.933Radial†	18.1	5.7	9.5745 ug/L	9.5745 ppb	13:09:36
2	Fe 238.204 Radial†	12.8	-1.0	-8.4932 ug/L	-8.4932 ppb	13:09:36
2	K 766.490 Radial†	3521.1	213.2	42.283 ug/L	42.283 ppb	13:09:16
2	Mg 279.077 IEC†	2.8	1.2	39.321 ug/L	39.321 ppb	13:09:36
2	Na 589.592 Radial†	-1484.5	253.5	76.571 ug/L	76.571 ppb	13:09:16
2	Sr 421.552†	13.6	-2.2	-0.0164 ug/L	-0.0164 ppb	13:09:16
2	Sc 361.383	857375.9	857375.9	96.703 %		13:10:33
2	Y 371.029	736432.9	736432.9	96.676 %		13:10:33
2	Ag 328.068†	421.8	-76.1	-0.3214 ug/L	-0.3214 ppb	13:10:33
2	As 188.979†	-38.3	-6.2	-2.1704 ug/L	-2.1704 ppb	13:10:53
2	B 249.677†	-592.2	53.5	1.1047 ug/L	1.1047 ppb	13:10:33
2	Ba 233.527†	13.0	6.0	0.0447 ug/L	0.0447 ppb	13:10:53
2	Be 313.107†	-4316.0	-111.6	-0.0375 ug/L	-0.0375 ppb	13:10:33
2	Cd 226.502†	-226.8	3.9	0.0377 ug/L	0.0377 ppb	13:10:53
2	Co 228.616†	-93.4	-12.6	-0.2350 ug/L	-0.2350 ppb	13:10:53
2	Cr 267.716†	115.9	15.8	0.1616 ug/L	0.1616 ppb	13:10:33
2	Cu 324.752†	7932.6	204.0	0.6036 ug/L	0.6036 ppb	13:10:33
2	Mn 257.610†	576.2	79.5	0.0822 ug/L	0.0822 ppb	13:10:33
2	Mo 202.031†	28.0	9.0	0.5658 ug/L	0.5658 ppb	13:10:53
2	Ni 231.604†	140.4	20.1	0.4414 ug/L	0.4414 ppb	13:10:53

2	P 214.914†	256.3	16.5	7.9317 ug/L	7.9317 ppb	13:10:53
2	Pb 220.353†	-74.4	0.8	0.0874 ug/L	0.0874 ppb	13:10:53
2	S 181.975 Axial†	63.5	5.8	6.5329 ug/L	6.5329 ppb	13:10:53
2	Sb 206.836†	36.8	1.0	0.2943 ug/L	0.2943 ppb	13:10:53
2	Se 196.026†	-31.0	1.2	0.5889 ug/L	0.5889 ppb	13:10:53
2	Si 251.611†	653.3	59.1	1.6711 ug/L	1.6711 ppb	13:10:53
2	Sn 189.927†	1.1	-2.3	-0.3399 ug/L	-0.3399 ppb	13:10:53
2	Ti 334.940†	-1676.8	83.4	0.1358 ug/L	0.1358 ppb	13:10:33
2	Tl 190.801†	-43.1	8.8	2.4144 ug/L	2.4144 ppb	13:10:53
2	U 409.014†	-2807.1	-234.1	-6.9582 ug/L	-6.9582 ppb	13:10:33
2	V 292.402†	-1642.6	103.3	0.6448 ug/L	0.6448 ppb	13:10:33
2	Zn 213.857†	830.1	26.7	0.2152 ug/L	0.2152 ppb	13:10:53
2	SiO2†	675.5	62.5	3.7868 ug/L	3.7868 ppb	13:11:29
3	Sc Radial	4641.1	4641.1	99.4 %		13:09:41
3	Y RADIAL	4899.8	4899.8	99.33 %		13:09:41
3	Al 396.153Radial†	-37.6	-11.0	-9.8208 ug/L	-9.8208 ppb	13:09:41
3	Ca 317.933Radial†	17.1	4.6	7.7157 ug/L	7.7157 ppb	13:10:01
3	Fe 238.204 Radial†	8.5	-5.3	-46.933 ug/L	-46.933 ppb	13:10:01
3	K 766.490 Radial†	3545.5	229.0	45.418 ug/L	45.418 ppb	13:09:41
3	Mg 279.077 IEC†	0.1	-1.5	-48.406 ug/L	-48.406 ppb	13:10:01
3	Na 589.592 Radial†	-1461.4	280.3	84.676 ug/L	84.676 ppb	13:09:41
3	Sr 421.552†	-10.5	-26.5	-0.1943 ug/L	-0.1943 ppb	13:09:41
3	Sc 361.383	852049.0	852049.0	96.102 %		13:10:59
3	Y 371.029	732328.1	732328.1	96.137 %		13:10:59
3	Ag 328.068†	417.5	-77.9	-0.3474 ug/L	-0.3474 ppb	13:10:59
3	As 188.979†	-30.8	1.4	0.4873 ug/L	0.4873 ppb	13:11:19
3	B 249.677†	-557.3	85.9	1.7791 ug/L	1.7791 ppb	13:10:59
3	Ba 233.527†	-8.4	-16.2	-0.1204 ug/L	-0.1204 ppb	13:11:19
3	Be 313.107†	-4302.7	-125.7	-0.0424 ug/L	-0.0424 ppb	13:10:59
3	Cd 226.502†	-241.3	-12.7	-0.1148 ug/L	-0.1148 ppb	13:11:19
3	Co 228.616†	-96.6	-16.5	-0.3092 ug/L	-0.3092 ppb	13:11:19
3	Cr 267.716†	96.2	-3.9	-0.0387 ug/L	-0.0387 ppb	13:10:59
3	Cu 324.752†	8069.9	398.2	1.1765 ug/L	1.1765 ppb	13:10:59
3	Mn 257.610†	541.9	47.5	0.0462 ug/L	0.0462 ppb	13:10:59
3	Mo 202.031†	26.7	7.9	0.4875 ug/L	0.4875 ppb	13:11:19
3	Ni 231.604†	125.1	5.1	0.1124 ug/L	0.1124 ppb	13:11:19
3	P 214.914†	242.2	3.5	1.5427 ug/L	1.5427 ppb	13:11:19
3	Pb 220.353†	-74.8	-0.0	-0.0013 ug/L	-0.0013 ppb	13:11:19
3	S 181.975 Axial†	57.9	0.3	0.3542 ug/L	0.3542 ppb	13:11:19
3	Sb 206.836†	37.5	1.9	0.5855 ug/L	0.5855 ppb	13:11:19
3	Se 196.026†	-45.3	-13.9	-7.2614 ug/L	-7.2614 ppb	13:11:19
3	Si 251.611†	670.6	81.2	2.3048 ug/L	2.3048 ppb	13:11:19
3	Sn 189.927†	5.0	1.8	0.2708 ug/L	0.2708 ppb	13:11:19
3	Ti 334.940†	-1707.3	40.8	0.0676 ug/L	0.0676 ppb	13:10:59
3	Tl 190.801†	-36.7	15.2	4.1554 ug/L	4.1554 ppb	13:11:19
3	U 409.014†	-2740.6	-183.0	-5.4354 ug/L	-5.4354 ppb	13:10:59
3	V 292.402†	-1786.4	-57.1	-0.3558 ug/L	-0.3558 ppb	13:10:59
3	Zn 213.857†	831.9	33.9	0.2811 ug/L	0.2811 ppb	13:11:19
3	SiO2†	702.8	95.3	5.7935 ug/L	5.7935 ppb	13:11:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	857094.6	96.671 %		0.5539			0.57%
Sc Radial	4664.7	99.9 %		1.09			1.09%
Y 371.029	736555.9	96.692 %		0.5633			0.58%
Y RADIAL	4927.9	99.90 %		1.178			1.18%
Ag 328.068†	-44.2	-0.1921 ug/L		0.24681	-0.1921 ppb	0.24681	128.49%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	0.6	0.5294 ug/L		11.41775	0.5294 ppb	11.41775	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-0.9	-0.3291 ug/L		1.59804	-0.3291 ppb	1.59804	485.61%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	89.1	1.8418 ug/L		0.77039	1.8418 ppb	0.77039	41.83%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-6.0	-0.0437 ug/L		0.08313	-0.0437 ppb	0.08313	190.09%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-122.8	-0.0413 ug/L		0.00343	-0.0413 ppb	0.00343	8.29%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	3.6	6.1061 ug/L		4.49484	6.1061 ppb	4.49484	73.61%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	-7.6	-0.0686 ug/L	0.09233	-0.0686 ppb	0.09233	134.52%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	-11.2	-0.2090 ug/L	0.11545	-0.2090 ppb	0.11545	55.24%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	4.9	0.0511 ug/L	0.10175	0.0511 ppb	0.10175	198.97%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	291.8	0.8624 ug/L	0.29040	0.8624 ppb	0.29040	33.67%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	-3.3	-28.723 ug/L	19.2994	-28.723 ppb	19.2994	67.19%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	182.1	36.107 ug/L	13.5031	36.107 ppb	13.5031	37.40%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-0.0	-0.6497 ug/L	44.37884	-0.6497 ppb	44.37884	>999.9%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	72.8	0.0738 ug/L	0.02453	0.0738 ppb	0.02453	33.22%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	10.3	0.6451 ug/L	0.20898	0.6451 ppb	0.20898	32.39%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	273.6	82.658 ug/L	5.3706	82.658 ppb	5.3706	6.50%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	5.9	0.1293 ug/L	0.30403	0.1293 ppb	0.30403	235.19%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	7.9	3.7518 ug/L	3.62188	3.7518 ppb	3.62188	96.54%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	0.9	0.1006 ug/L	0.10913	0.1006 ppb	0.10913	108.46%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	2.6	2.9501 ug/L	3.20539	2.9501 ppb	3.20539	108.65%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	5.5	1.6481 ug/L	2.09765	1.6481 ppb	2.09765	127.28%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-6.5	-3.4203 ug/L	3.92786	-3.4203 ppb	3.92786	114.84%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	65.6	1.8586 ug/L	0.38813	1.8586 ppb	0.38813	20.88%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	2.9	0.4278 ug/L	0.85708	0.4278 ppb	0.85708	200.34%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-26.8	-0.1965 ug/L	0.18125	-0.1965 ppb	0.18125	92.22%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	69.8	0.1145 ug/L	0.04068	0.1145 ppb	0.04068	35.53%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	11.9	3.2517 ug/L	0.87238	3.2517 ppb	0.87238	26.83%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-268.4	-7.9756 ug/L	3.17367	-7.9756 ppb	3.17367	39.79%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	32.7	0.2030 ug/L	0.51048	0.2030 ppb	0.51048	251.43%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	22.4	0.1836 ug/L	0.11656	0.1836 ppb	0.11656	63.50%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		66.7	4.0392 ug/L	1.64266	4.0392 ppb	1.64266	40.67%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/6/2010 14:17:43

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	4592.5	4592.5	98.4 %		14:19:36
1	Y RADIAL	4852.6	4852.6	98.37 %		14:19:36
1	Al 396.153Radial†	5729.8	5850.3	5167.5 ug/L	5167.5 ppb	14:19:36
1	Ca 317.933Radial†	3052.6	3090.0	5177.8 ug/L	5177.8 ppb	14:19:56
1	Fe 238.204 Radial†	574.3	569.8	5022.3 ug/L	5022.3 ppb	14:19:56
1	K 766.490 Radial†	28029.9	25151.6	4984.0 ug/L	4984.0 ppb	14:19:36
1	Mg 279.077 IEC†	164.0	165.0	5282.6 ug/L	5282.6 ppb	14:19:56
1	Na 589.592 Radial†	30800.6	33054.4	9985.0 ug/L	9985.0 ppb	14:19:36
1	Sr 421.552†	69088.6	70202.4	513.95 ug/L	513.95 ppb	14:19:36
1	Sc 361.383	885650.2	885650.2	99.892 %		14:20:55
1	Y 371.029	752424.8	752424.8	98.775 %		14:20:55
1	Ag 328.068†	116247.1	115860.7	500.83 ug/L	500.83 ppb	14:20:55
1	As 188.979†	1379.3	1414.2	499.40 ug/L	499.40 ppb	14:21:15
1	B 249.677†	23245.0	23936.0	491.63 ug/L	491.63 ppb	14:20:55
1	Ba 233.527†	68409.4	68475.9	500.55 ug/L	500.55 ppb	14:20:55
1	Be 313.107†	1479870.7	1485825.2	503.20 ug/L	503.20 ppb	14:20:55
1	Cd 226.502†	52556.5	52851.8	497.59 ug/L	497.59 ppb	14:20:55
1	Co 228.616†	26140.4	26252.7	493.74 ug/L	493.74 ppb	14:21:15
1	Cr 267.716†	49405.5	49354.9	495.31 ug/L	495.31 ppb	14:20:55
1	Cu 324.752†	177080.3	169273.1	501.41 ug/L	501.41 ppb	14:20:55
1	Mn 257.610†	478357.6	478359.3	504.42 ug/L	504.42 ppb	14:20:55
1	Mo 202.031†	7931.5	7920.2	496.66 ug/L	496.66 ppb	14:21:15
1	Ni 231.604†	22494.4	22393.7	491.28 ug/L	491.28 ppb	14:21:15
1	P 214.914†	5320.3	5077.5	2399.5 ug/L	2399.5 ppb	14:21:15
1	Pb 220.353†	4684.6	4767.4	495.46 ug/L	495.46 ppb	14:21:15
1	S 181.975 Axial†	934.2	875.3	988.18 ug/L	988.18 ppb	14:21:15
1	Sb 206.836†	1689.0	1653.7	501.05 ug/L	501.05 ppb	14:21:15
1	Se 196.026†	940.8	975.1	516.77 ug/L	516.77 ppb	14:21:15
1	Si 251.611†	87812.4	87291.0	2492.2 ug/L	2492.2 ppb	14:20:55
1	Sn 189.927†	3340.8	3341.0	494.79 ug/L	494.79 ppb	14:21:15
1	Ti 334.940†	317990.4	320152.2	507.83 ug/L	507.83 ppb	14:20:55
1	Tl 190.801†	1767.5	1822.8	501.28 ug/L	501.28 ppb	14:21:15
1	U 409.014†	13653.6	16337.1	484.09 ug/L	484.09 ppb	14:20:55
1	V 292.402†	77148.4	79033.8	502.78 ug/L	502.78 ppb	14:20:55
1	Zn 213.857†	61487.9	60722.9	495.10 ug/L	495.10 ppb	14:20:55
1	SiO2†	86806.3	86264.3	5269.8 ug/L	5269.8 ppb	14:22:15
2	Sc Radial	4715.5	4715.5	101 %		14:20:01
2	Y RADIAL	4946.8	4946.8	100.3 %		14:20:01
2	Al 396.153Radial†	5764.9	5733.1	5063.3 ug/L	5063.3 ppb	14:20:01
2	Ca 317.933Radial†	3087.8	3043.9	5100.6 ug/L	5100.6 ppb	14:20:21
2	Fe 238.204 Radial†	579.6	559.8	4934.6 ug/L	4934.6 ppb	14:20:21
2	K 766.490 Radial†	28482.0	24856.0	4925.4 ug/L	4925.4 ppb	14:20:01
2	Mg 279.077 IEC†	163.1	159.8	5115.5 ug/L	5115.5 ppb	14:20:21
2	Na 589.592 Radial†	31145.2	32578.9	9841.4 ug/L	9841.4 ppb	14:20:01
2	Sr 421.552†	69861.8	69136.3	506.15 ug/L	506.15 ppb	14:20:01
2	Sc 361.383	880318.0	880318.0	99.290 %		14:21:22
2	Y 371.029	747710.7	747710.7	98.156 %		14:21:22
2	Ag 328.068†	115510.3	115823.5	500.65 ug/L	500.65 ppb	14:21:22
2	As 188.979†	1389.6	1432.9	505.94 ug/L	505.94 ppb	14:21:42
2	B 249.677†	23035.9	23866.4	490.19 ug/L	490.19 ppb	14:21:22
2	Ba 233.527†	68015.6	68494.2	500.68 ug/L	500.68 ppb	14:21:22
2	Be 313.107†	1472331.7	1487205.9	503.66 ug/L	503.66 ppb	14:21:22
2	Cd 226.502†	52450.5	53063.8	499.60 ug/L	499.60 ppb	14:21:22
2	Co 228.616†	26315.5	26587.6	500.05 ug/L	500.05 ppb	14:21:42
2	Cr 267.716†	49356.1	49604.8	497.82 ug/L	497.82 ppb	14:21:22
2	Cu 324.752†	175642.7	168899.0	500.30 ug/L	500.30 ppb	14:21:22
2	Mn 257.610†	476045.3	478931.2	505.02 ug/L	505.02 ppb	14:21:22
2	Mo 202.031†	7994.2	8031.4	503.62 ug/L	503.62 ppb	14:21:42
2	Ni 231.604†	22605.3	22641.8	496.72 ug/L	496.72 ppb	14:21:42

2	P 214.914†	5351.2	5140.8	2430.7 ug/L	2430.7 ppb	14:21:42
2	Pb 220.353†	4713.5	4824.9	501.42 ug/L	501.42 ppb	14:21:42
2	S 181.975 Axial†	941.9	888.7	1003.3 ug/L	1003.3 ppb	14:21:42
2	Sb 206.836†	1703.9	1679.0	508.79 ug/L	508.79 ppb	14:21:42
2	Se 196.026†	944.2	984.2	521.17 ug/L	521.17 ppb	14:21:42
2	Si 251.611†	87094.2	87100.1	2486.7 ug/L	2486.7 ppb	14:21:22
2	Sn 189.927†	3353.9	3374.5	499.72 ug/L	499.72 ppb	14:21:42
2	Ti 334.940†	316021.8	320097.7	507.74 ug/L	507.74 ppb	14:21:22
2	Tl 190.801†	1776.8	1842.8	506.73 ug/L	506.73 ppb	14:21:42
2	U 409.014†	13442.9	16207.7	480.25 ug/L	480.25 ppb	14:21:22
2	V 292.402†	76778.3	79128.8	503.48 ug/L	503.48 ppb	14:21:22
2	Zn 213.857†	61323.0	60929.6	496.78 ug/L	496.78 ppb	14:21:22
2	SiO2†	87671.6	87662.2	5355.4 ug/L	5355.4 ppb	14:22:20
3	Sc Radial	4757.6	4757.6	102 %		14:20:26
3	Y RADIAL	5031.5	5031.5	102.0 %		14:20:26
3	Al 396.153Radial†	5867.2	5782.9	5107.6 ug/L	5107.6 ppb	14:20:26
3	Ca 317.933Radial†	3043.8	2973.7	4982.9 ug/L	4982.9 ppb	14:20:46
3	Fe 238.204 Radial†	567.4	542.8	4785.3 ug/L	4785.3 ppb	14:20:46
3	K 766.490 Radial†	28726.1	24845.7	4923.4 ug/L	4923.4 ppb	14:20:26
3	Mg 279.077 IEC†	164.8	160.1	5124.6 ug/L	5124.6 ppb	14:20:46
3	Na 589.592 Radial†	31346.5	32503.4	9818.6 ug/L	9818.6 ppb	14:20:26
3	Sr 421.552†	70530.9	69180.1	506.47 ug/L	506.47 ppb	14:20:26
3	Sc 361.383	878142.6	878142.6	99.045 %		14:21:50
3	Y 371.029	745386.1	745386.1	97.851 %		14:21:50
3	Ag 328.068†	115438.8	116039.5	501.52 ug/L	501.52 ppb	14:21:50
3	As 188.979†	1368.9	1415.5	499.84 ug/L	499.84 ppb	14:22:10
3	B 249.677†	23054.6	23942.7	491.79 ug/L	491.79 ppb	14:21:50
3	Ba 233.527†	68095.0	68744.0	502.50 ug/L	502.50 ppb	14:21:50
3	Be 313.107†	1469882.8	1488406.7	504.07 ug/L	504.07 ppb	14:21:50
3	Cd 226.502†	52261.3	53003.6	499.04 ug/L	499.04 ppb	14:21:50
3	Co 228.616†	26129.8	26465.7	497.75 ug/L	497.75 ppb	14:22:10
3	Cr 267.716†	49223.9	49594.4	497.71 ug/L	497.71 ppb	14:21:50
3	Cu 324.752†	175650.8	169345.4	501.61 ug/L	501.61 ppb	14:21:50
3	Mn 257.610†	475845.0	479916.6	506.04 ug/L	506.04 ppb	14:21:50
3	Mo 202.031†	7924.1	7980.6	500.42 ug/L	500.42 ppb	14:22:10
3	Ni 231.604†	22536.5	22628.7	496.44 ug/L	496.44 ppb	14:22:10
3	P 214.914†	5322.2	5124.9	2422.8 ug/L	2422.8 ppb	14:22:10
3	Pb 220.353†	4710.1	4833.3	502.30 ug/L	502.30 ppb	14:22:10
3	S 181.975 Axial†	939.2	888.3	1002.9 ug/L	1002.9 ppb	14:22:10
3	Sb 206.836†	1699.8	1679.1	508.70 ug/L	508.70 ppb	14:22:10
3	Se 196.026†	929.6	971.9	514.40 ug/L	514.40 ppb	14:22:10
3	Si 251.611†	87007.8	87230.2	2490.4 ug/L	2490.4 ppb	14:21:50
3	Sn 189.927†	3330.7	3359.4	497.48 ug/L	497.48 ppb	14:22:10
3	Ti 334.940†	315828.6	320691.1	508.68 ug/L	508.68 ppb	14:21:50
3	Tl 190.801†	1771.1	1841.6	506.41 ug/L	506.41 ppb	14:22:10
3	U 409.014†	13590.6	16390.4	485.70 ug/L	485.70 ppb	14:21:50
3	V 292.402†	76580.9	79121.1	503.42 ug/L	503.42 ppb	14:21:50
3	Zn 213.857†	61222.0	60980.6	497.20 ug/L	497.20 ppb	14:21:50
3	SiO2†	86439.4	86636.8	5292.6 ug/L	5292.6 ppb	14:22:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	881370.2	99.409 %	0.4357			0.44%
Sc Radial	4688.5	100 %	1.8			1.83%
Y 371.029	748507.2	98.261 %	0.4708			0.48%
Y RADIAL	4943.6	100.2 %	1.81			1.81%
Ag 328.068†	115907.9	501.00 ug/L	0.462	501.00 ppb	0.462	0.09%
QC value within limits for Ag 328.068 Recovery = 100.20%						
Al 396.153Radial†	5788.7	5112.8 ug/L	52.31	5112.8 ppb	52.31	1.02%
QC value within limits for Al 396.153Radial Recovery = 102.26%						
As 188.979†	1420.9	501.73 ug/L	3.653	501.73 ppb	3.653	0.73%
QC value within limits for As 188.979 Recovery = 100.35%						
B 249.677†	23915.0	491.20 ug/L	0.881	491.20 ppb	0.881	0.18%
QC value within limits for B 249.677 Recovery = 98.24%						
Ba 233.527†	68571.4	501.24 ug/L	1.090	501.24 ppb	1.090	0.22%
QC value within limits for Ba 233.527 Recovery = 100.25%						
Be 313.107†	1487145.9	503.64 ug/L	0.437	503.64 ppb	0.437	0.09%
QC value within limits for Be 313.107 Recovery = 100.73%						
Ca 317.933Radial†	3035.9	5087.1 ug/L	98.14	5087.1 ppb	98.14	1.93%

QC value within limits for Ca 317.933 Radial Recovery = 101.74%

Cd 226.502†	52973.1	498.74 ug/L	1.038	498.74 ppb	1.038	0.21%
QC value within limits for Cd 226.502 Recovery = 99.75%						
Co 228.616†	26435.3	497.18 ug/L	3.196	497.18 ppb	3.196	0.64%
QC value within limits for Co 228.616 Recovery = 99.44%						
Cr 267.716†	49518.1	496.94 ug/L	1.416	496.94 ppb	1.416	0.28%
QC value within limits for Cr 267.716 Recovery = 99.39%						
Cu 324.752†	169172.5	501.11 ug/L	0.708	501.11 ppb	0.708	0.14%
QC value within limits for Cu 324.752 Recovery = 100.22%						
Fe 238.204 Radial†	557.5	4914.1 ug/L	119.83	4914.1 ppb	119.83	2.44%
QC value within limits for Fe 238.204 Radial Recovery = 98.28%						
K 766.490 Radial†	24951.1	4944.2 ug/L	34.43	4944.2 ppb	34.43	0.70%
QC value within limits for K 766.490 Radial Recovery = 98.88%						
Mg 279.077 IEC†	161.6	5174.2 ug/L	93.94	5174.2 ppb	93.94	1.82%
QC value within limits for Mg 279.077 IEC Recovery = 103.48%						
Mn 257.610†	479069.0	505.16 ug/L	0.819	505.16 ppb	0.819	0.16%
QC value within limits for Mn 257.610 Recovery = 101.03%						
Mo 202.031†	7977.4	500.23 ug/L	3.485	500.23 ppb	3.485	0.70%
QC value within limits for Mo 202.031 Recovery = 100.05%						
Na 589.592 Radial†	32712.2	9881.7 ug/L	90.23	9881.7 ppb	90.23	0.91%
QC value within limits for Na 589.592 Radial Recovery = 98.82%						
Ni 231.604†	22554.8	494.82 ug/L	3.063	494.82 ppb	3.063	0.62%
QC value within limits for Ni 231.604 Recovery = 98.96%						
P 214.914†	5114.4	2417.7 ug/L	16.21	2417.7 ppb	16.21	0.67%
QC value within limits for P 214.914 Recovery = 96.71%						
Pb 220.353†	4808.6	499.72 ug/L	3.721	499.72 ppb	3.721	0.74%
QC value within limits for Pb 220.353 Recovery = 99.94%						
S 181.975 Axial†	884.1	998.15 ug/L	8.636	998.15 ppb	8.636	0.87%
QC value within limits for S 181.975 Axial Recovery = 99.81%						
Sb 206.836†	1670.6	506.18 ug/L	4.439	506.18 ppb	4.439	0.88%
QC value within limits for Sb 206.836 Recovery = 101.24%						
Se 196.026†	977.0	517.45 ug/L	3.437	517.45 ppb	3.437	0.66%
QC value within limits for Se 196.026 Recovery = 103.49%						
Si 251.611†	87207.1	2489.8 ug/L	2.85	2489.8 ppb	2.85	0.11%
QC value within limits for Si 251.611 Recovery = 99.59%						
Sn 189.927†	3358.3	497.33 ug/L	2.470	497.33 ppb	2.470	0.50%
QC value within limits for Sn 189.927 Recovery = 99.47%						
Sr 421.552†	69506.3	508.85 ug/L	4.416	508.85 ppb	4.416	0.87%
QC value within limits for Sr 421.552 Recovery = 101.77%						
Ti 334.940†	320313.7	508.08 ug/L	0.515	508.08 ppb	0.515	0.10%
QC value within limits for Ti 334.940 Recovery = 101.62%						
Tl 190.801†	1835.7	504.81 ug/L	3.057	504.81 ppb	3.057	0.61%
QC value within limits for Tl 190.801 Recovery = 100.96%						
U 409.014†	16311.7	483.35 ug/L	2.800	483.35 ppb	2.800	0.58%
QC value within limits for U 409.014 Recovery = 96.67%						
V 292.402†	79094.6	503.23 ug/L	0.386	503.23 ppb	0.386	0.08%
QC value within limits for V 292.402 Recovery = 100.65%						
Zn 213.857†	60877.7	496.36 ug/L	1.112	496.36 ppb	1.112	0.22%
QC value within limits for Zn 213.857 Recovery = 99.27%						
SiO2†	86854.4	5305.9 ug/L	44.32	5305.9 ppb	44.32	0.84%
QC value within limits for SiO2 Recovery = 99.22%						

All analyte(s) passed QC.

Sequence No.: 11
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 1/6/2010 14:24:36
 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	4727.8	4727.8	101 %		14:26:29
1	Y RADIAL	4998.0	4998.0	101.3 %		14:26:29
1	Al 396.153Radial†	-12.7	14.2	12.590 ug/L	12.590 ppb	14:26:29
1	Ca 317.933Radial†	15.3	2.5	4.2105 ug/L	4.2105 ppb	14:26:49
1	Fe 238.204 Radial†	13.6	-0.4	-3.7059 ug/L	-3.7059 ppb	14:26:49
1	K 766.490 Radial†	3317.7	-61.3	-12.198 ug/L	-12.198 ppb	14:26:29
1	Mg 279.077 IEC†	4.3	2.6	84.467 ug/L	84.467 ppb	14:26:49
1	Na 589.592 Radial†	-1563.1	206.9	62.509 ug/L	62.509 ppb	14:26:29
1	Sr 421.552†	7.9	-8.2	-0.0597 ug/L	-0.0597 ppb	14:26:29
1	Sc 361.383	857544.5	857544.5	96.722 %		14:27:46
1	Y 371.029	736530.3	736530.3	96.688 %		14:27:46
1	Ag 328.068†	545.4	51.6	0.2217 ug/L	0.2217 ppb	14:27:46
1	As 188.979†	-28.2	4.3	1.4983 ug/L	1.4983 ppb	14:28:06
1	B 249.677†	-600.7	44.8	0.9257 ug/L	0.9257 ppb	14:27:46
1	Ba 233.527†	-8.1	-15.8	-0.1159 ug/L	-0.1159 ppb	14:28:06
1	Be 313.107†	-4328.8	-124.1	-0.0418 ug/L	-0.0418 ppb	14:27:46
1	Cd 226.502†	-226.8	3.9	0.0371 ug/L	0.0371 ppb	14:28:06
1	Co 228.616†	-99.9	-19.4	-0.3627 ug/L	-0.3627 ppb	14:28:06
1	Cr 267.716†	93.9	-6.9	-0.0689 ug/L	-0.0689 ppb	14:27:46
1	Cu 324.752†	8037.3	310.7	0.9197 ug/L	0.9197 ppb	14:27:46
1	Mn 257.610†	497.2	-2.3	-0.0044 ug/L	-0.0044 ppb	14:27:46
1	Mo 202.031†	27.3	8.3	0.5181 ug/L	0.5181 ppb	14:28:06
1	Ni 231.604†	119.0	-2.0	-0.0439 ug/L	-0.0439 ppb	14:28:06
1	P 214.914†	263.9	24.3	11.674 ug/L	11.674 ppb	14:28:06
1	Pb 220.353†	-95.4	-20.8	-2.1542 ug/L	-2.1542 ppb	14:28:06
1	S 181.975 Axial†	63.8	6.1	6.8789 ug/L	6.8789 ppb	14:28:06
1	Sb 206.836†	63.5	28.6	8.5365 ug/L	8.5365 ppb	14:28:06
1	Se 196.026†	-30.8	1.4	0.7324 ug/L	0.7324 ppb	14:28:06
1	Si 251.611†	670.9	77.1	2.2085 ug/L	2.2085 ppb	14:27:46
1	Sn 189.927†	-2.1	-5.6	-0.8234 ug/L	-0.8234 ppb	14:28:06
1	Ti 334.940†	-1712.2	47.2	0.0761 ug/L	0.0761 ppb	14:27:46
1	Tl 190.801†	-47.5	4.3	1.1835 ug/L	1.1835 ppb	14:28:06
1	U 409.014†	-2659.5	-80.9	-2.4057 ug/L	-2.4057 ppb	14:27:46
1	V 292.402†	-1763.3	-21.2	-0.1279 ug/L	-0.1279 ppb	14:27:46
1	Zn 213.857†	811.9	7.7	0.0602 ug/L	0.0602 ppb	14:28:06
1	SiO2†	717.6	105.9	6.4981 ug/L	6.4981 ppb	14:29:02
2	Sc Radial	4670.3	4670.3	100 %		14:26:54
2	Y RADIAL	4958.9	4958.9	100.5 %		14:26:54
2	Al 396.153Radial†	-5.7	21.0	18.641 ug/L	18.641 ppb	14:26:54
2	Ca 317.933Radial†	17.9	5.3	8.8644 ug/L	8.8644 ppb	14:27:14
2	Fe 238.204 Radial†	12.6	-1.3	-11.025 ug/L	-11.025 ppb	14:27:14
2	K 766.490 Radial†	3352.0	13.3	2.6138 ug/L	2.6138 ppb	14:26:54
2	Mg 279.077 IEC†	2.4	0.8	24.302 ug/L	24.302 ppb	14:27:14
2	Na 589.592 Radial†	-1527.7	223.3	67.441 ug/L	67.441 ppb	14:26:54
2	Sr 421.552†	59.8	43.8	0.3207 ug/L	0.3207 ppb	14:26:54
2	Sc 361.383	853085.6	853085.6	96.219 %		14:28:11
2	Y 371.029	733488.7	733488.7	96.289 %		14:28:11
2	Ag 328.068†	363.1	-135.0	-0.5779 ug/L	-0.5779 ppb	14:28:11
2	As 188.979†	-40.7	-8.9	-3.1054 ug/L	-3.1054 ppb	14:28:31
2	B 249.677†	-585.0	57.9	1.1953 ug/L	1.1953 ppb	14:28:11
2	Ba 233.527†	8.4	1.2	0.0082 ug/L	0.0082 ppb	14:28:31
2	Be 313.107†	-4328.3	-146.9	-0.0500 ug/L	-0.0500 ppb	14:28:11
2	Cd 226.502†	-237.4	-8.3	-0.0774 ug/L	-0.0774 ppb	14:28:31
2	Co 228.616†	-91.3	-10.9	-0.2043 ug/L	-0.2043 ppb	14:28:31
2	Cr 267.716†	118.6	19.2	0.1942 ug/L	0.1942 ppb	14:28:11
2	Cu 324.752†	7858.7	168.5	0.4983 ug/L	0.4983 ppb	14:28:11
2	Mn 257.610†	507.4	10.9	0.0099 ug/L	0.0099 ppb	14:28:11
2	Mo 202.031†	20.9	1.8	0.1094 ug/L	0.1094 ppb	14:28:31
2	Ni 231.604†	114.8	-5.8	-0.1266 ug/L	-0.1266 ppb	14:28:31

2	P 214.914†	254.2	15.6	7.5464 ug/L	7.5464 ppb	14:28:31
2	Pb 220.353†	-70.8	4.2	0.4400 ug/L	0.4400 ppb	14:28:31
2	S 181.975 Axial†	54.8	-2.9	-3.2738 ug/L	-3.2738 ppb	14:28:31
2	Sb 206.836†	37.6	2.0	0.6052 ug/L	0.6052 ppb	14:28:31
2	Se 196.026†	-41.6	-9.9	-5.1201 ug/L	-5.1201 ppb	14:28:31
2	Si 251.611†	690.0	100.5	2.8790 ug/L	2.8790 ppb	14:28:11
2	Sn 189.927†	6.0	2.8	0.4188 ug/L	0.4188 ppb	14:28:31
2	Ti 334.940†	-1841.8	-96.9	-0.1498 ug/L	-0.1498 ppb	14:28:11
2	Tl 190.801†	-51.8	-0.5	-0.1335 ug/L	-0.1335 ppb	14:28:31
2	U 409.014†	-2823.8	-266.0	-7.9072 ug/L	-7.9072 ppb	14:28:11
2	V 292.402†	-1770.1	-37.8	-0.2487 ug/L	-0.2487 ppb	14:28:11
2	Zn 213.857†	824.7	25.5	0.2094 ug/L	0.2094 ppb	14:28:31
2	SiO2†	703.8	95.4	5.8467 ug/L	5.8467 ppb	14:29:07
3	Sc Radial	4835.9	4835.9	104 %		14:27:19
3	Y RADIAL	5152.0	5152.0	104.4 %		14:27:19
3	Al 396.153Radial†	-3.8	23.0	20.400 ug/L	20.400 ppb	14:27:19
3	Ca 317.933Radial†	21.9	8.6	14.379 ug/L	14.379 ppb	14:27:39
3	Fe 238.204 Radial†	12.6	-1.7	-14.736 ug/L	-14.736 ppb	14:27:39
3	K 766.490 Radial†	3441.7	-14.7	-2.9570 ug/L	-2.9570 ppb	14:27:19
3	Mg 279.077 IEC†	4.8	3.0	94.870 ug/L	94.870 ppb	14:27:39
3	Na 589.592 Radial†	-1584.9	220.3	66.562 ug/L	66.562 ppb	14:27:19
3	Sr 421.552†	23.7	6.9	0.0506 ug/L	0.0506 ppb	14:27:19
3	Sc 361.383	859018.9	859018.9	96.888 %		14:28:36
3	Y 371.029	738418.3	738418.3	96.936 %		14:28:36
3	Ag 328.068†	431.9	-66.5	-0.2880 ug/L	-0.2880 ppb	14:28:36
3	As 188.979†	-36.0	-3.8	-1.3286 ug/L	-1.3286 ppb	14:28:57
3	B 249.677†	-600.6	45.9	0.9490 ug/L	0.9490 ppb	14:28:36
3	Ba 233.527†	-3.8	-11.4	-0.0846 ug/L	-0.0846 ppb	14:28:57
3	Be 313.107†	-4383.5	-172.8	-0.0583 ug/L	-0.0583 ppb	14:28:36
3	Cd 226.502†	-248.7	-18.3	-0.1713 ug/L	-0.1713 ppb	14:28:57
3	Co 228.616†	-92.9	-11.9	-0.2228 ug/L	-0.2228 ppb	14:28:57
3	Cr 267.716†	100.6	-0.2	-0.0014 ug/L	-0.0014 ppb	14:28:36
3	Cu 324.752†	7878.8	132.8	0.3926 ug/L	0.3926 ppb	14:28:36
3	Mn 257.610†	513.3	13.3	0.0108 ug/L	0.0108 ppb	14:28:36
3	Mo 202.031†	24.8	5.7	0.3554 ug/L	0.3554 ppb	14:28:57
3	Ni 231.604†	92.1	-30.0	-0.6589 ug/L	-0.6589 ppb	14:28:57
3	P 214.914†	251.7	11.3	5.4331 ug/L	5.4331 ppb	14:28:57
3	Pb 220.353†	-97.8	-23.2	-2.3983 ug/L	-2.3983 ppb	14:28:57
3	S 181.975 Axial†	59.6	1.6	1.7976 ug/L	1.7976 ppb	14:28:57
3	Sb 206.836†	44.7	9.1	2.7018 ug/L	2.7018 ppb	14:28:57
3	Se 196.026†	-24.0	8.5	4.2973 ug/L	4.2973 ppb	14:28:57
3	Si 251.611†	630.8	34.5	0.9880 ug/L	0.9880 ppb	14:28:36
3	Sn 189.927†	-2.0	-5.4	-0.8006 ug/L	-0.8006 ppb	14:28:57
3	Ti 334.940†	-1728.1	33.8	0.0565 ug/L	0.0565 ppb	14:28:36
3	Tl 190.801†	-65.3	-14.0	-3.8321 ug/L	-3.8321 ppb	14:28:57
3	U 409.014†	-2748.9	-168.5	-5.0077 ug/L	-5.0077 ppb	14:28:36
3	V 292.402†	-1798.1	-54.0	-0.3394 ug/L	-0.3394 ppb	14:28:36
3	Zn 213.857†	826.3	21.2	0.1755 ug/L	0.1755 ppb	14:28:57
3	SiO2†	675.6	61.3	3.7578 ug/L	3.7578 ppb	14:29:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	856549.7	96.610 %		0.3484				0.36%
Sc Radial	4744.6	102 %		1.8				1.77%
Y 371.029	736145.7	96.638 %		0.3265				0.34%
Y RADIAL	5036.3	102.1 %		2.07				2.03%
Ag 328.068†	-50.0	-0.2147 ug/L		0.40481	-0.2147 ppb		0.40481	188.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.4	17.210 ug/L		4.0970	17.210 ppb		4.0970	23.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-0.9786 ug/L		2.32173	-0.9786 ppb		2.32173	237.25%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	49.5	1.0233 ug/L		0.14939	1.0233 ppb		0.14939	14.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.7	-0.0641 ug/L		0.06453	-0.0641 ppb		0.06453	100.69%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-147.9	-0.0500 ug/L		0.00825	-0.0500 ppb		0.00825	16.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.5	9.1514 ug/L		5.09049	9.1514 ppb		5.09049	55.63%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	-7.6	-0.0705 ug/L	0.10436	-0.0705 ppb	0.10436	147.99%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-14.1	-0.2632 ug/L	0.08659	-0.2632 ppb	0.08659	32.89%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	4.0	0.0413 ug/L	0.13667	0.0413 ppb	0.13667	331.04%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	204.0	0.6035 ug/L	0.27890	0.6035 ppb	0.27890	46.21%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.1	-9.8222 ug/L	5.61255	-9.8222 ppb	5.61255	57.14%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-20.9	-4.1805 ug/L	7.48155	-4.1805 ppb	7.48155	178.96%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	2.1	67.880 ug/L	38.0964	67.880 ppb	38.0964	56.12%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	7.3	0.0054 ug/L	0.00854	0.0054 ppb	0.00854	156.73%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	5.2	0.3276 ug/L	0.20579	0.3276 ppb	0.20579	62.81%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	216.8	65.504 ug/L	2.6308	65.504 ppb	2.6308	4.02%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-12.6	-0.2765 ug/L	0.33378	-0.2765 ppb	0.33378	120.73%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	17.0	8.2178 ug/L	3.17405	8.2178 ppb	3.17405	38.62%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-13.3	-1.3708 ug/L	1.57300	-1.3708 ppb	1.57300	114.75%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	1.6	1.8009 ug/L	5.07638	1.8009 ppb	5.07638	281.88%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	13.2	3.9479 ug/L	4.10984	3.9479 ppb	4.10984	104.10%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-0.0	-0.0301 ug/L	4.75477	-0.0301 ppb	4.75477	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	70.7	2.0252 ug/L	0.95875	2.0252 ppb	0.95875	47.34%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-2.7	-0.4017 ug/L	0.71068	-0.4017 ppb	0.71068	176.90%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	14.2	0.1039 ug/L	0.19573	0.1039 ppb	0.19573	188.45%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-5.3	-0.0057 ug/L	0.12517	-0.0057 ppb	0.12517	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-3.4	-0.9274 ug/L	2.60033	-0.9274 ppb	2.60033	280.40%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-171.8	-5.1069 ug/L	2.75210	-5.1069 ppb	2.75210	53.89%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-37.7	-0.2387 ug/L	0.10613	-0.2387 ppb	0.10613	44.47%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	18.1	0.1484 ug/L	0.07822	0.1484 ppb	0.07822	52.72%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	87.5	5.3675 ug/L	1.43162	5.3675 ppb	1.43162	26.67%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

=====
Analysis Begun

Start Time: 1/6/2010 14:45:21

Plasma On Time: 1/4/2010 06:33:21

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\010610A.sif

Batch ID:

Results Data Set: 010610A

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

=====
Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/6/2010 14:45:22

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4631.7	4631.7	99.2 %		14:47:14
1	Y RADIAL	4827.6	4827.6	97.87 %		14:47:14
1	Al 396.153Radial†	5764.3	5835.7	5153.6 ug/L	5153.6 ppb	14:47:14
1	Ca 317.933Radial†	3059.5	3070.6	5145.3 ug/L	5145.3 ppb	14:47:34
1	Fe 238.204 Radial†	578.5	569.1	5016.8 ug/L	5016.8 ppb	14:47:34
1	K 766.490 Radial†	28220.7	25102.3	4974.1 ug/L	4974.1 ppb	14:47:14
1	Mg 279.077 IEC†	165.8	165.4	5295.0 ug/L	5295.0 ppb	14:47:34
1	Na 589.592 Radial†	31223.4	33215.1	10034 ug/L	10034 ppb	14:47:14
1	Sr 421.552†	69786.8	70310.8	514.75 ug/L	514.75 ppb	14:47:14
1	Sc 361.383	852867.4	852867.4	96.194 %		14:48:33
1	Y 371.029	724458.9	724458.9	95.104 %		14:48:33
1	Ag 328.068†	115532.9	119591.4	516.91 ug/L	516.91 ppb	14:48:33
1	As 188.979†	1384.1	1472.3	519.83 ug/L	519.83 ppb	14:48:53
1	B 249.677†	23216.3	24800.7	509.40 ug/L	509.40 ppb	14:48:33
1	Ba 233.527†	68094.1	70780.6	517.39 ug/L	517.39 ppb	14:48:33
1	Be 313.107†	1473090.9	1535722.5	520.09 ug/L	520.09 ppb	14:48:33
1	Cd 226.502†	52381.1	54691.8	514.93 ug/L	514.93 ppb	14:48:33
1	Co 228.616†	26229.5	27351.2	514.41 ug/L	514.41 ppb	14:48:53
1	Cr 267.716†	49382.6	51232.3	514.15 ug/L	514.15 ppb	14:48:33
1	Cu 324.752†	175601.5	174549.9	517.03 ug/L	517.03 ppb	14:48:33
1	Mn 257.610†	476449.4	494782.8	521.73 ug/L	521.73 ppb	14:48:33
1	Mo 202.031†	7962.7	8257.8	517.81 ug/L	517.81 ppb	14:48:53
1	Ni 231.604†	22587.4	23356.0	512.39 ug/L	512.39 ppb	14:48:53
1	P 214.914†	5347.0	5310.0	2510.7 ug/L	2510.7 ppb	14:48:53
1	Pb 220.353†	4744.7	5010.2	520.64 ug/L	520.64 ppb	14:48:53
1	S 181.975 Axial†	937.4	914.6	1032.6 ug/L	1032.6 ppb	14:48:53
1	Sb 206.836†	1708.9	1739.4	527.04 ug/L	527.04 ppb	14:48:53
1	Se 196.026†	938.0	1008.4	533.85 ug/L	533.85 ppb	14:48:53
1	Si 251.611†	86985.0	89809.8	2564.1 ug/L	2564.1 ppb	14:48:33
1	Sn 189.927†	3358.9	3488.4	516.57 ug/L	516.57 ppb	14:48:53
1	Ti 334.940†	316344.6	330677.6	524.52 ug/L	524.52 ppb	14:48:33
1	Tl 190.801†	1771.2	1894.6	520.99 ug/L	520.99 ppb	14:48:53
1	U 409.014†	13595.8	16802.4	497.89 ug/L	497.89 ppb	14:48:33
1	V 292.402†	76932.1	81777.6	520.31 ug/L	520.31 ppb	14:48:33
1	Zn 213.857†	61321.7	62916.1	512.98 ug/L	512.98 ppb	14:48:33
1	SiO2†	87277.5	90094.4	5504.0 ug/L	5504.0 ppb	14:49:53
2	Sc Radial	4588.5	4588.5	98.3 %		14:47:39
2	Y RADIAL	4834.4	4834.4	98.00 %		14:47:39
2	Al 396.153Radial†	5697.7	5822.6	5142.9 ug/L	5142.9 ppb	14:47:39
2	Ca 317.933Radial†	3058.3	3098.5	5192.0 ug/L	5192.0 ppb	14:47:59
2	Fe 238.204 Radial†	576.2	572.3	5043.9 ug/L	5043.9 ppb	14:47:59
2	K 766.490 Radial†	28150.6	25299.1	5013.3 ug/L	5013.3 ppb	14:47:39
2	Mg 279.077 IEC†	163.8	165.0	5282.0 ug/L	5282.0 ppb	14:47:59
2	Na 589.592 Radial†	30769.2	33049.6	9983.6 ug/L	9983.6 ppb	14:47:39
2	Sr 421.552†	68620.8	69787.6	510.91 ug/L	510.91 ppb	14:47:39
2	Sc 361.383	881754.7	881754.7	99.452 %		14:49:00
2	Y 371.029	749059.9	749059.9	98.333 %		14:49:00

2	Ag 328.068†	115775.5	115900.6	501.01 ug/L	501.01 ppb	14:49:00
2	As 188.979†	1382.0	1423.0	502.47 ug/L	502.47 ppb	14:49:20
2	B 249.677†	23161.7	23955.0	492.02 ug/L	492.02 ppb	14:49:00
2	Ba 233.527†	68039.7	68406.8	500.04 ug/L	500.04 ppb	14:49:00
2	Be 313.107†	1470557.3	1483005.6	502.24 ug/L	502.24 ppb	14:49:00
2	Cd 226.502†	52216.8	52742.7	496.56 ug/L	496.56 ppb	14:49:00
2	Co 228.616†	26025.3	26252.5	493.74 ug/L	493.74 ppb	14:49:20
2	Cr 267.716†	49295.5	49462.9	496.39 ug/L	496.39 ppb	14:49:00
2	Cu 324.752†	175708.6	168677.0	499.65 ug/L	499.65 ppb	14:49:00
2	Mn 257.610†	475829.3	477932.7	503.98 ug/L	503.98 ppb	14:49:00
2	Mo 202.031†	7921.7	7945.3	498.24 ug/L	498.24 ppb	14:49:20
2	Ni 231.604†	22418.7	22417.1	491.80 ug/L	491.80 ppb	14:49:20
2	P 214.914†	5304.9	5085.6	2403.7 ug/L	2403.7 ppb	14:49:20
2	Pb 220.353†	4664.0	4767.5	495.46 ug/L	495.46 ppb	14:49:20
2	S 181.975 Axial†	930.0	875.2	988.13 ug/L	988.13 ppb	14:49:20
2	Sb 206.836†	1691.7	1664.0	504.11 ug/L	504.11 ppb	14:49:20
2	Se 196.026†	948.2	986.7	522.80 ug/L	522.80 ppb	14:49:20
2	Si 251.611†	86963.1	86825.3	2478.9 ug/L	2478.9 ppb	14:49:00
2	Sn 189.927†	3319.5	3334.4	493.80 ug/L	493.80 ppb	14:49:20
2	Ti 334.940†	316088.2	319645.9	507.03 ug/L	507.03 ppb	14:49:00
2	Tl 190.801†	1751.8	1814.8	499.09 ug/L	499.09 ppb	14:49:20
2	U 409.014†	13521.7	16264.9	481.94 ug/L	481.94 ppb	14:49:00
2	V 292.402†	76774.6	78999.1	502.58 ug/L	502.58 ppb	14:49:00
2	Zn 213.857†	61183.5	60688.7	494.82 ug/L	494.82 ppb	14:49:00
2	SiO2†	86679.9	86521.1	5285.5 ug/L	5285.5 ppb	14:49:58
3	Sc Radial	4618.4	4618.4	98.9 %		14:48:04
3	Y RADIAL	4874.8	4874.8	98.82 %		14:48:04
3	Al 396.153Radial†	5816.5	5905.2	5216.1 ug/L	5216.1 ppb	14:48:04
3	Ca 317.933Radial†	3068.9	3089.1	5176.2 ug/L	5176.2 ppb	14:48:24
3	Fe 238.204 Radial†	575.8	568.1	5007.1 ug/L	5007.1 ppb	14:48:24
3	K 766.490 Radial†	28566.3	25533.9	5059.9 ug/L	5059.9 ppb	14:48:04
3	Mg 279.077 IEC†	162.4	162.5	5200.9 ug/L	5200.9 ppb	14:48:24
3	Na 589.592 Radial†	31558.3	33644.7	10163 ug/L	10163 ppb	14:48:04
3	Sr 421.552†	70538.0	71273.7	521.79 ug/L	521.79 ppb	14:48:04
3	Sc 361.383	885196.0	885196.0	99.841 %		14:49:28
3	Y 371.029	751922.4	751922.4	98.709 %		14:49:28
3	Ag 328.068†	115568.4	115240.6	498.15 ug/L	498.15 ppb	14:49:28
3	As 188.979†	1373.4	1409.0	497.54 ug/L	497.54 ppb	14:49:48
3	B 249.677†	23145.2	23848.0	489.81 ug/L	489.81 ppb	14:49:28
3	Ba 233.527†	68027.1	68128.2	498.00 ug/L	498.00 ppb	14:49:28
3	Be 313.107†	1472124.0	1478826.2	500.82 ug/L	500.82 ppb	14:49:28
3	Cd 226.502†	52405.8	52727.9	496.42 ug/L	496.42 ppb	14:49:28
3	Co 228.616†	26210.0	26335.9	495.31 ug/L	495.31 ppb	14:49:48
3	Cr 267.716†	49262.6	49237.2	494.13 ug/L	494.13 ppb	14:49:28
3	Cu 324.752†	175315.5	167596.4	496.45 ug/L	496.45 ppb	14:49:28
3	Mn 257.610†	475877.2	476120.7	502.06 ug/L	502.06 ppb	14:49:28
3	Mo 202.031†	7959.3	7952.1	498.65 ug/L	498.65 ppb	14:49:48
3	Ni 231.604†	22564.4	22475.3	493.07 ug/L	493.07 ppb	14:49:48
3	P 214.914†	5344.4	5104.4	2413.4 ug/L	2413.4 ppb	14:49:48
3	Pb 220.353†	4701.2	4786.5	497.45 ug/L	497.45 ppb	14:49:48
3	S 181.975 Axial†	932.8	874.4	987.15 ug/L	987.15 ppb	14:49:48
3	Sb 206.836†	1706.8	1672.2	506.69 ug/L	506.69 ppb	14:49:48
3	Se 196.026†	942.4	977.4	517.80 ug/L	517.80 ppb	14:49:48
3	Si 251.611†	86836.5	86358.6	2465.4 ug/L	2465.4 ppb	14:49:28
3	Sn 189.927†	3331.1	3333.0	493.59 ug/L	493.59 ppb	14:49:48
3	Ti 334.940†	315842.5	318164.2	504.68 ug/L	504.68 ppb	14:49:28
3	Tl 190.801†	1766.3	1822.5	501.16 ug/L	501.16 ppb	14:49:48
3	U 409.014†	13483.6	16173.8	479.24 ug/L	479.24 ppb	14:49:28
3	V 292.402†	76631.4	78555.6	499.80 ug/L	499.80 ppb	14:49:28
3	Zn 213.857†	61215.3	60481.4	493.11 ug/L	493.11 ppb	14:49:28
3	SiO2†	87913.0	87417.4	5340.5 ug/L	5340.5 ppb	14:50:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	873272.7	98.496 %	2.0026			2.03%
Sc Radial	4612.9	98.8 %	0.47			0.48%
Y 371.029	741813.8	97.382 %	1.9820			2.04%
Y RADIAL	4845.6	98.23 %	0.517			0.53%
Ag 328.068†	116910.9	505.36 ug/L	10.106	505.36 ppb	10.106	2.00%

QC value within limits for Ag 328.068 Recovery = 101.07%							
Al 396.153Radial†	5854.5	5170.9 ug/L	39.54	5170.9 ppb	39.54	0.76%	
QC value within limits for Al 396.153Radial Recovery = 103.42%							
As 188.979†	1434.7	506.61 ug/L	11.709	506.61 ppb	11.709	2.31%	
QC value within limits for As 188.979 Recovery = 101.32%							
B 249.677†	24201.2	497.08 ug/L	10.732	497.08 ppb	10.732	2.16%	
QC value within limits for B 249.677 Recovery = 99.42%							
Ba 233.527†	69105.2	505.15 ug/L	10.653	505.15 ppb	10.653	2.11%	
QC value within limits for Ba 233.527 Recovery = 101.03%							
Be 313.107†	1499184.8	507.72 ug/L	10.740	507.72 ppb	10.740	2.12%	
QC value within limits for Be 313.107 Recovery = 101.54%							
Ca 317.933Radial†	3086.0	5171.2 ug/L	23.74	5171.2 ppb	23.74	0.46%	
QC value within limits for Ca 317.933Radial Recovery = 103.42%							
Cd 226.502†	53387.5	502.64 ug/L	10.647	502.64 ppb	10.647	2.12%	
QC value within limits for Cd 226.502 Recovery = 100.53%							
Co 228.616†	26646.5	501.15 ug/L	11.507	501.15 ppb	11.507	2.30%	
QC value within limits for Co 228.616 Recovery = 100.23%							
Cr 267.716†	49977.5	501.56 ug/L	10.962	501.56 ppb	10.962	2.19%	
QC value within limits for Cr 267.716 Recovery = 100.31%							
Cu 324.752†	170274.4	504.38 ug/L	11.078	504.38 ppb	11.078	2.20%	
QC value within limits for Cu 324.752 Recovery = 100.88%							
Fe 238.204 Radial†	569.8	5022.6 ug/L	19.03	5022.6 ppb	19.03	0.38%	
QC value within limits for Fe 238.204 Radial Recovery = 100.45%							
K 766.490 Radial†	25311.8	5015.7 ug/L	42.95	5015.7 ppb	42.95	0.86%	
QC value within limits for K 766.490 Radial Recovery = 100.31%							
Mg 279.077 IEC†	164.3	5259.3 ug/L	50.98	5259.3 ppb	50.98	0.97%	
QC value within limits for Mg 279.077 IEC Recovery = 105.19%							
Mn 257.610†	482945.4	509.26 ug/L	10.843	509.26 ppb	10.843	2.13%	
QC value within limits for Mn 257.610 Recovery = 101.85%							
Mo 202.031†	8051.7	504.90 ug/L	11.180	504.90 ppb	11.180	2.21%	
QC value within limits for Mo 202.031 Recovery = 100.98%							
Na 589.592 Radial†	33303.1	10060 ug/L	92.8	10060 ppb	92.8	0.92%	
QC value within limits for Na 589.592 Radial Recovery = 100.60%							
Ni 231.604†	22749.5	499.09 ug/L	11.541	499.09 ppb	11.541	2.31%	
QC value within limits for Ni 231.604 Recovery = 99.82%							
P 214.914†	5166.7	2442.6 ug/L	59.15	2442.6 ppb	59.15	2.42%	
QC value within limits for P 214.914 Recovery = 97.70%							
Pb 220.353†	4854.7	504.52 ug/L	13.999	504.52 ppb	13.999	2.77%	
QC value within limits for Pb 220.353 Recovery = 100.90%							
S 181.975 Axial†	888.1	1002.6 ug/L	25.98	1002.6 ppb	25.98	2.59%	
QC value within limits for S 181.975 Axial Recovery = 100.26%							
Sb 206.836†	1691.9	512.61 ug/L	12.561	512.61 ppb	12.561	2.45%	
QC value within limits for Sb 206.836 Recovery = 102.52%							
Se 196.026†	990.7	524.81 ug/L	8.210	524.81 ppb	8.210	1.56%	
QC value within limits for Se 196.026 Recovery = 104.96%							
Si 251.611†	87664.6	2502.8 ug/L	53.49	2502.8 ppb	53.49	2.14%	
QC value within limits for Si 251.611 Recovery = 100.11%							
Sn 189.927†	3385.2	501.32 ug/L	13.207	501.32 ppb	13.207	2.63%	
QC value within limits for Sn 189.927 Recovery = 100.26%							
Sr 421.552†	70457.4	515.82 ug/L	5.519	515.82 ppb	5.519	1.07%	
QC value within limits for Sr 421.552 Recovery = 103.16%							
Ti 334.940†	322829.2	512.08 ug/L	10.838	512.08 ppb	10.838	2.12%	
QC value within limits for Ti 334.940 Recovery = 102.42%							
Tl 190.801†	1844.0	507.08 ug/L	12.094	507.08 ppb	12.094	2.39%	
QC value within limits for Tl 190.801 Recovery = 101.42%							
U 409.014†	16413.7	486.36 ug/L	10.078	486.36 ppb	10.078	2.07%	
QC value within limits for U 409.014 Recovery = 97.27%							
V 292.402†	79777.4	507.57 ug/L	11.126	507.57 ppb	11.126	2.19%	
QC value within limits for V 292.402 Recovery = 101.51%							
Zn 213.857†	61362.1	500.30 ug/L	11.011	500.30 ppb	11.011	2.20%	
QC value within limits for Zn 213.857 Recovery = 100.06%							
SiO2†	88011.0	5376.7 ug/L	113.65	5376.7 ppb	113.65	2.11%	
QC value within limits for SiO2 Recovery = 100.55%							
All analyte(s) passed QC.							

Sequence No.: 2
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 1/6/2010 14:52:13
 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	4699.0	4699.0	101 %		14:54:06
1	Y RADIAL	4994.2	4994.2	101.2 %		14:54:06
1	Al 396.153Radial†	12.0	38.7	34.261 ug/L	34.261 ppb	14:54:06
1	Ca 317.933Radial†	9.8	-2.8	-4.7727 ug/L	-4.7727 ppb	14:54:26
1	Fe 238.204 Radial†	15.3	1.3	11.641 ug/L	11.641 ppb	14:54:26
1	K 766.490 Radial†	3303.6	-55.3	-10.995 ug/L	-10.995 ppb	14:54:06
1	Mg 279.077 IEC†	2.8	1.1	36.529 ug/L	36.529 ppb	14:54:26
1	Na 589.592 Radial†	-1496.5	263.6	79.638 ug/L	79.638 ppb	14:54:06
1	Sr 421.552†	-3.3	-19.3	-0.1410 ug/L	-0.1410 ppb	14:54:06
1	Sc 361.383	873450.3	873450.3	98.516 %		14:55:23
1	Y 371.029	749517.9	749517.9	98.393 %		14:55:23
1	Ag 328.068†	552.9	48.9	0.2189 ug/L	0.2189 ppb	14:55:28
1	As 188.979†	-37.3	-4.4	-1.5408 ug/L	-1.5408 ppb	14:55:48
1	B 249.677†	-609.9	46.7	0.9619 ug/L	0.9619 ppb	14:55:28
1	Ba 233.527†	4.1	-3.3	-0.0240 ug/L	-0.0240 ppb	14:55:48
1	Be 313.107†	-4356.1	-70.2	-0.0234 ug/L	-0.0234 ppb	14:55:28
1	Cd 226.502†	-218.7	16.3	0.1528 ug/L	0.1528 ppb	14:55:48
1	Co 228.616†	-83.9	-1.2	-0.0198 ug/L	-0.0198 ppb	14:55:48
1	Cr 267.716†	123.3	21.1	0.2136 ug/L	0.2136 ppb	14:55:28
1	Cu 324.752†	7938.3	58.9	0.1750 ug/L	0.1750 ppb	14:55:28
1	Mn 257.610†	575.2	67.4	0.0715 ug/L	0.0715 ppb	14:55:28
1	Mo 202.031†	36.1	16.8	1.0506 ug/L	1.0506 ppb	14:55:48
1	Ni 231.604†	119.4	-3.9	-0.0854 ug/L	-0.0854 ppb	14:55:48
1	P 214.914†	256.5	11.8	5.7007 ug/L	5.7007 ppb	14:55:48
1	Pb 220.353†	-89.5	-13.1	-1.3475 ug/L	-1.3475 ppb	14:55:48
1	S 181.975 Axial†	61.4	2.4	2.7237 ug/L	2.7237 ppb	14:55:48
1	Sb 206.836†	43.2	6.8	2.0386 ug/L	2.0386 ppb	14:55:48
1	Se 196.026†	-37.6	-4.9	-2.4450 ug/L	-2.4450 ppb	14:55:48
1	Si 251.611†	655.2	48.5	1.3772 ug/L	1.3772 ppb	14:55:48
1	Sn 189.927†	1.5	-1.9	-0.2765 ug/L	-0.2765 ppb	14:55:48
1	Ti 334.940†	-1674.7	117.4	0.1883 ug/L	0.1883 ppb	14:55:28
1	Tl 190.801†	-46.3	6.4	1.7545 ug/L	1.7545 ppb	14:55:48
1	U 409.014†	-2809.2	-182.8	-5.4370 ug/L	-5.4370 ppb	14:55:23
1	V 292.402†	-1767.3	7.9	0.0530 ug/L	0.0530 ppb	14:55:28
1	Zn 213.857†	823.0	3.7	0.0289 ug/L	0.0289 ppb	14:55:48
1	SiO2†	599.5	-27.5	-1.7151 ug/L	-1.7151 ppb	14:56:54
2	Sc Radial	4763.0	4763.0	102 %		14:54:31
2	Y RADIAL	5079.6	5079.6	103.0 %		14:54:31
2	Al 396.153Radial†	-29.2	-1.9	-1.6765 ug/L	-1.6765 ppb	14:54:31
2	Ca 317.933Radial†	19.3	6.4	10.715 ug/L	10.715 ppb	14:54:51
2	Fe 238.204 Radial†	12.0	-2.1	-18.328 ug/L	-18.328 ppb	14:54:51
2	K 766.490 Radial†	3351.4	-52.5	-10.453 ug/L	-10.453 ppb	14:54:31
2	Mg 279.077 IEC†	3.6	1.9	59.456 ug/L	59.456 ppb	14:54:51
2	Na 589.592 Radial†	-1499.0	281.1	84.926 ug/L	84.926 ppb	14:54:31
2	Sr 421.552†	-24.3	-39.8	-0.2912 ug/L	-0.2912 ppb	14:54:31
2	Sc 361.383	882928.9	882928.9	99.585 %		14:55:53
2	Y 371.029	756625.8	756625.8	99.326 %		14:55:53
2	Ag 328.068†	407.8	-102.8	-0.4499 ug/L	-0.4499 ppb	14:55:58
2	As 188.979†	-32.6	0.6	0.2208 ug/L	0.2208 ppb	14:56:18
2	B 249.677†	-558.6	104.9	2.1653 ug/L	2.1653 ppb	14:55:58
2	Ba 233.527†	6.5	-1.0	-0.0074 ug/L	-0.0074 ppb	14:56:18
2	Be 313.107†	-4349.1	-15.7	-0.0050 ug/L	-0.0050 ppb	14:55:58
2	Cd 226.502†	-228.8	8.6	0.0831 ug/L	0.0831 ppb	14:56:18
2	Co 228.616†	-93.0	-9.5	-0.1767 ug/L	-0.1767 ppb	14:56:18
2	Cr 267.716†	63.9	-39.8	-0.4002 ug/L	-0.4002 ppb	14:55:58
2	Cu 324.752†	8110.3	145.1	0.4288 ug/L	0.4288 ppb	14:55:58
2	Mn 257.610†	553.7	39.6	0.0388 ug/L	0.0388 ppb	14:55:58
2	Mo 202.031†	25.0	5.2	0.3247 ug/L	0.3247 ppb	14:56:18
2	Ni 231.604†	144.0	19.6	0.4299 ug/L	0.4299 ppb	14:56:18

2	P 214.914†	247.7	0.2	0.0416 ug/L	0.0416 ppb	14:56:18
2	Pb 220.353†	-72.1	5.4	0.5571 ug/L	0.5571 ppb	14:56:18
2	S 181.975 Axial†	64.3	4.6	5.2272 ug/L	5.2272 ppb	14:56:18
2	Sb 206.836†	41.7	4.7	1.4361 ug/L	1.4361 ppb	14:56:18
2	Se 196.026†	-36.3	-3.1	-1.6645 ug/L	-1.6645 ppb	14:56:18
2	Si 251.611†	640.5	26.6	0.7611 ug/L	0.7611 ppb	14:56:18
2	Sn 189.927†	4.1	0.7	0.1054 ug/L	0.1054 ppb	14:56:18
2	Ti 334.940†	-1717.0	93.2	0.1470 ug/L	0.1470 ppb	14:55:58
2	Tl 190.801†	-37.0	16.2	4.4240 ug/L	4.4240 ppb	14:56:18
2	U 409.014†	-2538.6	119.5	3.5556 ug/L	3.5556 ppb	14:55:53
2	V 292.402†	-1754.1	40.4	0.2694 ug/L	0.2694 ppb	14:55:58
2	Zn 213.857†	847.2	19.1	0.1526 ug/L	0.1526 ppb	14:56:18
2	SiO2†	663.7	30.4	1.8632 ug/L	1.8632 ppb	14:56:59
3	Sc Radial	4767.2	4767.2	102 %		14:54:56
3	Y RADIAL	5044.2	5044.2	102.3 %		14:54:56
3	Al 396.153Radial†	-32.4	-5.0	-4.5001 ug/L	-4.5001 ppb	14:54:56
3	Ca 317.933Radial†	20.2	7.3	12.151 ug/L	12.151 ppb	14:55:16
3	Fe 238.204 Radial†	11.2	-3.0	-25.930 ug/L	-25.930 ppb	14:55:16
3	K 766.490 Radial†	3252.3	-152.4	-30.293 ug/L	-30.293 ppb	14:54:56
3	Mg 279.077 IEC†	-0.3	-1.9	-61.489 ug/L	-61.489 ppb	14:55:16
3	Na 589.592 Radial†	-1508.3	273.4	82.577 ug/L	82.577 ppb	14:54:56
3	Sr 421.552†	-20.6	-36.1	-0.2646 ug/L	-0.2646 ppb	14:54:56
3	Sc 361.383	876040.7	876040.7	98.808 %		14:56:23
3	Y 371.029	751385.5	751385.5	98.639 %		14:56:23
3	Ag 328.068†	529.1	23.1	0.0905 ug/L	0.0905 ppb	14:56:28
3	As 188.979†	-33.0	-0.0	-0.0166 ug/L	-0.0166 ppb	14:56:49
3	B 249.677†	-556.9	102.2	2.1112 ug/L	2.1112 ppb	14:56:28
3	Ba 233.527†	2.6	-4.9	-0.0355 ug/L	-0.0355 ppb	14:56:49
3	Be 313.107†	-4400.1	-101.6	-0.0343 ug/L	-0.0343 ppb	14:56:28
3	Cd 226.502†	-248.1	-12.7	-0.1173 ug/L	-0.1173 ppb	14:56:49
3	Co 228.616†	-96.7	-13.9	-0.2588 ug/L	-0.2588 ppb	14:56:49
3	Cr 267.716†	85.3	-17.8	-0.1782 ug/L	-0.1782 ppb	14:56:28
3	Cu 324.752†	8040.9	138.9	0.4099 ug/L	0.4099 ppb	14:56:28
3	Mn 257.610†	526.6	16.5	0.0159 ug/L	0.0159 ppb	14:56:28
3	Mo 202.031†	29.4	9.9	0.6166 ug/L	0.6166 ppb	14:56:49
3	Ni 231.604†	119.1	-4.5	-0.0993 ug/L	-0.0993 ppb	14:56:49
3	P 214.914†	249.4	3.9	1.8566 ug/L	1.8566 ppb	14:56:49
3	Pb 220.353†	-75.9	1.0	0.1027 ug/L	0.1027 ppb	14:56:49
3	S 181.975 Axial†	58.1	-1.1	-1.2274 ug/L	-1.2274 ppb	14:56:49
3	Sb 206.836†	62.8	26.4	7.9282 ug/L	7.9282 ppb	14:56:49
3	Se 196.026†	-46.7	-14.0	-7.2285 ug/L	-7.2285 ppb	14:56:49
3	Si 251.611†	653.0	44.4	1.2684 ug/L	1.2684 ppb	14:56:49
3	Sn 189.927†	10.8	7.5	1.1112 ug/L	1.1112 ppb	14:56:49
3	Ti 334.940†	-1783.1	12.7	0.0202 ug/L	0.0202 ppb	14:56:28
3	Tl 190.801†	-39.5	13.4	3.6613 ug/L	3.6613 ppb	14:56:49
3	U 409.014†	-2579.5	58.1	1.7305 ug/L	1.7305 ppb	14:56:23
3	V 292.402†	-1721.1	60.0	0.3912 ug/L	0.3912 ppb	14:56:28
3	Zn 213.857†	835.2	13.6	0.1157 ug/L	0.1157 ppb	14:56:49
3	SiO2†	680.9	53.1	3.2490 ug/L	3.2490 ppb	14:57:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	877473.3	98.970 %	0.5526			0.56%
Sc Radial	4743.1	102 %	0.8			0.81%
Y 371.029	752509.7	98.786 %	0.4837			0.49%
Y RADIAL	5039.4	102.2 %	0.87			0.85%
Ag 328.068†	-10.2	-0.0468 ug/L	0.35496	-0.0468 ppb	0.35496	758.28%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	10.6	9.3613 ug/L	21.60954	9.3613 ppb	21.60954	230.84%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.3	-0.4455 ug/L	0.95591	-0.4455 ppb	0.95591	214.57%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	84.6	1.7461 ug/L	0.67970	1.7461 ppb	0.67970	38.93%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-3.1	-0.0223 ug/L	0.01416	-0.0223 ppb	0.01416	63.51%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-62.5	-0.0209 ug/L	0.01480	-0.0209 ppb	0.01480	70.82%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	3.6	6.0310 ug/L	9.38382	6.0310 ppb	9.38382	155.59%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	4.1	0.0395 ug/L	0.14019	0.0395 ppb	0.14019	354.87%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-8.2	-0.1518 ug/L	0.12142	-0.1518 ppb	0.12142	79.99%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-12.2	-0.1216 ug/L	0.31079	-0.1216 ppb	0.31079	255.60%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	114.3	0.3379 ug/L	0.14138	0.3379 ppb	0.14138	41.84%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.2	-10.872 ug/L	19.8644	-10.872 ppb	19.8644	182.71%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-86.7	-17.247 ug/L	11.3017	-17.247 ppb	11.3017	65.53%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	0.4	11.499 ug/L	64.2404	11.499 ppb	64.2404	558.68%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	41.2	0.0421 ug/L	0.02792	0.0421 ppb	0.02792	66.34%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	10.6	0.6640 ug/L	0.36524	0.6640 ppb	0.36524	55.01%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	272.7	82.380 ug/L	2.6498	82.380 ppb	2.6498	3.22%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	3.7	0.0817 ug/L	0.30159	0.0817 ppb	0.30159	369.01%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	5.3	2.5330 ug/L	2.88953	2.5330 ppb	2.88953	114.08%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-2.3	-0.2292 ug/L	0.99477	-0.2292 ppb	0.99477	433.93%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	2.0	2.2412 ug/L	3.25423	2.2412 ppb	3.25423	145.20%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	12.7	3.8010 ug/L	3.58697	3.8010 ppb	3.58697	94.37%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-7.3	-3.7793 ug/L	3.01246	-3.7793 ppb	3.01246	79.71%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	39.8	1.1356 ug/L	0.32884	1.1356 ppb	0.32884	28.96%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.1	0.3133 ug/L	0.71685	0.3133 ppb	0.71685	228.78%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-31.7	-0.2323 ug/L	0.08015	-0.2323 ppb	0.08015	34.51%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	74.4	0.1185 ug/L	0.08763	0.1185 ppb	0.08763	73.96%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	12.0	3.2799 ug/L	1.37498	3.2799 ppb	1.37498	41.92%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-1.7	-0.0503 ug/L	4.75343	-0.0503 ppb	4.75343	>999.9%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	36.1	0.2379 ug/L	0.17128	0.2379 ppb	0.17128	72.00%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	12.1	0.0991 ug/L	0.06351	0.0991 ppb	0.06351	64.12%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	18.7	1.1324 ug/L	2.56147	1.1324 ppb	2.56147	226.21%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 11
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 1/6/2010 15:54:04
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCV

Rep#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4610.7	4610.7	98.8 %		15:55:56
1	Y RADIAL	4870.6	4870.6	98.74 %		15:55:56
1	Al 396.153Radial†	5819.9	5918.4	5227.5 ug/L	5227.5 ppb	15:55:56
1	Ca 317.933Radial†	3067.3	3092.6	5182.2 ug/L	5182.2 ppb	15:56:16
1	Fe 238.204 Radial†	569.7	562.9	4961.7 ug/L	4961.7 ppb	15:56:16
1	K 766.490 Radial†	28492.3	25507.1	5054.7 ug/L	5054.7 ppb	15:55:56
1	Mg 279.077 IEC†	162.8	163.1	5222.0 ug/L	5222.0 ppb	15:56:16
1	Na 589.592 Radial†	29865.7	31984.3	9661.8 ug/L	9661.8 ppb	15:55:56
1	Sr 421.552†	68509.5	69338.7	507.63 ug/L	507.63 ppb	15:55:56
1	Sc 361.383	871692.2	871692.2	98.317 %		15:57:15
1	Y 371.029	739460.9	739460.9	97.073 %		15:57:15
1	Ag 328.068†	115237.2	116696.9	504.41 ug/L	504.41 ppb	15:57:15
1	As 188.979†	1375.1	1432.0	505.65 ug/L	505.65 ppb	15:57:35
1	B 249.677†	22960.3	24019.1	493.32 ug/L	493.32 ppb	15:57:15
1	Ba 233.527†	67903.3	69057.8	504.80 ug/L	504.80 ppb	15:57:15
1	Be 313.107†	1466976.1	1496432.2	506.79 ug/L	506.79 ppb	15:57:15
1	Cd 226.502†	52206.4	53338.1	502.18 ug/L	502.18 ppb	15:57:15
1	Co 228.616†	26201.3	26733.7	502.80 ug/L	502.80 ppb	15:57:35
1	Cr 267.716†	49145.9	49882.9	500.60 ug/L	500.60 ppb	15:57:15
1	Cu 324.752†	175299.0	170299.9	504.45 ug/L	504.45 ppb	15:57:15
1	Mn 257.610†	474924.7	482535.7	508.82 ug/L	508.82 ppb	15:57:15
1	Mo 202.031†	7973.8	8090.3	507.31 ug/L	507.31 ppb	15:57:35
1	Ni 231.604†	22584.3	22845.7	501.20 ug/L	501.20 ppb	15:57:35
1	P 214.914†	5345.1	5188.0	2453.1 ug/L	2453.1 ppb	15:57:35
1	Pb 220.353†	4710.4	4868.8	506.00 ug/L	506.00 ppb	15:57:35
1	S 181.975 Axial†	934.8	890.9	1005.8 ug/L	1005.8 ppb	15:57:35
1	Sb 206.836†	1708.0	1700.2	515.17 ug/L	515.17 ppb	15:57:35
1	Se 196.026†	946.2	995.7	527.16 ug/L	527.16 ppb	15:57:35
1	Si 251.611†	86888.1	87758.5	2505.4 ug/L	2505.4 ppb	15:57:15
1	Sn 189.927†	3343.6	3397.4	503.12 ug/L	503.12 ppb	15:57:35
1	Ti 334.940†	315337.5	322551.2	511.64 ug/L	511.64 ppb	15:57:15
1	Tl 190.801†	1776.1	1859.9	511.41 ug/L	511.41 ppb	15:57:35
1	U 409.014†	13585.4	16486.6	488.53 ug/L	488.53 ppb	15:57:15
1	V 292.402†	76496.7	79607.6	506.55 ug/L	506.55 ppb	15:57:15
1	Zn 213.857†	61213.1	61429.0	500.84 ug/L	500.84 ppb	15:57:15
1	SiO2†	88513.0	89391.7	5461.3 ug/L	5461.3 ppb	15:58:35
2	Sc Radial	4658.7	4658.7	99.8 %		15:56:21
2	Y RADIAL	4940.4	4940.4	100.2 %		15:56:21
2	Al 396.153Radial†	5876.7	5914.7	5224.4 ug/L	5224.4 ppb	15:56:21
2	Ca 317.933Radial†	3039.5	3032.7	5081.8 ug/L	5081.8 ppb	15:56:41
2	Fe 238.204 Radial†	562.1	549.3	4842.0 ug/L	4842.0 ppb	15:56:41
2	K 766.490 Radial†	28726.0	25443.9	5042.2 ug/L	5042.2 ppb	15:56:21
2	Mg 279.077 IEC†	160.8	159.5	5105.2 ug/L	5105.2 ppb	15:56:41
2	Na 589.592 Radial†	29943.3	31750.4	9591.1 ug/L	9591.1 ppb	15:56:21
2	Sr 421.552†	68755.8	68870.7	504.20 ug/L	504.20 ppb	15:56:21
2	Sc 361.383	882734.5	882734.5	99.563 %		15:57:42
2	Y 371.029	748832.0	748832.0	98.303 %		15:57:42
2	Ag 328.068†	116732.5	116732.6	504.53 ug/L	504.53 ppb	15:57:42
2	As 188.979†	1368.2	1407.6	497.09 ug/L	497.09 ppb	15:58:02
2	B 249.677†	23390.7	24159.2	496.24 ug/L	496.24 ppb	15:57:42
2	Ba 233.527†	68796.2	69090.7	505.03 ug/L	505.03 ppb	15:57:42
2	Be 313.107†	1489275.4	1500164.5	508.05 ug/L	508.05 ppb	15:57:42
2	Cd 226.502†	53023.9	53495.0	503.67 ug/L	503.67 ppb	15:57:42
2	Co 228.616†	26234.5	26433.6	497.14 ug/L	497.14 ppb	15:58:02
2	Cr 267.716†	49848.0	49962.8	501.40 ug/L	501.40 ppb	15:57:42
2	Cu 324.752†	177814.3	170595.8	505.32 ug/L	505.32 ppb	15:57:42
2	Mn 257.610†	481552.2	483149.7	509.46 ug/L	509.46 ppb	15:57:42
2	Mo 202.031†	7973.8	7988.8	500.94 ug/L	500.94 ppb	15:58:02
2	Ni 231.604†	22612.4	22586.6	495.52 ug/L	495.52 ppb	15:58:02

2	P 214.914†	5343.8	5118.7	2419.2 ug/L	2419.2 ppb	15:58:02
2	Pb 220.353†	4724.9	4823.4	501.29 ug/L	501.29 ppb	15:58:02
2	S 181.975 Axial†	946.1	890.3	1005.2 ug/L	1005.2 ppb	15:58:02
2	Sb 206.836†	1706.3	1676.7	507.89 ug/L	507.89 ppb	15:58:02
2	Se 196.026†	941.4	978.8	518.12 ug/L	518.12 ppb	15:58:02
2	Si 251.611†	88021.2	87791.0	2506.5 ug/L	2506.5 ppb	15:57:42
2	Sn 189.927†	3344.6	3355.9	496.97 ug/L	496.97 ppb	15:58:02
2	Ti 334.940†	319711.3	322932.1	512.24 ug/L	512.24 ppb	15:57:42
2	Tl 190.801†	1774.8	1835.9	504.91 ug/L	504.91 ppb	15:58:02
2	U 409.014†	13601.1	16329.6	483.88 ug/L	483.88 ppb	15:57:42
2	V 292.402†	77456.4	79598.2	506.40 ug/L	506.40 ppb	15:57:42
2	Zn 213.857†	61933.9	61374.1	500.44 ug/L	500.44 ppb	15:57:42
2	SiO2†	87490.1	87238.1	5329.4 ug/L	5329.4 ppb	15:58:40
3	Sc Radial	4682.1	4682.1	100 %		15:56:46
3	Y RADIAL	4927.4	4927.4	99.89 %		15:56:46
3	Al 396.153Radial†	5863.9	5872.5	5186.9 ug/L	5186.9 ppb	15:56:46
3	Ca 317.933Radial†	3029.4	3007.5	5039.6 ug/L	5039.6 ppb	15:57:06
3	Fe 238.204 Radial†	559.5	543.9	4794.8 ug/L	4794.8 ppb	15:57:06
3	K 766.490 Radial†	28786.4	25360.5	5025.6 ug/L	5025.6 ppb	15:56:46
3	Mg 279.077 IEC†	160.4	158.2	5064.8 ug/L	5064.8 ppb	15:57:06
3	Na 589.592 Radial†	30032.5	31689.5	9572.8 ug/L	9572.8 ppb	15:56:46
3	Sr 421.552†	68944.6	68715.0	503.06 ug/L	503.06 ppb	15:56:46
3	Sc 361.383	879347.8	879347.8	99.181 %		15:58:10
3	Y 371.029	745662.1	745662.1	97.887 %		15:58:10
3	Ag 328.068†	116194.7	116641.9	504.12 ug/L	504.12 ppb	15:58:10
3	As 188.979†	1378.7	1423.5	502.65 ug/L	502.65 ppb	15:58:30
3	B 249.677†	23325.2	24183.7	496.75 ug/L	496.75 ppb	15:58:10
3	Ba 233.527†	68467.3	69025.2	504.55 ug/L	504.55 ppb	15:58:10
3	Be 313.107†	1478139.4	1494697.4	506.20 ug/L	506.20 ppb	15:58:10
3	Cd 226.502†	52658.2	53331.4	502.13 ug/L	502.13 ppb	15:58:10
3	Co 228.616†	26293.9	26595.0	500.18 ug/L	500.18 ppb	15:58:30
3	Cr 267.716†	49557.0	49862.2	500.39 ug/L	500.39 ppb	15:58:10
3	Cu 324.752†	176820.5	170281.7	504.39 ug/L	504.39 ppb	15:58:10
3	Mn 257.610†	478645.0	482081.2	508.33 ug/L	508.33 ppb	15:58:10
3	Mo 202.031†	7984.1	8030.1	503.52 ug/L	503.52 ppb	15:58:30
3	Ni 231.604†	22632.2	22694.0	497.87 ug/L	497.87 ppb	15:58:30
3	P 214.914†	5378.1	5174.0	2446.3 ug/L	2446.3 ppb	15:58:30
3	Pb 220.353†	4745.2	4862.2	505.31 ug/L	505.31 ppb	15:58:30
3	S 181.975 Axial†	943.5	891.4	1006.4 ug/L	1006.4 ppb	15:58:30
3	Sb 206.836†	1704.7	1681.7	509.53 ug/L	509.53 ppb	15:58:30
3	Se 196.026†	943.4	984.4	520.86 ug/L	520.86 ppb	15:58:30
3	Si 251.611†	87498.9	87604.9	2501.1 ug/L	2501.1 ppb	15:58:10
3	Sn 189.927†	3350.0	3374.3	499.69 ug/L	499.69 ppb	15:58:30
3	Ti 334.940†	318120.6	322565.0	511.65 ug/L	511.65 ppb	15:58:10
3	Tl 190.801†	1764.5	1832.4	503.93 ug/L	503.93 ppb	15:58:30
3	U 409.014†	13682.2	16463.9	487.88 ug/L	487.88 ppb	15:58:10
3	V 292.402†	77016.9	79454.7	505.55 ug/L	505.55 ppb	15:58:10
3	Zn 213.857†	61569.7	61246.4	499.38 ug/L	499.38 ppb	15:58:10
3	SiO2†	87953.1	88043.4	5378.7 ug/L	5378.7 ppb	15:58:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	877924.8	99.020 %	0.6381			0.64%
Sc Radial	4650.5	99.6 %	0.78			0.78%
Y 371.029	744651.7	97.755 %	0.6257			0.64%
Y RADIAL	4912.8	99.59 %	0.753			0.76%
Ag 328.068†	116690.5	504.35 ug/L	0.212	504.35 ppb	0.212	0.04%
QC value within limits for Ag 328.068 Recovery = 100.87%						
Al 396.153Radial†	5901.9	5212.9 ug/L	22.59	5212.9 ppb	22.59	0.43%
QC value within limits for Al 396.153Radial Recovery = 104.26%						
As 188.979†	1421.0	501.80 ug/L	4.342	501.80 ppb	4.342	0.87%
QC value within limits for As 188.979 Recovery = 100.36%						
B 249.677†	24120.7	495.44 ug/L	1.848	495.44 ppb	1.848	0.37%
QC value within limits for B 249.677 Recovery = 99.09%						
Ba 233.527†	69057.9	504.79 ug/L	0.240	504.79 ppb	0.240	0.05%
QC value within limits for Ba 233.527 Recovery = 100.96%						
Be 313.107†	1497098.0	507.01 ug/L	0.945	507.01 ppb	0.945	0.19%
QC value within limits for Be 313.107 Recovery = 101.40%						
Ca 317.933Radial†	3044.3	5101.2 ug/L	73.28	5101.2 ppb	73.28	1.44%

QC value within limits for Ca 317.933 Radial Recovery = 102.02%

Cd 226.502†	53388.2	502.66 ug/L	0.872	502.66 ppb	0.872	0.17%
QC value within limits for Cd 226.502 Recovery = 100.53%						
Co 228.616†	26587.4	500.04 ug/L	2.832	500.04 ppb	2.832	0.57%
QC value within limits for Co 228.616 Recovery = 100.01%						
Cr 267.716†	49902.6	500.80 ug/L	0.533	500.80 ppb	0.533	0.11%
QC value within limits for Cr 267.716 Recovery = 100.16%						
Cu 324.752†	170392.5	504.72 ug/L	0.521	504.72 ppb	0.521	0.10%
QC value within limits for Cu 324.752 Recovery = 100.94%						
Fe 238.204 Radial†	552.0	4866.2 ug/L	86.00	4866.2 ppb	86.00	1.77%
QC value within limits for Fe 238.204 Radial Recovery = 97.32%						
K 766.490 Radial†	25437.1	5040.8 ug/L	14.58	5040.8 ppb	14.58	0.29%
QC value within limits for K 766.490 Radial Recovery = 100.82%						
Mg 279.077 IEC†	160.3	5130.7 ug/L	81.61	5130.7 ppb	81.61	1.59%
QC value within limits for Mg 279.077 IEC Recovery = 102.61%						
Mn 257.610†	482588.9	508.87 ug/L	0.566	508.87 ppb	0.566	0.11%
QC value within limits for Mn 257.610 Recovery = 101.77%						
Mo 202.031†	8036.4	503.92 ug/L	3.202	503.92 ppb	3.202	0.64%
QC value within limits for Mo 202.031 Recovery = 100.78%						
Na 589.592 Radial†	31808.1	9608.6 ug/L	47.00	9608.6 ppb	47.00	0.49%
QC value within limits for Na 589.592 Radial Recovery = 96.09%						
Ni 231.604†	22708.8	498.19 ug/L	2.856	498.19 ppb	2.856	0.57%
QC value within limits for Ni 231.604 Recovery = 99.64%						
P 214.914†	5160.2	2439.5 ug/L	17.94	2439.5 ppb	17.94	0.74%
QC value within limits for P 214.914 Recovery = 97.58%						
Pb 220.353†	4851.5	504.20 ug/L	2.543	504.20 ppb	2.543	0.50%
QC value within limits for Pb 220.353 Recovery = 100.84%						
S 181.975 Axial†	890.9	1005.8 ug/L	0.61	1005.8 ppb	0.61	0.06%
QC value within limits for S 181.975 Axial Recovery = 100.58%						
Sb 206.836†	1686.2	510.86 ug/L	3.821	510.86 ppb	3.821	0.75%
QC value within limits for Sb 206.836 Recovery = 102.17%						
Se 196.026†	986.3	522.05 ug/L	4.636	522.05 ppb	4.636	0.89%
QC value within limits for Se 196.026 Recovery = 104.41%						
Si 251.611†	87718.1	2504.3 ug/L	2.85	2504.3 ppb	2.85	0.11%
QC value within limits for Si 251.611 Recovery = 100.17%						
Sn 189.927†	3375.9	499.93 ug/L	3.081	499.93 ppb	3.081	0.62%
QC value within limits for Sn 189.927 Recovery = 99.99%						
Sr 421.552†	68974.8	504.96 ug/L	2.376	504.96 ppb	2.376	0.47%
QC value within limits for Sr 421.552 Recovery = 100.99%						
Ti 334.940†	322682.8	511.84 ug/L	0.343	511.84 ppb	0.343	0.07%
QC value within limits for Ti 334.940 Recovery = 102.37%						
Tl 190.801†	1842.7	506.75 ug/L	4.067	506.75 ppb	4.067	0.80%
QC value within limits for Tl 190.801 Recovery = 101.35%						
U 409.014†	16426.7	486.76 ug/L	2.520	486.76 ppb	2.520	0.52%
QC value within limits for U 409.014 Recovery = 97.35%						
V 292.402†	79553.5	506.17 ug/L	0.537	506.17 ppb	0.537	0.11%
QC value within limits for V 292.402 Recovery = 101.23%						
Zn 213.857†	61349.8	500.22 ug/L	0.757	500.22 ppb	0.757	0.15%
QC value within limits for Zn 213.857 Recovery = 100.04%						
SiO2†	88224.4	5389.8 ug/L	66.65	5389.8 ppb	66.65	1.24%
QC value within limits for SiO2 Recovery = 100.79%						

All analyte(s) passed QC.

Sequence No.: 12
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 1/6/2010 16:00:57
 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	4715.1	4715.1	101 %		16:02:50
1	Y RADIAL	5003.8	5003.8	101.4 %		16:02:50
1	Al 396.153Radial†	-15.7	11.2	9.8883 ug/L	9.8883 ppb	16:02:50
1	Ca 317.933Radial†	15.8	3.1	5.2356 ug/L	5.2356 ppb	16:03:10
1	Fe 238.204 Radial†	12.6	-1.4	-12.456 ug/L	-12.456 ppb	16:03:10
1	K 766.490 Radial†	3502.3	130.3	25.820 ug/L	25.820 ppb	16:02:50
1	Mg 279.077 IEC†	6.2	4.5	144.87 ug/L	144.87 ppb	16:03:10
1	Na 589.592 Radial†	-1444.3	320.3	96.767 ug/L	96.767 ppb	16:02:50
1	Sr 421.552†	38.3	21.9	0.1603 ug/L	0.1603 ppb	16:02:50
1	Sc 361.383	863596.1	863596.1	97.404 %		16:04:07
1	Y 371.029	741696.3	741696.3	97.367 %		16:04:07
1	Ag 328.068†	539.1	41.2	0.1824 ug/L	0.1824 ppb	16:04:07
1	As 188.979†	-19.8	13.1	4.5942 ug/L	4.5942 ppb	16:04:27
1	B 249.677†	-631.3	17.7	0.3674 ug/L	0.3674 ppb	16:04:07
1	Ba 233.527†	-0.3	-7.8	-0.0563 ug/L	-0.0563 ppb	16:04:27
1	Be 313.107†	-4376.2	-141.3	-0.0477 ug/L	-0.0477 ppb	16:04:07
1	Cd 226.502†	-240.3	-8.3	-0.0771 ug/L	-0.0771 ppb	16:04:27
1	Co 228.616†	-89.1	-7.5	-0.1412 ug/L	-0.1412 ppb	16:04:27
1	Cr 267.716†	71.2	-31.0	-0.3065 ug/L	-0.3065 ppb	16:04:07
1	Cu 324.752†	8123.6	341.1	1.0092 ug/L	1.0092 ppb	16:04:07
1	Mn 257.610†	551.5	49.7	0.0485 ug/L	0.0485 ppb	16:04:07
1	Mo 202.031†	21.2	1.8	0.1131 ug/L	0.1131 ppb	16:04:27
1	Ni 231.604†	118.8	-3.1	-0.0686 ug/L	-0.0686 ppb	16:04:27
1	P 214.914†	259.6	17.9	8.6069 ug/L	8.6069 ppb	16:04:27
1	Pb 220.353†	-77.5	-1.8	-0.1873 ug/L	-0.1873 ppb	16:04:27
1	S 181.975 Axial†	58.0	-0.4	-0.4488 ug/L	-0.4488 ppb	16:04:27
1	Sb 206.836†	50.1	14.4	4.3200 ug/L	4.3200 ppb	16:04:27
1	Se 196.026†	-42.0	-9.8	-5.0618 ug/L	-5.0618 ppb	16:04:27
1	Si 251.611†	656.9	57.9	1.6457 ug/L	1.6457 ppb	16:04:27
1	Sn 189.927†	10.6	7.4	1.0995 ug/L	1.0995 ppb	16:04:27
1	Ti 334.940†	-1754.9	15.7	0.0295 ug/L	0.0295 ppb	16:04:07
1	Tl 190.801†	-43.7	8.5	2.3191 ug/L	2.3191 ppb	16:04:27
1	U 409.014†	-2911.1	-320.0	-9.5103 ug/L	-9.5103 ppb	16:04:07
1	V 292.402†	-1687.0	69.8	0.4269 ug/L	0.4269 ppb	16:04:07
1	Zn 213.857†	834.5	25.0	0.2006 ug/L	0.2006 ppb	16:04:27
1	SiO2†	684.1	66.3	4.0362 ug/L	4.0362 ppb	16:05:23
2	Sc Radial	4652.0	4652.0	99.7 %		16:03:15
2	Y RADIAL	4959.3	4959.3	100.5 %		16:03:15
2	Al 396.153Radial†	1.1	27.8	24.619 ug/L	24.619 ppb	16:03:15
2	Ca 317.933Radial†	20.2	7.8	13.006 ug/L	13.006 ppb	16:03:35
2	Fe 238.204 Radial†	14.4	0.5	4.6528 ug/L	4.6528 ppb	16:03:35
2	K 766.490 Radial†	3343.8	18.3	3.5918 ug/L	3.5918 ppb	16:03:15
2	Mg 279.077 IEC†	3.5	1.9	61.332 ug/L	61.332 ppb	16:03:35
2	Na 589.592 Radial†	-1462.4	282.8	85.440 ug/L	85.440 ppb	16:03:15
2	Sr 421.552†	6.9	-9.0	-0.0663 ug/L	-0.0663 ppb	16:03:15
2	Sc 361.383	860872.1	860872.1	97.097 %		16:04:32
2	Y 371.029	738933.4	738933.4	97.004 %		16:04:32
2	Ag 328.068†	437.2	-62.0	-0.2565 ug/L	-0.2565 ppb	16:04:32
2	As 188.979†	-27.8	4.7	1.6627 ug/L	1.6627 ppb	16:04:52
2	B 249.677†	-684.5	-39.1	-0.8045 ug/L	-0.8045 ppb	16:04:32
2	Ba 233.527†	-3.7	-11.3	-0.0821 ug/L	-0.0821 ppb	16:04:52
2	Be 313.107†	-4387.5	-167.1	-0.0562 ug/L	-0.0562 ppb	16:04:32
2	Cd 226.502†	-234.4	-3.0	-0.0287 ug/L	-0.0287 ppb	16:04:52
2	Co 228.616†	-124.3	-44.1	-0.8279 ug/L	-0.8279 ppb	16:04:52
2	Cr 267.716†	133.9	33.9	0.3432 ug/L	0.3432 ppb	16:04:32
2	Cu 324.752†	8102.1	345.3	1.0227 ug/L	1.0227 ppb	16:04:32
2	Mn 257.610†	554.1	54.2	0.0564 ug/L	0.0564 ppb	16:04:32
2	Mo 202.031†	24.7	5.5	0.3462 ug/L	0.3462 ppb	16:04:52
2	Ni 231.604†	125.8	4.5	0.0997 ug/L	0.0997 ppb	16:04:52

2	P 214.914†	255.7	14.8	7.0644 ug/L	7.0644 ppb	16:04:52
2	Pb 220.353†	-90.3	-15.2	-1.5683 ug/L	-1.5683 ppb	16:04:52
2	S 181.975 Axial†	63.3	5.2	5.9237 ug/L	5.9237 ppb	16:04:52
2	Sb 206.836†	40.9	5.0	1.5161 ug/L	1.5161 ppb	16:04:52
2	Se 196.026†	-45.0	-13.1	-6.6924 ug/L	-6.6924 ppb	16:04:52
2	Si 251.611†	681.7	85.5	2.4431 ug/L	2.4431 ppb	16:04:52
2	Sn 189.927†	7.4	4.3	0.6319 ug/L	0.6319 ppb	16:04:52
2	Ti 334.940†	-1680.5	86.7	0.1421 ug/L	0.1421 ppb	16:04:32
2	Tl 190.801†	-45.3	6.8	1.8576 ug/L	1.8576 ppb	16:04:52
2	U 409.014†	-2889.2	-306.9	-9.1246 ug/L	-9.1246 ppb	16:04:32
2	V 292.402†	-1721.2	29.1	0.1705 ug/L	0.1705 ppb	16:04:32
2	Zn 213.857†	839.3	32.7	0.2648 ug/L	0.2648 ppb	16:04:52
2	SiO2†	684.9	69.4	4.2385 ug/L	4.2385 ppb	16:05:28
3	Sc Radial	4651.2	4651.2	99.6 %		16:03:40
3	Y RADIAL	4941.9	4941.9	100.2 %		16:03:40
3	Al 396.153Radial†	-45.6	-19.1	-16.940 ug/L	-16.940 ppb	16:03:40
3	Ca 317.933Radial†	21.0	8.5	14.323 ug/L	14.323 ppb	16:04:00
3	Fe 238.204 Radial†	13.0	-0.8	-7.4234 ug/L	-7.4234 ppb	16:04:00
3	K 766.490 Radial†	3406.8	82.0	16.256 ug/L	16.256 ppb	16:03:40
3	Mg 279.077 IEC†	-0.2	-1.9	-60.201 ug/L	-60.201 ppb	16:04:00
3	Na 589.592 Radial†	-1533.2	211.5	63.903 ug/L	63.903 ppb	16:03:40
3	Sr 421.552†	-6.2	-22.2	-0.1628 ug/L	-0.1628 ppb	16:03:40
3	Sc 361.383	865258.0	865258.0	97.592 %		16:04:58
3	Y 371.029	743166.3	743166.3	97.560 %		16:04:58
3	Ag 328.068†	430.2	-71.5	-0.3062 ug/L	-0.3062 ppb	16:04:58
3	As 188.979†	-22.4	10.5	3.6605 ug/L	3.6605 ppb	16:05:18
3	B 249.677†	-647.9	2.0	0.0433 ug/L	0.0433 ppb	16:04:58
3	Ba 233.527†	2.8	-4.6	-0.0336 ug/L	-0.0336 ppb	16:05:18
3	Be 313.107†	-4335.5	-90.9	-0.0305 ug/L	-0.0305 ppb	16:04:58
3	Cd 226.502†	-255.4	-23.4	-0.2195 ug/L	-0.2195 ppb	16:05:18
3	Co 228.616†	-109.7	-28.4	-0.5316 ug/L	-0.5316 ppb	16:05:18
3	Cr 267.716†	117.1	15.9	0.1607 ug/L	0.1607 ppb	16:04:58
3	Cu 324.752†	8024.4	223.4	0.6612 ug/L	0.6612 ppb	16:04:58
3	Mn 257.610†	565.7	63.3	0.0670 ug/L	0.0670 ppb	16:04:58
3	Mo 202.031†	32.5	13.4	0.8398 ug/L	0.8398 ppb	16:05:18
3	Ni 231.604†	117.9	-4.2	-0.0923 ug/L	-0.0923 ppb	16:05:18
3	P 214.914†	245.7	3.2	1.4791 ug/L	1.4791 ppb	16:05:18
3	Pb 220.353†	-93.2	-17.7	-1.8348 ug/L	-1.8348 ppb	16:05:18
3	S 181.975 Axial†	68.3	10.1	11.416 ug/L	11.416 ppb	16:05:18
3	Sb 206.836†	52.9	17.1	5.1747 ug/L	5.1747 ppb	16:05:18
3	Se 196.026†	-29.8	2.7	1.3526 ug/L	1.3526 ppb	16:05:18
3	Si 251.611†	655.1	54.7	1.5406 ug/L	1.5406 ppb	16:05:18
3	Sn 189.927†	18.6	15.7	2.3215 ug/L	2.3215 ppb	16:05:18
3	Ti 334.940†	-1697.8	77.7	0.1256 ug/L	0.1256 ppb	16:04:58
3	Tl 190.801†	-46.7	5.5	1.5073 ug/L	1.5073 ppb	16:05:18
3	U 409.014†	-2731.4	-130.1	-3.8677 ug/L	-3.8677 ppb	16:04:58
3	V 292.402†	-1737.3	21.6	0.1397 ug/L	0.1397 ppb	16:04:58
3	Zn 213.857†	831.4	20.3	0.1690 ug/L	0.1690 ppb	16:05:18
3	SiO2†	676.5	57.2	3.4497 ug/L	3.4497 ppb	16:05:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	863242.1	97.364 %		0.2497			0.26%
Sc Radial	4672.8	100 %		0.8			0.78%
Y 371.029	741265.4	97.310 %		0.2821			0.29%
Y RADIAL	4968.3	100.7 %		0.65			0.64%
Ag 328.068†	-30.8	-0.1268 ug/L		0.26892	-0.1268 ppb	0.26892	212.13%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	6.6	5.8557 ug/L		21.07064	5.8557 ppb	21.07064	359.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	9.4	3.3058 ug/L		1.49760	3.3058 ppb	1.49760	45.30%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-6.5	-0.1312 ug/L		0.60515	-0.1312 ppb	0.60515	461.14%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-7.9	-0.0573 ug/L		0.02425	-0.0573 ppb	0.02425	42.31%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-133.1	-0.0448 ug/L		0.01310	-0.0448 ppb	0.01310	29.25%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	6.5	10.855 ug/L		4.9108	10.855 ppb	4.9108	45.24%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-11.6	-0.1084 ug/L	0.09918	-0.1084 ppb	0.09918	91.47%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-26.7	-0.5002 ug/L	0.34442	-0.5002 ppb	0.34442	68.85%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	6.3	0.0658 ug/L	0.33509	0.0658 ppb	0.33509	509.25%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	303.3	0.8977 ug/L	0.20495	0.8977 ppb	0.20495	22.83%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.6	-5.0755 ug/L	8.79264	-5.0755 ppb	8.79264	173.24%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	76.9	15.223 ug/L	11.1502	15.223 ppb	11.1502	73.25%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.5	48.666 ug/L	103.1194	48.666 ppb	103.1194	211.89%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	55.7	0.0573 ug/L	0.00931	0.0573 ppb	0.00931	16.25%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	6.9	0.4330 ug/L	0.37102	0.4330 ppb	0.37102	85.68%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	271.6	82.037 ug/L	16.6944	82.037 ppb	16.6944	20.35%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-0.9	-0.0204 ug/L	0.10470	-0.0204 ppb	0.10470	513.57%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	12.0	5.7168 ug/L	3.75011	5.7168 ppb	3.75011	65.60%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-11.6	-1.1968 ug/L	0.88433	-1.1968 ppb	0.88433	73.89%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	5.0	5.6303 ug/L	5.93777	5.6303 ppb	5.93777	105.46%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 220.836†	12.2	3.6703 ug/L	1.91389	3.6703 ppb	1.91389	52.15%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-6.7	-3.4672 ug/L	4.25296	-3.4672 ppb	4.25296	122.66%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	66.0	1.8765 ug/L	0.49350	1.8765 ppb	0.49350	26.30%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	9.1	1.3509 ug/L	0.87244	1.3509 ppb	0.87244	64.58%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-3.1	-0.0229 ug/L	0.16583	-0.0229 ppb	0.16583	723.07%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	60.0	0.0991 ug/L	0.06079	0.0991 ppb	0.06079	61.35%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	6.9	1.8947 ug/L	0.40716	1.8947 ppb	0.40716	21.49%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-252.3	-7.5008 ug/L	3.15234	-7.5008 ppb	3.15234	42.03%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	40.2	0.2457 ug/L	0.15766	0.2457 ppb	0.15766	64.16%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	26.0	0.2115 ug/L	0.04880	0.2115 ppb	0.04880	23.08%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	64.3	3.9081 ug/L	0.40971	3.9081 ppb	0.40971	10.48%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 20

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/6/2010 16:55:41

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	4685.0	4685.0	100 %		16:57:33
1	Y RADIAL	4955.4	4955.4	100.5 %		16:57:33
1	Al 396.153Radial†	5814.4	5819.6	5139.1 ug/L	5139.1 ppb	16:57:33
1	Ca 317.933Radial†	3117.0	3092.8	5182.6 ug/L	5182.6 ppb	16:57:53
1	Fe 238.204 Radial†	593.1	577.0	5086.2 ug/L	5086.2 ppb	16:57:53
1	K 766.490 Radial†	28822.6	25378.9	5028.8 ug/L	5028.8 ppb	16:57:33
1	Mg 279.077 IEC†	164.1	161.9	5181.3 ug/L	5181.3 ppb	16:57:53
1	Na 589.592 Radial†	33244.0	34870.8	10534 ug/L	10534 ppb	16:57:33
1	Sr 421.552†	72111.5	71828.0	525.85 ug/L	525.85 ppb	16:57:33
1	Sc 361.383	857176.8	857176.8	96.680 %		16:58:52
1	Y 371.029	728322.0	728322.0	95.611 %		16:58:52
1	Ag 328.068†	115653.5	119112.3	514.87 ug/L	514.87 ppb	16:58:52
1	As 188.979†	1405.8	1487.4	525.14 ug/L	525.14 ppb	16:59:12
1	B 249.677†	22967.5	24421.9	501.57 ug/L	501.57 ppb	16:58:52
1	Ba 233.527†	68336.5	70675.5	516.62 ug/L	516.62 ppb	16:58:52
1	Be 313.107†	1479643.0	1534800.8	519.78 ug/L	519.78 ppb	16:58:52
1	Cd 226.502†	52746.4	54795.9	515.91 ug/L	515.91 ppb	16:58:52
1	Co 228.616†	26578.7	27575.3	518.64 ug/L	518.64 ppb	16:59:12
1	Cr 267.716†	49613.5	51213.0	513.95 ug/L	513.95 ppb	16:58:52
1	Cu 324.752†	175417.8	173442.0	513.76 ug/L	513.76 ppb	16:58:52
1	Mn 257.610†	478024.5	493921.9	520.83 ug/L	520.83 ppb	16:58:52
1	Mo 202.031†	8075.9	8333.3	522.54 ug/L	522.54 ppb	16:59:12
1	Ni 231.604†	22919.8	23581.7	517.35 ug/L	517.35 ppb	16:59:12
1	P 214.914†	5429.4	5367.3	2539.1 ug/L	2539.1 ppb	16:59:12
1	Pb 220.353†	4811.9	5054.9	525.28 ug/L	525.28 ppb	16:59:12
1	S 181.975 Axial†	957.0	929.9	1049.9 ug/L	1049.9 ppb	16:59:12
1	Sb 206.836†	1731.6	1754.0	531.57 ug/L	531.57 ppb	16:59:12
1	Se 196.026†	965.2	1031.6	545.97 ug/L	545.97 ppb	16:59:12
1	Si 251.611†	87126.8	89501.9	2555.1 ug/L	2555.1 ppb	16:58:52
1	Sn 189.927†	3402.0	3515.4	520.57 ug/L	520.57 ppb	16:59:12
1	Ti 334.940†	316863.5	329560.9	522.75 ug/L	522.75 ppb	16:58:52
1	Tl 190.801†	1795.1	1910.1	525.18 ug/L	525.18 ppb	16:59:12
1	U 409.014†	13418.0	16547.4	490.30 ug/L	490.30 ppb	16:58:52
1	V 292.402†	76945.0	81388.9	517.91 ug/L	517.91 ppb	16:58:52
1	Zn 213.857†	61564.8	62847.1	512.38 ug/L	512.38 ppb	16:58:52
1	SiO2†	88135.8	90526.1	5530.2 ug/L	5530.2 ppb	17:00:12
2	Sc Radial	4610.4	4610.4	98.8 %		16:57:58
2	Y RADIAL	4911.2	4911.2	99.56 %		16:57:58
2	Al 396.153Radial†	5771.4	5869.8	5184.1 ug/L	5184.1 ppb	16:57:58
2	Ca 317.933Radial†	3107.7	3133.7	5251.0 ug/L	5251.0 ppb	16:58:18
2	Fe 238.204 Radial†	590.3	583.7	5145.0 ug/L	5145.0 ppb	16:58:18
2	K 766.490 Radial†	28366.4	25381.8	5029.4 ug/L	5029.4 ppb	16:57:58
2	Mg 279.077 IEC†	166.4	166.9	5341.2 ug/L	5341.2 ppb	16:58:18
2	Na 589.592 Radial†	32735.8	34892.2	10540 ug/L	10540 ppb	16:57:58
2	Sr 421.552†	71284.3	72153.0	528.23 ug/L	528.23 ppb	16:57:58
2	Sc 361.383	872076.0	872076.0	98.361 %		16:59:20
2	Y 371.029	740502.4	740502.4	97.210 %		16:59:20
2	Ag 328.068†	116471.3	117900.1	509.66 ug/L	509.66 ppb	16:59:20
2	As 188.979†	1394.1	1450.7	512.26 ug/L	512.26 ppb	16:59:40
2	B 249.677†	23265.8	24319.3	499.48 ug/L	499.48 ppb	16:59:20
2	Ba 233.527†	68743.0	69881.2	510.82 ug/L	510.82 ppb	16:59:20
2	Be 313.107†	1488841.1	1518004.9	514.09 ug/L	514.09 ppb	16:59:20
2	Cd 226.502†	52993.7	54115.3	509.48 ug/L	509.48 ppb	16:59:20
2	Co 228.616†	26444.5	26969.2	507.22 ug/L	507.22 ppb	16:59:40
2	Cr 267.716†	49825.3	50551.6	507.32 ug/L	507.32 ppb	16:59:20
2	Cu 324.752†	177131.3	172084.3	509.74 ug/L	509.74 ppb	16:59:20
2	Mn 257.610†	481075.7	488576.6	515.20 ug/L	515.20 ppb	16:59:20
2	Mo 202.031†	8053.4	8167.7	512.17 ug/L	512.17 ppb	16:59:40
2	Ni 231.604†	22808.2	23063.3	505.97 ug/L	505.97 ppb	16:59:40

2	P 214.914†	5394.5	5235.9	2475.5 ug/L	2475.5 ppb	16:59:40
2	Pb 220.353†	4806.7	4964.6	515.91 ug/L	515.91 ppb	16:59:40
2	S 181.975 Axial†	945.6	901.5	1017.8 ug/L	1017.8 ppb	16:59:40
2	Sb 206.836†	1728.2	1719.9	521.11 ug/L	521.11 ppb	16:59:40
2	Se 196.026†	956.6	1005.8	532.93 ug/L	532.93 ppb	16:59:40
2	Si 251.611†	87867.7	88715.5	2532.8 ug/L	2532.8 ppb	16:59:20
2	Sn 189.927†	3383.9	3436.9	508.97 ug/L	508.97 ppb	16:59:40
2	Ti 334.940†	319168.4	326304.8	517.59 ug/L	517.59 ppb	16:59:20
2	Tl 190.801†	1783.9	1867.0	513.41 ug/L	513.41 ppb	16:59:40
2	U 409.014†	13563.6	16458.3	487.66 ug/L	487.66 ppb	16:59:20
2	V 292.402†	77499.4	80592.8	512.77 ug/L	512.77 ppb	16:59:20
2	Zn 213.857†	62029.5	62231.6	507.39 ug/L	507.39 ppb	16:59:20
2	SiO2†	87821.2	88648.8	5415.5 ug/L	5415.5 ppb	17:00:18
3	Sc Radial	4676.5	4676.5	100 %		16:58:23
3	Y RADIAL	4937.4	4937.4	100.1 %		16:58:23
3	Al 396.153Radial†	5908.0	5923.5	5231.9 ug/L	5231.9 ppb	16:58:23
3	Ca 317.933Radial†	3119.4	3101.0	5196.2 ug/L	5196.2 ppb	16:58:43
3	Fe 238.204 Radial†	591.5	576.5	5081.9 ug/L	5081.9 ppb	16:58:43
3	K 766.490 Radial†	28875.7	25484.1	5049.7 ug/L	5049.7 ppb	16:58:23
3	Mg 279.077 IEC†	163.9	161.9	5184.0 ug/L	5184.0 ppb	16:58:43
3	Na 589.592 Radial†	33359.1	35045.9	10587 ug/L	10587 ppb	16:58:23
3	Sr 421.552†	72459.8	72306.3	529.35 ug/L	529.35 ppb	16:58:23
3	Sc 361.383	867285.2	867285.2	97.820 %		16:59:47
3	Y 371.029	736080.6	736080.6	96.629 %		16:59:47
3	Ag 328.068†	115988.3	118060.4	510.33 ug/L	510.33 ppb	16:59:47
3	As 188.979†	1378.7	1442.8	509.49 ug/L	509.49 ppb	17:00:07
3	B 249.677†	23195.5	24378.2	500.70 ug/L	500.70 ppb	16:59:47
3	Ba 233.527†	68328.6	69843.6	510.54 ug/L	510.54 ppb	16:59:47
3	Be 313.107†	1480737.9	1518082.3	514.12 ug/L	514.12 ppb	16:59:47
3	Cd 226.502†	52612.7	54023.4	508.62 ug/L	508.62 ppb	16:59:47
3	Co 228.616†	26248.1	26916.9	506.24 ug/L	506.24 ppb	17:00:07
3	Cr 267.716†	49577.7	50578.3	507.59 ug/L	507.59 ppb	16:59:47
3	Cu 324.752†	176226.0	172153.5	509.94 ug/L	509.94 ppb	16:59:47
3	Mn 257.610†	478107.7	488244.2	514.85 ug/L	514.85 ppb	16:59:47
3	Mo 202.031†	7975.5	8133.3	510.02 ug/L	510.02 ppb	17:00:07
3	Ni 231.604†	22675.8	23056.0	505.81 ug/L	505.81 ppb	17:00:07
3	P 214.914†	5348.0	5218.6	2467.1 ug/L	2467.1 ppb	17:00:07
3	Pb 220.353†	4759.1	4942.9	513.67 ug/L	513.67 ppb	17:00:07
3	S 181.975 Axial†	942.5	903.6	1020.2 ug/L	1020.2 ppb	17:00:07
3	Sb 206.836†	1697.2	1698.0	514.49 ug/L	514.49 ppb	17:00:07
3	Se 196.026†	945.8	1000.1	529.82 ug/L	529.82 ppb	17:00:07
3	Si 251.611†	87458.4	88790.5	2535.0 ug/L	2535.0 ppb	16:59:47
3	Sn 189.927†	3357.4	3428.8	507.77 ug/L	507.77 ppb	17:00:07
3	Ti 334.940†	317274.1	326160.8	517.36 ug/L	517.36 ppb	16:59:47
3	Tl 190.801†	1752.8	1845.3	507.48 ug/L	507.48 ppb	17:00:07
3	U 409.014†	13499.4	16468.9	487.98 ug/L	487.98 ppb	16:59:47
3	V 292.402†	77117.7	80637.8	513.02 ug/L	513.02 ppb	16:59:47
3	Zn 213.857†	61578.1	62118.5	506.47 ug/L	506.47 ppb	16:59:47
3	SiO2†	88484.3	89819.8	5487.4 ug/L	5487.4 ppb	17:00:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	865512.7	97.621 %		0.8579			0.88%
Sc Radial	4657.3	99.8 %		0.87			0.88%
Y 371.029	734968.4	96.483 %		0.8094			0.84%
Y RADIAL	4934.7	100.0 %		0.45			0.45%
Ag 328.068†	118357.6	511.62 ug/L		2.832	511.62 ppb	2.832	0.55%
QC value within limits for Ag 328.068 Recovery = 102.32%							
Al 396.153Radial†	5871.0	5185.1 ug/L		46.39	5185.1 ppb	46.39	0.89%
QC value within limits for Al 396.153Radial Recovery = 103.70%							
As 188.979†	1460.3	515.63 ug/L		8.351	515.63 ppb	8.351	1.62%
QC value within limits for As 188.979 Recovery = 103.13%							
B 249.677†	24373.2	500.59 ug/L		1.052	500.59 ppb	1.052	0.21%
QC value within limits for B 249.677 Recovery = 100.12%							
Ba 233.527†	70133.4	512.66 ug/L		3.432	512.66 ppb	3.432	0.67%
QC value within limits for Ba 233.527 Recovery = 102.53%							
Be 313.107†	1523629.3	516.00 ug/L		3.276	516.00 ppb	3.276	0.63%
QC value within limits for Be 313.107 Recovery = 103.20%							
Ca 317.933Radial†	3109.2	5209.9 ug/L		36.22	5209.9 ppb	36.22	0.70%

QC value within limits for Ca 317.933 Radial Recovery = 104.20%

Cd 226.502†	54311.5	511.34 ug/L	3.980	511.34 ppb	3.980	0.78%
QC value within limits for Cd 226.502 Recovery = 102.27%						
Co 228.616†	27153.8	510.70 ug/L	6.891	510.70 ppb	6.891	1.35%
QC value within limits for Co 228.616 Recovery = 102.14%						
Cr 267.716†	50781.0	509.62 ug/L	3.755	509.62 ppb	3.755	0.74%
QC value within limits for Cr 267.716 Recovery = 101.92%						
Cu 324.752†	172559.9	511.15 ug/L	2.263	511.15 ppb	2.263	0.44%
QC value within limits for Cu 324.752 Recovery = 102.23%						
Fe 238.204 Radial†	579.1	5104.4 ug/L	35.24	5104.4 ppb	35.24	0.69%
QC value within limits for Fe 238.204 Radial Recovery = 102.09%						
K 766.490 Radial†	25414.9	5035.9 ug/L	11.90	5035.9 ppb	11.90	0.24%
QC value within limits for K 766.490 Radial Recovery = 100.72%						
Mg 279.077 IEC†	163.6	5235.5 ug/L	91.55	5235.5 ppb	91.55	1.75%
QC value within limits for Mg 279.077 IEC Recovery = 104.71%						
Mn 257.610†	490247.6	516.96 ug/L	3.357	516.96 ppb	3.357	0.65%
QC value within limits for Mn 257.610 Recovery = 103.39%						
Mo 202.031†	8211.4	514.91 ug/L	6.696	514.91 ppb	6.696	1.30%
QC value within limits for Mo 202.031 Recovery = 102.98%						
Na 589.592 Radial†	34936.3	10554 ug/L	28.9	10554 ppb	28.9	0.27%
QC value within limits for Na 589.592 Radial Recovery = 105.54%						
Ni 231.604†	23233.6	509.71 ug/L	6.613	509.71 ppb	6.613	1.30%
QC value within limits for Ni 231.604 Recovery = 101.94%						
P 214.914†	5273.9	2493.9 ug/L	39.37	2493.9 ppb	39.37	1.58%
QC value within limits for P 214.914 Recovery = 99.76%						
Pb 220.353†	4987.4	518.28 ug/L	6.159	518.28 ppb	6.159	1.19%
QC value within limits for Pb 220.353 Recovery = 103.66%						
S 181.975 Axial†	911.7	1029.3 ug/L	17.91	1029.3 ppb	17.91	1.74%
QC value within limits for S 181.975 Axial Recovery = 102.93%						
Sb 206.836†	1724.0	522.39 ug/L	8.613	522.39 ppb	8.613	1.65%
QC value within limits for Sb 206.836 Recovery = 104.48%						
Se 196.026†	1012.5	536.24 ug/L	8.568	536.24 ppb	8.568	1.60%
QC value within limits for Se 196.026 Recovery = 107.25%						
Si 251.611†	89002.7	2541.0 ug/L	12.32	2541.0 ppb	12.32	0.48%
QC value within limits for Si 251.611 Recovery = 101.64%						
Sn 189.927†	3460.4	512.44 ug/L	7.070	512.44 ppb	7.070	1.38%
QC value within limits for Sn 189.927 Recovery = 102.49%						
Sr 421.552†	72095.8	527.81 ug/L	1.788	527.81 ppb	1.788	0.34%
QC value within limits for Sr 421.552 Recovery = 105.56%						
Ti 334.940†	327342.2	519.23 ug/L	3.048	519.23 ppb	3.048	0.59%
QC value within limits for Ti 334.940 Recovery = 103.85%						
Tl 190.801†	1874.1	515.36 ug/L	9.012	515.36 ppb	9.012	1.75%
QC value within limits for Tl 190.801 Recovery = 103.07%						
U 409.014†	16491.6	488.65 ug/L	1.442	488.65 ppb	1.442	0.30%
QC value within limits for U 409.014 Recovery = 97.73%						
V 292.402†	80873.1	514.57 ug/L	2.900	514.57 ppb	2.900	0.56%
QC value within limits for V 292.402 Recovery = 102.91%						
Zn 213.857†	62399.1	508.75 ug/L	3.181	508.75 ppb	3.181	0.63%
QC value within limits for Zn 213.857 Recovery = 101.75%						
SiO2†	89664.9	5477.7 ug/L	58.00	5477.7 ppb	58.00	1.06%
QC value within limits for SiO2 Recovery = 102.44%						

All analyte(s) passed QC.

Sequence No.: 21
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 1/6/2010 17:02:32
 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	4706.9	4706.9	101 %		17:04:25
1	Y RADIAL	4979.2	4979.2	100.9 %		17:04:25
1	Al 396.153Radial†	-2.9	23.9	21.147 ug/L	21.147 ppb	17:04:25
1	Ca 317.933Radial†	16.4	3.7	6.2530 ug/L	6.2530 ppb	17:04:45
1	Fe 238.204 Radial†	13.5	-0.5	-3.9863 ug/L	-3.9863 ppb	17:04:45
1	K 766.490 Radial†	3334.7	-29.9	-5.9609 ug/L	-5.9609 ppb	17:04:25
1	Mg 279.077 IEC†	-1.0	-2.6	-82.826 ug/L	-82.826 ppb	17:04:45
1	Na 589.592 Radial†	-1520.3	242.5	73.254 ug/L	73.254 ppb	17:04:25
1	Sr 421.552†	9.7	-6.3	-0.0464 ug/L	-0.0464 ppb	17:04:25
1	Sc 361.383	886072.0	886072.0	99.939 %		17:05:42
1	Y 371.029	759683.3	759683.3	99.728 %		17:05:42
1	Ag 328.068†	540.0	28.0	0.1129 ug/L	0.1129 ppb	17:05:47
1	As 188.979†	-29.8	3.6	1.2429 ug/L	1.2429 ppb	17:06:07
1	B 249.677†	-607.3	58.2	1.2002 ug/L	1.2002 ppb	17:05:47
1	Ba 233.527†	2.1	-5.4	-0.0396 ug/L	-0.0396 ppb	17:06:07
1	Be 313.107†	-4281.0	67.9	0.0232 ug/L	0.0232 ppb	17:05:47
1	Cd 226.502†	-241.6	-3.4	-0.0318 ug/L	-0.0318 ppb	17:06:07
1	Co 228.616†	-87.2	-3.3	-0.0602 ug/L	-0.0602 ppb	17:06:07
1	Cr 267.716†	50.5	-53.5	-0.5382 ug/L	-0.5382 ppb	17:05:47
1	Cu 324.752†	8143.5	149.4	0.4422 ug/L	0.4422 ppb	17:05:47
1	Mn 257.610†	520.1	4.0	0.0054 ug/L	0.0054 ppb	17:05:47
1	Mo 202.031†	32.0	12.1	0.7581 ug/L	0.7581 ppb	17:06:07
1	Ni 231.604†	97.3	-27.7	-0.6087 ug/L	-0.6087 ppb	17:06:07
1	P 214.914†	259.2	10.8	5.1901 ug/L	5.1901 ppb	17:06:07
1	Pb 220.353†	-97.4	-19.7	-2.0349 ug/L	-2.0349 ppb	17:06:07
1	S 181.975 Axial†	65.4	5.5	6.2130 ug/L	6.2130 ppb	17:06:07
1	Sb 206.836†	38.3	1.3	0.4209 ug/L	0.4209 ppb	17:06:07
1	Se 196.026†	-38.4	-5.2	-2.6718 ug/L	-2.6718 ppb	17:06:07
1	Si 251.611†	675.6	59.4	1.6909 ug/L	1.6909 ppb	17:06:07
1	Sn 189.927†	7.7	4.3	0.6391 ug/L	0.6391 ppb	17:06:07
1	Ti 334.940†	-1724.0	92.3	0.1438 ug/L	0.1438 ppb	17:05:47
1	Tl 190.801†	-39.7	13.7	3.7364 ug/L	3.7364 ppb	17:06:07
1	U 409.014†	-2424.8	242.5	7.2094 ug/L	7.2094 ppb	17:05:42
1	V 292.402†	-1792.6	8.1	0.0745 ug/L	0.0745 ppb	17:05:47
1	Zn 213.857†	833.9	2.8	0.0292 ug/L	0.0292 ppb	17:06:07
1	SiO2†	704.4	68.8	4.1969 ug/L	4.1969 ppb	17:07:13
2	Sc Radial	4402.0	4402.0	94.3 %		17:04:50
2	Y RADIAL	4656.6	4656.6	94.40 %		17:04:50
2	Al 396.153Radial†	-12.6	13.3	11.791 ug/L	11.791 ppb	17:04:50
2	Ca 317.933Radial†	18.3	6.8	11.402 ug/L	11.402 ppb	17:05:10
2	Fe 238.204 Radial†	13.1	0.1	0.5926 ug/L	0.5926 ppb	17:05:10
2	K 766.490 Radial†	3385.7	253.2	50.250 ug/L	50.250 ppb	17:04:50
2	Mg 279.077 IEC†	1.2	-0.3	-10.798 ug/L	-10.798 ppb	17:05:10
2	Na 589.592 Radial†	-1515.0	143.7	43.422 ug/L	43.422 ppb	17:04:50
2	Sr 421.552†	18.4	3.5	0.0258 ug/L	0.0258 ppb	17:04:50
2	Sc 361.383	876925.8	876925.8	98.908 %		17:06:12
2	Y 371.029	752304.2	752304.2	98.759 %		17:06:12
2	Ag 328.068†	562.4	56.3	0.2414 ug/L	0.2414 ppb	17:06:17
2	As 188.979†	-27.2	6.0	2.0842 ug/L	2.0842 ppb	17:06:37
2	B 249.677†	-672.6	-14.2	-0.2933 ug/L	-0.2933 ppb	17:06:17
2	Ba 233.527†	-4.6	-12.2	-0.0883 ug/L	-0.0883 ppb	17:06:37
2	Be 313.107†	-4363.8	-60.5	-0.0205 ug/L	-0.0205 ppb	17:06:17
2	Cd 226.502†	-244.2	-8.5	-0.0805 ug/L	-0.0805 ppb	17:06:37
2	Co 228.616†	-83.0	0.1	0.0030 ug/L	0.0030 ppb	17:06:37
2	Cr 267.716†	83.6	-19.5	-0.1953 ug/L	-0.1953 ppb	17:06:17
2	Cu 324.752†	8037.2	127.0	0.3759 ug/L	0.3759 ppb	17:06:17
2	Mn 257.610†	475.7	-35.5	-0.0371 ug/L	-0.0371 ppb	17:06:17
2	Mo 202.031†	27.8	8.2	0.5141 ug/L	0.5141 ppb	17:06:37
2	Ni 231.604†	117.3	-6.5	-0.1426 ug/L	-0.1426 ppb	17:06:37

2	P 214.914†	242.8	-3.1	-1.5662 ug/L	-1.5662 ppb	17:06:37
2	Pb 220.353†	-93.9	-17.1	-1.7709 ug/L	-1.7709 ppb	17:06:37
2	S 181.975 Axial†	61.1	1.9	2.1724 ug/L	2.1724 ppb	17:06:37
2	Sb 206.836†	33.9	-2.8	-0.8123 ug/L	-0.8123 ppb	17:06:37
2	Se 196.026†	-37.0	-4.1	-2.1082 ug/L	-2.1082 ppb	17:06:37
2	Si 251.611†	652.6	43.2	1.2151 ug/L	1.2151 ppb	17:06:37
2	Sn 189.927†	2.9	-0.5	-0.0727 ug/L	-0.0727 ppb	17:06:37
2	Ti 334.940†	-1806.2	-8.8	-0.0142 ug/L	-0.0142 ppb	17:06:17
2	Tl 190.801†	-49.8	3.1	0.8415 ug/L	0.8415 ppb	17:06:37
2	U 409.014†	-2573.7	66.6	1.9804 ug/L	1.9804 ppb	17:06:12
2	V 292.402†	-1734.5	48.2	0.3134 ug/L	0.3134 ppb	17:06:17
2	Zn 213.857†	846.5	24.2	0.1994 ug/L	0.1994 ppb	17:06:37
2	SiO2†	699.4	71.1	4.3074 ug/L	4.3074 ppb	17:07:18
3	Sc Radial	4626.0	4626.0	99.1 %		17:05:15
3	Y RADIAL	4914.5	4914.5	99.63 %		17:05:15
3	Al 396.153Radial†	-16.5	10.0	8.8864 ug/L	8.8864 ppb	17:05:15
3	Ca 317.933Radial†	21.1	8.7	14.579 ug/L	14.579 ppb	17:05:35
3	Fe 238.204 Radial†	10.7	-3.0	-26.696 ug/L	-26.696 ppb	17:05:35
3	K 766.490 Radial†	3443.7	138.0	27.358 ug/L	27.358 ppb	17:05:15
3	Mg 279.077 IEC†	0.0	-1.6	-51.916 ug/L	-51.916 ppb	17:05:35
3	Na 589.592 Radial†	-1483.7	253.0	76.436 ug/L	76.436 ppb	17:05:15
3	Sr 421.552†	-22.5	-38.7	-0.2832 ug/L	-0.2832 ppb	17:05:15
3	Sc 361.383	886977.7	886977.7	100.04 %		17:06:42
3	Y 371.029	760417.0	760417.0	99.824 %		17:06:42
3	Ag 328.068†	480.1	-32.5	-0.1464 ug/L	-0.1464 ppb	17:06:47
3	As 188.979†	-22.7	10.7	3.7513 ug/L	3.7513 ppb	17:07:07
3	B 249.677†	-697.4	-31.2	-0.6403 ug/L	-0.6403 ppb	17:06:47
3	Ba 233.527†	-8.8	-16.3	-0.1181 ug/L	-0.1181 ppb	17:07:07
3	Be 313.107†	-4350.2	3.1	0.0011 ug/L	0.0011 ppb	17:06:47
3	Cd 226.502†	-258.9	-20.4	-0.1898 ug/L	-0.1898 ppb	17:07:07
3	Co 228.616†	-92.3	-8.3	-0.1551 ug/L	-0.1551 ppb	17:07:07
3	Cr 267.716†	77.6	-26.5	-0.2651 ug/L	-0.2651 ppb	17:06:47
3	Cu 324.752†	7905.5	-96.8	-0.2880 ug/L	-0.2880 ppb	17:06:47
3	Mn 257.610†	527.2	10.5	0.0094 ug/L	0.0094 ppb	17:06:47
3	Mo 202.031†	25.0	5.0	0.3129 ug/L	0.3129 ppb	17:07:07
3	Ni 231.604†	116.3	-8.8	-0.1923 ug/L	-0.1923 ppb	17:07:07
3	P 214.914†	256.2	7.6	3.7652 ug/L	3.7652 ppb	17:07:07
3	Pb 220.353†	-69.9	7.9	0.8237 ug/L	0.8237 ppb	17:07:07
3	S 181.975 Axial†	70.1	10.2	11.501 ug/L	11.501 ppb	17:07:07
3	Sb 206.836†	54.5	17.4	5.2316 ug/L	5.2316 ppb	17:07:07
3	Se 196.026†	-33.0	0.2	0.0453 ug/L	0.0453 ppb	17:07:07
3	Si 251.611†	658.4	41.6	1.1755 ug/L	1.1755 ppb	17:07:07
3	Sn 189.927†	9.6	6.2	0.9136 ug/L	0.9136 ppb	17:07:07
3	Ti 334.940†	-1814.0	4.1	0.0072 ug/L	0.0072 ppb	17:06:47
3	Tl 190.801†	-46.2	7.2	1.9728 ug/L	1.9728 ppb	17:07:07
3	U 409.014†	-2654.3	15.5	0.4659 ug/L	0.4659 ppb	17:06:42
3	V 292.402†	-1699.4	103.1	0.6558 ug/L	0.6558 ppb	17:06:47
3	Zn 213.857†	848.8	16.7	0.1422 ug/L	0.1422 ppb	17:07:07
3	SiO2†	634.3	-2.0	-0.1608 ug/L	-0.1608 ppb	17:07:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	883325.2	99.630 %		0.6272			0.63%
Sc Radial	4578.3	98.1 %		3.38			3.45%
Y 371.029	757468.2	99.437 %		0.5891			0.59%
Y RADIAL	4850.1	98.32 %		3.459			3.52%
Ag 328.068†	17.3	0.0693 ug/L		0.19754	0.0693 ppb	0.19754	285.15%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	15.7	13.941 ug/L		6.4067	13.941 ppb	6.4067	45.96%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	6.7	2.3594 ug/L		1.27665	2.3594 ppb	1.27665	54.11%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	4.2	0.0889 ug/L		0.97798	0.0889 ppb	0.97798	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-11.3	-0.0820 ug/L		0.03958	-0.0820 ppb	0.03958	48.28%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	3.5	0.0013 ug/L		0.02186	0.0013 ppb	0.02186	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	6.4	10.745 ug/L		4.2019	10.745 ppb	4.2019	39.11%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-10.8	-0.1007 ug/L	0.08093	-0.1007 ppb	0.08093	80.36%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-3.8	-0.0708 ug/L	0.07956	-0.0708 ppb	0.07956	112.39%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-33.2	-0.3329 ug/L	0.18120	-0.3329 ppb	0.18120	54.44%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	59.9	0.1767 ug/L	0.40378	0.1767 ppb	0.40378	228.49%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.1	-10.030 ug/L	14.6139	-10.030 ppb	14.6139	145.70%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	120.4	23.882 ug/L	28.2660	23.882 ppb	28.2660	118.36%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-1.5	-48.514 ug/L	36.1343	-48.514 ppb	36.1343	74.48%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-7.0	-0.0074 ug/L	0.02577	-0.0074 ppb	0.02577	345.87%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	8.4	0.5284 ug/L	0.22294	0.5284 ppb	0.22294	42.19%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	213.1	64.371 ug/L	18.2116	64.371 ppb	18.2116	28.29%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-14.3	-0.3145 ug/L	0.25592	-0.3145 ppb	0.25592	81.36%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	5.1	2.4631 ug/L	3.56139	2.4631 ppb	3.56139	144.59%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-9.6	-0.9940 ug/L	1.57975	-0.9940 ppb	1.57975	158.92%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	5.9	6.6289 ug/L	4.67831	6.6289 ppb	4.67831	70.57%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	5.3	1.6134 ug/L	3.19355	1.6134 ppb	3.19355	197.94%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-3.0	-1.5782 ug/L	1.43398	-1.5782 ppb	1.43398	90.86%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	48.1	1.3605 ug/L	0.28681	1.3605 ppb	0.28681	21.08%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	3.3	0.4933 ug/L	0.50904	0.4933 ppb	0.50904	103.18%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-13.8	-0.1013 ug/L	0.16166	-0.1013 ppb	0.16166	159.62%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	29.2	0.0456 ug/L	0.08571	0.0456 ppb	0.08571	187.98%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	8.0	2.1836 ug/L	1.45894	2.1836 ppb	1.45894	66.81%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	108.2	3.2186 ug/L	3.53814	3.2186 ppb	3.53814	109.93%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	53.1	0.3479 ug/L	0.29219	0.3479 ppb	0.29219	83.99%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	14.6	0.1236 ug/L	0.08660	0.1236 ppb	0.08660	70.05%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	46.0	2.7812 ug/L	2.54842	2.7812 ppb	2.54842	91.63%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 29

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/6/2010 17:59:27

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	4799.3	4799.3	103 %		18:01:19
1	Y RADIAL	5073.0	5073.0	102.8 %		18:01:19
1	Al 396.153Radial†	5861.1	5726.9	5058.0 ug/L	5058.0 ppb	18:01:19
1	Ca 317.933Radial†	3105.1	3007.4	5039.4 ug/L	5039.4 ppb	18:01:39
1	Fe 238.204 Radial†	588.8	558.7	4925.2 ug/L	4925.2 ppb	18:01:39
1	K 766.490 Radial†	28792.3	24665.5	4887.3 ug/L	4887.3 ppb	18:01:19
1	Mg 279.077 IEC†	164.2	158.1	5060.2 ug/L	5060.2 ppb	18:01:39
1	Na 589.592 Radial†	33099.6	33941.4	10253 ug/L	10253 ppb	18:01:19
1	Sr 421.552†	72304.5	70304.3	514.70 ug/L	514.70 ppb	18:01:19
1	Sc 361.383	886340.9	886340.9	99.970 %		18:02:38
1	Y 371.029	752822.2	752822.2	98.827 %		18:02:38
1	Ag 328.068†	117838.2	117361.5	507.27 ug/L	507.27 ppb	18:02:38
1	As 188.979†	1389.3	1423.2	502.58 ug/L	502.58 ppb	18:02:58
1	B 249.677†	23516.1	24189.1	496.85 ug/L	496.85 ppb	18:02:38
1	Ba 233.527†	69415.8	69429.4	507.51 ug/L	507.51 ppb	18:02:38
1	Be 313.107†	1505478.4	1510286.1	511.48 ug/L	511.48 ppb	18:02:38
1	Cd 226.502†	53419.8	53674.4	505.35 ug/L	505.35 ppb	18:02:38
1	Co 228.616†	26285.1	26377.0	496.07 ug/L	496.07 ppb	18:02:58
1	Cr 267.716†	50319.5	50230.7	504.09 ug/L	504.09 ppb	18:02:38
1	Cu 324.752†	179261.6	171316.9	507.46 ug/L	507.46 ppb	18:02:38
1	Mn 257.610†	485811.0	485441.7	511.88 ug/L	511.88 ppb	18:02:38
1	Mo 202.031†	7985.6	7968.1	499.65 ug/L	499.65 ppb	18:02:58
1	Ni 231.604†	22668.5	22550.3	494.72 ug/L	494.72 ppb	18:02:58
1	P 214.914†	5364.3	5117.4	2418.1 ug/L	2418.1 ppb	18:02:58
1	Pb 220.353†	4730.4	4809.6	499.81 ug/L	499.81 ppb	18:02:58
1	S 181.975 Axial†	943.4	883.8	997.81 ug/L	997.81 ppb	18:02:58
1	Sb 206.836†	1714.4	1677.8	508.19 ug/L	508.19 ppb	18:02:58
1	Se 196.026†	947.6	981.1	519.55 ug/L	519.55 ppb	18:02:58
1	Si 251.611†	88711.7	88122.0	2516.0 ug/L	2516.0 ppb	18:02:38
1	Sn 189.927†	3376.2	3373.8	499.62 ug/L	499.62 ppb	18:02:58
1	Ti 334.940†	322428.6	324343.7	514.47 ug/L	514.47 ppb	18:02:38
1	Tl 190.801†	1774.2	1828.1	502.80 ug/L	502.80 ppb	18:02:58
1	U 409.014†	13816.7	16489.6	488.62 ug/L	488.62 ppb	18:02:38
1	V 292.402†	78337.4	80163.0	509.92 ug/L	509.92 ppb	18:02:38
1	Zn 213.857†	62533.2	61720.5	503.29 ug/L	503.29 ppb	18:02:38
1	SiO2†	88196.5	87587.2	5350.9 ug/L	5350.9 ppb	18:03:59
2	Sc Radial	4622.8	4622.8	99.0 %		18:01:44
2	Y RADIAL	4877.6	4877.6	98.88 %		18:01:44
2	Al 396.153Radial†	5784.0	5866.8	5181.7 ug/L	5181.7 ppb	18:01:44
2	Ca 317.933Radial†	3105.7	3123.3	5233.6 ug/L	5233.6 ppb	18:02:04
2	Fe 238.204 Radial†	587.4	579.2	5105.4 ug/L	5105.4 ppb	18:02:04
2	K 766.490 Radial†	28645.8	25586.7	5070.1 ug/L	5070.1 ppb	18:01:44
2	Mg 279.077 IEC†	166.4	166.3	5324.7 ug/L	5324.7 ppb	18:02:04
2	Na 589.592 Radial†	32647.2	34713.7	10486 ug/L	10486 ppb	18:01:44
2	Sr 421.552†	71351.6	72027.0	527.31 ug/L	527.31 ppb	18:01:44
2	Sc 361.383	876653.7	876653.7	98.877 %		18:03:06
2	Y 371.029	745175.8	745175.8	97.823 %		18:03:06
2	Ag 328.068†	116367.2	117176.4	506.53 ug/L	506.53 ppb	18:03:06
2	As 188.979†	1403.7	1453.0	513.04 ug/L	513.04 ppb	18:03:26
2	B 249.677†	23245.2	24175.0	496.52 ug/L	496.52 ppb	18:03:06
2	Ba 233.527†	68746.0	69519.2	508.17 ug/L	508.17 ppb	18:03:06
2	Be 313.107†	1484837.8	1506052.1	510.04 ug/L	510.04 ppb	18:03:06
2	Cd 226.502†	52836.4	53674.8	505.34 ug/L	505.34 ppb	18:03:06
2	Co 228.616†	26373.7	26757.2	503.24 ug/L	503.24 ppb	18:03:26
2	Cr 267.716†	49744.4	50205.3	503.84 ug/L	503.84 ppb	18:03:06
2	Cu 324.752†	176976.9	170987.8	506.49 ug/L	506.49 ppb	18:03:06
2	Mn 257.610†	479927.8	484861.8	511.28 ug/L	511.28 ppb	18:03:06
2	Mo 202.031†	8030.6	8101.8	508.04 ug/L	508.04 ppb	18:03:26
2	Ni 231.604†	22788.2	22921.9	502.87 ug/L	502.87 ppb	18:03:26

2	P 214.914†	5378.6	5191.1	2454.1 ug/L	2454.1 ppb	18:03:26
2	Pb 220.353†	4761.0	4892.8	508.47 ug/L	508.47 ppb	18:03:26
2	S 181.975 Axial†	948.4	899.3	1015.3 ug/L	1015.3 ppb	18:03:26
2	Sb 206.836†	1709.3	1691.6	512.58 ug/L	512.58 ppb	18:03:26
2	Se 196.026†	947.3	991.3	525.38 ug/L	525.38 ppb	18:03:26
2	Si 251.611†	87763.7	88143.8	2516.5 ug/L	2516.5 ppb	18:03:06
2	Sn 189.927†	3371.5	3406.4	504.46 ug/L	504.46 ppb	18:03:26
2	Ti 334.940†	318447.9	323881.7	513.75 ug/L	513.75 ppb	18:03:06
2	Tl 190.801†	1784.4	1858.1	510.94 ug/L	510.94 ppb	18:03:26
2	U 409.014†	13696.1	16520.4	489.51 ug/L	489.51 ppb	18:03:06
2	V 292.402†	77480.6	80162.3	510.02 ug/L	510.02 ppb	18:03:06
2	Zn 213.857†	61783.9	61653.8	502.67 ug/L	502.67 ppb	18:03:06
2	SiO2†	87710.1	88070.2	5380.1 ug/L	5380.1 ppb	18:04:04
3	Sc Radial	4655.4	4655.4	99.7 %		18:02:09
3	Y RADIAL	4936.1	4936.1	100.1 %		18:02:09
3	Al 396.153Radial†	5839.5	5881.5	5194.7 ug/L	5194.7 ppb	18:02:09
3	Ca 317.933Radial†	3111.5	3107.1	5206.5 ug/L	5206.5 ppb	18:02:30
3	Fe 238.204 Radial†	587.1	574.7	5066.0 ug/L	5066.0 ppb	18:02:30
3	K 766.490 Radial†	28586.5	25324.6	5018.1 ug/L	5018.1 ppb	18:02:09
3	Mg 279.077 IEC†	164.1	162.9	5214.8 ug/L	5214.8 ppb	18:02:30
3	Na 589.592 Radial†	32791.2	34627.1	10460 ug/L	10460 ppb	18:02:09
3	Sr 421.552†	71844.1	72016.1	527.23 ug/L	527.23 ppb	18:02:09
3	Sc 361.383	878593.1	878593.1	99.096 %		18:03:33
3	Y 371.029	746219.3	746219.3	97.960 %		18:03:33
3	Ag 328.068†	116532.8	117083.7	506.12 ug/L	506.12 ppb	18:03:33
3	As 188.979†	1397.1	1443.3	509.63 ug/L	509.63 ppb	18:03:53
3	B 249.677†	23376.3	24255.4	498.18 ug/L	498.18 ppb	18:03:33
3	Ba 233.527†	68831.6	69452.1	507.68 ug/L	507.68 ppb	18:03:33
3	Be 313.107†	1490600.0	1508552.0	510.89 ug/L	510.89 ppb	18:03:33
3	Cd 226.502†	53080.8	53803.5	506.55 ug/L	506.55 ppb	18:03:33
3	Co 228.616†	26397.0	26721.8	502.57 ug/L	502.57 ppb	18:03:53
3	Cr 267.716†	49890.7	50241.8	504.21 ug/L	504.21 ppb	18:03:33
3	Cu 324.752†	176862.0	170476.7	504.98 ug/L	504.98 ppb	18:03:33
3	Mn 257.610†	481678.3	485556.8	512.01 ug/L	512.01 ppb	18:03:33
3	Mo 202.031†	8040.0	8093.5	507.52 ug/L	507.52 ppb	18:03:53
3	Ni 231.604†	22805.5	22888.5	502.14 ug/L	502.14 ppb	18:03:53
3	P 214.914†	5381.3	5181.8	2449.9 ug/L	2449.9 ppb	18:03:53
3	Pb 220.353†	4766.8	4888.0	507.98 ug/L	507.98 ppb	18:03:53
3	S 181.975 Axial†	938.4	887.0	1001.4 ug/L	1001.4 ppb	18:03:53
3	Sb 206.836†	1713.3	1691.9	512.62 ug/L	512.62 ppb	18:03:53
3	Se 196.026†	960.3	1002.3	530.86 ug/L	530.86 ppb	18:03:53
3	Si 251.611†	87908.3	88093.9	2515.0 ug/L	2515.0 ppb	18:03:33
3	Sn 189.927†	3370.4	3397.7	503.17 ug/L	503.17 ppb	18:03:53
3	Ti 334.940†	319041.2	323769.6	513.57 ug/L	513.57 ppb	18:03:33
3	Tl 190.801†	1768.8	1838.3	505.54 ug/L	505.54 ppb	18:03:53
3	U 409.014†	13626.6	16419.6	486.52 ug/L	486.52 ppb	18:03:33
3	V 292.402†	77656.5	80166.8	510.04 ug/L	510.04 ppb	18:03:33
3	Zn 213.857†	61955.7	61689.3	502.97 ug/L	502.97 ppb	18:03:33
3	SiO2†	86645.9	86800.4	5302.2 ug/L	5302.2 ppb	18:04:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	880529.2	99.314 %	0.5781			0.58%
Sc Radial	4692.5	101 %	2.0			2.00%
Y 371.029	748072.4	98.204 %	0.5443			0.55%
Y RADIAL	4962.2	100.6 %	2.03			2.02%
Ag 328.068†	117207.2	506.64 ug/L	0.581	506.64 ppb	0.581	0.11%
QC value within limits for Ag 328.068 Recovery = 101.33%						
Al 396.153Radial†	5825.1	5144.8 ug/L	75.45	5144.8 ppb	75.45	1.47%
QC value within limits for Al 396.153Radial Recovery = 102.90%						
As 188.979†	1439.8	508.42 ug/L	5.335	508.42 ppb	5.335	1.05%
QC value within limits for As 188.979 Recovery = 101.68%						
B 249.677†	24206.5	497.18 ug/L	0.882	497.18 ppb	0.882	0.18%
QC value within limits for B 249.677 Recovery = 99.44%						
Ba 233.527†	69466.9	507.79 ug/L	0.343	507.79 ppb	0.343	0.07%
QC value within limits for Ba 233.527 Recovery = 101.56%						
Be 313.107†	1508296.7	510.80 ug/L	0.720	510.80 ppb	0.720	0.14%
QC value within limits for Be 313.107 Recovery = 102.16%						
Ca 317.933Radial†	3079.3	5159.8 ug/L	105.19	5159.8 ppb	105.19	2.04%

QC value within limits for Ca 317.933 Radial Recovery = 103.20%							
Cd 226.502†	53717.6	505.75 ug/L	0.699	505.75 ppb	0.699	0.14%	
QC value within limits for Cd 226.502 Recovery = 101.15%							
Co 228.616†	26618.7	500.62 ug/L	3.961	500.62 ppb	3.961	0.79%	
QC value within limits for Co 228.616 Recovery = 100.12%							
Cr 267.716†	50225.9	504.05 ug/L	0.188	504.05 ppb	0.188	0.04%	
QC value within limits for Cr 267.716 Recovery = 100.81%							
Cu 324.752†	170927.1	506.31 ug/L	1.250	506.31 ppb	1.250	0.25%	
QC value within limits for Cu 324.752 Recovery = 101.26%							
Fe 238.204 Radial†	570.9	5032.2 ug/L	94.72	5032.2 ppb	94.72	1.88%	
QC value within limits for Fe 238.204 Radial Recovery = 100.64%							
K 766.490 Radial†	25192.2	4991.8 ug/L	94.18	4991.8 ppb	94.18	1.89%	
QC value within limits for K 766.490 Radial Recovery = 99.84%							
Mg 279.077 IEC†	162.4	5199.9 ug/L	132.91	5199.9 ppb	132.91	2.56%	
QC value within limits for Mg 279.077 IEC Recovery = 104.00%							
Mn 257.610†	485286.8	511.73 ug/L	0.389	511.73 ppb	0.389	0.08%	
QC value within limits for Mn 257.610 Recovery = 102.35%							
Mo 202.031†	8054.5	505.07 ug/L	4.701	505.07 ppb	4.701	0.93%	
QC value within limits for Mo 202.031 Recovery = 101.01%							
Na 589.592 Radial†	34427.4	10400 ug/L	127.8	10400 ppb	127.8	1.23%	
QC value within limits for Na 589.592 Radial Recovery = 104.00%							
Ni 231.604†	22786.9	499.91 ug/L	4.511	499.91 ppb	4.511	0.90%	
QC value within limits for Ni 231.604 Recovery = 99.98%							
P 214.914†	5163.4	2440.7 ug/L	19.69	2440.7 ppb	19.69	0.81%	
QC value within limits for P 214.914 Recovery = 97.63%							
Pb 220.353†	4863.5	505.42 ug/L	4.863	505.42 ppb	4.863	0.96%	
QC value within limits for Pb 220.353 Recovery = 101.08%							
S 181.975 Axial†	890.0	1004.8 ug/L	9.23	1004.8 ppb	9.23	0.92%	
QC value within limits for S 181.975 Axial Recovery = 100.48%							
Sb 206.836†	1687.1	511.13 ug/L	2.546	511.13 ppb	2.546	0.50%	
QC value within limits for Sb 206.836 Recovery = 102.23%							
Se 196.026†	991.6	525.26 ug/L	5.658	525.26 ppb	5.658	1.08%	
QC value within limits for Se 196.026 Recovery = 105.05%							
Si 251.611†	88119.9	2515.9 ug/L	0.72	2515.9 ppb	0.72	0.03%	
QC value within limits for Si 251.611 Recovery = 100.63%							
Sn 189.927†	3392.6	502.42 ug/L	2.508	502.42 ppb	2.508	0.50%	
QC value within limits for Sn 189.927 Recovery = 100.48%							
Sr 421.552†	71449.1	523.08 ug/L	7.258	523.08 ppb	7.258	1.39%	
QC value within limits for Sr 421.552 Recovery = 104.62%							
Ti 334.940†	323998.3	513.93 ug/L	0.477	513.93 ppb	0.477	0.09%	
QC value within limits for Ti 334.940 Recovery = 102.79%							
Tl 190.801†	1841.5	506.43 ug/L	4.142	506.43 ppb	4.142	0.82%	
QC value within limits for Tl 190.801 Recovery = 101.29%							
U 409.014†	16476.5	488.22 ug/L	1.535	488.22 ppb	1.535	0.31%	
QC value within limits for U 409.014 Recovery = 97.64%							
V 292.402†	80164.1	509.99 ug/L	0.062	509.99 ppb	0.062	0.01%	
QC value within limits for V 292.402 Recovery = 102.00%							
Zn 213.857†	61687.9	502.97 ug/L	0.309	502.97 ppb	0.309	0.06%	
QC value within limits for Zn 213.857 Recovery = 100.59%							
SiO2†	87485.9	5344.4 ug/L	39.35	5344.4 ppb	39.35	0.74%	
QC value within limits for SiO2 Recovery = 99.94%							
All analyte(s) passed QC.							

Sequence No.: 30
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 1/6/2010 18:06:18
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4627.9	4627.9	99.1 %		18:08:11
1	Y RADIAL	4901.2	4901.2	99.36 %		18:08:11
1	Al 396.153Radial†	13.5	40.4	35.767 ug/L	35.767 ppb	18:08:11
1	Ca 317.933Radial†	20.5	8.1	13.579 ug/L	13.579 ppb	18:08:31
1	Fe 238.204 Radial†	12.1	-1.7	-14.998 ug/L	-14.998 ppb	18:08:31
1	K 766.490 Radial†	3482.3	175.4	34.792 ug/L	34.792 ppb	18:08:11
1	Mg 279.077 IEC†	-1.0	-2.7	-84.902 ug/L	-84.902 ppb	18:08:31
1	Na 589.592 Radial†	-1508.7	228.5	69.030 ug/L	69.030 ppb	18:08:11
1	Sr 421.552†	40.8	25.2	0.1841 ug/L	0.1841 ppb	18:08:11
1	Sc 361.383	857563.6	857563.6	96.724 %		18:09:28
1	Y 371.029	736898.6	736898.6	96.737 %		18:09:28
1	Ag 328.068†	502.2	6.9	0.0332 ug/L	0.0332 ppb	18:09:28
1	As 188.979†	-37.7	-5.6	-1.9582 ug/L	-1.9582 ppb	18:09:48
1	B 249.677†	-643.5	0.5	0.0125 ug/L	0.0125 ppb	18:09:28
1	Ba 233.527†	12.3	5.2	0.0373 ug/L	0.0373 ppb	18:09:48
1	Be 313.107†	-4321.5	-116.3	-0.0395 ug/L	-0.0395 ppb	18:09:28
1	Cd 226.502†	-226.6	4.1	0.0403 ug/L	0.0403 ppb	18:09:48
1	Co 228.616†	-79.1	2.2	0.0443 ug/L	0.0443 ppb	18:09:48
1	Cr 267.716†	111.6	11.3	0.1163 ug/L	0.1163 ppb	18:09:28
1	Cu 324.752†	8083.6	358.3	1.0602 ug/L	1.0602 ppb	18:09:28
1	Mn 257.610†	559.4	61.9	0.0653 ug/L	0.0653 ppb	18:09:28
1	Mo 202.031†	30.8	11.9	0.7443 ug/L	0.7443 ppb	18:09:48
1	Ni 231.604†	119.6	-1.4	-0.0318 ug/L	-0.0318 ppb	18:09:48
1	P 214.914†	238.7	-1.8	-1.0226 ug/L	-1.0226 ppb	18:09:48
1	Pb 220.353†	-83.9	-9.0	-0.9243 ug/L	-0.9243 ppb	18:09:48
1	S 181.975 Axial†	65.9	8.2	9.2691 ug/L	9.2691 ppb	18:09:48
1	Sb 206.836†	53.6	18.3	5.4663 ug/L	5.4663 ppb	18:09:48
1	Se 196.026†	-31.8	0.4	0.1519 ug/L	0.1519 ppb	18:09:48
1	Si 251.611†	680.5	87.0	2.4721 ug/L	2.4721 ppb	18:09:48
1	Sn 189.927†	1.2	-2.2	-0.3255 ug/L	-0.3255 ppb	18:09:48
1	Ti 334.940†	-1806.1	-49.9	-0.0735 ug/L	-0.0735 ppb	18:09:28
1	Tl 190.801†	-48.2	3.6	0.9717 ug/L	0.9717 ppb	18:09:48
1	U 409.014†	-2950.6	-381.8	-11.348 ug/L	-11.348 ppb	18:09:28
1	V 292.402†	-1776.9	-35.2	-0.2320 ug/L	-0.2320 ppb	18:09:28
1	Zn 213.857†	843.2	40.1	0.3324 ug/L	0.3324 ppb	18:09:48
1	SiO2†	650.5	36.5	2.1879 ug/L	2.1879 ppb	18:10:44
2	Sc Radial	4743.7	4743.7	102 %		18:08:36
2	Y RADIAL	5010.2	5010.2	101.6 %		18:08:36
2	Al 396.153Radial†	-26.9	0.3	0.2372 ug/L	0.2372 ppb	18:08:36
2	Ca 317.933Radial†	20.0	7.1	11.869 ug/L	11.869 ppb	18:08:56
2	Fe 238.204 Radial†	12.2	-1.9	-16.636 ug/L	-16.636 ppb	18:08:56
2	K 766.490 Radial†	3422.6	31.0	6.1060 ug/L	6.1060 ppb	18:08:36
2	Mg 279.077 IEC†	0.7	-0.9	-30.337 ug/L	-30.337 ppb	18:08:56
2	Na 589.592 Radial†	-1491.8	282.2	85.248 ug/L	85.248 ppb	18:08:36
2	Sr 421.552†	-21.0	-36.7	-0.2687 ug/L	-0.2687 ppb	18:08:36
2	Sc 361.383	868954.8	868954.8	98.009 %		18:09:53
2	Y 371.029	746739.3	746739.3	98.029 %		18:09:53
2	Ag 328.068†	408.2	-95.8	-0.4105 ug/L	-0.4105 ppb	18:09:53
2	As 188.979†	-26.3	6.6	2.3055 ug/L	2.3055 ppb	18:10:13
2	B 249.677†	-665.7	-13.4	-0.2729 ug/L	-0.2729 ppb	18:09:53
2	Ba 233.527†	23.2	16.1	0.1191 ug/L	0.1191 ppb	18:10:13
2	Be 313.107†	-4328.4	-64.8	-0.0220 ug/L	-0.0220 ppb	18:09:53
2	Cd 226.502†	-216.4	17.6	0.1670 ug/L	0.1670 ppb	18:10:13
2	Co 228.616†	-88.0	-5.8	-0.1092 ug/L	-0.1092 ppb	18:10:13
2	Cr 267.716†	74.6	-27.9	-0.2770 ug/L	-0.2770 ppb	18:09:53
2	Cu 324.752†	8200.1	367.7	1.0878 ug/L	1.0878 ppb	18:09:53
2	Mn 257.610†	599.8	95.5	0.0996 ug/L	0.0996 ppb	18:09:53
2	Mo 202.031†	19.5	-0.0	-0.0036 ug/L	-0.0036 ppb	18:10:13
2	Ni 231.604†	119.7	-2.9	-0.0636 ug/L	-0.0636 ppb	18:10:13

2	P 214.914†	255.1	11.7	5.5564 ug/L	5.5564 ppb	18:10:13
2	Pb 220.353†	-90.7	-14.8	-1.5344 ug/L	-1.5344 ppb	18:10:13
2	S 181.975 Axial†	66.5	7.9	8.9678 ug/L	8.9678 ppb	18:10:13
2	Sb 206.836†	48.4	12.2	3.6766 ug/L	3.6766 ppb	18:10:13
2	Se 196.026†	-42.7	-10.3	-5.3063 ug/L	-5.3063 ppb	18:10:13
2	Si 251.611†	636.9	33.3	0.9506 ug/L	0.9506 ppb	18:10:13
2	Sn 189.927†	7.6	4.4	0.6494 ug/L	0.6494 ppb	18:10:13
2	Ti 334.940†	-1801.9	-21.1	-0.0308 ug/L	-0.0308 ppb	18:09:53
2	Tl 190.801†	-38.1	14.5	3.9700 ug/L	3.9700 ppb	18:10:13
2	U 409.014†	-2765.9	-153.4	-4.5580 ug/L	-4.5580 ppb	18:09:53
2	V 292.402†	-1644.8	123.6	0.7688 ug/L	0.7688 ppb	18:09:53
2	Zn 213.857†	837.7	23.0	0.1902 ug/L	0.1902 ppb	18:10:13
2	SiO2†	654.3	31.6	1.9284 ug/L	1.9284 ppb	18:10:49
3	Sc Radial	4996.5	4996.5	107 %		18:09:01
3	Y RADIAL	5294.0	5294.0	107.3 %		18:09:01
3	Al 396.153Radial†	-0.5	26.2	23.242 ug/L	23.242 ppb	18:09:01
3	Ca 317.933Radial†	17.4	3.7	6.2637 ug/L	6.2637 ppb	18:09:21
3	Fe 238.204 Radial†	13.2	-1.5	-13.248 ug/L	-13.248 ppb	18:09:21
3	K 766.490 Radial†	3465.2	-99.6	-19.819 ug/L	-19.819 ppb	18:09:01
3	Mg 279.077 IEC†	3.8	2.0	62.468 ug/L	62.468 ppb	18:09:21
3	Na 589.592 Radial†	-1521.2	329.1	99.400 ug/L	99.400 ppb	18:09:01
3	Sr 421.552†	11.2	-5.5	-0.0402 ug/L	-0.0402 ppb	18:09:01
3	Sc 361.383	860563.0	860563.0	97.062 %		18:10:19
3	Y 371.029	739491.7	739491.7	97.077 %		18:10:19
3	Ag 328.068†	409.5	-90.5	-0.3878 ug/L	-0.3878 ppb	18:10:19
3	As 188.979†	-33.8	-1.4	-0.4963 ug/L	-0.4963 ppb	18:10:39
3	B 249.677†	-640.7	5.7	0.1208 ug/L	0.1208 ppb	18:10:19
3	Ba 233.527†	8.7	1.4	0.0096 ug/L	0.0096 ppb	18:10:39
3	Be 313.107†	-4300.2	-78.8	-0.0264 ug/L	-0.0264 ppb	18:10:19
3	Cd 226.502†	-233.0	-1.7	-0.0148 ug/L	-0.0148 ppb	18:10:39
3	Co 228.616†	-96.1	-15.1	-0.2808 ug/L	-0.2808 ppb	18:10:39
3	Cr 267.716†	141.0	41.2	0.4145 ug/L	0.4145 ppb	18:10:19
3	Cu 324.752†	8020.2	264.0	0.7808 ug/L	0.7808 ppb	18:10:19
3	Mn 257.610†	663.0	166.7	0.1731 ug/L	0.1731 ppb	18:10:19
3	Mo 202.031†	33.6	14.7	0.9198 ug/L	0.9198 ppb	18:10:39
3	Ni 231.604†	116.5	-5.1	-0.1109 ug/L	-0.1109 ppb	18:10:39
3	P 214.914†	258.7	18.0	8.6659 ug/L	8.6659 ppb	18:10:39
3	Pb 220.353†	-89.9	-14.9	-1.5350 ug/L	-1.5350 ppb	18:10:39
3	S 181.975 Axial†	58.5	0.4	0.4326 ug/L	0.4326 ppb	18:10:39
3	Sb 206.836†	52.0	16.5	4.9479 ug/L	4.9479 ppb	18:10:39
3	Se 196.026†	-41.0	-9.0	-4.6236 ug/L	-4.6236 ppb	18:10:39
3	Si 251.611†	655.7	59.0	1.6807 ug/L	1.6807 ppb	18:10:39
3	Sn 189.927†	7.0	3.8	0.5579 ug/L	0.5579 ppb	18:10:39
3	Ti 334.940†	-1702.8	63.0	0.1034 ug/L	0.1034 ppb	18:10:19
3	Tl 190.801†	-49.9	2.0	0.5561 ug/L	0.5561 ppb	18:10:39
3	U 409.014†	-2834.8	-251.9	-7.4873 ug/L	-7.4873 ppb	18:10:19
3	V 292.402†	-1792.0	-44.5	-0.2773 ug/L	-0.2773 ppb	18:10:19
3	Zn 213.857†	858.1	52.4	0.4289 ug/L	0.4289 ppb	18:10:39
3	SiO2†	707.2	92.6	5.6596 ug/L	5.6596 ppb	18:10:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	862360.5	97.265 %		0.6660			0.68%
Sc Radial	4789.4	103 %		4.0			3.94%
Y 371.029	741043.2	97.281 %		0.6696			0.69%
Y RADIAL	5068.5	102.7 %		4.11			4.00%
Ag 328.068†	-59.8	-0.2550 ug/L		0.24991	-0.2550 ppb	0.24991	97.99%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	22.3	19.749 ug/L		18.0206	19.749 ppb	18.0206	91.25%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-0.1	-0.0496 ug/L		2.16666	-0.0496 ppb	2.16666	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-2.4	-0.0465 ug/L		0.20338	-0.0465 ppb	0.20338	437.09%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	7.6	0.0553 ug/L		0.05692	0.0553 ppb	0.05692	102.86%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-86.6	-0.0293 ug/L		0.00909	-0.0293 ppb	0.00909	31.04%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	6.3	10.570 ug/L		3.8266	10.570 ppb	3.8266	36.20%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	6.7	0.0642 ug/L	0.09324	0.0642 ppb	0.09324	145.29%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-6.2	-0.1152 ug/L	0.16259	-0.1152 ppb	0.16259	141.11%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	8.2	0.0846 ug/L	0.34683	0.0846 ppb	0.34683	409.92%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	330.0	0.9763 ug/L	0.16984	0.9763 ppb	0.16984	17.40%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.7	-14.961 ug/L	1.6942	-14.961 ppb	1.6942	11.32%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	35.6	7.0266 ug/L	27.31713	7.0266 ppb	27.31713	388.77%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.6	-17.590 ug/L	74.5072	-17.590 ppb	74.5072	423.57%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	108.0	0.1127 ug/L	0.05511	0.1127 ppb	0.05511	48.92%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	8.9	0.5535 ug/L	0.49036	0.5535 ppb	0.49036	88.59%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	279.9	84.559 ug/L	15.1967	84.559 ppb	15.1967	17.97%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-3.1	-0.0687 ug/L	0.03979	-0.0687 ppb	0.03979	57.88%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	9.3	4.3999 ug/L	4.94675	4.3999 ppb	4.94675	112.43%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-12.9	-1.3312 ug/L	0.35246	-1.3312 ppb	0.35246	26.48%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	5.5	6.2232 ug/L	5.01703	6.2232 ppb	5.01703	80.62%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	15.7	4.6969 ug/L	0.92084	4.6969 ppb	0.92084	19.61%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-6.3	-3.2594 ug/L	2.97385	-3.2594 ppb	2.97385	91.24%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	59.8	1.7011 ug/L	0.76097	1.7011 ppb	0.76097	44.73%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.0	0.2939 ug/L	0.53840	0.2939 ppb	0.53840	183.17%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-5.7	-0.0416 ug/L	0.22642	-0.0416 ppb	0.22642	543.80%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-2.7	-0.0003 ug/L	0.09233	-0.0003 ppb	0.09233	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	6.7	1.8326 ug/L	1.86270	1.8326 ppb	1.86270	101.64%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-262.4	-7.7979 ug/L	3.40575	-7.7979 ppb	3.40575	43.68%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	14.6	0.0865 ug/L	0.59132	0.0865 ppb	0.59132	683.68%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	38.5	0.3171 ug/L	0.12009	0.3171 ppb	0.12009	37.87%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	53.5	3.2586 ug/L	2.08333	3.2586 ppb	2.08333	63.93%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 40

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/6/2010 19:15:06

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4675.6	4675.6	100 %			19:16:57
1	Y RADIAL	4918.2	4918.2	99.70 %			19:16:57
1	Al 396.153Radial†	5849.2	5865.9	5179.1 ug/L		5179.1 ppb	19:16:57
1	Ca 317.933Radial†	3089.0	3071.1	5146.2 ug/L		5146.2 ppb	19:17:18
1	Fe 238.204 Radial†	570.3	555.4	4897.6 ug/L		4897.6 ppb	19:17:18
1	K 766.490 Radial†	28367.7	24982.4	4950.0 ug/L		4950.0 ppb	19:16:57
1	Mg 279.077 IEC†	164.3	162.4	5199.1 ug/L		5199.1 ppb	19:17:18
1	Na 589.592 Radial†	31409.9	33106.3	10001 ug/L		10001 ppb	19:16:57
1	Sr 421.552†	70917.2	70779.8	518.18 ug/L		518.18 ppb	19:16:57
1	Sc 361.383	819845.5	819845.5	92.470 %			19:18:16
1	Y 371.029	696920.3	696920.3	91.489 %			19:18:16
1	Ag 328.068†	118026.4	127125.5	549.34 ug/L		549.34 ppb	19:18:16
1	As 188.979†	1424.0	1573.3	555.44 ug/L		555.44 ppb	19:18:37
1	B 249.677†	23671.3	26264.8	539.53 ug/L		539.53 ppb	19:18:16
1	Ba 233.527†	69733.6	75404.8	551.18 ug/L		551.18 ppb	19:18:16
1	Be 313.107†	1514568.3	1642258.4	556.17 ug/L		556.17 ppb	19:18:16
1	Cd 226.502†	53661.0	58269.2	548.66 ug/L		548.66 ppb	19:18:16
1	Co 228.616†	26705.4	28964.1	544.75 ug/L		544.75 ppb	19:18:37
1	Cr 267.716†	50695.5	54719.9	549.14 ug/L		549.14 ppb	19:18:16
1	Cu 324.752†	179560.3	186183.8	551.47 ug/L		551.47 ppb	19:18:16
1	Mn 257.610†	487694.2	526893.1	555.55 ug/L		555.55 ppb	19:18:16
1	Mo 202.031†	8138.8	8781.7	550.61 ug/L		550.61 ppb	19:18:37
1	Ni 231.604†	23041.2	24792.4	543.91 ug/L		543.91 ppb	19:18:37
1	P 214.914†	5460.9	5657.0	2674.9 ug/L		2674.9 ppb	19:18:37
1	Pb 220.353†	4860.0	5333.5	554.21 ug/L		554.21 ppb	19:18:37
1	S 181.975 Axial†	952.2	969.8	1095.0 ug/L		1095.0 ppb	19:18:37
1	Sb 206.836†	1746.8	1852.0	561.08 ug/L		561.08 ppb	19:18:37
1	Se 196.026†	984.4	1097.8	579.36 ug/L		579.36 ppb	19:18:37
1	Si 251.611†	89228.0	95877.7	2737.5 ug/L		2737.5 ppb	19:18:16
1	Sn 189.927†	3434.3	3710.6	549.44 ug/L		549.44 ppb	19:18:37
1	Ti 334.940†	323761.7	351944.5	558.24 ug/L		558.24 ppb	19:18:16
1	Tl 190.801†	1816.1	2017.4	554.76 ug/L		554.76 ppb	19:18:37
1	U 409.014†	13748.7	17537.0	519.68 ug/L		519.68 ppb	19:18:16
1	V 292.402†	78775.2	86992.1	553.52 ug/L		553.52 ppb	19:18:16
1	Zn 213.857†	62957.9	67253.1	548.41 ug/L		548.41 ppb	19:18:16
1	SiO2†	89372.0	96014.0	5865.9 ug/L		5865.9 ppb	19:19:37
2	Sc Radial	4997.8	4997.8	107 %			19:17:23
2	Y RADIAL	5302.9	5302.9	107.5 %			19:17:23
2	Al 396.153Radial†	5845.8	5486.2	4844.2 ug/L		4844.2 ppb	19:17:23
2	Ca 317.933Radial†	3099.9	2882.5	4830.1 ug/L		4830.1 ppb	19:17:43
2	Fe 238.204 Radial†	576.5	524.6	4624.9 ug/L		4624.9 ppb	19:17:43
2	K 766.490 Radial†	28607.6	23380.4	4632.6 ug/L		4632.6 ppb	19:17:23
2	Mg 279.077 IEC†	169.8	156.9	5023.3 ug/L		5023.3 ppb	19:17:43
2	Na 589.592 Radial†	31318.3	30998.8	9364.1 ug/L		9364.1 ppb	19:17:23
2	Sr 421.552†	70458.6	65786.5	481.62 ug/L		481.62 ppb	19:17:23
2	Sc 361.383	884831.2	884831.2	99.799 %			19:18:44
2	Y 371.029	751838.8	751838.8	98.698 %			19:18:44
2	Ag 328.068†	117670.1	117394.2	507.31 ug/L		507.31 ppb	19:18:44
2	As 188.979†	1399.8	1436.0	507.02 ug/L		507.02 ppb	19:19:04
2	B 249.677†	23650.3	24363.6	500.48 ug/L		500.48 ppb	19:18:44
2	Ba 233.527†	69294.7	69426.5	507.48 ug/L		507.48 ppb	19:18:44
2	Be 313.107†	1503697.6	1511071.2	511.74 ug/L		511.74 ppb	19:18:44
2	Cd 226.502†	53327.8	53673.3	505.37 ug/L		505.37 ppb	19:18:44
2	Co 228.616†	26419.1	26556.2	499.45 ug/L		499.45 ppb	19:19:04
2	Cr 267.716†	50252.3	50249.2	504.27 ug/L		504.27 ppb	19:18:44
2	Cu 324.752†	179054.3	171415.2	507.73 ug/L		507.73 ppb	19:18:44
2	Mn 257.610†	484410.6	484867.8	511.25 ug/L		511.25 ppb	19:18:44
2	Mo 202.031†	8049.8	8046.1	504.50 ug/L		504.50 ppb	19:19:04
2	Ni 231.604†	22830.4	22751.2	499.13 ug/L		499.13 ppb	19:19:04

2	P 214.914†	5398.3	5160.6	2439.3 ug/L	2439.3 ppb	19:19:04
2	Pb 220.353†	4768.3	4855.6	504.57 ug/L	504.57 ppb	19:19:04
2	S 181.975 Axial†	947.4	889.4	1004.2 ug/L	1004.2 ppb	19:19:04
2	Sb 206.836†	1705.8	1672.1	506.60 ug/L	506.60 ppb	19:19:04
2	Se 196.026†	954.3	989.5	522.89 ug/L	522.89 ppb	19:19:04
2	Si 251.611†	88924.7	88486.8	2526.5 ug/L	2526.5 ppb	19:18:44
2	Sn 189.927†	3376.0	3379.4	500.42 ug/L	500.42 ppb	19:19:04
2	Ti 334.940†	321529.0	323992.6	513.90 ug/L	513.90 ppb	19:18:44
2	Tl 190.801†	1776.8	1833.7	504.30 ug/L	504.30 ppb	19:19:04
2	U 409.014†	13850.6	16547.1	490.37 ug/L	490.37 ppb	19:18:44
2	V 292.402†	78253.2	80212.3	510.35 ug/L	510.35 ppb	19:18:44
2	Zn 213.857†	62552.7	61846.7	504.31 ug/L	504.31 ppb	19:18:44
2	SiO2†	87738.2	87278.6	5332.0 ug/L	5332.0 ppb	19:19:42
3	Sc Radial	4666.1	4666.1	100.0 %		19:17:48
3	Y RADIAL	4915.6	4915.6	99.65 %		19:17:48
3	Al 396.153Radial†	5979.7	6008.3	5306.3 ug/L	5306.3 ppb	19:17:48
3	Ca 317.933Radial†	3132.6	3121.0	5229.8 ug/L	5229.8 ppb	19:18:08
3	Fe 238.204 Radial†	583.6	570.0	5024.6 ug/L	5024.6 ppb	19:18:08
3	K 766.490 Radial†	28919.5	25592.2	5071.1 ug/L	5071.1 ppb	19:17:48
3	Mg 279.077 IEC†	165.7	164.2	5255.0 ug/L	5255.0 ppb	19:18:08
3	Na 589.592 Radial†	31871.9	33632.4	10160 ug/L	10160 ppb	19:17:48
3	Sr 421.552†	72175.7	72183.2	528.45 ug/L	528.45 ppb	19:17:48
3	Sc 361.383	849001.5	849001.5	95.758 %		19:19:11
3	Y 371.029	721131.4	721131.4	94.667 %		19:19:11
3	Ag 328.068†	118835.7	123587.4	534.13 ug/L	534.13 ppb	19:19:11
3	As 188.979†	1406.2	1502.0	530.36 ug/L	530.36 ppb	19:19:31
3	B 249.677†	23855.7	25578.3	525.41 ug/L	525.41 ppb	19:19:11
3	Ba 233.527†	70042.6	73137.8	534.62 ug/L	534.62 ppb	19:19:11
3	Be 313.107†	1522637.2	1594436.7	539.97 ug/L	539.97 ppb	19:19:11
3	Cd 226.502†	53882.7	56508.0	532.04 ug/L	532.04 ppb	19:19:11
3	Co 228.616†	26545.5	27805.3	522.94 ug/L	522.94 ppb	19:19:31
3	Cr 267.716†	50835.1	52982.9	531.71 ug/L	531.71 ppb	19:19:11
3	Cu 324.752†	180614.7	180616.4	534.99 ug/L	534.99 ppb	19:19:11
3	Mn 257.610†	490109.9	511303.8	539.14 ug/L	539.14 ppb	19:19:11
3	Mo 202.031†	8099.8	8438.7	529.14 ug/L	529.14 ppb	19:19:31
3	Ni 231.604†	22918.3	23808.4	522.32 ug/L	522.32 ppb	19:19:31
3	P 214.914†	5433.1	5425.2	2564.1 ug/L	2564.1 ppb	19:19:31
3	Pb 220.353†	4805.7	5096.3	529.61 ug/L	529.61 ppb	19:19:31
3	S 181.975 Axial†	950.1	932.3	1052.5 ug/L	1052.5 ppb	19:19:31
3	Sb 206.836†	1709.1	1747.7	529.49 ug/L	529.49 ppb	19:19:31
3	Se 196.026†	952.2	1027.6	543.77 ug/L	543.77 ppb	19:19:31
3	Si 251.611†	89743.0	93101.7	2658.2 ug/L	2658.2 ppb	19:19:11
3	Sn 189.927†	3406.7	3554.2	526.32 ug/L	526.32 ppb	19:19:31
3	Ti 334.940†	325207.4	341430.4	541.57 ug/L	541.57 ppb	19:19:11
3	Tl 190.801†	1797.8	1930.8	531.04 ug/L	531.04 ppb	19:19:31
3	U 409.014†	13988.2	17276.5	511.95 ug/L	511.95 ppb	19:19:11
3	V 292.402†	79059.5	84363.4	536.71 ug/L	536.71 ppb	19:19:11
3	Zn 213.857†	63161.1	65127.2	531.07 ug/L	531.07 ppb	19:19:11
3	SiO2†	88438.6	91720.1	5603.2 ug/L	5603.2 ppb	19:19:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	851226.1	96.009 %		3.6713			3.82%
Sc Radial	4779.8	102 %		4.0			3.95%
Y 371.029	723296.8	94.951 %		3.6131			3.81%
Y RADIAL	5045.6	102.3 %		4.52			4.42%
Ag 328.068†	122702.4	530.26 ug/L		21.280	530.26 ppb	21.280	4.01%
QC value within limits for Ag 328.068 Recovery = 106.05%							
Al 396.153Radial†	5786.8	5109.9 ug/L		238.68	5109.9 ppb	238.68	4.67%
QC value within limits for Al 396.153Radial Recovery = 102.20%							
As 188.979†	1503.8	530.94 ug/L		24.215	530.94 ppb	24.215	4.56%
QC value within limits for As 188.979 Recovery = 106.19%							
B 249.677†	25402.2	521.81 ug/L		19.773	521.81 ppb	19.773	3.79%
QC value within limits for B 249.677 Recovery = 104.36%							
Ba 233.527†	72656.4	531.09 ug/L		22.059	531.09 ppb	22.059	4.15%
QC value within limits for Ba 233.527 Recovery = 106.22%							
Be 313.107†	1582588.8	535.96 ug/L		22.484	535.96 ppb	22.484	4.20%
QC value within limits for Be 313.107 Recovery = 107.19%							
Ca 317.933Radial†	3024.9	5068.7 ug/L		210.82	5068.7 ppb	210.82	4.16%

QC value within limits for Ca 317.933 Radial Recovery = 101.37%							
Cd	226.502†	56150.2	528.69 ug/L	21.837	528.69 ppb	21.837	4.13%
QC value within limits for Cd 226.502 Recovery = 105.74%							
Co	228.616†	27775.2	522.38 ug/L	22.652	522.38 ppb	22.652	4.34%
QC value within limits for Co 228.616 Recovery = 104.48%							
Cr	267.716†	52650.7	528.37 ug/L	22.617	528.37 ppb	22.617	4.28%
QC value within limits for Cr 267.716 Recovery = 105.67%							
Cu	324.752†	179405.1	531.40 ug/L	22.090	531.40 ppb	22.090	4.16%
QC value within limits for Cu 324.752 Recovery = 106.28%							
Fe	238.204 Radial†	550.0	4849.0 ug/L	204.24	4849.0 ppb	204.24	4.21%
QC value within limits for Fe 238.204 Radial Recovery = 96.98%							
K	766.490 Radial†	24651.7	4884.6 ug/L	226.43	4884.6 ppb	226.43	4.64%
QC value within limits for K 766.490 Radial Recovery = 97.69%							
Mg	279.077 IEC†	161.1	5159.1 ug/L	120.90	5159.1 ppb	120.90	2.34%
QC value within limits for Mg 279.077 IEC Recovery = 103.18%							
Mn	257.610†	507688.2	535.31 ug/L	22.398	535.31 ppb	22.398	4.18%
QC value within limits for Mn 257.610 Recovery = 107.06%							
Mo	202.031†	8422.1	528.09 ug/L	23.073	528.09 ppb	23.073	4.37%
QC value within limits for Mo 202.031 Recovery = 105.62%							
Na	589.592 Radial†	32579.1	9841.5 ug/L	421.01	9841.5 ppb	421.01	4.28%
QC value within limits for Na 589.592 Radial Recovery = 98.41%							
Ni	231.604†	23784.0	521.79 ug/L	22.395	521.79 ppb	22.395	4.29%
QC value within limits for Ni 231.604 Recovery = 104.36%							
P	214.914†	5414.3	2559.4 ug/L	117.86	2559.4 ppb	117.86	4.60%
QC value within limits for P 214.914 Recovery = 102.38%							
Pb	220.353†	5095.1	529.46 ug/L	24.819	529.46 ppb	24.819	4.69%
QC value within limits for Pb 220.353 Recovery = 105.89%							
S	181.975 Axial†	930.5	1050.6 ug/L	45.45	1050.6 ppb	45.45	4.33%
QC value within limits for S 181.975 Axial Recovery = 105.06%							
Sb	206.836†	1757.3	532.39 ug/L	27.355	532.39 ppb	27.355	5.14%
QC value within limits for Sb 206.836 Recovery = 106.48%							
Se	196.026†	1038.3	548.67 ug/L	28.553	548.67 ppb	28.553	5.20%
QC value within limits for Se 196.026 Recovery = 109.73%							
Si	251.611†	92488.7	2640.7 ug/L	106.56	2640.7 ppb	106.56	4.04%
QC value within limits for Si 251.611 Recovery = 105.63%							
Sn	189.927†	3548.1	525.39 ug/L	24.521	525.39 ppb	24.521	4.67%
QC value within limits for Sn 189.927 Recovery = 105.08%							
Sr	421.552†	69583.2	509.42 ug/L	24.614	509.42 ppb	24.614	4.83%
QC value within limits for Sr 421.552 Recovery = 101.88%							
Ti	334.940†	339122.5	537.90 ug/L	22.394	537.90 ppb	22.394	4.16%
QC value within limits for Ti 334.940 Recovery = 107.58%							
Tl	190.801†	1927.3	530.03 ug/L	25.243	530.03 ppb	25.243	4.76%
QC value within limits for Tl 190.801 Recovery = 106.01%							
U	409.014†	17120.2	507.33 ug/L	15.190	507.33 ppb	15.190	2.99%
QC value within limits for U 409.014 Recovery = 101.47%							
V	292.402†	83856.0	533.53 ug/L	21.761	533.53 ppb	21.761	4.08%
QC value within limits for V 292.402 Recovery = 106.71%							
Zn	213.857†	64742.4	527.93 ug/L	22.215	527.93 ppb	22.215	4.21%
QC value within limits for Zn 213.857 Recovery = 105.59%							
SiO2†		91670.9	5600.4 ug/L	266.98	5600.4 ppb	266.98	4.77%
QC value within limits for SiO2 Recovery = 104.73%							

All analyte(s) passed QC.

Sequence No.: 41

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/6/2010 19:21:57

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	4766.5	4766.5	102 %		19:23:49
1	Y RADIAL	5056.9	5056.9	102.5 %		19:23:49
1	Al 396.153Radial†	-2.2	24.6	21.757 ug/L	21.757 ppb	19:23:49
1	Ca 317.933Radial†	20.7	7.7	12.874 ug/L	12.874 ppb	19:24:09
1	Fe 238.204 Radial†	13.3	-0.9	-7.6472 ug/L	-7.6472 ppb	19:24:09
1	K 766.490 Radial†	3327.6	-78.2	-15.534 ug/L	-15.534 ppb	19:23:49
1	Mg 279.077 IEC†	5.4	3.7	117.46 ug/L	117.46 ppb	19:24:09
1	Na 589.592 Radial†	-1671.1	113.6	34.327 ug/L	34.327 ppb	19:23:49
1	Sr 421.552†	24.8	8.3	0.0603 ug/L	0.0603 ppb	19:23:49
1	Sc 361.383	855484.7	855484.7	96.489 %		19:25:06
1	Y 371.029	736044.4	736044.4	96.625 %		19:25:06
1	Ag 328.068†	530.3	37.3	0.1661 ug/L	0.1661 ppb	19:25:06
1	As 188.979†	-26.6	5.9	2.0528 ug/L	2.0528 ppb	19:25:26
1	B 249.677†	-534.8	111.6	2.3023 ug/L	2.3023 ppb	19:25:06
1	Ba 233.527†	-12.1	-20.1	-0.1477 ug/L	-0.1477 ppb	19:25:26
1	Be 313.107†	-4423.2	-232.6	-0.0787 ug/L	-0.0787 ppb	19:25:06
1	Cd 226.502†	-220.7	9.6	0.0914 ug/L	0.0914 ppb	19:25:26
1	Co 228.616†	-83.8	-2.9	-0.0532 ug/L	-0.0532 ppb	19:25:26
1	Cr 267.716†	182.8	85.4	0.8585 ug/L	0.8585 ppb	19:25:06
1	Cu 324.752†	7972.5	263.6	0.7800 ug/L	0.7800 ppb	19:25:06
1	Mn 257.610†	539.4	42.6	0.0419 ug/L	0.0419 ppb	19:25:06
1	Mo 202.031†	30.0	11.1	0.6972 ug/L	0.6972 ppb	19:25:26
1	Ni 231.604†	118.4	-2.4	-0.0527 ug/L	-0.0527 ppb	19:25:26
1	P 214.914†	249.8	10.3	4.9094 ug/L	4.9094 ppb	19:25:26
1	Pb 220.353†	-99.2	-25.0	-2.5862 ug/L	-2.5862 ppb	19:25:26
1	S 181.975 Axial†	68.3	10.9	12.351 ug/L	12.351 ppb	19:25:26
1	Sb 206.836†	53.1	18.0	5.3617 ug/L	5.3617 ppb	19:25:26
1	Se 196.026†	-34.1	-2.0	-1.0564 ug/L	-1.0564 ppb	19:25:26
1	Si 251.611†	796.2	208.6	5.9762 ug/L	5.9762 ppb	19:25:26
1	Sn 189.927†	2.5	-0.8	-0.1126 ug/L	-0.1126 ppb	19:25:26
1	Ti 334.940†	-1786.4	-34.0	-0.0480 ug/L	-0.0480 ppb	19:25:06
1	Tl 190.801†	-39.1	12.8	3.5068 ug/L	3.5068 ppb	19:25:26
1	U 409.014†	-2986.1	-426.1	-12.667 ug/L	-12.667 ppb	19:25:06
1	V 292.402†	-1820.5	-84.9	-0.5439 ug/L	-0.5439 ppb	19:25:06
1	Zn 213.857†	846.4	45.5	0.3697 ug/L	0.3697 ppb	19:25:26
1	SiO2†	792.5	185.3	11.360 ug/L	11.360 ppb	19:26:22
2	Sc Radial	4645.6	4645.6	99.5 %		19:24:14
2	Y RADIAL	4902.9	4902.9	99.39 %		19:24:14
2	Al 396.153Radial†	-11.2	15.5	13.694 ug/L	13.694 ppb	19:24:14
2	Ca 317.933Radial†	22.0	9.5	15.990 ug/L	15.990 ppb	19:24:34
2	Fe 238.204 Radial†	11.4	-2.4	-21.176 ug/L	-21.176 ppb	19:24:34
2	K 766.490 Radial†	3540.1	220.1	43.673 ug/L	43.673 ppb	19:24:14
2	Mg 279.077 IEC†	0.8	-0.9	-27.255 ug/L	-27.255 ppb	19:24:34
2	Na 589.592 Radial†	-1632.6	109.8	33.168 ug/L	33.168 ppb	19:24:14
2	Sr 421.552†	-32.1	-48.3	-0.3536 ug/L	-0.3536 ppb	19:24:14
2	Sc 361.383	856570.6	856570.6	96.612 %		19:25:32
2	Y 371.029	737780.4	737780.4	96.853 %		19:25:32
2	Ag 328.068†	567.5	75.1	0.3225 ug/L	0.3225 ppb	19:25:32
2	As 188.979†	-24.8	7.8	2.7213 ug/L	2.7213 ppb	19:25:52
2	B 249.677†	-502.5	145.7	3.0074 ug/L	3.0074 ppb	19:25:32
2	Ba 233.527†	7.3	0.1	0.0009 ug/L	0.0009 ppb	19:25:52
2	Be 313.107†	-4353.7	-154.9	-0.0525 ug/L	-0.0525 ppb	19:25:32
2	Cd 226.502†	-245.6	-15.8	-0.1472 ug/L	-0.1472 ppb	19:25:52
2	Co 228.616†	-92.8	-12.1	-0.2247 ug/L	-0.2247 ppb	19:25:52
2	Cr 267.716†	89.7	-11.2	-0.1096 ug/L	-0.1096 ppb	19:25:32
2	Cu 324.752†	8156.8	443.9	1.3131 ug/L	1.3131 ppb	19:25:32
2	Mn 257.610†	500.5	1.6	0.0001 ug/L	0.0001 ppb	19:25:32
2	Mo 202.031†	27.4	8.5	0.5284 ug/L	0.5284 ppb	19:25:52
2	Ni 231.604†	117.1	-3.8	-0.0842 ug/L	-0.0842 ppb	19:25:52

2	P 214.914†	260.2	20.8	9.9679 ug/L	9.9679 ppb	19:25:52
2	Pb 220.353†	-106.1	-32.0	-3.3141 ug/L	-3.3141 ppb	19:25:52
2	S 181.975 Axial†	59.4	1.6	1.8456 ug/L	1.8456 ppb	19:25:52
2	Sb 206.836†	41.3	5.7	1.7253 ug/L	1.7253 ppb	19:25:52
2	Se 196.026†	-33.5	-1.4	-0.7769 ug/L	-0.7769 ppb	19:25:52
2	Si 251.611†	767.5	177.9	5.0750 ug/L	5.0750 ppb	19:25:52
2	Sn 189.927†	10.2	7.1	1.0588 ug/L	1.0588 ppb	19:25:52
2	Ti 334.940†	-1804.2	-50.1	-0.0757 ug/L	-0.0757 ppb	19:25:32
2	Tl 190.801†	-58.7	-7.4	-2.0123 ug/L	-2.0123 ppb	19:25:52
2	U 409.014†	-2796.1	-225.5	-6.7005 ug/L	-6.7005 ppb	19:25:32
2	V 292.402†	-1675.4	67.6	0.4219 ug/L	0.4219 ppb	19:25:32
2	Zn 213.857†	870.2	69.1	0.5689 ug/L	0.5689 ppb	19:25:52
2	SiO2†	846.1	239.7	14.657 ug/L	14.657 ppb	19:26:27
3	Sc Radial	4652.3	4652.3	99.7 %		19:24:39
3	Y RADIAL	4971.8	4971.8	100.8 %		19:24:39
3	Al 396.153Radial†	-21.6	5.1	4.4894 ug/L	4.4894 ppb	19:24:39
3	Ca 317.933Radial†	24.2	11.7	19.639 ug/L	19.639 ppb	19:24:59
3	Fe 238.204 Radial†	14.0	0.2	1.3217 ug/L	1.3217 ppb	19:24:59
3	K 766.490 Radial†	3453.4	128.1	25.410 ug/L	25.410 ppb	19:24:39
3	Mg 279.077 IEC†	4.4	2.8	88.484 ug/L	88.484 ppb	19:24:59
3	Na 589.592 Radial†	-1685.2	59.4	17.939 ug/L	17.939 ppb	19:24:39
3	Sr 421.552†	-0.2	-16.2	-0.1186 ug/L	-0.1186 ppb	19:24:39
3	Sc 361.383	866846.9	866846.9	97.771 %		19:25:57
3	Y 371.029	746228.9	746228.9	97.962 %		19:25:57
3	Ag 328.068†	419.4	-83.4	-0.3544 ug/L	-0.3544 ppb	19:25:57
3	As 188.979†	-34.2	-1.5	-0.5355 ug/L	-0.5355 ppb	19:26:17
3	B 249.677†	-565.2	87.8	1.8105 ug/L	1.8105 ppb	19:25:57
3	Ba 233.527†	17.7	10.6	0.0772 ug/L	0.0772 ppb	19:26:17
3	Be 313.107†	-4326.9	-74.0	-0.0251 ug/L	-0.0251 ppb	19:25:57
3	Cd 226.502†	-234.6	-1.6	-0.0148 ug/L	-0.0148 ppb	19:26:17
3	Co 228.616†	-86.3	-4.3	-0.0802 ug/L	-0.0802 ppb	19:26:17
3	Cr 267.716†	70.2	-32.2	-0.3213 ug/L	-0.3213 ppb	19:25:57
3	Cu 324.752†	8062.1	246.9	0.7309 ug/L	0.7309 ppb	19:25:57
3	Mn 257.610†	596.5	93.7	0.0972 ug/L	0.0972 ppb	19:25:57
3	Mo 202.031†	17.9	-1.6	-0.1026 ug/L	-0.1026 ppb	19:26:17
3	Ni 231.604†	138.4	16.5	0.3625 ug/L	0.3625 ppb	19:26:17
3	P 214.914†	268.7	26.2	12.638 ug/L	12.638 ppb	19:26:17
3	Pb 220.353†	-89.3	-13.6	-1.4108 ug/L	-1.4108 ppb	19:26:17
3	S 181.975 Axial†	59.7	1.1	1.2884 ug/L	1.2884 ppb	19:26:17
3	Sb 206.836†	40.9	4.8	1.3961 ug/L	1.3961 ppb	19:26:17
3	Se 196.026†	-30.9	1.6	0.8385 ug/L	0.8385 ppb	19:26:17
3	Si 251.611†	765.1	166.0	4.7594 ug/L	4.7594 ppb	19:26:17
3	Sn 189.927†	-8.1	-11.7	-1.7339 ug/L	-1.7339 ppb	19:26:17
3	Ti 334.940†	-1804.6	-28.4	-0.0418 ug/L	-0.0418 ppb	19:25:57
3	Tl 190.801†	-40.0	12.5	3.4073 ug/L	3.4073 ppb	19:26:17
3	U 409.014†	-2763.3	-157.6	-4.6847 ug/L	-4.6847 ppb	19:25:57
3	V 292.402†	-1773.4	-12.0	-0.0841 ug/L	-0.0841 ppb	19:25:57
3	Zn 213.857†	854.8	42.6	0.3442 ug/L	0.3442 ppb	19:26:17
3	SiO2†	834.4	217.4	13.343 ug/L	13.343 ppb	19:26:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	859634.1	96.957 %		0.7072				0.73%
Sc Radial	4688.1	100 %		1.5				1.45%
Y 371.029	740017.9	97.146 %		0.7153				0.74%
Y RADIAL	4977.2	100.9 %		1.56				1.55%
Ag 328.068†	9.6	0.0447 ug/L		0.35443	0.0447 ppb		0.35443	792.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	15.0	13.313 ug/L		8.6401	13.313 ppb		8.6401	64.90%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.4128 ug/L		1.72011	1.4128 ppb		1.72011	121.75%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	115.0	2.3734 ug/L		0.60162	2.3734 ppb		0.60162	25.35%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.1	-0.0232 ug/L		0.11438	-0.0232 ppb		0.11438	493.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-153.8	-0.0521 ug/L		0.02681	-0.0521 ppb		0.02681	51.46%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.6	16.168 ug/L		3.3864	16.168 ppb		3.3864	20.95%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	-2.6	-0.0235 ug/L	0.11954	-0.0235 ppb	0.11954	508.39%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-6.4	-0.1193 ug/L	0.09225	-0.1193 ppb	0.09225	77.29%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	14.0	0.1426 ug/L	0.62900	0.1426 ppb	0.62900	441.22%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	318.1	0.9413 ug/L	0.32289	0.9413 ppb	0.32289	34.30%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.0	-9.1672 ug/L	11.32564	-9.1672 ppb	11.32564	123.55%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	90.0	17.850 ug/L	30.3189	17.850 ppb	30.3189	169.86%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.9	59.562 ug/L	76.5689	59.562 ppb	76.5689	128.55%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	46.0	0.0464 ug/L	0.04873	0.0464 ppb	0.04873	105.00%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	6.0	0.3743 ug/L	0.42155	0.3743 ppb	0.42155	112.62%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	94.3	28.478 ug/L	9.1453	28.478 ppb	9.1453	32.11%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	3.4	0.0752 ug/L	0.24930	0.0752 ppb	0.24930	331.57%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	19.1	9.1716 ug/L	3.92510	9.1716 ppb	3.92510	42.80%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-23.6	-2.4370 ug/L	0.96037	-2.4370 ppb	0.96037	39.41%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	4.6	5.1618 ug/L	6.23261	5.1618 ppb	6.23261	120.74%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	9.5	2.8277 ug/L	2.20070	2.8277 ppb	2.20070	77.83%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-0.6	-0.3316 ug/L	1.02292	-0.3316 ppb	1.02292	308.48%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	184.1	5.2702 ug/L	0.63142	5.2702 ppb	0.63142	11.98%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-1.8	-0.2626 ug/L	1.40237	-0.2626 ppb	1.40237	534.09%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-18.7	-0.1373 ug/L	0.20757	-0.1373 ppb	0.20757	151.19%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-37.5	-0.0552 ug/L	0.01804	-0.0552 ppb	0.01804	32.70%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	6.0	1.6340 ug/L	3.15812	1.6340 ppb	3.15812	193.28%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-269.7	-8.0174 ug/L	4.15080	-8.0174 ppb	4.15080	51.77%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-9.8	-0.0687 ug/L	0.48306	-0.0687 ppb	0.48306	703.32%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	52.4	0.4276 ug/L	0.12303	0.4276 ppb	0.12303	28.77%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	214.1	13.120 ug/L	1.6602	13.120 ppb	1.6602	12.65%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 51

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/6/2010 20:32:00

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4618.4	4618.4	98.9 %		20:33:52
1	Y RADIAL	4886.4	4886.4	99.06 %		20:33:52
1	Al 396.153Radial†	6176.9	6269.4	5537.7 ug/L	5537.7 ppb	20:33:52
1	Ca 317.933Radial†	3122.9	3143.5	5267.5 ug/L	5267.5 ppb	20:34:12
1	Fe 238.204 Radial†	583.1	575.5	5073.2 ug/L	5073.2 ppb	20:34:12
1	K 766.490 Radial†	29422.5	26398.9	5231.2 ug/L	5231.2 ppb	20:33:52
1	Mg 279.077 IEC†	166.7	166.8	5339.1 ug/L	5339.1 ppb	20:34:12
1	Na 589.592 Radial†	32584.7	34681.6	10477 ug/L	10477 ppb	20:33:52
1	Sr 421.552†	74136.7	74909.8	548.42 ug/L	548.42 ppb	20:33:52
1	Sc 361.383	871675.1	871675.1	98.316 %		20:35:11
1	Y 371.029	740714.7	740714.7	97.238 %		20:35:11
1	Ag 328.068†	121133.7	122696.8	530.31 ug/L	530.31 ppb	20:35:11
1	As 188.979†	1449.7	1508.0	532.44 ug/L	532.44 ppb	20:35:31
1	B 249.677†	24135.4	25214.8	517.91 ug/L	517.91 ppb	20:35:11
1	Ba 233.527†	71365.2	72580.4	530.55 ug/L	530.55 ppb	20:35:11
1	Be 313.107†	1553985.1	1584961.1	536.76 ug/L	536.76 ppb	20:35:11
1	Cd 226.502†	54893.8	56072.7	527.94 ug/L	527.94 ppb	20:35:11
1	Co 228.616†	27388.0	27941.2	525.51 ug/L	525.51 ppb	20:35:31
1	Cr 267.716†	51865.7	52650.3	528.37 ug/L	528.37 ppb	20:35:11
1	Cu 324.752†	184158.6	179314.8	531.14 ug/L	531.14 ppb	20:35:11
1	Mn 257.610†	499224.4	507261.2	534.88 ug/L	534.88 ppb	20:35:11
1	Mo 202.031†	8360.8	8484.1	531.99 ug/L	531.99 ppb	20:35:31
1	Ni 231.604†	23660.3	23940.6	525.22 ug/L	525.22 ppb	20:35:31
1	P 214.914†	5590.0	5437.2	2570.7 ug/L	2570.7 ppb	20:35:31
1	Pb 220.353†	4954.0	5116.7	531.78 ug/L	531.78 ppb	20:35:31
1	S 181.975 Axial†	990.0	947.1	1069.3 ug/L	1069.3 ppb	20:35:31
1	Sb 206.836†	1778.3	1771.7	536.85 ug/L	536.85 ppb	20:35:31
1	Se 196.026†	995.1	1045.4	553.06 ug/L	553.06 ppb	20:35:31
1	Si 251.611†	91444.0	92394.1	2637.8 ug/L	2637.8 ppb	20:35:11
1	Sn 189.927†	3523.3	3580.3	530.18 ug/L	530.18 ppb	20:35:31
1	Ti 334.940†	331576.5	339074.8	537.84 ug/L	537.84 ppb	20:35:11
1	Tl 190.801†	1846.2	1931.2	531.08 ug/L	531.08 ppb	20:35:31
1	U 409.014†	14279.4	17192.8	509.46 ug/L	509.46 ppb	20:35:11
1	V 292.402†	80716.8	83901.6	533.84 ug/L	533.84 ppb	20:35:11
1	Zn 213.857†	64206.2	64474.6	525.69 ug/L	525.69 ppb	20:35:11
1	SiO2†	91630.9	92564.8	5654.8 ug/L	5654.8 ppb	20:36:32
2	Sc Radial	4647.1	4647.1	99.6 %		20:34:17
2	Y RADIAL	4908.4	4908.4	99.50 %		20:34:17
2	Al 396.153Radial†	6099.2	6152.9	5434.2 ug/L	5434.2 ppb	20:34:17
2	Ca 317.933Radial†	3206.0	3207.6	5374.8 ug/L	5374.8 ppb	20:34:37
2	Fe 238.204 Radial†	596.9	585.6	5162.5 ug/L	5162.5 ppb	20:34:37
2	K 766.490 Radial†	29184.8	25976.9	5147.5 ug/L	5147.5 ppb	20:34:17
2	Mg 279.077 IEC†	167.0	166.1	5317.8 ug/L	5317.8 ppb	20:34:37
2	Na 589.592 Radial†	32175.6	34067.8	10291 ug/L	10291 ppb	20:34:17
2	Sr 421.552†	73285.4	73593.1	538.77 ug/L	538.77 ppb	20:34:17
2	Sc 361.383	860786.9	860786.9	97.087 %		20:35:39
2	Y 371.029	731308.2	731308.2	96.003 %		20:35:39
2	Ag 328.068†	119668.9	122746.5	530.55 ug/L	530.55 ppb	20:35:39
2	As 188.979†	1443.3	1520.0	536.66 ug/L	536.66 ppb	20:35:59
2	B 249.677†	23923.0	25306.5	519.77 ug/L	519.77 ppb	20:35:39
2	Ba 233.527†	70917.0	73036.9	533.88 ug/L	533.88 ppb	20:35:39
2	Be 313.107†	1535003.2	1585403.1	536.91 ug/L	536.91 ppb	20:35:39
2	Cd 226.502†	54399.3	56269.6	529.79 ug/L	529.79 ppb	20:35:39
2	Co 228.616†	27355.7	28260.4	531.52 ug/L	531.52 ppb	20:35:59
2	Cr 267.716†	51332.0	52767.9	529.56 ug/L	529.56 ppb	20:35:39
2	Cu 324.752†	181716.0	179168.3	530.71 ug/L	530.71 ppb	20:35:39
2	Mn 257.610†	494718.0	509042.5	536.77 ug/L	536.77 ppb	20:35:39
2	Mo 202.031†	8334.5	8564.6	537.04 ug/L	537.04 ppb	20:35:59
2	Ni 231.604†	23623.6	24207.2	531.07 ug/L	531.07 ppb	20:35:59

2	P 214.914†	5568.1	5486.6	2594.8 ug/L	2594.8 ppb	20:35:59
2	Pb 220.353†	4955.2	5181.6	538.48 ug/L	538.48 ppb	20:35:59
2	S 181.975 Axial†	980.8	950.3	1072.9 ug/L	1072.9 ppb	20:35:59
2	Sb 206.836†	1780.2	1796.5	544.43 ug/L	544.43 ppb	20:35:59
2	Se 196.026†	987.5	1050.4	555.90 ug/L	555.90 ppb	20:35:59
2	Si 251.611†	90476.4	92574.0	2642.9 ug/L	2642.9 ppb	20:35:39
2	Sn 189.927†	3508.6	3610.4	534.66 ug/L	534.66 ppb	20:35:59
2	Ti 334.940†	327782.2	339432.7	538.41 ug/L	538.41 ppb	20:35:39
2	Tl 190.801†	1850.2	1959.1	538.69 ug/L	538.69 ppb	20:35:59
2	U 409.014†	14000.8	17089.6	506.38 ug/L	506.38 ppb	20:35:39
2	V 292.402†	79760.9	83955.4	534.23 ug/L	534.23 ppb	20:35:39
2	Zn 213.857†	63660.7	64738.8	527.82 ug/L	527.82 ppb	20:35:39
2	SiO2†	90818.5	92906.9	5675.7 ug/L	5675.7 ppb	20:36:37
3	Sc Radial	4510.3	4510.3	96.6 %		20:34:42
3	Y RADIAL	4773.3	4773.3	96.76 %		20:34:42
3	Al 396.153Radial†	6016.1	6252.5	5522.7 ug/L	5522.7 ppb	20:34:42
3	Ca 317.933Radial†	3168.2	3266.1	5472.9 ug/L	5472.9 ppb	20:35:02
3	Fe 238.204 Radial†	583.7	590.2	5202.2 ug/L	5202.2 ppb	20:35:02
3	K 766.490 Radial†	28927.3	26599.1	5270.9 ug/L	5270.9 ppb	20:34:42
3	Mg 279.077 IEC†	170.8	175.2	5606.9 ug/L	5606.9 ppb	20:35:02
3	Na 589.592 Radial†	31771.9	34629.6	10461 ug/L	10461 ppb	20:34:42
3	Sr 421.552†	72310.3	74815.3	547.72 ug/L	547.72 ppb	20:34:42
3	Sc 361.383	865670.8	865670.8	97.638 %		20:36:06
3	Y 371.029	735892.0	735892.0	96.605 %		20:36:06
3	Ag 328.068†	120265.5	122662.1	530.20 ug/L	530.20 ppb	20:36:06
3	As 188.979†	1437.3	1505.5	531.60 ug/L	531.60 ppb	20:36:26
3	B 249.677†	24068.9	25316.9	519.99 ug/L	519.99 ppb	20:36:06
3	Ba 233.527†	71072.3	72783.9	532.03 ug/L	532.03 ppb	20:36:06
3	Be 313.107†	1543516.7	1585202.5	536.85 ug/L	536.85 ppb	20:36:06
3	Cd 226.502†	54625.5	56185.1	528.99 ug/L	528.99 ppb	20:36:06
3	Co 228.616†	27248.7	27991.8	526.46 ug/L	526.46 ppb	20:36:26
3	Cr 267.716†	51566.2	52709.4	528.97 ug/L	528.97 ppb	20:36:06
3	Cu 324.752†	182980.3	179407.2	531.42 ug/L	531.42 ppb	20:36:06
3	Mn 257.610†	496879.4	508381.4	536.07 ug/L	536.07 ppb	20:36:06
3	Mo 202.031†	8329.4	8510.9	533.68 ug/L	533.68 ppb	20:36:26
3	Ni 231.604†	23538.9	23983.2	526.15 ug/L	526.15 ppb	20:36:26
3	P 214.914†	5556.9	5442.8	2573.2 ug/L	2573.2 ppb	20:36:26
3	Pb 220.353†	4927.3	5124.3	532.56 ug/L	532.56 ppb	20:36:26
3	S 181.975 Axial†	965.0	928.4	1048.2 ug/L	1048.2 ppb	20:36:26
3	Sb 206.836†	1762.5	1768.1	535.73 ug/L	535.73 ppb	20:36:26
3	Se 196.026†	992.5	1049.7	555.70 ug/L	555.70 ppb	20:36:26
3	Si 251.611†	90837.0	92417.6	2638.5 ug/L	2638.5 ppb	20:36:06
3	Sn 189.927†	3475.6	3556.3	526.66 ug/L	526.66 ppb	20:36:26
3	Ti 334.940†	329839.8	339635.2	538.74 ug/L	538.74 ppb	20:36:06
3	Tl 190.801†	1847.7	1945.7	535.06 ug/L	535.06 ppb	20:36:26
3	U 409.014†	14224.5	17237.3	510.77 ug/L	510.77 ppb	20:36:06
3	V 292.402†	80235.7	83978.2	534.34 ug/L	534.34 ppb	20:36:06
3	Zn 213.857†	63987.5	64703.6	527.55 ug/L	527.55 ppb	20:36:06
3	SiO2†	90910.8	92473.8	5649.2 ug/L	5649.2 ppb	20:36:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	866044.3	97.680 %		0.6151			0.63%
Sc Radial	4591.9	98.4 %		1.54			1.57%
Y 371.029	735971.6	96.615 %		0.6175			0.64%
Y RADIAL	4856.0	98.44 %		1.469			1.49%
Ag 328.068†	122701.8	530.35 ug/L		0.181	530.35 ppb	0.181	0.03%
QC value within limits for Ag 328.068 Recovery = 106.07%							
Al 396.153Radial†	6224.9	5498.2 ug/L		55.94	5498.2 ppb	55.94	1.02%
QC value within limits for Al 396.153Radial Recovery = 109.96%							
As 188.979†	1511.2	533.57 ug/L		2.714	533.57 ppb	2.714	0.51%
QC value within limits for As 188.979 Recovery = 106.71%							
B 249.677†	25279.4	519.22 ug/L		1.146	519.22 ppb	1.146	0.22%
QC value within limits for B 249.677 Recovery = 103.84%							
Ba 233.527†	72800.4	532.15 ug/L		1.669	532.15 ppb	1.669	0.31%
QC value within limits for Ba 233.527 Recovery = 106.43%							
Be 313.107†	1585188.9	536.84 ug/L		0.075	536.84 ppb	0.075	0.01%
QC value within limits for Be 313.107 Recovery = 107.37%							
Ca 317.933Radial†	3205.7	5371.7 ug/L		102.73	5371.7 ppb	102.73	1.91%

QC value within limits for Ca 317.933 Radial Recovery = 107.43%									
Cd	226.502†	56175.8	528.90 ug/L	0.927	528.90 ppb	0.927	0.18%		
QC value within limits for Cd 226.502 Recovery = 105.78%									
Co	228.616†	28064.4	527.83 ug/L	3.232	527.83 ppb	3.232	0.61%		
QC value within limits for Co 228.616 Recovery = 105.57%									
Cr	267.716†	52709.2	528.97 ug/L	0.591	528.97 ppb	0.591	0.11%		
QC value within limits for Cr 267.716 Recovery = 105.79%									
Cu	324.752†	179296.8	531.09 ug/L	0.357	531.09 ppb	0.357	0.07%		
QC value within limits for Cu 324.752 Recovery = 106.22%									
Fe	238.204 Radial†	583.8	5146.0 ug/L	66.05	5146.0 ppb	66.05	1.28%		
QC value within limits for Fe 238.204 Radial Recovery = 102.92%									
K	766.490 Radial†	26325.0	5216.5 ug/L	63.00	5216.5 ppb	63.00	1.21%		
QC value within limits for K 766.490 Radial Recovery = 104.33%									
Mg	279.077 IEC†	169.4	5421.3 ug/L	161.13	5421.3 ppb	161.13	2.97%		
QC value within limits for Mg 279.077 IEC Recovery = 108.43%									
Mn	257.610†	508228.4	535.90 ug/L	0.954	535.90 ppb	0.954	0.18%		
QC value within limits for Mn 257.610 Recovery = 107.18%									
Mo	202.031†	8519.9	534.24 ug/L	2.571	534.24 ppb	2.571	0.48%		
QC value within limits for Mo 202.031 Recovery = 106.85%									
Na	589.592 Radial†	34459.7	10410 ug/L	102.8	10410 ppb	102.8	0.99%		
QC value within limits for Na 589.592 Radial Recovery = 104.10%									
Ni	231.604†	24043.7	527.48 ug/L	3.142	527.48 ppb	3.142	0.60%		
QC value within limits for Ni 231.604 Recovery = 105.50%									
P	214.914†	5455.5	2579.5 ug/L	13.25	2579.5 ppb	13.25	0.51%		
QC value within limits for P 214.914 Recovery = 103.18%									
Pb	220.353†	5140.8	534.27 ug/L	3.668	534.27 ppb	3.668	0.69%		
QC value within limits for Pb 220.353 Recovery = 106.85%									
S	181.975 Axial†	942.0	1063.5 ug/L	13.35	1063.5 ppb	13.35	1.26%		
QC value within limits for S 181.975 Axial Recovery = 106.35%									
Sb	206.836†	1778.7	539.01 ug/L	4.732	539.01 ppb	4.732	0.88%		
QC value within limits for Sb 206.836 Recovery = 107.80%									
Se	196.026†	1048.5	554.89 ug/L	1.583	554.89 ppb	1.583	0.29%		
QC value greater than the upper limit for Se 196.026 Recovery = 110.98%									
Si	251.611†	92461.9	2639.7 ug/L	2.77	2639.7 ppb	2.77	0.10%		
QC value within limits for Si 251.611 Recovery = 105.59%									
Sn	189.927†	3582.3	530.50 ug/L	4.009	530.50 ppb	4.009	0.76%		
QC value within limits for Sn 189.927 Recovery = 106.10%									
Sr	421.552†	74439.4	544.97 ug/L	5.377	544.97 ppb	5.377	0.99%		
QC value within limits for Sr 421.552 Recovery = 108.99%									
Ti	334.940†	339380.9	538.33 ug/L	0.455	538.33 ppb	0.455	0.08%		
QC value within limits for Ti 334.940 Recovery = 107.67%									
Tl	190.801†	1945.3	534.94 ug/L	3.804	534.94 ppb	3.804	0.71%		
QC value within limits for Tl 190.801 Recovery = 106.99%									
U	409.014†	17173.2	508.87 ug/L	2.253	508.87 ppb	2.253	0.44%		
QC value within limits for U 409.014 Recovery = 101.77%									
V	292.402†	83945.1	534.14 ug/L	0.260	534.14 ppb	0.260	0.05%		
QC value within limits for V 292.402 Recovery = 106.83%									
Zn	213.857†	64639.0	527.02 ug/L	1.160	527.02 ppb	1.160	0.22%		
QC value within limits for Zn 213.857 Recovery = 105.40%									
SiO2†		92648.5	5659.9 ug/L	13.96	5659.9 ppb	13.96	0.25%		
QC value within limits for SiO2 Recovery = 105.84%									
QC Failed. Continue with analysis.									

Sequence No.: 52
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 6
 Date Collected: 1/6/2010 20:38:51
 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	4649.4	4649.4	99.6 %		20:40:43
1	Y RADIAL	4936.6	4936.6	100.1 %		20:40:43
1	Al 396.153Radial†	-8.6	18.1	15.946 ug/L	15.946 ppb	20:40:43
1	Ca 317.933Radial†	18.9	6.4	10.742 ug/L	10.742 ppb	20:41:03
1	Fe 238.204 Radial†	12.7	-1.1	-9.5819 ug/L	-9.5819 ppb	20:41:03
1	K 766.490 Radial†	3387.3	63.8	12.657 ug/L	12.657 ppb	20:40:43
1	Mg 279.077 IEC†	3.4	1.7	55.238 ug/L	55.238 ppb	20:41:03
1	Na 589.592 Radial†	-1630.8	112.9	34.102 ug/L	34.102 ppb	20:40:43
1	Sr 421.552†	7.5	-8.5	-0.0620 ug/L	-0.0620 ppb	20:40:43
1	Sc 361.383	855400.3	855400.3	96.480 %		20:42:00
1	Y 371.029	736838.1	736838.1	96.729 %		20:42:00
1	Ag 328.068†	363.1	-135.9	-0.5755 ug/L	-0.5755 ppb	20:42:00
1	As 188.979†	-20.8	11.8	4.1338 ug/L	4.1338 ppb	20:42:20
1	B 249.677†	-678.2	-37.1	-0.7642 ug/L	-0.7642 ppb	20:42:00
1	Ba 233.527†	21.2	14.5	0.1064 ug/L	0.1064 ppb	20:42:20
1	Be 313.107†	-4308.5	-114.2	-0.0387 ug/L	-0.0387 ppb	20:42:00
1	Cd 226.502†	-239.6	-9.9	-0.0925 ug/L	-0.0925 ppb	20:42:20
1	Co 228.616†	-79.0	2.1	0.0437 ug/L	0.0437 ppb	20:42:20
1	Cr 267.716†	95.8	-4.8	-0.0435 ug/L	-0.0435 ppb	20:42:00
1	Cu 324.752†	7972.2	264.0	0.7811 ug/L	0.7811 ppb	20:42:00
1	Mn 257.610†	490.8	-7.7	-0.0101 ug/L	-0.0101 ppb	20:42:00
1	Mo 202.031†	42.1	23.7	1.4848 ug/L	1.4848 ppb	20:42:20
1	Ni 231.604†	127.9	7.5	0.1638 ug/L	0.1638 ppb	20:42:20
1	P 214.914†	242.5	2.8	1.2309 ug/L	1.2309 ppb	20:42:20
1	Pb 220.353†	-110.6	-36.8	-3.8099 ug/L	-3.8099 ppb	20:42:20
1	S 181.975 Axial†	63.1	5.5	6.2582 ug/L	6.2582 ppb	20:42:20
1	Sb 206.836†	44.5	9.0	2.7102 ug/L	2.7102 ppb	20:42:20
1	Se 196.026†	-28.1	4.1	2.0702 ug/L	2.0702 ppb	20:42:20
1	Si 251.611†	696.2	105.0	2.9861 ug/L	2.9861 ppb	20:42:20
1	Sn 189.927†	-5.3	-8.9	-1.3137 ug/L	-1.3137 ppb	20:42:20
1	Ti 334.940†	-1790.2	-38.2	-0.0549 ug/L	-0.0549 ppb	20:42:00
1	Tl 190.801†	-51.8	-0.3	-0.0832 ug/L	-0.0832 ppb	20:42:20
1	U 409.014†	-2953.1	-392.1	-11.657 ug/L	-11.657 ppb	20:42:00
1	V 292.402†	-1667.8	73.2	0.4607 ug/L	0.4607 ppb	20:42:00
1	Zn 213.857†	817.6	15.8	0.1265 ug/L	0.1265 ppb	20:42:20
1	SiO2†	723.1	113.5	6.9101 ug/L	6.9101 ppb	20:43:16
2	Sc Radial	4676.4	4676.4	100 %		20:41:08
2	Y RADIAL	4942.8	4942.8	100.2 %		20:41:08
2	Al 396.153Radial†	-1.4	25.4	22.462 ug/L	22.462 ppb	20:41:08
2	Ca 317.933Radial†	17.5	4.9	8.1780 ug/L	8.1780 ppb	20:41:28
2	Fe 238.204 Radial†	12.3	-1.6	-14.099 ug/L	-14.099 ppb	20:41:28
2	K 766.490 Radial†	3264.1	-78.8	-15.637 ug/L	-15.637 ppb	20:41:08
2	Mg 279.077 IEC†	2.3	0.6	20.592 ug/L	20.592 ppb	20:41:28
2	Na 589.592 Radial†	-1770.7	-17.3	-5.2204 ug/L	-5.2204 ppb	20:41:08
2	Sr 421.552†	12.7	-3.3	-0.0245 ug/L	-0.0245 ppb	20:41:08
2	Sc 361.383	863802.9	863802.9	97.428 %		20:42:26
2	Y 371.029	744334.2	744334.2	97.713 %		20:42:26
2	Ag 328.068†	402.2	-99.6	-0.4235 ug/L	-0.4235 ppb	20:42:26
2	As 188.979†	-31.7	0.8	0.2895 ug/L	0.2895 ppb	20:42:46
2	B 249.677†	-650.4	-1.7	-0.0327 ug/L	-0.0327 ppb	20:42:26
2	Ba 233.527†	10.6	3.4	0.0253 ug/L	0.0253 ppb	20:42:46
2	Be 313.107†	-4405.5	-170.3	-0.0574 ug/L	-0.0574 ppb	20:42:26
2	Cd 226.502†	-238.7	-6.6	-0.0609 ug/L	-0.0609 ppb	20:42:46
2	Co 228.616†	-90.4	-8.8	-0.1641 ug/L	-0.1641 ppb	20:42:46
2	Cr 267.716†	98.8	-2.7	-0.0235 ug/L	-0.0235 ppb	20:42:26
2	Cu 324.752†	7944.0	154.7	0.4574 ug/L	0.4574 ppb	20:42:26
2	Mn 257.610†	497.9	-5.4	-0.0075 ug/L	-0.0075 ppb	20:42:26
2	Mo 202.031†	30.8	11.7	0.7314 ug/L	0.7314 ppb	20:42:46
2	Ni 231.604†	124.9	3.1	0.0687 ug/L	0.0687 ppb	20:42:46

2	P 214.914†	265.0	23.4	11.348 ug/L	11.348 ppb	20:42:46
2	Pb 220.353†	-105.0	-30.0	-3.1037 ug/L	-3.1037 ppb	20:42:46
2	S 181.975 Axial†	64.0	5.8	6.5380 ug/L	6.5380 ppb	20:42:46
2	Sb 206.836†	41.7	5.7	1.7053 ug/L	1.7053 ppb	20:42:46
2	Se 196.026†	-45.5	-13.5	-6.9405 ug/L	-6.9405 ppb	20:42:46
2	Si 251.611†	696.3	98.1	2.8084 ug/L	2.8084 ppb	20:42:46
2	Sn 189.927†	-0.9	-4.3	-0.6355 ug/L	-0.6355 ppb	20:42:46
2	Ti 334.940†	-1713.2	58.9	0.0976 ug/L	0.0976 ppb	20:42:26
2	Tl 190.801†	-46.7	5.5	1.5042 ug/L	1.5042 ppb	20:42:46
2	U 409.014†	-2879.0	-286.3	-8.5094 ug/L	-8.5094 ppb	20:42:26
2	V 292.402†	-1688.3	69.0	0.4294 ug/L	0.4294 ppb	20:42:26
2	Zn 213.857†	837.1	27.5	0.2250 ug/L	0.2250 ppb	20:42:46
2	SiO2†	696.7	79.1	4.8429 ug/L	4.8429 ppb	20:43:21
3	Sc Radial	4662.7	4662.7	99.9 %		20:41:33
3	Y RADIAL	4955.0	4955.0	100.4 %		20:41:33
3	Al 396.153Radial†	-0.3	26.5	23.458 ug/L	23.458 ppb	20:41:33
3	Ca 317.933Radial†	16.0	3.5	5.7991 ug/L	5.7991 ppb	20:41:53
3	Fe 238.204 Radial†	11.6	-2.3	-19.908 ug/L	-19.908 ppb	20:41:53
3	K 766.490 Radial†	3377.9	44.7	8.8731 ug/L	8.8731 ppb	20:41:33
3	Mg 279.077 IEC†	5.6	4.0	127.07 ug/L	127.07 ppb	20:41:53
3	Na 589.592 Radial†	-1720.0	28.3	8.5380 ug/L	8.5380 ppb	20:41:33
3	Sr 421.552†	44.8	28.8	0.2112 ug/L	0.2112 ppb	20:41:33
3	Sc 361.383	869942.8	869942.8	98.120 %		20:42:51
3	Y 371.029	749879.8	749879.8	98.441 %		20:42:51
3	Ag 328.068†	532.2	30.0	0.1332 ug/L	0.1332 ppb	20:42:51
3	As 188.979†	-28.0	4.9	1.7163 ug/L	1.7163 ppb	20:43:11
3	B 249.677†	-696.5	-44.0	-0.9043 ug/L	-0.9043 ppb	20:42:51
3	Ba 233.527†	-3.5	-11.1	-0.0823 ug/L	-0.0823 ppb	20:43:11
3	Be 313.107†	-4310.3	-41.4	-0.0141 ug/L	-0.0141 ppb	20:42:51
3	Cd 226.502†	-236.9	-3.0	-0.0266 ug/L	-0.0266 ppb	20:43:11
3	Co 228.616†	-93.6	-11.4	-0.2128 ug/L	-0.2128 ppb	20:43:11
3	Cr 267.716†	88.9	-13.4	-0.1306 ug/L	-0.1306 ppb	20:42:51
3	Cu 324.752†	8143.5	300.5	0.8886 ug/L	0.8886 ppb	20:42:51
3	Mn 257.610†	490.6	-16.4	-0.0217 ug/L	-0.0217 ppb	20:42:51
3	Mo 202.031†	24.0	4.5	0.2823 ug/L	0.2823 ppb	20:43:11
3	Ni 231.604†	115.7	-7.1	-0.1563 ug/L	-0.1563 ppb	20:43:11
3	P 214.914†	242.8	-1.1	-0.6452 ug/L	-0.6452 ppb	20:43:11
3	Pb 220.353†	-107.6	-31.9	-3.2975 ug/L	-3.2975 ppb	20:43:11
3	S 181.975 Axial†	57.6	-1.2	-1.3388 ug/L	-1.3388 ppb	20:43:11
3	Sb 206.836†	47.1	10.9	3.2595 ug/L	3.2595 ppb	20:43:11
3	Se 196.026†	-43.1	-10.6	-5.5011 ug/L	-5.5011 ppb	20:43:11
3	Si 251.611†	688.3	85.0	2.4302 ug/L	2.4302 ppb	20:43:11
3	Sn 189.927†	1.2	-2.2	-0.3237 ug/L	-0.3237 ppb	20:43:11
3	Ti 334.940†	-1830.3	-48.0	-0.0694 ug/L	-0.0694 ppb	20:42:51
3	Tl 190.801†	-39.2	13.4	3.6752 ug/L	3.6752 ppb	20:43:11
3	U 409.014†	-3092.2	-482.7	-14.347 ug/L	-14.347 ppb	20:42:51
3	V 292.402†	-1824.0	-57.1	-0.3763 ug/L	-0.3763 ppb	20:42:51
3	Zn 213.857†	835.1	19.4	0.1565 ug/L	0.1565 ppb	20:43:11
3	SiO2†	707.9	85.4	5.2277 ug/L	5.2277 ppb	20:43:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	863048.7	97.343 %		0.8234			0.85%
Sc Radial	4662.8	99.9 %		0.29			0.29%
Y 371.029	743684.0	97.628 %		0.8592			0.88%
Y RADIAL	4944.8	100.2 %		0.19			0.19%
Ag 328.068†	-68.5	-0.2886 ug/L		0.37312	-0.2886 ppb	0.37312	129.27%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	23.3	20.622 ug/L		4.0804	20.622 ppb	4.0804	19.79%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	5.9	2.0465 ug/L		1.94329	2.0465 ppb	1.94329	94.96%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-27.6	-0.5671 ug/L		0.46800	-0.5671 ppb	0.46800	82.53%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	2.3	0.0164 ug/L		0.09466	0.0164 ppb	0.09466	575.54%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-108.6	-0.0367 ug/L		0.02168	-0.0367 ppb	0.02168	59.00%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	4.9	8.2395 ug/L		2.47181	8.2395 ppb	2.47181	30.00%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-6.5	-0.0600 ug/L	0.03297	-0.0600 ppb	0.03297	54.93%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-6.0	-0.1111 ug/L	0.13620	-0.1111 ppb	0.13620	122.62%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-6.9	-0.0659 ug/L	0.05692	-0.0659 ppb	0.05692	86.42%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	239.7	0.7091 ug/L	0.22446	0.7091 ppb	0.22446	31.66%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.7	-14.530 ug/L	5.1764	-14.530 ppb	5.1764	35.63%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	9.9	1.9645 ug/L	15.36015	1.9645 ppb	15.36015	781.88%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	2.1	67.632 ug/L	54.3088	67.632 ppb	54.3088	80.30%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-9.9	-0.0131 ug/L	0.00755	-0.0131 ppb	0.00755	57.66%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	13.3	0.8328 ug/L	0.60764	0.8328 ppb	0.60764	72.96%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	41.3	12.473 ug/L	19.9543	12.473 ppb	19.9543	159.98%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	1.2	0.0254 ug/L	0.16437	0.0254 ppb	0.16437	646.44%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	8.4	3.9779 ug/L	6.45129	3.9779 ppb	6.45129	162.18%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-32.9	-3.4037 ug/L	0.36489	-3.4037 ppb	0.36489	10.72%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	3.4	3.8191 ug/L	4.46911	3.8191 ppb	4.46911	117.02%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	8.5	2.5584 ug/L	0.78817	2.5584 ppb	0.78817	30.81%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-6.7	-3.4571 ug/L	4.84061	-3.4571 ppb	4.84061	140.02%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	96.0	2.7416 ug/L	0.28390	2.7416 ppb	0.28390	10.36%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-5.1	-0.7576 ug/L	0.50618	-0.7576 ppb	0.50618	66.81%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	5.7	0.0416 ug/L	0.14808	0.0416 ppb	0.14808	356.34%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-9.1	-0.0089 ug/L	0.09253	-0.0089 ppb	0.09253	>999.9%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	6.2	1.6987 ug/L	1.88675	1.6987 ppb	1.88675	111.07%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-387.0	-11.504 ug/L	2.9215	-11.504 ppb	2.9215	25.40%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	28.3	0.1713 ug/L	0.47445	0.1713 ppb	0.47445	276.98%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	20.9	0.1694 ug/L	0.05049	0.1694 ppb	0.05049	29.81%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	92.7	5.6602 ug/L	1.09935	5.6602 ppb	1.09935	19.42%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 61

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/6/2010 21:40:41

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	4642.0	4642.0	99.5 %		21:42:33
1	Y RADIAL	4931.3	4931.3	99.97 %		21:42:33
1	Al 396.153Radial†	6133.4	6193.8	5470.8 ug/L	5470.8 ppb	21:42:33
1	Ca 317.933Radial†	3127.4	3132.1	5248.3 ug/L	5248.3 ppb	21:42:53
1	Fe 238.204 Radial†	583.4	572.7	5048.9 ug/L	5048.9 ppb	21:42:53
1	K 766.490 Radial†	29121.8	25945.3	5141.3 ug/L	5141.3 ppb	21:42:33
1	Mg 279.077 IEC†	165.3	164.6	5268.3 ug/L	5268.3 ppb	21:42:53
1	Na 589.592 Radial†	31762.5	33687.3	10176 ug/L	10176 ppb	21:42:33
1	Sr 421.552†	73132.8	73519.2	538.23 ug/L	538.23 ppb	21:42:33
1	Sc 361.383	867560.4	867560.4	97.851 %		21:43:52
1	Y 371.029	738058.5	738058.5	96.889 %		21:43:52
1	Ag 328.068†	119511.0	121622.8	525.68 ug/L	525.68 ppb	21:43:52
1	As 188.979†	1436.5	1501.5	530.11 ug/L	530.11 ppb	21:44:12
1	B 249.677†	23708.7	24895.1	511.32 ug/L	511.32 ppb	21:43:52
1	Ba 233.527†	70365.2	71902.7	525.59 ug/L	525.59 ppb	21:43:52
1	Be 313.107†	1529142.5	1567069.6	530.70 ug/L	530.70 ppb	21:43:52
1	Cd 226.502†	54114.7	55541.3	522.94 ug/L	522.94 ppb	21:43:52
1	Co 228.616†	27134.0	27813.8	523.12 ug/L	523.12 ppb	21:44:12
1	Cr 267.716†	51058.4	52075.5	522.61 ug/L	522.61 ppb	21:43:52
1	Cu 324.752†	181004.2	176979.5	524.23 ug/L	524.23 ppb	21:43:52
1	Mn 257.610†	491743.6	502024.5	529.36 ug/L	529.36 ppb	21:43:52
1	Mo 202.031†	8279.8	8441.6	529.33 ug/L	529.33 ppb	21:44:12
1	Ni 231.604†	23487.1	23877.7	523.84 ug/L	523.84 ppb	21:44:12
1	P 214.914†	5531.3	5404.2	2555.7 ug/L	2555.7 ppb	21:44:12
1	Pb 220.353†	4928.8	5114.8	531.57 ug/L	531.57 ppb	21:44:12
1	S 181.975 Axial†	974.4	935.9	1056.7 ug/L	1056.7 ppb	21:44:12
1	Sb 206.836†	1764.6	1766.3	535.28 ug/L	535.28 ppb	21:44:12
1	Se 196.026†	984.2	1039.1	549.75 ug/L	549.75 ppb	21:44:12
1	Si 251.611†	90074.4	91435.6	2610.4 ug/L	2610.4 ppb	21:43:52
1	Sn 189.927†	3485.8	3558.9	527.02 ug/L	527.02 ppb	21:44:12
1	Ti 334.940†	326510.1	335496.7	532.17 ug/L	532.17 ppb	21:43:52
1	Tl 190.801†	1832.3	1925.9	529.58 ug/L	529.58 ppb	21:44:12
1	U 409.014†	13828.0	16800.4	497.81 ug/L	497.81 ppb	21:43:52
1	V 292.402†	79537.0	83085.2	528.67 ug/L	528.67 ppb	21:43:52
1	Zn 213.857†	63211.3	63767.6	519.90 ug/L	519.90 ppb	21:43:52
1	SiO2†	90813.5	92171.5	5630.9 ug/L	5630.9 ppb	21:45:13
2	Sc Radial	4571.4	4571.4	97.9 %		21:42:58
2	Y RADIAL	4867.8	4867.8	98.68 %		21:42:58
2	Al 396.153Radial†	6072.8	6227.4	5500.5 ug/L	5500.5 ppb	21:42:58
2	Ca 317.933Radial†	3148.0	3201.7	5365.0 ug/L	5365.0 ppb	21:43:18
2	Fe 238.204 Radial†	582.5	580.9	5120.5 ug/L	5120.5 ppb	21:43:18
2	K 766.490 Radial†	28958.0	26230.7	5197.9 ug/L	5197.9 ppb	21:42:58
2	Mg 279.077 IEC†	167.7	169.6	5430.1 ug/L	5430.1 ppb	21:43:18
2	Na 589.592 Radial†	31636.4	34052.4	10287 ug/L	10287 ppb	21:42:58
2	Sr 421.552†	72722.9	74237.5	543.49 ug/L	543.49 ppb	21:42:58
2	Sc 361.383	875299.5	875299.5	98.724 %		21:44:20
2	Y 371.029	744347.5	744347.5	97.715 %		21:44:20
2	Ag 328.068†	120600.8	121646.8	525.81 ug/L	525.81 ppb	21:44:20
2	As 188.979†	1464.2	1516.5	535.41 ug/L	535.41 ppb	21:44:40
2	B 249.677†	24027.1	25003.4	513.55 ug/L	513.55 ppb	21:44:20
2	Ba 233.527†	71143.4	72055.2	526.71 ug/L	526.71 ppb	21:44:20
2	Be 313.107†	1544064.4	1568367.3	531.15 ug/L	531.15 ppb	21:44:20
2	Cd 226.502†	54662.6	55607.3	523.55 ug/L	523.55 ppb	21:44:20
2	Co 228.616†	27372.3	27809.9	523.05 ug/L	523.05 ppb	21:44:40
2	Cr 267.716†	51514.2	52075.8	522.62 ug/L	522.62 ppb	21:44:20
2	Cu 324.752†	183018.9	177384.7	525.43 ug/L	525.43 ppb	21:44:20
2	Mn 257.610†	496925.0	502829.5	530.21 ug/L	530.21 ppb	21:44:20
2	Mo 202.031†	8362.4	8450.5	529.89 ug/L	529.89 ppb	21:44:40
2	Ni 231.604†	23666.8	23847.5	523.18 ug/L	523.18 ppb	21:44:40

2	P 214.914†	5585.0	5408.6	2557.6 ug/L	2557.6 ppb	21:44:40
2	Pb 220.353†	4955.5	5097.3	529.76 ug/L	529.76 ppb	21:44:40
2	S 181.975 Axial†	985.7	938.5	1059.6 ug/L	1059.6 ppb	21:44:40
2	Sb 206.836†	1781.1	1767.0	535.48 ug/L	535.48 ppb	21:44:40
2	Se 196.026†	992.7	1038.8	549.85 ug/L	549.85 ppb	21:44:40
2	Si 251.611†	90881.6	91439.4	2610.5 ug/L	2610.5 ppb	21:44:20
2	Sn 189.927†	3510.2	3552.2	526.04 ug/L	526.04 ppb	21:44:40
2	Ti 334.940†	330019.0	336100.7	533.13 ug/L	533.13 ppb	21:44:20
2	Tl 190.801†	1866.1	1943.6	534.42 ug/L	534.42 ppb	21:44:40
2	U 409.014†	13962.4	16811.5	498.13 ug/L	498.13 ppb	21:44:20
2	V 292.402†	80486.6	83328.4	530.20 ug/L	530.20 ppb	21:44:20
2	Zn 213.857†	64009.2	64004.6	521.84 ug/L	521.84 ppb	21:44:20
2	SiO2†	90535.5	91069.4	5563.2 ug/L	5563.2 ppb	21:45:18
3	Sc Radial	4639.7	4639.7	99.4 %		21:43:23
3	Y RADIAL	4927.9	4927.9	99.90 %		21:43:23
3	Al 396.153Radial†	6148.4	6212.0	5487.3 ug/L	5487.3 ppb	21:43:23
3	Ca 317.933Radial†	3193.8	3200.4	5362.8 ug/L	5362.8 ppb	21:43:43
3	Fe 238.204 Radial†	592.1	581.8	5128.5 ug/L	5128.5 ppb	21:43:43
3	K 766.490 Radial†	29061.6	25899.5	5132.1 ug/L	5132.1 ppb	21:43:23
3	Mg 279.077 IEC†	168.1	167.4	5360.2 ug/L	5360.2 ppb	21:43:43
3	Na 589.592 Radial†	32032.8	33975.3	10263 ug/L	10263 ppb	21:43:23
3	Sr 421.552†	73569.6	73995.6	541.72 ug/L	541.72 ppb	21:43:23
3	Sc 361.383	883254.8	883254.8	99.622 %		21:44:47
3	Y 371.029	750580.3	750580.3	98.533 %		21:44:47
3	Ag 328.068†	121819.2	121769.5	526.33 ug/L	526.33 ppb	21:44:47
3	As 188.979†	1442.3	1481.2	523.03 ug/L	523.03 ppb	21:45:07
3	B 249.677†	24402.5	25161.0	516.82 ug/L	516.82 ppb	21:44:47
3	Ba 233.527†	71811.0	72076.3	526.86 ug/L	526.86 ppb	21:44:47
3	Be 313.107†	1560416.6	1570694.8	531.93 ug/L	531.93 ppb	21:44:47
3	Cd 226.502†	55282.3	55730.7	524.70 ug/L	524.70 ppb	21:44:47
3	Co 228.616†	27150.1	27337.2	514.13 ug/L	514.13 ppb	21:45:07
3	Cr 267.716†	52096.1	52190.0	523.76 ug/L	523.76 ppb	21:44:47
3	Cu 324.752†	184912.3	177615.6	526.12 ug/L	526.12 ppb	21:44:47
3	Mn 257.610†	501513.3	502901.7	530.29 ug/L	530.29 ppb	21:44:47
3	Mo 202.031†	8291.4	8303.0	520.65 ug/L	520.65 ppb	21:45:07
3	Ni 231.604†	23429.5	23393.4	513.22 ug/L	513.22 ppb	21:45:07
3	P 214.914†	5534.4	5306.8	2507.7 ug/L	2507.7 ppb	21:45:07
3	Pb 220.353†	4905.3	5001.7	519.83 ug/L	519.83 ppb	21:45:07
3	S 181.975 Axial†	973.1	916.9	1035.1 ug/L	1035.1 ppb	21:45:07
3	Sb 206.836†	1754.0	1723.6	522.12 ug/L	522.12 ppb	21:45:07
3	Se 196.026†	979.0	1016.0	538.16 ug/L	538.16 ppb	21:45:07
3	Si 251.611†	91863.9	91596.3	2615.2 ug/L	2615.2 ppb	21:44:47
3	Sn 189.927†	3474.8	3484.6	516.05 ug/L	516.05 ppb	21:45:07
3	Ti 334.940†	332899.9	335981.7	532.94 ug/L	532.94 ppb	21:44:47
3	Tl 190.801†	1854.2	1914.7	526.57 ug/L	526.57 ppb	21:45:07
3	U 409.014†	14291.2	17014.2	504.15 ug/L	504.15 ppb	21:44:47
3	V 292.402†	80965.0	83074.3	528.48 ug/L	528.48 ppb	21:44:47
3	Zn 213.857†	64601.8	64015.5	521.99 ug/L	521.99 ppb	21:44:47
3	SiO2†	89951.9	89657.5	5477.0 ug/L	5477.0 ppb	21:45:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	875371.6	98.732 %	0.8851			0.90%
Sc Radial	4617.7	98.9 %	0.86			0.87%
Y 371.029	744328.8	97.712 %	0.8219			0.84%
Y RADIAL	4909.0	99.51 %	0.724			0.73%
Ag 328.068†	121679.7	525.94 ug/L	0.343	525.94 ppb	0.343	0.07%
QC value within limits for Ag 328.068 Recovery = 105.19%						
Al 396.153Radial†	6211.1	5486.2 ug/L	14.89	5486.2 ppb	14.89	0.27%
QC value within limits for Al 396.153Radial Recovery = 109.72%						
As 188.979†	1499.7	529.52 ug/L	6.207	529.52 ppb	6.207	1.17%
QC value within limits for As 188.979 Recovery = 105.90%						
B 249.677†	25019.8	513.90 ug/L	2.764	513.90 ppb	2.764	0.54%
QC value within limits for B 249.677 Recovery = 102.78%						
Ba 233.527†	72011.4	526.39 ug/L	0.692	526.39 ppb	0.692	0.13%
QC value within limits for Ba 233.527 Recovery = 105.28%						
Be 313.107†	1568710.5	531.26 ug/L	0.621	531.26 ppb	0.621	0.12%
QC value within limits for Be 313.107 Recovery = 106.25%						
Ca 317.933Radial†	3178.1	5325.4 ug/L	66.77	5325.4 ppb	66.77	1.25%

QC value within limits for Ca 317.933 Radial Recovery = 106.51%								
Cd 226.502†	55626.4	523.73 ug/L	0.898	523.73 ppb	0.898	0.17%		
QC value within limits for Cd 226.502 Recovery = 104.75%								
Co 228.616†	27653.6	520.10 ug/L	5.167	520.10 ppb	5.167	0.99%		
QC value within limits for Co 228.616 Recovery = 104.02%								
Cr 267.716†	52113.8	522.99 ug/L	0.660	522.99 ppb	0.660	0.13%		
QC value within limits for Cr 267.716 Recovery = 104.60%								
Cu 324.752†	177326.6	525.26 ug/L	0.955	525.26 ppb	0.955	0.18%		
QC value within limits for Cu 324.752 Recovery = 105.05%								
Fe 238.204 Radial†	578.5	5099.3 ug/L	43.83	5099.3 ppb	43.83	0.86%		
QC value within limits for Fe 238.204 Radial Recovery = 101.99%								
K 766.490 Radial†	26025.2	5157.1 ug/L	35.62	5157.1 ppb	35.62	0.69%		
QC value within limits for K 766.490 Radial Recovery = 103.14%								
Mg 279.077 IEC†	167.2	5352.8 ug/L	81.15	5352.8 ppb	81.15	1.52%		
QC value within limits for Mg 279.077 IEC Recovery = 107.06%								
Mn 257.610†	502585.2	529.96 ug/L	0.516	529.96 ppb	0.516	0.10%		
QC value within limits for Mn 257.610 Recovery = 105.99%								
Mo 202.031†	8398.4	526.62 ug/L	5.181	526.62 ppb	5.181	0.98%		
QC value within limits for Mo 202.031 Recovery = 105.32%								
Na 589.592 Radial†	33905.0	10242 ug/L	58.1	10242 ppb	58.1	0.57%		
QC value within limits for Na 589.592 Radial Recovery = 102.42%								
Ni 231.604†	23706.2	520.08 ug/L	5.953	520.08 ppb	5.953	1.14%		
QC value within limits for Ni 231.604 Recovery = 104.02%								
P 214.914†	5373.2	2540.3 ug/L	28.27	2540.3 ppb	28.27	1.11%		
QC value within limits for P 214.914 Recovery = 101.61%								
Pb 220.353†	5071.3	527.05 ug/L	6.321	527.05 ppb	6.321	1.20%		
QC value within limits for Pb 220.353 Recovery = 105.41%								
S 181.975 Axial†	930.4	1050.4 ug/L	13.36	1050.4 ppb	13.36	1.27%		
QC value within limits for S 181.975 Axial Recovery = 105.04%								
Sb 206.836†	1752.3	530.96 ug/L	7.660	530.96 ppb	7.660	1.44%		
QC value within limits for Sb 206.836 Recovery = 106.19%								
Se 196.026†	1031.3	545.92 ug/L	6.719	545.92 ppb	6.719	1.23%		
QC value within limits for Se 196.026 Recovery = 109.18%								
Si 251.611†	91490.4	2612.0 ug/L	2.75	2612.0 ppb	2.75	0.11%		
QC value within limits for Si 251.611 Recovery = 104.48%								
Sn 189.927†	3531.9	523.04 ug/L	6.072	523.04 ppb	6.072	1.16%		
QC value within limits for Sn 189.927 Recovery = 104.61%								
Sr 421.552†	73917.4	541.15 ug/L	2.675	541.15 ppb	2.675	0.49%		
QC value within limits for Sr 421.552 Recovery = 108.23%								
Ti 334.940†	335859.7	532.74 ug/L	0.510	532.74 ppb	0.510	0.10%		
QC value within limits for Ti 334.940 Recovery = 106.55%								
Tl 190.801†	1928.0	530.19 ug/L	3.958	530.19 ppb	3.958	0.75%		
QC value within limits for Tl 190.801 Recovery = 106.04%								
U 409.014†	16875.4	500.03 ug/L	3.575	500.03 ppb	3.575	0.71%		
QC value within limits for U 409.014 Recovery = 100.01%								
V 292.402†	83162.7	529.11 ug/L	0.942	529.11 ppb	0.942	0.18%		
QC value within limits for V 292.402 Recovery = 105.82%								
Zn 213.857†	63929.2	521.24 ug/L	1.169	521.24 ppb	1.169	0.22%		
QC value within limits for Zn 213.857 Recovery = 104.25%								
SiO2†	90966.1	5557.0 ug/L	77.14	5557.0 ppb	77.14	1.39%		
QC value within limits for SiO2 Recovery = 103.92%								
All analyte(s) passed QC.								

Sequence No.: 62
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 6
 Date Collected: 1/6/2010 21:47:32
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4811.4	4811.4	103 %			21:49:24
1	Y RADIAL	5122.7	5122.7	103.8 %			21:49:24
1	Al 396.153Radial†	-14.8	12.4	10.956 ug/L	10.956 ppb		21:49:24
1	Ca 317.933Radial†	20.1	7.0	11.653 ug/L	11.653 ppb		21:49:44
1	Fe 238.204 Radial†	12.2	-2.1	-18.107 ug/L	-18.107 ppb		21:49:44
1	K 766.490 Radial†	3435.6	-3.8	-0.7571 ug/L	-0.7571 ppb		21:49:24
1	Mg 279.077 IEC†	1.2	-0.5	-15.998 ug/L	-15.998 ppb		21:49:44
1	Na 589.592 Radial†	-1698.9	102.0	30.797 ug/L	30.797 ppb		21:49:24
1	Sr 421.552†	34.2	17.2	0.1258 ug/L	0.1258 ppb		21:49:24
1	Sc 361.383	904641.5	904641.5	102.03 %			21:50:41
1	Y 371.029	776170.7	776170.7	101.89 %			21:50:41
1	Ag 328.068†	476.6	-45.2	-0.1940 ug/L	-0.1940 ppb		21:50:46
1	As 188.979†	-38.8	-4.6	-1.6145 ug/L	-1.6145 ppb		21:51:06
1	B 249.677†	-606.6	71.4	1.4744 ug/L	1.4744 ppb		21:50:46
1	Ba 233.527†	-11.4	-18.7	-0.1333 ug/L	-0.1333 ppb		21:51:06
1	Be 313.107†	-4331.4	106.4	0.0363 ug/L	0.0363 ppb		21:50:46
1	Cd 226.502†	-249.9	-6.5	-0.0594 ug/L	-0.0594 ppb		21:51:06
1	Co 228.616†	-90.6	-4.8	-0.0891 ug/L	-0.0891 ppb		21:51:06
1	Cr 267.716†	114.4	8.1	0.0832 ug/L	0.0832 ppb		21:50:46
1	Cu 324.752†	7985.9	-172.3	-0.5111 ug/L	-0.5111 ppb		21:50:46
1	Mn 257.610†	552.9	25.4	0.0253 ug/L	0.0253 ppb		21:50:46
1	Mo 202.031†	29.7	9.1	0.5709 ug/L	0.5709 ppb		21:51:06
1	Ni 231.604†	132.1	4.4	0.0959 ug/L	0.0959 ppb		21:51:06
1	P 214.914†	236.4	-16.9	-8.1487 ug/L	-8.1487 ppb		21:51:06
1	Pb 220.353†	-105.4	-25.6	-2.6443 ug/L	-2.6443 ppb		21:51:06
1	S 181.975 Axial†	65.8	4.6	5.1800 ug/L	5.1800 ppb		21:51:06
1	Sb 206.836†	45.2	7.2	2.1520 ug/L	2.1520 ppb		21:51:06
1	Se 196.026†	-31.1	2.8	1.3907 ug/L	1.3907 ppb		21:51:06
1	Si 251.611†	672.1	42.1	1.1979 ug/L	1.1979 ppb		21:51:06
1	Sn 189.927†	3.9	0.4	0.0563 ug/L	0.0563 ppb		21:51:06
1	Ti 334.940†	-1747.5	104.7	0.1670 ug/L	0.1670 ppb		21:50:46
1	Tl 190.801†	-52.3	2.2	0.5915 ug/L	0.5915 ppb		21:51:06
1	U 409.014†	-2749.9	-26.4	-0.7823 ug/L	-0.7823 ppb		21:50:41
1	V 292.402†	-1599.4	234.3	1.4799 ug/L	1.4799 ppb		21:50:46
1	Zn 213.857†	826.6	-21.5	-0.1756 ug/L	-0.1756 ppb		21:51:06
1	SiO2†	665.9	16.6	0.9986 ug/L	0.9986 ppb		21:52:12
2	Sc Radial	4797.1	4797.1	103 %			21:49:49
2	Y RADIAL	5129.9	5129.9	104.0 %			21:49:49
2	Al 396.153Radial†	-45.7	-17.8	-15.780 ug/L	-15.780 ppb		21:49:49
2	Ca 317.933Radial†	22.3	9.1	15.320 ug/L	15.320 ppb		21:50:09
2	Fe 238.204 Radial†	13.0	-1.2	-10.570 ug/L	-10.570 ppb		21:50:09
2	K 766.490 Radial†	3382.4	-45.6	-9.0728 ug/L	-9.0728 ppb		21:49:49
2	Mg 279.077 IEC†	-0.4	-2.0	-65.174 ug/L	-65.174 ppb		21:50:09
2	Na 589.592 Radial†	-1703.6	92.5	27.942 ug/L	27.942 ppb		21:49:49
2	Sr 421.552†	22.9	6.3	0.0456 ug/L	0.0456 ppb		21:49:49
2	Sc 361.383	898123.1	898123.1	101.30 %			21:51:11
2	Y 371.029	771793.2	771793.2	101.32 %			21:51:11
2	Ag 328.068†	570.9	51.3	0.2142 ug/L	0.2142 ppb		21:51:16
2	As 188.979†	-32.3	1.6	0.5465 ug/L	0.5465 ppb		21:51:36
2	B 249.677†	-682.0	-7.4	-0.1510 ug/L	-0.1510 ppb		21:51:16
2	Ba 233.527†	26.3	18.5	0.1341 ug/L	0.1341 ppb		21:51:36
2	Be 313.107†	-4223.8	181.9	0.0618 ug/L	0.0618 ppb		21:51:16
2	Cd 226.502†	-237.9	3.5	0.0340 ug/L	0.0340 ppb		21:51:36
2	Co 228.616†	-91.5	-6.3	-0.1180 ug/L	-0.1180 ppb		21:51:36
2	Cr 267.716†	72.7	-32.3	-0.3246 ug/L	-0.3246 ppb		21:51:16
2	Cu 324.752†	7934.6	-166.2	-0.4925 ug/L	-0.4925 ppb		21:51:16
2	Mn 257.610†	486.4	-36.2	-0.0380 ug/L	-0.0380 ppb		21:51:16
2	Mo 202.031†	25.2	5.0	0.3100 ug/L	0.3100 ppb		21:51:36
2	Ni 231.604†	114.3	-12.2	-0.2674 ug/L	-0.2674 ppb		21:51:36

2	P 214.914†	227.8	-23.7	-11.449 ug/L	-11.449 ppb	21:51:36
2	Pb 220.353†	-81.5	-2.7	-0.2818 ug/L	-0.2818 ppb	21:51:36
2	S 181.975 Axial†	53.4	-7.2	-8.1341 ug/L	-8.1341 ppb	21:51:36
2	Sb 206.836†	37.5	-0.1	0.0000 ug/L	0.0000 ppb	21:51:36
2	Se 196.026†	-33.6	0.1	0.0263 ug/L	0.0263 ppb	21:51:36
2	Si 251.611†	648.4	23.6	0.6717 ug/L	0.6717 ppb	21:51:36
2	Sn 189.927†	7.6	4.1	0.6029 ug/L	0.6029 ppb	21:51:36
2	Ti 334.940†	-1721.2	118.2	0.1875 ug/L	0.1875 ppb	21:51:16
2	Tl 190.801†	-43.0	10.9	2.9875 ug/L	2.9875 ppb	21:51:36
2	U 409.014†	-2628.2	74.2	2.2078 ug/L	2.2078 ppb	21:51:11
2	V 292.402†	-1847.1	-21.6	-0.1268 ug/L	-0.1268 ppb	21:51:16
2	Zn 213.857†	826.6	-15.7	-0.1240 ug/L	-0.1240 ppb	21:51:36
2	SiO2†	673.9	29.2	1.7854 ug/L	1.7854 ppb	21:52:17
3	Sc Radial	4827.6	4827.6	103 %		21:50:14
3	Y RADIAL	5118.2	5118.2	103.8 %		21:50:14
3	Al 396.153Radial†	-31.4	-3.6	-3.2357 ug/L	-3.2357 ppb	21:50:14
3	Ca 317.933Radial†	17.6	4.5	7.5075 ug/L	7.5075 ppb	21:50:34
3	Fe 238.204 Radial†	13.5	-0.8	-6.9491 ug/L	-6.9491 ppb	21:50:34
3	K 766.490 Radial†	3230.4	-213.4	-42.367 ug/L	-42.367 ppb	21:50:14
3	Mg 279.077 IEC†	0.2	-1.5	-46.364 ug/L	-46.364 ppb	21:50:34
3	Na 589.592 Radial†	-1697.3	109.1	32.956 ug/L	32.956 ppb	21:50:14
3	Sr 421.552†	-14.9	-30.4	-0.2224 ug/L	-0.2224 ppb	21:50:14
3	Sc 361.383	897251.7	897251.7	101.20 %		21:51:41
3	Y 371.029	770620.8	770620.8	101.16 %		21:51:41
3	Ag 328.068†	464.6	-53.2	-0.2303 ug/L	-0.2303 ppb	21:51:46
3	As 188.979†	-28.3	5.4	1.8963 ug/L	1.8963 ppb	21:52:06
3	B 249.677†	-717.2	-42.9	-0.8837 ug/L	-0.8837 ppb	21:51:46
3	Ba 233.527†	13.7	6.1	0.0447 ug/L	0.0447 ppb	21:52:06
3	Be 313.107†	-4294.8	107.6	0.0368 ug/L	0.0368 ppb	21:51:46
3	Cd 226.502†	-202.6	38.2	0.3606 ug/L	0.3606 ppb	21:52:06
3	Co 228.616†	-82.6	2.3	0.0455 ug/L	0.0455 ppb	21:52:06
3	Cr 267.716†	111.9	6.6	0.0661 ug/L	0.0661 ppb	21:51:46
3	Cu 324.752†	8055.1	-39.5	-0.1173 ug/L	-0.1173 ppb	21:51:46
3	Mn 257.610†	566.3	43.2	0.0457 ug/L	0.0457 ppb	21:51:46
3	Mo 202.031†	33.0	12.7	0.7932 ug/L	0.7932 ppb	21:52:06
3	Ni 231.604†	131.1	4.5	0.0986 ug/L	0.0986 ppb	21:52:06
3	P 214.914†	235.1	-16.3	-7.9252 ug/L	-7.9252 ppb	21:52:06
3	Pb 220.353†	-85.3	-6.5	-0.6736 ug/L	-0.6736 ppb	21:52:06
3	S 181.975 Axial†	55.9	-4.6	-5.2136 ug/L	-5.2136 ppb	21:52:06
3	Sb 206.836†	44.0	6.4	1.9215 ug/L	1.9215 ppb	21:52:06
3	Se 196.026†	-28.8	4.8	2.4186 ug/L	2.4186 ppb	21:52:06
3	Si 251.611†	679.6	55.0	1.5809 ug/L	1.5809 ppb	21:52:06
3	Sn 189.927†	-2.9	-6.2	-0.9234 ug/L	-0.9234 ppb	21:52:06
3	Ti 334.940†	-1716.4	121.3	0.1926 ug/L	0.1926 ppb	21:51:46
3	Tl 190.801†	-54.1	-0.0	-0.0086 ug/L	-0.0086 ppb	21:52:06
3	U 409.014†	-2683.2	17.3	0.5154 ug/L	0.5154 ppb	21:51:41
3	V 292.402†	-1774.5	48.4	0.3159 ug/L	0.3159 ppb	21:51:46
3	Zn 213.857†	841.8	0.1	0.0022 ug/L	0.0022 ppb	21:52:06
3	SiO2†	722.9	78.3	4.8127 ug/L	4.8127 ppb	21:52:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	900005.4	101.51 %		0.456			0.45%
Sc Radial	4812.0	103 %		0.3			0.32%
Y 371.029	772861.6	101.46 %		0.384			0.38%
Y RADIAL	5123.6	103.9 %		0.12			0.12%
Ag 328.068†	-15.7	-0.0700 ug/L		0.24678	-0.0700 ppb	0.24678	352.48%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-3.0	-2.6867 ug/L		13.37644	-2.6867 ppb	13.37644	497.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	0.8	0.2761 ug/L		1.77095	0.2761 ppb	1.77095	641.32%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	7.0	0.1466 ug/L		1.20686	0.1466 ppb	1.20686	823.50%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	2.0	0.0152 ug/L		0.13615	0.0152 ppb	0.13615	897.02%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	132.0	0.0450 ug/L		0.01462	0.0450 ppb	0.01462	32.51%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	6.9	11.493 ug/L		3.9086	11.493 ppb	3.9086	34.01%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	11.7	0.1118 ug/L	0.22053	0.1118 ppb	0.22053	197.34%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-2.9	-0.0539 ug/L	0.08730	-0.0539 ppb	0.08730	162.07%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-5.9	-0.0584 ug/L	0.23069	-0.0584 ppb	0.23069	394.94%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-126.0	-0.3736 ug/L	0.22222	-0.3736 ppb	0.22222	59.47%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.4	-11.876 ug/L	5.6924	-11.876 ppb	5.6924	47.93%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-87.6	-17.399 ug/L	22.0190	-17.399 ppb	22.0190	126.55%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-1.3	-42.512 ug/L	24.8135	-42.512 ppb	24.8135	58.37%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	10.8	0.0110 ug/L	0.04363	0.0110 ppb	0.04363	397.16%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	8.9	0.5580 ug/L	0.24188	0.5580 ppb	0.24188	43.35%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	101.2	30.565 ug/L	2.5149	30.565 ppb	2.5149	8.23%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-1.1	-0.0243 ug/L	0.21050	-0.0243 ppb	0.21050	866.68%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-19.0	-9.1744 ug/L	1.97324	-9.1744 ppb	1.97324	21.51%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-11.6	-1.1999 ug/L	1.26613	-1.1999 ppb	1.26613	105.52%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-2.4	-2.7225 ug/L	6.99788	-2.7225 ppb	6.99788	257.03%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	4.5	1.3578 ug/L	1.18154	1.3578 ppb	1.18154	87.02%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	2.6	1.2785 ug/L	1.20009	1.2785 ppb	1.20009	93.87%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	40.2	1.1502 ug/L	0.45646	1.1502 ppb	0.45646	39.69%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-0.6	-0.0880 ug/L	0.77333	-0.0880 ppb	0.77333	878.43%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-2.3	-0.0170 ug/L	0.18233	-0.0170 ppb	0.18233	>999.9%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	114.8	0.1824 ug/L	0.01354	0.1824 ppb	0.01354	7.42%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	4.4	1.1902 ug/L	1.58521	1.1902 ppb	1.58521	133.19%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	21.7	0.6469 ug/L	1.49936	0.6469 ppb	1.49936	231.76%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	87.0	0.5563 ug/L	0.82987	0.5563 ppb	0.82987	149.17%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-12.4	-0.0991 ug/L	0.09147	-0.0991 ppb	0.09147	92.27%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	41.4	2.5323 ug/L	2.01370	2.5323 ppb	2.01370	79.52%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 72
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 1
 Date Collected: 1/6/2010 22:56:06
 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	4690.9	4690.9	100 %		22:57:58
1	Y RADIAL	4958.2	4958.2	100.5 %		22:57:58
1	Al 396.153Radial†	5993.7	5990.6	5291.1 ug/L	5291.1 ppb	22:57:58
1	Ca 317.933Radial†	3120.1	3092.0	5181.2 ug/L	5181.2 ppb	22:58:18
1	Fe 238.204 Radial†	574.9	558.1	4920.2 ug/L	4920.2 ppb	22:58:18
1	K 766.490 Radial†	28502.6	25024.2	4958.6 ug/L	4958.6 ppb	22:57:58
1	Mg 279.077 IEC†	166.7	164.3	5258.5 ug/L	5258.5 ppb	22:58:18
1	Na 589.592 Radial†	31134.2	32729.5	9886.9 ug/L	9886.9 ppb	22:57:58
1	Sr 421.552†	71471.2	71099.9	520.52 ug/L	520.52 ppb	22:57:58
1	Sc 361.383	887139.7	887139.7	100.06 %		22:59:17
1	Y 371.029	754106.0	754106.0	98.996 %		22:59:17
1	Ag 328.068†	119967.3	119383.3	515.99 ug/L	515.99 ppb	22:59:17
1	As 188.979†	1437.3	1469.8	518.95 ug/L	518.95 ppb	22:59:37
1	B 249.677†	23852.0	24503.6	503.30 ug/L	503.30 ppb	22:59:17
1	Ba 233.527†	70803.4	70753.6	517.19 ug/L	517.19 ppb	22:59:17
1	Be 313.107†	1538482.3	1541914.4	522.18 ug/L	522.18 ppb	22:59:17
1	Cd 226.502†	54607.9	54813.7	516.09 ug/L	516.09 ppb	22:59:17
1	Co 228.616†	27051.5	27119.3	510.05 ug/L	510.05 ppb	22:59:37
1	Cr 267.716†	51403.9	51269.2	514.52 ug/L	514.52 ppb	22:59:17
1	Cu 324.752†	181780.4	173672.8	514.43 ug/L	514.43 ppb	22:59:17
1	Mn 257.610†	494883.6	494071.5	520.97 ug/L	520.97 ppb	22:59:17
1	Mo 202.031†	8271.5	8246.6	517.10 ug/L	517.10 ppb	22:59:37
1	Ni 231.604†	23399.3	23260.2	510.29 ug/L	510.29 ppb	22:59:37
1	P 214.914†	5520.8	5268.9	2491.1 ug/L	2491.1 ppb	22:59:37
1	Pb 220.353†	4902.4	4977.2	517.26 ug/L	517.26 ppb	22:59:37
1	S 181.975 Axial†	984.5	924.0	1043.2 ug/L	1043.2 ppb	22:59:37
1	Sb 206.836†	1756.3	1718.2	520.61 ug/L	520.61 ppb	22:59:37
1	Se 196.026†	971.3	1004.0	531.32 ug/L	531.32 ppb	22:59:37
1	Si 251.611†	90575.0	89904.4	2566.8 ug/L	2566.8 ppb	22:59:17
1	Sn 189.927†	3469.6	3464.1	512.99 ug/L	512.99 ppb	22:59:37
1	Ti 334.940†	327843.1	329464.5	522.60 ug/L	522.60 ppb	22:59:17
1	Tl 190.801†	1838.5	1890.8	519.95 ug/L	519.95 ppb	22:59:37
1	U 409.014†	13968.0	16628.4	492.73 ug/L	492.73 ppb	22:59:17
1	V 292.402†	80081.4	81835.4	520.67 ug/L	520.67 ppb	22:59:17
1	Zn 213.857†	63750.4	62880.6	512.71 ug/L	512.71 ppb	22:59:17
1	SiO2†	90968.4	90278.0	5515.3 ug/L	5515.3 ppb	23:00:37
2	Sc Radial	4708.0	4708.0	101 %		22:58:23
2	Y RADIAL	4972.4	4972.4	100.8 %		22:58:23
2	Al 396.153Radial†	5989.5	5964.8	5268.5 ug/L	5268.5 ppb	22:58:23
2	Ca 317.933Radial†	3148.6	3109.0	5209.7 ug/L	5209.7 ppb	22:58:43
2	Fe 238.204 Radial†	581.6	562.7	4960.4 ug/L	4960.4 ppb	22:58:43
2	K 766.490 Radial†	28702.1	25119.1	4977.4 ug/L	4977.4 ppb	22:58:23
2	Mg 279.077 IEC†	166.2	163.1	5221.3 ug/L	5221.3 ppb	22:58:43
2	Na 589.592 Radial†	31491.0	32971.0	9959.9 ug/L	9959.9 ppb	22:58:23
2	Sr 421.552†	72030.9	71397.1	522.70 ug/L	522.70 ppb	22:58:23
2	Sc 361.383	890370.4	890370.4	100.42 %		22:59:44
2	Y 371.029	757325.5	757325.5	99.418 %		22:59:44
2	Ag 328.068†	120683.9	119661.8	517.20 ug/L	517.20 ppb	22:59:44
2	As 188.979†	1418.8	1446.2	510.72 ug/L	510.72 ppb	23:00:04
2	B 249.677†	24277.2	24840.5	510.26 ug/L	510.26 ppb	22:59:44
2	Ba 233.527†	71015.7	70708.2	516.86 ug/L	516.86 ppb	22:59:44
2	Be 313.107†	1544439.5	1542267.4	522.30 ug/L	522.30 ppb	22:59:44
2	Cd 226.502†	54687.6	54694.9	514.96 ug/L	514.96 ppb	22:59:44
2	Co 228.616†	26785.4	26756.2	503.20 ug/L	503.20 ppb	23:00:04
2	Cr 267.716†	51629.2	51307.1	514.90 ug/L	514.90 ppb	22:59:44
2	Cu 324.752†	183114.2	174341.7	516.41 ug/L	516.41 ppb	22:59:44
2	Mn 257.610†	496458.3	493844.9	520.74 ug/L	520.74 ppb	22:59:44
2	Mo 202.031†	8188.3	8133.8	510.03 ug/L	510.03 ppb	23:00:04
2	Ni 231.604†	23163.3	22940.4	503.28 ug/L	503.28 ppb	23:00:04

2	P 214.914†	5474.7	5203.0	2458.5 ug/L	2458.5 ppb	23:00:04
2	Pb 220.353†	4853.6	4910.9	510.37 ug/L	510.37 ppb	23:00:04
2	S 181.975 Axial†	954.9	890.9	1005.9 ug/L	1005.9 ppb	23:00:04
2	Sb 206.836†	1734.7	1690.3	511.98 ug/L	511.98 ppb	23:00:04
2	Se 196.026†	967.1	996.2	527.47 ug/L	527.47 ppb	23:00:04
2	Si 251.611†	91092.6	90091.3	2572.3 ug/L	2572.3 ppb	22:59:44
2	Sn 189.927†	3433.9	3416.0	505.88 ug/L	505.88 ppb	23:00:04
2	Ti 334.940†	329605.9	330031.1	523.50 ug/L	523.50 ppb	22:59:44
2	Tl 190.801†	1823.5	1869.2	514.09 ug/L	514.09 ppb	23:00:04
2	U 409.014†	13981.9	16591.6	491.63 ug/L	491.63 ppb	22:59:44
2	V 292.402†	80384.6	81846.9	520.63 ug/L	520.63 ppb	22:59:44
2	Zn 213.857†	63944.9	62843.2	512.44 ug/L	512.44 ppb	22:59:44
2	SiO2†	90320.5	89303.0	5455.8 ug/L	5455.8 ppb	23:00:42
3	Sc Radial	4692.4	4692.4	101 %		22:58:48
3	Y RADIAL	5004.4	5004.4	101.4 %		22:58:48
3	Al 396.153Radial†	6162.0	6156.1	5438.2 ug/L	5438.2 ppb	22:58:48
3	Ca 317.933Radial†	3137.7	3108.5	5208.9 ug/L	5208.9 ppb	22:59:08
3	Fe 238.204 Radial†	580.3	563.4	4966.0 ug/L	4966.0 ppb	22:59:08
3	K 766.490 Radial†	29320.8	25828.8	5118.3 ug/L	5118.3 ppb	22:58:48
3	Mg 279.077 IEC†	161.3	158.8	5083.3 ug/L	5083.3 ppb	22:59:08
3	Na 589.592 Radial†	32148.4	33728.3	10189 ug/L	10189 ppb	22:58:48
3	Sr 421.552†	73597.6	73191.9	535.84 ug/L	535.84 ppb	22:58:48
3	Sc 361.383	895699.4	895699.4	101.03 %		23:00:12
3	Y 371.029	762086.2	762086.2	100.04 %		23:00:12
3	Ag 328.068†	119369.2	117645.5	508.51 ug/L	508.51 ppb	23:00:12
3	As 188.979†	1416.2	1435.3	506.79 ug/L	506.79 ppb	23:00:32
3	B 249.677†	23867.9	24291.5	498.95 ug/L	498.95 ppb	23:00:12
3	Ba 233.527†	70105.6	69386.7	507.21 ug/L	507.21 ppb	23:00:12
3	Be 313.107†	1523981.9	1512867.5	512.35 ug/L	512.35 ppb	23:00:12
3	Cd 226.502†	54024.6	53714.7	505.73 ug/L	505.73 ppb	23:00:12
3	Co 228.616†	26750.7	26563.2	499.59 ug/L	499.59 ppb	23:00:32
3	Cr 267.716†	51036.9	50414.9	505.95 ug/L	505.95 ppb	23:00:12
3	Cu 324.752†	180366.0	170536.5	505.15 ug/L	505.15 ppb	23:00:12
3	Mn 257.610†	490105.4	484615.2	511.01 ug/L	511.01 ppb	23:00:12
3	Mo 202.031†	8196.5	8093.4	507.50 ug/L	507.50 ppb	23:00:32
3	Ni 231.604†	23166.4	22806.3	500.34 ug/L	500.34 ppb	23:00:32
3	P 214.914†	5471.3	5167.2	2442.9 ug/L	2442.9 ppb	23:00:32
3	Pb 220.353†	4855.8	4884.3	507.65 ug/L	507.65 ppb	23:00:32
3	S 181.975 Axial†	958.2	888.6	1003.2 ug/L	1003.2 ppb	23:00:32
3	Sb 206.836†	1742.6	1687.8	511.37 ug/L	511.37 ppb	23:00:32
3	Se 196.026†	974.5	997.9	528.33 ug/L	528.33 ppb	23:00:32
3	Si 251.611†	89754.5	88227.0	2518.8 ug/L	2518.8 ppb	23:00:12
3	Sn 189.927†	3438.2	3399.9	503.49 ug/L	503.49 ppb	23:00:32
3	Ti 334.940†	325043.4	323562.1	513.24 ug/L	513.24 ppb	23:00:12
3	Tl 190.801†	1825.9	1860.8	511.70 ug/L	511.70 ppb	23:00:32
3	U 409.014†	13766.7	16295.8	482.85 ug/L	482.85 ppb	23:00:12
3	V 292.402†	79391.9	80388.0	511.43 ug/L	511.43 ppb	23:00:12
3	Zn 213.857†	63222.7	61749.4	503.49 ug/L	503.49 ppb	23:00:12
3	SiO2†	89795.3	88248.0	5391.0 ug/L	5391.0 ppb	23:00:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	891069.8	100.50 %	0.488			0.49%
Sc Radial	4697.1	101 %	0.2			0.20%
Y 371.029	757839.2	99.486 %	0.5271			0.53%
Y RADIAL	4978.3	100.9 %	0.48			0.48%
Ag 328.068†	118896.8	513.90 ug/L	4.706	513.90 ppb	4.706	0.92%
QC value within limits for Ag 328.068 Recovery = 102.78%						
Al 396.153Radial†	6037.2	5332.6 ug/L	92.17	5332.6 ppb	92.17	1.73%
QC value within limits for Al 396.153Radial Recovery = 106.65%						
As 188.979†	1450.4	512.16 ug/L	6.206	512.16 ppb	6.206	1.21%
QC value within limits for As 188.979 Recovery = 102.43%						
B 249.677†	24545.2	504.17 ug/L	5.705	504.17 ppb	5.705	1.13%
QC value within limits for B 249.677 Recovery = 100.83%						
Ba 233.527†	70282.8	513.75 ug/L	5.673	513.75 ppb	5.673	1.10%
QC value within limits for Ba 233.527 Recovery = 102.75%						
Be 313.107†	1532349.8	518.95 ug/L	5.714	518.95 ppb	5.714	1.10%
QC value within limits for Be 313.107 Recovery = 103.79%						
Ca 317.933Radial†	3103.2	5199.9 ug/L	16.21	5199.9 ppb	16.21	0.31%

QC value within limits for Ca 317.933 Radial Recovery = 104.00%

Cd 226.502†	54407.8	512.26 ug/L	5.685	512.26 ppb	5.685	1.11%
QC value within limits for Cd 226.502 Recovery = 102.45%						
Co 228.616†	26812.9	504.28 ug/L	5.314	504.28 ppb	5.314	1.05%
QC value within limits for Co 228.616 Recovery = 100.86%						
Cr 267.716†	50997.1	511.79 ug/L	5.062	511.79 ppb	5.062	0.99%
QC value within limits for Cr 267.716 Recovery = 102.36%						
Cu 324.752†	172850.3	512.00 ug/L	6.014	512.00 ppb	6.014	1.17%
QC value within limits for Cu 324.752 Recovery = 102.40%						
Fe 238.204 Radial†	561.4	4948.8 ug/L	24.98	4948.8 ppb	24.98	0.50%
QC value within limits for Fe 238.204 Radial Recovery = 98.98%						
K 766.490 Radial†	25324.0	5018.1 ug/L	87.28	5018.1 ppb	87.28	1.74%
QC value within limits for K 766.490 Radial Recovery = 100.36%						
Mg 279.077 IEC†	162.1	5187.7 ug/L	92.32	5187.7 ppb	92.32	1.78%
QC value within limits for Mg 279.077 IEC Recovery = 103.75%						
Mn 257.610†	490843.8	517.57 ug/L	5.682	517.57 ppb	5.682	1.10%
QC value within limits for Mn 257.610 Recovery = 103.51%						
Mo 202.031†	8157.9	511.54 ug/L	4.975	511.54 ppb	4.975	0.97%
QC value within limits for Mo 202.031 Recovery = 102.31%						
Na 589.592 Radial†	33142.9	10012 ug/L	157.4	10012 ppb	157.4	1.57%
QC value within limits for Na 589.592 Radial Recovery = 100.12%						
Ni 231.604†	23002.3	504.64 ug/L	5.116	504.64 ppb	5.116	1.01%
QC value within limits for Ni 231.604 Recovery = 100.93%						
P 214.914†	5213.0	2464.2 ug/L	24.60	2464.2 ppb	24.60	1.00%
QC value within limits for P 214.914 Recovery = 98.57%						
Pb 220.353†	4924.1	511.76 ug/L	4.955	511.76 ppb	4.955	0.97%
QC value within limits for Pb 220.353 Recovery = 102.35%						
S 181.975 Axial†	901.2	1017.4 ug/L	22.36	1017.4 ppb	22.36	2.20%
QC value within limits for S 181.975 Axial Recovery = 101.74%						
Sb 206.836†	1698.8	514.66 ug/L	5.166	514.66 ppb	5.166	1.00%
QC value within limits for Sb 206.836 Recovery = 102.93%						
Se 196.026†	999.4	529.04 ug/L	2.020	529.04 ppb	2.020	0.38%
QC value within limits for Se 196.026 Recovery = 105.81%						
Si 251.611†	89407.6	2552.7 ug/L	29.41	2552.7 ppb	29.41	1.15%
QC value within limits for Si 251.611 Recovery = 102.11%						
Sn 189.927†	3426.7	507.45 ug/L	4.939	507.45 ppb	4.939	0.97%
QC value within limits for Sn 189.927 Recovery = 101.49%						
Sr 421.552†	71896.3	526.35 ug/L	8.287	526.35 ppb	8.287	1.57%
QC value within limits for Sr 421.552 Recovery = 105.27%						
Ti 334.940†	327685.9	519.78 ug/L	5.680	519.78 ppb	5.680	1.09%
QC value within limits for Ti 334.940 Recovery = 103.96%						
Tl 190.801†	1873.6	515.25 ug/L	4.246	515.25 ppb	4.246	0.82%
QC value within limits for Tl 190.801 Recovery = 103.05%						
U 409.014†	16505.2	489.07 ug/L	5.414	489.07 ppb	5.414	1.11%
QC value within limits for U 409.014 Recovery = 97.81%						
V 292.402†	81356.8	517.58 ug/L	5.323	517.58 ppb	5.323	1.03%
QC value within limits for V 292.402 Recovery = 103.52%						
Zn 213.857†	62491.1	509.55 ug/L	5.249	509.55 ppb	5.249	1.03%
QC value within limits for Zn 213.857 Recovery = 101.91%						
SiO2†	89276.3	5454.0 ug/L	62.18	5454.0 ppb	62.18	1.14%
QC value within limits for SiO2 Recovery = 101.99%						

All analyte(s) passed QC.

Sequence No.: 73

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/6/2010 23:02:57

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	4465.2	4465.2	95.7 %		23:04:50
1	Y RADIAL	4791.4	4791.4	97.13 %		23:04:50
1	Al 396.153Radial†	12.5	39.8	35.256 ug/L	35.256 ppb	23:04:50
1	Ca 317.933Radial†	10.5	-1.6	-2.6551 ug/L	-2.6551 ppb	23:05:10
1	Fe 238.204 Radial†	12.4	-0.9	-7.5857 ug/L	-7.5857 ppb	23:05:10
1	K 766.490 Radial†	3391.7	208.6	41.418 ug/L	41.418 ppb	23:04:50
1	Mg 279.077 IEC†	0.8	-0.9	-27.292 ug/L	-27.292 ppb	23:05:10
1	Na 589.592 Radial†	-1647.1	28.4	8.5705 ug/L	8.5705 ppb	23:04:50
1	Sr 421.552†	-2.8	-18.9	-0.1385 ug/L	-0.1385 ppb	23:04:50
1	Sc 361.383	889700.7	889700.7	100.35 %		23:06:06
1	Y 371.029	763581.0	763581.0	100.24 %		23:06:06
1	Ag 328.068†	539.2	25.0	0.1063 ug/L	0.1063 ppb	23:06:12
1	As 188.979†	-25.7	7.8	2.7226 ug/L	2.7226 ppb	23:06:32
1	B 249.677†	-575.7	92.1	1.9009 ug/L	1.9009 ppb	23:06:12
1	Ba 233.527†	6.1	-1.4	-0.0097 ug/L	-0.0097 ppb	23:06:32
1	Be 313.107†	-4317.5	49.0	0.0166 ug/L	0.0166 ppb	23:06:12
1	Cd 226.502†	-252.3	-13.1	-0.1227 ug/L	-0.1227 ppb	23:06:32
1	Co 228.616†	-86.6	-2.3	-0.0421 ug/L	-0.0421 ppb	23:06:32
1	Cr 267.716†	106.2	1.8	0.0184 ug/L	0.0184 ppb	23:06:12
1	Cu 324.752†	8199.2	171.7	0.5080 ug/L	0.5080 ppb	23:06:12
1	Mn 257.610†	520.2	2.0	0.0018 ug/L	0.0018 ppb	23:06:12
1	Mo 202.031†	29.1	9.1	0.5708 ug/L	0.5708 ppb	23:06:32
1	Ni 231.604†	117.6	-7.9	-0.1732 ug/L	-0.1732 ppb	23:06:32
1	P 214.914†	247.2	-2.3	-1.1599 ug/L	-1.1599 ppb	23:06:32
1	Pb 220.353†	-75.3	2.7	0.2938 ug/L	0.2938 ppb	23:06:32
1	S 181.975 Axial†	56.8	-3.3	-3.7773 ug/L	-3.7773 ppb	23:06:32
1	Sb 206.836†	43.9	6.7	2.0181 ug/L	2.0181 ppb	23:06:32
1	Se 196.026†	-39.0	-5.6	-2.8935 ug/L	-2.8935 ppb	23:06:32
1	Si 251.611†	636.8	18.1	0.4918 ug/L	0.4918 ppb	23:06:32
1	Sn 189.927†	9.0	5.6	0.8221 ug/L	0.8221 ppb	23:06:32
1	Ti 334.940†	-1818.0	5.7	0.0088 ug/L	0.0088 ppb	23:06:12
1	Tl 190.801†	-43.4	10.1	2.7660 ug/L	2.7660 ppb	23:06:32
1	U 409.014†	-2673.7	4.3	0.1296 ug/L	0.1296 ppb	23:06:06
1	V 292.402†	-1743.2	64.6	0.4147 ug/L	0.4147 ppb	23:06:12
1	Zn 213.857†	823.2	-11.3	-0.0912 ug/L	-0.0912 ppb	23:06:32
1	SiO2†	681.9	43.5	2.6095 ug/L	2.6095 ppb	23:07:38
2	Sc Radial	5147.4	5147.4	110 %		23:05:15
2	Y RADIAL	5469.3	5469.3	110.9 %		23:05:15
2	Al 396.153Radial†	-6.7	20.7	18.318 ug/L	18.318 ppb	23:05:15
2	Ca 317.933Radial†	16.5	2.4	4.0122 ug/L	4.0122 ppb	23:05:35
2	Fe 238.204 Radial†	15.2	-0.1	-1.1586 ug/L	-1.1586 ppb	23:05:35
2	K 766.490 Radial†	3304.8	-340.0	-67.519 ug/L	-67.519 ppb	23:05:15
2	Mg 279.077 IEC†	3.7	1.7	54.062 ug/L	54.062 ppb	23:05:35
2	Na 589.592 Radial†	-1672.8	233.2	70.449 ug/L	70.449 ppb	23:05:15
2	Sr 421.552†	17.3	-0.3	-0.0024 ug/L	-0.0024 ppb	23:05:15
2	Sc 361.383	873212.7	873212.7	98.489 %		23:06:37
2	Y 371.029	750304.8	750304.8	98.497 %		23:06:37
2	Ag 328.068†	494.6	-10.2	-0.0418 ug/L	-0.0418 ppb	23:06:42
2	As 188.979†	-29.8	3.2	1.1085 ug/L	1.1085 ppb	23:07:02
2	B 249.677†	-624.4	31.9	0.6588 ug/L	0.6588 ppb	23:06:42
2	Ba 233.527†	13.3	6.0	0.0442 ug/L	0.0442 ppb	23:07:02
2	Be 313.107†	-4363.3	-78.8	-0.0269 ug/L	-0.0269 ppb	23:06:42
2	Cd 226.502†	-242.5	-7.8	-0.0731 ug/L	-0.0731 ppb	23:07:02
2	Co 228.616†	-109.1	-26.8	-0.5031 ug/L	-0.5031 ppb	23:07:02
2	Cr 267.716†	144.4	42.6	0.4277 ug/L	0.4277 ppb	23:06:42
2	Cu 324.752†	8002.9	126.7	0.3750 ug/L	0.3750 ppb	23:06:42
2	Mn 257.610†	479.6	-29.5	-0.0322 ug/L	-0.0322 ppb	23:06:42
2	Mo 202.031†	27.6	8.1	0.5083 ug/L	0.5083 ppb	23:07:02
2	Ni 231.604†	146.8	24.0	0.5267 ug/L	0.5267 ppb	23:07:02

2	P 214.914†	239.4	-5.5	-2.7470 ug/L	-2.7470 ppb	23:07:02
2	Pb 220.353†	-81.5	-5.0	-0.5133 ug/L	-0.5133 ppb	23:07:02
2	S 181.975 Axial†	62.5	3.6	4.0666 ug/L	4.0666 ppb	23:07:02
2	Sb 206.836†	42.6	6.2	1.8557 ug/L	1.8557 ppb	23:07:02
2	Se 196.026†	-38.4	-5.8	-2.9539 ug/L	-2.9539 ppb	23:07:02
2	Si 251.611†	649.7	43.1	1.2500 ug/L	1.2500 ppb	23:07:02
2	Sn 189.927†	4.9	1.6	0.2356 ug/L	0.2356 ppb	23:07:02
2	Ti 334.940†	-1866.6	-77.9	-0.1228 ug/L	-0.1228 ppb	23:06:42
2	Tl 190.801†	-34.7	18.1	4.9545 ug/L	4.9545 ppb	23:07:02
2	U 409.014†	-2683.2	-55.7	-1.6551 ug/L	-1.6551 ppb	23:06:37
2	V 292.402†	-1740.0	35.1	0.2257 ug/L	0.2257 ppb	23:06:42
2	Zn 213.857†	829.1	10.1	0.0777 ug/L	0.0777 ppb	23:07:02
2	SiO2†	687.4	61.9	3.8315 ug/L	3.8315 ppb	23:07:43
3	Sc Radial	4693.3	4693.3	101 %		23:05:40
3	Y RADIAL	5004.9	5004.9	101.5 %		23:05:40
3	Al 396.153Radial†	0.7	27.5	24.306 ug/L	24.306 ppb	23:05:40
3	Ca 317.933Radial†	13.0	0.4	0.6301 ug/L	0.6301 ppb	23:06:00
3	Fe 238.204 Radial†	10.8	-3.1	-27.493 ug/L	-27.493 ppb	23:06:00
3	K 766.490 Radial†	3347.8	-7.2	-1.4407 ug/L	-1.4407 ppb	23:05:40
3	Mg 279.077 IEC†	2.5	0.8	26.663 ug/L	26.663 ppb	23:06:00
3	Na 589.592 Radial†	-1685.7	73.7	22.260 ug/L	22.260 ppb	23:05:40
3	Sr 421.552†	13.1	-2.9	-0.0215 ug/L	-0.0215 ppb	23:05:40
3	Sc 361.383	890247.6	890247.6	100.41 %		23:07:07
3	Y 371.029	764334.1	764334.1	100.34 %		23:07:07
3	Ag 328.068†	546.5	32.0	0.1269 ug/L	0.1269 ppb	23:07:12
3	As 188.979†	-34.2	-0.6	-0.2215 ug/L	-0.2215 ppb	23:07:32
3	B 249.677†	-630.0	38.4	0.7965 ug/L	0.7965 ppb	23:07:12
3	Ba 233.527†	10.9	3.4	0.0249 ug/L	0.0249 ppb	23:07:32
3	Be 313.107†	-4280.6	88.4	0.0302 ug/L	0.0302 ppb	23:07:12
3	Cd 226.502†	-235.2	4.1	0.0417 ug/L	0.0417 ppb	23:07:32
3	Co 228.616†	-111.8	-27.4	-0.5123 ug/L	-0.5123 ppb	23:07:32
3	Cr 267.716†	120.9	16.4	0.1631 ug/L	0.1631 ppb	23:07:12
3	Cu 324.752†	7933.2	-98.2	-0.2923 ug/L	-0.2923 ppb	23:07:12
3	Mn 257.610†	616.1	97.1	0.0991 ug/L	0.0991 ppb	23:07:12
3	Mo 202.031†	35.8	15.8	0.9844 ug/L	0.9844 ppb	23:07:32
3	Ni 231.604†	125.7	0.2	0.0041 ug/L	0.0041 ppb	23:07:32
3	P 214.914†	253.8	4.2	2.1469 ug/L	2.1469 ppb	23:07:32
3	Pb 220.353†	-108.9	-30.7	-3.1737 ug/L	-3.1737 ppb	23:07:32
3	S 181.975 Axial†	54.4	-5.7	-6.4663 ug/L	-6.4663 ppb	23:07:32
3	Sb 206.836†	42.8	5.5	1.6720 ug/L	1.6720 ppb	23:07:32
3	Se 196.026†	-39.1	-5.7	-2.9704 ug/L	-2.9704 ppb	23:07:32
3	Si 251.611†	629.0	9.8	0.2654 ug/L	0.2654 ppb	23:07:32
3	Sn 189.927†	3.7	0.3	0.0477 ug/L	0.0477 ppb	23:07:32
3	Ti 334.940†	-1737.1	87.3	0.1369 ug/L	0.1369 ppb	23:07:12
3	Tl 190.801†	-50.1	3.5	0.9471 ug/L	0.9471 ppb	23:07:32
3	U 409.014†	-2550.7	128.5	3.8219 ug/L	3.8219 ppb	23:07:07
3	V 292.402†	-1728.6	80.3	0.5301 ug/L	0.5301 ppb	23:07:12
3	Zn 213.857†	812.2	-22.8	-0.1864 ug/L	-0.1864 ppb	23:07:32
3	SiO2†	695.8	56.9	3.4588 ug/L	3.4588 ppb	23:07:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	884387.0	99.749 %	1.0919			1.09%
Sc Radial	4768.6	102 %	7.4			7.28%
Y 371.029	759406.6	99.692 %	1.0359			1.04%
Y RADIAL	5088.5	103.2 %	7.03			6.81%
Ag 328.068†	15.6	0.0638 ug/L	0.09200	0.0638 ppb	0.09200	144.27%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	29.3	25.960 ug/L	8.5894	25.960 ppb	8.5894	33.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.4	1.2032 ug/L	1.47436	1.2032 ppb	1.47436	122.54%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	54.1	1.1187 ug/L	0.68088	1.1187 ppb	0.68088	60.86%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	2.6	0.0198 ug/L	0.02728	0.0198 ppb	0.02728	137.83%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	19.6	0.0066 ug/L	0.02979	0.0066 ppb	0.02979	449.42%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	0.4	0.6624 ug/L	3.33379	0.6624 ppb	3.33379	503.29%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	-5.6	-0.0513 ug/L	0.08433	-0.0513 ppb	0.08433	164.25%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-18.9	-0.3525 ug/L	0.26884	-0.3525 ppb	0.26884	76.27%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	20.2	0.2031 ug/L	0.20755	0.2031 ppb	0.20755	102.21%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	66.7	0.1969 ug/L	0.42880	0.1969 ppb	0.42880	217.79%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.4	-12.079 ug/L	13.7303	-12.079 ppb	13.7303	113.67%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-46.2	-9.1805 ug/L	54.87909	-9.1805 ppb	54.87909	597.78%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	0.6	17.811 ug/L	41.3935	17.811 ppb	41.3935	232.40%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	23.2	0.0229 ug/L	0.06815	0.0229 ppb	0.06815	297.54%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	11.0	0.6878 ug/L	0.25872	0.6878 ppb	0.25872	37.61%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	111.8	33.760 ug/L	32.5024	33.760 ppb	32.5024	96.28%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	5.4	0.1192 ug/L	0.36387	0.1192 ppb	0.36387	305.22%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-1.2	-0.5867 ug/L	2.49678	-0.5867 ppb	2.49678	425.59%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-11.0	-1.1311 ug/L	1.81439	-1.1311 ppb	1.81439	160.42%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.8	-2.0590 ug/L	5.47265	-2.0590 ppb	5.47265	265.79%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	6.1	1.8486 ug/L	0.17320	1.8486 ppb	0.17320	9.37%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-5.7	-2.9393 ug/L	0.04047	-2.9393 ppb	0.04047	1.38%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	23.7	0.6691 ug/L	0.51568	0.6691 ppb	0.51568	77.08%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.5	0.3685 ug/L	0.40390	0.3685 ppb	0.40390	109.61%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-7.4	-0.0541 ug/L	0.07365	-0.0541 ppb	0.07365	136.04%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	5.0	0.0076 ug/L	0.12983	0.0076 ppb	0.12983	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	10.6	2.8892 ug/L	2.00651	2.8892 ppb	2.00651	69.45%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	25.7	0.7654 ug/L	2.79331	0.7654 ppb	2.79331	364.93%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	60.0	0.3902 ug/L	0.15365	0.3902 ppb	0.15365	39.38%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-8.0	-0.0666 ug/L	0.13374	-0.0666 ppb	0.13374	200.70%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	54.1	3.2999 ug/L	0.62630	3.2999 ppb	0.62630	18.98%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 81

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/6/2010 23:57:46

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	4298.0	4298.0	92.1 %		23:59:38
1	Y RADIAL	4579.5	4579.5	92.84 %		23:59:38
1	Al 396.153Radial†	6075.2	6624.4	5852.4 ug/L	5852.4 ppb	23:59:38
1	Ca 317.933Radial†	3149.7	3408.0	5710.6 ug/L	5710.6 ppb	23:59:58
1	Fe 238.204 Radial†	581.1	617.2	5439.9 ug/L	5439.9 ppb	23:59:58
1	K 766.490 Radial†	28755.1	27891.2	5527.3 ug/L	5527.3 ppb	23:59:38
1	Mg 279.077 IEC†	168.2	181.0	5792.6 ug/L	5792.6 ppb	23:59:58
1	Na 589.592 Radial†	31082.6	35505.7	10726 ug/L	10726 ppb	23:59:38
1	Sr 421.552†	72192.3	78384.6	573.85 ug/L	573.85 ppb	23:59:38
1	Sc 361.383	858602.2	858602.2	96.841 %		00:00:57
1	Y 371.029	730532.1	730532.1	95.901 %		00:00:57
1	Ag 328.068†	119664.9	123056.0	531.98 ug/L	531.98 ppb	00:00:57
1	As 188.979†	1438.7	1519.0	536.36 ug/L	536.36 ppb	00:01:17
1	B 249.677†	24335.4	25795.0	529.81 ug/L	529.81 ppb	00:00:57
1	Ba 233.527†	70469.9	72761.1	531.88 ug/L	531.88 ppb	00:00:57
1	Be 313.107†	1533270.6	1587636.9	537.67 ug/L	537.67 ppb	00:00:57
1	Cd 226.502†	54426.9	56440.7	531.37 ug/L	531.37 ppb	00:00:57
1	Co 228.616†	27172.1	28142.4	529.29 ug/L	529.29 ppb	00:01:17
1	Cr 267.716†	51455.3	53029.7	532.19 ug/L	532.19 ppb	00:00:57
1	Cu 324.752†	181346.3	179262.7	531.01 ug/L	531.01 ppb	00:00:57
1	Mn 257.610†	493267.3	508841.1	536.57 ug/L	536.57 ppb	00:00:57
1	Mo 202.031†	8298.2	8548.9	536.09 ug/L	536.09 ppb	00:01:17
1	Ni 231.604†	23513.8	24155.8	529.94 ug/L	529.94 ppb	00:01:17
1	P 214.914†	5563.9	5496.9	2599.6 ug/L	2599.6 ppb	00:01:17
1	Pb 220.353†	4920.5	5158.7	536.19 ug/L	536.19 ppb	00:01:17
1	S 181.975 Axial†	994.6	967.2	1091.9 ug/L	1091.9 ppb	00:01:17
1	Sb 206.836†	1776.6	1797.4	544.60 ug/L	544.60 ppb	00:01:17
1	Se 196.026†	981.0	1046.3	554.71 ug/L	554.71 ppb	00:01:17
1	Si 251.611†	90091.6	92413.8	2638.2 ug/L	2638.2 ppb	00:00:57
1	Sn 189.927†	3489.8	3600.3	533.19 ug/L	533.19 ppb	00:01:17
1	Ti 334.940†	327132.7	339621.0	538.73 ug/L	538.73 ppb	00:00:57
1	Tl 190.801†	1831.1	1944.2	534.64 ug/L	534.64 ppb	00:01:17
1	U 409.014†	13920.7	17043.5	504.97 ug/L	504.97 ppb	00:00:57
1	V 292.402†	79797.3	84202.1	535.73 ug/L	535.73 ppb	00:00:57
1	Zn 213.857†	63550.3	64791.7	528.23 ug/L	528.23 ppb	00:00:57
1	SiO2†	91922.0	94284.4	5760.0 ug/L	5760.0 ppb	00:02:18
2	Sc Radial	4509.0	4509.0	96.6 %		00:00:03
2	Y RADIAL	4798.9	4798.9	97.28 %		00:00:03
2	Al 396.153Radial†	6123.0	6365.0	5622.1 ug/L	5622.1 ppb	00:00:03
2	Ca 317.933Radial†	3155.0	3253.4	5451.6 ug/L	5451.6 ppb	00:00:23
2	Fe 238.204 Radial†	583.4	590.0	5201.1 ug/L	5201.1 ppb	00:00:23
2	K 766.490 Radial†	28927.8	26608.4	5272.8 ug/L	5272.8 ppb	00:00:03
2	Mg 279.077 IEC†	166.4	170.6	5461.9 ug/L	5461.9 ppb	00:00:23
2	Na 589.592 Radial†	31287.4	34137.8	10312 ug/L	10312 ppb	00:00:03
2	Sr 421.552†	72609.4	75146.9	550.15 ug/L	550.15 ppb	00:00:03
2	Sc 361.383	853295.6	853295.6	96.243 %		00:01:25
2	Y 371.029	725832.8	725832.8	95.284 %		00:01:25
2	Ag 328.068†	119180.3	123320.9	533.04 ug/L	533.04 ppb	00:01:25
2	As 188.979†	1445.7	1535.5	542.10 ug/L	542.10 ppb	00:01:45
2	B 249.677†	24221.4	25832.9	530.61 ug/L	530.61 ppb	00:01:25
2	Ba 233.527†	70183.0	72915.5	533.00 ug/L	533.00 ppb	00:01:25
2	Be 313.107†	1525409.3	1589314.9	538.24 ug/L	538.24 ppb	00:01:25
2	Cd 226.502†	53970.2	56315.6	530.22 ug/L	530.22 ppb	00:01:25
2	Co 228.616†	27280.4	28429.4	534.70 ug/L	534.70 ppb	00:01:45
2	Cr 267.716†	51115.5	53007.1	531.96 ug/L	531.96 ppb	00:01:25
2	Cu 324.752†	180587.4	179638.8	532.11 ug/L	532.11 ppb	00:01:25
2	Mn 257.610†	491103.2	509760.1	537.52 ug/L	537.52 ppb	00:01:25
2	Mo 202.031†	8324.6	8629.6	541.12 ug/L	541.12 ppb	00:01:45
2	Ni 231.604†	23578.1	24373.5	534.72 ug/L	534.72 ppb	00:01:45

2	P 214.914†	5547.2	5515.2	2608.6 ug/L	2608.6 ppb	00:01:45
2	Pb 220.353†	4957.7	5229.1	543.45 ug/L	543.45 ppb	00:01:45
2	S 181.975 Axial†	984.9	963.5	1087.8 ug/L	1087.8 ppb	00:01:45
2	Sb 206.836†	1756.0	1787.5	541.82 ug/L	541.82 ppb	00:01:45
2	Se 196.026†	986.6	1058.4	560.15 ug/L	560.15 ppb	00:01:45
2	Si 251.611†	89701.6	92587.1	2643.2 ug/L	2643.2 ppb	00:01:25
2	Sn 189.927†	3495.0	3628.1	537.28 ug/L	537.28 ppb	00:01:45
2	Ti 334.940†	325670.1	340202.1	539.63 ug/L	539.63 ppb	00:01:25
2	Tl 190.801†	1844.7	1970.1	541.69 ug/L	541.69 ppb	00:01:45
2	U 409.014†	13917.5	17129.6	507.56 ug/L	507.56 ppb	00:01:25
2	V 292.402†	79560.4	84468.3	537.51 ug/L	537.51 ppb	00:01:25
2	Zn 213.857†	63244.4	64881.9	528.97 ug/L	528.97 ppb	00:01:25
2	SiO2†	90703.7	93608.9	5718.5 ug/L	5718.5 ppb	00:02:23
3	Sc Radial	4568.9	4568.9	97.9 %		00:00:28
3	Y RADIAL	4818.8	4818.8	97.69 %		00:00:28
3	Al 396.153Radial†	6167.6	6327.5	5589.1 ug/L	5589.1 ppb	00:00:28
3	Ca 317.933Radial†	3146.1	3201.5	5364.7 ug/L	5364.7 ppb	00:00:48
3	Fe 238.204 Radial†	575.2	573.7	5057.7 ug/L	5057.7 ppb	00:00:48
3	K 766.490 Radial†	29120.5	26412.8	5234.0 ug/L	5234.0 ppb	00:00:28
3	Mg 279.077 IEC†	162.3	164.1	5254.1 ug/L	5254.1 ppb	00:00:48
3	Na 589.592 Radial†	31464.9	33894.7	10239 ug/L	10239 ppb	00:00:28
3	Sr 421.552†	73038.4	74600.0	546.15 ug/L	546.15 ppb	00:00:28
3	Sc 361.383	861389.2	861389.2	97.155 %		00:01:52
3	Y 371.029	732145.7	732145.7	96.113 %		00:01:52
3	Ag 328.068†	120288.1	123297.6	532.90 ug/L	532.90 ppb	00:01:52
3	As 188.979†	1438.6	1514.1	534.60 ug/L	534.60 ppb	00:02:12
3	B 249.677†	24596.1	25982.1	533.73 ug/L	533.73 ppb	00:01:52
3	Ba 233.527†	71096.0	73170.1	534.85 ug/L	534.85 ppb	00:01:52
3	Be 313.107†	1542324.8	1591833.5	539.09 ug/L	539.09 ppb	00:01:52
3	Cd 226.502†	54567.8	56403.9	531.06 ug/L	531.06 ppb	00:01:52
3	Co 228.616†	27116.9	27994.8	526.52 ug/L	526.52 ppb	00:02:12
3	Cr 267.716†	51705.4	53115.2	533.04 ug/L	533.04 ppb	00:01:52
3	Cu 324.752†	182774.3	180126.7	533.55 ug/L	533.55 ppb	00:01:52
3	Mn 257.610†	496496.2	510516.0	538.31 ug/L	538.31 ppb	00:01:52
3	Mo 202.031†	8315.4	8539.0	535.43 ug/L	535.43 ppb	00:02:12
3	Ni 231.604†	23440.2	24001.5	526.56 ug/L	526.56 ppb	00:02:12
3	P 214.914†	5546.6	5460.5	2581.6 ug/L	2581.6 ppb	00:02:12
3	Pb 220.353†	4884.1	5104.8	530.57 ug/L	530.57 ppb	00:02:12
3	S 181.975 Axial†	987.5	956.6	1080.0 ug/L	1080.0 ppb	00:02:12
3	Sb 206.836†	1751.6	1765.8	535.03 ug/L	535.03 ppb	00:02:12
3	Se 196.026†	986.6	1048.8	554.79 ug/L	554.79 ppb	00:02:12
3	Si 251.611†	90718.1	92757.6	2648.2 ug/L	2648.2 ppb	00:01:52
3	Sn 189.927†	3467.7	3565.8	528.05 ug/L	528.05 ppb	00:02:12
3	Ti 334.940†	329579.4	341046.5	540.97 ug/L	540.97 ppb	00:01:52
3	Tl 190.801†	1851.0	1958.6	538.61 ug/L	538.61 ppb	00:02:12
3	U 409.014†	14134.3	17216.8	510.17 ug/L	510.17 ppb	00:01:52
3	V 292.402†	80362.1	84516.8	537.75 ug/L	537.75 ppb	00:01:52
3	Zn 213.857†	63978.1	65019.6	530.16 ug/L	530.16 ppb	00:01:52
3	SiO2†	90340.1	92349.1	5641.5 ug/L	5641.5 ppb	00:02:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	857762.3	96.746 %		0.4637			0.48%
Sc Radial	4458.6	95.5 %		3.05			3.19%
Y 371.029	729503.5	95.766 %		0.4305			0.45%
Y RADIAL	4732.4	95.94 %		2.692			2.81%
Ag 328.068†	123224.8	532.64 ug/L		0.578	532.64 ppb	0.578	0.11%
QC value within limits for Ag 328.068 Recovery = 106.53%							
Al 396.153Radial†	6439.0	5687.9 ug/L		143.42	5687.9 ppb	143.42	2.52%
QC value greater than the upper limit for Al 396.153Radial Recovery = 113.76%							
As 188.979†	1522.9	537.69 ug/L		3.921	537.69 ppb	3.921	0.73%
QC value within limits for As 188.979 Recovery = 107.54%							
B 249.677†	25870.0	531.38 ug/L		2.068	531.38 ppb	2.068	0.39%
QC value within limits for B 249.677 Recovery = 106.28%							
Ba 233.527†	72948.9	533.24 ug/L		1.503	533.24 ppb	1.503	0.28%
QC value within limits for Ba 233.527 Recovery = 106.65%							
Be 313.107†	1589595.1	538.33 ug/L		0.716	538.33 ppb	0.716	0.13%
QC value within limits for Be 313.107 Recovery = 107.67%							
Ca 317.933Radial†	3287.6	5509.0 ug/L		179.97	5509.0 ppb	179.97	3.27%

QC value greater than the upper limit for Ca 317.933Radial Recovery = 110.18%						
Cd 226.502†	56386.7	530.88 ug/L	0.595	530.88 ppb	0.595	0.11%
QC value within limits for Cd 226.502 Recovery = 106.18%						
Co 228.616†	28188.9	530.17 ug/L	4.163	530.17 ppb	4.163	0.79%
QC value within limits for Co 228.616 Recovery = 106.03%						
Cr 267.716†	53050.7	532.39 ug/L	0.569	532.39 ppb	0.569	0.11%
QC value within limits for Cr 267.716 Recovery = 106.48%						
Cu 324.752†	179676.1	532.22 ug/L	1.273	532.22 ppb	1.273	0.24%
QC value within limits for Cu 324.752 Recovery = 106.44%						
Fe 238.204 Radial†	593.6	5232.9 ug/L	193.07	5232.9 ppb	193.07	3.69%
QC value within limits for Fe 238.204 Radial Recovery = 104.66%						
K 766.490 Radial†	26970.8	5344.7 ug/L	159.30	5344.7 ppb	159.30	2.98%
QC value within limits for K 766.490 Radial Recovery = 106.89%						
Mg 279.077 IEC†	171.9	5502.9 ug/L	271.60	5502.9 ppb	271.60	4.94%
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 110.06%						
Mn 257.610†	509705.9	537.47 ug/L	0.870	537.47 ppb	0.870	0.16%
QC value within limits for Mn 257.610 Recovery = 107.49%						
Mo 202.031†	8572.5	537.54 ug/L	3.114	537.54 ppb	3.114	0.58%
QC value within limits for Mo 202.031 Recovery = 107.51%						
Na 589.592 Radial†	34512.7	10426 ug/L	262.4	10426 ppb	262.4	2.52%
QC value within limits for Na 589.592 Radial Recovery = 104.26%						
Ni 231.604†	24176.9	530.41 ug/L	4.101	530.41 ppb	4.101	0.77%
QC value within limits for Ni 231.604 Recovery = 106.08%						
P 214.914†	5490.9	2596.6 ug/L	13.73	2596.6 ppb	13.73	0.53%
QC value within limits for P 214.914 Recovery = 103.86%						
Pb 220.353†	5164.2	536.74 ug/L	6.456	536.74 ppb	6.456	1.20%
QC value within limits for Pb 220.353 Recovery = 107.35%						
S 181.975 Axial†	962.4	1086.5 ug/L	6.06	1086.5 ppb	6.06	0.56%
QC value within limits for S 181.975 Axial Recovery = 108.65%						
Sb 206.836†	1783.6	540.48 ug/L	4.923	540.48 ppb	4.923	0.91%
QC value within limits for Sb 206.836 Recovery = 108.10%						
Se 196.026†	1051.1	556.55 ug/L	3.116	556.55 ppb	3.116	0.56%
QC value greater than the upper limit for Se 196.026 Recovery = 111.31%						
Si 251.611†	92586.2	2643.2 ug/L	4.99	2643.2 ppb	4.99	0.19%
QC value within limits for Si 251.611 Recovery = 105.73%						
Sn 189.927†	3598.0	532.84 ug/L	4.623	532.84 ppb	4.623	0.87%
QC value within limits for Sn 189.927 Recovery = 106.57%						
Sr 421.552†	76043.8	556.72 ug/L	14.975	556.72 ppb	14.975	2.69%
QC value greater than the upper limit for Sr 421.552 Recovery = 111.34%						
Ti 334.940†	340289.8	539.78 ug/L	1.127	539.78 ppb	1.127	0.21%
QC value within limits for Ti 334.940 Recovery = 107.96%						
Tl 190.801†	1957.6	538.31 ug/L	3.537	538.31 ppb	3.537	0.66%
QC value within limits for Tl 190.801 Recovery = 107.66%						
U 409.014†	17130.0	507.57 ug/L	2.599	507.57 ppb	2.599	0.51%
QC value within limits for U 409.014 Recovery = 101.51%						
V 292.402†	84395.7	537.00 ug/L	1.103	537.00 ppb	1.103	0.21%
QC value within limits for V 292.402 Recovery = 107.40%						
Zn 213.857†	64897.7	529.12 ug/L	0.975	529.12 ppb	0.975	0.18%
QC value within limits for Zn 213.857 Recovery = 105.82%						
SiO2†	93414.1	5706.7 ug/L	60.15	5706.7 ppb	60.15	1.05%
QC value within limits for SiO2 Recovery = 106.72%						
QC Failed. Continue with analysis.						

Sequence No.: 82
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 6
 Date Collected: 1/7/2010 00:04:38
 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	4413.8	4413.8	94.6 %		00:06:30
1	Y RADIAL	4739.5	4739.5	96.08 %		00:06:30
1	Al 396.153Radial†	-31.1	-6.2	-5.4824 ug/L	-5.4824 ppb	00:06:30
1	Ca 317.933Radial†	18.8	7.4	12.368 ug/L	12.368 ppb	00:06:50
1	Fe 238.204 Radial†	10.1	-3.1	-27.632 ug/L	-27.632 ppb	00:06:50
1	K 766.490 Radial†	3333.6	188.5	37.411 ug/L	37.411 ppb	00:06:30
1	Mg 279.077 IEC†	0.2	-1.4	-44.397 ug/L	-44.397 ppb	00:06:50
1	Na 589.592 Radial†	-1590.4	68.3	20.632 ug/L	20.632 ppb	00:06:30
1	Sr 421.552†	9.2	-6.3	-0.0461 ug/L	-0.0461 ppb	00:06:30
1	Sc 361.383	850570.4	850570.4	95.935 %		00:07:47
1	Y 371.029	747054.2	747054.2	98.070 %		00:07:47
1	Ag 328.068†	436.8	-57.0	-0.2382 ug/L	-0.2382 ppb	00:07:47
1	As 188.979†	-29.5	2.7	0.9374 ug/L	0.9374 ppb	00:08:07
1	B 249.677†	-312.2	340.4	7.0236 ug/L	7.0236 ppb	00:07:47
1	Ba 233.527†	16.6	9.8	0.0705 ug/L	0.0705 ppb	00:08:07
1	Be 313.107†	-4237.6	-65.6	-0.0227 ug/L	-0.0227 ppb	00:07:47
1	Cd 226.502†	-242.4	-14.3	-0.1314 ug/L	-0.1314 ppb	00:08:07
1	Co 228.616†	-94.4	-14.4	-0.2697 ug/L	-0.2697 ppb	00:08:07
1	Cr 267.716†	86.6	-13.7	-0.1322 ug/L	-0.1322 ppb	00:07:47
1	Cu 324.752†	8042.1	383.9	1.1351 ug/L	1.1351 ppb	00:07:47
1	Mn 257.610†	501.1	5.9	0.0043 ug/L	0.0043 ppb	00:07:47
1	Mo 202.031†	21.3	2.3	0.1432 ug/L	0.1432 ppb	00:08:07
1	Ni 231.604†	139.3	20.1	0.4423 ug/L	0.4423 ppb	00:08:07
1	P 214.914†	235.3	-3.3	-1.7498 ug/L	-1.7498 ppb	00:08:07
1	Pb 220.353†	-102.7	-29.3	-3.0367 ug/L	-3.0367 ppb	00:08:07
1	S 181.975 Axial†	70.6	13.7	15.485 ug/L	15.485 ppb	00:08:07
1	Sb 206.836†	47.7	12.6	3.7886 ug/L	3.7886 ppb	00:08:07
1	Se 196.026†	-37.1	-5.4	-2.8435 ug/L	-2.8435 ppb	00:08:07
1	Si 251.611†	629.7	39.9	1.1278 ug/L	1.1278 ppb	00:08:07
1	Sn 189.927†	4.9	1.7	0.2556 ug/L	0.2556 ppb	00:08:07
1	Ti 334.940†	-1888.5	-151.1	-0.2305 ug/L	-0.2305 ppb	00:07:47
1	Tl 190.801†	-47.7	3.7	1.0114 ug/L	1.0114 ppb	00:08:07
1	U 409.014†	-3184.8	-651.0	-19.351 ug/L	-19.351 ppb	00:07:47
1	V 292.402†	-1750.0	-22.3	-0.1722 ug/L	-0.1722 ppb	00:07:47
1	Zn 213.857†	821.5	24.6	0.2011 ug/L	0.2011 ppb	00:08:07
1	SiO2†	666.2	58.4	3.5473 ug/L	3.5473 ppb	00:09:03
2	Sc Radial	4571.7	4571.7	97.9 %		00:06:55
2	Y RADIAL	4905.4	4905.4	99.44 %		00:06:55
2	Al 396.153Radial†	-28.6	-2.5	-2.2771 ug/L	-2.2771 ppb	00:06:55
2	Ca 317.933Radial†	10.4	-1.9	-3.1579 ug/L	-3.1579 ppb	00:07:15
2	Fe 238.204 Radial†	11.2	-2.4	-21.474 ug/L	-21.474 ppb	00:07:15
2	K 766.490 Radial†	3288.0	20.2	3.9837 ug/L	3.9837 ppb	00:06:55
2	Mg 279.077 IEC†	2.8	1.2	38.069 ug/L	38.069 ppb	00:07:15
2	Na 589.592 Radial†	-1527.3	190.8	57.632 ug/L	57.632 ppb	00:06:55
2	Sr 421.552†	2.7	-13.2	-0.0967 ug/L	-0.0967 ppb	00:06:55
2	Sc 361.383	842233.4	842233.4	94.995 %		00:08:12
2	Y 371.029	737764.3	737764.3	96.850 %		00:08:12
2	Ag 328.068†	553.8	70.6	0.3037 ug/L	0.3037 ppb	00:08:12
2	As 188.979†	-24.9	7.2	2.4985 ug/L	2.4985 ppb	00:08:32
2	B 249.677†	-312.1	337.2	6.9566 ug/L	6.9566 ppb	00:08:12
2	Ba 233.527†	1.6	-5.8	-0.0442 ug/L	-0.0442 ppb	00:08:32
2	Be 313.107†	-4294.5	-169.3	-0.0575 ug/L	-0.0575 ppb	00:08:12
2	Cd 226.502†	-232.2	-6.1	-0.0549 ug/L	-0.0549 ppb	00:08:32
2	Co 228.616†	-79.4	0.3	0.0094 ug/L	0.0094 ppb	00:08:32
2	Cr 267.716†	107.7	9.4	0.0961 ug/L	0.0961 ppb	00:08:12
2	Cu 324.752†	7913.5	331.5	0.9802 ug/L	0.9802 ppb	00:08:12
2	Mn 257.610†	493.1	2.6	-0.0001 ug/L	-0.0001 ppb	00:08:12
2	Mo 202.031†	32.9	14.7	0.9197 ug/L	0.9197 ppb	00:08:32
2	Ni 231.604†	131.9	13.8	0.3020 ug/L	0.3020 ppb	00:08:32

2	P 214.914†	247.3	11.8	5.5834 ug/L	5.5834 ppb	00:08:32
2	Pb 220.353†	-88.9	-15.8	-1.6342 ug/L	-1.6342 ppb	00:08:32
2	S 181.975 Axial†	71.4	15.3	17.287 ug/L	17.287 ppb	00:08:32
2	Sb 206.836†	51.0	16.6	4.9719 ug/L	4.9719 ppb	00:08:32
2	Se 196.026†	-41.8	-10.7	-5.5408 ug/L	-5.5408 ppb	00:08:32
2	Si 251.611†	626.6	43.0	1.2184 ug/L	1.2184 ppb	00:08:32
2	Sn 189.927†	-0.1	-3.5	-0.5129 ug/L	-0.5129 ppb	00:08:32
2	Ti 334.940†	-1801.1	-78.7	-0.1197 ug/L	-0.1197 ppb	00:08:12
2	Tl 190.801†	-48.1	2.8	0.7580 ug/L	0.7580 ppb	00:08:32
2	U 409.014†	-2920.9	-406.1	-12.071 ug/L	-12.071 ppb	00:08:12
2	V 292.402†	-1822.3	-116.5	-0.7373 ug/L	-0.7373 ppb	00:08:12
2	Zn 213.857†	838.2	50.7	0.4135 ug/L	0.4135 ppb	00:08:32
2	SiO2†	691.7	92.1	5.6196 ug/L	5.6196 ppb	00:09:08
3	Sc Radial	4530.8	4530.8	97.1 %		00:07:20
3	Y RADIAL	4840.9	4840.9	98.13 %		00:07:20
3	Al 396.153Radial†	-5.5	21.1	18.626 ug/L	18.626 ppb	00:07:20
3	Ca 317.933Radial†	19.9	7.9	13.285 ug/L	13.285 ppb	00:07:40
3	Fe 238.204 Radial†	10.5	-3.1	-26.817 ug/L	-26.817 ppb	00:07:40
3	K 766.490 Radial†	3457.1	224.7	44.593 ug/L	44.593 ppb	00:07:20
3	Mg 279.077 IEC†	3.2	1.7	54.360 ug/L	54.360 ppb	00:07:40
3	Na 589.592 Radial†	-1566.8	136.1	41.099 ug/L	41.099 ppb	00:07:20
3	Sr 421.552†	-8.9	-25.1	-0.1840 ug/L	-0.1840 ppb	00:07:20
3	Sc 361.383	842380.4	842380.4	95.011 %		00:08:38
3	Y 371.029	738967.7	738967.7	97.008 %		00:08:38
3	Ag 328.068†	439.8	-49.5	-0.2154 ug/L	-0.2154 ppb	00:08:38
3	As 188.979†	-28.8	3.1	1.0905 ug/L	1.0905 ppb	00:08:58
3	B 249.677†	-371.5	274.9	5.6713 ug/L	5.6713 ppb	00:08:38
3	Ba 233.527†	14.9	8.2	0.0579 ug/L	0.0579 ppb	00:08:58
3	Be 313.107†	-4271.3	-144.0	-0.0487 ug/L	-0.0487 ppb	00:08:38
3	Cd 226.502†	-233.1	-6.9	-0.0626 ug/L	-0.0626 ppb	00:08:58
3	Co 228.616†	-82.5	-2.9	-0.0504 ug/L	-0.0504 ppb	00:08:58
3	Cr 267.716†	142.4	45.9	0.4616 ug/L	0.4616 ppb	00:08:38
3	Cu 324.752†	7967.2	386.5	1.1430 ug/L	1.1430 ppb	00:08:38
3	Mn 257.610†	475.7	-15.8	-0.0203 ug/L	-0.0203 ppb	00:08:38
3	Mo 202.031†	38.3	20.4	1.2767 ug/L	1.2767 ppb	00:08:58
3	Ni 231.604†	124.3	5.8	0.1263 ug/L	0.1263 ppb	00:08:58
3	P 214.914†	244.5	8.7	4.0988 ug/L	4.0988 ppb	00:08:58
3	Pb 220.353†	-100.4	-27.9	-2.8781 ug/L	-2.8781 ppb	00:08:58
3	S 181.975 Axial†	70.1	13.9	15.702 ug/L	15.702 ppb	00:08:58
3	Sb 206.836†	31.1	-4.3	-1.2842 ug/L	-1.2842 ppb	00:08:58
3	Se 196.026†	-30.8	0.8	0.3436 ug/L	0.3436 ppb	00:08:58
3	Si 251.611†	647.6	65.0	1.8274 ug/L	1.8274 ppb	00:08:58
3	Sn 189.927†	2.9	-0.4	-0.0544 ug/L	-0.0544 ppb	00:08:58
3	Ti 334.940†	-1744.4	-18.6	-0.0248 ug/L	-0.0248 ppb	00:08:38
3	Tl 190.801†	-44.5	6.6	1.7989 ug/L	1.7989 ppb	00:08:58
3	U 409.014†	-2839.9	-320.3	-9.5187 ug/L	-9.5187 ppb	00:08:38
3	V 292.402†	-1780.5	-72.2	-0.4482 ug/L	-0.4482 ppb	00:08:38
3	Zn 213.857†	836.2	48.4	0.3954 ug/L	0.3954 ppb	00:08:58
3	SiO2†	627.0	23.9	1.3839 ug/L	1.3839 ppb	00:09:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	845061.4	95.314 %	0.5382			0.56%
Sc Radial	4505.4	96.5 %	1.76			1.82%
Y 371.029	741262.1	97.310 %	0.6632			0.68%
Y RADIAL	4828.6	97.89 %	1.695			1.73%
Ag 328.068†	-11.9	-0.0500 ug/L	0.30649	-0.0500 ppb	0.30649	613.48%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	4.1	3.6222 ug/L	13.09218	3.6222 ppb	13.09218	361.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	4.3	1.5088 ug/L	0.86049	1.5088 ppb	0.86049	57.03%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	317.5	6.5505 ug/L	0.76214	6.5505 ppb	0.76214	11.63%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.1	0.0280 ug/L	0.06290	0.0280 ppb	0.06290	224.38%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-126.3	-0.0429 ug/L	0.01811	-0.0429 ppb	0.01811	42.16%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	4.5	7.4982 ug/L	9.23985	7.4982 ppb	9.23985	123.23%

QC value within limits for Ca 317.933 Radial	Recovery = Not calculated		
Cd 226.502†	-9.1 -0.0830 ug/L	0.04207 -0.0830 ppb	0.04207 50.70%
QC value within limits for Cd 226.502	Recovery = Not calculated		
Co 228.616†	-5.7 -0.1036 ug/L	0.14699 -0.1036 ppb	0.14699 141.95%
QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	13.8 0.1418 ug/L	0.29954 0.1418 ppb	0.29954 211.23%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	367.3 1.0861 ug/L	0.09178 1.0861 ppb	0.09178 8.45%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	-2.9 -25.308 ug/L	3.3451 -25.308 ppb	3.3451 13.22%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	144.5 28.663 ug/L	21.6722 28.663 ppb	21.6722 75.61%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	0.5 16.010 ug/L	52.9450 16.010 ppb	52.9450 330.69%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	-2.4 -0.0054 ug/L	0.01310 -0.0054 ppb	0.01310 244.14%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	12.5 0.7799 ug/L	0.57957 0.7799 ppb	0.57957 74.32%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	131.7 39.788 ug/L	18.5348 39.788 ppb	18.5348 46.58%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	13.2 0.2902 ug/L	0.15836 0.2902 ppb	0.15836 54.57%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	5.7 2.6441 ug/L	3.87699 2.6441 ppb	3.87699 146.63%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-24.3 -2.5163 ug/L	0.76807 -2.5163 ppb	0.76807 30.52%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	14.3 16.158 ug/L	0.9839 16.158 ppb	0.9839 6.09%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	8.3 2.4921 ug/L	3.32346 2.4921 ppb	3.32346 133.36%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	-5.1 -2.6802 ug/L	2.94557 -2.6802 ppb	2.94557 109.90%
QC value within limits for Se 196.026	Recovery = Not calculated		
Si 251.611†	49.3 1.3912 ug/L	0.38046 1.3912 ppb	0.38046 27.35%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-0.7 -0.1039 ug/L	0.38663 -0.1039 ppb	0.38663 372.24%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	-14.9 -0.1089 ug/L	0.06977 -0.1089 ppb	0.06977 64.05%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	-82.8 -0.1250 ug/L	0.10298 -0.1250 ppb	0.10298 82.38%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	4.4 1.1894 ug/L	0.54283 1.1894 ppb	0.54283 45.64%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-459.1 -13.647 ug/L	5.1020 -13.647 ppb	5.1020 37.39%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-70.3 -0.4526 ug/L	0.28259 -0.4526 ppb	0.28259 62.44%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	41.2 0.3367 ug/L	0.11775 0.3367 ppb	0.11775 34.97%
QC value within limits for Zn 213.857	Recovery = Not calculated		
SiO2†	58.1 3.5170 ug/L	2.11801 3.5170 ppb	2.11801 60.22%
QC value within limits for SiO2	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 91

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/7/2010 01:06:13

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	4501.0	4501.0	96.4 %		01:08:05
1	Y RADIAL	4802.7	4802.7	97.36 %		01:08:05
1	Al 396.153Radial†	6200.7	6456.8	5703.8 ug/L	5703.8 ppb	01:08:05
1	Ca 317.933Radial†	3155.8	3260.0	5462.6 ug/L	5462.6 ppb	01:08:25
1	Fe 238.204 Radial†	577.4	584.9	5156.3 ug/L	5156.3 ppb	01:08:25
1	K 766.490 Radial†	28930.9	26664.7	5284.0 ug/L	5284.0 ppb	01:08:05
1	Mg 279.077 IEC†	165.1	169.5	5426.7 ug/L	5426.7 ppb	01:08:25
1	Na 589.592 Radial†	30834.5	33725.5	10188 ug/L	10188 ppb	01:08:05
1	Sr 421.552†	72773.4	75450.1	552.37 ug/L	552.37 ppb	01:08:05
1	Sc 361.383	861525.2	861525.2	97.171 %		01:09:24
1	Y 371.029	732465.9	732465.9	96.155 %		01:09:24
1	Ag 328.068†	120270.4	123259.9	532.77 ug/L	532.77 ppb	01:09:24
1	As 188.979†	1455.4	1531.2	540.59 ug/L	540.59 ppb	01:09:44
1	B 249.677†	24175.0	25544.7	524.69 ug/L	524.69 ppb	01:09:24
1	Ba 233.527†	71113.7	73176.7	534.90 ug/L	534.90 ppb	01:09:24
1	Be 313.107†	1540603.8	1589811.7	538.41 ug/L	538.41 ppb	01:09:24
1	Cd 226.502†	54639.1	56468.4	531.66 ug/L	531.66 ppb	01:09:24
1	Co 228.616†	27272.9	28151.0	529.45 ug/L	529.45 ppb	01:09:44
1	Cr 267.716†	51643.1	53042.8	532.32 ug/L	532.32 ppb	01:09:24
1	Cu 324.752†	182327.9	179637.5	532.10 ug/L	532.10 ppb	01:09:24
1	Mn 257.610†	496116.5	510045.0	537.82 ug/L	537.82 ppb	01:09:24
1	Mo 202.031†	8317.4	8539.7	535.48 ug/L	535.48 ppb	01:09:44
1	Ni 231.604†	23535.9	24096.2	528.63 ug/L	528.63 ppb	01:09:44
1	P 214.914†	5592.2	5506.4	2604.3 ug/L	2604.3 ppb	01:09:44
1	Pb 220.353†	4927.6	5148.9	535.16 ug/L	535.16 ppb	01:09:44
1	S 181.975 Axial†	970.7	939.1	1060.2 ug/L	1060.2 ppb	01:09:44
1	Sb 206.836†	1759.4	1773.5	537.43 ug/L	537.43 ppb	01:09:44
1	Se 196.026†	982.0	1043.8	552.56 ug/L	552.56 ppb	01:09:44
1	Si 251.611†	90764.5	92790.7	2649.1 ug/L	2649.1 ppb	01:09:24
1	Sn 189.927†	3498.4	3596.8	532.65 ug/L	532.65 ppb	01:09:44
1	Ti 334.940†	329675.0	341091.3	541.05 ug/L	541.05 ppb	01:09:24
1	Tl 190.801†	1838.8	1945.7	535.06 ug/L	535.06 ppb	01:09:44
1	U 409.014†	13959.6	17034.8	504.75 ug/L	504.75 ppb	01:09:24
1	V 292.402†	80294.3	84434.0	537.21 ug/L	537.21 ppb	01:09:24
1	Zn 213.857†	63813.4	64839.8	528.66 ug/L	528.66 ppb	01:09:24
1	SiO2†	90963.9	92976.3	5679.9 ug/L	5679.9 ppb	01:10:44
2	Sc Radial	4523.3	4523.3	96.9 %		01:08:30
2	Y RADIAL	4789.9	4789.9	97.10 %		01:08:30
2	Al 396.153Radial†	6153.6	6376.6	5632.8 ug/L	5632.8 ppb	01:08:30
2	Ca 317.933Radial†	3147.8	3235.7	5421.9 ug/L	5421.9 ppb	01:08:50
2	Fe 238.204 Radial†	579.0	583.6	5144.6 ug/L	5144.6 ppb	01:08:50
2	K 766.490 Radial†	28814.0	26396.6	5230.8 ug/L	5230.8 ppb	01:08:30
2	Mg 279.077 IEC†	167.8	171.5	5488.8 ug/L	5488.8 ppb	01:08:50
2	Na 589.592 Radial†	30886.2	33621.7	10156 ug/L	10156 ppb	01:08:30
2	Sr 421.552†	72739.7	75044.5	549.40 ug/L	549.40 ppb	01:08:30
2	Sc 361.383	864501.0	864501.0	97.506 %		01:09:51
2	Y 371.029	735121.9	735121.9	96.504 %		01:09:51
2	Ag 328.068†	120919.5	123499.5	533.79 ug/L	533.79 ppb	01:09:51
2	As 188.979†	1443.8	1514.2	534.64 ug/L	534.64 ppb	01:10:11
2	B 249.677†	24299.7	25586.9	525.57 ug/L	525.57 ppb	01:09:51
2	Ba 233.527†	71239.8	73054.1	534.01 ug/L	534.01 ppb	01:09:51
2	Be 313.107†	1549984.7	1593975.0	539.82 ug/L	539.82 ppb	01:09:51
2	Cd 226.502†	54942.9	56586.4	532.77 ug/L	532.77 ppb	01:09:51
2	Co 228.616†	27208.7	27988.5	526.39 ug/L	526.39 ppb	01:10:11
2	Cr 267.716†	51759.7	52979.4	531.68 ug/L	531.68 ppb	01:09:51
2	Cu 324.752†	183464.7	180157.6	533.64 ug/L	533.64 ppb	01:09:51
2	Mn 257.610†	498750.2	510988.6	538.81 ug/L	538.81 ppb	01:09:51
2	Mo 202.031†	8287.0	8479.0	531.68 ug/L	531.68 ppb	01:10:11
2	Ni 231.604†	23518.0	23994.4	526.40 ug/L	526.40 ppb	01:10:11

2	P 214.914†	5564.5	5458.2	2580.5 ug/L	2580.5 ppb	01:10:11
2	Pb 220.353†	4922.2	5125.9	532.75 ug/L	532.75 ppb	01:10:11
2	S 181.975 Axial†	964.8	929.5	1049.4 ug/L	1049.4 ppb	01:10:11
2	Sb 206.836†	1763.2	1771.2	536.62 ug/L	536.62 ppb	01:10:11
2	Se 196.026†	979.5	1037.8	549.44 ug/L	549.44 ppb	01:10:11
2	Si 251.611†	91163.0	92877.8	2651.7 ug/L	2651.7 ppb	01:09:51
2	Sn 189.927†	3486.6	3572.4	529.03 ug/L	529.03 ppb	01:10:11
2	Ti 334.940†	330987.2	341269.1	541.32 ug/L	541.32 ppb	01:09:51
2	Tl 190.801†	1840.6	1941.1	533.82 ug/L	533.82 ppb	01:10:11
2	U 409.014†	14288.1	17322.2	513.29 ug/L	513.29 ppb	01:09:51
2	V 292.402†	80690.0	84555.4	537.94 ug/L	537.94 ppb	01:09:51
2	Zn 213.857†	64161.1	64970.3	529.75 ug/L	529.75 ppb	01:09:51
2	SiO2†	91750.7	93461.1	5709.9 ug/L	5709.9 ppb	01:10:49
3	Sc Radial	4622.1	4622.1	99.0 %		01:08:55
3	Y RADIAL	4922.9	4922.9	99.80 %		01:08:55
3	Al 396.153Radial†	6249.9	6338.1	5598.8 ug/L	5598.8 ppb	01:08:55
3	Ca 317.933Radial†	3165.7	3184.3	5335.8 ug/L	5335.8 ppb	01:09:15
3	Fe 238.204 Radial†	576.5	568.3	5010.2 ug/L	5010.2 ppb	01:09:15
3	K 766.490 Radial†	29331.1	26282.6	5208.2 ug/L	5208.2 ppb	01:08:55
3	Mg 279.077 IEC†	167.7	167.7	5367.5 ug/L	5367.5 ppb	01:09:15
3	Na 589.592 Radial†	31638.7	33699.8	10180 ug/L	10180 ppb	01:08:55
3	Sr 421.552†	74144.9	74857.7	548.03 ug/L	548.03 ppb	01:08:55
3	Sc 361.383	875017.0	875017.0	98.692 %		01:10:19
3	Y 371.029	743560.1	743560.1	97.611 %		01:10:19
3	Ag 328.068†	122101.9	123207.2	532.49 ug/L	532.49 ppb	01:10:19
3	As 188.979†	1445.2	1497.8	528.88 ug/L	528.88 ppb	01:10:39
3	B 249.677†	24536.9	25527.8	524.38 ug/L	524.38 ppb	01:10:19
3	Ba 233.527†	72037.5	72984.3	533.50 ug/L	533.50 ppb	01:10:19
3	Be 313.107†	1564680.3	1589761.2	538.39 ug/L	538.39 ppb	01:10:19
3	Cd 226.502†	55304.1	56275.2	529.85 ug/L	529.85 ppb	01:10:19
3	Co 228.616†	27255.8	27700.9	520.98 ug/L	520.98 ppb	01:10:39
3	Cr 267.716†	52354.7	52944.3	531.32 ug/L	531.32 ppb	01:10:19
3	Cu 324.752†	185740.8	180202.6	533.77 ug/L	533.77 ppb	01:10:19
3	Mn 257.610†	503366.4	509518.7	537.25 ug/L	537.25 ppb	01:10:19
3	Mo 202.031†	8340.7	8431.3	528.67 ug/L	528.67 ppb	01:10:39
3	Ni 231.604†	23574.7	23761.9	521.30 ug/L	521.30 ppb	01:10:39
3	P 214.914†	5560.7	5385.8	2545.2 ug/L	2545.2 ppb	01:10:39
3	Pb 220.353†	4908.0	5050.7	524.96 ug/L	524.96 ppb	01:10:39
3	S 181.975 Axial†	975.4	928.4	1048.1 ug/L	1048.1 ppb	01:10:39
3	Sb 206.836†	1755.4	1741.6	527.60 ug/L	527.60 ppb	01:10:39
3	Se 196.026†	990.4	1036.8	548.48 ug/L	548.48 ppb	01:10:39
3	Si 251.611†	92189.6	92794.4	2649.4 ug/L	2649.4 ppb	01:10:19
3	Sn 189.927†	3491.9	3534.7	523.45 ug/L	523.45 ppb	01:10:39
3	Ti 334.940†	334573.2	340823.1	540.61 ug/L	540.61 ppb	01:10:19
3	Tl 190.801†	1842.2	1920.0	528.09 ug/L	528.09 ppb	01:10:39
3	U 409.014†	14432.0	17291.9	512.41 ug/L	512.41 ppb	01:10:19
3	V 292.402†	81429.2	84309.8	536.37 ug/L	536.37 ppb	01:10:19
3	Zn 213.857†	64695.5	64721.0	527.74 ug/L	527.74 ppb	01:10:19
3	SiO2†	91365.3	91939.7	5616.6 ug/L	5616.6 ppb	01:10:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	867014.4	97.790 %	0.7995			0.82%
Sc Radial	4548.8	97.5 %	1.38			1.42%
Y 371.029	737049.3	96.757 %	0.7605			0.79%
Y RADIAL	4838.5	98.09 %	1.488			1.52%
Ag 328.068†	123322.2	533.02 ug/L	0.686	533.02 ppb	0.686	0.13%
QC value within limits for Ag 328.068 Recovery = 106.60%						
Al 396.153Radial†	6390.5	5645.1 ug/L	53.58	5645.1 ppb	53.58	0.95%
QC value greater than the upper limit for Al 396.153Radial Recovery = 112.90%						
As 188.979†	1514.4	534.70 ug/L	5.853	534.70 ppb	5.853	1.09%
QC value within limits for As 188.979 Recovery = 106.94%						
B 249.677†	25553.1	524.88 ug/L	0.617	524.88 ppb	0.617	0.12%
QC value within limits for B 249.677 Recovery = 104.98%						
Ba 233.527†	73071.7	534.14 ug/L	0.713	534.14 ppb	0.713	0.13%
QC value within limits for Ba 233.527 Recovery = 106.83%						
Be 313.107†	1591182.6	538.87 ug/L	0.818	538.87 ppb	0.818	0.15%
QC value within limits for Be 313.107 Recovery = 107.77%						
Ca 317.933Radial†	3226.6	5406.8 ug/L	64.78	5406.8 ppb	64.78	1.20%

QC value within limits for Ca 317.933 Radial Recovery = 108.14%							
Cd	226.502†	56443.3	531.43 ug/L	1.474	531.43 ppb	1.474	0.28%
QC value within limits for Cd 226.502 Recovery = 106.29%							
Co	228.616†	27946.8	525.61 ug/L	4.292	525.61 ppb	4.292	0.82%
QC value within limits for Co 228.616 Recovery = 105.12%							
Cr	267.716†	52988.8	531.77 ug/L	0.503	531.77 ppb	0.503	0.09%
QC value within limits for Cr 267.716 Recovery = 106.35%							
Cu	324.752†	179999.2	533.17 ug/L	0.927	533.17 ppb	0.927	0.17%
QC value within limits for Cu 324.752 Recovery = 106.63%							
Fe	238.204 Radial†	578.9	5103.7 ug/L	81.20	5103.7 ppb	81.20	1.59%
QC value within limits for Fe 238.204 Radial Recovery = 102.07%							
K	766.490 Radial†	26448.0	5241.0 ug/L	38.94	5241.0 ppb	38.94	0.74%
QC value within limits for K 766.490 Radial Recovery = 104.82%							
Mg	279.077 IEC†	169.6	5427.7 ug/L	60.67	5427.7 ppb	60.67	1.12%
QC value within limits for Mg 279.077 IEC Recovery = 108.55%							
Mn	257.610†	510184.1	537.96 ug/L	0.790	537.96 ppb	0.790	0.15%
QC value within limits for Mn 257.610 Recovery = 107.59%							
Mo	202.031†	8483.3	531.94 ug/L	3.411	531.94 ppb	3.411	0.64%
QC value within limits for Mo 202.031 Recovery = 106.39%							
Na	589.592 Radial†	33682.3	10175 ug/L	16.3	10175 ppb	16.3	0.16%
QC value within limits for Na 589.592 Radial Recovery = 101.75%							
Ni	231.604†	23950.8	525.44 ug/L	3.758	525.44 ppb	3.758	0.72%
QC value within limits for Ni 231.604 Recovery = 105.09%							
P	214.914†	5450.1	2576.6 ug/L	29.74	2576.6 ppb	29.74	1.15%
QC value within limits for P 214.914 Recovery = 103.07%							
Pb	220.353†	5108.5	530.95 ug/L	5.329	530.95 ppb	5.329	1.00%
QC value within limits for Pb 220.353 Recovery = 106.19%							
S	181.975 Axial†	932.3	1052.6 ug/L	6.65	1052.6 ppb	6.65	0.63%
QC value within limits for S 181.975 Axial Recovery = 105.26%							
Sb	206.836†	1762.1	533.88 ug/L	5.458	533.88 ppb	5.458	1.02%
QC value within limits for Sb 206.836 Recovery = 106.78%							
Se	196.026†	1039.5	550.16 ug/L	2.131	550.16 ppb	2.131	0.39%
QC value greater than the upper limit for Se 196.026 Recovery = 110.03%							
Si	251.611†	92820.9	2650.1 ug/L	1.42	2650.1 ppb	1.42	0.05%
QC value within limits for Si 251.611 Recovery = 106.00%							
Sn	189.927†	3568.0	528.38 ug/L	4.636	528.38 ppb	4.636	0.88%
QC value within limits for Sn 189.927 Recovery = 105.68%							
Sr	421.552†	75117.4	549.94 ug/L	2.217	549.94 ppb	2.217	0.40%
QC value within limits for Sr 421.552 Recovery = 109.99%							
Ti	334.940†	341061.2	540.99 ug/L	0.359	540.99 ppb	0.359	0.07%
QC value within limits for Ti 334.940 Recovery = 108.20%							
Tl	190.801†	1935.6	532.32 ug/L	3.719	532.32 ppb	3.719	0.70%
QC value within limits for Tl 190.801 Recovery = 106.46%							
U	409.014†	17216.3	510.15 ug/L	4.701	510.15 ppb	4.701	0.92%
QC value within limits for U 409.014 Recovery = 102.03%							
V	292.402†	84433.1	537.17 ug/L	0.784	537.17 ppb	0.784	0.15%
QC value within limits for V 292.402 Recovery = 107.43%							
Zn	213.857†	64843.7	528.72 ug/L	1.004	528.72 ppb	1.004	0.19%
QC value within limits for Zn 213.857 Recovery = 105.74%							
SiO2†		92792.4	5668.8 ug/L	47.60	5668.8 ppb	47.60	0.84%
QC value within limits for SiO2 Recovery = 106.01%							
QC Failed. Continue with analysis.							

Sequence No.: 92

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/7/2010 01:13:05

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	4627.8	4627.8	99.1 %		01:14:56
1	Y RADIAL	4896.5	4896.5	99.26 %		01:14:56
1	Al 396.153Radial†	-20.6	5.9	5.2439 ug/L	5.2439 ppb	01:14:56
1	Ca 317.933Radial†	16.0	3.6	6.0566 ug/L	6.0566 ppb	01:15:16
1	Fe 238.204 Radial†	12.9	-0.9	-7.6828 ug/L	-7.6828 ppb	01:15:16
1	K 766.490 Radial†	3410.7	103.2	20.483 ug/L	20.483 ppb	01:14:56
1	Mg 279.077 IEC†	3.9	2.3	72.568 ug/L	72.568 ppb	01:15:16
1	Na 589.592 Radial†	-1686.6	49.1	14.824 ug/L	14.824 ppb	01:14:56
1	Sr 421.552†	24.4	8.6	0.0631 ug/L	0.0631 ppb	01:14:56
1	Sc 361.383	888690.9	888690.9	100.23 %		01:16:13
1	Y 371.029	762229.9	762229.9	100.06 %		01:16:13
1	Ag 328.068†	520.0	6.4	0.0197 ug/L	0.0197 ppb	01:16:18
1	As 188.979†	-25.5	8.0	2.7953 ug/L	2.7953 ppb	01:16:38
1	B 249.677†	-531.8	135.3	2.7913 ug/L	2.7913 ppb	01:16:18
1	Ba 233.527†	13.7	6.2	0.0430 ug/L	0.0430 ppb	01:16:38
1	Be 313.107†	-4381.1	-19.3	-0.0062 ug/L	-0.0062 ppb	01:16:18
1	Cd 226.502†	-224.4	14.5	0.1377 ug/L	0.1377 ppb	01:16:38
1	Co 228.616†	-85.5	-1.3	-0.0243 ug/L	-0.0243 ppb	01:16:38
1	Cr 267.716†	85.3	-18.9	-0.1916 ug/L	-0.1916 ppb	01:16:18
1	Cu 324.752†	8022.3	4.5	0.0129 ug/L	0.0129 ppb	01:16:18
1	Mn 257.610†	531.2	13.5	0.0122 ug/L	0.0122 ppb	01:16:18
1	Mo 202.031†	26.9	6.9	0.4295 ug/L	0.4295 ppb	01:16:38
1	Ni 231.604†	124.9	-0.4	-0.0090 ug/L	-0.0090 ppb	01:16:38
1	P 214.914†	247.0	-2.2	-1.0369 ug/L	-1.0369 ppb	01:16:38
1	Pb 220.353†	-100.0	-22.0	-2.2733 ug/L	-2.2733 ppb	01:16:38
1	S 181.975 Axial†	62.1	2.1	2.3166 ug/L	2.3166 ppb	01:16:38
1	Sb 206.836†	44.1	6.9	2.0753 ug/L	2.0753 ppb	01:16:38
1	Se 196.026†	-42.0	-8.7	-4.4675 ug/L	-4.4675 ppb	01:16:38
1	Si 251.611†	645.2	27.1	0.7603 ug/L	0.7603 ppb	01:16:38
1	Sn 189.927†	8.1	4.7	0.6968 ug/L	0.6968 ppb	01:16:38
1	Ti 334.940†	-1701.4	120.0	0.1897 ug/L	0.1897 ppb	01:16:18
1	Tl 190.801†	-48.8	4.7	1.2875 ug/L	1.2875 ppb	01:16:38
1	U 409.014†	-2595.2	79.6	2.3667 ug/L	2.3667 ppb	01:16:13
1	V 292.402†	-1936.9	-130.5	-0.8059 ug/L	-0.8059 ppb	01:16:18
1	Zn 213.857†	830.3	-3.3	-0.0293 ug/L	-0.0293 ppb	01:16:38
1	SiO2†	676.6	39.0	2.3594 ug/L	2.3594 ppb	01:17:44
2	Sc Radial	4730.2	4730.2	101 %		01:15:22
2	Y RADIAL	5050.4	5050.4	102.4 %		01:15:22
2	Al 396.153Radial†	-6.9	19.9	17.599 ug/L	17.599 ppb	01:15:22
2	Ca 317.933Radial†	19.1	6.3	10.619 ug/L	10.619 ppb	01:15:42
2	Fe 238.204 Radial†	11.1	-2.9	-25.406 ug/L	-25.406 ppb	01:15:42
2	K 766.490 Radial†	3463.9	81.3	16.127 ug/L	16.127 ppb	01:15:22
2	Mg 279.077 IEC†	3.5	1.8	58.429 ug/L	58.429 ppb	01:15:42
2	Na 589.592 Radial†	-1639.7	132.1	39.915 ug/L	39.915 ppb	01:15:22
2	Sr 421.552†	-6.1	-22.0	-0.1610 ug/L	-0.1610 ppb	01:15:22
2	Sc 361.383	880714.2	880714.2	99.335 %		01:16:44
2	Y 371.029	756438.0	756438.0	99.302 %		01:16:44
2	Ag 328.068†	571.1	62.5	0.2615 ug/L	0.2615 ppb	01:16:49
2	As 188.979†	-36.0	-2.8	-0.9826 ug/L	-0.9826 ppb	01:17:09
2	B 249.677†	-529.5	132.8	2.7424 ug/L	2.7424 ppb	01:16:49
2	Ba 233.527†	7.8	0.4	0.0034 ug/L	0.0034 ppb	01:17:09
2	Be 313.107†	-4313.5	9.1	0.0034 ug/L	0.0034 ppb	01:16:49
2	Cd 226.502†	-253.0	-16.3	-0.1513 ug/L	-0.1513 ppb	01:17:09
2	Co 228.616†	-95.4	-12.0	-0.2248 ug/L	-0.2248 ppb	01:17:09
2	Cr 267.716†	105.9	2.6	0.0261 ug/L	0.0261 ppb	01:16:49
2	Cu 324.752†	8014.7	69.4	0.2041 ug/L	0.2041 ppb	01:16:49
2	Mn 257.610†	516.7	3.7	0.0003 ug/L	0.0003 ppb	01:16:49
2	Mo 202.031†	28.2	8.5	0.5282 ug/L	0.5282 ppb	01:17:09
2	Ni 231.604†	111.8	-12.5	-0.2752 ug/L	-0.2752 ppb	01:17:09

2	P 214.914†	238.8	-8.2	-4.0010 ug/L	-4.0010 ppb	01:17:09
2	Pb 220.353†	-86.5	-9.3	-0.9560 ug/L	-0.9560 ppb	01:17:09
2	S 181.975 Axial†	60.5	1.0	1.0820 ug/L	1.0820 ppb	01:17:09
2	Sb 206.836†	46.2	9.4	2.8154 ug/L	2.8154 ppb	01:17:09
2	Se 196.026†	-44.3	-11.3	-5.8657 ug/L	-5.8657 ppb	01:17:09
2	Si 251.611†	648.5	36.2	1.0256 ug/L	1.0256 ppb	01:17:09
2	Sn 189.927†	2.5	-0.9	-0.1251 ug/L	-0.1251 ppb	01:17:09
2	Ti 334.940†	-1711.8	94.1	0.1493 ug/L	0.1493 ppb	01:16:49
2	Tl 190.801†	-53.2	-0.1	-0.0340 ug/L	-0.0340 ppb	01:17:09
2	U 409.014†	-2607.2	44.0	1.3126 ug/L	1.3126 ppb	01:16:44
2	V 292.402†	-1686.8	103.8	0.6666 ug/L	0.6666 ppb	01:16:49
2	Zn 213.857†	860.7	34.8	0.2867 ug/L	0.2867 ppb	01:17:09
2	SiO2†	678.2	46.7	2.8350 ug/L	2.8350 ppb	01:17:49
3	Sc Radial	4576.7	4576.7	98.1 %		01:15:47
3	Y RADIAL	4902.7	4902.7	99.39 %		01:15:47
3	Al 396.153Radial†	16.2	43.3	38.384 ug/L	38.384 ppb	01:15:47
3	Ca 317.933Radial†	12.1	-0.2	-0.2894 ug/L	-0.2894 ppb	01:16:07
3	Fe 238.204 Radial†	9.5	-4.2	-36.832 ug/L	-36.832 ppb	01:16:07
3	K 766.490 Radial†	3323.6	52.8	10.480 ug/L	10.480 ppb	01:15:47
3	Mg 279.077 IEC†	2.8	1.2	39.624 ug/L	39.624 ppb	01:16:07
3	Na 589.592 Radial†	-1617.6	100.4	30.323 ug/L	30.323 ppb	01:15:47
3	Sr 421.552†	15.7	-0.0	0.0000 ug/L	0.0000 ppb	01:15:47
3	Sc 361.383	878989.5	878989.5	99.141 %		01:17:14
3	Y 371.029	755008.8	755008.8	99.114 %		01:17:14
3	Ag 328.068†	500.1	-7.9	-0.0506 ug/L	-0.0506 ppb	01:17:19
3	As 188.979†	-35.3	-2.2	-0.7856 ug/L	-0.7856 ppb	01:17:39
3	B 249.677†	-502.3	159.2	3.2880 ug/L	3.2880 ppb	01:17:19
3	Ba 233.527†	-9.6	-17.2	-0.1265 ug/L	-0.1265 ppb	01:17:39
3	Be 313.107†	-4321.3	-7.3	-0.0024 ug/L	-0.0024 ppb	01:17:19
3	Cd 226.502†	-247.4	-11.2	-0.1019 ug/L	-0.1019 ppb	01:17:39
3	Co 228.616†	-93.0	-9.8	-0.1833 ug/L	-0.1833 ppb	01:17:39
3	Cr 267.716†	130.6	27.7	0.2753 ug/L	0.2753 ppb	01:17:19
3	Cu 324.752†	8133.0	204.4	0.6034 ug/L	0.6034 ppb	01:17:19
3	Mn 257.610†	576.2	64.8	0.0639 ug/L	0.0639 ppb	01:17:19
3	Mo 202.031†	22.4	2.7	0.1653 ug/L	0.1653 ppb	01:17:39
3	Ni 231.604†	125.1	1.1	0.0239 ug/L	0.0239 ppb	01:17:39
3	P 214.914†	253.6	7.2	3.4600 ug/L	3.4600 ppb	01:17:39
3	Pb 220.353†	-102.1	-25.3	-2.6064 ug/L	-2.6064 ppb	01:17:39
3	S 181.975 Axial†	58.4	-1.0	-1.0995 ug/L	-1.0995 ppb	01:17:39
3	Sb 206.836†	37.0	0.3	0.0634 ug/L	0.0634 ppb	01:17:39
3	Se 196.026†	-36.9	-3.9	-2.1180 ug/L	-2.1180 ppb	01:17:39
3	Si 251.611†	645.1	34.1	0.9751 ug/L	0.9751 ppb	01:17:39
3	Sn 189.927†	-2.0	-5.5	-0.8089 ug/L	-0.8089 ppb	01:17:39
3	Ti 334.940†	-1777.9	24.1	0.0358 ug/L	0.0358 ppb	01:17:19
3	Tl 190.801†	-43.8	9.2	2.5239 ug/L	2.5239 ppb	01:17:39
3	U 409.014†	-2476.0	171.3	5.0962 ug/L	5.0962 ppb	01:17:14
3	V 292.402†	-1784.8	1.6	0.0286 ug/L	0.0286 ppb	01:17:19
3	Zn 213.857†	838.8	14.4	0.1181 ug/L	0.1181 ppb	01:17:39
3	SiO2†	674.7	44.6	2.7271 ug/L	2.7271 ppb	01:17:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	882798.2	99.570 %		0.5838			0.59%
Sc Radial	4644.9	99.5 %		1.67			1.68%
Y 371.029	757892.2	99.493 %		0.5020			0.50%
Y RADIAL	4949.9	100.3 %		1.77			1.76%
Ag 328.068†	20.4	0.0769 ug/L		0.16370	0.0769 ppb	0.16370	213.00%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	23.0	20.409 ug/L		16.7476	20.409 ppb	16.7476	82.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	1.0	0.3424 ug/L		2.12662	0.3424 ppb	2.12662	621.14%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	142.4	2.9406 ug/L		0.30186	2.9406 ppb	0.30186	10.27%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-3.6	-0.0267 ug/L		0.08865	-0.0267 ppb	0.08865	332.46%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-5.8	-0.0017 ug/L		0.00480	-0.0017 ppb	0.00480	278.73%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	3.3	5.4620 ug/L		5.47835	5.4620 ppb	5.47835	100.30%

Cd	226.502†	QC value within limits for Ca 317.933 Radial	Recovery = Not calculated			
		-4.3	-0.0385 ug/L	0.15460	-0.0385 ppb	0.15460 401.32%
Co	228.616†	QC value within limits for Cd 226.502	Recovery = Not calculated			
		-7.7	-0.1441 ug/L	0.10587	-0.1441 ppb	0.10587 73.46%
Cr	267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
		3.8	0.0366 ug/L	0.23365	0.0366 ppb	0.23365 638.21%
Cu	324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
		92.8	0.2735 ug/L	0.30131	0.2735 ppb	0.30131 110.19%
Fe	238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
		-2.7	-23.307 ug/L	14.6873	-23.307 ppb	14.6873 63.02%
K	766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
		79.1	15.697 ug/L	5.0156	15.697 ppb	5.0156 31.95%
Mg	279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
		1.8	56.874 ug/L	16.5266	56.874 ppb	16.5266 29.06%
Mn	257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
		27.4	0.0254 ug/L	0.03380	0.0254 ppb	0.03380 132.84%
Mo	202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
		6.0	0.3743 ug/L	0.18763	0.3743 ppb	0.18763 50.12%
Na	589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
		93.9	28.354 ug/L	12.6610	28.354 ppb	12.6610 44.65%
Ni	231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
		-4.0	-0.0868 ug/L	0.16401	-0.0868 ppb	0.16401 189.02%
P	214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
		-1.0	-0.5260 ug/L	3.75661	-0.5260 ppb	3.75661 714.23%
Pb	220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
		-18.8	-1.9452 ug/L	0.87275	-1.9452 ppb	0.87275 44.87%
S	181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
		0.7	0.7664 ug/L	1.72980	0.7664 ppb	1.72980 225.71%
Sb	206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
		5.5	1.6513 ug/L	1.42413	1.6513 ppb	1.42413 86.24%
Se	196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
		-8.0	-4.1504 ug/L	1.89386	-4.1504 ppb	1.89386 45.63%
Si	251.611†	QC value within limits for Se 196.026	Recovery = Not calculated			
		32.5	0.9204 ug/L	0.14088	0.9204 ppb	0.14088 15.31%
Sn	189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
		-0.5	-0.0791 ug/L	0.75386	-0.0791 ppb	0.75386 953.47%
Sr	421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
		-4.5	-0.0327 ug/L	0.11556	-0.0327 ppb	0.11556 353.78%
Ti	334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
		79.4	0.1249 ug/L	0.07975	0.1249 ppb	0.07975 63.84%
Tl	190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
		4.6	1.2591 ug/L	1.27921	1.2591 ppb	1.27921 101.59%
U	409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
		98.3	2.9252 ug/L	1.95268	2.9252 ppb	1.95268 66.75%
V	292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
		-8.4	-0.0369 ug/L	0.73846	-0.0369 ppb	0.73846 >999.9%
Zn	213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
		15.3	0.1252 ug/L	0.15812	0.1252 ppb	0.15812 126.33%
SiO2†		QC value within limits for Zn 213.857	Recovery = Not calculated			
		43.4	2.6405 ug/L	0.24937	2.6405 ppb	0.24937 9.44%
		QC value within limits for SiO2	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 101

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/7/2010 02:15:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4611.4	4611.4	98.8 %		02:17:30
1	Y RADIAL	4927.4	4927.4	99.89 %		02:17:30
1	Al 396.153Radial†	6197.8	6299.9	5564.7 ug/L	5564.7 ppb	02:17:30
1	Ca 317.933Radial†	3130.8	3156.4	5289.1 ug/L	5289.1 ppb	02:17:50
1	Fe 238.204 Radial†	580.2	573.3	5054.5 ug/L	5054.5 ppb	02:17:50
1	K 766.490 Radial†	28922.8	25938.1	5139.9 ug/L	5139.9 ppb	02:17:30
1	Mg 279.077 IEC†	162.2	162.6	5204.0 ug/L	5204.0 ppb	02:17:50
1	Na 589.592 Radial†	31342.2	33473.8	10112 ug/L	10112 ppb	02:17:30
1	Sr 421.552†	73930.4	74814.4	547.72 ug/L	547.72 ppb	02:17:30
1	Sc 361.383	870266.6	870266.6	98.157 %		02:18:49
1	Y 371.029	739974.8	739974.8	97.141 %		02:18:49
1	Ag 328.068†	121309.4	123075.1	531.93 ug/L	531.93 ppb	02:18:49
1	As 188.979†	1460.7	1521.6	537.21 ug/L	537.21 ppb	02:19:10
1	B 249.677†	24143.7	25262.9	518.90 ug/L	518.90 ppb	02:18:49
1	Ba 233.527†	71452.4	72786.7	532.05 ug/L	532.05 ppb	02:18:49
1	Be 313.107†	1551856.0	1585350.2	536.90 ug/L	536.90 ppb	02:18:49
1	Cd 226.502†	54896.0	56165.2	528.81 ug/L	528.81 ppb	02:18:49
1	Co 228.616†	27457.3	28056.9	527.69 ug/L	527.69 ppb	02:19:10
1	Cr 267.716†	51912.3	52783.2	529.71 ug/L	529.71 ppb	02:18:49
1	Cu 324.752†	184037.6	179494.7	531.67 ug/L	531.67 ppb	02:18:49
1	Mn 257.610†	499067.0	507922.7	535.58 ug/L	535.58 ppb	02:18:49
1	Mo 202.031†	8397.2	8534.9	535.17 ug/L	535.17 ppb	02:19:10
1	Ni 231.604†	23696.5	24016.4	526.88 ug/L	526.88 ppb	02:19:10
1	P 214.914†	5608.1	5464.9	2584.1 ug/L	2584.1 ppb	02:19:10
1	Pb 220.353†	4967.2	5138.2	534.02 ug/L	534.02 ppb	02:19:10
1	S 181.975 Axial†	982.8	941.4	1062.8 ug/L	1062.8 ppb	02:19:10
1	Sb 206.836†	1769.0	1765.1	534.94 ug/L	534.94 ppb	02:19:10
1	Se 196.026†	1004.1	1056.2	558.58 ug/L	558.58 ppb	02:19:10
1	Si 251.611†	91460.4	92561.4	2642.6 ug/L	2642.6 ppb	02:18:49
1	Sn 189.927†	3517.4	3580.0	530.15 ug/L	530.15 ppb	02:19:10
1	Ti 334.940†	331777.5	339825.4	539.03 ug/L	539.03 ppb	02:18:49
1	Tl 190.801†	1866.9	1955.3	537.67 ug/L	537.67 ppb	02:19:10
1	U 409.014†	14274.0	17210.7	509.99 ug/L	509.99 ppb	02:18:49
1	V 292.402†	80923.1	84244.6	536.04 ug/L	536.04 ppb	02:18:49
1	Zn 213.857†	64191.2	64564.9	526.43 ug/L	526.43 ppb	02:18:49
1	SiO2†	90135.1	91191.7	5570.5 ug/L	5570.5 ppb	02:20:10
2	Sc Radial	4522.4	4522.4	96.9 %		02:17:56
2	Y RADIAL	4799.3	4799.3	97.29 %		02:17:56
2	Al 396.153Radial†	6130.4	6353.9	5612.5 ug/L	5612.5 ppb	02:17:56
2	Ca 317.933Radial†	3177.4	3266.8	5474.1 ug/L	5474.1 ppb	02:18:16
2	Fe 238.204 Radial†	580.4	585.2	5158.5 ug/L	5158.5 ppb	02:18:16
2	K 766.490 Radial†	28695.7	26280.1	5207.7 ug/L	5207.7 ppb	02:17:56
2	Mg 279.077 IEC†	163.1	166.7	5337.7 ug/L	5337.7 ppb	02:18:16
2	Na 589.592 Radial†	30689.3	33424.5	10097 ug/L	10097 ppb	02:17:56
2	Sr 421.552†	72471.6	74782.0	547.48 ug/L	547.48 ppb	02:17:56
2	Sc 361.383	865732.8	865732.8	97.645 %		02:19:17
2	Y 371.029	735779.2	735779.2	96.590 %		02:19:17
2	Ag 328.068†	120472.9	122865.7	531.07 ug/L	531.07 ppb	02:19:17
2	As 188.979†	1456.9	1525.5	538.59 ug/L	538.59 ppb	02:19:37
2	B 249.677†	23937.1	25180.2	517.18 ug/L	517.18 ppb	02:19:17
2	Ba 233.527†	70990.7	72695.1	531.39 ug/L	531.39 ppb	02:19:17
2	Be 313.107†	1540838.7	1582346.7	535.88 ug/L	535.88 ppb	02:19:17
2	Cd 226.502†	54464.7	56016.4	527.40 ug/L	527.40 ppb	02:19:17
2	Co 228.616†	27317.7	28060.4	527.75 ug/L	527.75 ppb	02:19:37
2	Cr 267.716†	51460.1	52597.0	527.85 ug/L	527.85 ppb	02:19:17
2	Cu 324.752†	182910.4	179322.2	531.17 ug/L	531.17 ppb	02:19:17
2	Mn 257.610†	496063.1	507508.9	535.15 ug/L	535.15 ppb	02:19:17
2	Mo 202.031†	8334.5	8515.6	533.97 ug/L	533.97 ppb	02:19:37
2	Ni 231.604†	23590.2	24034.0	527.27 ug/L	527.27 ppb	02:19:37

2	P 214.914†	5556.1	5441.5	2572.8 ug/L	2572.8 ppb	02:19:37
2	Pb 220.353†	4961.6	5159.0	536.18 ug/L	536.18 ppb	02:19:37
2	S 181.975 Axial†	964.8	928.2	1047.9 ug/L	1047.9 ppb	02:19:37
2	Sb 206.836†	1778.8	1784.6	540.80 ug/L	540.80 ppb	02:19:37
2	Se 196.026†	993.5	1050.7	556.05 ug/L	556.05 ppb	02:19:37
2	Si 251.611†	90765.9	92338.1	2636.2 ug/L	2636.2 ppb	02:19:17
2	Sn 189.927†	3509.4	3590.6	531.73 ug/L	531.73 ppb	02:19:37
2	Ti 334.940†	330018.4	339793.9	538.99 ug/L	538.99 ppb	02:19:17
2	Tl 190.801†	1856.1	1954.2	537.38 ug/L	537.38 ppb	02:19:37
2	U 409.014†	14061.6	17069.4	505.78 ug/L	505.78 ppb	02:19:17
2	V 292.402†	80371.8	84111.7	535.17 ug/L	535.17 ppb	02:19:17
2	Zn 213.857†	63733.5	64438.8	525.38 ug/L	525.38 ppb	02:19:17
2	SiO2†	90921.7	92478.2	5649.4 ug/L	5649.4 ppb	02:20:15
3	Sc Radial	4543.1	4543.1	97.3 %		02:18:21
3	Y RADIAL	4843.9	4843.9	98.20 %		02:18:21
3	Al 396.153Radial†	6149.8	6345.0	5604.9 ug/L	5604.9 ppb	02:18:21
3	Ca 317.933Radial†	3165.9	3240.1	5429.3 ug/L	5429.3 ppb	02:18:41
3	Fe 238.204 Radial†	580.3	582.3	5133.0 ug/L	5133.0 ppb	02:18:41
3	K 766.490 Radial†	28903.6	26359.1	5223.4 ug/L	5223.4 ppb	02:18:21
3	Mg 279.077 IEC†	163.4	166.2	5321.7 ug/L	5321.7 ppb	02:18:41
3	Na 589.592 Radial†	30918.9	33516.4	10125 ug/L	10125 ppb	02:18:21
3	Sr 421.552†	72840.1	74820.6	547.76 ug/L	547.76 ppb	02:18:21
3	Sc 361.383	870379.5	870379.5	98.169 %		02:19:44
3	Y 371.029	740823.9	740823.9	97.252 %		02:19:44
3	Ag 328.068†	121114.3	122860.4	531.03 ug/L	531.03 ppb	02:19:44
3	As 188.979†	1451.0	1511.5	533.69 ug/L	533.69 ppb	02:20:04
3	B 249.677†	24213.0	25330.3	520.28 ug/L	520.28 ppb	02:19:44
3	Ba 233.527†	71267.3	72588.7	530.61 ug/L	530.61 ppb	02:19:44
3	Be 313.107†	1550785.2	1584054.3	536.46 ug/L	536.46 ppb	02:19:44
3	Cd 226.502†	54689.3	55947.4	526.75 ug/L	526.75 ppb	02:19:44
3	Co 228.616†	27275.5	27868.0	524.13 ug/L	524.13 ppb	02:20:04
3	Cr 267.716†	51798.5	52660.4	528.48 ug/L	528.48 ppb	02:19:44
3	Cu 324.752†	183903.4	179333.7	531.20 ug/L	531.20 ppb	02:19:44
3	Mn 257.610†	498358.4	507134.9	534.75 ug/L	534.75 ppb	02:19:44
3	Mo 202.031†	8330.4	8465.8	530.85 ug/L	530.85 ppb	02:20:04
3	Ni 231.604†	23533.7	23847.4	523.18 ug/L	523.18 ppb	02:20:04
3	P 214.914†	5576.1	5431.5	2567.8 ug/L	2567.8 ppb	02:20:04
3	Pb 220.353†	4925.3	5094.9	529.53 ug/L	529.53 ppb	02:20:04
3	S 181.975 Axial†	974.6	932.9	1053.2 ug/L	1053.2 ppb	02:20:04
3	Sb 206.836†	1767.2	1763.0	534.18 ug/L	534.18 ppb	02:20:04
3	Se 196.026†	995.6	1047.4	554.29 ug/L	554.29 ppb	02:20:04
3	Si 251.611†	91129.9	92212.7	2632.7 ug/L	2632.7 ppb	02:19:44
3	Sn 189.927†	3494.8	3556.6	526.70 ug/L	526.70 ppb	02:20:04
3	Ti 334.940†	331683.0	339685.2	538.81 ug/L	538.81 ppb	02:19:44
3	Tl 190.801†	1846.1	1934.0	531.85 ug/L	531.85 ppb	02:20:04
3	U 409.014†	14287.4	17222.5	510.34 ug/L	510.34 ppb	02:19:44
3	V 292.402†	80850.0	84159.5	535.44 ug/L	535.44 ppb	02:19:44
3	Zn 213.857†	64064.6	64427.6	525.31 ug/L	525.31 ppb	02:19:44
3	SiO2†	92044.6	93125.0	5689.3 ug/L	5689.3 ppb	02:20:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	868793.0	97.990 %		0.2990			0.31%
Sc Radial	4559.0	97.7 %		1.00			1.02%
Y 371.029	738859.3	96.994 %		0.3546			0.37%
Y RADIAL	4856.8	98.46 %		1.318			1.34%
Ag 328.068†	122933.8	531.35 ug/L		0.511	531.35 ppb	0.511	0.10%
QC value within limits for Ag 328.068 Recovery = 106.27%							
Al 396.153Radial†	6332.9	5594.0 ug/L		25.72	5594.0 ppb	25.72	0.46%
QC value greater than the upper limit for Al 396.153Radial Recovery = 111.88%							
As 188.979†	1519.5	536.49 ug/L		2.528	536.49 ppb	2.528	0.47%
QC value within limits for As 188.979 Recovery = 107.30%							
B 249.677†	25257.8	518.79 ug/L		1.557	518.79 ppb	1.557	0.30%
QC value within limits for B 249.677 Recovery = 103.76%							
Ba 233.527†	72690.2	531.35 ug/L		0.722	531.35 ppb	0.722	0.14%
QC value within limits for Ba 233.527 Recovery = 106.27%							
Be 313.107†	1583917.1	536.41 ug/L		0.509	536.41 ppb	0.509	0.09%
QC value within limits for Be 313.107 Recovery = 107.28%							
Ca 317.933Radial†	3221.1	5397.5 ug/L		96.51	5397.5 ppb	96.51	1.79%

QC value within limits for Ca 317.933 Radial Recovery = 107.95%

Cd 226.502†	56043.0	527.66 ug/L	1.054	527.66 ppb	1.054	0.20%
QC value within limits for Cd 226.502 Recovery = 105.53%						
Co 228.616†	27995.1	526.52 ug/L	2.075	526.52 ppb	2.075	0.39%
QC value within limits for Co 228.616 Recovery = 105.30%						
Cr 267.716†	52680.2	528.68 ug/L	0.948	528.68 ppb	0.948	0.18%
QC value within limits for Cr 267.716 Recovery = 105.74%						
Cu 324.752†	179383.5	531.35 ug/L	0.283	531.35 ppb	0.283	0.05%
QC value within limits for Cu 324.752 Recovery = 106.27%						
Fe 238.204 Radial†	580.3	5115.4 ug/L	54.20	5115.4 ppb	54.20	1.06%
QC value within limits for Fe 238.204 Radial Recovery = 102.31%						
K 766.490 Radial†	26192.4	5190.3 ug/L	44.41	5190.3 ppb	44.41	0.86%
QC value within limits for K 766.490 Radial Recovery = 103.81%						
Mg 279.077 IEC†	165.2	5287.8 ug/L	73.03	5287.8 ppb	73.03	1.38%
QC value within limits for Mg 279.077 IEC Recovery = 105.76%						
Mn 257.610†	507522.2	535.16 ug/L	0.412	535.16 ppb	0.412	0.08%
QC value within limits for Mn 257.610 Recovery = 107.03%						
Mo 202.031†	8505.4	533.33 ug/L	2.230	533.33 ppb	2.230	0.42%
QC value within limits for Mo 202.031 Recovery = 106.67%						
Na 589.592 Radial†	33471.6	10111 ug/L	13.9	10111 ppb	13.9	0.14%
QC value within limits for Na 589.592 Radial Recovery = 101.11%						
Ni 231.604†	23965.9	525.78 ug/L	2.260	525.78 ppb	2.260	0.43%
QC value within limits for Ni 231.604 Recovery = 105.16%						
P 214.914†	5446.0	2574.9 ug/L	8.34	2574.9 ppb	8.34	0.32%
QC value within limits for P 214.914 Recovery = 103.00%						
Pb 220.353†	5130.7	533.24 ug/L	3.395	533.24 ppb	3.395	0.64%
QC value within limits for Pb 220.353 Recovery = 106.65%						
S 181.975 Axial†	934.2	1054.7 ug/L	7.56	1054.7 ppb	7.56	0.72%
QC value within limits for S 181.975 Axial Recovery = 105.47%						
Sb 206.836†	1770.9	536.64 ug/L	3.624	536.64 ppb	3.624	0.68%
QC value within limits for Sb 206.836 Recovery = 107.33%						
Se 196.026†	1051.4	556.31 ug/L	2.154	556.31 ppb	2.154	0.39%
QC value greater than the upper limit for Se 196.026 Recovery = 111.26%						
Si 251.611†	92370.7	2637.1 ug/L	5.04	2637.1 ppb	5.04	0.19%
QC value within limits for Si 251.611 Recovery = 105.49%						
Sn 189.927†	3575.7	529.53 ug/L	2.576	529.53 ppb	2.576	0.49%
QC value within limits for Sn 189.927 Recovery = 105.91%						
Sr 421.552†	74805.7	547.65 ug/L	0.152	547.65 ppb	0.152	0.03%
QC value within limits for Sr 421.552 Recovery = 109.53%						
Ti 334.940†	339768.2	538.94 ug/L	0.115	538.94 ppb	0.115	0.02%
QC value within limits for Ti 334.940 Recovery = 107.79%						
Tl 190.801†	1947.8	535.63 ug/L	3.279	535.63 ppb	3.279	0.61%
QC value within limits for Tl 190.801 Recovery = 107.13%						
U 409.014†	17167.5	508.70 ug/L	2.537	508.70 ppb	2.537	0.50%
QC value within limits for U 409.014 Recovery = 101.74%						
V 292.402†	84171.9	535.55 ug/L	0.446	535.55 ppb	0.446	0.08%
QC value within limits for V 292.402 Recovery = 107.11%						
Zn 213.857†	64477.1	525.71 ug/L	0.625	525.71 ppb	0.625	0.12%
QC value within limits for Zn 213.857 Recovery = 105.14%						
SiO2†	92265.0	5636.4 ug/L	60.47	5636.4 ppb	60.47	1.07%
QC value within limits for SiO2 Recovery = 105.40%						

QC Failed. Continue with analysis.

Sequence No.: 102
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 6
 Date Collected: 1/7/2010 02:22:30
 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	4659.5	4659.5	99.8 %		02:24:23
1	Y RADIAL	4972.2	4972.2	100.8 %		02:24:23
1	Al 396.153Radial†	12.6	39.4	34.883 ug/L	34.883 ppb	02:24:23
1	Ca 317.933Radial†	18.5	6.0	10.011 ug/L	10.011 ppb	02:24:43
1	Fe 238.204 Radial†	10.4	-3.4	-30.182 ug/L	-30.182 ppb	02:24:43
1	K 766.490 Radial†	3248.3	-82.7	-16.435 ug/L	-16.435 ppb	02:24:23
1	Mg 279.077 IEC†	2.5	0.8	26.150 ug/L	26.150 ppb	02:24:43
1	Na 589.592 Radial†	-1599.5	147.9	44.664 ug/L	44.664 ppb	02:24:23
1	Sr 421.552†	15.4	-0.5	-0.0038 ug/L	-0.0038 ppb	02:24:23
1	Sc 361.383	887413.6	887413.6	100.09 %		02:25:39
1	Y 371.029	761243.6	761243.6	99.933 %		02:25:39
1	Ag 328.068†	473.9	-38.9	-0.1751 ug/L	-0.1751 ppb	02:25:44
1	As 188.979†	-36.5	-3.0	-1.0596 ug/L	-1.0596 ppb	02:26:04
1	B 249.677†	-648.5	17.9	0.3738 ug/L	0.3738 ppb	02:25:44
1	Ba 233.527†	-11.7	-19.2	-0.1402 ug/L	-0.1402 ppb	02:26:04
1	Be 313.107†	-4292.3	63.1	0.0219 ug/L	0.0219 ppb	02:25:44
1	Cd 226.502†	-255.7	-17.1	-0.1581 ug/L	-0.1581 ppb	02:26:04
1	Co 228.616†	-82.4	1.6	0.0318 ug/L	0.0318 ppb	02:26:04
1	Cr 267.716†	101.6	-2.5	-0.0247 ug/L	-0.0247 ppb	02:25:44
1	Cu 324.752†	8053.6	47.3	0.1386 ug/L	0.1386 ppb	02:25:44
1	Mn 257.610†	532.5	15.6	0.0129 ug/L	0.0129 ppb	02:25:44
1	Mo 202.031†	28.2	8.3	0.5169 ug/L	0.5169 ppb	02:26:04
1	Ni 231.604†	145.8	20.6	0.4523 ug/L	0.4523 ppb	02:26:04
1	P 214.914†	266.1	17.3	8.4551 ug/L	8.4551 ppb	02:26:04
1	Pb 220.353†	-84.6	-6.8	-0.6915 ug/L	-0.6915 ppb	02:26:04
1	S 181.975 Axial†	60.1	0.2	0.1981 ug/L	0.1981 ppb	02:26:04
1	Sb 206.836†	47.1	9.9	2.9683 ug/L	2.9683 ppb	02:26:04
1	Se 196.026†	-28.7	4.6	2.2689 ug/L	2.2689 ppb	02:26:04
1	Si 251.611†	646.9	29.7	0.8496 ug/L	0.8496 ppb	02:26:04
1	Sn 189.927†	2.1	-1.3	-0.1903 ug/L	-0.1903 ppb	02:26:04
1	Ti 334.940†	-1641.4	177.5	0.2825 ug/L	0.2825 ppb	02:25:44
1	Tl 190.801†	-41.4	12.0	3.2808 ug/L	3.2808 ppb	02:26:04
1	U 409.014†	-2703.6	-32.4	-0.9589 ug/L	-0.9589 ppb	02:25:39
1	V 292.402†	-1748.9	54.5	0.3528 ug/L	0.3528 ppb	02:25:44
1	Zn 213.857†	825.7	-6.7	-0.0573 ug/L	-0.0573 ppb	02:26:04
1	SiO2†	657.8	21.2	1.2940 ug/L	1.2940 ppb	02:27:10
2	Sc Radial	4612.8	4612.8	98.8 %		02:24:48
2	Y RADIAL	4888.4	4888.4	99.10 %		02:24:48
2	Al 396.153Radial†	0.1	26.8	23.727 ug/L	23.727 ppb	02:24:48
2	Ca 317.933Radial†	15.2	2.8	4.7033 ug/L	4.7033 ppb	02:25:08
2	Fe 238.204 Radial†	12.8	-0.9	-8.2966 ug/L	-8.2966 ppb	02:25:08
2	K 766.490 Radial†	3366.8	70.1	13.901 ug/L	13.901 ppb	02:24:48
2	Mg 279.077 IEC†	4.7	3.1	99.781 ug/L	99.781 ppb	02:25:08
2	Na 589.592 Radial†	-1667.9	62.4	18.851 ug/L	18.851 ppb	02:24:48
2	Sr 421.552†	-2.6	-18.6	-0.1360 ug/L	-0.1360 ppb	02:24:48
2	Sc 361.383	881389.0	881389.0	99.411 %		02:26:10
2	Y 371.029	757104.1	757104.1	99.389 %		02:26:10
2	Ag 328.068†	559.2	50.2	0.2099 ug/L	0.2099 ppb	02:26:15
2	As 188.979†	-39.7	-6.5	-2.2831 ug/L	-2.2831 ppb	02:26:35
2	B 249.677†	-620.1	42.0	0.8680 ug/L	0.8680 ppb	02:26:15
2	Ba 233.527†	0.4	-7.1	-0.0519 ug/L	-0.0519 ppb	02:26:35
2	Be 313.107†	-4314.2	11.7	0.0039 ug/L	0.0039 ppb	02:26:15
2	Cd 226.502†	-237.2	-0.2	-0.0012 ug/L	-0.0012 ppb	02:26:35
2	Co 228.616†	-90.7	-7.2	-0.1343 ug/L	-0.1343 ppb	02:26:35
2	Cr 267.716†	132.1	28.8	0.2874 ug/L	0.2874 ppb	02:26:15
2	Cu 324.752†	8040.0	88.6	0.2620 ug/L	0.2620 ppb	02:26:15
2	Mn 257.610†	534.2	20.9	0.0193 ug/L	0.0193 ppb	02:26:15
2	Mo 202.031†	30.8	11.0	0.6891 ug/L	0.6891 ppb	02:26:35
2	Ni 231.604†	133.7	9.4	0.2062 ug/L	0.2062 ppb	02:26:35

2	P 214.914†	234.7	-12.5	-6.1424 ug/L	-6.1424 ppb	02:26:35
2	Pb 220.353†	-95.3	-18.1	-1.8691 ug/L	-1.8691 ppb	02:26:35
2	S 181.975 Axial†	61.6	2.1	2.3135 ug/L	2.3135 ppb	02:26:35
2	Sb 206.836†	42.9	6.1	1.8036 ug/L	1.8036 ppb	02:26:35
2	Se 196.026†	-31.3	1.8	0.8827 ug/L	0.8827 ppb	02:26:35
2	Si 251.611†	631.2	18.4	0.5132 ug/L	0.5132 ppb	02:26:35
2	Sn 189.927†	-2.0	-5.4	-0.7988 ug/L	-0.7988 ppb	02:26:35
2	Ti 334.940†	-1825.5	-19.0	-0.0315 ug/L	-0.0315 ppb	02:26:15
2	Tl 190.801†	-46.3	6.8	1.8659 ug/L	1.8659 ppb	02:26:35
2	U 409.014†	-2533.8	119.9	3.5649 ug/L	3.5649 ppb	02:26:10
2	V 292.402†	-1788.5	2.7	0.0371 ug/L	0.0371 ppb	02:26:15
2	Zn 213.857†	837.3	10.6	0.0825 ug/L	0.0825 ppb	02:26:35
2	SiO2†	684.1	52.1	3.1690 ug/L	3.1690 ppb	02:27:15
3	Sc Radial	4604.3	4604.3	98.6 %		02:25:13
3	Y RADIAL	4914.7	4914.7	99.63 %		02:25:13
3	Al 396.153Radial†	9.8	36.7	32.493 ug/L	32.493 ppb	02:25:13
3	Ca 317.933Radial†	16.7	4.4	7.3380 ug/L	7.3380 ppb	02:25:33
3	Fe 238.204 Radial†	12.7	-1.0	-9.0015 ug/L	-9.0015 ppb	02:25:33
3	K 766.490 Radial†	3394.7	104.6	20.770 ug/L	20.770 ppb	02:25:13
3	Mg 279.077 IEC†	0.9	-0.7	-22.239 ug/L	-22.239 ppb	02:25:33
3	Na 589.592 Radial†	-1656.2	71.1	21.480 ug/L	21.480 ppb	02:25:13
3	Sr 421.552†	25.9	10.3	0.0752 ug/L	0.0752 ppb	02:25:13
3	Sc 361.383	881984.4	881984.4	99.478 %		02:26:40
3	Y 371.029	757443.7	757443.7	99.434 %		02:26:40
3	Ag 328.068†	546.4	37.0	0.1554 ug/L	0.1554 ppb	02:26:45
3	As 188.979†	-36.0	-2.8	-0.9730 ug/L	-0.9730 ppb	02:27:05
3	B 249.677†	-649.1	13.3	0.2753 ug/L	0.2753 ppb	02:26:45
3	Ba 233.527†	0.7	-6.8	-0.0492 ug/L	-0.0492 ppb	02:27:05
3	Be 313.107†	-4264.3	64.8	0.0223 ug/L	0.0223 ppb	02:26:45
3	Cd 226.502†	-246.4	-9.4	-0.0875 ug/L	-0.0875 ppb	02:27:05
3	Co 228.616†	-83.5	0.0	0.0031 ug/L	0.0031 ppb	02:27:05
3	Cr 267.716†	64.7	-39.0	-0.3906 ug/L	-0.3906 ppb	02:26:45
3	Cu 324.752†	7979.1	21.9	0.0644 ug/L	0.0644 ppb	02:26:45
3	Mn 257.610†	540.0	26.4	0.0273 ug/L	0.0273 ppb	02:26:45
3	Mo 202.031†	34.2	14.5	0.9056 ug/L	0.9056 ppb	02:27:05
3	Ni 231.604†	118.3	-6.2	-0.1352 ug/L	-0.1352 ppb	02:27:05
3	P 214.914†	250.1	2.8	1.3601 ug/L	1.3601 ppb	02:27:05
3	Pb 220.353†	-79.7	-2.4	-0.2363 ug/L	-0.2363 ppb	02:27:05
3	S 181.975 Axial†	59.7	0.1	0.1578 ug/L	0.1578 ppb	02:27:05
3	Sb 206.836†	40.4	3.5	1.0561 ug/L	1.0561 ppb	02:27:05
3	Se 196.026†	-29.8	3.3	1.6466 ug/L	1.6466 ppb	02:27:05
3	Si 251.611†	647.3	34.1	0.9608 ug/L	0.9608 ppb	02:27:05
3	Sn 189.927†	-8.3	-11.8	-1.7429 ug/L	-1.7429 ppb	02:27:05
3	Ti 334.940†	-1674.1	134.5	0.2132 ug/L	0.2132 ppb	02:26:45
3	Tl 190.801†	-50.9	2.3	0.6184 ug/L	0.6184 ppb	02:27:05
3	U 409.014†	-2600.0	55.1	1.6399 ug/L	1.6399 ppb	02:26:40
3	V 292.402†	-1748.0	44.6	0.2971 ug/L	0.2971 ppb	02:26:45
3	Zn 213.857†	830.8	3.5	0.0304 ug/L	0.0304 ppb	02:27:05
3	SiO2†	651.4	18.8	1.1149 ug/L	1.1149 ppb	02:27:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	883595.7	99.660 %		0.3744			0.38%
Sc Radial	4625.5	99.1 %		0.64			0.64%
Y 371.029	758597.1	99.585 %		0.3017			0.30%
Y RADIAL	4925.1	99.84 %		0.869			0.87%
Ag 328.068†	16.1	0.0634 ug/L		0.20832	0.0634 ppb	0.20832	328.63%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	34.3	30.368 ug/L		5.8739	30.368 ppb	5.8739	19.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-4.1	-1.4386 ug/L		0.73262	-1.4386 ppb	0.73262	50.93%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	24.4	0.5057 ug/L		0.31762	0.5057 ppb	0.31762	62.81%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-11.0	-0.0804 ug/L		0.05181	-0.0804 ppb	0.05181	64.41%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	46.6	0.0160 ug/L		0.01051	0.0160 ppb	0.01051	65.55%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	4.4	7.3506 ug/L		2.65362	7.3506 ppb	2.65362	36.10%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated									
Cd	226.502†	-8.9	-0.0823 ug/L	0.07859	-0.0823 ppb	0.07859	95.55%		
QC value within limits for Cd 226.502 Recovery = Not calculated									
Co	228.616†	-1.9	-0.0332 ug/L	0.08880	-0.0332 ppb	0.08880	267.77%		
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr	267.716†	-4.2	-0.0426 ug/L	0.33932	-0.0426 ppb	0.33932	796.17%		
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu	324.752†	52.6	0.1550 ug/L	0.09983	0.1550 ppb	0.09983	64.41%		
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe	238.204 Radial†	-1.8	-15.827 ug/L	12.4368	-15.827 ppb	12.4368	78.58%		
QC value within limits for Fe 238.204 Radial Recovery = Not calculated									
K	766.490 Radial†	30.7	6.0787 ug/L	19.79786	6.0787 ppb	19.79786	325.70%		
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg	279.077 IEC†	1.1	34.564 ug/L	61.4440	34.564 ppb	61.4440	177.77%		
QC value within limits for Mg 279.077 IEC Recovery = Not calculated									
Mn	257.610†	21.0	0.0199 ug/L	0.00721	0.0199 ppb	0.00721	36.31%		
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo	202.031†	11.3	0.7038 ug/L	0.19476	0.7038 ppb	0.19476	27.67%		
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na	589.592 Radial†	93.8	28.332 ug/L	14.2053	28.332 ppb	14.2053	50.14%		
QC value within limits for Na 589.592 Radial Recovery = Not calculated									
Ni	231.604†	7.9	0.1744 ug/L	0.29502	0.1744 ppb	0.29502	169.13%		
QC value within limits for Ni 231.604 Recovery = Not calculated									
P	214.914†	2.5	1.2243 ug/L	7.29970	1.2243 ppb	7.29970	596.26%		
QC value within limits for P 214.914 Recovery = Not calculated									
Pb	220.353†	-9.1	-0.9323 ug/L	0.84261	-0.9323 ppb	0.84261	90.38%		
QC value within limits for Pb 220.353 Recovery = Not calculated									
S	181.975 Axial†	0.8	0.8898 ug/L	1.23310	0.8898 ppb	1.23310	138.58%		
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb	206.836†	6.5	1.9427 ug/L	0.96366	1.9427 ppb	0.96366	49.60%		
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se	196.026†	3.2	1.5994 ug/L	0.69430	1.5994 ppb	0.69430	43.41%		
QC value within limits for Se 196.026 Recovery = Not calculated									
Si	251.611†	27.4	0.7745 ug/L	0.23306	0.7745 ppb	0.23306	30.09%		
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn	189.927†	-6.2	-0.9107 ug/L	0.78232	-0.9107 ppb	0.78232	85.91%		
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr	421.552†	-2.9	-0.0215 ug/L	0.10668	-0.0215 ppb	0.10668	495.23%		
QC value within limits for Sr 421.552 Recovery = Not calculated									
Ti	334.940†	97.7	0.1548 ug/L	0.16500	0.1548 ppb	0.16500	106.62%		
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl	190.801†	7.0	1.9217 ug/L	1.33208	1.9217 ppb	1.33208	69.32%		
QC value within limits for Tl 190.801 Recovery = Not calculated									
U	409.014†	47.5	1.4153 ug/L	2.27023	1.4153 ppb	2.27023	160.41%		
QC value within limits for U 409.014 Recovery = Not calculated									
V	292.402†	34.0	0.2290 ug/L	0.16852	0.2290 ppb	0.16852	73.58%		
QC value within limits for V 292.402 Recovery = Not calculated									
Zn	213.857†	2.5	0.0185 ug/L	0.07064	0.0185 ppb	0.07064	381.63%		
QC value within limits for Zn 213.857 Recovery = Not calculated									
SiO2†		30.7	1.8593 ug/L	1.13777	1.8593 ppb	1.13777	61.19%		
QC value within limits for SiO2 Recovery = Not calculated									

All analyte(s) passed QC.

Sequence No.: 111
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 1
 Date Collected: 1/7/2010 03:24:58
 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	4662.6	4662.6	99.9 %		03:26:50
1	Y RADIAL	4922.9	4922.9	99.80 %		03:26:50
1	Al 396.153Radial†	6236.4	6269.7	5538.1 ug/L	5538.1 ppb	03:26:50
1	Ca 317.933Radial†	3133.1	3123.9	5234.6 ug/L	5234.6 ppb	03:27:10
1	Fe 238.204 Radial†	576.1	562.8	4962.1 ug/L	4962.1 ppb	03:27:10
1	K 766.490 Radial†	29093.4	25787.6	5110.1 ug/L	5110.1 ppb	03:26:50
1	Mg 279.077 IEC†	163.3	161.8	5180.5 ug/L	5180.5 ppb	03:27:10
1	Na 589.592 Radial†	30930.9	32713.8	9882.2 ug/L	9882.2 ppb	03:26:50
1	Sr 421.552†	73144.7	73206.4	535.94 ug/L	535.94 ppb	03:26:50
1	Sc 361.383	863881.3	863881.3	97.436 %		03:28:09
1	Y 371.029	734921.5	734921.5	96.477 %		03:28:09
1	Ag 328.068†	119387.2	122015.9	527.35 ug/L	527.35 ppb	03:28:09
1	As 188.979†	1433.9	1505.1	531.38 ug/L	531.38 ppb	03:28:29
1	B 249.677†	23823.6	25116.2	515.89 ug/L	515.89 ppb	03:28:09
1	Ba 233.527†	70494.0	72341.1	528.79 ug/L	528.79 ppb	03:28:09
1	Be 313.107†	1530810.8	1575437.1	533.54 ug/L	533.54 ppb	03:28:09
1	Cd 226.502†	54254.4	55920.2	526.51 ug/L	526.51 ppb	03:28:09
1	Co 228.616†	27059.0	27854.9	523.89 ug/L	523.89 ppb	03:28:29
1	Cr 267.716†	51175.0	52417.4	526.04 ug/L	526.04 ppb	03:28:09
1	Cu 324.752†	181077.2	177842.2	526.78 ug/L	526.78 ppb	03:28:09
1	Mn 257.610†	492135.3	504566.7	532.03 ug/L	532.03 ppb	03:28:09
1	Mo 202.031†	8249.5	8446.7	529.63 ug/L	529.63 ppb	03:28:29
1	Ni 231.604†	23410.3	23901.2	524.36 ug/L	524.36 ppb	03:28:29
1	P 214.914†	5534.9	5431.9	2568.9 ug/L	2568.9 ppb	03:28:29
1	Pb 220.353†	4885.8	5092.1	529.24 ug/L	529.24 ppb	03:28:29
1	S 181.975 Axial†	973.9	939.7	1060.9 ug/L	1060.9 ppb	03:28:29
1	Sb 206.836†	1767.2	1776.6	538.29 ug/L	538.29 ppb	03:28:29
1	Se 196.026†	979.1	1038.1	549.00 ug/L	549.00 ppb	03:28:29
1	Si 251.611†	90091.3	91845.0	2622.2 ug/L	2622.2 ppb	03:28:09
1	Sn 189.927†	3476.1	3564.1	527.79 ug/L	527.79 ppb	03:28:29
1	Ti 334.940†	326491.6	336898.7	534.39 ug/L	534.39 ppb	03:28:09
1	Tl 190.801†	1849.6	1951.6	536.63 ug/L	536.63 ppb	03:28:29
1	U 409.014†	13889.9	16924.1	501.49 ug/L	501.49 ppb	03:28:09
1	V 292.402†	79755.2	83655.3	532.27 ug/L	532.27 ppb	03:28:09
1	Zn 213.857†	63403.6	64240.0	523.78 ug/L	523.78 ppb	03:28:09
1	SiO2†	91423.6	93192.8	5693.6 ug/L	5693.6 ppb	03:29:29
2	Sc Radial	4596.8	4596.8	98.5 %		03:27:15
2	Y RADIAL	4872.0	4872.0	98.76 %		03:27:15
2	Al 396.153Radial†	6118.7	6239.6	5511.6 ug/L	5511.6 ppb	03:27:15
2	Ca 317.933Radial†	3114.4	3149.7	5277.9 ug/L	5277.9 ppb	03:27:35
2	Fe 238.204 Radial†	569.6	564.5	4976.2 ug/L	4976.2 ppb	03:27:35
2	K 766.490 Radial†	28761.7	25867.6	5126.0 ug/L	5126.0 ppb	03:27:15
2	Mg 279.077 IEC†	161.0	161.9	5182.5 ug/L	5182.5 ppb	03:27:35
2	Na 589.592 Radial†	30500.4	32720.0	9884.0 ug/L	9884.0 ppb	03:27:15
2	Sr 421.552†	72232.3	73328.0	536.83 ug/L	536.83 ppb	03:27:15
2	Sc 361.383	876384.8	876384.8	98.847 %		03:28:36
2	Y 371.029	745355.1	745355.1	97.847 %		03:28:36
2	Ag 328.068†	121338.8	122242.1	528.32 ug/L	528.32 ppb	03:28:36
2	As 188.979†	1436.3	1486.4	524.87 ug/L	524.87 ppb	03:28:56
2	B 249.677†	24413.9	25364.5	521.03 ug/L	521.03 ppb	03:28:36
2	Ba 233.527†	71349.4	72174.3	527.58 ug/L	527.58 ppb	03:28:36
2	Be 313.107†	1552604.7	1575070.4	533.41 ug/L	533.41 ppb	03:28:36
2	Cd 226.502†	54877.6	55756.3	524.96 ug/L	524.96 ppb	03:28:36
2	Co 228.616†	27097.3	27497.4	517.15 ug/L	517.15 ppb	03:28:56
2	Cr 267.716†	51795.0	52295.2	524.81 ug/L	524.81 ppb	03:28:36
2	Cu 324.752†	184272.1	178423.0	528.50 ug/L	528.50 ppb	03:28:36
2	Mn 257.610†	498758.9	504061.5	531.50 ug/L	531.50 ppb	03:28:36
2	Mo 202.031†	8274.8	8351.4	523.67 ug/L	523.67 ppb	03:28:56
2	Ni 231.604†	23403.0	23551.0	516.67 ug/L	516.67 ppb	03:28:56

2	P 214.914†	5542.3	5358.4	2532.6 ug/L	2532.6 ppb	03:28:56
2	Pb 220.353†	4912.8	5047.9	524.64 ug/L	524.64 ppb	03:28:56
2	S 181.975 Axial†	965.0	916.4	1034.6 ug/L	1034.6 ppb	03:28:56
2	Sb 206.836†	1748.6	1731.9	524.69 ug/L	524.69 ppb	03:28:56
2	Se 196.026†	977.5	1022.2	540.88 ug/L	540.88 ppb	03:28:56
2	Si 251.611†	91476.0	91926.6	2624.6 ug/L	2624.6 ppb	03:28:36
2	Sn 189.927†	3467.3	3504.3	518.95 ug/L	518.95 ppb	03:28:56
2	Ti 334.940†	331488.8	337173.6	534.82 ug/L	534.82 ppb	03:28:36
2	Tl 190.801†	1847.6	1922.5	528.72 ug/L	528.72 ppb	03:28:56
2	U 409.014†	14193.3	17027.6	504.57 ug/L	504.57 ppb	03:28:36
2	V 292.402†	80824.5	83569.3	531.64 ug/L	531.64 ppb	03:28:36
2	Zn 213.857†	64142.0	64058.6	522.34 ug/L	522.34 ppb	03:28:36
2	SiO2†	90113.7	90529.1	5530.3 ug/L	5530.3 ppb	03:29:34
3	Sc Radial	4523.3	4523.3	96.9 %		03:27:40
3	Y RADIAL	4800.1	4800.1	97.31 %		03:27:40
3	Al 396.153Radial†	6042.7	6262.1	5531.2 ug/L	5531.2 ppb	03:27:40
3	Ca 317.933Radial†	3130.6	3217.9	5392.2 ug/L	5392.2 ppb	03:28:00
3	Fe 238.204 Radial†	572.7	577.1	5087.3 ug/L	5087.3 ppb	03:28:00
3	K 766.490 Radial†	28390.8	25959.6	5144.3 ug/L	5144.3 ppb	03:27:40
3	Mg 279.077 IEC†	167.5	171.2	5480.0 ug/L	5480.0 ppb	03:28:00
3	Na 589.592 Radial†	29812.2	32513.2	9821.6 ug/L	9821.6 ppb	03:27:40
3	Sr 421.552†	71115.7	73368.1	537.13 ug/L	537.13 ppb	03:27:40
3	Sc 361.383	866913.3	866913.3	97.778 %		03:29:04
3	Y 371.029	737613.6	737613.6	96.831 %		03:29:04
3	Ag 328.068†	119849.0	122059.6	527.57 ug/L	527.57 ppb	03:29:04
3	As 188.979†	1442.8	1509.0	532.77 ug/L	532.77 ppb	03:29:24
3	B 249.677†	24026.9	25238.6	518.40 ug/L	518.40 ppb	03:29:04
3	Ba 233.527†	70757.4	72357.5	528.92 ug/L	528.92 ppb	03:29:04
3	Be 313.107†	1536017.4	1575267.1	533.48 ug/L	533.48 ppb	03:29:04
3	Cd 226.502†	54397.1	55871.4	526.04 ug/L	526.04 ppb	03:29:04
3	Co 228.616†	27218.1	27920.5	525.13 ug/L	525.13 ppb	03:29:24
3	Cr 267.716†	51293.4	52354.8	525.41 ug/L	525.41 ppb	03:29:04
3	Cu 324.752†	181705.2	177834.5	526.76 ug/L	526.76 ppb	03:29:04
3	Mn 257.610†	493785.1	504487.4	531.96 ug/L	531.96 ppb	03:29:04
3	Mo 202.031†	8318.9	8488.0	532.23 ug/L	532.23 ppb	03:29:24
3	Ni 231.604†	23582.3	23993.0	526.37 ug/L	526.37 ppb	03:29:24
3	P 214.914†	5563.4	5441.3	2573.4 ug/L	2573.4 ppb	03:29:24
3	Pb 220.353†	4938.8	5128.8	533.04 ug/L	533.04 ppb	03:29:24
3	S 181.975 Axial†	982.5	944.9	1066.8 ug/L	1066.8 ppb	03:29:24
3	Sb 206.836†	1763.8	1766.8	535.47 ug/L	535.47 ppb	03:29:24
3	Se 196.026†	991.3	1047.1	553.98 ug/L	553.98 ppb	03:29:24
3	Si 251.611†	90519.4	91959.5	2625.4 ug/L	2625.4 ppb	03:29:04
3	Sn 189.927†	3504.1	3580.3	530.20 ug/L	530.20 ppb	03:29:24
3	Ti 334.940†	328109.2	337381.2	535.16 ug/L	535.16 ppb	03:29:04
3	Tl 190.801†	1849.7	1945.1	534.86 ug/L	534.86 ppb	03:29:24
3	U 409.014†	13933.8	16919.1	501.33 ug/L	501.33 ppb	03:29:04
3	V 292.402†	79895.6	83512.7	531.39 ug/L	531.39 ppb	03:29:04
3	Zn 213.857†	63554.6	64166.9	523.15 ug/L	523.15 ppb	03:29:04
3	SiO2†	90970.9	92401.7	5644.9 ug/L	5644.9 ppb	03:29:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	869059.8	98.021 %	0.7356			0.75%
Sc Radial	4594.2	98.4 %	1.49			1.52%
Y 371.029	739296.7	97.052 %	0.7111			0.73%
Y RADIAL	4865.0	98.62 %	1.251			1.27%
Ag 328.068†	122105.9	527.75 ug/L	0.508	527.75 ppb	0.508	0.10%
QC value within limits for Ag 328.068 Recovery = 105.55%						
Al 396.153Radial†	6257.1	5527.0 ug/L	13.75	5527.0 ppb	13.75	0.25%
QC value greater than the upper limit for Al 396.153Radial Recovery = 110.54%						
As 188.979†	1500.2	529.67 ug/L	4.220	529.67 ppb	4.220	0.80%
QC value within limits for As 188.979 Recovery = 105.93%						
B 249.677†	25239.8	518.44 ug/L	2.568	518.44 ppb	2.568	0.50%
QC value within limits for B 249.677 Recovery = 103.69%						
Ba 233.527†	72291.0	528.43 ug/L	0.740	528.43 ppb	0.740	0.14%
QC value within limits for Ba 233.527 Recovery = 105.69%						
Be 313.107†	1575258.2	533.48 ug/L	0.062	533.48 ppb	0.062	0.01%
QC value within limits for Be 313.107 Recovery = 106.70%						
Ca 317.933Radial†	3163.9	5301.6 ug/L	81.39	5301.6 ppb	81.39	1.54%

QC value within limits for Ca 317.933 Radial Recovery = 106.03%									
Cd	226.502†	55849.3	525.84 ug/L	0.795	525.84 ppb	0.795	0.15%		
QC value within limits for Cd 226.502 Recovery = 105.17%									
Co	228.616†	27757.6	522.06 ug/L	4.291	522.06 ppb	4.291	0.82%		
QC value within limits for Co 228.616 Recovery = 104.41%									
Cr	267.716†	52355.8	525.42 ug/L	0.613	525.42 ppb	0.613	0.12%		
QC value within limits for Cr 267.716 Recovery = 105.08%									
Cu	324.752†	178033.2	527.35 ug/L	0.998	527.35 ppb	0.998	0.19%		
QC value within limits for Cu 324.752 Recovery = 105.47%									
Fe	238.204 Radial†	568.1	5008.6 ug/L	68.54	5008.6 ppb	68.54	1.37%		
QC value within limits for Fe 238.204 Radial Recovery = 100.17%									
K	766.490 Radial†	25871.6	5126.8 ug/L	17.10	5126.8 ppb	17.10	0.33%		
QC value within limits for K 766.490 Radial Recovery = 102.54%									
Mg	279.077 IEC†	165.0	5281.0 ug/L	172.35	5281.0 ppb	172.35	3.26%		
QC value within limits for Mg 279.077 IEC Recovery = 105.62%									
Mn	257.610†	504371.9	531.83 ug/L	0.287	531.83 ppb	0.287	0.05%		
QC value within limits for Mn 257.610 Recovery = 106.37%									
Mo	202.031†	8428.7	528.51 ug/L	4.392	528.51 ppb	4.392	0.83%		
QC value within limits for Mo 202.031 Recovery = 105.70%									
Na	589.592 Radial†	32649.0	9862.6 ug/L	35.53	9862.6 ppb	35.53	0.36%		
QC value within limits for Na 589.592 Radial Recovery = 98.63%									
Ni	231.604†	23815.1	522.47 ug/L	5.118	522.47 ppb	5.118	0.98%		
QC value within limits for Ni 231.604 Recovery = 104.49%									
P	214.914†	5410.5	2558.3 ug/L	22.34	2558.3 ppb	22.34	0.87%		
QC value within limits for P 214.914 Recovery = 102.33%									
Pb	220.353†	5089.6	528.97 ug/L	4.206	528.97 ppb	4.206	0.80%		
QC value within limits for Pb 220.353 Recovery = 105.79%									
S	181.975 Axial†	933.7	1054.1 ug/L	17.15	1054.1 ppb	17.15	1.63%		
QC value within limits for S 181.975 Axial Recovery = 105.41%									
Sb	206.836†	1758.4	532.82 ug/L	7.177	532.82 ppb	7.177	1.35%		
QC value within limits for Sb 206.836 Recovery = 106.56%									
Se	196.026†	1035.8	547.95 ug/L	6.616	547.95 ppb	6.616	1.21%		
QC value within limits for Se 196.026 Recovery = 109.59%									
Si	251.611†	91910.4	2624.1 ug/L	1.69	2624.1 ppb	1.69	0.06%		
QC value within limits for Si 251.611 Recovery = 104.96%									
Sn	189.927†	3549.6	525.65 ug/L	5.924	525.65 ppb	5.924	1.13%		
QC value within limits for Sn 189.927 Recovery = 105.13%									
Sr	421.552†	73300.8	536.64 ug/L	0.616	536.64 ppb	0.616	0.11%		
QC value within limits for Sr 421.552 Recovery = 107.33%									
Ti	334.940†	337151.2	534.79 ug/L	0.388	534.79 ppb	0.388	0.07%		
QC value within limits for Ti 334.940 Recovery = 106.96%									
Tl	190.801†	1939.8	533.41 ug/L	4.151	533.41 ppb	4.151	0.78%		
QC value within limits for Tl 190.801 Recovery = 106.68%									
U	409.014†	16956.9	502.46 ug/L	1.826	502.46 ppb	1.826	0.36%		
QC value within limits for U 409.014 Recovery = 100.49%									
V	292.402†	83579.1	531.77 ug/L	0.449	531.77 ppb	0.449	0.08%		
QC value within limits for V 292.402 Recovery = 106.35%									
Zn	213.857†	64155.2	523.09 ug/L	0.725	523.09 ppb	0.725	0.14%		
QC value within limits for Zn 213.857 Recovery = 104.62%									
SiO2†		92041.2	5622.9 ug/L	83.81	5622.9 ppb	83.81	1.49%		
QC value within limits for SiO2 Recovery = 105.15%									
QC Failed. Continue with analysis.									

Sequence No.: 112
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 6
 Date Collected: 1/7/2010 03:31:49
 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	4412.0	4412.0	94.5 %		03:33:41
1	Y RADIAL	4711.8	4711.8	95.52 %		03:33:41
1	Al 396.153Radial†	7.7	34.8	30.861 ug/L	30.861 ppb	03:33:41
1	Ca 317.933Radial†	15.7	4.0	6.7508 ug/L	6.7508 ppb	03:34:01
1	Fe 238.204 Radial†	13.5	0.4	3.2087 ug/L	3.2087 ppb	03:34:01
1	K 766.490 Radial†	3364.7	222.9	44.248 ug/L	44.248 ppb	03:33:41
1	Mg 279.077 IEC†	1.9	0.4	11.264 ug/L	11.264 ppb	03:34:01
1	Na 589.592 Radial†	-1572.1	86.9	26.263 ug/L	26.263 ppb	03:33:41
1	Sr 421.552†	3.6	-12.2	-0.0893 ug/L	-0.0893 ppb	03:33:41
1	Sc 361.383	878990.5	878990.5	99.141 %		03:34:58
1	Y 371.029	753664.8	753664.8	98.938 %		03:34:58
1	Ag 328.068†	554.4	46.9	0.2026 ug/L	0.2026 ppb	03:35:03
1	As 188.979†	-29.0	4.1	1.4460 ug/L	1.4460 ppb	03:35:23
1	B 249.677†	-602.9	57.7	1.1900 ug/L	1.1900 ppb	03:35:03
1	Ba 233.527†	7.4	0.0	0.0002 ug/L	0.0002 ppb	03:35:23
1	Be 313.107†	-4310.9	3.2	0.0012 ug/L	0.0012 ppb	03:35:03
1	Cd 226.502†	-234.3	2.0	0.0187 ug/L	0.0187 ppb	03:35:23
1	Co 228.616†	-88.0	-4.8	-0.0880 ug/L	-0.0880 ppb	03:35:23
1	Cr 267.716†	89.5	-13.7	-0.1374 ug/L	-0.1374 ppb	03:35:03
1	Cu 324.752†	7981.9	52.1	0.1543 ug/L	0.1543 ppb	03:35:03
1	Mn 257.610†	570.2	58.7	0.0620 ug/L	0.0620 ppb	03:35:03
1	Mo 202.031†	34.2	14.6	0.9156 ug/L	0.9156 ppb	03:35:23
1	Ni 231.604†	123.1	-0.9	-0.0196 ug/L	-0.0196 ppb	03:35:23
1	P 214.914†	240.1	-6.4	-3.1582 ug/L	-3.1582 ppb	03:35:23
1	Pb 220.353†	-99.8	-22.9	-2.3588 ug/L	-2.3588 ppb	03:35:23
1	S 181.975 Axial†	51.6	-7.9	-8.8793 ppb	-8.8793 ppb	03:35:23
1	Sb 206.836†	48.4	11.8	3.5212 ug/L	3.5212 ppb	03:35:23
1	Se 196.026†	-29.7	3.3	1.6867 ug/L	1.6867 ppb	03:35:23
1	Si 251.611†	707.8	97.3	2.7638 ug/L	2.7638 ppb	03:35:23
1	Sn 189.927†	-2.0	-5.5	-0.8058 ug/L	-0.8058 ppb	03:35:23
1	Ti 334.940†	-1758.4	43.7	0.0699 ug/L	0.0699 ppb	03:35:03
1	Tl 190.801†	-44.9	8.1	2.2243 ug/L	2.2243 ppb	03:35:23
1	U 409.014†	-2653.5	-7.8	-0.2312 ug/L	-0.2312 ppb	03:34:58
1	V 292.402†	-1785.6	0.8	0.0173 ug/L	0.0173 ppb	03:35:03
1	Zn 213.857†	840.2	15.8	0.1294 ug/L	0.1294 ppb	03:35:23
1	SiO2†	719.5	89.7	5.4454 ug/L	5.4454 ppb	03:36:29
2	Sc Radial	4567.3	4567.3	97.9 %		03:34:06
2	Y RADIAL	4852.5	4852.5	98.37 %		03:34:06
2	Al 396.153Radial†	-15.6	10.8	9.5026 ug/L	9.5026 ppb	03:34:06
2	Ca 317.933Radial†	14.1	1.8	3.0919 ug/L	3.0919 ppb	03:34:26
2	Fe 238.204 Radial†	13.6	0.1	0.5373 ug/L	0.5373 ppb	03:34:26
2	K 766.490 Radial†	3383.9	121.5	24.107 ug/L	24.107 ppb	03:34:06
2	Mg 279.077 IEC†	1.9	0.3	8.6835 ug/L	8.6835 ppb	03:34:26
2	Na 589.592 Radial†	-1605.5	109.3	33.031 ug/L	33.031 ppb	03:34:06
2	Sr 421.552†	37.1	21.9	0.1606 ug/L	0.1606 ppb	03:34:06
2	Sc 361.383	884145.8	884145.8	99.722 %		03:35:28
2	Y 371.029	759171.9	759171.9	99.661 %		03:35:28
2	Ag 328.068†	367.0	-144.3	-0.6182 ug/L	-0.6182 ppb	03:35:33
2	As 188.979†	-29.7	3.7	1.2800 ug/L	1.2800 ppb	03:35:53
2	B 249.677†	-588.1	76.1	1.5692 ug/L	1.5692 ppb	03:35:33
2	Ba 233.527†	-8.0	-15.5	-0.1129 ug/L	-0.1129 ppb	03:35:53
2	Be 313.107†	-4262.6	77.0	0.0263 ug/L	0.0263 ppb	03:35:33
2	Cd 226.502†	-216.4	21.4	0.2018 ug/L	0.2018 ppb	03:35:53
2	Co 228.616†	-94.3	-10.6	-0.1963 ug/L	-0.1963 ppb	03:35:53
2	Cr 267.716†	67.1	-36.8	-0.3678 ug/L	-0.3678 ppb	03:35:33
2	Cu 324.752†	8015.4	38.7	0.1147 ug/L	0.1147 ppb	03:35:33
2	Mn 257.610†	510.0	-5.0	-0.0053 ug/L	-0.0053 ppb	03:35:33
2	Mo 202.031†	43.4	23.6	1.4786 ug/L	1.4786 ppb	03:35:53
2	Ni 231.604†	137.6	12.9	0.2840 ug/L	0.2840 ppb	03:35:53

2	P 214.914†	247.0	-0.9	-0.4641 ug/L	-0.4641 ppb	03:35:53
2	Pb 220.353†	-99.7	-22.2	-2.2989 ug/L	-2.2989 ppb	03:35:53
2	S 181.975 Axial†	58.7	-1.1	-1.1922 ug/L	-1.1922 ppb	03:35:53
2	Sb 206.836†	40.7	3.7	1.1559 ug/L	1.1559 ppb	03:35:53
2	Se 196.026†	-40.1	-7.0	-3.5711 ug/L	-3.5711 ppb	03:35:53
2	Si 251.611†	697.7	83.1	2.3489 ug/L	2.3489 ppb	03:35:53
2	Sn 189.927†	4.9	1.5	0.2280 ug/L	0.2280 ppb	03:35:53
2	Ti 334.940†	-1729.7	82.8	0.1321 ug/L	0.1321 ppb	03:35:33
2	Tl 190.801†	-38.6	14.7	4.0053 ug/L	4.0053 ppb	03:35:53
2	U 409.014†	-2691.0	-29.8	-0.8843 ug/L	-0.8843 ppb	03:35:28
2	V 292.402†	-1769.0	27.9	0.1948 ug/L	0.1948 ppb	03:35:33
2	Zn 213.857†	822.2	-7.2	-0.0617 ug/L	-0.0617 ppb	03:35:53
2	SiO2†	730.7	96.7	5.8640 ug/L	5.8640 ppb	03:36:34
3	Sc Radial	4553.9	4553.9	97.6 %		03:34:31
3	Y RADIAL	4862.0	4862.0	98.56 %		03:34:31
3	Al 396.153Radial†	8.4	35.4	31.376 ug/L	31.376 ppb	03:34:31
3	Ca 317.933Radial†	15.9	3.7	6.2693 ug/L	6.2693 ppb	03:34:51
3	Fe 238.204 Radial†	11.0	-2.6	-22.854 ug/L	-22.854 ppb	03:34:51
3	K 766.490 Radial†	3311.3	57.2	11.336 ug/L	11.336 ppb	03:34:31
3	Mg 279.077 IEC†	1.5	-0.1	-3.6121 ug/L	-3.6121 ppb	03:34:51
3	Na 589.592 Radial†	-1625.3	84.3	25.459 ug/L	25.459 ppb	03:34:31
3	Sr 421.552†	-10.6	-26.9	-0.1969 ug/L	-0.1969 ppb	03:34:31
3	Sc 361.383	866778.7	866778.7	97.763 %		03:35:58
3	Y 371.029	745399.9	745399.9	97.853 %		03:35:58
3	Ag 328.068†	577.9	78.8	0.3286 ug/L	0.3286 ppb	03:36:04
3	As 188.979†	-24.0	8.9	3.0934 ug/L	3.0934 ppb	03:36:24
3	B 249.677†	-536.3	117.3	2.4217 ug/L	2.4217 ppb	03:36:04
3	Ba 233.527†	28.7	21.8	0.1583 ug/L	0.1583 ppb	03:36:24
3	Be 313.107†	-4285.1	-31.6	-0.0109 ug/L	-0.0109 ppb	03:36:04
3	Cd 226.502†	-234.5	-1.5	-0.0118 ug/L	-0.0118 ppb	03:36:24
3	Co 228.616†	-91.0	-9.1	-0.1705 ug/L	-0.1705 ppb	03:36:24
3	Cr 267.716†	106.0	4.4	0.0427 ug/L	0.0427 ppb	03:36:04
3	Cu 324.752†	8003.5	187.6	0.5541 ug/L	0.5541 ppb	03:36:04
3	Mn 257.610†	586.4	83.3	0.0856 ug/L	0.0856 ppb	03:36:04
3	Mo 202.031†	19.8	0.4	0.0207 ug/L	0.0207 ppb	03:36:24
3	Ni 231.604†	110.9	-11.6	-0.2548 ug/L	-0.2548 ppb	03:36:24
3	P 214.914†	245.6	2.6	1.2285 ug/L	1.2285 ppb	03:36:24
3	Pb 220.353†	-84.3	-8.5	-0.8677 ug/L	-0.8677 ppb	03:36:24
3	S 181.975 Axial†	58.2	-0.4	-0.4529 ug/L	-0.4529 ppb	03:36:24
3	Sb 206.836†	44.6	8.5	2.5574 ug/L	2.5574 ppb	03:36:24
3	Se 196.026†	-42.0	-9.7	-5.0262 ug/L	-5.0262 ppb	03:36:24
3	Si 251.611†	703.3	102.8	2.9415 ug/L	2.9415 ppb	03:36:24
3	Sn 189.927†	9.2	6.0	0.8867 ug/L	0.8867 ppb	03:36:24
3	Ti 334.940†	-1836.0	-60.6	-0.0967 ug/L	-0.0967 ppb	03:36:04
3	Tl 190.801†	-43.6	8.8	2.3995 ug/L	2.3995 ppb	03:36:24
3	U 409.014†	-2546.5	63.9	1.9033 ug/L	1.9033 ppb	03:35:58
3	V 292.402†	-1776.1	-14.9	-0.0862 ug/L	-0.0862 ppb	03:36:04
3	Zn 213.857†	816.3	3.3	0.0293 ug/L	0.0293 ppb	03:36:24
3	SiO2†	764.4	145.8	8.9381 ug/L	8.9381 ppb	03:36:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	876638.4	98.875 %	1.0060			1.02%
Sc Radial	4511.1	96.6 %	1.84			1.91%
Y 371.029	752745.5	98.817 %	0.9100			0.92%
Y RADIAL	4808.8	97.48 %	1.705			1.75%
Ag 328.068†	-6.2	-0.0290 ug/L	0.51414	-0.0290 ppb	0.51414	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	27.0	23.913 ug/L	12.4827	23.913 ppb	12.4827	52.20%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	5.6	1.9398 ug/L	1.00249	1.9398 ppb	1.00249	51.68%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	83.7	1.7270 ug/L	0.63080	1.7270 ppb	0.63080	36.53%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	2.1	0.0152 ug/L	0.13622	0.0152 ppb	0.13622	896.69%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	16.2	0.0055 ug/L	0.01895	0.0055 ppb	0.01895	341.78%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	3.2	5.3707 ug/L	1.98808	5.3707 ppb	1.98808	37.02%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	7.3	0.0696 ug/L	0.11552	0.0696 ppb	0.11552	166.05%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-8.2	-0.1516 ug/L	0.05657	-0.1516 ppb	0.05657	37.31%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-15.4	-0.1542 ug/L	0.20576	-0.1542 ppb	0.20576	133.47%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	92.8	0.2744 ug/L	0.24306	0.2744 ppb	0.24306	88.58%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.7	-6.3694 ug/L	14.33861	-6.3694 ppb	14.33861	225.12%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	133.9	26.564 ug/L	16.5931	26.564 ppb	16.5931	62.46%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	0.2	5.4451 ug/L	7.94924	5.4451 ppb	7.94924	145.99%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	45.7	0.0474 ug/L	0.04718	0.0474 ppb	0.04718	99.51%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	12.9	0.8050 ug/L	0.73521	0.8050 ppb	0.73521	91.34%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	93.5	28.251 ug/L	4.1592	28.251 ppb	4.1592	14.72%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	0.1	0.0032 ug/L	0.27016	0.0032 ppb	0.27016	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-1.6	-0.7979 ug/L	2.21232	-0.7979 ppb	2.21232	277.27%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-17.9	-1.8418 ug/L	0.84414	-1.8418 ppb	0.84414	45.83%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-3.1	-3.5082 ug/L	4.66621	-3.5082 ppb	4.66621	133.01%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	8.0	2.4115 ug/L	1.18937	2.4115 ppb	1.18937	49.32%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-4.5	-2.3035 ug/L	3.53141	-2.3035 ppb	3.53141	153.30%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	94.4	2.6848 ug/L	0.30411	2.6848 ppb	0.30411	11.33%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	0.7	0.1029 ug/L	0.85318	0.1029 ppb	0.85318	828.76%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-5.7	-0.0419 ug/L	0.18339	-0.0419 ppb	0.18339	437.86%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	22.0	0.0351 ug/L	0.11832	0.0351 ppb	0.11832	337.10%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	10.5	2.8764 ug/L	0.98159	2.8764 ppb	0.98159	34.13%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	8.8	0.2626 ug/L	1.45797	0.2626 ppb	1.45797	555.23%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	4.6	0.0420 ug/L	0.14209	0.0420 ppb	0.14209	338.32%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	4.0	0.0323 ug/L	0.09560	0.0323 ppb	0.09560	295.72%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	110.8	6.7492 ug/L	1.90717	6.7492 ppb	1.90717	28.26%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 120
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 1/7/2010 04:26:43
 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	4519.3	4519.3	96.8 %		04:28:36
1	Y RADIAL	4772.2	4772.2	96.74 %		04:28:36
1	Al 396.153Radial†	6011.9	6235.8	5508.9 ug/L	5508.9 ppb	04:28:36
1	Ca 317.933Radial†	3057.0	3144.7	5269.5 ug/L	5269.5 ppb	04:28:56
1	Fe 238.204 Radial†	572.0	576.9	5084.7 ug/L	5084.7 ppb	04:28:56
1	K 766.490 Radial†	28770.9	26377.9	5227.3 ug/L	5227.3 ppb	04:28:36
1	Mg 279.077 IEC†	158.0	161.6	5172.3 ug/L	5172.3 ppb	04:28:56
1	Na 589.592 Radial†	31417.4	34198.1	10331 ug/L	10331 ppb	04:28:36
1	Sr 421.552†	72439.5	74799.7	547.61 ug/L	547.61 ppb	04:28:36
1	Sc 361.383	887254.1	887254.1	100.07 %		04:29:55
1	Y 371.029	754550.2	754550.2	99.054 %		04:29:55
1	Ag 328.068†	118290.2	117692.0	508.74 ug/L	508.74 ppb	04:29:55
1	As 188.979†	1402.3	1434.7	506.61 ug/L	506.61 ppb	04:30:15
1	B 249.677†	23658.5	24307.2	499.24 ug/L	499.24 ppb	04:29:55
1	Ba 233.527†	69374.3	69316.4	506.70 ug/L	506.70 ppb	04:29:55
1	Be 313.107†	1507404.4	1510660.9	511.60 ug/L	511.60 ppb	04:29:55
1	Cd 226.502†	53320.0	53519.6	503.88 ug/L	503.88 ppb	04:29:55
1	Co 228.616†	26735.3	26799.8	504.04 ug/L	504.04 ppb	04:30:15
1	Cr 267.716†	50412.3	50271.6	504.51 ug/L	504.51 ppb	04:29:55
1	Cu 324.752†	179374.1	171244.8	507.25 ug/L	507.25 ppb	04:29:55
1	Mn 257.610†	484837.0	483968.4	510.34 ug/L	510.34 ppb	04:29:55
1	Mo 202.031†	8166.8	8141.0	510.49 ug/L	510.49 ppb	04:30:15
1	Ni 231.604†	23091.9	22950.0	503.49 ug/L	503.49 ppb	04:30:15
1	P 214.914†	5486.2	5233.6	2474.9 ug/L	2474.9 ppb	04:30:15
1	Pb 220.353†	4865.4	4939.6	513.40 ug/L	513.40 ppb	04:30:15
1	S 181.975 Axial†	956.7	896.1	1011.6 ug/L	1011.6 ppb	04:30:15
1	Sb 206.836†	1724.6	1686.3	511.08 ug/L	511.08 ppb	04:30:15
1	Se 196.026†	978.0	1010.6	535.23 ug/L	535.23 ppb	04:30:15
1	Si 251.611†	88994.8	88313.6	2521.2 ug/L	2521.2 ppb	04:29:55
1	Sn 189.927†	3436.8	3430.9	508.09 ug/L	508.09 ppb	04:30:15
1	Ti 334.940†	322485.8	324068.9	514.05 ug/L	514.05 ppb	04:29:55
1	Tl 190.801†	1825.6	1877.7	516.30 ug/L	516.30 ppb	04:30:15
1	U 409.014†	13811.1	16469.8	488.01 ug/L	488.01 ppb	04:29:55
1	V 292.402†	78630.6	80375.3	511.39 ug/L	511.39 ppb	04:29:55
1	Zn 213.857†	62558.0	61680.9	502.89 ug/L	502.89 ppb	04:29:55
1	SiO2†	90614.1	89912.3	5493.0 ug/L	5493.0 ppb	04:31:15
2	Sc Radial	4783.3	4783.3	102 %		04:29:01
2	Y RADIAL	5040.4	5040.4	102.2 %		04:29:01
2	Al 396.153Radial†	5910.6	5794.4	5117.5 ug/L	5117.5 ppb	04:29:01
2	Ca 317.933Radial†	3031.6	2945.7	4936.0 ug/L	4936.0 ppb	04:29:21
2	Fe 238.204 Radial†	559.8	532.4	4693.8 ug/L	4693.8 ppb	04:29:21
2	K 766.490 Radial†	28265.5	24245.2	4804.1 ug/L	4804.1 ppb	04:29:01
2	Mg 279.077 IEC†	155.8	150.4	4815.4 ug/L	4815.4 ppb	04:29:21
2	Na 589.592 Radial†	30734.5	31741.3	9588.4 ug/L	9588.4 ppb	04:29:01
2	Sr 421.552†	71080.2	69345.2	507.68 ug/L	507.68 ppb	04:29:01
2	Sc 361.383	886236.8	886236.8	99.958 %		04:30:22
2	Y 371.029	753898.0	753898.0	98.968 %		04:30:22
2	Ag 328.068†	119552.9	119090.8	514.65 ug/L	514.65 ppb	04:30:22
2	As 188.979†	1413.3	1447.3	511.04 ug/L	511.04 ppb	04:30:42
2	B 249.677†	23949.7	24625.6	505.87 ug/L	505.87 ppb	04:30:22
2	Ba 233.527†	70238.5	70260.5	513.58 ug/L	513.58 ppb	04:30:22
2	Be 313.107†	1528343.2	1533337.5	519.28 ug/L	519.28 ppb	04:30:22
2	Cd 226.502†	54172.5	54433.6	512.53 ug/L	512.53 ppb	04:30:22
2	Co 228.616†	26614.9	26710.1	502.34 ug/L	502.34 ppb	04:30:42
2	Cr 267.716†	51111.8	51029.3	512.10 ug/L	512.10 ppb	04:30:22
2	Cu 324.752†	181175.2	173252.4	513.18 ug/L	513.18 ppb	04:30:22
2	Mn 257.610†	491302.4	490992.7	517.71 ug/L	517.71 ppb	04:30:22
2	Mo 202.031†	8103.2	8086.7	507.06 ug/L	507.06 ppb	04:30:42
2	Ni 231.604†	23006.6	22891.2	502.20 ug/L	502.20 ppb	04:30:42

2	P 214.914†	5447.6	5201.3	2458.4 ug/L	2458.4 ppb	04:30:42
2	Pb 220.353†	4848.0	4927.8	512.10 ug/L	512.10 ppb	04:30:42
2	S 181.975 Axial†	951.7	892.2	1007.3 ug/L	1007.3 ppb	04:30:42
2	Sb 206.836†	1731.7	1695.3	513.52 ug/L	513.52 ppb	04:30:42
2	Se 196.026†	978.2	1011.8	534.59 ug/L	534.59 ppb	04:30:42
2	Si 251.611†	89950.7	89371.9	2551.8 ug/L	2551.8 ppb	04:30:22
2	Sn 189.927†	3427.5	3425.5	507.25 ug/L	507.25 ppb	04:30:42
2	Ti 334.940†	326129.5	328084.0	520.39 ug/L	520.39 ppb	04:30:22
2	Tl 190.801†	1803.6	1857.7	510.93 ug/L	510.93 ppb	04:30:42
2	U 409.014†	13971.9	16646.5	493.30 ug/L	493.30 ppb	04:30:22
2	V 292.402†	79476.1	81311.4	517.27 ug/L	517.27 ppb	04:30:22
2	Zn 213.857†	63327.1	62522.1	509.84 ug/L	509.84 ppb	04:30:22
2	SiO2†	88345.0	87746.1	5360.4 ug/L	5360.4 ppb	04:31:20
3	Sc Radial	4806.9	4806.9	103 %		04:29:26
3	Y RADIAL	5094.6	5094.6	103.3 %		04:29:26
3	Al 396.153Radial†	6022.6	5874.8	5188.5 ug/L	5188.5 ppb	04:29:26
3	Ca 317.933Radial†	3046.6	2945.8	4936.1 ug/L	4936.1 ppb	04:29:46
3	Fe 238.204 Radial†	566.5	536.2	4727.7 ug/L	4727.7 ppb	04:29:46
3	K 766.490 Radial†	28605.5	24439.9	4842.8 ug/L	4842.8 ppb	04:29:26
3	Mg 279.077 IEC†	162.2	155.9	4991.3 ug/L	4991.3 ppb	04:29:46
3	Na 589.592 Radial†	31119.2	31967.6	9656.7 ug/L	9656.7 ppb	04:29:26
3	Sr 421.552†	72167.9	70060.8	512.92 ug/L	512.92 ppb	04:29:26
3	Sc 361.383	875758.9	875758.9	98.776 %		04:30:50
3	Y 371.029	745131.1	745131.1	97.817 %		04:30:50
3	Ag 328.068†	118438.4	119393.6	515.96 ug/L	515.96 ppb	04:30:50
3	As 188.979†	1417.5	1468.5	518.44 ug/L	518.44 ppb	04:31:10
3	B 249.677†	23747.1	24707.1	507.53 ug/L	507.53 ppb	04:30:50
3	Ba 233.527†	69551.5	70405.8	514.64 ug/L	514.64 ppb	04:30:50
3	Be 313.107†	1511925.0	1535009.3	519.85 ug/L	519.85 ppb	04:30:50
3	Cd 226.502†	53521.8	54423.3	512.43 ug/L	512.43 ppb	04:30:50
3	Co 228.616†	26571.9	26985.1	507.52 ug/L	507.52 ppb	04:31:10
3	Cr 267.716†	50548.6	51070.8	512.52 ug/L	512.52 ppb	04:30:50
3	Cu 324.752†	179081.2	173301.0	513.32 ug/L	513.32 ppb	04:30:50
3	Mn 257.610†	486145.1	491652.0	518.41 ug/L	518.41 ppb	04:30:50
3	Mo 202.031†	8106.7	8187.2	513.36 ug/L	513.36 ppb	04:31:10
3	Ni 231.604†	22949.8	23109.1	506.98 ug/L	506.98 ppb	04:31:10
3	P 214.914†	5441.8	5260.6	2487.3 ug/L	2487.3 ppb	04:31:10
3	Pb 220.353†	4797.1	4934.3	512.80 ug/L	512.80 ppb	04:31:10
3	S 181.975 Axial†	946.8	898.6	1014.6 ug/L	1014.6 ppb	04:31:10
3	Sb 206.836†	1725.2	1709.4	517.92 ug/L	517.92 ppb	04:31:10
3	Se 196.026†	957.4	1002.5	529.94 ug/L	529.94 ppb	04:31:10
3	Si 251.611†	89132.7	89620.5	2558.8 ug/L	2558.8 ppb	04:30:50
3	Sn 189.927†	3410.2	3449.0	510.73 ug/L	510.73 ppb	04:31:10
3	Ti 334.940†	322672.4	328487.7	521.03 ug/L	521.03 ppb	04:30:50
3	Tl 190.801†	1800.8	1876.5	516.03 ug/L	516.03 ppb	04:31:10
3	U 409.014†	13824.4	16664.4	493.83 ug/L	493.83 ppb	04:30:50
3	V 292.402†	78571.9	81347.2	517.58 ug/L	517.58 ppb	04:30:50
3	Zn 213.857†	62679.5	62624.4	510.64 ug/L	510.64 ppb	04:30:50
3	SiO2†	89385.1	89856.6	5489.7 ug/L	5489.7 ppb	04:31:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	883083.2	99.602 %	0.7177			0.72%
Sc Radial	4703.1	101 %	3.4			3.39%
Y 371.029	751193.1	98.613 %	0.6905			0.70%
Y RADIAL	4969.1	100.7 %	3.50			3.47%
Ag 328.068†	118725.5	513.12 ug/L	3.843	513.12 ppb	3.843	0.75%
QC value within limits for Ag 328.068 Recovery = 102.62%						
Al 396.153Radial†	5968.3	5271.6 ug/L	208.51	5271.6 ppb	208.51	3.96%
QC value within limits for Al 396.153Radial Recovery = 105.43%						
As 188.979†	1450.2	512.03 ug/L	5.975	512.03 ppb	5.975	1.17%
QC value within limits for As 188.979 Recovery = 102.41%						
B 249.677†	24546.6	504.21 ug/L	4.383	504.21 ppb	4.383	0.87%
QC value within limits for B 249.677 Recovery = 100.84%						
Ba 233.527†	69994.2	511.64 ug/L	4.315	511.64 ppb	4.315	0.84%
QC value within limits for Ba 233.527 Recovery = 102.33%						
Be 313.107†	1526335.9	516.91 ug/L	4.605	516.91 ppb	4.605	0.89%
QC value within limits for Be 313.107 Recovery = 103.38%						
Ca 317.933Radial†	3012.1	5047.2 ug/L	192.49	5047.2 ppb	192.49	3.81%

Cd	QC value within limits for Ca 317.933 Radial Recovery = 100.94%	226.502†	54125.5	509.61 ug/L	4.964	509.61 ppb	4.964	0.97%
	QC value within limits for Cd 226.502 Recovery = 101.92%							
Co	QC value within limits for Co 228.616 Recovery = 100.93%	228.616†	26831.7	504.64 ug/L	2.643	504.64 ppb	2.643	0.52%
	QC value within limits for Cr 267.716 Recovery = 101.94%							
Cr	QC value within limits for Cr 267.716 Recovery = 101.94%	267.716†	50790.6	509.71 ug/L	4.509	509.71 ppb	4.509	0.88%
	QC value within limits for Cu 324.752 Recovery = 102.25%							
Cu	QC value within limits for Cu 324.752 Recovery = 102.25%	324.752†	172599.4	511.25 ug/L	3.463	511.25 ppb	3.463	0.68%
	QC value within limits for Fe 238.204 Radial Recovery = 96.71%							
Fe	QC value within limits for Fe 238.204 Radial Recovery = 96.71%	238.204 Radial†	548.5	4835.4 ug/L	216.60	4835.4 ppb	216.60	4.48%
	QC value within limits for K 766.490 Radial Recovery = 99.16%							
K	QC value within limits for K 766.490 Radial Recovery = 99.16%	766.490 Radial†	25021.0	4958.1 ug/L	233.95	4958.1 ppb	233.95	4.72%
	QC value within limits for Mg 279.077 IEC Recovery = 99.86%							
Mg	QC value within limits for Mg 279.077 IEC Recovery = 99.86%	279.077 IEC†	156.0	4993.0 ug/L	178.42	4993.0 ppb	178.42	3.57%
	QC value within limits for Mn 257.610 Recovery = 103.10%							
Mn	QC value within limits for Mn 257.610 Recovery = 103.10%	257.610†	488871.0	515.49 ug/L	4.468	515.49 ppb	4.468	0.87%
	QC value within limits for Mo 202.031 Recovery = 102.06%							
Mo	QC value within limits for Mo 202.031 Recovery = 102.06%	202.031†	8138.3	510.30 ug/L	3.155	510.30 ppb	3.155	0.62%
	QC value within limits for Na 589.592 Radial Recovery = 98.59%							
Na	QC value within limits for Na 589.592 Radial Recovery = 98.59%	589.592 Radial†	32635.6	9858.6 ug/L	410.17	9858.6 ppb	410.17	4.16%
	QC value within limits for Ni 231.604 Recovery = 100.84%							
Ni	QC value within limits for Ni 231.604 Recovery = 100.84%	231.604†	22983.4	504.22 ug/L	2.473	504.22 ppb	2.473	0.49%
	QC value within limits for P 214.914 Recovery = 98.94%							
P	QC value within limits for P 214.914 Recovery = 98.94%	214.914†	5231.9	2473.6 ug/L	14.51	2473.6 ppb	14.51	0.59%
	QC value within limits for Pb 220.353 Recovery = 102.55%							
Pb	QC value within limits for Pb 220.353 Recovery = 102.55%	220.353†	4933.9	512.77 ug/L	0.650	512.77 ppb	0.650	0.13%
	QC value within limits for S 181.975 Axial Recovery = 101.12%							
S	QC value within limits for S 181.975 Axial Recovery = 101.12%	181.975 Axial†	895.6	1011.2 ug/L	3.63	1011.2 ppb	3.63	0.36%
	QC value within limits for Sb 206.836 Recovery = 102.83%							
Sb	QC value within limits for Sb 206.836 Recovery = 102.83%	206.836†	1697.0	514.17 ug/L	3.465	514.17 ppb	3.465	0.67%
	QC value within limits for Se 196.026 Recovery = 106.65%							
Se	QC value within limits for Se 196.026 Recovery = 106.65%	196.026†	1008.3	533.25 ug/L	2.883	533.25 ppb	2.883	0.54%
	QC value within limits for Si 251.611 Recovery = 101.76%							
Si	QC value within limits for Si 251.611 Recovery = 101.76%	251.611†	89102.0	2543.9 ug/L	19.97	2543.9 ppb	19.97	0.79%
	QC value within limits for Sn 189.927 Recovery = 101.74%							
Sn	QC value within limits for Sn 189.927 Recovery = 101.74%	189.927†	3435.2	508.69 ug/L	1.814	508.69 ppb	1.814	0.36%
	QC value within limits for Sr 421.552 Recovery = 104.55%							
Sr	QC value within limits for Sr 421.552 Recovery = 104.55%	421.552†	71401.9	522.73 ug/L	21.702	522.73 ppb	21.702	4.15%
	QC value within limits for Ti 334.940 Recovery = 103.70%							
Ti	QC value within limits for Ti 334.940 Recovery = 103.70%	334.940†	326880.2	518.49 ug/L	3.863	518.49 ppb	3.863	0.75%
	QC value within limits for Tl 190.801 Recovery = 102.88%							
Tl	QC value within limits for Tl 190.801 Recovery = 102.88%	190.801†	1870.6	514.42 ug/L	3.028	514.42 ppb	3.028	0.59%
	QC value within limits for U 409.014 Recovery = 98.34%							
U	QC value within limits for U 409.014 Recovery = 98.34%	409.014†	16593.6	491.71 ug/L	3.216	491.71 ppb	3.216	0.65%
	QC value within limits for V 292.402 Recovery = 103.08%							
V	QC value within limits for V 292.402 Recovery = 103.08%	292.402†	81011.3	515.41 ug/L	3.489	515.41 ppb	3.489	0.68%
	QC value within limits for Zn 213.857 Recovery = 101.56%							
Zn	QC value within limits for Zn 213.857 Recovery = 101.56%	213.857†	62275.8	507.79 ug/L	4.263	507.79 ppb	4.263	0.84%
	QC value within limits for SiO2 Recovery = 101.87%							
SiO2†	QC value within limits for SiO2 Recovery = 101.87%		89171.7	5447.7 ug/L	75.59	5447.7 ppb	75.59	1.39%
All analyte(s) passed QC.								

Sequence No.: 121

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/7/2010 04:33:35

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4554.9	4554.9	97.6 %		04:35:29
1	Y RADIAL	4845.8	4845.8	98.23 %		04:35:29
1	Al 396.153Radial†	17.4	44.6	39.513 ug/L	39.513 ppb	04:35:29
1	Ca 317.933Radial†	24.8	12.8	21.470 ug/L	21.470 ppb	04:35:49
1	Fe 238.204 Radial†	14.7	1.2	10.416 ug/L	10.416 ppb	04:35:49
1	K 766.490 Radial†	3291.6	36.3	7.1920 ug/L	7.1920 ppb	04:35:29
1	Mg 279.077 IEC†	1.7	0.1	3.4256 ug/L	3.4256 ppb	04:35:49
1	Na 589.592 Radial†	-1624.7	85.3	25.754 ug/L	25.754 ppb	04:35:29
1	Sr 421.552†	18.9	3.4	0.0247 ug/L	0.0247 ppb	04:35:29
1	Sc 361.383	850853.8	850853.8	95.967 %		04:36:46
1	Y 371.029	747330.6	747330.6	98.106 %		04:36:46
1	Ag 328.068†	496.4	4.9	0.0326 ug/L	0.0326 ppb	04:36:46
1	As 188.979†	-34.4	-2.5	-0.8595 ug/L	-0.8595 ppb	04:37:06
1	B 249.677†	-495.9	149.1	3.0740 ug/L	3.0740 ppb	04:36:46
1	Ba 233.527†	1.2	-6.2	-0.0448 ug/L	-0.0448 ppb	04:37:06
1	Be 313.107†	-4227.5	-53.7	-0.0180 ug/L	-0.0180 ppb	04:36:46
1	Cd 226.502†	-251.4	-23.6	-0.2232 ug/L	-0.2232 ppb	04:37:06
1	Co 228.616†	-99.4	-19.6	-0.3659 ug/L	-0.3659 ppb	04:37:06
1	Cr 267.716†	112.0	12.6	0.1299 ug/L	0.1299 ppb	04:36:46
1	Cu 324.752†	8018.1	356.1	1.0547 ug/L	1.0547 ppb	04:36:46
1	Mn 257.610†	569.2	76.7	0.0818 ug/L	0.0818 ppb	04:36:46
1	Mo 202.031†	33.8	15.3	0.9611 ug/L	0.9611 ppb	04:37:06
1	Ni 231.604†	110.0	-10.5	-0.2298 ug/L	-0.2298 ppb	04:37:06
1	P 214.914†	248.4	10.2	4.8109 ug/L	4.8109 ppb	04:37:06
1	Pb 220.353†	-99.5	-25.9	-2.6725 ug/L	-2.6725 ppb	04:37:06
1	S 181.975 Axial†	60.1	2.8	3.1311 ug/L	3.1311 ppb	04:37:06
1	Sb 206.836†	39.0	3.5	1.0536 ug/L	1.0536 ppb	04:37:06
1	Se 196.026†	-45.3	-13.9	-7.0731 ug/L	-7.0731 ppb	04:37:06
1	Si 251.611†	679.8	91.8	2.6183 ug/L	2.6183 ppb	04:37:06
1	Sn 189.927†	-2.1	-5.6	-0.8273 ug/L	-0.8273 ppb	04:37:06
1	Ti 334.940†	-1699.5	46.4	0.0785 ug/L	0.0785 ppb	04:36:46
1	Tl 190.801†	-35.6	16.3	4.4633 ug/L	4.4633 ppb	04:37:06
1	U 409.014†	-2839.4	-290.0	-8.6231 ug/L	-8.6231 ppb	04:36:46
1	V 292.402†	-1693.9	36.7	0.2258 ug/L	0.2258 ppb	04:36:46
1	Zn 213.857†	876.5	81.7	0.6709 ug/L	0.6709 ppb	04:37:06
1	SiO2†	756.9	152.7	9.3357 ug/L	9.3357 ppb	04:38:02
2	Sc Radial	4587.5	4587.5	98.3 %		04:35:54
2	Y RADIAL	4898.1	4898.1	99.29 %		04:35:54
2	Al 396.153Radial†	-18.0	8.4	7.4466 ug/L	7.4466 ppb	04:35:54
2	Ca 317.933Radial†	17.4	5.2	8.6322 ug/L	8.6322 ppb	04:36:14
2	Fe 238.204 Radial†	14.0	0.3	2.9951 ug/L	2.9951 ppb	04:36:14
2	K 766.490 Radial†	3244.7	-35.4	-7.0456 ug/L	-7.0456 ppb	04:35:54
2	Mg 279.077 IEC†	-1.6	-3.2	-103.06 ug/L	-103.06 ppb	04:36:14
2	Na 589.592 Radial†	-1642.6	78.9	23.823 ug/L	23.823 ppb	04:35:54
2	Sr 421.552†	4.3	-11.6	-0.0847 ug/L	-0.0847 ppb	04:35:54
2	Sc 361.383	839374.3	839374.3	94.672 %		04:37:11
2	Y 371.029	734250.9	734250.9	96.389 %		04:37:11
2	Ag 328.068†	614.2	136.4	0.5943 ug/L	0.5943 ppb	04:37:11
2	As 188.979†	-41.3	-10.2	-3.5635 ug/L	-3.5635 ppb	04:37:31
2	B 249.677†	-598.9	33.2	0.6849 ug/L	0.6849 ppb	04:37:11
2	Ba 233.527†	5.5	-1.7	-0.0147 ug/L	-0.0147 ppb	04:37:31
2	Be 313.107†	-4261.1	-149.4	-0.0507 ug/L	-0.0507 ppb	04:37:11
2	Cd 226.502†	-255.3	-31.3	-0.2950 ug/L	-0.2950 ppb	04:37:31
2	Co 228.616†	-98.0	-19.6	-0.3675 ug/L	-0.3675 ppb	04:37:31
2	Cr 267.716†	78.7	-20.9	-0.2069 ug/L	-0.2069 ppb	04:37:11
2	Cu 324.752†	7937.1	384.7	1.1392 ug/L	1.1392 ppb	04:37:11
2	Mn 257.610†	589.1	105.9	0.1138 ug/L	0.1138 ppb	04:37:11
2	Mo 202.031†	22.2	3.5	0.2226 ug/L	0.2226 ppb	04:37:31
2	Ni 231.604†	143.6	26.7	0.5854 ug/L	0.5854 ppb	04:37:31

2	P 214.914†	229.0	-6.7	-3.4115 ug/L	-3.4115 ppb	04:37:31
2	Pb 220.353†	-88.6	-15.8	-1.6343 ug/L	-1.6343 ppb	04:37:31
2	S 181.975 Axial†	58.4	1.8	1.9973 ug/L	1.9973 ppb	04:37:31
2	Sb 206.836†	43.3	8.7	2.6205 ug/L	2.6205 ppb	04:37:31
2	Se 196.026†	-37.0	-5.8	-2.9610 ug/L	-2.9610 ppb	04:37:31
2	Si 251.611†	716.9	140.7	4.0316 ug/L	4.0316 ppb	04:37:31
2	Sn 189.927†	10.8	8.0	1.1886 ug/L	1.1886 ppb	04:37:31
2	Ti 334.940†	-1783.8	-66.8	-0.0997 ug/L	-0.0997 ppb	04:37:11
2	Tl 190.801†	-41.3	9.8	2.6773 ug/L	2.6773 ppb	04:37:31
2	U 409.014†	-2944.3	-441.3	-13.118 ug/L	-13.118 ppb	04:37:11
2	V 292.402†	-1846.1	-148.1	-0.9548 ug/L	-0.9548 ppb	04:37:11
2	Zn 213.857†	875.5	93.1	0.7637 ug/L	0.7637 ppb	04:37:31
2	SiO2†	696.6	99.7	6.1115 ug/L	6.1115 ppb	04:38:07
3	Sc Radial	4595.8	4595.8	98.5 %		04:36:19
3	Y RADIAL	4928.2	4928.2	99.90 %		04:36:19
3	Al 396.153Radial†	-16.3	10.2	8.9668 ug/L	8.9668 ppb	04:36:19
3	Ca 317.933Radial†	20.4	8.2	13.696 ug/L	13.696 ppb	04:36:39
3	Fe 238.204 Radial†	9.7	-4.0	-35.269 ug/L	-35.269 ppb	04:36:39
3	K 766.490 Radial†	3330.4	45.7	9.0676 ug/L	9.0676 ppb	04:36:19
3	Mg 279.077 IEC†	3.7	2.1	68.506 ug/L	68.506 ppb	04:36:39
3	Na 589.592 Radial†	-1705.6	17.9	5.3928 ug/L	5.3928 ppb	04:36:19
3	Sr 421.552†	2.0	-14.0	-0.1024 ug/L	-0.1024 ppb	04:36:19
3	Sc 361.383	850919.3	850919.3	95.975 %		04:37:36
3	Y 371.029	747953.7	747953.7	98.188 %		04:37:36
3	Ag 328.068†	448.4	-45.2	-0.1977 ug/L	-0.1977 ppb	04:37:36
3	As 188.979†	-41.6	-9.9	-3.4630 ug/L	-3.4630 ppb	04:37:56
3	B 249.677†	-579.3	62.2	1.2885 ug/L	1.2885 ppb	04:37:36
3	Ba 233.527†	11.7	4.7	0.0333 ug/L	0.0333 ppb	04:37:56
3	Be 313.107†	-4339.7	-170.2	-0.0573 ug/L	-0.0573 ppb	04:37:36
3	Cd 226.502†	-239.5	-11.2	-0.1020 ug/L	-0.1020 ppb	04:37:56
3	Co 228.616†	-89.3	-9.0	-0.1671 ug/L	-0.1671 ppb	04:37:56
3	Cr 267.716†	96.0	-4.0	-0.0372 ug/L	-0.0372 ppb	04:37:36
3	Cu 324.752†	7924.4	257.7	0.7613 ug/L	0.7613 ppb	04:37:36
3	Mn 257.610†	545.2	51.7	0.0497 ug/L	0.0497 ppb	04:37:36
3	Mo 202.031†	35.1	16.6	1.0379 ug/L	1.0379 ppb	04:37:56
3	Ni 231.604†	115.9	-4.3	-0.0949 ug/L	-0.0949 ppb	04:37:56
3	P 214.914†	248.3	10.2	4.8738 ug/L	4.8738 ppb	04:37:56
3	Pb 220.353†	-83.3	-9.1	-0.9324 ug/L	-0.9324 ppb	04:37:56
3	S 181.975 Axial†	63.5	6.3	7.0962 ug/L	7.0962 ppb	04:37:56
3	Sb 206.836†	57.5	22.8	6.8465 ug/L	6.8465 ppb	04:37:56
3	Se 196.026†	-32.2	-0.3	-0.2494 ug/L	-0.2494 ppb	04:37:56
3	Si 251.611†	692.5	104.9	2.9864 ug/L	2.9864 ppb	04:37:56
3	Sn 189.927†	9.3	6.3	0.9287 ug/L	0.9287 ppb	04:37:56
3	Ti 334.940†	-1669.2	78.2	0.1294 ug/L	0.1294 ppb	04:37:36
3	Tl 190.801†	-43.6	8.0	2.1795 ug/L	2.1795 ppb	04:37:56
3	U 409.014†	-2899.6	-352.5	-10.475 ug/L	-10.475 ppb	04:37:36
3	V 292.402†	-1755.6	-27.4	-0.1706 ug/L	-0.1706 ppb	04:37:36
3	Zn 213.857†	870.6	75.5	0.6197 ug/L	0.6197 ppb	04:37:56
3	SiO2†	701.0	94.4	5.7407 ug/L	5.7407 ppb	04:38:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	847049.1	95.538 %	0.7497			0.78%
Sc Radial	4579.4	98.1 %	0.46			0.47%
Y 371.029	743178.4	97.561 %	1.0158			1.04%
Y RADIAL	4890.7	99.14 %	0.845			0.85%
Ag 328.068†	32.1	0.1431 ug/L	0.40740	0.1431 ppb	0.40740	284.72%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	21.1	18.642 ug/L	18.0905	18.642 ppb	18.0905	97.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-7.5	-2.6287 ug/L	1.53297	-2.6287 ppb	1.53297	58.32%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	81.5	1.6825 ug/L	1.24232	1.6825 ppb	1.24232	73.84%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-1.1	-0.0087 ug/L	0.03937	-0.0087 ppb	0.03937	450.37%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-124.4	-0.0420 ug/L	0.02104	-0.0420 ppb	0.02104	50.11%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	8.7	14.599 ug/L	6.4666	14.599 ppb	6.4666	44.29%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	-22.0	-0.2067 ug/L	0.09756	-0.2067 ppb	0.09756	47.19%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-16.1	-0.3002 ug/L	0.11527	-0.3002 ppb	0.11527	38.40%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-4.1	-0.0381 ug/L	0.16840	-0.0381 ppb	0.16840	442.27%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	332.8	0.9851 ug/L	0.19837	0.9851 ppb	0.19837	20.14%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.8	-7.2862 ug/L	24.51642	-7.2862 ppb	24.51642	336.48%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	15.5	3.0713 ug/L	8.81157	3.0713 ppb	8.81157	286.90%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.3	-10.375 ug/L	86.6103	-10.375 ppb	86.6103	834.80%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	78.1	0.0817 ug/L	0.03206	0.0817 ppb	0.03206	39.23%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	11.8	0.7405 ug/L	0.45016	0.7405 ppb	0.45016	60.79%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	60.7	18.323 ug/L	11.2397	18.323 ppb	11.2397	61.34%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	3.9	0.0869 ug/L	0.43696	0.0869 ppb	0.43696	502.88%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	4.6	2.0911 ug/L	4.76549	2.0911 ppb	4.76549	227.90%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-16.9	-1.7464 ug/L	0.87543	-1.7464 ppb	0.87543	50.13%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	3.6	4.0748 ug/L	2.67723	4.0748 ppb	2.67723	65.70%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	11.7	3.5069 ug/L	2.99644	3.5069 ppb	2.99644	85.44%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-6.7	-3.4278 ug/L	3.43571	-3.4278 ppb	3.43571	100.23%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	112.5	3.2121 ug/L	0.73321	3.2121 ppb	0.73321	22.83%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.9	0.4300 ug/L	1.09660	0.4300 ppb	1.09660	255.03%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-7.4	-0.0541 ug/L	0.06885	-0.0541 ppb	0.06885	127.17%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	19.2	0.0360 ug/L	0.12030	0.0360 ppb	0.12030	333.73%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	11.4	3.1067 ug/L	1.20093	3.1067 ppb	1.20093	38.66%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-361.3	-10.739 ug/L	2.2591	-10.739 ppb	2.2591	21.04%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-46.3	-0.2999 ug/L	0.60082	-0.2999 ppb	0.60082	200.36%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	83.4	0.6848 ug/L	0.07300	0.6848 ppb	0.07300	10.66%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	115.6	7.0627 ug/L	1.97726	7.0627 ppb	1.97726	28.00%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 122

Sample ID: 243517008|936768|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 112

Date Collected: 1/7/2010 04:40:22

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 243517008|936768|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4631.8	4631.8	99.2 %		04:42:37
1	Y RADIAL	5307.7	5307.7	107.6 %		04:42:37
1	Al 396.153Radial†	92435.1	93176.3	82640 ug/L	82640 ppb	04:42:17
1	Ca 317.933Radial†	9082.3	9139.9	15315 ug/L	15315 ppb	04:42:17
1	Fe 238.204 Radial†	11708.8	11785.4	103560 ug/L	103560 ppb	04:42:17
1	K 766.490 Radial†	66829.9	64009.7	12679 ug/L	12679 ppb	04:42:17
1	Mg 279.077 IEC†	417.7	419.2	13316 ug/L	13316 ppb	04:42:37
1	Na 589.592 Radial†	547.6	2301.9	695.37 ug/L	695.37 ppb	04:42:17
1	Sr 421.552†	26218.6	26405.3	193.19 ug/L	193.19 ppb	04:42:17
1	Sc 361.383	886517.7	886517.7	99.990 %		04:43:35
1	Y 371.029	821085.6	821085.6	107.79 %		04:43:35
1	Ag 328.068†	-7371.1	-7884.2	1.5937 ug/L	1.5937 ppb	04:43:35
1	As 188.979†	-48.5	-15.1	44.226 ug/L	44.226 ppb	04:43:55
1	B 249.677†	592.8	1258.7	12.049 ug/L	12.049 ppb	04:43:35
1	Ba 233.527†	131032.3	131038.4	958.63 ug/L	958.63 ppb	04:43:35
1	Be 313.107†	-9899.9	-5549.5	5.9682 ug/L	5.9682 ppb	04:43:35
1	Cd 226.502†	822.3	1060.7	-0.3250 ug/L	-0.3250 ppb	04:43:55
1	Co 228.616†	3419.9	3504.2	56.304 ug/L	56.304 ppb	04:43:55
1	Cr 267.716†	8542.8	8439.6	86.882 ug/L	86.882 ppb	04:43:55
1	Cu 324.752†	23252.3	15255.7	50.449 ug/L	50.449 ppb	04:43:35
1	Mn 257.610†	3004584.4	3004379.1	3175.6 ug/L	3175.6 ppb	04:43:35
1	Mo 202.031†	-39.6	-59.6	6.1948 ug/L	6.1948 ppb	04:43:55
1	Ni 231.604†	2824.3	2699.6	59.220 ug/L	59.220 ppb	04:43:55
1	P 214.914†	1622.4	1374.0	606.88 ug/L	606.88 ppb	04:43:55
1	Pb 220.353†	1064.6	1142.5	128.36 ug/L	128.36 ppb	04:43:55
1	S 181.975 Axial†	599.8	540.0	594.03 ug/L	594.03 ppb	04:43:55
1	Sb 206.836†	92.2	55.1	3.1095 ug/L	3.1095 ppb	04:43:55
1	Se 196.026†	-641.5	-608.3	20.065 ug/L	20.065 ppb	04:43:55
1	Si 251.611†	862201.7	861674.5	24715 ug/L	24715 ppb	04:43:35
1	Sn 189.927†	-94.0	-97.5	-11.394 ug/L	-11.394 ppb	04:43:55
1	Ti 334.940†	2513188.3	2515266.0	3991.5 ug/L	3991.5 ppb	04:43:35
1	Tl 190.801†	-243.8	-190.5	-1.4504 ug/L	-1.4504 ppb	04:43:55
1	U 409.014†	-8791.4	-6123.6	-195.24 ug/L	-195.24 ppb	04:43:35
1	V 292.402†	35475.1	37280.6	213.75 ug/L	213.75 ppb	04:43:35
1	Zn 213.857†	26242.7	25413.7	202.70 ug/L	202.70 ppb	04:43:55
1	SiO2†	858928.0	858380.9	52685 ug/L	52685 ppb	04:44:56
2	Sc Radial	4638.1	4638.1	99.4 %		04:43:02
2	Y RADIAL	5348.8	5348.8	108.4 %		04:43:02
2	Al 396.153Radial†	93583.0	94203.6	83552 ug/L	83552 ppb	04:42:42
2	Ca 317.933Radial†	9146.7	9192.2	15403 ug/L	15403 ppb	04:42:42
2	Fe 238.204 Radial†	11794.0	11854.9	104170 ug/L	104170 ppb	04:42:42
2	K 766.490 Radial†	67421.0	64512.2	12779 ug/L	12779 ppb	04:42:42
2	Mg 279.077 IEC†	419.8	420.8	13367 ug/L	13367 ppb	04:43:02
2	Na 589.592 Radial†	555.4	2309.0	697.51 ug/L	697.51 ppb	04:42:42
2	Sr 421.552†	26564.2	26716.8	195.47 ug/L	195.47 ppb	04:42:42
2	Sc 361.383	882854.7	882854.7	99.576 %		04:44:02
2	Y 371.029	817850.2	817850.2	107.36 %		04:44:02
2	Ag 328.068†	-7309.5	-7852.9	1.9388 ug/L	1.9388 ppb	04:44:02
2	As 188.979†	-50.7	-17.5	43.472 ug/L	43.472 ppb	04:44:22
2	B 249.677†	635.7	1304.2	12.907 ug/L	12.907 ppb	04:44:02
2	Ba 233.527†	130435.1	130982.4	958.24 ug/L	958.24 ppb	04:44:02
2	Be 313.107†	-9830.3	-5520.6	5.9795 ug/L	5.9795 ppb	04:44:02
2	Cd 226.502†	841.1	1083.1	-0.1752 ug/L	-0.1752 ppb	04:44:22
2	Co 228.616†	3397.3	3495.7	56.134 ug/L	56.134 ppb	04:44:22
2	Cr 267.716†	8527.4	8459.6	87.096 ug/L	87.096 ppb	04:44:22
2	Cu 324.752†	23138.3	15237.7	50.427 ug/L	50.427 ppb	04:44:02
2	Mn 257.610†	2992750.2	3004962.1	3176.3 ug/L	3176.3 ppb	04:44:02
2	Mo 202.031†	-36.8	-56.9	6.4222 ug/L	6.4222 ppb	04:44:22
2	Ni 231.604†	2823.5	2710.5	59.460 ug/L	59.460 ppb	04:44:22

2	P 214.914†	1618.6	1376.9	608.14 ug/L	608.14 ppb	04:44:22
2	Pb 220.353†	1039.6	1121.8	126.37 ug/L	126.37 ppb	04:44:22
2	S 181.975 Axial†	599.2	541.8	595.91 ug/L	595.91 ppb	04:44:22
2	Sb 206.836†	88.7	52.0	2.1868 ug/L	2.1868 ppb	04:44:22
2	Se 196.026†	-642.3	-611.8	20.301 ug/L	20.301 ppb	04:44:22
2	Si 251.611†	859418.7	862457.3	24737 ug/L	24737 ppb	04:44:02
2	Sn 189.927†	-90.0	-93.8	-10.831 ug/L	-10.831 ppb	04:44:22
2	Ti 334.940†	2503296.3	2515760.2	3992.3 ug/L	3992.3 ppb	04:44:02
2	Tl 190.801†	-243.6	-191.3	-1.6326 ug/L	-1.6326 ppb	04:44:22
2	U 409.014†	-8977.9	-6347.3	-201.97 ug/L	-201.97 ppb	04:44:02
2	V 292.402†	35404.0	37356.4	214.12 ug/L	214.12 ppb	04:44:02
2	Zn 213.857†	26089.9	25369.2	202.30 ug/L	202.30 ppb	04:44:22
2	SiO2†	849426.1	852402.7	52318 ug/L	52318 ppb	04:45:01
3	Sc Radial	4629.0	4629.0	99.2 %		04:43:27
3	Y RADIAL	5292.5	5292.5	107.3 %		04:43:27
3	Al 396.153Radial†	91930.7	92724.1	82239 ug/L	82239 ppb	04:43:07
3	Ca 317.933Radial†	8983.5	9045.8	15158 ug/L	15158 ppb	04:43:07
3	Fe 238.204 Radial†	11574.7	11657.3	102430 ug/L	102430 ppb	04:43:07
3	K 766.490 Radial†	66213.9	63429.4	12564 ug/L	12564 ppb	04:43:07
3	Mg 279.077 IEC†	416.5	418.3	13286 ug/L	13286 ppb	04:43:27
3	Na 589.592 Radial†	458.3	2212.3	668.28 ug/L	668.28 ppb	04:43:07
3	Sr 421.552†	26031.0	26232.1	191.92 ug/L	191.92 ppb	04:43:07
3	Sc 361.383	884277.5	884277.5	99.737 %		04:44:29
3	Y 371.029	819489.8	819489.8	107.58 %		04:44:29
3	Ag 328.068†	-7306.9	-7838.5	1.4173 ug/L	1.4173 ppb	04:44:29
3	As 188.979†	-44.7	-11.4	45.332 ug/L	45.332 ppb	04:44:49
3	B 249.677†	490.0	1157.1	10.105 ug/L	10.105 ppb	04:44:29
3	Ba 233.527†	130539.8	130876.6	957.42 ug/L	957.42 ppb	04:44:29
3	Be 313.107†	-9872.4	-5546.9	5.9633 ug/L	5.9633 ppb	04:44:29
3	Cd 226.502†	851.8	1092.4	0.0862 ug/L	0.0862 ppb	04:44:49
3	Co 228.616†	3385.8	3478.7	55.845 ug/L	55.845 ppb	04:44:49
3	Cr 267.716†	8514.6	8433.0	86.796 ug/L	86.796 ppb	04:44:49
3	Cu 324.752†	23074.5	15136.4	50.038 ug/L	50.038 ppb	04:44:29
3	Mn 257.610†	2993812.8	3001191.7	3172.2 ug/L	3172.2 ppb	04:44:29
3	Mo 202.031†	-40.6	-60.6	6.0232 ug/L	6.0232 ppb	04:44:49
3	Ni 231.604†	2843.8	2726.2	59.805 ug/L	59.805 ppb	04:44:49
3	P 214.914†	1594.1	1349.7	595.89 ug/L	595.89 ppb	04:44:49
3	Pb 220.353†	1061.9	1142.4	128.36 ug/L	128.36 ppb	04:44:49
3	S 181.975 Axial†	594.0	535.7	589.23 ug/L	589.23 ppb	04:44:49
3	Sb 206.836†	76.0	39.2	-1.6470 ug/L	-1.6470 ppb	04:44:49
3	Se 196.026†	-629.7	-598.1	21.742 ug/L	21.742 ppb	04:44:49
3	Si 251.611†	858678.2	860326.2	24676 ug/L	24676 ppb	04:44:29
3	Sn 189.927†	-95.4	-99.1	-11.662 ug/L	-11.662 ppb	04:44:49
3	Ti 334.940†	2504995.2	2513418.8	3988.6 ug/L	3988.6 ppb	04:44:29
3	Tl 190.801†	-230.8	-178.0	1.8991 ug/L	1.8991 ppb	04:44:49
3	U 409.014†	-8795.3	-6149.7	-195.87 ug/L	-195.87 ppb	04:44:29
3	V 292.402†	35401.2	37296.4	214.02 ug/L	214.02 ppb	04:44:29
3	Zn 213.857†	26081.5	25318.6	201.97 ug/L	201.97 ppb	04:44:49
3	SiO2†	855488.6	857108.7	52607 ug/L	52607 ppb	04:45:07

Mean Data: 243517008|936768|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	884550.0	99.768 %	0.2083			0.21%
Sc Radial	4633.0	99.3 %	0.10			0.10%
Y 371.029	819475.2	107.58 %	0.212			0.20%
Y RADIAL	5316.3	107.8 %	0.59			0.55%
Ag 328.068†	-7858.5	1.6499 ug/L	0.26525	1.6499 ppb	0.26525	16.08%
Al 396.153Radial†	93368.0	82810 ug/L	672.4	82810 ppb	672.4	0.81%
As 188.979†	-14.6	44.343 ug/L	0.9358	44.343 ppb	0.9358	2.11%
B 249.677†	1240.0	11.687 ug/L	1.4358	11.687 ppb	1.4358	12.29%
Ba 233.527†	130965.8	958.09 ug/L	0.616	958.09 ppb	0.616	0.06%
Be 313.107†	-5539.0	5.9704 ug/L	0.00830	5.9704 ppb	0.00830	0.14%
Ca 317.933Radial†	9126.0	15292 ug/L	124.3	15292 ppb	124.3	0.81%
Cd 226.502†	1078.7	-0.1380 ug/L	0.20812	-0.1380 ppb	0.20812	150.85%
Co 228.616†	3492.9	56.094 ug/L	0.2318	56.094 ppb	0.2318	0.41%
Cr 267.716†	8444.1	86.925 ug/L	0.1546	86.925 ppb	0.1546	0.18%
Cu 324.752†	15209.9	50.305 ug/L	0.2310	50.305 ppb	0.2310	0.46%
Fe 238.204 Radial†	11765.9	103390 ug/L	880.9	103390 ppb	880.9	0.85%
K 766.490 Radial†	63983.8	12674 ug/L	107.6	12674 ppb	107.6	0.85%

Mg 279.077 IEC†	419.5	13323 ug/L	40.7	13323 ppb	40.7	0.31%
Mn 257.610†	3003511.0	3174.7 ug/L	2.22	3174.7 ppb	2.22	0.07%
Mo 202.031†	-59.0	6.2134 ug/L	0.20013	6.2134 ppb	0.20013	3.22%
Na 589.592 Radial†	2274.4	687.05 ug/L	16.295	687.05 ppb	16.295	2.37%
Ni 231.604†	2712.1	59.495 ug/L	0.2942	59.495 ppb	0.2942	0.49%
P 214.914†	1366.9	603.64 ug/L	6.735	603.64 ppb	6.735	1.12%
Pb 220.353†	1135.6	127.69 ug/L	1.150	127.69 ppb	1.150	0.90%
S 181.975 Axial†	539.2	593.06 ug/L	3.445	593.06 ppb	3.445	0.58%
Sb 206.836†	48.7	1.2164 ug/L	2.52235	1.2164 ppb	2.52235	207.36%
Se 196.026†	-606.1	20.703 ug/L	0.9079	20.703 ppb	0.9079	4.39%
Si 251.611†	861486.0	24709 ug/L	30.9	24709 ppb	30.9	0.12%
Sn 189.927†	-96.8	-11.296 ug/L	0.4244	-11.296 ppb	0.4244	3.76%
Sr 421.552†	26451.4	193.53 ug/L	1.797	193.53 ppb	1.797	0.93%
Ti 334.940†	2514815.0	3990.8 ug/L	1.97	3990.8 ppb	1.97	0.05%
Tl 190.801†	-186.6	-0.3946 ug/L	1.98851	-0.3946 ppb	1.98851	503.89%
U 409.014†	-6206.9	-197.69 ug/L	3.714	-197.69 ppb	3.714	1.88%
V 292.402†	37311.1	213.96 ug/L	0.192	213.96 ppb	0.192	0.09%
Zn 213.857†	25367.2	202.32 ug/L	0.364	202.32 ppb	0.364	0.18%
SiO2†	855964.1	52537 ug/L	193.4	52537 ppb	193.4	0.37%

Sequence No.: 123
 Sample ID: 243517009|936768|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 113
 Date Collected: 1/7/2010 04:47:19
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 243517009|936768|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4710.8	4710.8	101 %		04:49:33
1	Y RADIAL	5423.0	5423.0	109.9 %		04:49:33
1	Al 396.153Radial†	81527.4	80806.7	71670 ug/L	71670 ppb	04:49:13
1	Ca 317.933Radial†	8234.0	8145.9	13650 ug/L	13650 ppb	04:49:13
1	Fe 238.204 Radial†	12040.2	11915.9	104710 ug/L	104710 ppb	04:49:13
1	K 766.490 Radial†	67581.9	63625.5	12608 ug/L	12608 ppb	04:49:13
1	Mg 279.077 IEC†	432.1	426.5	13548 ug/L	13548 ppb	04:49:33
1	Na 589.592 Radial†	616.8	2361.2	713.28 ug/L	713.28 ppb	04:49:13
1	Sr 421.552†	25719.1	25467.4	186.34 ug/L	186.34 ppb	04:49:13
1	Sc 361.383	880288.2	880288.2	99.287 %		04:50:32
1	Y 371.029	819771.4	819771.4	107.62 %		04:50:32
1	Ag 328.068†	-7136.9	-7700.5	2.7975 ug/L	2.7975 ppb	04:50:32
1	As 188.979†	-49.4	-16.3	43.200 ug/L	43.200 ppb	04:50:52
1	B 249.677†	483.9	1153.2	9.7399 ug/L	9.7399 ppb	04:50:32
1	Ba 233.527†	111531.6	112325.0	822.20 ug/L	822.20 ppb	04:50:32
1	Be 313.107†	-9920.4	-5640.2	5.7563 ug/L	5.7563 ppb	04:50:32
1	Cd 226.502†	850.2	1094.6	-0.1191 ug/L	-0.1191 ppb	04:50:52
1	Co 228.616†	3022.7	3128.4	49.358 ug/L	49.358 ppb	04:50:52
1	Cr 267.716†	8304.0	8259.6	85.102 ug/L	85.102 ppb	04:50:52
1	Cu 324.752†	22709.3	14873.4	49.376 ug/L	49.376 ppb	04:50:32
1	Mn 257.610†	2509851.6	2527358.5	2673.1 ug/L	2673.1 ppb	04:50:32
1	Mo 202.031†	-39.1	-59.3	6.3209 ug/L	6.3209 ppb	04:50:52
1	Ni 231.604†	2867.2	2762.7	60.611 ug/L	60.611 ppb	04:50:52
1	P 214.914†	1546.2	1308.7	570.60 ug/L	570.60 ppb	04:50:52
1	Pb 220.353†	887.2	971.3	108.07 ug/L	108.07 ppb	04:50:52
1	S 181.975 Axial†	531.0	474.9	522.57 ug/L	522.57 ppb	04:50:52
1	Sb 206.836†	81.6	45.1	0.7440 ug/L	0.7440 ppb	04:50:52
1	Se 196.026†	-623.7	-594.9	28.712 ug/L	28.712 ppb	04:50:52
1	Si 251.611†	781297.6	786291.5	22552 ug/L	22552 ppb	04:50:32
1	Sn 189.927†	-93.7	-97.8	-11.608 ug/L	-11.608 ppb	04:50:52
1	Ti 334.940†	2437824.3	2457147.7	3899.3 ug/L	3899.3 ppb	04:50:32
1	Tl 190.801†	-216.4	-164.6	1.6985 ug/L	1.6985 ppb	04:50:52
1	U 409.014†	-8964.5	-6360.2	-202.41 ug/L	-202.41 ppb	04:50:32
1	V 292.402†	35256.5	37311.5	213.86 ug/L	213.86 ppb	04:50:32
1	Zn 213.857†	26773.1	26133.7	208.55 ug/L	208.55 ppb	04:50:52
1	SiO2†	778862.5	783819.5	48108 ug/L	48108 ppb	04:51:52
2	Sc Radial	4653.0	4653.0	99.7 %		04:49:58
2	Y RADIAL	5351.3	5351.3	108.5 %		04:49:58
2	Al 396.153Radial†	79754.0	80030.2	70981 ug/L	70981 ppb	04:49:38
2	Ca 317.933Radial†	8020.6	8033.1	13461 ug/L	13461 ppb	04:49:38
2	Fe 238.204 Radial†	11761.5	11784.4	103550 ug/L	103550 ppb	04:49:38
2	K 766.490 Radial†	66289.9	63160.6	12515 ug/L	12515 ppb	04:49:38
2	Mg 279.077 IEC†	428.6	428.3	13607 ug/L	13607 ppb	04:49:58
2	Na 589.592 Radial†	603.3	2355.3	711.48 ug/L	711.48 ppb	04:49:38
2	Sr 421.552†	25125.4	25188.0	184.29 ug/L	184.29 ppb	04:49:38
2	Sc 361.383	891614.4	891614.4	100.56 %		04:50:59
2	Y 371.029	830006.0	830006.0	108.96 %		04:50:59
2	Ag 328.068†	-7309.7	-7781.0	2.0664 ug/L	2.0664 ppb	04:50:59
2	As 188.979†	-41.5	-7.8	46.040 ug/L	46.040 ppb	04:51:19
2	B 249.677†	420.8	1084.3	8.4745 ug/L	8.4745 ppb	04:50:59
2	Ba 233.527†	112909.6	112268.3	821.76 ug/L	821.76 ppb	04:50:59
2	Be 313.107†	-10001.5	-5593.8	5.7833 ug/L	5.7833 ppb	04:50:59
2	Cd 226.502†	801.4	1035.2	-0.5636 ug/L	-0.5636 ppb	04:51:19
2	Co 228.616†	3007.3	3074.4	48.347 ug/L	48.347 ppb	04:51:19
2	Cr 267.716†	8244.4	8094.1	83.422 ug/L	83.422 ppb	04:51:19
2	Cu 324.752†	23052.3	14923.9	49.466 ug/L	49.466 ppb	04:50:59
2	Mn 257.610†	2543499.0	2528705.2	2674.4 ug/L	2674.4 ppb	04:50:59
2	Mo 202.031†	-41.2	-60.9	6.1124 ug/L	6.1124 ppb	04:51:19
2	Ni 231.604†	2871.4	2730.2	59.898 ug/L	59.898 ppb	04:51:19

2	P 214.914†	1491.4	1234.5	535.11 ug/L	535.11 ppb	04:51:19
2	Pb 220.353†	862.8	935.8	104.33 ug/L	104.33 ppb	04:51:19
2	S 181.975 Axial†	525.3	462.4	508.65 ug/L	508.65 ppb	04:51:19
2	Sb 206.836†	88.3	50.7	2.4727 ug/L	2.4727 ppb	04:51:19
2	Se 196.026†	-652.4	-615.5	14.529 ug/L	14.529 ppb	04:51:19
2	Si 251.611†	792320.4	787256.3	22580 ug/L	22580 ppb	04:50:59
2	Sn 189.927†	-88.2	-91.1	-10.649 ug/L	-10.649 ppb	04:51:19
2	Ti 334.940†	2472852.1	2460788.6	3905.0 ug/L	3905.0 ppb	04:50:59
2	Tl 190.801†	-216.0	-161.4	2.5988 ug/L	2.5988 ppb	04:51:19
2	U 409.014†	-9036.3	-6316.8	-200.97 ug/L	-200.97 ppb	04:50:59
2	V 292.402†	35682.6	37284.2	213.86 ug/L	213.86 ppb	04:50:59
2	Zn 213.857†	26622.6	25641.5	204.56 ug/L	204.56 ppb	04:51:19
2	SiO2†	787925.6	782866.7	48050 ug/L	48050 ppb	04:51:58
3	Sc Radial	4671.7	4671.7	100 %		04:50:23
3	Y RADIAL	5397.1	5397.1	109.4 %		04:50:23
3	Al 396.153Radial†	80582.6	80538.2	71431 ug/L	71431 ppb	04:50:03
3	Ca 317.933Radial†	8071.8	8052.1	13493 ug/L	13493 ppb	04:50:03
3	Fe 238.204 Radial†	11890.0	11865.6	104260 ug/L	104260 ppb	04:50:03
3	K 766.490 Radial†	66949.0	63553.1	12593 ug/L	12593 ppb	04:50:03
3	Mg 279.077 IEC†	434.3	432.3	13732 ug/L	13732 ppb	04:50:23
3	Na 589.592 Radial†	595.3	2344.8	708.33 ug/L	708.33 ppb	04:50:03
3	Sc 421.552†	25471.0	25432.6	186.08 ug/L	186.08 ppb	04:50:03
3	Sc 361.383	886311.6	886311.6	99.966 %		04:51:26
3	Y 371.029	824793.6	824793.6	108.28 %		04:51:26
3	Ag 328.068†	-7289.1	-7803.8	2.2100 ug/L	2.2100 ppb	04:51:26
3	As 188.979†	-51.5	-18.1	42.531 ug/L	42.531 ppb	04:51:46
3	B 249.677†	407.3	1073.3	8.1527 ug/L	8.1527 ppb	04:51:26
3	Ba 233.527†	112490.5	112520.8	823.62 ug/L	823.62 ppb	04:51:26
3	Be 313.107†	-10110.9	-5762.8	5.7226 ug/L	5.7226 ppb	04:51:26
3	Cd 226.502†	827.8	1066.5	-0.3405 ug/L	-0.3405 ppb	04:51:46
3	Co 228.616†	3003.1	3088.1	48.595 ug/L	48.595 ppb	04:51:46
3	Cr 267.716†	8270.2	8168.9	84.186 ug/L	84.186 ppb	04:51:46
3	Cu 324.752†	22738.0	14746.6	48.978 ug/L	48.978 ppb	04:51:26
3	Mn 257.610†	2529851.0	2530184.9	2676.1 ug/L	2676.1 ppb	04:51:26
3	Mo 202.031†	-60.7	-80.6	4.9414 ug/L	4.9414 ppb	04:51:46
3	Ni 231.604†	2883.1	2759.0	60.529 ug/L	60.529 ppb	04:51:46
3	P 214.914†	1503.1	1255.0	544.78 ug/L	544.78 ppb	04:51:46
3	Pb 220.353†	874.3	952.4	106.08 ug/L	106.08 ppb	04:51:46
3	S 181.975 Axial†	546.9	487.2	536.53 ug/L	536.53 ppb	04:51:46
3	Sb 206.836†	78.9	41.8	-0.2508 ug/L	-0.2508 ppb	04:51:46
3	Se 196.026†	-643.2	-610.2	19.517 ug/L	19.517 ppb	04:51:46
3	Si 251.611†	787906.3	787554.5	22588 ug/L	22588 ppb	04:51:26
3	Sn 189.927†	-93.3	-96.7	-11.470 ug/L	-11.470 ppb	04:51:46
3	Ti 334.940†	2456985.2	2459628.4	3903.2 ug/L	3903.2 ppb	04:51:26
3	Tl 190.801†	-204.9	-151.6	5.2981 ug/L	5.2981 ppb	04:51:46
3	U 409.014†	-9115.2	-6449.5	-205.01 ug/L	-205.01 ppb	04:51:26
3	V 292.402†	35487.9	37301.7	213.84 ug/L	213.84 ppb	04:51:26
3	Zn 213.857†	26765.7	25943.0	207.00 ug/L	207.00 ppb	04:51:46
3	SiO2†	791409.9	791039.9	48551 ug/L	48551 ppb	04:52:04

Mean Data: 243517009|936768|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	886071.4	99.939 %	0.6392			0.64%
Sc Radial	4678.5	100 %	0.6			0.63%
Y 371.029	824857.0	108.28 %	0.672			0.62%
Y RADIAL	5390.5	109.3 %	0.74			0.67%
Ag 328.068†	-7761.8	2.3580 ug/L	0.38735	2.3580 ppb	0.38735	16.43%
Al 396.153Radial†	80458.4	71361 ug/L	349.8	71361 ppb	349.8	0.49%
As 188.979†	-14.1	43.924 ug/L	1.8629	43.924 ppb	1.8629	4.24%
B 249.677†	1103.6	8.7890 ug/L	0.83903	8.7890 ppb	0.83903	9.55%
Ba 233.527†	112371.4	822.53 ug/L	0.971	822.53 ppb	0.971	0.12%
Be 313.107†	-5665.6	5.7541 ug/L	0.03042	5.7541 ppb	0.03042	0.53%
Ca 317.933Radial†	8077.1	13534 ug/L	101.2	13534 ppb	101.2	0.75%
Cd 226.502†	1065.4	-0.3411 ug/L	0.22222	-0.3411 ppb	0.22222	65.15%
Co 228.616†	3097.0	48.766 ug/L	0.5268	48.766 ppb	0.5268	1.08%
Cr 267.716†	8174.2	84.236 ug/L	0.8411	84.236 ppb	0.8411	1.00%
Cu 324.752†	14848.0	49.273 ug/L	0.2598	49.273 ppb	0.2598	0.53%
Fe 238.204 Radial†	11855.3	104170 ug/L	583.0	104170 ppb	583.0	0.56%
K 766.490 Radial†	63446.4	12572 ug/L	49.7	12572 ppb	49.7	0.40%

Mg 279.077 IEC†	429.0	13629 ug/L	94.0	13629 ppb	94.0	0.69%
Mn 257.610†	2528749.5	2674.5 ug/L	1.47	2674.5 ppb	1.47	0.05%
Mo 202.031†	-66.9	5.7916 ug/L	0.74361	5.7916 ppb	0.74361	12.84%
Na 589.592 Radial†	2353.8	711.03 ug/L	2.508	711.03 ppb	2.508	0.35%
Ni 231.604†	2750.6	60.346 ug/L	0.3900	60.346 ppb	0.3900	0.65%
P 214.914†	1266.1	550.16 ug/L	18.345	550.16 ppb	18.345	3.33%
Pb 220.353†	953.1	106.16 ug/L	1.873	106.16 ppb	1.873	1.76%
S 181.975 Axial†	474.8	522.58 ug/L	13.939	522.58 ppb	13.939	2.67%
Sb 206.836†	45.9	0.9886 ug/L	1.37810	0.9886 ppb	1.37810	139.39%
Se 196.026†	-606.9	20.920 ug/L	7.1947	20.920 ppb	7.1947	34.39%
Si 251.611†	787034.1	22573 ug/L	19.0	22573 ppb	19.0	0.08%
Sn 189.927†	-95.2	-11.242 ug/L	0.5184	-11.242 ppb	0.5184	4.61%
Sr 421.552†	25362.7	185.57 ug/L	1.114	185.57 ppb	1.114	0.60%
Ti 334.940†	2459188.3	3902.5 ug/L	2.95	3902.5 ppb	2.95	0.08%
Tl 190.801†	-159.2	3.1985 ug/L	1.87319	3.1985 ppb	1.87319	58.56%
U 409.014†	-6375.5	-202.80 ug/L	2.046	-202.80 ppb	2.046	1.01%
V 292.402†	37299.1	213.86 ug/L	0.011	213.86 ppb	0.011	0.01%
Zn 213.857†	25906.1	206.70 ug/L	2.009	206.70 ppb	2.009	0.97%
SiO2†	785908.7	48236 ug/L	274.4	48236 ppb	274.4	0.57%

Sequence No.: 125

Sample ID: 1202004341|936768|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 115

Date Collected: 1/7/2010 05:01:11

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202004341|936768|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4647.4	4647.4	99.6 %		05:03:26
1	Y RADIAL	5520.8	5520.8	111.9 %		05:03:26
1	Al 396.153Radial†	82486.3	82871.4	73501 ug/L	73501 ppb	05:03:06
1	Ca 317.933Radial†	27035.4	27140.3	45478 ug/L	45478 ppb	05:03:06
1	Fe 238.204 Radial†	10661.0	10693.5	93963 ug/L	93963 ppb	05:03:06
1	K 766.490 Radial†	84397.0	81427.0	16121 ug/L	16121 ppb	05:03:06
1	Mg 279.077 IEC†	497.9	498.4	15856 ug/L	15856 ppb	05:03:26
1	Na 589.592 Radial†	413.2	2165.1	654.03 ug/L	654.03 ppb	05:03:06
1	Sr 421.552†	39524.8	39680.6	290.11 ug/L	290.11 ppb	05:03:06
1	Sc 361.383	873733.1	873733.1	98.548 %		05:04:24
1	Y 371.029	837071.8	837071.8	109.89 %		05:04:24
1	Ag 328.068†	-6152.1	-6755.0	2.6253 ug/L	2.6253 ppb	05:04:24
1	As 188.979†	-43.0	-10.2	39.620 ug/L	39.620 ppb	05:04:44
1	B 249.677†	2000.8	2696.1	43.014 ug/L	43.014 ppb	05:04:24
1	Ba 233.527†	214114.5	217262.4	1587.0 ug/L	1587.0 ppb	05:04:24
1	Be 313.107†	-7966.9	-3732.8	5.4579 ug/L	5.4579 ppb	05:04:24
1	Cd 226.502†	893.1	1144.6	1.4224 ug/L	1.4224 ppb	05:04:44
1	Co 228.616†	2266.4	2383.8	36.889 ug/L	36.889 ppb	05:04:44
1	Cr 267.716†	6808.9	6805.2	70.256 ug/L	70.256 ppb	05:04:44
1	Cu 324.752†	30445.6	22895.2	72.578 ug/L	72.578 ppb	05:04:24
1	Mn 257.610†	3771375.7	3826439.2	4040.8 ug/L	4040.8 ppb	05:04:24
1	Mo 202.031†	4.3	-15.5	8.0338 ug/L	8.0338 ppb	05:04:44
1	Ni 231.604†	2634.6	2548.4	55.914 ug/L	55.914 ppb	05:04:44
1	P 214.914†	3895.4	3704.2	1743.7 ug/L	1743.7 ppb	05:04:44
1	Pb 220.353†	1522.4	1622.6	176.82 ug/L	176.82 ppb	05:04:44
1	S 181.975 Axial†	1440.4	1401.8	1569.7 ug/L	1569.7 ppb	05:04:44
1	Sb 206.836†	81.9	46.0	2.1442 ug/L	2.1442 ppb	05:04:44
1	Se 196.026†	-576.2	-551.5	18.222 ug/L	18.222 ppb	05:04:44
1	Si 251.611†	835374.2	847068.8	24294 ug/L	24294 ppb	05:04:24
1	Sn 189.927†	-189.8	-196.0	-22.975 ug/L	-22.975 ppb	05:04:44
1	Ti 334.940†	2121638.1	2154722.7	3421.1 ug/L	3421.1 ppb	05:04:24
1	Tl 190.801†	-246.8	-197.0	-2.5839 ug/L	-2.5839 ppb	05:04:44
1	U 409.014†	-10028.3	-7507.3	-235.13 ug/L	-235.13 ppb	05:04:24
1	V 292.402†	26757.7	28953.8	163.59 ug/L	163.59 ppb	05:04:24
1	Zn 213.857†	44126.8	43945.4	355.48 ug/L	355.48 ppb	05:04:24
1	SiO2†	844340.0	856147.3	52546 ug/L	52546 ppb	05:05:45
2	Sc Radial	4645.6	4645.6	99.5 %		05:03:51
2	Y RADIAL	5522.1	5522.1	111.9 %		05:03:51
2	Al 396.153Radial†	82609.5	83027.7	73639 ug/L	73639 ppb	05:03:31
2	Ca 317.933Radial†	27121.5	27237.5	45641 ug/L	45641 ppb	05:03:31
2	Fe 238.204 Radial†	10716.1	10753.0	94486 ug/L	94486 ppb	05:03:31
2	K 766.490 Radial†	84522.2	81586.0	16152 ug/L	16152 ppb	05:03:31
2	Mg 279.077 IEC†	505.7	506.5	16114 ug/L	16114 ppb	05:03:51
2	Na 589.592 Radial†	325.5	2077.1	627.45 ug/L	627.45 ppb	05:03:31
2	Sr 421.552†	39546.0	39717.4	290.37 ug/L	290.37 ppb	05:03:31
2	Sc 361.383	875313.3	875313.3	98.726 %		05:04:51
2	Y 371.029	838269.5	838269.5	110.04 %		05:04:51
2	Ag 328.068†	-6239.2	-6832.0	2.4726 ug/L	2.4726 ppb	05:04:51
2	As 188.979†	-40.5	-7.6	40.707 ug/L	40.707 ppb	05:05:12
2	B 249.677†	1998.4	2690.0	42.816 ug/L	42.816 ppb	05:04:51
2	Ba 233.527†	215366.4	218138.3	1593.4 ug/L	1593.4 ppb	05:04:51
2	Be 313.107†	-8086.8	-3839.7	5.4400 ug/L	5.4400 ppb	05:04:51
2	Cd 226.502†	894.8	1144.7	1.3713 ug/L	1.3713 ppb	05:05:12
2	Co 228.616†	2299.7	2413.3	37.416 ug/L	37.416 ppb	05:05:12
2	Cr 267.716†	6861.3	6845.8	70.674 ug/L	70.674 ppb	05:05:12
2	Cu 324.752†	30459.8	22853.9	72.482 ug/L	72.482 ppb	05:04:51
2	Mn 257.610†	3792725.3	3841155.5	4056.3 ug/L	4056.3 ppb	05:04:51
2	Mo 202.031†	-21.4	-41.5	6.4539 ug/L	6.4539 ppb	05:05:12
2	Ni 231.604†	2666.4	2575.7	56.514 ug/L	56.514 ppb	05:05:12

2	P 214.914†	3909.5	3711.4	1746.8 ug/L	1746.8 ppb	05:05:12
2	Pb 220.353†	1529.4	1626.9	177.25 ug/L	177.25 ppb	05:05:12
2	S 181.975 Axial†	1414.4	1372.8	1537.0 ug/L	1537.0 ppb	05:05:12
2	Sb 206.836†	99.5	63.7	7.3550 ug/L	7.3550 ppb	05:05:12
2	Se 196.026†	-580.0	-554.3	18.417 ug/L	18.417 ppb	05:05:12
2	Si 251.611†	839656.6	849876.2	24375 ug/L	24375 ppb	05:04:51
2	Sn 189.927†	-189.9	-195.8	-22.916 ug/L	-22.916 ppb	05:05:12
2	Ti 334.940†	2131262.9	2160585.1	3430.4 ug/L	3430.4 ppb	05:04:51
2	Tl 190.801†	-230.1	-179.7	2.3155 ug/L	2.3155 ppb	05:05:12
2	U 409.014†	-10220.1	-7683.3	-240.43 ug/L	-240.43 ppb	05:04:51
2	V 292.402†	26851.9	29000.2	163.76 ug/L	163.76 ppb	05:04:51
2	Zn 213.857†	44408.5	44149.9	357.12 ug/L	357.12 ppb	05:04:51
2	SiO2†	836164.2	846319.2	51942 ug/L	51942 ppb	05:05:51
3	Sc Radial	4654.8	4654.8	99.7 %		05:04:16
3	Y RADIAL	5513.5	5513.5	111.8 %		05:04:16
3	Al 396.153Radial†	83901.1	84158.2	74642 ug/L	74642 ppb	05:03:56
3	Ca 317.933Radial†	27573.1	27636.2	46309 ug/L	46309 ppb	05:03:56
3	Fe 238.204 Radial†	10887.3	10903.3	95807 ug/L	95807 ppb	05:03:56
3	K 766.490 Radial†	85952.3	82851.6	16404 ug/L	16404 ppb	05:03:56
3	Mg 279.077 IEC†	498.9	498.6	15861 ug/L	15861 ppb	05:04:16
3	Na 589.592 Radial†	456.8	2208.2	667.04 ug/L	667.04 ppb	05:03:56
3	Sr 421.552†	40233.6	40328.1	294.84 ug/L	294.84 ppb	05:03:56
3	Sc 361.383	880891.8	880891.8	99.355 %		05:05:18
3	Y 371.029	844180.8	844180.8	110.82 %		05:05:18
3	Ag 328.068†	-6207.4	-6760.1	3.2024 ug/L	3.2024 ppb	05:05:18
3	As 188.979†	-27.2	6.0	45.592 ug/L	45.592 ppb	05:05:39
3	B 249.677†	2098.0	2777.4	44.446 ug/L	44.446 ppb	05:05:18
3	Ba 233.527†	215693.7	217086.2	1585.7 ug/L	1585.7 ppb	05:05:18
3	Be 313.107†	-8037.2	-3737.9	5.4581 ug/L	5.4581 ppb	05:05:18
3	Cd 226.502†	897.7	1141.9	1.2125 ug/L	1.2125 ppb	05:05:39
3	Co 228.616†	2268.7	2367.4	36.552 ug/L	36.552 ppb	05:05:39
3	Cr 267.716†	6850.0	6790.4	70.139 ug/L	70.139 ppb	05:05:39
3	Cu 324.752†	30689.6	22889.8	72.655 ug/L	72.655 ppb	05:05:18
3	Mn 257.610†	3799426.7	3823571.8	4038.0 ug/L	4038.0 ppb	05:05:18
3	Mo 202.031†	5.5	-14.4	8.2812 ug/L	8.2812 ppb	05:05:39
3	Ni 231.604†	2662.5	2554.8	56.055 ug/L	56.055 ppb	05:05:39
3	P 214.914†	3901.7	3678.5	1730.1 ug/L	1730.1 ppb	05:05:39
3	Pb 220.353†	1487.4	1574.8	171.97 ug/L	171.97 ppb	05:05:39
3	S 181.975 Axial†	1428.0	1377.3	1541.9 ug/L	1541.9 ppb	05:05:39
3	Sb 206.836†	83.3	46.8	2.3635 ug/L	2.3635 ppb	05:05:39
3	Se 196.026†	-583.5	-554.0	22.773 ug/L	22.773 ppb	05:05:39
3	Si 251.611†	842390.5	847241.8	24299 ug/L	24299 ppb	05:05:18
3	Sn 189.927†	-194.8	-199.4	-23.368 ug/L	-23.368 ppb	05:05:39
3	Ti 334.940†	2139622.2	2155327.6	3422.1 ug/L	3422.1 ppb	05:05:18
3	Tl 190.801†	-223.7	-171.8	4.3436 ug/L	4.3436 ppb	05:05:39
3	U 409.014†	-9944.4	-7340.3	-230.40 ug/L	-230.40 ppb	05:05:18
3	V 292.402†	26929.2	28905.9	163.02 ug/L	163.02 ppb	05:05:18
3	Zn 213.857†	44480.0	43937.1	355.31 ug/L	355.31 ppb	05:05:18
3	SiO2†	832494.2	837261.8	51386 ug/L	51386 ppb	05:05:57

Mean Data: 1202004341|936768|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	876646.0	98.876	%	0.4242			0.43%
Sc Radial	4649.2	99.6	%	0.10			0.11%
Y 371.029	839840.7	110.25	%	0.500			0.45%
Y RADIAL	5518.8	111.9	%	0.09			0.08%
Ag 328.068†	-6782.4	2.7668	ug/L	0.38492	2.7668 ppb	0.38492	13.91%
Al 396.153Radial†	83352.4	73927	ug/L	622.8	73927 ppb	622.8	0.84%
As 188.979†	-3.9	41.973	ug/L	3.1808	41.973 ppb	3.1808	7.58%
B 249.677†	2721.2	43.425	ug/L	0.8896	43.425 ppb	0.8896	2.05%
Ba 233.527†	217495.7	1588.7	ug/L	4.10	1588.7 ppb	4.10	0.26%
Be 313.107†	-3770.1	5.4520	ug/L	0.01035	5.4520 ppb	0.01035	0.19%
Ca 317.933Radial†	27338.0	45809	ug/L	440.4	45809 ppb	440.4	0.96%
Cd 226.502†	1143.7	1.3354	ug/L	0.10947	1.3354 ppb	0.10947	8.20%
Co 228.616†	2388.2	36.952	ug/L	0.4353	36.952 ppb	0.4353	1.18%
Cr 267.716†	6813.8	70.356	ug/L	0.2814	70.356 ppb	0.2814	0.40%
Cu 324.752†	22879.6	72.572	ug/L	0.0870	72.572 ppb	0.0870	0.12%
Fe 238.204 Radial†	10783.3	94752	ug/L	950.3	94752 ppb	950.3	1.00%
K 766.490 Radial†	81954.9	16226	ug/L	155.1	16226 ppb	155.1	0.96%

Mg 279.077 IEC†	501.2	15944 ug/L	147.2	15944 ppb	147.2	0.92%
Mn 257.610†	3830388.9	4045.0 ug/L	9.90	4045.0 ppb	9.90	0.24%
Mo 202.031†	-23.8	7.5896 ug/L	0.99134	7.5896 ppb	0.99134	13.06%
Na 589.592 Radial†	2150.1	649.51 ug/L	20.179	649.51 ppb	20.179	3.11%
Ni 231.604†	2559.6	56.161 ug/L	0.3138	56.161 ppb	0.3138	0.56%
P 214.914†	3698.0	1740.2 ug/L	8.92	1740.2 ppb	8.92	0.51%
Pb 220.353†	1608.1	175.35 ug/L	2.931	175.35 ppb	2.931	1.67%
S 181.975 Axial†	1384.0	1549.5 ug/L	17.67	1549.5 ppb	17.67	1.14%
Sb 206.836†	52.1	3.9542 ug/L	2.94723	3.9542 ppb	2.94723	74.53%
Se 196.026†	-553.3	19.804 ug/L	2.5731	19.804 ppb	2.5731	12.99%
Si 251.611†	848062.2	24323 ug/L	45.2	24323 ppb	45.2	0.19%
Sn 189.927†	-197.1	-23.086 ug/L	0.2459	-23.086 ppb	0.2459	1.07%
Sr 421.552†	39908.7	291.77 ug/L	2.659	291.77 ppb	2.659	0.91%
Ti 334.940†	2156878.5	3424.5 ug/L	5.11	3424.5 ppb	5.11	0.15%
Tl 190.801†	-182.8	1.3584 ug/L	3.56155	1.3584 ppb	3.56155	262.18%
U 409.014†	-7510.3	-235.32 ug/L	5.019	-235.32 ppb	5.019	2.13%
V 292.402†	28953.3	163.46 ug/L	0.390	163.46 ppb	0.390	0.24%
Zn 213.857†	44010.8	355.97 ug/L	0.999	355.97 ppb	0.999	0.28%
SiO2†	846576.1	51958 ug/L	579.9	51958 ppb	579.9	1.12%

Sequence No.: 126

Sample ID: 1202004342|936768|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 116

Date Collected: 1/7/2010 05:08:08

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202004342|936768|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4629.0	4629.0	99.2 %		05:10:23
1	Y RADIAL	5478.5	5478.5	111.1 %		05:10:23
1	Al 396.153Radial†	142957.9	144177.4	127860 ug/L	127860 ppb	05:10:03
1	Ca 317.933Radial†	32292.9	32549.8	54543 ug/L	54543 ppb	05:10:03
1	Fe 238.204 Radial†	11157.2	11236.4	98748 ug/L	98748 ppb	05:10:03
1	K 766.490 Radial†	115587.2	113214.9	22433 ug/L	22433 ppb	05:10:03
1	Mg 279.077 IEC†	684.0	688.1	21925 ug/L	21925 ppb	05:10:23
1	Na 589.592 Radial†	16923.0	18814.2	5683.4 ug/L	5683.4 ppb	05:10:03
1	Sr 421.552†	113674.4	114606.8	838.61 ug/L	838.61 ppb	05:10:03
1	Sc 361.383	866794.3	866794.3	97.765 %		05:11:21
1	Y 371.029	827696.9	827696.9	108.66 %		05:11:21
1	Ag 328.068†	104889.5	106775.0	493.27 ug/L	493.27 ppb	05:11:27
1	As 188.979†	1303.3	1366.5	530.72 ug/L	530.72 ppb	05:11:47
1	B 249.677†	25132.8	26373.1	529.39 ug/L	529.39 ppb	05:11:27
1	Ba 233.527†	286513.2	293055.5	2140.9 ug/L	2140.9 ppb	05:11:27
1	Be 313.107†	1436235.2	1473419.5	506.85 ug/L	506.85 ppb	05:11:21
1	Cd 226.502†	49680.6	51054.7	471.32 ug/L	471.32 ppb	05:11:27
1	Co 228.616†	26729.3	27424.3	506.53 ug/L	506.53 ppb	05:11:47
1	Cr 267.716†	53436.6	54554.2	549.46 ug/L	549.46 ppb	05:11:27
1	Cu 324.752†	201929.1	198546.3	592.86 ug/L	592.86 ppb	05:11:27
1	Mn 257.610†	4026363.0	4117890.7	4348.2 ug/L	4348.2 ppb	05:11:21
1	Mo 202.031†	7042.0	7183.0	459.46 ug/L	459.46 ppb	05:11:47
1	Ni 231.604†	23795.9	24214.8	531.25 ug/L	531.25 ppb	05:11:47
1	P 214.914†	4979.2	4844.5	2237.4 ug/L	2237.4 ppb	05:11:47
1	Pb 220.353†	5698.2	5906.2	633.08 ug/L	633.08 ppb	05:11:47
1	S 181.975 Axial†	5684.1	5754.2	6477.9 ug/L	6477.9 ppb	05:11:47
1	Sb 206.836†	1403.7	1398.7	409.51 ug/L	409.51 ppb	05:11:47
1	Se 196.026†	320.3	360.9	509.72 ug/L	509.72 ppb	05:11:47
1	Si 251.611†	784175.8	801485.8	22975 ug/L	22975 ppb	05:11:27
1	Sn 189.927†	2973.9	3038.5	456.48 ug/L	456.48 ppb	05:11:47
1	Ti 334.940†	2770350.5	2835499.0	4501.3 ug/L	4501.3 ppb	05:11:21
1	Tl 190.801†	1247.8	1329.7	422.54 ug/L	422.54 ppb	05:11:47
1	U 409.014†	6534.2	9352.3	264.55 ug/L	264.55 ppb	05:11:27
1	V 292.402†	102992.5	107148.8	659.92 ug/L	659.92 ppb	05:11:27
1	Zn 213.857†	95409.5	96758.9	785.61 ug/L	785.61 ppb	05:11:27
1	SiO2†	788398.9	805786.0	49429 ug/L	49429 ppb	05:12:57
2	Sc Radial	4652.4	4652.4	99.7 %		05:10:48
2	Y RADIAL	5523.8	5523.8	112.0 %		05:10:48
2	Al 396.153Radial†	144595.3	145093.7	128670 ug/L	128670 ppb	05:10:28
2	Ca 317.933Radial†	32684.5	32778.6	54926 ug/L	54926 ppb	05:10:28
2	Fe 238.204 Radial†	11217.1	11239.8	98778 ug/L	98778 ppb	05:10:28
2	K 766.490 Radial†	116713.1	113757.1	22541 ug/L	22541 ppb	05:10:28
2	Mg 279.077 IEC†	693.8	694.5	22130 ug/L	22130 ppb	05:10:48
2	Na 589.592 Radial†	17109.9	18915.8	5714.1 ug/L	5714.1 ppb	05:10:28
2	Sr 421.552†	114868.6	115227.3	843.15 ug/L	843.15 ppb	05:10:28
2	Sc 361.383	867073.2	867073.2	97.797 %		05:11:54
2	Y 371.029	827923.3	827923.3	108.69 %		05:11:54
2	Ag 328.068†	106717.4	108609.6	501.20 ug/L	501.20 ppb	05:11:59
2	As 188.979†	1278.0	1340.3	521.46 ug/L	521.46 ppb	05:12:19
2	B 249.677†	25556.6	26798.3	538.17 ug/L	538.17 ppb	05:11:59
2	Ba 233.527†	290855.1	297400.9	2172.6 ug/L	2172.6 ppb	05:11:59
2	Be 313.107†	1434477.8	1471150.0	506.06 ug/L	506.06 ppb	05:11:54
2	Cd 226.502†	50532.0	51908.9	479.36 ug/L	479.36 ppb	05:11:59
2	Co 228.616†	26433.9	27113.4	500.70 ug/L	500.70 ppb	05:12:19
2	Cr 267.716†	54291.2	55410.4	558.05 ug/L	558.05 ppb	05:11:59
2	Cu 324.752†	205219.2	201844.0	602.62 ug/L	602.62 ppb	05:11:59
2	Mn 257.610†	4018839.1	4108872.5	4338.7 ug/L	4338.7 ppb	05:11:54
2	Mo 202.031†	6955.4	7092.2	453.77 ug/L	453.77 ppb	05:12:19
2	Ni 231.604†	23529.7	23934.8	525.10 ug/L	525.10 ppb	05:12:19

2	P 214.914†	4959.6	4822.8	2225.4 ug/L	2225.4 ppb	05:12:19
2	Pb 220.353†	5627.5	5832.1	625.57 ug/L	625.57 ppb	05:12:19
2	S 181.975 Axial†	5610.2	5676.7	6390.3 ug/L	6390.3 ppb	05:12:19
2	Sb 206.836†	1373.6	1367.5	399.80 ug/L	399.80 ppb	05:12:19
2	Se 196.026†	315.7	356.0	507.43 ug/L	507.43 ppb	05:12:19
2	Si 251.611†	796387.4	813714.5	23326 ug/L	23326 ppb	05:11:59
2	Sn 189.927†	2946.7	3009.7	452.26 ug/L	452.26 ppb	05:12:19
2	Ti 334.940†	2765422.8	2829548.9	4491.9 ug/L	4491.9 ppb	05:11:54
2	Tl 190.801†	1230.9	1312.0	417.60 ug/L	417.60 ppb	05:12:19
2	U 409.014†	6646.3	9464.8	267.88 ug/L	267.88 ppb	05:11:59
2	V 292.402†	104699.6	108860.5	670.60 ug/L	670.60 ppb	05:11:59
2	Zn 213.857†	96910.0	98261.8	797.98 ug/L	797.98 ppb	05:11:59
2	SiO2†	795156.4	812436.3	49837 ug/L	49837 ppb	05:13:03
3	Sc Radial	4601.0	4601.0	98.6 %		05:11:13
3	Y RADIAL	5474.0	5474.0	111.0 %		05:11:13
3	Al 396.153Radial†	144019.4	146128.8	129590 ug/L	129590 ppb	05:10:53
3	Ca 317.933Radial†	32446.1	32902.7	55134 ug/L	55134 ppb	05:10:53
3	Fe 238.204 Radial†	11195.4	11343.4	99689 ug/L	99689 ppb	05:10:53
3	K 766.490 Radial†	116201.3	114545.0	22697 ug/L	22697 ppb	05:10:53
3	Mg 279.077 IEC†	676.6	684.8	21819 ug/L	21819 ppb	05:11:13
3	Na 589.592 Radial†	16976.3	18971.9	5731.0 ug/L	5731.0 ppb	05:10:53
3	Sr 421.552†	114501.6	116141.4	849.84 ug/L	849.84 ppb	05:10:53
3	Sc 361.383	868445.4	868445.4	97.951 %		05:12:26
3	Y 371.029	829474.4	829474.4	108.89 %		05:12:26
3	Ag 328.068†	105004.9	106688.8	493.21 ug/L	493.21 ppb	05:12:31
3	As 188.979†	1280.3	1340.5	521.97 ug/L	521.97 ppb	05:12:51
3	B 249.677†	25336.7	26532.5	532.55 ug/L	532.55 ppb	05:12:31
3	Ba 233.527†	286921.0	292914.6	2139.9 ug/L	2139.9 ppb	05:12:31
3	Be 313.107†	1447065.3	1481683.1	509.69 ug/L	509.69 ppb	05:12:26
3	Cd 226.502†	49792.6	51072.4	471.39 ug/L	471.39 ppb	05:12:31
3	Co 228.616†	26731.8	27374.9	505.53 ug/L	505.53 ppb	05:12:51
3	Cr 267.716†	53456.6	54470.6	548.64 ug/L	548.64 ppb	05:12:31
3	Cu 324.752†	201743.3	197963.9	591.18 ug/L	591.18 ppb	05:12:31
3	Mn 257.610†	4052070.1	4136305.3	4367.7 ug/L	4367.7 ppb	05:12:26
3	Mo 202.031†	7016.9	7143.8	457.09 ug/L	457.09 ppb	05:12:51
3	Ni 231.604†	23743.4	24115.0	529.06 ug/L	529.06 ppb	05:12:51
3	P 214.914†	4998.2	4854.2	2242.2 ug/L	2242.2 ppb	05:12:51
3	Pb 220.353†	5740.1	5938.0	636.68 ug/L	636.68 ppb	05:12:51
3	S 181.975 Axial†	5686.8	5745.9	6468.2 ug/L	6468.2 ppb	05:12:51
3	Sb 206.836†	1414.6	1407.1	411.80 ug/L	411.80 ppb	05:12:51
3	Se 196.026†	319.7	359.7	512.26 ug/L	512.26 ppb	05:12:51
3	Si 251.611†	784048.6	799831.0	22928 ug/L	22928 ppb	05:12:31
3	Sn 189.927†	2955.3	3013.7	452.89 ug/L	452.89 ppb	05:12:51
3	Ti 334.940†	2791395.2	2851596.4	4526.9 ug/L	4526.9 ppb	05:12:26
3	Tl 190.801†	1257.2	1336.9	424.86 ug/L	424.86 ppb	05:12:51
3	U 409.014†	6351.3	9152.8	258.51 ug/L	258.51 ppb	05:12:31
3	V 292.402†	103066.3	107023.8	658.92 ug/L	658.92 ppb	05:12:31
3	Zn 213.857†	95473.3	96638.5	784.59 ug/L	784.59 ppb	05:12:31
3	SiO2†	808362.5	824633.9	50586 ug/L	50586 ppb	05:13:08

Mean Data: 1202004342|936768|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867437.6	97.838	%	0.0997				0.10%
Sc Radial	4627.5	99.1	%	0.55				0.56%
Y 371.029	828364.8	108.74	%	0.127				0.12%
Y RADIAL	5492.1	111.3	%	0.56				0.50%
Ag 328.068†	107357.8	495.89	ug/L	4.593	495.89	ppb	4.593	0.93%
Al 396.153Radial†	145133.3	128700	ug/L	866.0	128700	ppb	866.0	0.67%
As 188.979†	1349.1	524.72	ug/L	5.202	524.72	ppb	5.202	0.99%
B 249.677†	26568.0	533.37	ug/L	4.445	533.37	ppb	4.445	0.83%
Ba 233.527†	294457.0	2151.1	ug/L	18.60	2151.1	ppb	18.60	0.86%
Be 313.107†	1475417.6	507.53	ug/L	1.909	507.53	ppb	1.909	0.38%
Ca 317.933Radial†	32743.7	54867	ug/L	300.0	54867	ppb	300.0	0.55%
Cd 226.502†	51345.3	474.02	ug/L	4.621	474.02	ppb	4.621	0.97%
Co 228.616†	27304.2	504.26	ug/L	3.116	504.26	ppb	3.116	0.62%
Cr 267.716†	54811.7	552.05	ug/L	5.217	552.05	ppb	5.217	0.94%
Cu 324.752†	199451.4	595.56	ug/L	6.179	595.56	ppb	6.179	1.04%
Fe 238.204 Radial†	11273.2	99072	ug/L	534.5	99072	ppb	534.5	0.54%
K 766.490 Radial†	113839.0	22557	ug/L	132.7	22557	ppb	132.7	0.59%

Mg 279.077 IEC†	689.1	21958 ug/L	157.7	21958 ppb	157.7	0.72%
Mn 257.610†	4121022.8	4351.6 ug/L	14.78	4351.6 ppb	14.78	0.34%
Mo 202.031†	7139.7	456.77 ug/L	2.856	456.77 ppb	2.856	0.63%
Na 589.592 Radial†	18900.7	5709.5 ug/L	24.14	5709.5 ppb	24.14	0.42%
Ni 231.604†	24088.2	528.47 ug/L	3.114	528.47 ppb	3.114	0.59%
P 214.914†	4840.5	2235.0 ug/L	8.62	2235.0 ppb	8.62	0.39%
Pb 220.353†	5892.1	631.78 ug/L	5.672	631.78 ppb	5.672	0.90%
S 181.975 Axial†	5725.6	6445.5 ug/L	48.06	6445.5 ppb	48.06	0.75%
Sb 206.836†	1391.1	407.03 ug/L	6.374	407.03 ppb	6.374	1.57%
Se 196.026†	358.9	509.80 ug/L	2.413	509.80 ppb	2.413	0.47%
Si 251.611†	805010.4	23076 ug/L	217.6	23076 ppb	217.6	0.94%
Sn 189.927†	3020.6	453.88 ug/L	2.279	453.88 ppb	2.279	0.50%
Sr 421.552†	115325.2	843.86 ug/L	5.649	843.86 ppb	5.649	0.67%
Ti 334.940†	2838881.4	4506.7 ug/L	18.11	4506.7 ppb	18.11	0.40%
Tl 190.801†	1326.2	421.67 ug/L	3.712	421.67 ppb	3.712	0.88%
U 409.014†	9323.3	263.64 ug/L	4.751	263.64 ppb	4.751	1.80%
V 292.402†	107677.7	663.14 ug/L	6.474	663.14 ppb	6.474	0.98%
Zn 213.857†	97219.7	789.39 ug/L	7.457	789.39 ppb	7.457	0.94%
SiO2†	814285.4	49951 ug/L	586.8	49951 ppb	586.8	1.17%

Sequence No.: 127

Sample ID: 1202004344|936768|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 117

Date Collected: 1/7/2010 05:15:19

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202004344|936768|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4655.8	4655.8	99.7 %			05:17:33
1	Y RADIAL	5521.2	5521.2	111.9 %			05:17:33
1	Al 396.153Radial†	153819.9	154235.6	136780 ug/L		136780 ppb	05:17:13
1	Ca 317.933Radial†	29337.6	29399.2	49263 ug/L		49263 ppb	05:17:13
1	Fe 238.204 Radial†	12601.7	12619.6	110900 ug/L		110900 ppb	05:17:13
1	K 766.490 Radial†	121852.8	118824.2	23543 ug/L		23543 ppb	05:17:13
1	Mg 279.077 IEC†	700.4	700.6	22314 ug/L		22314 ppb	05:17:33
1	Na 589.592 Radial†	16855.6	18648.3	5633.3 ug/L		5633.3 ppb	05:17:13
1	Sr 421.552†	109964.9	110226.9	806.59 ug/L		806.59 ppb	05:17:13
1	Sc 361.383	855041.2	855041.2	96.439 %			05:18:37
1	Y 371.029	838772.8	838772.8	110.11 %			05:18:31
1	Ag 328.068†	105053.9	108420.1	504.66 ug/L		504.66 ppb	05:18:37
1	As 188.979†	1278.2	1358.8	533.29 ug/L		533.29 ppb	05:18:57
1	B 249.677†	25122.7	26716.1	534.81 ug/L		534.81 ppb	05:18:37
1	Ba 233.527†	279601.3	289916.7	2118.4 ug/L		2118.4 ppb	05:18:37
1	Be 313.107†	1445245.3	1502955.7	517.63 ug/L		517.63 ppb	05:18:31
1	Cd 226.502†	50050.5	52136.8	480.30 ug/L		480.30 ppb	05:18:37
1	Co 228.616†	27161.1	28247.8	520.99 ug/L		520.99 ppb	05:18:57
1	Cr 267.716†	54620.0	56532.6	569.58 ug/L		569.58 ppb	05:18:37
1	Cu 324.752†	203770.7	203294.9	607.54 ug/L		607.54 ppb	05:18:37
1	Mn 257.610†	4377546.0	4538649.8	4792.8 ug/L		4792.8 ppb	05:18:31
1	Mo 202.031†	7104.7	7347.0	470.90 ug/L		470.90 ppb	05:18:57
1	Ni 231.604†	24005.0	24766.2	543.34 ug/L		543.34 ppb	05:18:57
1	P 214.914†	5036.1	4973.5	2291.4 ug/L		2291.4 ppb	05:18:57
1	Pb 220.353†	5759.7	6050.1	649.01 ug/L		649.01 ppb	05:18:57
1	S 181.975 Axial†	5701.4	5852.1	6586.8 ug/L		6586.8 ppb	05:18:57
1	Sb 206.836†	1405.1	1419.9	414.67 ug/L		414.67 ppb	05:18:57
1	Se 196.026†	252.3	294.9	514.73 ug/L		514.73 ppb	05:18:57
1	Si 251.611†	775082.9	803082.7	23021 ug/L		23021 ppb	05:18:37
1	Sn 189.927†	2992.7	3099.8	465.17 ug/L		465.17 ppb	05:18:57
1	Ti 334.940†	2978626.5	3090415.6	4905.5 ug/L		4905.5 ppb	05:18:31
1	Tl 190.801†	1257.5	1357.3	435.85 ug/L		435.85 ppb	05:18:57
1	U 409.014†	6297.7	9199.0	258.43 ug/L		258.43 ppb	05:18:37
1	V 292.402†	108435.9	114241.2	702.29 ug/L		702.29 ppb	05:18:37
1	Zn 213.857†	97800.2	100579.3	816.28 ug/L		816.28 ppb	05:18:37
1	SiO2†	787150.2	815575.9	50029 ug/L		50029 ppb	05:20:07
2	Sc Radial	4684.0	4684.0	100 %			05:17:58
2	Y RADIAL	5550.0	5550.0	112.5 %			05:17:58
2	Al 396.153Radial†	156423.8	155901.8	138250 ug/L		138250 ppb	05:17:38
2	Ca 317.933Radial†	29724.3	29607.5	49612 ug/L		49612 ppb	05:17:38
2	Fe 238.204 Radial†	12849.0	12790.0	112400 ug/L		112400 ppb	05:17:38
2	K 766.490 Radial†	123734.8	119964.0	23770 ug/L		23770 ppb	05:17:38
2	Mg 279.077 IEC†	706.8	702.7	22382 ug/L		22382 ppb	05:17:58
2	Na 589.592 Radial†	17184.1	18874.0	5701.4 ug/L		5701.4 ppb	05:17:38
2	Sr 421.552†	111647.9	111240.3	814.00 ug/L		814.00 ppb	05:17:38
2	Sc 361.383	857151.4	857151.4	96.677 %			05:19:09
2	Y 371.029	836329.3	836329.3	109.79 %			05:19:03
2	Ag 328.068†	105215.7	108319.4	504.72 ug/L		504.72 ppb	05:19:09
2	As 188.979†	1299.8	1377.9	539.87 ug/L		539.87 ppb	05:19:29
2	B 249.677†	25391.8	26930.3	539.03 ug/L		539.03 ppb	05:19:09
2	Ba 233.527†	280458.5	290089.7	2119.7 ug/L		2119.7 ppb	05:19:09
2	Be 313.107†	1439782.9	1493616.1	514.39 ug/L		514.39 ppb	05:19:03
2	Cd 226.502†	50163.7	52126.1	480.05 ug/L		480.05 ppb	05:19:09
2	Co 228.616†	27247.3	28267.7	521.43 ug/L		521.43 ppb	05:19:29
2	Cr 267.716†	54827.1	56607.3	570.35 ug/L		570.35 ppb	05:19:09
2	Cu 324.752†	204413.1	203439.3	608.04 ug/L		608.04 ppb	05:19:09
2	Mn 257.610†	4352618.5	4501690.6	4754.0 ug/L		4754.0 ppb	05:19:03
2	Mo 202.031†	7135.6	7360.9	471.91 ug/L		471.91 ppb	05:19:29
2	Ni 231.604†	24095.1	24798.2	544.04 ug/L		544.04 ppb	05:19:29

2	P 214.914†	5045.0	4969.8	2288.8 ug/L	2288.8 ppb	05:19:29
2	Pb 220.353†	5760.4	6036.1	647.78 ug/L	647.78 ppb	05:19:29
2	S 181.975 Axial†	5716.9	5853.5	6588.1 ug/L	6588.1 ppb	05:19:29
2	Sb 206.836†	1406.9	1418.1	414.30 ug/L	414.30 ppb	05:19:29
2	Se 196.026†	246.2	287.9	516.01 ug/L	516.01 ppb	05:19:29
2	Si 251.611†	777631.4	803740.0	23039 ug/L	23039 ppb	05:19:09
2	Sn 189.927†	3020.0	3120.3	468.27 ug/L	468.27 ppb	05:19:29
2	Ti 334.940†	2962498.4	3066129.3	4867.0 ug/L	4867.0 ppb	05:19:03
2	Tl 190.801†	1272.7	1369.9	438.79 ug/L	438.79 ppb	05:19:29
2	U 409.014†	6614.0	9510.0	267.48 ug/L	267.48 ppb	05:19:09
2	V 292.402†	108799.0	114339.9	702.75 ug/L	702.75 ppb	05:19:09
2	Zn 213.857†	98257.5	100802.7	818.03 ug/L	818.03 ppb	05:19:09
2	SiO2†	794504.4	821173.4	50372 ug/L	50372 ppb	05:20:13
3	Sc Radial	4633.0	4633.0	99.3 %		05:18:23
3	Y RADIAL	5505.6	5505.6	111.6 %		05:18:23
3	Al 396.153Radial†	155251.2	156434.8	138730 ug/L	138730 ppb	05:18:03
3	Ca 317.933Radial†	29521.3	29728.8	49815 ug/L	49815 ppb	05:18:03
3	Fe 238.204 Radial†	12727.7	12808.7	112560 ug/L	112560 ppb	05:18:03
3	K 766.490 Radial†	122522.1	120098.4	23797 ug/L	23797 ppb	05:18:03
3	Mg 279.077 IEC†	694.8	698.4	22243 ug/L	22243 ppb	05:18:23
3	Na 589.592 Radial†	16978.6	18855.2	5695.8 ug/L	5695.8 ppb	05:18:03
3	Sr 421.552†	110784.3	111593.9	816.59 ug/L	816.59 ppb	05:18:03
3	Sc 361.383	859670.7	859670.7	96.962 %		05:19:41
3	Y 371.029	838138.3	838138.3	110.03 %		05:19:35
3	Ag 328.068†	105828.1	108632.0	506.12 ug/L	506.12 ppb	05:19:41
3	As 188.979†	1277.5	1351.0	530.51 ug/L	530.51 ppb	05:20:01
3	B 249.677†	25464.2	26928.0	538.97 ug/L	538.97 ppb	05:19:41
3	Ba 233.527†	281227.0	290032.1	2119.3 ug/L	2119.3 ppb	05:19:41
3	Be 313.107†	1443244.8	1492822.1	514.13 ug/L	514.13 ppb	05:19:35
3	Cd 226.502†	50486.3	52306.7	481.73 ug/L	481.73 ppb	05:19:41
3	Co 228.616†	27000.1	27930.2	515.06 ug/L	515.06 ppb	05:20:01
3	Cr 267.716†	54959.4	56577.6	570.06 ug/L	570.06 ppb	05:19:41
3	Cu 324.752†	205443.3	203882.1	609.36 ug/L	609.36 ppb	05:19:41
3	Mn 257.610†	4365005.7	4501271.9	4753.6 ug/L	4753.6 ppb	05:19:35
3	Mo 202.031†	7056.2	7257.4	465.44 ug/L	465.44 ppb	05:20:01
3	Ni 231.604†	23879.3	24502.5	537.56 ug/L	537.56 ppb	05:20:01
3	P 214.914†	4997.8	4905.9	2257.4 ug/L	2257.4 ppb	05:20:01
3	Pb 220.353†	5721.7	5978.8	641.91 ug/L	641.91 ppb	05:20:01
3	S 181.975 Axial†	5633.9	5750.6	6471.7 ug/L	6471.7 ppb	05:20:01
3	Sb 206.836†	1405.2	1412.1	412.21 ug/L	412.21 ppb	05:20:01
3	Se 196.026†	253.2	294.4	519.90 ug/L	519.90 ppb	05:20:01
3	Si 251.611†	780476.5	804317.1	23056 ug/L	23056 ppb	05:19:41
3	Sn 189.927†	2974.9	3064.8	460.07 ug/L	460.07 ppb	05:20:01
3	Ti 334.940†	2972813.1	3067787.1	4869.6 ug/L	4869.6 ppb	05:19:35
3	Tl 190.801†	1251.2	1343.8	431.72 ug/L	431.72 ppb	05:20:01
3	U 409.014†	6465.8	9337.1	262.32 ug/L	262.32 ppb	05:19:41
3	V 292.402†	109268.7	114494.6	703.59 ug/L	703.59 ppb	05:19:41
3	Zn 213.857†	98502.1	100757.1	817.70 ug/L	817.70 ppb	05:19:41
3	SiO2†	780727.6	804556.6	49352 ug/L	49352 ppb	05:20:19

Mean Data: 1202004344|936768|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	857287.8	96.693	%	0.2614			0.27%
Sc Radial	4657.6	99.8	%	0.55			0.55%
Y 371.029	837746.8	109.98	%	0.166			0.15%
Y RADIAL	5525.6	112.0	%	0.46			0.41%
Ag 328.068†	108457.2	505.16	ug/L	0.827	505.16 ppb	0.827	0.16%
Al 396.153Radial†	155524.1	137920	ug/L	1017.6	137920 ppb	1017.6	0.74%
As 188.979†	1362.6	534.56	ug/L	4.808	534.56 ppb	4.808	0.90%
B 249.677†	26858.1	537.60	ug/L	2.420	537.60 ppb	2.420	0.45%
Ba 233.527†	290012.8	2119.1	ug/L	0.66	2119.1 ppb	0.66	0.03%
Be 313.107†	1496464.6	515.38	ug/L	1.947	515.38 ppb	1.947	0.38%
Ca 317.933Radial†	29578.5	49564	ug/L	279.3	49564 ppb	279.3	0.56%
Cd 226.502†	52189.9	480.69	ug/L	0.907	480.69 ppb	0.907	0.19%
Co 228.616†	28148.6	519.16	ug/L	3.558	519.16 ppb	3.558	0.69%
Cr 267.716†	56572.5	570.00	ug/L	0.391	570.00 ppb	0.391	0.07%
Cu 324.752†	203538.8	608.31	ug/L	0.941	608.31 ppb	0.941	0.15%
Fe 238.204 Radial†	12739.5	111960	ug/L	915.3	111960 ppb	915.3	0.82%
K 766.490 Radial†	119628.9	23703	ug/L	139.4	23703 ppb	139.4	0.59%

Mg 279.077 IEC†	700.6	22313 ug/L	69.7	22313 ppb	69.7	0.31%
Mn 257.610†	4513870.8	4766.8 ug/L	22.52	4766.8 ppb	22.52	0.47%
Mo 202.031†	7321.8	469.42 ug/L	3.480	469.42 ppb	3.480	0.74%
Na 589.592 Radial†	18792.5	5676.8 ug/L	37.83	5676.8 ppb	37.83	0.67%
Ni 231.604†	24689.0	541.65 ug/L	3.559	541.65 ppb	3.559	0.66%
P 214.914†	4949.7	2279.2 ug/L	18.94	2279.2 ppb	18.94	0.83%
Pb 220.353†	6021.7	646.23 ug/L	3.794	646.23 ppb	3.794	0.59%
S 181.975 Axial†	5818.7	6548.9 ug/L	66.82	6548.9 ppb	66.82	1.02%
Sb 206.836†	1416.7	413.73 ug/L	1.325	413.73 ppb	1.325	0.32%
Se 196.026†	292.4	516.88 ug/L	2.692	516.88 ppb	2.692	0.52%
Si 251.611†	803713.3	23039 ug/L	17.7	23039 ppb	17.7	0.08%
Sn 189.927†	3095.0	464.50 ug/L	4.140	464.50 ppb	4.140	0.89%
Sr 421.552†	111020.4	812.40 ug/L	5.192	812.40 ppb	5.192	0.64%
Ti 334.940†	3074777.3	4880.7 ug/L	21.52	4880.7 ppb	21.52	0.44%
Tl 190.801†	1357.0	435.45 ug/L	3.552	435.45 ppb	3.552	0.82%
U 409.014†	9348.7	262.74 ug/L	4.543	262.74 ppb	4.543	1.73%
V 292.402†	114358.6	702.88 ug/L	0.661	702.88 ppb	0.661	0.09%
Zn 213.857†	100713.0	817.34 ug/L	0.929	817.34 ppb	0.929	0.11%
SiO2†	813768.6	49918 ug/L	518.9	49918 ppb	518.9	1.04%

Sequence No.: 128
 Sample ID: 1202004343|936768|5
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 118
 Date Collected: 1/7/2010 05:22:30
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202004343|936768|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4782.2	4782.2	102 %			05:24:24
1	Y RADIAL	5139.9	5139.9	104.2 %			05:24:24
1	Al 396.153Radial†	18155.4	17746.9	15740 ug/L		15740 ppb	05:24:24
1	Ca 317.933Radial†	5733.8	5583.8	9356.6 ug/L		9356.6 ppb	05:24:24
1	Fe 238.204 Radial†	2062.2	1998.9	17564 ug/L		17564 ppb	05:24:44
1	K 766.490 Radial†	19799.1	15987.9	3165.6 ug/L		3165.6 ppb	05:24:24
1	Mg 279.077 IEC†	98.3	94.3	3000.2 ug/L		3000.2 ppb	05:24:44
1	Na 589.592 Radial†	-1167.1	611.0	184.56 ug/L		184.56 ppb	05:24:24
1	Sr 421.552†	8274.6	8060.3	58.928 ug/L		58.928 ppb	05:24:24
1	Sc 361.383	897266.6	897266.6	101.20 %			05:25:41
1	Y 371.029	784447.0	784447.0	102.98 %			05:25:41
1	Ag 328.068†	-690.6	-1194.7	0.7719 ug/L		0.7719 ppb	05:25:41
1	As 188.979†	-27.5	6.2	10.782 ug/L		10.782 ppb	05:26:01
1	B 249.677†	-75.9	590.8	9.8267 ug/L		9.8267 ppb	05:25:41
1	Ba 233.527†	46624.9	46063.6	336.40 ug/L		336.40 ppb	05:25:41
1	Be 313.107†	-5171.7	-758.7	1.1256 ug/L		1.1256 ppb	05:25:41
1	Cd 226.502†	-9.7	228.8	0.4059 ug/L		0.4059 ppb	05:26:01
1	Co 228.616†	458.1	536.6	8.4917 ug/L		8.4917 ppb	05:26:01
1	Cr 267.716†	1367.4	1247.1	12.883 ug/L		12.883 ppb	05:26:01
1	Cu 324.752†	12180.7	4037.0	12.848 ug/L		12.848 ppb	05:25:41
1	Mn 257.610†	744629.7	735269.1	776.41 ug/L		776.41 ppb	05:25:41
1	Mo 202.031†	34.8	14.5	2.5913 ug/L		2.5913 ppb	05:26:01
1	Ni 231.604†	655.6	522.7	11.469 ug/L		11.469 ppb	05:26:01
1	P 214.914†	1020.2	759.6	359.35 ug/L		359.35 ppb	05:26:01
1	Pb 220.353†	217.2	292.3	32.369 ug/L		32.369 ppb	05:26:01
1	S 181.975 Axial†	340.2	276.3	309.16 ug/L		309.16 ppb	05:26:01
1	Sb 206.836†	48.6	11.0	0.7627 ug/L		0.7627 ppb	05:26:01
1	Se 196.026†	-137.3	-102.4	4.0779 ug/L		4.0779 ppb	05:26:01
1	Si 251.611†	155505.3	153041.7	4389.2 ug/L		4389.2 ppb	05:25:41
1	Sn 189.927†	-92.4	-94.7	-12.794 ug/L		-12.794 ppb	05:26:01
1	Ti 334.940†	446676.5	443188.6	703.66 ug/L		703.66 ppb	05:25:41
1	Tl 190.801†	-91.6	-37.2	0.0830 ug/L		0.0830 ppb	05:26:01
1	U 409.014†	-4084.2	-1367.0	-42.873 ug/L		-42.873 ppb	05:25:41
1	V 292.402†	3759.5	5516.7	31.182 ug/L		31.182 ppb	05:25:41
1	Zn 213.857†	8055.2	7127.9	57.506 ug/L		57.506 ppb	05:26:01
1	SiO2†	154859.9	152384.5	9352.3 ug/L		9352.3 ppb	05:26:58
2	Sc Radial	4713.1	4713.1	101 %			05:24:49
2	Y RADIAL	5124.2	5124.2	103.9 %			05:24:49
2	Al 396.153Radial†	17672.0	17528.1	15546 ug/L		15546 ppb	05:24:49
2	Ca 317.933Radial†	5557.3	5491.1	9201.2 ug/L		9201.2 ppb	05:24:49
2	Fe 238.204 Radial†	2073.3	2039.4	17920 ug/L		17920 ppb	05:25:09
2	K 766.490 Radial†	19197.9	15675.8	3103.6 ug/L		3103.6 ppb	05:24:49
2	Mg 279.077 IEC†	100.2	97.6	3104.1 ug/L		3104.1 ppb	05:25:09
2	Na 589.592 Radial†	-1212.3	549.6	166.01 ug/L		166.01 ppb	05:24:49
2	Sr 421.552†	8076.3	7982.3	58.358 ug/L		58.358 ppb	05:24:49
2	Sc 361.383	889486.4	889486.4	100.32 %			05:26:07
2	Y 371.029	778168.0	778168.0	102.15 %			05:26:07
2	Ag 328.068†	-874.0	-1383.5	0.0820 ug/L		0.0820 ppb	05:26:07
2	As 188.979†	-36.3	-2.8	7.6841 ug/L		7.6841 ppb	05:26:27
2	B 249.677†	-37.4	628.5	10.558 ug/L		10.558 ppb	05:26:07
2	Ba 233.527†	46325.4	46168.0	337.17 ug/L		337.17 ppb	05:26:07
2	Be 313.107†	-5073.7	-705.8	1.1440 ug/L		1.1440 ppb	05:26:07
2	Cd 226.502†	-18.3	220.2	0.2894 ug/L		0.2894 ppb	05:26:27
2	Co 228.616†	449.4	532.0	8.3985 ug/L		8.3985 ppb	05:26:27
2	Cr 267.716†	1354.1	1245.7	12.876 ug/L		12.876 ppb	05:26:27
2	Cu 324.752†	12062.6	4024.6	12.829 ug/L		12.829 ppb	05:26:07
2	Mn 257.610†	739325.0	736417.4	777.65 ug/L		777.65 ppb	05:26:07
2	Mo 202.031†	33.7	13.7	2.5747 ug/L		2.5747 ppb	05:26:27
2	Ni 231.604†	656.0	528.8	11.602 ug/L		11.602 ppb	05:26:27

2	P 214.914†	991.3	739.5	349.24 ug/L	349.24 ppb	05:26:27
2	Pb 220.353†	203.2	280.3	31.051 ug/L	31.051 ppb	05:26:27
2	S 181.975 Axial†	336.7	275.7	308.53 ug/L	308.53 ppb	05:26:27
2	Sb 206.836†	39.0	1.8	-1.9340 ug/L	-1.9340 ppb	05:26:27
2	Se 196.026†	-134.1	-100.4	6.1399 ug/L	6.1399 ppb	05:26:27
2	Si 251.611†	154278.9	153163.4	4392.7 ug/L	4392.7 ppb	05:26:07
2	Sn 189.927†	-81.2	-84.4	-11.273 ug/L	-11.273 ppb	05:26:27
2	Ti 334.940†	442961.5	443346.2	703.90 ug/L	703.90 ppb	05:26:07
2	Tl 190.801†	-80.4	-26.7	2.9456 ug/L	2.9456 ppb	05:26:27
2	U 409.014†	-3995.9	-1314.2	-41.349 ug/L	-41.349 ppb	05:26:07
2	V 292.402†	3779.2	5568.8	31.460 ug/L	31.460 ppb	05:26:07
2	Zn 213.857†	8009.7	7152.1	57.683 ug/L	57.683 ppb	05:26:27
2	SiO2†	158257.6	157109.7	9642.4 ug/L	9642.4 ppb	05:27:04
3	Sc Radial	4828.4	4828.4	103 %		05:25:14
3	Y RADIAL	5206.1	5206.1	105.5 %		05:25:14
3	Al 396.153Radial†	18108.7	17532.3	15550 ug/L	15550 ppb	05:25:14
3	Ca 317.933Radial†	5707.7	5505.1	9224.7 ug/L	9224.7 ppb	05:25:14
3	Fe 238.204 Radial†	2043.0	1961.1	17232 ug/L	17232 ppb	05:25:34
3	K 766.490 Radial†	19667.1	15675.4	3103.5 ug/L	3103.5 ppb	05:25:14
3	Mg 279.077 IEC†	96.0	91.2	2901.6 ug/L	2901.6 ppb	05:25:34
3	Na 589.592 Radial†	-1269.8	522.6	157.86 ug/L	157.86 ppb	05:25:14
3	Sr 421.552†	8228.4	7938.4	58.037 ug/L	58.037 ppb	05:25:14
3	Sc 361.383	892240.4	892240.4	100.64 %		05:26:33
3	Y 371.029	780320.5	780320.5	102.44 %		05:26:33
3	Ag 328.068†	-851.3	-1358.3	-0.0406 ug/L	-0.0406 ppb	05:26:33
3	As 188.979†	-28.4	5.2	10.405 ug/L	10.405 ppb	05:26:53
3	B 249.677†	-152.5	514.3	8.2938 ug/L	8.2938 ppb	05:26:33
3	Ba 233.527†	46450.9	46150.2	337.03 ug/L	337.03 ppb	05:26:33
3	Be 313.107†	-5114.6	-730.8	1.1371 ug/L	1.1371 ppb	05:26:33
3	Cd 226.502†	-31.6	207.0	0.2337 ug/L	0.2337 ppb	05:26:53
3	Co 228.616†	454.3	535.4	8.4681 ug/L	8.4681 ppb	05:26:53
3	Cr 267.716†	1350.5	1237.9	12.786 ug/L	12.786 ppb	05:26:53
3	Cu 324.752†	12067.6	3992.5	12.699 ug/L	12.699 ppb	05:26:33
3	Mn 257.610†	742097.0	736897.3	778.09 ug/L	778.09 ppb	05:26:33
3	Mo 202.031†	13.4	-6.6	1.2388 ug/L	1.2388 ppb	05:26:53
3	Ni 231.604†	648.4	519.2	11.392 ug/L	11.392 ppb	05:26:53
3	P 214.914†	1010.1	755.2	357.46 ug/L	357.46 ppb	05:26:53
3	Pb 220.353†	213.9	290.3	32.138 ug/L	32.138 ppb	05:26:53
3	S 181.975 Axial†	344.7	282.6	316.33 ug/L	316.33 ppb	05:26:53
3	Sb 206.836†	40.3	2.9	-1.6479 ug/L	-1.6479 ppb	05:26:53
3	Se 196.026†	-137.4	-103.3	2.5704 ug/L	2.5704 ppb	05:26:53
3	Si 251.611†	154925.1	153330.8	4397.6 ug/L	4397.6 ppb	05:26:33
3	Sn 189.927†	-86.0	-88.9	-11.947 ug/L	-11.947 ppb	05:26:53
3	Ti 334.940†	444817.8	443827.9	704.67 ug/L	704.67 ppb	05:26:33
3	Tl 190.801†	-90.2	-36.3	0.3406 ug/L	0.3406 ppb	05:26:53
3	U 409.014†	-3904.8	-1211.5	-38.207 ug/L	-38.207 ppb	05:26:33
3	V 292.402†	3863.3	5640.7	31.999 ug/L	31.999 ppb	05:26:33
3	Zn 213.857†	7990.1	7108.0	57.364 ug/L	57.364 ppb	05:26:53
3	SiO2†	155600.8	153982.8	9450.5 ug/L	9450.5 ppb	05:27:09

Mean Data: 1202004343|936768|5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	892997.8	100.72 %	0.445			0.44%
Sc Radial	4774.6	102 %	1.2			1.22%
Y 371.029	780978.5	102.52 %	0.419			0.41%
Y RADIAL	5156.7	104.5 %	0.88			0.84%
Ag 328.068†	-1312.2	0.2711 ug/L	0.43803	0.2711 ppb	0.43803	161.58%
Al 396.153Radial†	17602.4	15612 ug/L	111.0	15612 ppb	111.0	0.71%
As 188.979†	2.9	9.6236 ug/L	1.69026	9.6236 ppb	1.69026	17.56%
B 249.677†	577.9	9.5594 ug/L	1.15535	9.5594 ppb	1.15535	12.09%
Ba 233.527†	46127.3	336.87 ug/L	0.410	336.87 ppb	0.410	0.12%
Be 313.107†	-731.8	1.1356 ug/L	0.00928	1.1356 ppb	0.00928	0.82%
Ca 317.933Radial†	5526.7	9260.8 ug/L	83.75	9260.8 ppb	83.75	0.90%
Cd 226.502†	218.6	0.3097 ug/L	0.08788	0.3097 ppb	0.08788	28.38%
Co 228.616†	534.7	8.4528 ug/L	0.04849	8.4528 ppb	0.04849	0.57%
Cr 267.716†	1243.6	12.848 ug/L	0.0544	12.848 ppb	0.0544	0.42%
Cu 324.752†	4018.0	12.792 ug/L	0.0810	12.792 ppb	0.0810	0.63%
Fe 238.204 Radial†	1999.8	17572 ug/L	343.9	17572 ppb	343.9	1.96%
K 766.490 Radial†	15779.7	3124.2 ug/L	35.80	3124.2 ppb	35.80	1.15%

Mg 279.077 IEC†	94.4	3002.0 ug/L	101.26	3002.0 ppb	101.26	3.37%
Mn 257.610†	736194.6	777.39 ug/L	0.873	777.39 ppb	0.873	0.11%
Mo 202.031†	7.2	2.1349 ug/L	0.77611	2.1349 ppb	0.77611	36.35%
Na 589.592 Radial†	561.0	169.47 ug/L	13.683	169.47 ppb	13.683	8.07%
Ni 231.604†	523.6	11.487 ug/L	0.1066	11.487 ppb	0.1066	0.93%
P 214.914†	751.4	355.35 ug/L	5.374	355.35 ppb	5.374	1.51%
Pb 220.353†	287.7	31.853 ug/L	0.7040	31.853 ppb	0.7040	2.21%
S 181.975 Axial†	278.2	311.34 ug/L	4.333	311.34 ppb	4.333	1.39%
Sb 206.836†	5.2	-0.9397 ug/L	1.48130	-0.9397 ppb	1.48130	157.63%
Se 196.026†	-102.0	4.2627 ug/L	1.79191	4.2627 ppb	1.79191	42.04%
Si 251.611†	153178.6	4393.2 ug/L	4.18	4393.2 ppb	4.18	0.10%
Sn 189.927†	-89.3	-12.005 ug/L	0.7621	-12.005 ppb	0.7621	6.35%
Sr 421.552†	7993.7	58.441 ug/L	0.4515	58.441 ppb	0.4515	0.77%
Ti 334.940†	443454.2	704.08 ug/L	0.525	704.08 ppb	0.525	0.07%
Tl 190.801†	-33.4	1.1230 ug/L	1.58360	1.1230 ppb	1.58360	141.01%
U 409.014†	-1297.6	-40.810 ug/L	2.3791	-40.810 ppb	2.3791	5.83%
V 292.402†	5575.4	31.547 ug/L	0.4150	31.547 ppb	0.4150	1.32%
Zn 213.857†	7129.3	57.518 ug/L	0.1595	57.518 ppb	0.1595	0.28%
SiO2†	154492.3	9481.7 ug/L	147.55	9481.7 ppb	147.55	1.56%

Sequence No.: 130
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 1/7/2010 05:36:28
 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	4673.9	4673.9	100 %		05:38:20
1	Y RADIAL	4935.1	4935.1	100.0 %		05:38:20
1	Al 396.153Radial†	6060.9	6079.5	5370.1 ug/L	5370.1 ppb	05:38:20
1	Ca 317.933Radial†	3093.9	3077.2	5156.4 ug/L	5156.4 ppb	05:38:40
1	Fe 238.204 Radial†	591.9	577.3	5088.3 ug/L	5088.3 ppb	05:38:40
1	K 766.490 Radial†	28634.5	25259.3	5005.1 ug/L	5005.1 ppb	05:38:20
1	Mg 279.077 IEC†	162.3	160.4	5135.6 ug/L	5135.6 ppb	05:38:40
1	Na 589.592 Radial†	32977.0	34682.8	10477 ug/L	10477 ppb	05:38:20
1	Sr 421.552†	74570.1	74454.0	545.08 ug/L	545.08 ppb	05:38:20
1	Sc 361.383	878920.7	878920.7	99.133 %		05:39:39
1	Y 371.029	747421.9	747421.9	98.118 %		05:39:39
1	Ag 328.068†	119155.8	119685.8	517.34 ug/L	517.34 ppb	05:39:39
1	As 188.979†	1405.9	1451.6	512.61 ug/L	512.61 ppb	05:39:59
1	B 249.677†	23642.0	24514.7	503.52 ug/L	503.52 ppb	05:39:39
1	Ba 233.527†	69863.0	70466.6	515.10 ug/L	515.10 ppb	05:39:39
1	Be 313.107†	1519102.5	1536743.2	520.44 ug/L	520.44 ppb	05:39:39
1	Cd 226.502†	53654.4	54362.1	511.82 ug/L	511.82 ppb	05:39:39
1	Co 228.616†	26658.0	26975.2	507.33 ug/L	507.33 ppb	05:39:59
1	Cr 267.716†	50778.5	51118.7	513.01 ug/L	513.01 ppb	05:39:39
1	Cu 324.752†	180638.5	174219.8	516.06 ug/L	516.06 ppb	05:39:39
1	Mn 257.610†	488791.2	492550.8	519.39 ug/L	519.39 ppb	05:39:39
1	Mo 202.031†	8134.0	8185.2	513.27 ug/L	513.27 ppb	05:39:59
1	Ni 231.604†	23020.8	23097.2	506.72 ug/L	506.72 ppb	05:39:59
1	P 214.914†	5458.9	5258.1	2485.4 ug/L	2485.4 ppb	05:39:59
1	Pb 220.353†	4812.0	4931.9	512.56 ug/L	512.56 ppb	05:39:59
1	S 181.975 Axial†	945.1	893.5	1008.7 ug/L	1008.7 ppb	05:39:59
1	Sb 206.836†	1730.6	1708.7	517.66 ug/L	517.66 ppb	05:39:59
1	Se 196.026†	964.3	1005.9	532.85 ug/L	532.85 ppb	05:39:59
1	Si 251.611†	89630.3	89797.8	2563.8 ug/L	2563.8 ppb	05:39:39
1	Sn 189.927†	3416.9	3443.4	509.92 ug/L	509.92 ppb	05:39:59
1	Ti 334.940†	324933.6	329593.5	522.80 ug/L	522.80 ppb	05:39:39
1	Tl 190.801†	1793.7	1862.8	512.32 ug/L	512.32 ppb	05:39:59
1	U 409.014†	14003.6	16794.8	497.66 ug/L	497.66 ppb	05:39:39
1	V 292.402†	79162.2	81656.6	519.47 ug/L	519.47 ppb	05:39:39
1	Zn 213.857†	62788.5	62506.1	509.65 ug/L	509.65 ppb	05:39:39
1	SiO2†	90521.2	90677.1	5540.0 ug/L	5540.0 ppb	05:40:59
2	Sc Radial	4611.6	4611.6	98.8 %		05:38:45
2	Y RADIAL	4902.8	4902.8	99.39 %		05:38:45
2	Al 396.153Radial†	6087.9	6188.5	5466.8 ug/L	5466.8 ppb	05:38:45
2	Ca 317.933Radial†	3090.3	3115.3	5220.1 ug/L	5220.1 ppb	05:39:05
2	Fe 238.204 Radial†	588.7	582.0	5129.6 ug/L	5129.6 ppb	05:39:05
2	K 766.490 Radial†	28575.7	25585.5	5069.8 ug/L	5069.8 ppb	05:38:45
2	Mg 279.077 IEC†	162.1	162.4	5199.2 ug/L	5199.2 ppb	05:39:05
2	Na 589.592 Radial†	32845.8	34994.3	10571 ug/L	10571 ppb	05:38:45
2	Sr 421.552†	74357.4	75243.2	550.86 ug/L	550.86 ppb	05:38:45
2	Sc 361.383	882382.5	882382.5	99.523 %		05:40:06
2	Y 371.029	750674.9	750674.9	98.545 %		05:40:06
2	Ag 328.068†	118785.9	118842.6	513.73 ug/L	513.73 ppb	05:40:06
2	As 188.979†	1414.4	1454.6	513.65 ug/L	513.65 ppb	05:40:27
2	B 249.677†	23773.8	24553.5	504.32 ug/L	504.32 ppb	05:40:06
2	Ba 233.527†	69821.2	70148.2	512.78 ug/L	512.78 ppb	05:40:06
2	Be 313.107†	1516604.1	1528220.9	517.55 ug/L	517.55 ppb	05:40:06
2	Cd 226.502†	53671.7	54167.2	509.97 ug/L	509.97 ppb	05:40:06
2	Co 228.616†	26609.5	26820.9	504.43 ug/L	504.43 ppb	05:40:27
2	Cr 267.716†	50672.9	50811.6	509.93 ug/L	509.93 ppb	05:40:06
2	Cu 324.752†	180008.6	172871.9	512.07 ug/L	512.07 ppb	05:40:06
2	Mn 257.610†	487948.6	489769.7	516.46 ug/L	516.46 ppb	05:40:06
2	Mo 202.031†	8145.8	8164.9	512.00 ug/L	512.00 ppb	05:40:27
2	Ni 231.604†	23043.8	23029.2	505.23 ug/L	505.23 ppb	05:40:27

2	P 214.914†	5460.0	5237.6	2476.0 ug/L	2476.0 ppb	05:40:27
2	Pb 220.353†	4816.3	4917.1	511.05 ug/L	511.05 ppb	05:40:27
2	S 181.975 Axial†	945.7	890.4	1005.2 ug/L	1005.2 ppb	05:40:27
2	Sb 206.836†	1727.6	1698.8	514.69 ug/L	514.69 ppb	05:40:27
2	Se 196.026†	960.5	998.4	529.12 ug/L	529.12 ppb	05:40:27
2	Si 251.611†	89547.5	89359.9	2551.3 ug/L	2551.3 ppb	05:40:06
2	Sn 189.927†	3402.3	3415.2	505.76 ug/L	505.76 ppb	05:40:27
2	Ti 334.940†	324562.4	327934.6	520.17 ug/L	520.17 ppb	05:40:06
2	Tl 190.801†	1811.3	1873.4	515.19 ug/L	515.19 ppb	05:40:27
2	U 409.014†	13799.9	16534.7	489.93 ug/L	489.93 ppb	05:40:06
2	V 292.402†	79191.3	81372.5	517.66 ug/L	517.66 ppb	05:40:06
2	Zn 213.857†	62862.4	62331.8	508.22 ug/L	508.22 ppb	05:40:06
2	SiO2†	90239.1	90035.4	5500.6 ug/L	5500.6 ppb	05:41:05
3	Sc Radial	4580.1	4580.1	98.1 %		05:39:10
3	Y RADIAL	4811.0	4811.0	97.53 %		05:39:10
3	Al 396.153Radial†	5991.4	6132.5	5417.0 ug/L	5417.0 ppb	05:39:10
3	Ca 317.933Radial†	3091.4	3137.9	5258.1 ug/L	5258.1 ppb	05:39:30
3	Fe 238.204 Radial†	589.1	586.4	5168.8 ug/L	5168.8 ppb	05:39:30
3	K 766.490 Radial†	28251.4	25454.0	5043.7 ug/L	5043.7 ppb	05:39:10
3	Mg 279.077 IEC†	158.7	160.1	5125.9 ug/L	5125.9 ppb	05:39:30
3	Na 589.592 Radial†	32271.3	34637.4	10463 ug/L	10463 ppb	05:39:10
3	Sr 421.552†	73153.3	74533.8	545.66 ug/L	545.66 ppb	05:39:10
3	Sc 361.383	880364.6	880364.6	99.296 %		05:40:34
3	Y 371.029	748514.5	748514.5	98.262 %		05:40:34
3	Ag 328.068†	118976.5	119308.1	515.74 ug/L	515.74 ppb	05:40:34
3	As 188.979†	1413.9	1457.3	514.61 ug/L	514.61 ppb	05:40:54
3	B 249.677†	23849.8	24684.8	507.01 ug/L	507.01 ppb	05:40:34
3	Ba 233.527†	69882.9	70371.1	514.41 ug/L	514.41 ppb	05:40:34
3	Be 313.107†	1520011.8	1535145.6	519.89 ug/L	519.89 ppb	05:40:34
3	Cd 226.502†	53693.3	54312.5	511.34 ug/L	511.34 ppb	05:40:34
3	Co 228.616†	26699.9	26973.3	507.30 ug/L	507.30 ppb	05:40:54
3	Cr 267.716†	50871.9	51128.7	513.11 ug/L	513.11 ppb	05:40:34
3	Cu 324.752†	180306.3	173586.3	514.19 ug/L	514.19 ppb	05:40:34
3	Mn 257.610†	488519.7	491468.6	518.25 ug/L	518.25 ppb	05:40:34
3	Mo 202.031†	8181.3	8219.4	515.42 ug/L	515.42 ppb	05:40:54
3	Ni 231.604†	23138.6	23177.6	508.48 ug/L	508.48 ppb	05:40:54
3	P 214.914†	5465.5	5255.7	2484.5 ug/L	2484.5 ppb	05:40:54
3	Pb 220.353†	4855.6	4967.8	516.30 ug/L	516.30 ppb	05:40:54
3	S 181.975 Axial†	951.9	898.7	1014.6 ug/L	1014.6 ppb	05:40:54
3	Sb 206.836†	1732.7	1707.9	517.48 ug/L	517.48 ppb	05:40:54
3	Se 196.026†	973.9	1014.0	537.25 ug/L	537.25 ppb	05:40:54
3	Si 251.611†	89595.4	89614.4	2558.5 ug/L	2558.5 ppb	05:40:34
3	Sn 189.927†	3422.8	3443.7	509.98 ug/L	509.98 ppb	05:40:54
3	Ti 334.940†	324934.3	329056.6	521.95 ug/L	521.95 ppb	05:40:34
3	Tl 190.801†	1809.1	1875.3	515.73 ug/L	515.73 ppb	05:40:54
3	U 409.014†	13911.0	16678.4	494.19 ug/L	494.19 ppb	05:40:34
3	V 292.402†	79185.6	81549.2	518.81 ug/L	518.81 ppb	05:40:34
3	Zn 213.857†	62966.2	62581.2	510.25 ug/L	510.25 ppb	05:40:34
3	SiO2†	89638.4	89638.3	5476.1 ug/L	5476.1 ppb	05:41:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	880555.9	99.317 %	0.1961			0.20%
Sc Radial	4621.9	99.0 %	1.02			1.03%
Y 371.029	748870.4	98.308 %	0.2173			0.22%
Y RADIAL	4883.0	98.99 %	1.305			1.32%
Ag 328.068†	119278.9	515.60 ug/L	1.809	515.60 ppb	1.809	0.35%
QC value within limits for Ag 328.068 Recovery = 103.12%						
Al 396.153Radial†	6133.5	5418.0 ug/L	48.37	5418.0 ppb	48.37	0.89%
QC value within limits for Al 396.153Radial Recovery = 108.36%						
As 188.979†	1454.5	513.62 ug/L	1.001	513.62 ppb	1.001	0.19%
QC value within limits for As 188.979 Recovery = 102.72%						
B 249.677†	24584.3	504.95 ug/L	1.832	504.95 ppb	1.832	0.36%
QC value within limits for B 249.677 Recovery = 100.99%						
Ba 233.527†	70328.6	514.09 ug/L	1.193	514.09 ppb	1.193	0.23%
QC value within limits for Ba 233.527 Recovery = 102.82%						
Be 313.107†	1533369.9	519.29 ug/L	1.534	519.29 ppb	1.534	0.30%
QC value within limits for Be 313.107 Recovery = 103.86%						
Ca 317.933Radial†	3110.1	5211.5 ug/L	51.39	5211.5 ppb	51.39	0.99%

QC value within limits for Ca 317.933 Radial Recovery = 104.23%

Cd 226.502†	54280.6	511.04 ug/L	0.956	511.04 ppb	0.956	0.19%
QC value within limits for Cd 226.502 Recovery = 102.21%						
Co 228.616†	26923.1	506.35 ug/L	1.664	506.35 ppb	1.664	0.33%
QC value within limits for Co 228.616 Recovery = 101.27%						
Cr 267.716†	51019.7	512.02 ug/L	1.806	512.02 ppb	1.806	0.35%
QC value within limits for Cr 267.716 Recovery = 102.40%						
Cu 324.752†	173559.3	514.11 ug/L	1.995	514.11 ppb	1.995	0.39%
QC value within limits for Cu 324.752 Recovery = 102.82%						
Fe 238.204 Radial†	581.9	5128.9 ug/L	40.26	5128.9 ppb	40.26	0.79%
QC value within limits for Fe 238.204 Radial Recovery = 102.58%						
K 766.490 Radial†	25432.9	5039.5 ug/L	32.58	5039.5 ppb	32.58	0.65%
QC value within limits for K 766.490 Radial Recovery = 100.79%						
Mg 279.077 IEC†	161.0	5153.5 ug/L	39.83	5153.5 ppb	39.83	0.77%
QC value within limits for Mg 279.077 IEC Recovery = 103.07%						
Mn 257.610†	491263.0	518.03 ug/L	1.476	518.03 ppb	1.476	0.28%
QC value within limits for Mn 257.610 Recovery = 103.61%						
Mo 202.031†	8189.8	513.56 ug/L	1.729	513.56 ppb	1.729	0.34%
QC value within limits for Mo 202.031 Recovery = 102.71%						
Na 589.592 Radial†	34771.5	10504 ug/L	58.7	10504 ppb	58.7	0.56%
QC value within limits for Na 589.592 Radial Recovery = 105.04%						
Ni 231.604†	23101.3	506.81 ug/L	1.631	506.81 ppb	1.631	0.32%
QC value within limits for Ni 231.604 Recovery = 101.36%						
P 214.914†	5250.5	2482.0 ug/L	5.18	2482.0 ppb	5.18	0.21%
QC value within limits for P 214.914 Recovery = 99.28%						
Pb 220.353†	4938.9	513.30 ug/L	2.700	513.30 ppb	2.700	0.53%
QC value within limits for Pb 220.353 Recovery = 102.66%						
S 181.975 Axial†	894.2	1009.5 ug/L	4.78	1009.5 ppb	4.78	0.47%
QC value within limits for S 181.975 Axial Recovery = 100.95%						
Sb 206.836†	1705.1	516.61 ug/L	1.669	516.61 ppb	1.669	0.32%
QC value within limits for Sb 206.836 Recovery = 103.32%						
Se 196.026†	1006.1	533.07 ug/L	4.069	533.07 ppb	4.069	0.76%
QC value within limits for Se 196.026 Recovery = 106.61%						
Si 251.611†	89590.7	2557.9 ug/L	6.30	2557.9 ppb	6.30	0.25%
QC value within limits for Si 251.611 Recovery = 102.31%						
Sn 189.927†	3434.1	508.55 ug/L	2.418	508.55 ppb	2.418	0.48%
QC value within limits for Sn 189.927 Recovery = 101.71%						
Sr 421.552†	74743.7	547.20 ug/L	3.181	547.20 ppb	3.181	0.58%
QC value within limits for Sr 421.552 Recovery = 109.44%						
Ti 334.940†	328861.6	521.64 ug/L	1.340	521.64 ppb	1.340	0.26%
QC value within limits for Ti 334.940 Recovery = 104.33%						
Tl 190.801†	1870.5	514.41 ug/L	1.833	514.41 ppb	1.833	0.36%
QC value within limits for Tl 190.801 Recovery = 102.88%						
U 409.014†	16669.3	493.92 ug/L	3.873	493.92 ppb	3.873	0.78%
QC value within limits for U 409.014 Recovery = 98.78%						
V 292.402†	81526.1	518.65 ug/L	0.920	518.65 ppb	0.920	0.18%
QC value within limits for V 292.402 Recovery = 103.73%						
Zn 213.857†	62473.0	509.37 ug/L	1.041	509.37 ppb	1.041	0.20%
QC value within limits for Zn 213.857 Recovery = 101.87%						
SiO2†	90116.9	5505.5 ug/L	32.23	5505.5 ppb	32.23	0.59%
QC value within limits for SiO2 Recovery = 102.96%						

All analyte(s) passed QC.

Sequence No.: 131
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 1/7/2010 05:43:19
 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	4531.1	4531.1	97.1 %		05:45:12
1	Y RADIAL	4781.4	4781.4	96.93 %		05:45:12
1	Al 396.153Radial†	2.5	29.3	25.923 ug/L	25.923 ppb	05:45:12
1	Ca 317.933Radial†	27.3	15.6	26.142 ug/L	26.142 ppb	05:45:32
1	Fe 238.204 Radial†	12.5	-1.0	-9.0538 ug/L	-9.0538 ppb	05:45:32
1	K 766.490 Radial†	3419.4	185.7	36.845 ug/L	36.845 ppb	05:45:12
1	Mg 279.077 IEC†	6.9	5.5	175.48 ug/L	175.48 ppb	05:45:32
1	Na 589.592 Radial†	-1656.7	43.5	13.142 ug/L	13.142 ppb	05:45:12
1	Sr 421.552†	-11.4	-27.8	-0.2035 ug/L	-0.2035 ppb	05:45:12
1	Sc 361.383	874466.9	874466.9	98.630 %		05:46:29
1	Y 371.029	752517.7	752517.7	98.787 %		05:46:29
1	Ag 328.068†	458.6	-47.3	-0.1964 ug/L	-0.1964 ppb	05:46:29
1	As 188.979†	-36.9	-4.0	-1.3970 ug/L	-1.3970 ppb	05:46:49
1	B 249.677†	-594.1	63.5	1.3116 ug/L	1.3116 ppb	05:46:29
1	Ba 233.527†	13.7	6.3	0.0464 ug/L	0.0464 ppb	05:46:49
1	Be 313.107†	-4264.8	27.5	0.0096 ug/L	0.0096 ppb	05:46:29
1	Cd 226.502†	-244.3	-9.3	-0.0866 ug/L	-0.0866 ppb	05:46:49
1	Co 228.616†	-98.3	-15.7	-0.2947 ug/L	-0.2947 ppb	05:46:49
1	Cr 267.716†	124.7	22.4	0.2277 ug/L	0.2277 ppb	05:46:29
1	Cu 324.752†	7998.8	110.9	0.3279 ug/L	0.3279 ppb	05:46:29
1	Mn 257.610†	584.7	76.4	0.0763 ug/L	0.0763 ppb	05:46:29
1	Mo 202.031†	28.7	9.2	0.5755 ug/L	0.5755 ppb	05:46:49
1	Ni 231.604†	124.5	1.2	0.0264 ug/L	0.0264 ppb	05:46:49
1	P 214.914†	236.8	-8.5	-4.1654 ug/L	-4.1654 ppb	05:46:49
1	Pb 220.353†	-84.0	-7.4	-0.7565 ug/L	-0.7565 ppb	05:46:49
1	S 181.975 Axial†	54.8	-4.3	-4.9094 ug/L	-4.9094 ppb	05:46:49
1	Sb 206.836†	41.7	5.2	1.5369 ug/L	1.5369 ppb	05:46:49
1	Se 196.026†	-41.6	-9.0	-4.6040 ug/L	-4.6040 ppb	05:46:49
1	Si 251.611†	705.7	98.9	2.8179 ug/L	2.8179 ppb	05:46:49
1	Sn 189.927†	-1.1	-4.5	-0.6652 ug/L	-0.6652 ppb	05:46:49
1	Ti 334.940†	-1702.9	90.8	0.1503 ug/L	0.1503 ppb	05:46:29
1	Tl 190.801†	-47.9	4.8	1.3156 ug/L	1.3156 ppb	05:46:49
1	U 409.014†	-3004.0	-377.0	-11.207 ug/L	-11.207 ppb	05:46:29
1	V 292.402†	-1752.2	25.3	0.1503 ug/L	0.1503 ppb	05:46:29
1	Zn 213.857†	892.5	73.2	0.5960 ug/L	0.5960 ppb	05:46:49
1	SiO2†	731.1	105.2	6.4141 ug/L	6.4141 ppb	05:47:45
2	Sc Radial	4763.7	4763.7	102 %		05:45:37
2	Y RADIAL	5057.4	5057.4	102.5 %		05:45:37
2	Al 396.153Radial†	-2.8	24.0	21.240 ug/L	21.240 ppb	05:45:37
2	Ca 317.933Radial†	17.5	4.5	7.6199 ug/L	7.6199 ppb	05:45:57
2	Fe 238.204 Radial†	8.0	-6.0	-53.147 ug/L	-53.147 ppb	05:45:57
2	K 766.490 Radial†	3395.1	-10.2	-2.0265 ug/L	-2.0265 ppb	05:45:37
2	Mg 279.077 IEC†	-0.3	-2.0	-62.520 ug/L	-62.520 ppb	05:45:57
2	Na 589.592 Radial†	-1691.2	93.1	28.118 ug/L	28.118 ppb	05:45:37
2	Sr 421.552†	44.3	27.4	0.2008 ug/L	0.2008 ppb	05:45:37
2	Sc 361.383	870926.0	870926.0	98.231 %		05:46:54
2	Y 371.029	749890.1	749890.1	98.442 %		05:46:54
2	Ag 328.068†	609.6	108.2	0.4503 ug/L	0.4503 ppb	05:46:54
2	As 188.979†	-34.7	-1.9	-0.6798 ug/L	-0.6798 ppb	05:47:14
2	B 249.677†	-677.1	-23.4	-0.4759 ug/L	-0.4759 ppb	05:46:54
2	Ba 233.527†	8.1	0.8	0.0040 ug/L	0.0040 ppb	05:47:14
2	Be 313.107†	-4229.5	45.8	0.0153 ug/L	0.0153 ppb	05:46:54
2	Cd 226.502†	-225.7	8.6	0.0862 ug/L	0.0862 ppb	05:47:14
2	Co 228.616†	-94.3	-12.0	-0.2222 ug/L	-0.2222 ppb	05:47:14
2	Cr 267.716†	89.5	-12.9	-0.1293 ug/L	-0.1293 ppb	05:46:54
2	Cu 324.752†	7929.6	73.4	0.2146 ug/L	0.2146 ppb	05:46:54
2	Mn 257.610†	589.4	83.6	0.0840 ug/L	0.0840 ppb	05:46:54
2	Mo 202.031†	36.0	16.7	1.0439 ug/L	1.0439 ppb	05:47:14
2	Ni 231.604†	135.2	12.6	0.2757 ug/L	0.2757 ppb	05:47:14

2	P 214.914†	249.5	5.4	2.6443 ug/L	2.6443 ppb	05:47:14
2	Pb 220.353†	-86.1	-9.9	-1.0175 ug/L	-1.0175 ppb	05:47:14
2	S 181.975 Axial†	55.7	-3.2	-3.5747 ug/L	-3.5747 ppb	05:47:14
2	Sb 206.836†	30.7	-5.9	-1.7357 ug/L	-1.7357 ppb	05:47:14
2	Se 196.026†	-34.0	-1.4	-0.8655 ug/L	-0.8655 ppb	05:47:14
2	Si 251.611†	706.5	102.7	2.9305 ug/L	2.9305 ppb	05:47:14
2	Sn 189.927†	-0.3	-3.7	-0.5431 ug/L	-0.5431 ppb	05:47:14
2	Ti 334.940†	-1841.1	-56.9	-0.0880 ug/L	-0.0880 ppb	05:46:54
2	Tl 190.801†	-45.8	6.7	1.8386 ug/L	1.8386 ppb	05:47:14
2	U 409.014†	-2757.0	-137.9	-4.0926 ug/L	-4.0926 ppb	05:46:54
2	V 292.402†	-1782.9	-13.2	-0.0692 ug/L	-0.0692 ppb	05:46:54
2	Zn 213.857†	883.5	67.7	0.5599 ug/L	0.5599 ppb	05:47:14
2	SiO2†	716.7	93.6	5.7122 ug/L	5.7122 ppb	05:47:50
3	Sc Radial	4722.5	4722.5	101 %		05:46:02
3	Y RADIAL	4984.1	4984.1	101.0 %		05:46:02
3	Al 396.153Radial†	-10.4	16.5	14.581 ug/L	14.581 ppb	05:46:02
3	Ca 317.933Radial†	19.0	6.3	10.517 ug/L	10.517 ppb	05:46:22
3	Fe 238.204 Radial†	11.5	-2.5	-22.271 ug/L	-22.271 ppb	05:46:22
3	K 766.490 Radial†	3413.6	37.2	7.3615 ug/L	7.3615 ppb	05:46:02
3	Mg 279.077 IEC†	0.2	-1.5	-46.912 ug/L	-46.912 ppb	05:46:22
3	Na 589.592 Radial†	-1592.4	176.2	53.240 ug/L	53.240 ppb	05:46:02
3	Sr 421.552†	-6.7	-22.6	-0.1659 ug/L	-0.1659 ppb	05:46:02
3	Sc 361.383	878022.0	878022.0	99.031 %		05:47:20
3	Y 371.029	756682.5	756682.5	99.334 %		05:47:20
3	Ag 328.068†	546.5	39.5	0.1668 ug/L	0.1668 ppb	05:47:20
3	As 188.979†	-32.9	0.2	0.0677 ug/L	0.0677 ppb	05:47:40
3	B 249.677†	-648.9	10.6	0.2218 ug/L	0.2218 ppb	05:47:20
3	Ba 233.527†	9.2	1.8	0.0118 ug/L	0.0118 ppb	05:47:40
3	Be 313.107†	-4196.6	113.9	0.0387 ug/L	0.0387 ppb	05:47:20
3	Cd 226.502†	-230.6	5.5	0.0543 ug/L	0.0543 ppb	05:47:40
3	Co 228.616†	-84.7	-1.6	-0.0279 ug/L	-0.0279 ppb	05:47:40
3	Cr 267.716†	104.1	1.1	0.0120 ug/L	0.0120 ppb	05:47:20
3	Cu 324.752†	8055.8	135.6	0.4002 ug/L	0.4002 ppb	05:47:20
3	Mn 257.610†	548.4	37.3	0.0380 ug/L	0.0380 ppb	05:47:20
3	Mo 202.031†	29.3	9.7	0.6049 ug/L	0.6049 ppb	05:47:40
3	Ni 231.604†	138.7	15.0	0.3298 ug/L	0.3298 ppb	05:47:40
3	P 214.914†	261.1	15.1	7.3065 ug/L	7.3065 ppb	05:47:40
3	Pb 220.353†	-83.1	-6.2	-0.6333 ug/L	-0.6333 ppb	05:47:40
3	S 181.975 Axial†	59.1	-0.2	-0.2496 ug/L	-0.2496 ppb	05:47:40
3	Sb 206.836†	35.6	-1.2	-0.3600 ug/L	-0.3600 ppb	05:47:40
3	Se 196.026†	-47.7	-14.9	-7.6700 ug/L	-7.6700 ppb	05:47:40
3	Si 251.611†	691.7	81.9	2.3406 ug/L	2.3406 ppb	05:47:40
3	Sn 189.927†	-7.2	-10.6	-1.5743 ug/L	-1.5743 ppb	05:47:40
3	Ti 334.940†	-1736.4	63.9	0.1054 ug/L	0.1054 ppb	05:47:20
3	Tl 190.801†	-31.0	22.1	6.0407 ug/L	6.0407 ppb	05:47:40
3	U 409.014†	-2896.6	-256.2	-7.6150 ug/L	-7.6150 ppb	05:47:20
3	V 292.402†	-1850.7	-67.0	-0.4244 ug/L	-0.4244 ppb	05:47:20
3	Zn 213.857†	879.5	56.5	0.4643 ug/L	0.4643 ppb	05:47:40
3	SiO2†	754.6	125.9	7.7128 ug/L	7.7128 ppb	05:47:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	874471.6	98.631 %	0.4002			0.41%
Sc Radial	4672.5	100 %	2.7			2.66%
Y 371.029	753030.1	98.854 %	0.4496			0.45%
Y RADIAL	4941.0	100.2 %	2.90			2.89%
Ag 328.068†	33.5	0.1402 ug/L	0.32419	0.1402 ppb	0.32419	231.21%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	23.2	20.581 ug/L	5.6998	20.581 ppb	5.6998	27.69%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.9	-0.6697 ug/L	0.73240	-0.6697 ppb	0.73240	109.36%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	16.9	0.3525 ug/L	0.90090	0.3525 ppb	0.90090	255.56%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	3.0	0.0207 ug/L	0.02258	0.0207 ppb	0.02258	108.99%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	62.4	0.0212 ug/L	0.01542	0.0212 ppb	0.01542	72.76%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	8.8	14.759 ug/L	9.9631	14.759 ppb	9.9631	67.50%

Cd	226.502†	1.6	0.0180 ug/L	0.09192	0.0180 ppb	0.09192	511.38%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	-9.8	-0.1816 ug/L	0.13796	-0.1816 ppb	0.13796	75.99%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	3.5	0.0368 ug/L	0.17975	0.0368 ppb	0.17975	488.30%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	106.6	0.3142 ug/L	0.09355	0.3142 ppb	0.09355	29.77%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	-3.2	-28.157 ug/L	22.6282	-28.157 ppb	22.6282	80.36%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	70.9	14.060 ug/L	20.2833	14.060 ppb	20.2833	144.26%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	0.7	22.017 ug/L	133.1342	22.017 ppb	133.1342	604.69%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	65.8	0.0661 ug/L	0.02463	0.0661 ppb	0.02463	37.28%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	11.9	0.7414 ug/L	0.26237	0.7414 ppb	0.26237	35.39%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	104.3	31.500 ug/L	20.2622	31.500 ppb	20.2622	64.32%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	9.6	0.2106 ug/L	0.16187	0.2106 ppb	0.16187	76.85%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	4.0	1.9285 ug/L	5.76933	1.9285 ppb	5.76933	299.16%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-7.8	-0.8024 ug/L	0.19620	-0.8024 ppb	0.19620	24.45%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-2.6	-2.9112 ug/L	2.39970	-2.9112 ppb	2.39970	82.43%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	-0.6	-0.1863 ug/L	1.64319	-0.1863 ppb	1.64319	882.04%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-8.4	-4.3799 ug/L	3.40779	-4.3799 ppb	3.40779	77.81%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	94.5	2.6963 ug/L	0.31318	2.6963 ppb	0.31318	11.62%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-6.3	-0.9275 ug/L	0.56341	-0.9275 ppb	0.56341	60.74%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-7.7	-0.0562 ug/L	0.22338	-0.0562 ppb	0.22338	397.60%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	32.6	0.0559 ug/L	0.12661	0.0559 ppb	0.12661	226.50%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	11.2	3.0650 ug/L	2.59031	3.0650 ppb	2.59031	84.51%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-257.1	-7.6382 ug/L	3.55730	-7.6382 ppb	3.55730	46.57%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-18.3	-0.1144 ug/L	0.29000	-0.1144 ppb	0.29000	253.50%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	65.8	0.5401 ug/L	0.06801	0.5401 ppb	0.06801	12.59%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		108.2	6.6130 ug/L	1.01500	6.6130 ppb	1.01500	15.35%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 140
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 1/7/2010 06:46:24
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCV

Rep#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4505.9	4505.9	96.5 %		06:48:16
1	Y RADIAL	4773.1	4773.1	96.76 %		06:48:16
1	Al 396.153Radial†	5991.5	6233.2	5505.6 ug/L	5505.6 ppb	06:48:16
1	Ca 317.933Radial†	3112.7	3211.9	5382.0 ug/L	5382.0 ppb	06:48:36
1	Fe 238.204 Radial†	597.3	604.9	5331.7 ug/L	5331.7 ppb	06:48:36
1	K 766.490 Radial†	28309.6	25988.9	5149.8 ug/L	5149.8 ppb	06:48:16
1	Mg 279.077 IEC†	163.1	167.3	5354.7 ug/L	5354.7 ppb	06:48:36
1	Na 589.592 Radial†	32364.6	35276.3	10656 ug/L	10656 ppb	06:48:16
1	Sr 421.552†	73166.0	75776.0	554.76 ug/L	554.76 ppb	06:48:16
1	Sc 361.383	860324.6	860324.6	97.035 %		06:49:35
1	Y 371.029	732983.4	732983.4	96.223 %		06:49:35
1	Ag 328.068†	118770.1	121886.5	526.91 ug/L	526.91 ppb	06:49:35
1	As 188.979†	1428.8	1505.8	531.68 ug/L	531.68 ppb	06:49:55
1	B 249.677†	23541.0	24926.1	511.92 ug/L	511.92 ppb	06:49:35
1	Ba 233.527†	69632.0	71752.0	524.51 ug/L	524.51 ppb	06:49:35
1	Be 313.107†	1517596.8	1568314.5	531.13 ug/L	531.13 ppb	06:49:35
1	Cd 226.502†	53648.1	55525.5	522.76 ug/L	522.76 ppb	06:49:35
1	Co 228.616†	26968.3	27876.2	524.29 ug/L	524.29 ppb	06:49:55
1	Cr 267.716†	50847.7	52297.2	524.84 ug/L	524.84 ppb	06:49:35
1	Cu 324.752†	179479.0	176963.5	524.20 ug/L	524.20 ppb	06:49:35
1	Mn 257.610†	487018.9	501382.0	528.71 ug/L	528.71 ppb	06:49:35
1	Mo 202.031†	8252.4	8484.6	532.05 ug/L	532.05 ppb	06:49:55
1	Ni 231.604†	23328.7	23916.4	524.69 ug/L	524.69 ppb	06:49:55
1	P 214.914†	5514.8	5434.7	2570.3 ug/L	2570.3 ppb	06:49:55
1	Pb 220.353†	4898.0	5125.5	532.67 ug/L	532.67 ppb	06:49:55
1	S 181.975 Axial†	978.5	948.5	1070.9 ug/L	1070.9 ppb	06:49:55
1	Sb 206.836†	1739.0	1755.1	531.97 ug/L	531.97 ppb	06:49:55
1	Se 196.026†	979.4	1042.6	552.41 ug/L	552.41 ppb	06:49:55
1	Si 251.611†	89194.6	91303.1	2606.6 ug/L	2606.6 ppb	06:49:35
1	Sn 189.927†	3468.9	3571.5	528.90 ug/L	528.90 ppb	06:49:55
1	Ti 334.940†	323750.5	335459.2	532.11 ug/L	532.11 ppb	06:49:35
1	Tl 190.801†	1829.4	1938.7	533.07 ug/L	533.07 ppb	06:49:55
1	U 409.014†	13863.2	16955.5	502.38 ug/L	502.38 ppb	06:49:35
1	V 292.402†	79253.3	83476.5	531.13 ug/L	531.13 ppb	06:49:35
1	Zn 213.857†	62900.4	63990.5	521.71 ug/L	521.71 ppb	06:49:35
1	SiO2†	89415.6	91511.4	5590.2 ug/L	5590.2 ppb	06:50:56
2	Sc Radial	4604.3	4604.3	98.6 %		06:48:41
2	Y RADIAL	4872.2	4872.2	98.77 %		06:48:41
2	Al 396.153Radial†	6099.8	6210.3	5485.6 ug/L	5485.6 ppb	06:48:41
2	Ca 317.933Radial†	3120.3	3150.6	5279.3 ug/L	5279.3 ppb	06:49:01
2	Fe 238.204 Radial†	597.9	592.3	5220.6 ug/L	5220.6 ppb	06:49:01
2	K 766.490 Radial†	28446.0	25500.2	5052.8 ug/L	5052.8 ppb	06:48:41
2	Mg 279.077 IEC†	162.0	162.6	5204.2 ug/L	5204.2 ppb	06:49:01
2	Na 589.592 Radial†	32758.8	34959.1	10560 ug/L	10560 ppb	06:48:41
2	Sr 421.552†	74160.9	75163.9	550.28 ug/L	550.28 ppb	06:48:41
2	Sc 361.383	866344.4	866344.4	97.714 %		06:50:03
2	Y 371.029	736904.9	736904.9	96.738 %		06:50:03
2	Ag 328.068†	119417.7	121698.7	526.06 ug/L	526.06 ppb	06:50:03
2	As 188.979†	1434.4	1501.4	530.11 ug/L	530.11 ppb	06:50:23
2	B 249.677†	23726.9	24947.7	512.40 ug/L	512.40 ppb	06:50:03
2	Ba 233.527†	70108.0	71740.4	524.42 ug/L	524.42 ppb	06:50:03
2	Be 313.107†	1524285.5	1564292.4	529.76 ug/L	529.76 ppb	06:50:03
2	Cd 226.502†	53851.2	55349.3	521.11 ug/L	521.11 ppb	06:50:03
2	Co 228.616†	26864.9	27577.3	518.66 ug/L	518.66 ppb	06:50:23
2	Cr 267.716†	50923.5	52010.6	521.96 ug/L	521.96 ppb	06:50:03
2	Cu 324.752†	180832.9	177063.8	524.49 ug/L	524.49 ppb	06:50:03
2	Mn 257.610†	489902.3	500845.4	528.14 ug/L	528.14 ppb	06:50:03
2	Mo 202.031†	8220.1	8392.5	526.27 ug/L	526.27 ppb	06:50:23
2	Ni 231.604†	23249.6	23668.3	519.25 ug/L	519.25 ppb	06:50:23

2	P 214.914†	5504.9	5385.1	2546.1 ug/L	2546.1 ppb	06:50:23
2	Pb 220.353†	4882.9	5074.9	527.42 ug/L	527.42 ppb	06:50:23
2	S 181.975 Axial†	953.8	916.2	1034.4 ug/L	1034.4 ppb	06:50:23
2	Sb 206.836†	1727.8	1731.1	524.69 ug/L	524.69 ppb	06:50:23
2	Se 196.026†	981.8	1038.0	549.74 ug/L	549.74 ppb	06:50:23
2	Si 251.611†	89833.5	91318.2	2607.1 ug/L	2607.1 ppb	06:50:03
2	Sn 189.927†	3469.4	3547.1	525.28 ug/L	525.28 ppb	06:50:23
2	Ti 334.940†	325698.9	335134.9	531.59 ug/L	531.59 ppb	06:50:03
2	Tl 190.801†	1816.3	1912.1	525.83 ug/L	525.83 ppb	06:50:23
2	U 409.014†	14026.8	17023.7	504.43 ug/L	504.43 ppb	06:50:03
2	V 292.402†	79617.6	83281.8	529.84 ug/L	529.84 ppb	06:50:03
2	Zn 213.857†	63140.9	63786.2	520.07 ug/L	520.07 ppb	06:50:03
2	SiO2†	89694.0	91156.1	5568.7 ug/L	5568.7 ppb	06:51:01
3	Sc Radial	4510.8	4510.8	96.6 %		06:49:07
3	Y RADIAL	4798.2	4798.2	97.27 %		06:49:07
3	Al 396.153Radial†	5972.2	6206.5	5482.0 ug/L	5482.0 ppb	06:49:07
3	Ca 317.933Radial†	3085.9	3180.6	5329.6 ug/L	5329.6 ppb	06:49:27
3	Fe 238.204 Radial†	588.8	595.4	5248.0 ug/L	5248.0 ppb	06:49:27
3	K 766.490 Radial†	28044.3	25682.5	5089.0 ug/L	5089.0 ppb	06:49:07
3	Mg 279.077 IEC†	166.4	170.5	5458.9 ug/L	5458.9 ppb	06:49:27
3	Na 589.592 Radial†	32157.6	35025.7	10581 ug/L	10581 ppb	06:49:07
3	Sr 421.552†	72951.8	75472.0	552.53 ug/L	552.53 ppb	06:49:07
3	Sc 361.383	855080.2	855080.2	96.444 %		06:50:30
3	Y 371.029	727854.6	727854.6	95.549 %		06:50:30
3	Ag 328.068†	118046.0	121886.3	526.88 ug/L	526.88 ppb	06:50:30
3	As 188.979†	1429.0	1515.1	534.92 ug/L	534.92 ppb	06:50:50
3	B 249.677†	23490.9	25022.9	513.94 ug/L	513.94 ppb	06:50:30
3	Ba 233.527†	69385.5	71936.4	525.85 ug/L	525.85 ppb	06:50:30
3	Be 313.107†	1510455.2	1570501.6	531.86 ug/L	531.86 ppb	06:50:30
3	Cd 226.502†	53416.9	55624.9	523.70 ug/L	523.70 ppb	06:50:30
3	Co 228.616†	26676.5	27744.1	521.81 ug/L	521.81 ppb	06:50:50
3	Cr 267.716†	50601.7	52363.5	525.50 ug/L	525.50 ppb	06:50:30
3	Cu 324.752†	178335.8	176912.5	524.04 ug/L	524.04 ppb	06:50:30
3	Mn 257.610†	484758.7	502116.7	529.47 ug/L	529.47 ppb	06:50:30
3	Mo 202.031†	8172.8	8454.3	530.14 ug/L	530.14 ppb	06:50:50
3	Ni 231.604†	23108.2	23835.2	522.91 ug/L	522.91 ppb	06:50:50
3	P 214.914†	5466.7	5419.7	2563.1 ug/L	2563.1 ppb	06:50:50
3	Pb 220.353†	4841.5	5097.8	529.80 ug/L	529.80 ppb	06:50:50
3	S 181.975 Axial†	959.3	934.8	1055.3 ug/L	1055.3 ppb	06:50:50
3	Sb 206.836†	1723.3	1749.8	530.25 ug/L	530.25 ppb	06:50:50
3	Se 196.026†	954.3	1022.8	542.01 ug/L	542.01 ppb	06:50:50
3	Si 251.611†	88795.9	91453.5	2610.9 ug/L	2610.9 ppb	06:50:30
3	Sn 189.927†	3416.2	3538.8	524.05 ug/L	524.05 ppb	06:50:50
3	Ti 334.940†	321860.4	335545.7	532.25 ug/L	532.25 ppb	06:50:30
3	Tl 190.801†	1790.6	1910.0	525.25 ug/L	525.25 ppb	06:50:50
3	U 409.014†	13620.5	16791.4	497.51 ug/L	497.51 ppb	06:50:30
3	V 292.402†	78719.8	83424.3	530.78 ug/L	530.78 ppb	06:50:30
3	Zn 213.857†	62567.1	64042.4	522.15 ug/L	522.15 ppb	06:50:30
3	SiO2†	89746.0	92419.2	5646.1 ug/L	5646.1 ppb	06:51:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	860583.1	97.064 %	0.6357			0.65%
Sc Radial	4540.3	97.3 %	1.19			1.22%
Y 371.029	732581.0	96.170 %	0.5958			0.62%
Y RADIAL	4814.5	97.60 %	1.045			1.07%
Ag 328.068†	121823.8	526.62 ug/L	0.483	526.62 ppb	0.483	0.09%
QC value within limits for Ag 328.068 Recovery = 105.32%						
Al 396.153Radial†	6216.7	5491.1 ug/L	12.73	5491.1 ppb	12.73	0.23%
QC value within limits for Al 396.153Radial Recovery = 109.82%						
As 188.979†	1507.4	532.24 ug/L	2.454	532.24 ppb	2.454	0.46%
QC value within limits for As 188.979 Recovery = 106.45%						
B 249.677†	24965.6	512.75 ug/L	1.052	512.75 ppb	1.052	0.21%
QC value within limits for B 249.677 Recovery = 102.55%						
Ba 233.527†	71809.6	524.92 ug/L	0.802	524.92 ppb	0.802	0.15%
QC value within limits for Ba 233.527 Recovery = 104.98%						
Be 313.107†	1567702.8	530.92 ug/L	1.065	530.92 ppb	1.065	0.20%
QC value within limits for Be 313.107 Recovery = 106.18%						
Ca 317.933Radial†	3181.0	5330.3 ug/L	51.33	5330.3 ppb	51.33	0.96%

QC value within limits for Ca 317.933 Radial Recovery = 106.61%						
Cd 226.502†	55499.9	522.52 ug/L	1.314	522.52 ppb	1.314	0.25%
QC value within limits for Cd 226.502 Recovery = 104.50%						
Co 228.616†	27732.5	521.59 ug/L	2.822	521.59 ppb	2.822	0.54%
QC value within limits for Co 228.616 Recovery = 104.32%						
Cr 267.716†	52223.7	524.10 ug/L	1.881	524.10 ppb	1.881	0.36%
QC value within limits for Cr 267.716 Recovery = 104.82%						
Cu 324.752†	176979.9	524.24 ug/L	0.227	524.24 ppb	0.227	0.04%
QC value within limits for Cu 324.752 Recovery = 104.85%						
Fe 238.204 Radial†	597.5	5266.8 ug/L	57.87	5266.8 ppb	57.87	1.10%
QC value within limits for Fe 238.204 Radial Recovery = 105.34%						
K 766.490 Radial†	25723.9	5097.2 ug/L	49.01	5097.2 ppb	49.01	0.96%
QC value within limits for K 766.490 Radial Recovery = 101.94%						
Mg 279.077 IEC†	166.8	5339.3 ug/L	128.00	5339.3 ppb	128.00	2.40%
QC value within limits for Mg 279.077 IEC Recovery = 106.79%						
Mn 257.610†	501448.1	528.77 ug/L	0.671	528.77 ppb	0.671	0.13%
QC value within limits for Mn 257.610 Recovery = 105.75%						
Mo 202.031†	8443.8	529.48 ug/L	2.946	529.48 ppb	2.946	0.56%
QC value within limits for Mo 202.031 Recovery = 105.90%						
Na 589.592 Radial†	35087.0	10599 ug/L	50.5	10599 ppb	50.5	0.48%
QC value within limits for Na 589.592 Radial Recovery = 105.99%						
Ni 231.604†	23806.7	522.28 ug/L	2.774	522.28 ppb	2.774	0.53%
QC value within limits for Ni 231.604 Recovery = 104.46%						
P 214.914†	5413.2	2559.8 ug/L	12.42	2559.8 ppb	12.42	0.49%
QC value within limits for P 214.914 Recovery = 102.39%						
Pb 220.353†	5099.4	529.96 ug/L	2.628	529.96 ppb	2.628	0.50%
QC value within limits for Pb 220.353 Recovery = 105.99%						
S 181.975 Axial†	933.2	1053.5 ug/L	18.33	1053.5 ppb	18.33	1.74%
QC value within limits for S 181.975 Axial Recovery = 105.35%						
Sb 206.836†	1745.3	528.97 ug/L	3.807	528.97 ppb	3.807	0.72%
QC value within limits for Sb 206.836 Recovery = 105.79%						
Se 196.026†	1034.4	548.06 ug/L	5.400	548.06 ppb	5.400	0.99%
QC value within limits for Se 196.026 Recovery = 109.61%						
Si 251.611†	91358.3	2608.2 ug/L	2.38	2608.2 ppb	2.38	0.09%
QC value within limits for Si 251.611 Recovery = 104.33%						
Sn 189.927†	3552.5	526.08 ug/L	2.519	526.08 ppb	2.519	0.48%
QC value within limits for Sn 189.927 Recovery = 105.22%						
Sr 421.552†	75470.6	552.52 ug/L	2.240	552.52 ppb	2.240	0.41%
QC value greater than the upper limit for Sr 421.552 Recovery = 110.50%						
Ti 334.940†	335379.9	531.98 ug/L	0.346	531.98 ppb	0.346	0.07%
QC value within limits for Ti 334.940 Recovery = 106.40%						
Tl 190.801†	1920.3	528.05 ug/L	4.356	528.05 ppb	4.356	0.83%
QC value within limits for Tl 190.801 Recovery = 105.61%						
U 409.014†	16923.5	501.44 ug/L	3.552	501.44 ppb	3.552	0.71%
QC value within limits for U 409.014 Recovery = 100.29%						
V 292.402†	83394.2	530.58 ug/L	0.665	530.58 ppb	0.665	0.13%
QC value within limits for V 292.402 Recovery = 106.12%						
Zn 213.857†	63939.7	521.31 ug/L	1.093	521.31 ppb	1.093	0.21%
QC value within limits for Zn 213.857 Recovery = 104.26%						
SiO2†	91695.6	5601.7 ug/L	39.94	5601.7 ppb	39.94	0.71%
QC value within limits for SiO2 Recovery = 104.75%						
QC Failed. Continue with analysis.						

Sequence No.: 141
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 1/7/2010 06:53:15
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4547.1	4547.1	97.4 %		06:55:08
1	Y RADIAL	4798.9	4798.9	97.28 %		06:55:08
1	Al 396.153Radial†	11.8	38.8	34.363 ug/L	34.363 ppb	06:55:08
1	Ca 317.933Radial†	21.3	9.3	15.601 ug/L	15.601 ppb	06:55:28
1	Fe 238.204 Radial†	15.1	1.7	14.638 ug/L	14.638 ppb	06:55:28
1	K 766.490 Radial†	3478.0	233.5	46.358 ug/L	46.358 ppb	06:55:08
1	Mg 279.077 IEC†	5.1	3.6	114.41 ug/L	114.41 ppb	06:55:28
1	Na 589.592 Radial†	-1788.3	-85.5	-25.836 ug/L	-25.836 ppb	06:55:08
1	Sr 421.552†	-6.7	-22.8	-0.1673 ug/L	-0.1673 ppb	06:55:08
1	Sc 361.383	844854.5	844854.5	95.290 %		06:56:25
1	Y 371.029	741644.4	741644.4	97.360 %		06:56:25
1	Ag 328.068†	494.1	6.1	0.0437 ug/L	0.0437 ppb	06:56:25
1	As 188.979†	-32.8	-1.0	-0.3528 ug/L	-0.3528 ppb	06:56:45
1	B 249.677†	-705.9	-75.0	-1.5466 ug/L	-1.5466 ppb	06:56:25
1	Ba 233.527†	0.4	-7.1	-0.0519 ug/L	-0.0519 ppb	06:56:45
1	Be 313.107†	-4275.2	-135.0	-0.0459 ug/L	-0.0459 ppb	06:56:25
1	Cd 226.502†	-237.3	-10.7	-0.1017 ug/L	-0.1017 ppb	06:56:45
1	Co 228.616†	-107.0	-28.3	-0.5309 ug/L	-0.5309 ppb	06:56:45
1	Cr 267.716†	119.2	21.1	0.2160 ug/L	0.2160 ppb	06:56:25
1	Cu 324.752†	8025.7	423.4	1.2542 ug/L	1.2542 ppb	06:56:25
1	Mn 257.610†	596.0	109.1	0.1143 ug/L	0.1143 ppb	06:56:25
1	Mo 202.031†	30.6	12.2	0.7645 ug/L	0.7645 ppb	06:56:45
1	Ni 231.604†	125.0	6.1	0.1342 ug/L	0.1342 ppb	06:56:45
1	P 214.914†	266.2	30.8	14.797 ug/L	14.797 ppb	06:56:45
1	Pb 220.353†	-88.1	-14.7	-1.5169 ug/L	-1.5169 ppb	06:56:45
1	S 181.975 Axial†	64.1	7.4	8.3536 ug/L	8.3536 ppb	06:56:45
1	Sb 206.836†	52.8	18.3	5.4660 ug/L	5.4660 ppb	06:56:45
1	Se 196.026†	-40.0	-8.7	-4.4191 ug/L	-4.4191 ppb	06:56:45
1	Si 251.611†	721.2	140.3	3.9994 ug/L	3.9994 ppb	06:56:45
1	Sn 189.927†	-6.1	-9.8	-1.4503 ug/L	-1.4503 ppb	06:56:45
1	Ti 334.940†	-1828.0	-100.9	-0.1526 ug/L	-0.1526 ppb	06:56:25
1	Tl 190.801†	-57.8	-7.3	-1.9777 ug/L	-1.9777 ppb	06:56:45
1	U 409.014†	-3035.0	-516.3	-15.350 ug/L	-15.350 ppb	06:56:25
1	V 292.402†	-1733.1	-17.0	-0.1249 ug/L	-0.1249 ppb	06:56:25
1	Zn 213.857†	872.2	83.6	0.6806 ug/L	0.6806 ppb	06:56:45
1	SiO2†	713.6	112.9	6.8760 ug/L	6.8760 ppb	06:57:41
2	Sc Radial	4567.9	4567.9	97.9 %		06:55:33
2	Y RADIAL	4853.8	4853.8	98.40 %		06:55:33
2	Al 396.153Radial†	2.2	29.0	25.641 ug/L	25.641 ppb	06:55:33
2	Ca 317.933Radial†	24.5	12.5	20.986 ug/L	20.986 ppb	06:55:53
2	Fe 238.204 Radial†	11.7	-1.9	-16.625 ug/L	-16.625 ppb	06:55:53
2	K 766.490 Radial†	3456.5	195.2	38.752 ug/L	38.752 ppb	06:55:33
2	Mg 279.077 IEC†	3.0	1.4	44.648 ug/L	44.648 ppb	06:55:53
2	Na 589.592 Radial†	-1775.6	-64.2	-19.404 ug/L	-19.404 ppb	06:55:33
2	Sr 421.552†	1.7	-14.2	-0.1043 ug/L	-0.1043 ppb	06:55:33
2	Sc 361.383	843181.0	843181.0	95.102 %		06:56:50
2	Y 371.029	740355.5	740355.5	97.191 %		06:56:50
2	Ag 328.068†	485.0	-2.3	-0.0092 ug/L	-0.0092 ppb	06:56:50
2	As 188.979†	-28.6	3.4	1.1831 ug/L	1.1831 ppb	06:57:10
2	B 249.677†	-692.3	-62.1	-1.2782 ug/L	-1.2782 ppb	06:56:50
2	Ba 233.527†	1.7	-5.7	-0.0440 ug/L	-0.0440 ppb	06:57:10
2	Be 313.107†	-4317.1	-187.9	-0.0637 ug/L	-0.0637 ppb	06:56:50
2	Cd 226.502†	-234.4	-8.1	-0.0741 ug/L	-0.0741 ppb	06:57:10
2	Co 228.616†	-82.6	-2.9	-0.0509 ug/L	-0.0509 ppb	06:57:10
2	Cr 267.716†	123.8	26.1	0.2638 ug/L	0.2638 ppb	06:56:50
2	Cu 324.752†	7901.0	309.0	0.9139 ug/L	0.9139 ppb	06:56:50
2	Mn 257.610†	525.0	35.7	0.0351 ug/L	0.0351 ppb	06:56:50
2	Mo 202.031†	37.0	19.0	1.1865 ug/L	1.1865 ppb	06:57:10
2	Ni 231.604†	124.0	5.4	0.1175 ug/L	0.1175 ppb	06:57:10

2	P 214.914†	243.6	7.6	3.6031 ug/L	3.6031 ppb	06:57:10
2	Pb 220.353†	-92.1	-19.0	-1.9631 ug/L	-1.9631 ppb	06:57:10
2	S 181.975 Axial†	60.6	3.8	4.2968 ug/L	4.2968 ppb	06:57:10
2	Sb 206.836†	50.1	15.5	4.6805 ug/L	4.6805 ppb	06:57:10
2	Se 196.026†	-48.9	-18.1	-9.3202 ug/L	-9.3202 ppb	06:57:10
2	Si 251.611†	706.5	126.3	3.5863 ug/L	3.5863 ppb	06:57:10
2	Sn 189.927†	11.2	8.4	1.2449 ug/L	1.2449 ppb	06:57:10
2	Ti 334.940†	-1777.1	-51.3	-0.0753 ug/L	-0.0753 ppb	06:56:50
2	Tl 190.801†	-51.2	-0.4	-0.1119 ug/L	-0.1119 ppb	06:57:10
2	U 409.014†	-2903.7	-384.6	-11.431 ug/L	-11.431 ppb	06:56:50
2	V 292.402†	-1838.7	-131.6	-0.8278 ug/L	-0.8278 ppb	06:56:50
2	Zn 213.857†	886.2	100.1	0.8208 ug/L	0.8208 ppb	06:57:10
2	SiO2†	712.0	112.6	6.8330 ug/L	6.8330 ppb	06:57:46
3	Sc Radial	4622.7	4622.7	99.0 %		06:55:58
3	Y RADIAL	4903.9	4903.9	99.41 %		06:55:58
3	Al 396.153Radial†	-26.3	0.1	0.0640 ug/L	0.0640 ppb	06:55:58
3	Ca 317.933Radial†	22.0	9.7	16.174 ug/L	16.174 ppb	06:56:18
3	Fe 238.204 Radial†	15.1	1.3	11.657 ug/L	11.657 ppb	06:56:18
3	K 766.490 Radial†	3395.0	91.3	18.122 ug/L	18.122 ppb	06:55:58
3	Mg 279.077 IEC†	4.0	2.4	78.009 ug/L	78.009 ppb	06:56:18
3	Na 589.592 Radial†	-1758.0	-24.9	-7.5323 ug/L	-7.5323 ppb	06:55:58
3	Sr 421.552†	9.0	-6.9	-0.0508 ug/L	-0.0508 ppb	06:55:58
3	Sc 361.383	847525.9	847525.9	95.592 %		06:57:16
3	Y 371.029	745891.1	745891.1	97.917 %		06:57:16
3	Ag 328.068†	506.1	17.2	0.0838 ug/L	0.0838 ppb	06:57:16
3	As 188.979†	-35.5	-3.7	-1.3048 ug/L	-1.3048 ppb	06:57:36
3	B 249.677†	-668.6	-33.5	-0.6927 ug/L	-0.6927 ppb	06:57:16
3	Ba 233.527†	11.7	4.8	0.0336 ug/L	0.0336 ppb	06:57:36
3	Be 313.107†	-4159.6	0.1	0.0002 ug/L	0.0002 ppb	06:57:16
3	Cd 226.502†	-250.8	-24.0	-0.2275 ug/L	-0.2275 ppb	06:57:36
3	Co 228.616†	-92.4	-12.7	-0.2354 ug/L	-0.2354 ppb	06:57:36
3	Cr 267.716†	100.8	1.4	0.0164 ug/L	0.0164 ppb	06:57:16
3	Cu 324.752†	7960.1	328.2	0.9722 ug/L	0.9722 ppb	06:57:16
3	Mn 257.610†	598.9	110.1	0.1157 ug/L	0.1157 ppb	06:57:16
3	Mo 202.031†	38.8	20.7	1.2978 ug/L	1.2978 ppb	06:57:36
3	Ni 231.604†	113.2	-6.6	-0.1452 ug/L	-0.1452 ppb	06:57:36
3	P 214.914†	240.4	2.9	1.2713 ug/L	1.2713 ppb	06:57:36
3	Pb 220.353†	-84.7	-10.8	-1.1170 ug/L	-1.1170 ppb	06:57:36
3	S 181.975 Axial†	59.4	2.2	2.5282 ug/L	2.5282 ppb	06:57:36
3	Sb 206.836†	50.5	15.7	4.7253 ug/L	4.7253 ppb	06:57:36
3	Se 196.026†	-42.2	-10.9	-5.5480 ug/L	-5.5480 ppb	06:57:36
3	Si 251.611†	683.9	98.8	2.8062 ug/L	2.8062 ppb	06:57:36
3	Sn 189.927†	3.6	0.4	0.0583 ug/L	0.0583 ppb	06:57:36
3	Ti 334.940†	-1706.1	32.6	0.0571 ug/L	0.0571 ppb	06:57:16
3	Tl 190.801†	-34.9	16.9	4.6098 ug/L	4.6098 ppb	06:57:36
3	U 409.014†	-2880.1	-344.2	-10.234 ug/L	-10.234 ppb	06:57:16
3	V 292.402†	-1811.8	-93.5	-0.5885 ug/L	-0.5885 ppb	06:57:16
3	Zn 213.857†	876.1	84.8	0.6938 ug/L	0.6938 ppb	06:57:36
3	SiO2†	711.5	108.3	6.5861 ug/L	6.5861 ppb	06:57:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	845187.2	95.328 %		0.2472			0.26%
Sc Radial	4579.2	98.1 %		0.84			0.85%
Y 371.029	742630.3	97.489 %		0.3802			0.39%
Y RADIAL	4852.2	98.36 %		1.064			1.08%
Ag 328.068†	7.0	0.0394 ug/L		0.04666	0.0394 ppb	0.04666	118.34%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	22.6	20.023 ug/L		17.8264	20.023 ppb	17.8264	89.03%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-0.4	-0.1582 ug/L		1.25529	-0.1582 ppb	1.25529	793.70%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-56.9	-1.1725 ug/L		0.43667	-1.1725 ppb	0.43667	37.24%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-2.7	-0.0207 ug/L		0.04727	-0.0207 ppb	0.04727	227.89%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-107.6	-0.0365 ug/L		0.03294	-0.0365 ppb	0.03294	90.29%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	10.5	17.587 ug/L		2.9575	17.587 ppb	2.9575	16.82%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated									
Cd 226.502†	-14.2	-0.1344 ug/L	0.08178	-0.1344 ppb	0.08178	60.83%			
QC value within limits for Cd 226.502 Recovery = Not calculated									
Co 228.616†	-14.6	-0.2724 ug/L	0.24213	-0.2724 ppb	0.24213	88.88%			
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr 267.716†	16.2	0.1654 ug/L	0.13121	0.1654 ppb	0.13121	79.34%			
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu 324.752†	353.5	1.0467 ug/L	0.18198	1.0467 ppb	0.18198	17.39%			
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe 238.204 Radial†	0.4	3.2233 ug/L	17.25364	3.2233 ppb	17.25364	535.27%			
QC value within limits for Fe 238.204 Radial Recovery = Not calculated									
K 766.490 Radial†	173.3	34.411 ug/L	14.6101	34.411 ppb	14.6101	42.46%			
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg 279.077 IEC†	2.5	79.022 ug/L	34.8911	79.022 ppb	34.8911	44.15%			
QC value within limits for Mg 279.077 IEC Recovery = Not calculated									
Mn 257.610†	84.9	0.0884 ug/L	0.04614	0.0884 ppb	0.04614	52.23%			
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo 202.031†	17.3	1.0829 ug/L	0.28136	1.0829 ppb	0.28136	25.98%			
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na 589.592 Radial†	-58.2	-17.591 ug/L	9.2857	-17.591 ppb	9.2857	52.79%			
QC value within limits for Na 589.592 Radial Recovery = Not calculated									
Ni 231.604†	1.6	0.0355 ug/L	0.15673	0.0355 ppb	0.15673	441.47%			
QC value within limits for Ni 231.604 Recovery = Not calculated									
P 214.914†	13.8	6.5572 ug/L	7.23063	6.5572 ppb	7.23063	110.27%			
QC value within limits for P 214.914 Recovery = Not calculated									
Pb 220.353†	-14.9	-1.5323 ug/L	0.42327	-1.5323 ppb	0.42327	27.62%			
QC value within limits for Pb 220.353 Recovery = Not calculated									
S 181.975 Axial†	4.5	5.0595 ug/L	2.98666	5.0595 ppb	2.98666	59.03%			
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb 206.836†	16.5	4.9573 ug/L	0.44114	4.9573 ppb	0.44114	8.90%			
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se 196.026†	-12.6	-6.4291 ug/L	2.56659	-6.4291 ppb	2.56659	39.92%			
QC value within limits for Se 196.026 Recovery = Not calculated									
Si 251.611†	121.8	3.4640 ug/L	0.60591	3.4640 ppb	0.60591	17.49%			
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn 189.927†	-0.3	-0.0490 ug/L	1.35079	-0.0490 ppb	1.35079	>999.9%			
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr 421.552†	-14.7	-0.1075 ug/L	0.05830	-0.1075 ppb	0.05830	54.25%			
QC value within limits for Sr 421.552 Recovery = Not calculated									
Ti 334.940†	-39.9	-0.0569 ug/L	0.10606	-0.0569 ppb	0.10606	186.27%			
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl 190.801†	3.1	0.8401 ug/L	3.39534	0.8401 ppb	3.39534	404.17%			
QC value within limits for Tl 190.801 Recovery = Not calculated									
U 409.014†	-415.0	-12.338 ug/L	2.6757	-12.338 ppb	2.6757	21.69%			
QC value within limits for U 409.014 Recovery = Not calculated									
V 292.402†	-80.7	-0.5138 ug/L	0.35734	-0.5138 ppb	0.35734	69.55%			
QC value within limits for V 292.402 Recovery = Not calculated									
Zn 213.857†	89.5	0.7317 ug/L	0.07741	0.7317 ppb	0.07741	10.58%			
QC value within limits for Zn 213.857 Recovery = Not calculated									
SiO2†	111.3	6.7650 ug/L	0.15642	6.7650 ppb	0.15642	2.31%			
QC value within limits for SiO2 Recovery = Not calculated									

All analyte(s) passed QC.

=====

Analysis Begun

Start Time: 1/7/2010 07:00:58

Plasma On Time: 1/4/2010 06:33:21

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601 Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\010610A.sif

Batch ID:

Results Data Set: 010610A

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

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/7/2010 07:00:59

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4462.3	4462.3	95.6 %		07:02:51
1	Y RADIAL	4717.3	4717.3	95.63 %		07:02:51
1	Al 396.153Radial†	5681.1	5969.1	5273.4 ug/L	5273.4 ppb	07:02:51
1	Ca 317.933Radial†	2940.9	3063.6	5133.6 ug/L	5133.6 ppb	07:03:11
1	Fe 238.204 Radial†	565.1	577.2	5086.9 ug/L	5086.9 ppb	07:03:11
1	K 766.490 Radial†	26984.7	24889.3	4932.0 ug/L	4932.0 ppb	07:02:51
1	Mg 279.077 IEC†	152.3	157.7	5047.6 ug/L	5047.6 ppb	07:03:11
1	Na 589.592 Radial†	30210.7	33350.5	10075 ug/L	10075 ppb	07:02:51
1	Sr 421.552†	68778.8	71926.8	526.58 ug/L	526.58 ppb	07:02:51
1	Sc 361.383	883122.2	883122.2	99.607 %		07:04:10
1	Y 371.029	750715.5	750715.5	98.551 %		07:04:10
1	Ag 328.068†	113248.2	113183.1	489.34 ug/L	489.34 ppb	07:04:10
1	As 188.979†	1376.5	1415.4	499.70 ug/L	499.70 ppb	07:04:30
1	B 249.677†	22865.3	23621.5	485.15 ug/L	485.15 ppb	07:04:10
1	Ba 233.527†	67158.3	67416.0	492.80 ug/L	492.80 ppb	07:04:10
1	Be 313.107†	1461235.5	1471357.3	498.28 ug/L	498.28 ppb	07:04:10
1	Cd 226.502†	51866.6	52309.7	492.47 ug/L	492.47 ppb	07:04:10
1	Co 228.616†	25624.2	25809.3	485.40 ug/L	485.40 ppb	07:04:30
1	Cr 267.716†	48716.5	48804.9	489.79 ug/L	489.79 ppb	07:04:10
1	Cu 324.752†	172748.7	165431.9	490.04 ug/L	490.04 ppb	07:04:10
1	Mn 257.610†	469501.6	470839.2	496.51 ug/L	496.51 ppb	07:04:10
1	Mo 202.031†	7740.7	7751.3	486.08 ug/L	486.08 ppb	07:04:30
1	Ni 231.604†	22218.6	22181.3	486.62 ug/L	486.62 ppb	07:04:30
1	P 214.914†	5277.7	5050.0	2387.8 ug/L	2387.8 ppb	07:04:30
1	Pb 220.353†	4653.0	4749.2	493.57 ug/L	493.57 ppb	07:04:30
1	S 181.975 Axial†	910.5	854.2	964.38 ug/L	964.38 ppb	07:04:30
1	Sb 206.836†	1636.3	1605.7	486.47 ug/L	486.47 ppb	07:04:30
1	Se 196.026†	946.5	983.5	521.28 ug/L	521.28 ppb	07:04:30
1	Si 251.611†	85624.9	85346.5	2436.7 ug/L	2436.7 ppb	07:04:10
1	Sn 189.927†	3266.8	3276.3	485.20 ug/L	485.20 ppb	07:04:30
1	Ti 334.940†	307731.2	310763.7	492.95 ug/L	492.95 ppb	07:04:10
1	Tl 190.801†	1758.9	1819.2	500.21 ug/L	500.21 ppb	07:04:30
1	U 409.014†	12900.1	15619.8	462.77 ug/L	462.77 ppb	07:04:10
1	V 292.402†	75747.2	77848.1	495.15 ug/L	495.15 ppb	07:04:10
1	Zn 213.857†	60858.2	60266.9	491.40 ug/L	491.40 ppb	07:04:10
1	SiO2†	84462.2	84159.7	5141.1 ug/L	5141.1 ppb	07:05:30
2	Sc Radial	4572.5	4572.5	98.0 %		07:03:16
2	Y RADIAL	4842.4	4842.4	98.16 %		07:03:16
2	Al 396.153Radial†	5768.9	5915.6	5225.8 ug/L	5225.8 ppb	07:03:16
2	Ca 317.933Radial†	2894.5	2942.2	4930.1 ug/L	4930.1 ppb	07:03:36
2	Fe 238.204 Radial†	559.0	556.8	4907.5 ug/L	4907.5 ppb	07:03:36
2	K 766.490 Radial†	27356.4	24588.7	4872.3 ug/L	4872.3 ppb	07:03:16
2	Mg 279.077 IEC†	158.5	160.1	5126.1 ug/L	5126.1 ppb	07:03:36
2	Na 589.592 Radial†	31038.3	33434.0	10100 ug/L	10100 ppb	07:03:16
2	Sr 421.552†	70232.4	71677.5	524.75 ug/L	524.75 ppb	07:03:16
2	Sc 361.383	870419.1	870419.1	98.174 %		07:04:37
2	Y 371.029	741105.1	741105.1	97.289 %		07:04:37

2	Ag 328.068†	111754.8	113321.2	489.88 ug/L	489.88 ppb	07:04:37
2	As 188.979†	1364.0	1422.8	502.27 ug/L	502.27 ppb	07:04:57
2	B 249.677†	22392.0	23474.4	482.13 ug/L	482.13 ppb	07:04:37
2	Ba 233.527†	66136.9	67359.6	492.39 ug/L	492.39 ppb	07:04:37
2	Be 313.107†	1437874.5	1468971.5	497.47 ug/L	497.47 ppb	07:04:37
2	Cd 226.502†	51154.6	52344.4	492.82 ug/L	492.82 ppb	07:04:37
2	Co 228.616†	25521.5	26080.2	490.51 ug/L	490.51 ppb	07:04:57
2	Cr 267.716†	48059.6	48849.5	490.24 ug/L	490.24 ppb	07:04:37
2	Cu 324.752†	170087.1	165251.9	489.50 ug/L	489.50 ppb	07:04:37
2	Mn 257.610†	462130.5	470210.1	495.83 ug/L	495.83 ppb	07:04:37
2	Mo 202.031†	7688.9	7812.0	489.87 ug/L	489.87 ppb	07:04:57
2	Ni 231.604†	22108.2	22394.4	491.30 ug/L	491.30 ppb	07:04:57
2	P 214.914†	5239.1	5088.0	2406.6 ug/L	2406.6 ppb	07:04:57
2	Pb 220.353†	4617.8	4781.5	496.93 ug/L	496.93 ppb	07:04:57
2	S 181.975 Axial†	913.8	870.9	983.22 ug/L	983.22 ppb	07:04:57
2	Sb 206.836†	1638.1	1631.5	494.38 ug/L	494.38 ppb	07:04:57
2	Se 196.026†	935.8	986.4	522.21 ug/L	522.21 ppb	07:04:57
2	Si 251.611†	84329.3	85281.4	2434.8 ug/L	2434.8 ppb	07:04:37
2	Sn 189.927†	3272.7	3330.2	493.15 ug/L	493.15 ppb	07:04:57
2	Ti 334.940†	303483.6	310946.0	493.22 ug/L	493.22 ppb	07:04:37
2	Tl 190.801†	1723.9	1809.4	497.50 ug/L	497.50 ppb	07:04:57
2	U 409.014†	12729.6	15635.1	463.25 ug/L	463.25 ppb	07:04:37
2	V 292.402†	74745.2	77937.3	495.79 ug/L	495.79 ppb	07:04:37
2	Zn 213.857†	59993.4	60277.7	491.46 ug/L	491.46 ppb	07:04:37
2	SiO2†	85316.9	86267.8	5270.4 ug/L	5270.4 ppb	07:05:35
3	Sc Radial	4604.0	4604.0	98.6 %		07:03:41
3	Y RADIAL	4839.8	4839.8	98.11 %		07:03:41
3	Al 396.153Radial†	5658.7	5763.5	5091.0 ug/L	5091.0 ppb	07:03:41
3	Ca 317.933Radial†	2944.4	2972.5	4980.9 ug/L	4980.9 ppb	07:04:01
3	Fe 238.204 Radial†	558.9	552.7	4872.2 ug/L	4872.2 ppb	07:04:01
3	K 766.490 Radial†	26938.3	23973.4	4750.3 ug/L	4750.3 ppb	07:03:41
3	Mg 279.077 IEC†	158.0	158.6	5075.2 ug/L	5075.2 ppb	07:04:01
3	Na 589.592 Radial†	30166.0	32332.5	9767.0 ug/L	9767.0 ppb	07:03:41
3	Sr 421.552†	68588.7	69519.5	508.95 ug/L	508.95 ppb	07:03:41
3	Sc 361.383	876091.0	876091.0	98.814 %		07:05:05
3	Y 371.029	745691.9	745691.9	97.891 %		07:05:05
3	Ag 328.068†	112307.5	113143.6	489.10 ug/L	489.10 ppb	07:05:05
3	As 188.979†	1355.5	1405.2	496.11 ug/L	496.11 ppb	07:05:25
3	B 249.677†	22586.4	23523.4	483.16 ug/L	483.16 ppb	07:05:05
3	Ba 233.527†	66594.3	67386.3	492.58 ug/L	492.58 ppb	07:05:05
3	Be 313.107†	1449539.3	1471294.3	498.26 ug/L	498.26 ppb	07:05:05
3	Cd 226.502†	51425.4	52281.2	492.23 ug/L	492.23 ppb	07:05:05
3	Co 228.616†	25453.6	25843.2	486.04 ug/L	486.04 ppb	07:05:25
3	Cr 267.716†	48501.5	48979.8	491.54 ug/L	491.54 ppb	07:05:05
3	Cu 324.752†	171572.4	165633.3	490.63 ug/L	490.63 ppb	07:05:05
3	Mn 257.610†	465868.0	470944.9	496.60 ug/L	496.60 ppb	07:05:05
3	Mo 202.031†	7692.3	7764.8	486.91 ug/L	486.91 ppb	07:05:25
3	Ni 231.604†	22062.4	22202.2	487.08 ug/L	487.08 ppb	07:05:25
3	P 214.914†	5253.1	5067.6	2396.4 ug/L	2396.4 ppb	07:05:25
3	Pb 220.353†	4594.8	4727.8	491.33 ug/L	491.33 ppb	07:05:25
3	S 181.975 Axial†	909.7	860.8	971.79 ug/L	971.79 ppb	07:05:25
3	Sb 206.836†	1624.8	1607.2	486.90 ug/L	486.90 ppb	07:05:25
3	Se 196.026†	933.6	978.1	517.82 ug/L	517.82 ppb	07:05:25
3	Si 251.611†	84882.4	85285.0	2435.0 ug/L	2435.0 ppb	07:05:05
3	Sn 189.927†	3239.9	3275.4	485.06 ug/L	485.06 ppb	07:05:25
3	Ti 334.940†	305744.9	311233.1	493.68 ug/L	493.68 ppb	07:05:05
3	Tl 190.801†	1726.6	1800.7	495.15 ug/L	495.15 ppb	07:05:25
3	U 409.014†	12978.9	15803.5	468.25 ug/L	468.25 ppb	07:05:05
3	V 292.402†	75243.5	77948.7	495.84 ug/L	495.84 ppb	07:05:05
3	Zn 213.857†	60400.2	60293.7	491.62 ug/L	491.62 ppb	07:05:05
3	SiO2†	84680.0	85060.6	5196.5 ug/L	5196.5 ppb	07:05:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	876544.1	98.865 %		0.7178			0.73%
Sc Radial	4546.3	97.4 %		1.59			1.64%
Y 371.029	745837.5	97.910 %		0.6310			0.64%
Y RADIAL	4799.8	97.30 %		1.449			1.49%
Ag 328.068†	113216.0	489.44 ug/L		0.399	489.44 ppb	0.399	0.08%

QC value within limits for Ag 328.068 Recovery = 97.89%						
Al 396.153Radial†	5882.8	5196.7 ug/L	94.60	5196.7 ppb	94.60	1.82%
QC value within limits for Al 396.153Radial Recovery = 103.93%						
As 188.979†	1414.4	499.36 ug/L	3.093	499.36 ppb	3.093	0.62%
QC value within limits for As 188.979 Recovery = 99.87%						
B 249.677†	23539.8	483.48 ug/L	1.537	483.48 ppb	1.537	0.32%
QC value within limits for B 249.677 Recovery = 96.70%						
Ba 233.527†	67387.3	492.59 ug/L	0.207	492.59 ppb	0.207	0.04%
QC value within limits for Ba 233.527 Recovery = 98.52%						
Be 313.107†	1470541.0	498.00 ug/L	0.460	498.00 ppb	0.460	0.09%
QC value within limits for Be 313.107 Recovery = 99.60%						
Ca 317.933Radial†	2992.8	5014.9 ug/L	105.91	5014.9 ppb	105.91	2.11%
QC value within limits for Ca 317.933Radial Recovery = 100.30%						
Cd 226.502†	52311.8	492.51 ug/L	0.299	492.51 ppb	0.299	0.06%
QC value within limits for Cd 226.502 Recovery = 98.50%						
Co 228.616†	25910.9	487.32 ug/L	2.781	487.32 ppb	2.781	0.57%
QC value within limits for Co 228.616 Recovery = 97.46%						
Cr 267.716†	48878.1	490.53 ug/L	0.908	490.53 ppb	0.908	0.19%
QC value within limits for Cr 267.716 Recovery = 98.11%						
Cu 324.752†	165439.0	490.06 ug/L	0.564	490.06 ppb	0.564	0.12%
QC value within limits for Cu 324.752 Recovery = 98.01%						
Fe 238.204 Radial†	562.2	4955.5 ug/L	115.12	4955.5 ppb	115.12	2.32%
QC value within limits for Fe 238.204 Radial Recovery = 99.11%						
K 766.490 Radial†	24483.8	4851.5 ug/L	92.61	4851.5 ppb	92.61	1.91%
QC value within limits for K 766.490 Radial Recovery = 97.03%						
Mg 279.077 IEC†	158.8	5083.0 ug/L	39.78	5083.0 ppb	39.78	0.78%
QC value within limits for Mg 279.077 IEC Recovery = 101.66%						
Mn 257.610†	470664.7	496.31 ug/L	0.422	496.31 ppb	0.422	0.09%
QC value within limits for Mn 257.610 Recovery = 99.26%						
Mo 202.031†	7776.0	487.62 ug/L	1.990	487.62 ppb	1.990	0.41%
QC value within limits for Mo 202.031 Recovery = 97.52%						
Na 589.592 Radial†	33039.0	9980.4 ug/L	185.25	9980.4 ppb	185.25	1.86%
QC value within limits for Na 589.592 Radial Recovery = 99.80%						
Ni 231.604†	22259.3	488.34 ug/L	2.576	488.34 ppb	2.576	0.53%
QC value within limits for Ni 231.604 Recovery = 97.67%						
P 214.914†	5068.5	2396.9 ug/L	9.45	2396.9 ppb	9.45	0.39%
QC value within limits for P 214.914 Recovery = 95.88%						
Pb 220.353†	4752.8	493.94 ug/L	2.819	493.94 ppb	2.819	0.57%
QC value within limits for Pb 220.353 Recovery = 98.79%						
S 181.975 Axial†	862.0	973.13 ug/L	9.492	973.13 ppb	9.492	0.98%
QC value within limits for S 181.975 Axial Recovery = 97.31%						
Sb 206.836†	1614.8	489.25 ug/L	4.445	489.25 ppb	4.445	0.91%
QC value within limits for Sb 206.836 Recovery = 97.85%						
Se 196.026†	982.7	520.44 ug/L	2.314	520.44 ppb	2.314	0.44%
QC value within limits for Se 196.026 Recovery = 104.09%						
Si 251.611†	85304.3	2435.5 ug/L	1.06	2435.5 ppb	1.06	0.04%
QC value within limits for Si 251.611 Recovery = 97.42%						
Sn 189.927†	3294.0	487.81 ug/L	4.633	487.81 ppb	4.633	0.95%
QC value within limits for Sn 189.927 Recovery = 97.56%						
Sr 421.552†	71041.3	520.09 ug/L	9.692	520.09 ppb	9.692	1.86%
QC value within limits for Sr 421.552 Recovery = 104.02%						
Ti 334.940†	310980.9	493.28 ug/L	0.370	493.28 ppb	0.370	0.08%
QC value within limits for Ti 334.940 Recovery = 98.66%						
Tl 190.801†	1809.8	497.62 ug/L	2.531	497.62 ppb	2.531	0.51%
QC value within limits for Tl 190.801 Recovery = 99.52%						
U 409.014†	15686.1	464.76 ug/L	3.038	464.76 ppb	3.038	0.65%
QC value within limits for U 409.014 Recovery = 92.95%						
V 292.402†	77911.4	495.59 ug/L	0.384	495.59 ppb	0.384	0.08%
QC value within limits for V 292.402 Recovery = 99.12%						
Zn 213.857†	60279.4	491.50 ug/L	0.117	491.50 ppb	0.117	0.02%
QC value within limits for Zn 213.857 Recovery = 98.30%						
SiO2†	85162.7	5202.7 ug/L	64.85	5202.7 ppb	64.85	1.25%
QC value within limits for SiO2 Recovery = 97.29%						
All analyte(s) passed QC.						

Sequence No.: 2
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 1/7/2010 07:07:51
 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	4720.9	4720.9	101 %		07:09:43
1	Y RADIAL	5023.8	5023.8	101.8 %		07:09:43
1	Al 396.153Radial†	-9.8	17.0	15.060 ug/L	15.060 ppb	07:09:43
1	Ca 317.933Radial†	19.5	6.7	11.256 ug/L	11.256 ppb	07:10:03
1	Fe 238.204 Radial†	12.9	-1.1	-10.003 ug/L	-10.003 ppb	07:10:03
1	K 766.490 Radial†	3408.9	33.7	6.6934 ug/L	6.6934 ppb	07:09:43
1	Mg 279.077 IEC†	4.5	2.8	89.080 ug/L	89.080 ppb	07:10:03
1	Na 589.592 Radial†	-1826.5	-55.8	-16.844 ug/L	-16.844 ppb	07:09:43
1	Sr 421.552†	24.7	8.5	0.0619 ug/L	0.0619 ppb	07:09:43
1	Sc 361.383	877352.0	877352.0	98.956 %		07:11:00
1	Y 371.029	753180.8	753180.8	98.874 %		07:11:00
1	Ag 328.068†	571.6	65.3	0.2783 ug/L	0.2783 ppb	07:11:05
1	As 188.979†	-20.6	12.6	4.4173 ug/L	4.4173 ppb	07:11:25
1	B 249.677†	-540.4	119.8	2.4715 ug/L	2.4715 ppb	07:11:05
1	Ba 233.527†	1.8	-5.7	-0.0415 ug/L	-0.0415 ppb	07:11:25
1	Be 313.107†	-4289.4	16.9	0.0058 ug/L	0.0058 ppb	07:11:05
1	Cd 226.502†	-247.5	-11.7	-0.1092 ug/L	-0.1092 ppb	07:11:25
1	Co 228.616†	-104.3	-21.4	-0.3986 ug/L	-0.3986 ppb	07:11:25
1	Cr 267.716†	75.1	-28.2	-0.2821 ug/L	-0.2821 ppb	07:11:05
1	Cu 324.752†	8042.7	128.6	0.3802 ug/L	0.3802 ppb	07:11:05
1	Mn 257.610†	968.4	462.1	0.4843 ug/L	0.4843 ppb	07:11:05
1	Mo 202.031†	41.7	22.2	1.3896 ug/L	1.3896 ppb	07:11:25
1	Ni 231.604†	130.9	7.2	0.1586 ug/L	0.1586 ppb	07:11:25
1	P 214.914†	245.9	-0.1	-0.0721 ug/L	-0.0721 ppb	07:11:25
1	Pb 220.353†	-102.9	-26.2	-2.7088 ug/L	-2.7088 ppb	07:11:25
1	S 181.975 Axial†	60.5	1.2	1.3762 ug/L	1.3762 ppb	07:11:25
1	Sb 206.836†	40.2	3.6	1.1149 ug/L	1.1149 ppb	07:11:25
1	Se 196.026†	-43.3	-10.5	-5.3984 ug/L	-5.3984 ppb	07:11:25
1	Si 251.611†	685.6	76.3	2.1601 ug/L	2.1601 ppb	07:11:25
1	Sn 189.927†	6.7	3.4	0.4997 ug/L	0.4997 ppb	07:11:25
1	Ti 334.940†	-1758.9	39.9	0.0642 ug/L	0.0642 ppb	07:11:05
1	Tl 190.801†	-44.1	8.8	2.4128 ug/L	2.4128 ppb	07:11:25
1	U 409.014†	-2661.2	-20.5	-0.6090 ug/L	-0.6090 ppb	07:11:00
1	V 292.402†	-1761.8	21.4	0.1569 ug/L	0.1569 ppb	07:11:05
1	Zn 213.857†	882.5	60.2	0.4906 ug/L	0.4906 ppb	07:11:25
1	SiO2†	640.7	11.5	0.6425 ug/L	0.6425 ppb	07:12:31
2	Sc Radial	4561.0	4561.0	97.7 %		07:10:08
2	Y RADIAL	4813.8	4813.8	97.59 %		07:10:08
2	Al 396.153Radial†	-18.5	7.8	6.8962 ug/L	6.8962 ppb	07:10:08
2	Ca 317.933Radial†	21.0	8.9	14.917 ug/L	14.917 ppb	07:10:29
2	Fe 238.204 Radial†	11.4	-2.2	-19.143 ug/L	-19.143 ppb	07:10:29
2	K 766.490 Radial†	3443.0	186.7	37.065 ug/L	37.065 ppb	07:10:08
2	Mg 279.077 IEC†	3.2	1.6	52.644 ug/L	52.644 ppb	07:10:29
2	Na 589.592 Radial†	-1801.5	-93.4	-28.228 ug/L	-28.228 ppb	07:10:08
2	Sr 421.552†	2.6	-13.3	-0.0974 ug/L	-0.0974 ppb	07:10:08
2	Sc 361.383	884685.0	884685.0	99.783 %		07:11:31
2	Y 371.029	758623.9	758623.9	99.589 %		07:11:31
2	Ag 328.068†	399.3	-112.1	-0.4891 ug/L	-0.4891 ppb	07:11:36
2	As 188.979†	-35.5	-2.1	-0.7513 ug/L	-0.7513 ppb	07:11:56
2	B 249.677†	-648.9	15.5	0.3226 ug/L	0.3226 ppb	07:11:36
2	Ba 233.527†	-0.1	-7.6	-0.0555 ug/L	-0.0555 ppb	07:11:56
2	Be 313.107†	-4422.1	-80.2	-0.0267 ug/L	-0.0267 ppb	07:11:36
2	Cd 226.502†	-241.9	-4.1	-0.0362 ug/L	-0.0362 ppb	07:11:56
2	Co 228.616†	-78.3	5.5	0.1049 ug/L	0.1049 ppb	07:11:56
2	Cr 267.716†	75.0	-28.8	-0.2896 ug/L	-0.2896 ppb	07:11:36
2	Cu 324.752†	7993.9	12.3	0.0354 ug/L	0.0354 ppb	07:11:36
2	Mn 257.610†	1058.4	544.3	0.5706 ug/L	0.5706 ppb	07:11:36
2	Mo 202.031†	29.0	9.1	0.5688 ug/L	0.5688 ppb	07:11:56
2	Ni 231.604†	133.4	8.7	0.1900 ug/L	0.1900 ppb	07:11:56

2	P 214.914†	246.4	-1.6	-0.7625 ug/L	-0.7625 ppb	07:11:56
2	Pb 220.353†	-92.9	-15.3	-1.5830 ug/L	-1.5830 ppb	07:11:56
2	S 181.975 Axial†	64.4	4.7	5.2610 ug/L	5.2610 ppb	07:11:56
2	Sb 206.836†	42.2	5.2	1.5716 ug/L	1.5716 ppb	07:11:56
2	Se 196.026†	-29.1	4.1	2.0235 ug/L	2.0235 ppb	07:11:56
2	Si 251.611†	636.8	21.6	0.5967 ug/L	0.5967 ppb	07:11:56
2	Sn 189.927†	5.2	1.8	0.2659 ug/L	0.2659 ppb	07:11:56
2	Ti 334.940†	-1697.2	116.4	0.1846 ug/L	0.1846 ppb	07:11:36
2	Tl 190.801†	-49.4	3.8	1.0549 ug/L	1.0549 ppb	07:11:56
2	U 409.014†	-2585.1	78.0	2.3213 ug/L	2.3213 ppb	07:11:31
2	V 292.402†	-1752.5	45.5	0.3022 ug/L	0.3022 ppb	07:11:36
2	Zn 213.857†	872.0	42.2	0.3452 ug/L	0.3452 ppb	07:11:56
2	SiO2†	671.7	37.1	2.2270 ug/L	2.2270 ppb	07:12:36
3	Sc Radial	4532.4	4532.4	97.1 %		07:10:34
3	Y RADIAL	4823.9	4823.9	97.79 %		07:10:34
3	Al 396.153Radial†	-20.5	5.6	4.9357 ug/L	4.9357 ppb	07:10:34
3	Ca 317.933Radial†	22.7	10.8	18.085 ug/L	18.085 ppb	07:10:54
3	Fe 238.204 Radial†	13.3	-0.2	-1.9822 ug/L	-1.9822 ppb	07:10:54
3	K 766.490 Radial†	3262.6	23.2	4.5932 ug/L	4.5932 ppb	07:10:34
3	Mg 279.077 IEC†	3.7	2.1	67.893 ug/L	67.893 ppb	07:10:54
3	Na 589.592 Radial†	-1716.4	-17.4	-5.2643 ug/L	-5.2643 ppb	07:10:34
3	Sr 421.552†	18.7	3.3	0.0238 ug/L	0.0238 ppb	07:10:34
3	Sc 361.383	907453.7	907453.7	102.35 %		07:12:01
3	Y 371.029	778256.7	778256.7	102.17 %		07:12:01
3	Ag 328.068†	496.2	-27.5	-0.1257 ug/L	-0.1257 ppb	07:12:06
3	As 188.979†	-31.8	2.3	0.8113 ug/L	0.8113 ppb	07:12:26
3	B 249.677†	-596.4	83.1	1.7144 ug/L	1.7144 ppb	07:12:06
3	Ba 233.527†	-9.8	-17.1	-0.1236 ug/L	-0.1236 ppb	07:12:26
3	Be 313.107†	-4224.3	224.2	0.0764 ug/L	0.0764 ppb	07:12:06
3	Cd 226.502†	-234.3	9.5	0.0892 ug/L	0.0892 ppb	07:12:26
3	Co 228.616†	-90.8	-4.7	-0.0878 ug/L	-0.0878 ppb	07:12:26
3	Cr 267.716†	119.5	12.7	0.1253 ug/L	0.1253 ppb	07:12:06
3	Cu 324.752†	8063.4	-120.8	-0.3578 ug/L	-0.3578 ppb	07:12:06
3	Mn 257.610†	1033.7	493.6	0.5186 ug/L	0.5186 ppb	07:12:06
3	Mo 202.031†	29.5	8.9	0.5550 ug/L	0.5550 ppb	07:12:26
3	Ni 231.604†	110.0	-17.5	-0.3851 ug/L	-0.3851 ppb	07:12:26
3	P 214.914†	239.8	-14.3	-6.9125 ug/L	-6.9125 ppb	07:12:26
3	Pb 220.353†	-94.5	-14.6	-1.5065 ug/L	-1.5065 ppb	07:12:26
3	S 181.975 Axial†	60.9	-0.4	-0.4583 ug/L	-0.4583 ppb	07:12:26
3	Sb 206.836†	46.1	8.0	2.3924 ug/L	2.3924 ppb	07:12:26
3	Se 196.026†	-45.2	-10.9	-5.6015 ug/L	-5.6015 ppb	07:12:26
3	Si 251.611†	644.8	13.4	0.3738 ug/L	0.3738 ppb	07:12:26
3	Sn 189.927†	2.0	-1.4	-0.2062 ug/L	-0.2062 ppb	07:12:26
3	Ti 334.940†	-1645.4	209.8	0.3292 ug/L	0.3292 ppb	07:12:06
3	Tl 190.801†	-47.1	7.3	2.0080 ug/L	2.0080 ppb	07:12:26
3	U 409.014†	-2378.5	344.9	10.253 ug/L	10.253 ppb	07:12:01
3	V 292.402†	-1754.2	87.9	0.5812 ug/L	0.5812 ppb	07:12:06
3	Zn 213.857†	876.3	24.4	0.2017 ug/L	0.2017 ppb	07:12:26
3	SiO2†	677.8	26.2	1.5869 ug/L	1.5869 ppb	07:12:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	889830.2	100.36 %		1.770			1.76%
Sc Radial	4604.8	98.7 %		2.18			2.21%
Y 371.029	763353.8	100.21 %		1.732			1.73%
Y RADIAL	4887.2	99.07 %		2.400			2.42%
Ag 328.068†	-24.8	-0.1122 ug/L		0.38387	-0.1122 ppb	0.38387	342.18%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	10.1	8.9641 ug/L		5.36970	8.9641 ppb	5.36970	59.90%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	4.3	1.4925 ug/L		2.65080	1.4925 ppb	2.65080	177.61%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	72.8	1.5029 ug/L		1.08999	1.5029 ppb	1.08999	72.53%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-10.1	-0.0735 ug/L		0.04391	-0.0735 ppb	0.04391	59.72%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	53.6	0.0185 ug/L		0.05274	0.0185 ppb	0.05274	284.90%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	8.8	14.753 ug/L		3.4175	14.753 ppb	3.4175	23.16%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	-2.1	-0.0187 ug/L	0.10036	-0.0187 ppb		0.10036 536.50%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-6.9	-0.1272 ug/L	0.25405	-0.1272 ppb		0.25405 199.74%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-14.8	-0.1488 ug/L	0.23739	-0.1488 ppb		0.23739 159.56%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	6.7	0.0192 ug/L	0.36926	0.0192 ppb		0.36926 >999.9%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.2	-10.376 ug/L	8.5866	-10.376 ppb		8.5866 82.75%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	81.2	16.117 ug/L	18.1716	16.117 ppb		18.1716 112.75%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	2.2	69.873 ug/L	18.2986	69.873 ppb		18.2986 26.19%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	500.0	0.5245 ug/L	0.04346	0.5245 ppb		0.04346 8.29%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	13.4	0.8378 ug/L	0.47792	0.8378 ppb		0.47792 57.05%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-55.5	-16.779 ug/L	11.4822	-16.779 ppb		11.4822 68.43%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-0.6	-0.0122 ug/L	0.32336	-0.0122 ppb		0.32336 >999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-5.3	-2.5823 ug/L	3.76584	-2.5823 ppb		3.76584 145.83%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-18.7	-1.9328 ug/L	0.67314	-1.9328 ppb		0.67314 34.83%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	1.8	2.0596 ug/L	2.92023	2.0596 ppb		2.92023 141.78%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	5.6	1.6930 ug/L	0.64734	1.6930 ppb		0.64734 38.24%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-5.8	-2.9921 ug/L	4.34488	-2.9921 ppb		4.34488 145.21%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	37.1	1.0436 ug/L	0.97339	1.0436 ppb		0.97339 93.28%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	1.3	0.1865 ug/L	0.35960	0.1865 ppb		0.35960 192.84%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-0.5	-0.0039 ug/L	0.08319	-0.0039 ppb		0.08319 >999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	122.0	0.1927 ug/L	0.13271	0.1927 ppb		0.13271 68.88%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	6.7	1.8252 ug/L	0.69714	1.8252 ppb		0.69714 38.20%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	134.1	3.9883 ug/L	5.61944	3.9883 ppb		5.61944 140.90%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	51.6	0.3468 ug/L	0.21565	0.3468 ppb		0.21565 62.19%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	42.3	0.3458 ug/L	0.14446	0.3458 ppb		0.14446 41.77%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	24.9	1.4855 ug/L	0.79708	1.4855 ppb		0.79708 53.66%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 3
 Sample ID: 1202004339|936768|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 105
 Date Collected: 1/7/2010 07:14:52
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202004339|936768|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4675.9	4675.9	100 %		07:16:46
1	Y RADIAL	4985.8	4985.8	101.1 %		07:16:46
1	Al 396.153Radial†	48.2	74.8	66.298 ug/L	66.298 ppb	07:16:46
1	Ca 317.933Radial†	40.4	27.8	46.592 ug/L	46.592 ppb	07:17:06
1	Fe 238.204 Radial†	18.3	4.4	38.865 ug/L	38.865 ppb	07:17:06
1	K 766.490 Radial†	3423.2	80.4	15.897 ug/L	15.897 ppb	07:16:46
1	Mg 279.077 IEC†	2.0	0.3	11.054 ug/L	11.054 ppb	07:17:06
1	Na 589.592 Radial†	-1594.3	158.7	47.930 ug/L	47.930 ppb	07:16:46
1	Sr 421.552†	117.8	101.6	0.7437 ug/L	0.7437 ppb	07:16:46
1	Sc 361.383	885291.7	885291.7	99.851 %		07:18:03
1	Y 371.029	760251.6	760251.6	99.802 %		07:18:03
1	Ag 328.068†	536.4	24.9	0.1179 ug/L	0.1179 ppb	07:18:08
1	As 188.979†	-29.0	4.4	1.5692 ug/L	1.5692 ppb	07:18:28
1	B 249.677†	-618.4	46.5	0.9522 ug/L	0.9522 ppb	07:18:08
1	Ba 233.527†	106.9	99.6	0.7293 ug/L	0.7293 ppb	07:18:28
1	Be 313.107†	-3397.5	949.0	0.3261 ug/L	0.3261 ppb	07:18:08
1	Cd 226.502†	-209.3	28.7	0.2674 ug/L	0.2674 ppb	07:18:28
1	Co 228.616†	-67.0	16.8	0.3125 ug/L	0.3125 ppb	07:18:28
1	Cr 267.716†	224.2	120.5	1.2083 ug/L	1.2083 ppb	07:18:08
1	Cu 324.752†	8173.1	186.3	0.5534 ug/L	0.5534 ppb	07:18:08
1	Mn 257.610†	3555.4	3044.3	3.2113 ug/L	3.2113 ppb	07:18:08
1	Mo 202.031†	33.4	13.5	0.8496 ug/L	0.8496 ppb	07:18:28
1	Ni 231.604†	169.5	44.7	0.9812 ug/L	0.9812 ppb	07:18:28
1	P 214.914†	231.9	-16.3	-8.0576 ug/L	-8.0576 ppb	07:18:28
1	Pb 220.353†	-114.3	-36.7	-3.7908 ug/L	-3.7908 ppb	07:18:28
1	S 181.975 Axial†	57.4	-2.4	-2.7697 ug/L	-2.7697 ppb	07:18:28
1	Sb 206.836†	50.5	13.5	4.0079 ug/L	4.0079 ppb	07:18:28
1	Se 196.026†	-36.8	-3.6	-1.7008 ug/L	-1.7008 ppb	07:18:28
1	Si 251.611†	3339.5	2727.9	78.235 ug/L	78.235 ppb	07:18:08
1	Sn 189.927†	3.3	-0.1	-0.0058 ug/L	-0.0058 ppb	07:18:28
1	Ti 334.940†	-110.8	1706.4	2.7069 ug/L	2.7069 ppb	07:18:08
1	Tl 190.801†	-47.6	5.7	1.5899 ug/L	1.5899 ppb	07:18:28
1	U 409.014†	-2473.1	192.0	5.6993 ug/L	5.6993 ppb	07:18:03
1	V 292.402†	-1648.8	150.5	0.9591 ug/L	0.9591 ppb	07:18:08
1	Zn 213.857†	1270.7	440.9	3.6157 ug/L	3.6157 ppb	07:18:28
1	SiO2†	3476.9	2846.1	174.67 ug/L	174.67 ppb	07:19:34
2	Sc Radial	4683.4	4683.4	100 %		07:17:11
2	Y RADIAL	4952.1	4952.1	100.4 %		07:17:11
2	Al 396.153Radial†	26.4	53.0	46.986 ug/L	46.986 ppb	07:17:11
2	Ca 317.933Radial†	40.8	28.1	47.027 ug/L	47.027 ppb	07:17:31
2	Fe 238.204 Radial†	21.9	8.0	70.172 ug/L	70.172 ppb	07:17:31
2	K 766.490 Radial†	3451.2	102.8	20.346 ug/L	20.346 ppb	07:17:11
2	Mg 279.077 IEC†	2.5	0.9	27.500 ug/L	27.500 ppb	07:17:31
2	Na 589.592 Radial†	-1606.1	149.4	45.127 ug/L	45.127 ppb	07:17:11
2	Sr 421.552†	103.2	86.8	0.6352 ug/L	0.6352 ppb	07:17:11
2	Sc 361.383	887690.8	887690.8	100.12 %		07:18:33
2	Y 371.029	761872.3	761872.3	100.02 %		07:18:33
2	Ag 328.068†	493.2	-19.7	-0.0594 ug/L	-0.0594 ppb	07:18:38
2	As 188.979†	-32.4	1.1	0.4040 ug/L	0.4040 ppb	07:18:58
2	B 249.677†	-662.9	3.7	0.0658 ug/L	0.0658 ppb	07:18:38
2	Ba 233.527†	93.1	85.5	0.6257 ug/L	0.6257 ppb	07:18:58
2	Be 313.107†	-3430.5	925.2	0.3182 ug/L	0.3182 ppb	07:18:38
2	Cd 226.502†	-205.7	32.9	0.3032 ug/L	0.3032 ppb	07:18:58
2	Co 228.616†	-57.0	27.0	0.5010 ug/L	0.5010 ppb	07:18:58
2	Cr 267.716†	232.5	128.2	1.2864 ug/L	1.2864 ppb	07:18:38
2	Cu 324.752†	8097.6	88.7	0.2663 ug/L	0.2663 ppb	07:18:38
2	Mn 257.610†	3558.6	3037.9	3.2073 ug/L	3.2073 ppb	07:18:38
2	Mo 202.031†	23.3	3.4	0.2197 ug/L	0.2197 ppb	07:18:58
2	Ni 231.604†	164.9	39.7	0.8709 ug/L	0.8709 ppb	07:18:58

2	P 214.914†	263.4	14.5	7.0012 ug/L	7.0012 ppb	07:18:58
2	Pb 220.353†	-90.9	-13.0	-1.3412 ug/L	-1.3412 ppb	07:18:58
2	S 181.975 Axial†	58.7	-1.3	-1.4936 ug/L	-1.4936 ppb	07:18:58
2	Sb 206.836†	47.1	9.9	2.9569 ug/L	2.9569 ppb	07:18:58
2	Se 196.026†	-38.3	-5.0	-2.3279 ug/L	-2.3279 ppb	07:18:58
2	Si 251.611†	3308.9	2688.3	77.103 ug/L	77.103 ppb	07:18:38
2	Sn 189.927†	11.9	8.5	1.2619 ug/L	1.2619 ppb	07:18:58
2	Ti 334.940†	-63.2	1754.3	2.7859 ug/L	2.7859 ppb	07:18:38
2	Tl 190.801†	-46.0	7.4	2.0707 ug/L	2.0707 ppb	07:18:58
2	U 409.014†	-2714.5	-42.5	-1.2750 ug/L	-1.2750 ppb	07:18:33
2	V 292.402†	-1743.7	60.2	0.3650 ug/L	0.3650 ppb	07:18:38
2	Zn 213.857†	1268.2	435.0	3.5660 ug/L	3.5660 ppb	07:18:58
2	SiO2†	3342.4	2702.3	165.86 ug/L	165.86 ppb	07:19:39
3	Sc Radial	4573.3	4573.3	98.0 %		07:17:36
3	Y RADIAL	4812.2	4812.2	97.55 %		07:17:36
3	Al 396.153Radial†	38.3	65.8	58.314 ug/L	58.314 ppb	07:17:36
3	Ca 317.933Radial†	36.6	24.8	41.518 ug/L	41.518 ppb	07:17:56
3	Fe 238.204 Radial†	21.9	8.5	74.752 ug/L	74.752 ppb	07:17:56
3	K 766.490 Radial†	3325.6	57.4	11.340 ug/L	11.340 ppb	07:17:36
3	Mg 279.077 IEC†	3.1	1.5	48.588 ug/L	48.588 ppb	07:17:56
3	Na 589.592 Radial†	-1521.7	197.0	59.511 ug/L	59.511 ppb	07:17:36
3	Sr 421.552†	107.2	93.4	0.6837 ug/L	0.6837 ppb	07:17:36
3	Sc 361.383	896792.9	896792.9	101.15 %		07:19:03
3	Y 371.029	769065.6	769065.6	100.96 %		07:19:03
3	Ag 328.068†	489.3	-28.6	-0.0987 ug/L	-0.0987 ppb	07:19:08
3	As 188.979†	-32.6	1.2	0.4464 ug/L	0.4464 ppb	07:19:28
3	B 249.677†	-602.3	70.4	1.4411 ug/L	1.4411 ppb	07:19:08
3	Ba 233.527†	110.1	101.3	0.7430 ug/L	0.7430 ppb	07:19:28
3	Be 313.107†	-3342.5	1047.0	0.3589 ug/L	0.3589 ppb	07:19:08
3	Cd 226.502†	-220.2	20.7	0.1879 ug/L	0.1879 ppb	07:19:28
3	Co 228.616†	-73.7	11.1	0.2044 ug/L	0.2044 ppb	07:19:28
3	Cr 267.716†	230.8	124.1	1.2451 ug/L	1.2451 ppb	07:19:08
3	Cu 324.752†	8121.6	30.3	0.0937 ug/L	0.0937 ppb	07:19:08
3	Mn 257.610†	3510.9	2954.6	3.1197 ug/L	3.1197 ppb	07:19:08
3	Mo 202.031†	29.4	9.1	0.5787 ug/L	0.5787 ppb	07:19:28
3	Ni 231.604†	172.1	45.1	0.9889 ug/L	0.9889 ppb	07:19:28
3	P 214.914†	248.1	-3.3	-1.6144 ug/L	-1.6144 ppb	07:19:28
3	Pb 220.353†	-88.7	-9.9	-1.0202 ug/L	-1.0202 ppb	07:19:28
3	S 181.975 Axial†	57.4	-3.1	-3.5267 ug/L	-3.5267 ppb	07:19:28
3	Sb 206.836†	45.1	7.4	2.2377 ug/L	2.2377 ppb	07:19:28
3	Se 196.026†	-35.5	-1.8	-0.6985 ug/L	-0.6985 ppb	07:19:28
3	Si 251.611†	3290.1	2636.2	75.603 ug/L	75.603 ppb	07:19:08
3	Sn 189.927†	18.0	14.4	2.1373 ug/L	2.1373 ppb	07:19:28
3	Ti 334.940†	-202.4	1617.3	2.5655 ug/L	2.5655 ppb	07:19:08
3	Tl 190.801†	-47.9	6.1	1.6967 ug/L	1.6967 ppb	07:19:28
3	U 409.014†	-2534.3	163.2	4.8394 ug/L	4.8394 ppb	07:19:03
3	V 292.402†	-1662.1	158.6	0.9997 ug/L	0.9997 ppb	07:19:08
3	Zn 213.857†	1248.9	403.0	3.3019 ug/L	3.3019 ppb	07:19:28
3	SiO2†	3301.2	2627.6	161.26 ug/L	161.26 ppb	07:19:44

Mean Data: 1202004339|936768|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	889925.1	100.37 %		0.684			0.68%
Sc Radial	4644.2	99.5 %		1.32			1.33%
Y 371.029	763729.8	100.26 %		0.616			0.61%
Y RADIAL	4916.7	99.67 %		1.866			1.87%
Ag 328.068†	-7.8	-0.0134 ug/L		0.11542	-0.0134 ppb	0.11542	861.29%
Al 396.153Radial†	64.5	57.199 ug/L		9.7043	57.199 ppb	9.7043	16.97%
As 188.979†	2.2	0.8065 ug/L		0.66084	0.8065 ppb	0.66084	81.94%
B 249.677†	40.2	0.8197 ug/L		0.69717	0.8197 ppb	0.69717	85.05%
Ba 233.527†	95.5	0.6993 ug/L		0.06412	0.6993 ppb	0.06412	9.17%
Be 313.107†	973.7	0.3344 ug/L		0.02161	0.3344 ppb	0.02161	6.46%
Ca 317.933Radial†	26.9	45.046 ug/L		3.0625	45.046 ppb	3.0625	6.80%
Cd 226.502†	27.4	0.2528 ug/L		0.05899	0.2528 ppb	0.05899	23.33%
Co 228.616†	18.3	0.3393 ug/L		0.15011	0.3393 ppb	0.15011	44.24%
Cr 267.716†	124.3	1.2466 ug/L		0.03909	1.2466 ppb	0.03909	3.14%
Cu 324.752†	101.8	0.3045 ug/L		0.23225	0.3045 ppb	0.23225	76.28%
Fe 238.204 Radial†	7.0	61.263 ug/L		19.5316	61.263 ppb	19.5316	31.88%
K 766.490 Radial†	80.2	15.861 ug/L		4.5034	15.861 ppb	4.5034	28.39%

Mg 279.077 IEC†	0.9	29.047 ug/L	18.8147	29.047 ppb	18.8147	64.77%
Mn 257.610†	3012.3	3.1794 ug/L	0.05179	3.1794 ppb	0.05179	1.63%
Mo 202.031†	8.7	0.5493 ug/L	0.31598	0.5493 ppb	0.31598	57.52%
Na 589.592 Radial†	168.4	50.856 ug/L	7.6251	50.856 ppb	7.6251	14.99%
Ni 231.604†	43.1	0.9470 ug/L	0.06602	0.9470 ppb	0.06602	6.97%
P 214.914†	-1.7	-0.8903 ug/L	7.55546	-0.8903 ppb	7.55546	848.66%
Pb 220.353†	-19.9	-2.0507 ug/L	1.51546	-2.0507 ppb	1.51546	73.90%
S 181.975 Axial†	-2.3	-2.5967 ug/L	1.02753	-2.5967 ppb	1.02753	39.57%
Sb 206.836†	10.3	3.0675 ug/L	0.89024	3.0675 ppb	0.89024	29.02%
Se 196.026†	-3.5	-1.5757 ug/L	0.82188	-1.5757 ppb	0.82188	52.16%
Si 251.611†	2684.1	76.980 ug/L	1.3203	76.980 ppb	1.3203	1.72%
Sn 189.927†	7.6	1.1311 ug/L	1.07752	1.1311 ppb	1.07752	95.26%
Sr 421.552†	94.0	0.6875 ug/L	0.05432	0.6875 ppb	0.05432	7.90%
Ti 334.940†	1692.7	2.6861 ug/L	0.11163	2.6861 ppb	0.11163	4.16%
Tl 190.801†	6.4	1.7858 ug/L	0.25248	1.7858 ppb	0.25248	14.14%
U 409.014†	104.2	3.0879 ug/L	3.80275	3.0879 ppb	3.80275	123.15%
V 292.402†	123.1	0.7746 ug/L	0.35532	0.7746 ppb	0.35532	45.87%
Zn 213.857†	426.3	3.4945 ug/L	0.16866	3.4945 ppb	0.16866	4.83%
SiO2†	2725.3	167.26 ug/L	6.814	167.26 ppb	6.814	4.07%

Sequence No.: 4

Sample ID: 1202004340|936768|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 106

Date Collected: 1/7/2010 07:21:55

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202004340|936768|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4852.3	4852.3	104 %		07:24:09
1	Y RADIAL	5584.2	5584.2	113.2 %		07:24:09
1	Al 396.153Radial†	107571.9	103504.2	91780 ug/L	91780 ppb	07:23:48
1	Ca 317.933Radial†	60829.0	58501.1	98028 ug/L	98028 ppb	07:23:48
1	Fe 238.204 Radial†	22463.4	21594.5	189780 ug/L	189780 ppb	07:23:48
1	K 766.490 Radial†	214860.6	203345.9	40304 ug/L	40304 ppb	07:23:48
1	Mg 279.077 IEC†	1199.9	1152.6	36700 ug/L	36700 ppb	07:24:09
1	Na 589.592 Radial†	34897.2	35319.0	10669 ug/L	10669 ppb	07:23:48
1	Sr 421.552†	351221.1	337836.9	2472.6 ug/L	2472.6 ppb	07:23:48
1	Sc 361.383	900004.4	900004.4	101.51 %		07:25:10
1	Y 371.029	835954.9	835954.9	109.74 %		07:25:10
1	Ag 328.068†	58352.4	56971.6	311.68 ug/L	311.68 ppb	07:25:10
1	As 188.979†	2873.7	2864.4	1079.2 ug/L	1079.2 ppb	07:25:15
1	B 249.677†	70645.1	70259.5	1421.2 ug/L	1421.2 ppb	07:25:10
1	Ba 233.527†	276678.8	272553.4	1994.9 ug/L	1994.9 ppb	07:25:10
1	Be 313.107†	2302838.0	2272916.0	779.30 ug/L	779.30 ppb	07:25:10
1	Cd 226.502†	62810.2	62113.8	566.87 ug/L	566.87 ppb	07:25:15
1	Co 228.616†	49493.5	48840.8	904.77 ug/L	904.77 ppb	07:25:15
1	Cr 267.716†	236599.4	232974.1	2339.9 ug/L	2339.9 ppb	07:25:10
1	Cu 324.752†	613365.5	613969.8	1827.4 ug/L	1827.4 ppb	07:25:10
1	Mn 257.610†	5028745.2	4953385.1	5237.4 ug/L	5237.4 ppb	07:25:10
1	Mo 202.031†	7804.0	7667.9	498.56 ug/L	498.56 ppb	07:25:15
1	Ni 231.604†	60497.7	59472.2	1305.0 ug/L	1305.0 ppb	07:25:15
1	P 214.914†	16864.6	16365.1	7578.7 ug/L	7578.7 ppb	07:25:15
1	Pb 220.353†	7912.3	7872.3	820.31 ug/L	820.31 ppb	07:25:15
1	S 181.975 Axial†	3494.3	3382.4	3804.5 ug/L	3804.5 ppb	07:25:15
1	Sb 206.836†	4913.1	4802.9	1393.4 ug/L	1393.4 ppb	07:25:15
1	Se 196.026†	4774.2	4736.4	3023.1 ug/L	3023.1 ppb	07:25:15
1	Si 251.611†	872271.6	858672.9	24608 ug/L	24608 ppb	07:25:10
1	Sn 189.927†	6943.8	6837.0	1024.0 ug/L	1024.0 ppb	07:25:15
1	Ti 334.940†	3601414.7	3549631.7	5636.2 ug/L	5636.2 ppb	07:25:10
1	Tl 190.801†	4167.4	4158.8	1205.0 ug/L	1205.0 ppb	07:25:15
1	U 409.014†	-9329.5	-6521.9	-222.27 ug/L	-222.27 ppb	07:25:10
1	V 292.402†	195950.2	194835.6	1194.4 ug/L	1194.4 ppb	07:25:10
1	Zn 213.857†	718227.8	706706.7	5789.1 ug/L	5789.1 ppb	07:25:10
1	SiO2†	878906.1	865189.1	53057 ug/L	53057 ppb	07:25:50
2	Sc Radial	4892.2	4892.2	105 %		07:24:34
2	Y RADIAL	5638.2	5638.2	114.3 %		07:24:34
2	Al 396.153Radial†	106639.4	101769.5	90241 ug/L	90241 ppb	07:24:14
2	Ca 317.933Radial†	60379.5	57594.4	96509 ug/L	96509 ppb	07:24:14
2	Fe 238.204 Radial†	22306.1	21267.9	186910 ug/L	186910 ppb	07:24:14
2	K 766.490 Radial†	213562.3	200419.2	39723 ug/L	39723 ppb	07:24:14
2	Mg 279.077 IEC†	1211.0	1153.8	36740 ug/L	36740 ppb	07:24:34
2	Na 589.592 Radial†	34697.4	34854.2	10529 ug/L	10529 ppb	07:24:14
2	Sr 421.552†	348569.4	332547.9	2433.9 ug/L	2433.9 ppb	07:24:14
2	Sc 361.383	910693.4	910693.4	102.72 %		07:25:24
2	Y 371.029	845803.3	845803.3	111.03 %		07:25:24
2	Ag 328.068†	59257.3	57177.9	311.62 ug/L	311.62 ppb	07:25:24
2	As 188.979†	2920.6	2876.8	1083.2 ug/L	1083.2 ppb	07:25:29
2	B 249.677†	71730.9	70499.8	1426.5 ug/L	1426.5 ppb	07:25:24
2	Ba 233.527†	280326.9	272906.0	1997.4 ug/L	1997.4 ppb	07:25:24
2	Be 313.107†	2335324.4	2277916.9	781.01 ug/L	781.01 ppb	07:25:24
2	Cd 226.502†	63971.8	62518.4	570.97 ug/L	570.97 ppb	07:25:29
2	Co 228.616†	50202.0	48958.4	907.00 ug/L	907.00 ppb	07:25:29
2	Cr 267.716†	239504.3	233066.5	2340.7 ug/L	2340.7 ppb	07:25:24
2	Cu 324.752†	641897.3	616922.9	1836.0 ug/L	1836.0 ppb	07:25:24
2	Mn 257.610†	5093375.2	4958161.4	5242.1 ug/L	5242.1 ppb	07:25:24
2	Mo 202.031†	7927.0	7697.5	500.14 ug/L	500.14 ppb	07:25:29
2	Ni 231.604†	61524.7	59772.6	1311.6 ug/L	1311.6 ppb	07:25:29

2	P 214.914†	17143.5	16441.6	7616.4 ug/L	7616.4 ppb	07:25:29
2	Pb 220.353†	8065.7	7930.1	826.19 ug/L	826.19 ppb	07:25:29
2	S 181.975 Axial†	3544.1	3390.5	3814.0 ug/L	3814.0 ppb	07:25:29
2	Sb 206.836†	5006.9	4837.4	1403.7 ug/L	1403.7 ppb	07:25:29
2	Se 196.026†	4844.4	4749.5	3020.8 ug/L	3020.8 ppb	07:25:29
2	Si 251.611†	884150.7	860152.3	24650 ug/L	24650 ppb	07:25:24
2	Sn 189.927†	7070.8	6880.4	1030.3 ug/L	1030.3 ppb	07:25:29
2	Ti 334.940†	3651332.5	3556588.1	5647.1 ug/L	5647.1 ppb	07:25:24
2	Tl 190.801†	4299.7	4239.4	1227.0 ug/L	1227.0 ppb	07:25:29
2	U 409.014†	-9156.2	-6245.4	-213.69 ug/L	-213.69 ppb	07:25:24
2	V 292.402†	198223.2	194782.9	1194.6 ug/L	1194.6 ppb	07:25:24
2	Zn 213.857†	727821.7	707742.3	5797.7 ug/L	5797.7 ppb	07:25:24
2	SiO2†	872662.3	848948.2	52061 ug/L	52061 ppb	07:25:56
3	Sc Radial	4810.6	4810.6	103 %		07:24:59
3	Y RADIAL	5575.9	5575.9	113.0 %		07:24:59
3	Al 396.153Radial†	105453.9	102344.7	90751 ug/L	90751 ppb	07:24:39
3	Ca 317.933Radial†	59471.3	57690.2	96669 ug/L	96669 ppb	07:24:39
3	Fe 238.204 Radial†	21919.2	21253.5	186780 ug/L	186780 ppb	07:24:39
3	K 766.490 Radial†	210266.2	200676.6	39774 ug/L	39774 ppb	07:24:39
3	Mg 279.077 IEC†	1208.4	1170.8	37285 ug/L	37285 ppb	07:24:59
3	Na 589.592 Radial†	34086.4	34822.9	10519 ug/L	10519 ppb	07:24:39
3	Sr 421.552†	343617.6	333383.3	2440.0 ug/L	2440.0 ppb	07:24:39
3	Sc 361.383	896005.7	896005.7	101.06 %		07:25:38
3	Y 371.029	832614.0	832614.0	109.30 %		07:25:38
3	Ag 328.068†	58393.2	57268.5	312.00 ug/L	312.00 ppb	07:25:38
3	As 188.979†	2879.1	2882.4	1085.3 ug/L	1085.3 ppb	07:25:43
3	B 249.677†	70779.6	70703.2	1430.7 ug/L	1430.7 ppb	07:25:38
3	Ba 233.527†	277080.6	274167.4	2006.6 ug/L	2006.6 ppb	07:25:38
3	Be 313.107†	2305839.4	2286010.2	783.79 ug/L	783.79 ppb	07:25:38
3	Cd 226.502†	62644.8	62226.2	568.23 ug/L	568.23 ppb	07:25:43
3	Co 228.616†	49281.5	48848.6	904.90 ug/L	904.90 ppb	07:25:43
3	Cr 267.716†	237018.7	234429.2	2354.4 ug/L	2354.4 ppb	07:25:38
3	Cu 324.752†	632796.3	618161.3	1839.7 ug/L	1839.7 ppb	07:25:38
3	Mn 257.610†	5033817.9	4980513.2	5265.6 ug/L	5265.6 ppb	07:25:38
3	Mo 202.031†	7836.9	7734.8	502.46 ug/L	502.46 ppb	07:25:43
3	Ni 231.604†	60347.2	59589.3	1307.5 ug/L	1307.5 ppb	07:25:43
3	P 214.914†	16768.8	16344.4	7568.7 ug/L	7568.7 ppb	07:25:43
3	Pb 220.353†	7958.6	7952.9	828.68 ug/L	828.68 ppb	07:25:43
3	S 181.975 Axial†	3450.2	3354.2	3772.9 ug/L	3772.9 ppb	07:25:43
3	Sb 206.836†	4970.2	4881.0	1416.3 ug/L	1416.3 ppb	07:25:43
3	Se 196.026†	4725.6	4709.3	2999.9 ug/L	2999.9 ppb	07:25:43
3	Si 251.611†	873224.9	863451.1	24745 ug/L	24745 ppb	07:25:38
3	Sn 189.927†	6907.9	6832.0	1023.1 ug/L	1023.1 ppb	07:25:43
3	Ti 334.940†	3607238.8	3571228.0	5670.4 ug/L	5670.4 ppb	07:25:38
3	Tl 190.801†	4184.6	4194.1	1215.0 ug/L	1215.0 ppb	07:25:43
3	U 409.014†	-9297.1	-6530.9	-222.19 ug/L	-222.19 ppb	07:25:38
3	V 292.402†	196168.9	195913.6	1201.7 ug/L	1201.7 ppb	07:25:38
3	Zn 213.857†	718752.4	710383.4	5819.4 ug/L	5819.4 ppb	07:25:38
3	SiO2†	882137.9	872251.2	53491 ug/L	53491 ppb	07:26:01

Mean Data: 1202004340|936768|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	902234.5	101.76 %	0.856			0.84%
Sc Radial	4851.7	104 %	0.9			0.84%
Y 371.029	838124.1	110.03 %	0.900			0.82%
Y RADIAL	5599.4	113.5 %	0.69			0.60%
Ag 328.068†	57139.3	311.77 ug/L	0.204	311.77 ppb	0.204	0.07%
Al 396.153Radial†	102539.5	90924 ug/L	783.7	90924 ppb	783.7	0.86%
As 188.979†	2874.5	1082.6 ug/L	3.10	1082.6 ppb	3.10	0.29%
B 249.677†	70487.5	1426.2 ug/L	4.78	1426.2 ppb	4.78	0.34%
Ba 233.527†	273208.9	1999.6 ug/L	6.17	1999.6 ppb	6.17	0.31%
Be 313.107†	2278947.7	781.37 ug/L	2.268	781.37 ppb	2.268	0.29%
Ca 317.933Radial†	57928.6	97069 ug/L	834.7	97069 ppb	834.7	0.86%
Cd 226.502†	62286.1	568.69 ug/L	2.089	568.69 ppb	2.089	0.37%
Co 228.616†	48882.6	905.56 ug/L	1.254	905.56 ppb	1.254	0.14%
Cr 267.716†	233489.9	2345.0 ug/L	8.15	2345.0 ppb	8.15	0.35%
Cu 324.752†	616351.4	1834.4 ug/L	6.29	1834.4 ppb	6.29	0.34%
Fe 238.204 Radial†	21372.0	187820 ug/L	1694.4	187820 ppb	1694.4	0.90%
K 766.490 Radial†	201480.6	39934 ug/L	321.8	39934 ppb	321.8	0.81%

Mg 279.077 IEC†	1159.0	36908 ug/L	326.7	36908 ppb	326.7	0.89%
Mn 257.610†	4964019.9	5248.4 ug/L	15.14	5248.4 ppb	15.14	0.29%
Mo 202.031†	7700.1	500.39 ug/L	1.963	500.39 ppb	1.963	0.39%
Na 589.592 Radial†	34998.7	10572 ug/L	83.9	10572 ppb	83.9	0.79%
Ni 231.604†	59611.4	1308.0 ug/L	3.32	1308.0 ppb	3.32	0.25%
P 214.914†	16383.7	7587.9 ug/L	25.19	7587.9 ppb	25.19	0.33%
Pb 220.353†	7918.4	825.06 ug/L	4.297	825.06 ppb	4.297	0.52%
S 181.975 Axial†	3375.7	3797.1 ug/L	21.57	3797.1 ppb	21.57	0.57%
Sb 206.836†	4840.4	1404.5 ug/L	11.48	1404.5 ppb	11.48	0.82%
Se 196.026†	4731.7	3014.6 ug/L	12.79	3014.6 ppb	12.79	0.42%
Si 251.611†	860758.7	24668 ug/L	70.2	24668 ppb	70.2	0.28%
Sn 189.927†	6849.8	1025.8 ug/L	3.88	1025.8 ppb	3.88	0.38%
Sr 421.552†	334589.4	2448.9 ug/L	20.81	2448.9 ppb	20.81	0.85%
Ti 334.940†	3559149.3	5651.2 ug/L	17.46	5651.2 ppb	17.46	0.31%
Tl 190.801†	4197.4	1215.7 ug/L	11.05	1215.7 ppb	11.05	0.91%
U 409.014†	-6432.7	-219.38 ug/L	4.930	-219.38 ppb	4.930	2.25%
V 292.402†	195177.4	1196.9 ug/L	4.15	1196.9 ppb	4.15	0.35%
Zn 213.857†	708277.4	5802.1 ug/L	15.63	5802.1 ppb	15.63	0.27%
SiO2†	862129.5	52870 ug/L	733.5	52870 ppb	733.5	1.39%

Sequence No.: 5
 Sample ID: 243517003|936768|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 107
 Date Collected: 1/7/2010 07:28:13
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 243517003|936768|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Conc. Units	Sample Units	Analysis Time
1	Sc Radial	4786.6	4786.6	103 %				07:30:26
1	Y RADIAL	5443.1	5443.1	110.3 %				07:30:26
1	Al 396.153Radial†	76154.3	74287.0	65887 ug/L		65887 ppb		07:30:06
1	Ca 317.933Radial†	8569.8	8344.1	13982 ug/L		13982 ppb		07:30:06
1	Fe 238.204 Radial†	12370.8	12049.2	105880 ug/L		105880 ppb		07:30:06
1	K 766.490 Radial†	69032.8	63979.1	12678 ug/L		12678 ppb		07:30:06
1	Mg 279.077 IEC†	425.2	413.0	13115 ug/L		13115 ppb		07:30:26
1	Na 589.592 Radial†	463.6	2202.2	665.23 ug/L		665.23 ppb		07:30:06
1	Sr 421.552†	24847.1	24213.1	177.15 ug/L		177.15 ppb		07:30:06
1	Sc 361.383	922123.2	922123.2	104.01 %				07:31:25
1	Y 371.029	849651.8	849651.8	111.54 %				07:31:25
1	Ag 328.068†	-7407.1	-7634.2	3.4542 ug/L		3.4542 ppb		07:31:25
1	As 188.979†	-51.6	-16.2	45.031 ug/L		45.031 ppb		07:31:45
1	B 249.677†	867.1	1499.5	16.735 ug/L		16.735 ppb		07:31:25
1	Ba 233.527†	103815.2	99809.5	730.98 ug/L		730.98 ppb		07:31:25
1	Be 313.107†	-14271.0	-9369.9	4.8735 ug/L		4.8735 ppb		07:31:25
1	Cd 226.502†	892.5	1096.5	-0.2225 ug/L		-0.2225 ppb		07:31:45
1	Co 228.616†	2950.8	2921.2	45.000 ug/L		45.000 ppb		07:31:45
1	Cr 267.716†	7780.0	7376.3	76.267 ug/L		76.267 ppb		07:31:45
1	Cu 324.752†	23629.1	14720.1	48.982 ug/L		48.982 ppb		07:31:25
1	Mn 257.610†	2602422.6	2501679.2	2646.2 ug/L		2646.2 ppb		07:31:25
1	Mo 202.031†	-30.7	-49.5	7.0500 ug/L		7.0500 ppb		07:31:45
1	Ni 231.604†	2712.4	2482.9	54.470 ug/L		54.470 ppb		07:31:45
1	P 214.914†	1641.2	1329.5	577.91 ug/L		577.91 ppb		07:31:45
1	Pb 220.353†	913.5	956.1	105.10 ug/L		105.10 ppb		07:31:45
1	S 181.975 Axial†	656.2	571.0	632.39 ug/L		632.39 ppb		07:31:45
1	Sb 206.836†	87.5	47.1	1.2489 ug/L		1.2489 ppb		07:31:45
1	Se 196.026†	-676.0	-616.7	20.258 ug/L		20.258 ppb		07:31:45
1	Si 251.611†	776851.1	746315.7	21405 ug/L		21405 ppb		07:31:25
1	Sn 189.927†	-86.5	-86.5	-9.8939 ug/L		-9.8939 ppb		07:31:45
1	Ti 334.940†	2679693.3	2578307.7	4091.5 ug/L		4091.5 ppb		07:31:25
1	Tl 190.801†	-212.7	-151.1	6.5551 ug/L		6.5551 ppb		07:31:45
1	U 409.014†	-8757.3	-5751.3	-184.44 ug/L		-184.44 ppb		07:31:25
1	V 292.402†	36968.7	37346.8	213.73 ug/L		213.73 ppb		07:31:25
1	Zn 213.857†	28770.8	26831.1	214.27 ug/L		214.27 ppb		07:31:45
1	SiO2†	779958.7	749284.1	45988 ug/L		45988 ppb		07:32:45
2	Sc Radial	4789.6	4789.6	103 %				07:30:51
2	Y RADIAL	5442.5	5442.5	110.3 %				07:30:51
2	Al 396.153Radial†	75032.4	73147.4	64876 ug/L		64876 ppb		07:30:31
2	Ca 317.933Radial†	8438.5	8210.9	13759 ug/L		13759 ppb		07:30:31
2	Fe 238.204 Radial†	12160.6	11836.9	104010 ug/L		104010 ppb		07:30:31
2	K 766.490 Radial†	67953.2	62885.1	12459 ug/L		12459 ppb		07:30:31
2	Mg 279.077 IEC†	421.3	409.0	12987 ug/L		12987 ppb		07:30:51
2	Na 589.592 Radial†	459.0	2197.4	663.79 ug/L		663.79 ppb		07:30:31
2	Sr 421.552†	24425.3	23787.0	174.03 ug/L		174.03 ppb		07:30:31
2	Sc 361.383	907479.2	907479.2	102.35 %				07:31:52
2	Y 371.029	838240.3	838240.3	110.04 %				07:31:52
2	Ag 328.068†	-7416.9	-7758.7	2.3226 ug/L		2.3226 ppb		07:31:52
2	As 188.979†	-48.0	-13.5	46.609 ug/L		46.609 ppb		07:32:12
2	B 249.677†	773.7	1421.8	15.377 ug/L		15.377 ppb		07:31:52
2	Ba 233.527†	104885.2	102465.6	750.31 ug/L		750.31 ppb		07:31:52
2	Be 313.107†	-14494.1	-9809.2	4.9422 ug/L		4.9422 ppb		07:31:52
2	Cd 226.502†	890.7	1108.6	0.0789 ug/L		0.0789 ppb		07:32:12
2	Co 228.616†	2958.6	2974.5	45.803 ug/L		45.803 ppb		07:32:12
2	Cr 267.716†	7785.4	7502.4	77.507 ug/L		77.507 ppb		07:32:12
2	Cu 324.752†	23852.0	15304.5	50.617 ug/L		50.617 ppb		07:31:52
2	Mn 257.610†	2626017.0	2565109.0	2712.9 ug/L		2712.9 ppb		07:31:52
2	Mo 202.031†	-33.4	-52.5	6.6790 ug/L		6.6790 ppb		07:32:12
2	Ni 231.604†	2732.6	2544.7	55.828 ug/L		55.828 ppb		07:32:12

2	P 214.914†	1644.8	1358.4	592.88 ug/L	592.88 ppb	07:32:12
2	Pb 220.353†	928.0	984.4	107.96 ug/L	107.96 ppb	07:32:12
2	S 181.975 Axial†	657.3	582.3	645.28 ug/L	645.28 ppb	07:32:12
2	Sb 206.836†	90.1	50.9	2.0588 ug/L	2.0588 ppb	07:32:12
2	Se 196.026†	-684.2	-635.2	4.9131 ug/L	4.9131 ppb	07:32:12
2	Si 251.611†	781836.0	763239.2	21891 ug/L	21891 ppb	07:31:52
2	Sn 189.927†	-91.3	-92.6	-10.837 ug/L	-10.837 ppb	07:32:12
2	Ti 334.940†	2708424.1	2647954.7	4202.0 ug/L	4202.0 ppb	07:31:52
2	Tl 190.801†	-236.5	-177.7	0.4973 ug/L	0.4973 ppb	07:32:12
2	U 409.014†	-8622.2	-5755.2	-184.32 ug/L	-184.32 ppb	07:31:52
2	V 292.402†	37359.0	38301.7	219.88 ug/L	219.88 ppb	07:31:52
2	Zn 213.857†	28843.1	27348.1	218.61 ug/L	218.61 ppb	07:32:12
2	SiO2†	758285.6	740211.0	45431 ug/L	45431 ppb	07:32:50
3	Sc Radial	4761.1	4761.1	102 %		07:31:17
3	Y RADIAL	5400.4	5400.4	109.5 %		07:31:17
3	Al 396.153Radial†	76438.5	74963.9	66487 ug/L	66487 ppb	07:30:57
3	Ca 317.933Radial†	8574.2	8393.2	14064 ug/L	14064 ppb	07:30:57
3	Fe 238.204 Radial†	12368.3	12111.5	106420 ug/L	106420 ppb	07:30:57
3	K 766.490 Radial†	68882.2	64192.6	12719 ug/L	12719 ppb	07:30:57
3	Mg 279.077 IEC†	428.4	418.3	13285 ug/L	13285 ppb	07:31:17
3	Na 589.592 Radial†	488.2	2228.7	673.24 ug/L	673.24 ppb	07:30:57
3	Sr 421.552†	24855.2	24351.0	178.16 ug/L	178.16 ppb	07:30:57
3	Sc 361.383	887633.1	887633.1	100.12 %		07:32:19
3	Y 371.029	820153.1	820153.1	107.67 %		07:32:19
3	Ag 328.068†	-7303.2	-7807.1	2.9217 ug/L	2.9217 ppb	07:32:19
3	As 188.979†	-56.5	-23.0	43.701 ug/L	43.701 ppb	07:32:39
3	B 249.677†	752.4	1417.4	14.964 ug/L	14.964 ppb	07:32:19
3	Ba 233.527†	102677.7	102551.8	751.00 ug/L	751.00 ppb	07:32:19
3	Be 313.107†	-14350.8	-9982.7	4.8980 ug/L	4.8980 ppb	07:32:19
3	Cd 226.502†	867.2	1104.6	-0.1997 ug/L	-0.1997 ppb	07:32:39
3	Co 228.616†	2934.5	3015.1	46.514 ug/L	46.514 ppb	07:32:39
3	Cr 267.716†	7724.9	7612.0	78.651 ug/L	78.651 ppb	07:32:39
3	Cu 324.752†	23392.5	15366.5	50.923 ug/L	50.923 ppb	07:32:19
3	Mn 257.610†	2573910.1	2570425.5	2718.7 ug/L	2718.7 ppb	07:32:19
3	Mo 202.031†	-48.7	-68.6	5.9058 ug/L	5.9058 ppb	07:32:39
3	Ni 231.604†	2718.8	2590.6	56.834 ug/L	56.834 ppb	07:32:39
3	P 214.914†	1628.9	1378.5	601.23 ug/L	601.23 ppb	07:32:39
3	Pb 220.353†	924.3	1001.0	109.84 ug/L	109.84 ppb	07:32:39
3	S 181.975 Axial†	647.8	587.2	650.52 ug/L	650.52 ppb	07:32:39
3	Sb 206.836†	98.1	60.9	4.9446 ug/L	4.9446 ppb	07:32:39
3	Se 196.026†	-658.0	-624.0	18.304 ug/L	18.304 ppb	07:32:39
3	Si 251.611†	766023.1	764523.2	21928 ug/L	21928 ppb	07:32:19
3	Sn 189.927†	-96.9	-100.2	-11.901 ug/L	-11.901 ppb	07:32:39
3	Ti 334.940†	2653814.9	2652572.0	4209.3 ug/L	4209.3 ppb	07:32:19
3	Tl 190.801†	-225.5	-171.9	2.2126 ug/L	2.2126 ppb	07:32:39
3	U 409.014†	-8606.0	-5927.4	-189.75 ug/L	-189.75 ppb	07:32:19
3	V 292.402†	36568.4	38328.1	219.65 ug/L	219.65 ppb	07:32:19
3	Zn 213.857†	28659.0	27794.3	222.14 ug/L	222.14 ppb	07:32:39
3	SiO2†	780964.5	779427.9	47838 ug/L	47838 ppb	07:32:56

Mean Data: 243517003|936768|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	905745.2	102.16 %	1.952			1.91%
Sc Radial	4779.1	102 %	0.3			0.33%
Y 371.029	836015.1	109.75 %	1.953			1.78%
Y RADIAL	5428.7	110.1 %	0.50			0.45%
Ag 328.068†	-7733.3	2.8995 ug/L	0.56612	2.8995 ppb	0.56612	19.52%
Al 396.153Radial†	74132.8	65750 ug/L	814.3	65750 ppb	814.3	1.24%
As 188.979†	-17.6	45.113 ug/L	1.4556	45.113 ppb	1.4556	3.23%
B 249.677†	1446.2	15.692 ug/L	0.9263	15.692 ppb	0.9263	5.90%
Ba 233.527†	101609.0	744.09 ug/L	11.367	744.09 ppb	11.367	1.53%
Be 313.107†	-9720.6	4.9046 ug/L	0.03482	4.9046 ppb	0.03482	0.71%
Ca 317.933Radial†	8316.1	13935 ug/L	158.1	13935 ppb	158.1	1.13%
Cd 226.502†	1103.2	-0.1144 ug/L	0.16784	-0.1144 ppb	0.16784	146.66%
Co 228.616†	2970.3	45.772 ug/L	0.7571	45.772 ppb	0.7571	1.65%
Cr 267.716†	7496.9	77.475 ug/L	1.1920	77.475 ppb	1.1920	1.54%
Cu 324.752†	15130.4	50.174 ug/L	1.0438	50.174 ppb	1.0438	2.08%
Fe 238.204 Radial†	11999.2	105440 ug/L	1265.1	105440 ppb	1265.1	1.20%
K 766.490 Radial†	63685.6	12619 ug/L	139.5	12619 ppb	139.5	1.11%

Mg 279.077 IEC†	413.4	13129 ug/L	149.3	13129 ppb	149.3	1.14%
Mn 257.610†	2545737.9	2692.6 ug/L	40.27	2692.6 ppb	40.27	1.50%
Mo 202.031†	-56.8	6.5449 ug/L	0.58372	6.5449 ppb	0.58372	8.92%
Na 589.592 Radial†	2209.4	667.42 ug/L	5.088	667.42 ppb	5.088	0.76%
Ni 231.604†	2539.4	55.711 ug/L	1.1861	55.711 ppb	1.1861	2.13%
P 214.914†	1355.4	590.67 ug/L	11.814	590.67 ppb	11.814	2.00%
Pb 220.353†	980.5	107.63 ug/L	2.387	107.63 ppb	2.387	2.22%
S 181.975 Axial†	580.2	642.73 ug/L	9.327	642.73 ppb	9.327	1.45%
Sb 206.836†	53.0	2.7508 ug/L	1.94259	2.7508 ppb	1.94259	70.62%
Se 196.026†	-625.3	14.492 ug/L	8.3526	14.492 ppb	8.3526	57.64%
Si 251.611†	758026.0	21741 ug/L	291.5	21741 ppb	291.5	1.34%
Sn 189.927†	-93.1	-10.877 ug/L	1.0041	-10.877 ppb	1.0041	9.23%
Sr 421.552†	24117.0	176.45 ug/L	2.151	176.45 ppb	2.151	1.22%
Ti 334.940†	2626278.1	4167.6 ug/L	66.01	4167.6 ppb	66.01	1.58%
Tl 190.801†	-166.9	3.0883 ug/L	3.12238	3.0883 ppb	3.12238	101.10%
U 409.014†	-5811.3	-186.17 ug/L	3.099	-186.17 ppb	3.099	1.66%
V 292.402†	37992.2	217.76 ug/L	3.487	217.76 ppb	3.487	1.60%
Zn 213.857†	27324.5	218.34 ug/L	3.941	218.34 ppb	3.941	1.81%
SiO2†	756307.7	46419 ug/L	1260.3	46419 ppb	1260.3	2.71%

Sequence No.: 6
 Sample ID: 243517004|936768|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 108
 Date Collected: 1/7/2010 07:35:07
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 243517004|936768|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4708.1	4708.1	101 %		07:37:21
1	Y RADIAL	5278.8	5278.8	107.0 %		07:37:21
1	Al 396.153Radial†	97585.0	96772.6	85830 ug/L	85830 ppb	07:37:01
1	Ca 317.933Radial†	26555.8	26314.9	44095 ug/L	44095 ppb	07:37:01
1	Fe 238.204 Radial†	14197.1	14061.2	123550 ug/L	123550 ppb	07:37:01
1	K 766.490 Radial†	75370.5	71385.7	14152 ug/L	14152 ppb	07:37:01
1	Mg 279.077 IEC†	565.3	558.8	17761 ug/L	17761 ppb	07:37:21
1	Na 589.592 Radial†	7822.8	9505.7	2871.5 ug/L	2871.5 ppb	07:37:01
1	Sr 421.552†	41316.9	40945.7	299.38 ug/L	299.38 ppb	07:37:01
1	Sc 361.383	899367.1	899367.1	101.44 %		07:38:20
1	Y 371.029	818038.4	818038.4	107.39 %		07:38:20
1	Ag 328.068†	-8314.9	-8709.3	4.1405 ug/L	4.1405 ppb	07:38:20
1	As 188.979†	-40.1	-6.1	39.353 ug/L	39.353 ppb	07:38:40
1	B 249.677†	757.6	1412.7	12.649 ug/L	12.649 ppb	07:38:20
1	Ba 233.527†	214363.4	211315.2	1544.3 ug/L	1544.3 ppb	07:38:20
1	Be 313.107†	-1111.6	3255.7	6.3474 ug/L	6.3474 ppb	07:38:20
1	Cd 226.502†	898.1	1123.8	-1.7324 ug/L	-1.7324 ppb	07:38:40
1	Co 228.616†	1839.2	1897.1	28.883 ug/L	28.883 ppb	07:38:40
1	Cr 267.716†	6484.8	6288.8	65.608 ug/L	65.608 ppb	07:38:40
1	Cu 324.752†	20671.0	12378.8	42.952 ug/L	42.952 ppb	07:38:20
1	Mn 257.610†	2144709.4	2113770.2	2239.2 ug/L	2239.2 ppb	07:38:20
1	Mo 202.031†	-57.4	-76.5	7.0528 ug/L	7.0528 ppb	07:38:40
1	Ni 231.604†	2715.6	2552.0	56.000 ug/L	56.000 ppb	07:38:40
1	P 214.914†	1636.9	1365.1	588.72 ug/L	588.72 ppb	07:38:40
1	Pb 220.353†	336.3	409.3	51.480 ug/L	51.480 ppb	07:38:40
1	S 181.975 Axial†	1385.3	1305.7	1458.8 ug/L	1458.8 ppb	07:38:40
1	Sb 206.836†	69.6	31.5	0.0937 ug/L	0.0937 ppb	07:38:40
1	Se 196.026†	-752.7	-708.8	30.644 ug/L	30.644 ppb	07:38:40
1	Si 251.611†	912569.1	899007.7	25785 ug/L	25785 ppb	07:38:20
1	Sn 189.927†	-172.5	-173.4	-19.376 ug/L	-19.376 ppb	07:38:40
1	Ti 334.940†	1704892.2	1682525.6	2671.9 ug/L	2671.9 ppb	07:38:20
1	Tl 190.801†	-184.3	-128.3	0.2854 ug/L	0.2854 ppb	07:38:40
1	U 409.014†	-11883.3	-9046.0	-284.59 ug/L	-284.59 ppb	07:38:20
1	V 292.402†	25915.2	27349.4	149.74 ug/L	149.74 ppb	07:38:20
1	Zn 213.857†	38530.4	37152.2	298.06 ug/L	298.06 ppb	07:38:20
1	SiO2†	912194.4	898618.9	55154 ug/L	55154 ppb	07:39:40
2	Sc Radial	4734.6	4734.6	101 %		07:37:46
2	Y RADIAL	5314.0	5314.0	107.7 %		07:37:46
2	Al 396.153Radial†	96609.2	95269.0	84497 ug/L	84497 ppb	07:37:26
2	Ca 317.933Radial†	26223.7	25840.1	43299 ug/L	43299 ppb	07:37:26
2	Fe 238.204 Radial†	14018.6	13806.4	121320 ug/L	121320 ppb	07:37:26
2	K 766.490 Radial†	74850.5	70454.8	13967 ug/L	13967 ppb	07:37:26
2	Mg 279.077 IEC†	573.7	563.9	17926 ug/L	17926 ppb	07:37:46
2	Na 589.592 Radial†	7634.7	9276.8	2802.3 ug/L	2802.3 ppb	07:37:26
2	Sr 421.552†	41017.1	40420.8	295.55 ug/L	295.55 ppb	07:37:26
2	Sc 361.383	892562.0	892562.0	100.67 %		07:38:47
2	Y 371.029	813649.5	813649.5	106.81 %		07:38:47
2	Ag 328.068†	-8362.4	-8819.0	2.9347 ug/L	2.9347 ppb	07:38:47
2	As 188.979†	-43.4	-9.7	37.759 ug/L	37.759 ppb	07:39:07
2	B 249.677†	731.1	1392.1	12.520 ug/L	12.520 ppb	07:38:47
2	Ba 233.527†	212479.1	211054.6	1542.4 ug/L	1542.4 ppb	07:38:47
2	Be 313.107†	-1301.9	3058.3	6.2768 ug/L	6.2768 ppb	07:38:47
2	Cd 226.502†	921.6	1153.9	-1.2249 ug/L	-1.2249 ppb	07:39:07
2	Co 228.616†	1828.6	1900.4	28.982 ug/L	28.982 ppb	07:39:07
2	Cr 267.716†	6506.6	6359.2	66.274 ug/L	66.274 ppb	07:39:07
2	Cu 324.752†	20566.0	12429.9	42.989 ug/L	42.989 ppb	07:38:47
2	Mn 257.610†	2124106.1	2109424.1	2234.4 ug/L	2234.4 ppb	07:38:47
2	Mo 202.031†	-52.2	-71.8	7.1330 ug/L	7.1330 ppb	07:39:07
2	Ni 231.604†	2712.0	2568.9	56.370 ug/L	56.370 ppb	07:39:07

2	P 214.914†	1656.7	1397.1	605.66 ug/L	605.66 ppb	07:39:07
2	Pb 220.353†	333.9	409.4	51.376 ug/L	51.376 ppb	07:39:07
2	S 181.975 Axial†	1398.2	1329.0	1485.3 ug/L	1485.3 ppb	07:39:07
2	Sb 206.836†	77.6	40.0	2.6593 ug/L	2.6593 ppb	07:39:07
2	Se 196.026†	-756.9	-718.6	18.526 ug/L	18.526 ppb	07:39:07
2	Si 251.611†	903711.6	897068.2	25729 ug/L	25729 ppb	07:38:47
2	Sn 189.927†	-157.8	-160.1	-17.522 ug/L	-17.522 ppb	07:39:07
2	Ti 334.940†	1690729.7	1681271.7	2669.8 ug/L	2669.8 ppb	07:38:47
2	Tl 190.801†	-179.6	-125.0	1.1043 ug/L	1.1043 ppb	07:39:07
2	U 409.014†	-11937.6	-9189.3	-288.57 ug/L	-288.57 ppb	07:38:47
2	V 292.402†	25656.3	27287.0	149.69 ug/L	149.69 ppb	07:38:47
2	Zn 213.857†	38252.5	37165.8	298.28 ug/L	298.28 ppb	07:38:47
2	SiO2†	903670.7	897008.2	55056 ug/L	55056 ppb	07:39:46
3	Sc Radial	4759.4	4759.4	102 %		07:38:11
3	Y RADIAL	5357.2	5357.2	108.6 %		07:38:11
3	Al 396.153Radial†	97301.7	95450.3	84657 ug/L	84657 ppb	07:37:51
3	Ca 317.933Radial†	26457.6	25934.4	43457 ug/L	43457 ppb	07:37:51
3	Fe 238.204 Radial†	14112.9	13826.6	121490 ug/L	121490 ppb	07:37:51
3	K 766.490 Radial†	75189.5	70401.5	13956 ug/L	13956 ppb	07:37:51
3	Mg 279.077 IEC†	580.9	568.1	18060 ug/L	18060 ppb	07:38:11
3	Na 589.592 Radial†	7660.5	9262.7	2798.1 ug/L	2798.1 ppb	07:37:51
3	Sr 421.552†	41224.2	40412.5	295.48 ug/L	295.48 ppb	07:37:51
3	Sc 361.383	893628.8	893628.8	100.79 %		07:39:14
3	Y 371.029	813115.9	813115.9	106.74 %		07:39:14
3	Ag 328.068†	-8069.7	-8518.6	4.2816 ug/L	4.2816 ppb	07:39:14
3	As 188.979†	-39.5	-5.8	39.143 ug/L	39.143 ppb	07:39:34
3	B 249.677†	721.4	1381.6	12.280 ug/L	12.280 ppb	07:39:14
3	Ba 233.527†	213151.2	211469.5	1545.4 ug/L	1545.4 ppb	07:39:14
3	Be 313.107†	-1106.0	3254.2	6.3441 ug/L	6.3441 ppb	07:39:14
3	Cd 226.502†	916.7	1147.9	-1.2989 ug/L	-1.2989 ppb	07:39:34
3	Co 228.616†	1850.6	1920.1	29.348 ug/L	29.348 ppb	07:39:34
3	Cr 267.716†	6565.5	6409.9	66.785 ug/L	66.785 ppb	07:39:34
3	Cu 324.752†	20519.7	12359.5	42.789 ug/L	42.789 ppb	07:39:14
3	Mn 257.610†	2130971.7	2113717.0	2238.9 ug/L	2238.9 ppb	07:39:14
3	Mo 202.031†	-49.1	-68.7	7.3437 ug/L	7.3437 ppb	07:39:34
3	Ni 231.604†	2737.9	2591.3	56.862 ug/L	56.862 ppb	07:39:34
3	P 214.914†	1675.2	1413.4	613.56 ug/L	613.56 ppb	07:39:34
3	Pb 220.353†	363.3	438.3	54.387 ug/L	54.387 ppb	07:39:34
3	S 181.975 Axial†	1399.5	1328.6	1484.9 ug/L	1484.9 ppb	07:39:34
3	Sb 206.836†	71.3	33.6	0.6991 ug/L	0.6991 ppb	07:39:34
3	Se 196.026†	-765.4	-726.2	15.214 ug/L	15.214 ppb	07:39:34
3	Si 251.611†	905349.1	897621.2	25745 ug/L	25745 ppb	07:39:14
3	Sn 189.927†	-172.8	-174.8	-19.678 ug/L	-19.678 ppb	07:39:34
3	Ti 334.940†	1693131.0	1681649.2	2670.5 ug/L	2670.5 ppb	07:39:14
3	Tl 190.801†	-180.7	-125.9	0.8908 ug/L	0.8908 ppb	07:39:34
3	U 409.014†	-11921.4	-9159.0	-287.69 ug/L	-287.69 ppb	07:39:14
3	V 292.402†	25708.0	27307.9	149.80 ug/L	149.80 ppb	07:39:14
3	Zn 213.857†	38268.1	37135.9	298.02 ug/L	298.02 ppb	07:39:14
3	SiO2†	900296.2	892588.5	54784 ug/L	54784 ppb	07:39:52

Mean Data: 243517004|936768|1

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Sc 361.383	895185.9	100.97 %	0.413			0.41%
Sc Radial	4734.0	101 %	0.6			0.54%
Y 371.029	814934.6	106.98 %	0.355			0.33%
Y RADIAL	5316.7	107.8 %	0.80			0.74%
Ag 328.068†	-8682.3	3.7856 ug/L	0.74026	3.7856 ppb	0.74026	19.55%
Al 396.153Radial†	95830.6	84995 ug/L	728.0	84995 ppb	728.0	0.86%
As 188.979†	-7.2	38.752 ug/L	0.8664	38.752 ppb	0.8664	2.24%
B 249.677†	1395.5	12.483 ug/L	0.1873	12.483 ppb	0.1873	1.50%
Ba 233.527†	211279.7	1544.0 ug/L	1.54	1544.0 ppb	1.54	0.10%
Be 313.107†	3189.4	6.3228 ug/L	0.03987	6.3228 ppb	0.03987	0.63%
Ca 317.933Radial†	26029.8	43617 ug/L	421.2	43617 ppb	421.2	0.97%
Cd 226.502†	1141.8	-1.4187 ug/L	0.27414	-1.4187 ppb	0.27414	19.32%
Co 228.616†	1905.9	29.071 ug/L	0.2453	29.071 ppb	0.2453	0.84%
Cr 267.716†	6352.6	66.222 ug/L	0.5904	66.222 ppb	0.5904	0.89%
Cu 324.752†	12389.4	42.910 ug/L	0.1060	42.910 ppb	0.1060	0.25%
Fe 238.204 Radial†	13898.0	122120 ug/L	1244.3	122120 ppb	1244.3	1.02%
K 766.490 Radial†	70747.3	14025 ug/L	109.9	14025 ppb	109.9	0.78%

Mg 279.077 IEC†	563.6	17916 ug/L	149.6	17916 ppb	149.6	0.84%
Mn 257.610†	2112303.8	2237.5 ug/L	2.70	2237.5 ppb	2.70	0.12%
Mo 202.031†	-72.3	7.1765 ug/L	0.15021	7.1765 ppb	0.15021	2.09%
Na 589.592 Radial†	9348.4	2824.0 ug/L	41.20	2824.0 ppb	41.20	1.46%
Ni 231.604†	2570.7	56.411 ug/L	0.4328	56.411 ppb	0.4328	0.77%
P 214.914†	1391.9	602.65 ug/L	12.691	602.65 ppb	12.691	2.11%
Pb 220.353†	419.0	52.414 ug/L	1.7092	52.414 ppb	1.7092	3.26%
S 181.975 Axial†	1321.1	1476.3 ug/L	15.18	1476.3 ppb	15.18	1.03%
Sb 206.836†	35.1	1.1507 ug/L	1.34107	1.1507 ppb	1.34107	116.54%
Se 196.026†	-717.8	21.461 ug/L	8.1232	21.461 ppb	8.1232	37.85%
Si 251.611†	897899.1	25753 ug/L	28.6	25753 ppb	28.6	0.11%
Sn 189.927†	-169.5	-18.859 ug/L	1.1675	-18.859 ppb	1.1675	6.19%
Sr 421.552†	40593.0	296.80 ug/L	2.233	296.80 ppb	2.233	0.75%
Ti 334.940†	1681815.5	2670.7 ug/L	1.04	2670.7 ppb	1.04	0.04%
Tl 190.801†	-126.4	0.7602 ug/L	0.42478	0.7602 ppb	0.42478	55.88%
U 409.014†	-9131.4	-286.95 ug/L	2.091	-286.95 ppb	2.091	0.73%
V 292.402†	27314.8	149.75 ug/L	0.055	149.75 ppb	0.055	0.04%
Zn 213.857†	37151.3	298.12 ug/L	0.141	298.12 ppb	0.141	0.05%
SiO2†	896071.9	54998 ug/L	191.6	54998 ppb	191.6	0.35%

Sequence No.: 7
 Sample ID: 243517005|936768|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 109
 Date Collected: 1/7/2010 07:42:03
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 243517005|936768|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4704.5	4704.5	101 %		07:44:17
1	Y RADIAL	5347.1	5347.1	108.4 %		07:44:17
1	Al 396.153Radial†	82811.7	82187.9	72895 ug/L	72895 ppb	07:43:57
1	Ca 317.933Radial†	8046.5	7970.8	13356 ug/L	13356 ppb	07:43:57
1	Fe 238.204 Radial†	11290.5	11187.9	98308 ug/L	98308 ppb	07:43:57
1	K 766.490 Radial†	61350.2	57531.5	11396 ug/L	11396 ppb	07:43:57
1	Mg 279.077 IEC†	381.9	377.2	11977 ug/L	11977 ppb	07:44:17
1	Na 589.592 Radial†	280.0	2027.9	612.59 ug/L	612.59 ppb	07:43:57
1	Sr 421.552†	23265.6	23066.9	168.76 ug/L	168.76 ppb	07:43:57
1	Sc 361.383	891126.2	891126.2	100.51 %		07:45:15
1	Y 371.029	821641.2	821641.2	107.86 %		07:45:15
1	Ag 328.068†	-6737.1	-7215.3	2.7119 ug/L	2.7119 ppb	07:45:20
1	As 188.979†	-71.9	-38.1	38.389 ug/L	38.389 ppb	07:45:40
1	B 249.677†	476.3	1139.7	10.317 ug/L	10.317 ppb	07:45:20
1	Ba 233.527†	130238.3	129570.7	947.78 ug/L	947.78 ppb	07:45:20
1	Be 313.107†	-12748.9	-8332.7	5.7400 ug/L	5.7400 ppb	07:45:20
1	Cd 226.502†	752.9	987.4	-0.4946 ug/L	-0.4946 ppb	07:45:40
1	Co 228.616†	2903.7	2972.9	45.613 ug/L	45.613 ppb	07:45:40
1	Cr 267.716†	8017.8	7873.2	81.100 ug/L	81.100 ppb	07:45:20
1	Cu 324.752†	18630.6	10537.2	36.212 ug/L	36.212 ppb	07:45:20
1	Mn 257.610†	2727345.6	2713005.6	2868.1 ug/L	2868.1 ppb	07:45:15
1	Mo 202.031†	-65.6	-85.2	4.0843 ug/L	4.0843 ppb	07:45:40
1	Ni 231.604†	2528.5	2390.6	52.444 ug/L	52.444 ppb	07:45:40
1	P 214.914†	1302.6	1047.4	450.86 ug/L	450.86 ppb	07:45:40
1	Pb 220.353†	784.8	858.6	97.197 ug/L	97.197 ppb	07:45:40
1	S 181.975 Axial†	482.0	419.7	459.98 ug/L	459.98 ppb	07:45:40
1	Sb 206.836†	79.6	42.1	-1.4688 ug/L	-1.4688 ppb	07:45:40
1	Se 196.026†	-624.9	-588.5	12.530 ug/L	12.530 ppb	07:45:40
1	Si 251.611†	833610.7	828769.0	23771 ug/L	23771 ppb	07:45:15
1	Sn 189.927†	-87.9	-90.8	-10.693 ug/L	-10.693 ppb	07:45:40
1	Ti 334.940†	2755893.7	2743742.8	4353.9 ug/L	4353.9 ppb	07:45:15
1	Tl 190.801†	-217.4	-162.9	6.8544 ug/L	6.8544 ppb	07:45:40
1	U 409.014†	-8516.5	-5804.6	-185.08 ug/L	-185.08 ppb	07:45:15
1	V 292.402†	34788.0	36413.5	208.67 ug/L	208.67 ppb	07:45:20
1	Zn 213.857†	23530.4	22579.5	179.77 ug/L	179.77 ppb	07:45:20
1	SiO2†	820854.4	816057.9	50088 ug/L	50088 ppb	07:46:48
2	Sc Radial	4660.1	4660.1	99.8 %		07:44:42
2	Y RADIAL	5312.3	5312.3	107.7 %		07:44:42
2	Al 396.153Radial†	83177.2	83337.1	73914 ug/L	73914 ppb	07:44:22
2	Ca 317.933Radial†	8092.3	8092.7	13561 ug/L	13561 ppb	07:44:22
2	Fe 238.204 Radial†	11326.4	11330.6	99562 ug/L	99562 ppb	07:44:22
2	K 766.490 Radial†	61562.7	58324.5	11553 ug/L	11553 ppb	07:44:22
2	Mg 279.077 IEC†	379.9	378.9	12029 ug/L	12029 ppb	07:44:42
2	Na 589.592 Radial†	345.5	2096.2	633.21 ug/L	633.21 ppb	07:44:22
2	Sr 421.552†	23294.3	23315.7	170.58 ug/L	170.58 ppb	07:44:22
2	Sc 361.383	891366.7	891366.7	100.54 %		07:45:46
2	Y 371.029	822811.1	822811.1	108.01 %		07:45:46
2	Ag 328.068†	-6642.5	-7119.4	3.5340 ug/L	3.5340 ppb	07:45:51
2	As 188.979†	-47.6	-13.9	47.047 ug/L	47.047 ppb	07:46:11
2	B 249.677†	474.6	1137.9	10.111 ug/L	10.111 ppb	07:45:51
2	Ba 233.527†	128887.1	128191.7	937.75 ug/L	937.75 ppb	07:45:51
2	Be 313.107†	-12745.7	-8326.2	5.7433 ug/L	5.7433 ppb	07:45:51
2	Cd 226.502†	763.8	998.1	-0.5190 ug/L	-0.5190 ppb	07:46:11
2	Co 228.616†	2940.8	3009.1	46.270 ug/L	46.270 ppb	07:46:11
2	Cr 267.716†	7890.1	7743.9	79.825 ug/L	79.825 ppb	07:45:51
2	Cu 324.752†	18598.4	10500.1	36.166 ug/L	36.166 ppb	07:45:51
2	Mn 257.610†	2727753.3	2712679.0	2867.9 ug/L	2867.9 ppb	07:45:46
2	Mo 202.031†	-64.5	-84.1	4.2769 ug/L	4.2769 ppb	07:46:11
2	Ni 231.604†	2555.4	2416.7	53.016 ug/L	53.016 ppb	07:46:11

2	P 214.914†	1277.5	1022.1	437.87 ug/L	437.87 ppb	07:46:11
2	Pb 220.353†	799.4	872.9	98.806 ug/L	98.806 ppb	07:46:11
2	S 181.975 Axial†	495.4	432.9	474.71 ug/L	474.71 ppb	07:46:11
2	Sb 206.836†	94.6	57.0	3.0214 ug/L	3.0214 ppb	07:46:11
2	Se 196.026†	-624.6	-588.0	16.786 ug/L	16.786 ppb	07:46:11
2	Si 251.611†	835250.1	830175.8	23811 ug/L	23811 ppb	07:45:46
2	Sn 189.927†	-87.2	-90.2	-10.557 ug/L	-10.557 ppb	07:46:11
2	Ti 334.940†	2756973.2	2744076.7	4354.5 ug/L	4354.5 ppb	07:45:46
2	Tl 190.801†	-224.2	-169.6	5.0639 ug/L	5.0639 ppb	07:46:11
2	U 409.014†	-8539.8	-5825.5	-185.86 ug/L	-185.86 ppb	07:45:46
2	V 292.402†	34543.4	36160.9	206.90 ug/L	206.90 ppb	07:45:51
2	Zn 213.857†	23310.6	22354.5	177.86 ug/L	177.86 ppb	07:45:51
2	SiO2†	833139.2	828056.7	50825 ug/L	50825 ppb	07:46:54
3	Sc Radial	4689.9	4689.9	100 %		07:45:08
3	Y RADIAL	5316.4	5316.4	107.8 %		07:45:08
3	Al 396.153Radial†	83343.1	82972.5	73590 ug/L	73590 ppb	07:44:48
3	Ca 317.933Radial†	8111.3	8060.1	13506 ug/L	13506 ppb	07:44:48
3	Fe 238.204 Radial†	11346.9	11278.9	99108 ug/L	99108 ppb	07:44:48
3	K 766.490 Radial†	61801.3	58169.9	11523 ug/L	11523 ppb	07:44:48
3	Mg 279.077 IEC†	381.7	378.2	12008 ug/L	12008 ppb	07:45:08
3	Na 589.592 Radial†	389.7	2137.9	645.82 ug/L	645.82 ppb	07:44:48
3	Sr 421.552†	23413.8	23286.2	170.37 ug/L	170.37 ppb	07:44:48
3	Sc 361.383	882282.9	882282.9	99.512 %		07:46:17
3	Y 371.029	814453.1	814453.1	106.92 %		07:46:17
3	Ag 328.068†	-6822.7	-7368.5	2.3282 ug/L	2.3282 ppb	07:46:22
3	As 188.979†	-55.8	-22.7	43.965 ug/L	43.965 ppb	07:46:42
3	B 249.677†	455.5	1123.6	9.8756 ug/L	9.8756 ppb	07:46:22
3	Ba 233.527†	129431.7	130058.9	951.37 ug/L	951.37 ppb	07:46:22
3	Be 313.107†	-12725.4	-8436.3	5.7158 ug/L	5.7158 ppb	07:46:22
3	Cd 226.502†	784.2	1026.4	-0.2063 ug/L	-0.2063 ppb	07:46:42
3	Co 228.616†	2928.8	3027.2	46.614 ug/L	46.614 ppb	07:46:42
3	Cr 267.716†	7978.8	7913.8	81.526 ug/L	81.526 ppb	07:46:22
3	Cu 324.752†	18708.1	10800.8	37.033 ug/L	37.033 ppb	07:46:22
3	Mn 257.610†	2702613.0	2715350.0	2870.7 ug/L	2870.7 ppb	07:46:17
3	Mo 202.031†	-49.1	-69.3	5.1588 ug/L	5.1588 ppb	07:46:42
3	Ni 231.604†	2581.6	2469.2	54.169 ug/L	54.169 ppb	07:46:42
3	P 214.914†	1289.3	1047.1	450.17 ug/L	450.17 ppb	07:46:42
3	Pb 220.353†	813.0	894.7	101.03 ug/L	101.03 ppb	07:46:42
3	S 181.975 Axial†	482.9	425.3	466.22 ug/L	466.22 ppb	07:46:42
3	Sb 206.836†	95.8	59.2	3.6477 ug/L	3.6477 ppb	07:46:42
3	Se 196.026†	-625.0	-594.8	11.854 ug/L	11.854 ppb	07:46:42
3	Si 251.611†	825437.1	828868.4	23774 ug/L	23774 ppb	07:46:17
3	Sn 189.927†	-83.4	-87.2	-10.124 ug/L	-10.124 ppb	07:46:42
3	Ti 334.940†	2731984.6	2747199.4	4359.4 ug/L	4359.4 ppb	07:46:17
3	Tl 190.801†	-226.8	-174.5	3.7579 ug/L	3.7579 ppb	07:46:42
3	U 409.014†	-8430.1	-5802.7	-185.13 ug/L	-185.13 ppb	07:46:17
3	V 292.402†	34823.9	36796.5	210.96 ug/L	210.96 ppb	07:46:22
3	Zn 213.857†	23347.7	22630.6	180.14 ug/L	180.14 ppb	07:46:22
3	SiO2†	832873.2	836321.5	51332 ug/L	51332 ppb	07:46:59

Mean Data: 243517005|936768|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	888258.6	100.19 %		0.584				0.58%
Sc Radial	4684.9	100 %		0.5				0.48%
Y 371.029	819635.1	107.60 %		0.594				0.55%
Y RADIAL	5325.3	108.0 %		0.39				0.36%
Ag 328.068†	-7234.4	2.8580 ug/L		0.61602	2.8580 ppb		0.61602	21.55%
Al 396.153Radial†	82832.5	73466 ug/L		520.9	73466 ppb		520.9	0.71%
As 188.979†	-24.9	43.134 ug/L		4.3885	43.134 ppb		4.3885	10.17%
B 249.677†	1133.7	10.101 ug/L		0.2209	10.101 ppb		0.2209	2.19%
Ba 233.527†	129273.8	945.63 ug/L		7.056	945.63 ppb		7.056	0.75%
Be 313.107†	-8365.1	5.7330 ug/L		0.01502	5.7330 ppb		0.01502	0.26%
Ca 317.933Radial†	8041.2	13474 ug/L		105.8	13474 ppb		105.8	0.78%
Cd 226.502†	1004.0	-0.4066 ug/L		0.17389	-0.4066 ppb		0.17389	42.76%
Co 228.616†	3003.1	46.166 ug/L		0.5083	46.166 ppb		0.5083	1.10%
Cr 267.716†	7843.6	80.817 ug/L		0.8852	80.817 ppb		0.8852	1.10%
Cu 324.752†	10612.7	36.470 ug/L		0.4879	36.470 ppb		0.4879	1.34%
Fe 238.204 Radial†	11265.8	98993 ug/L		634.9	98993 ppb		634.9	0.64%
K 766.490 Radial†	58008.7	11491 ug/L		83.5	11491 ppb		83.5	0.73%

Mg 279.077 IEC†	378.1	12005 ug/L	26.0	12005 ppb	26.0	0.22%
Mn 257.610†	2713678.2	2868.9 ug/L	1.54	2868.9 ppb	1.54	0.05%
Mo 202.031†	-79.5	4.5067 ug/L	0.57291	4.5067 ppb	0.57291	12.71%
Na 589.592 Radial†	2087.3	630.54 ug/L	16.773	630.54 ppb	16.773	2.66%
Ni 231.604†	2425.5	53.210 ug/L	0.8789	53.210 ppb	0.8789	1.65%
P 214.914†	1038.8	446.30 ug/L	7.310	446.30 ppb	7.310	1.64%
Pb 220.353†	875.4	99.011 ug/L	1.9251	99.011 ppb	1.9251	1.94%
S 181.975 Axial†	426.0	466.97 ug/L	7.394	466.97 ppb	7.394	1.58%
Sb 206.836†	52.8	1.7334 ug/L	2.79087	1.7334 ppb	2.79087	161.00%
Se 196.026†	-590.5	13.723 ug/L	2.6741	13.723 ppb	2.6741	19.49%
Si 251.611†	829271.0	23785 ug/L	22.5	23785 ppb	22.5	0.09%
Sn 189.927†	-89.4	-10.458 ug/L	0.2971	-10.458 ppb	0.2971	2.84%
Sr 421.552†	23222.9	169.91 ug/L	0.994	169.91 ppb	0.994	0.59%
Ti 334.940†	2745006.3	4356.0 ug/L	3.03	4356.0 ppb	3.03	0.07%
Tl 190.801†	-169.0	5.2254 ug/L	1.55459	5.2254 ppb	1.55459	29.75%
U 409.014†	-5810.9	-185.36 ug/L	0.436	-185.36 ppb	0.436	0.24%
V 292.402†	36456.9	208.84 ug/L	2.039	208.84 ppb	2.039	0.98%
Zn 213.857†	22521.5	179.26 ug/L	1.228	179.26 ppb	1.228	0.68%
SiO2†	826812.0	50748 ug/L	625.4	50748 ppb	625.4	1.23%

Sequence No.: 8
 Sample ID: 243517006|936768|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 110
 Date Collected: 1/7/2010 07:49:10
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 243517006|936768|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4707.0	4707.0	101 %		07:51:24
1	Y RADIAL	5329.5	5329.5	108.0 %		07:51:24
1	Al 396.153Radial†	83702.2	83028.4	73640 ug/L	73640 ppb	07:51:04
1	Ca 317.933Radial†	9432.4	9340.9	15652 ug/L	15652 ppb	07:51:04
1	Fe 238.204 Radial†	12513.0	12394.4	108910 ug/L	108910 ppb	07:51:04
1	K 766.490 Radial†	64910.9	61030.9	12100 ug/L	12100 ppb	07:51:04
1	Mg 279.077 IEC†	428.6	423.4	13444 ug/L	13444 ppb	07:51:24
1	Na 589.592 Radial†	3709.4	5428.4	1639.8 ug/L	1639.8 ppb	07:51:04
1	Sr 421.552†	23755.4	23540.6	172.21 ug/L	172.21 ppb	07:51:04
1	Sc 361.383	893520.1	893520.1	100.78 %		07:52:21
1	Y 371.029	820086.1	820086.1	107.66 %		07:52:21
1	Ag 328.068†	-7638.4	-8091.7	2.2236 ug/L	2.2236 ppb	07:52:26
1	As 188.979†	-43.3	-9.6	35.000 ug/L	35.000 ppb	07:52:46
1	B 249.677†	361.0	1024.1	6.5754 ug/L	6.5754 ppb	07:52:26
1	Ba 233.527†	120848.0	119905.9	877.41 ug/L	877.41 ppb	07:52:26
1	Be 313.107†	-2590.0	1781.6	5.6394 ug/L	5.6394 ppb	07:52:26
1	Cd 226.502†	807.7	1039.8	-1.0630 ug/L	-1.0630 ppb	07:52:46
1	Co 228.616†	1875.1	1944.6	29.914 ug/L	29.914 ppb	07:52:46
1	Cr 267.716†	6285.9	6133.2	63.749 ug/L	63.749 ppb	07:52:26
1	Cu 324.752†	18350.3	10209.3	35.782 ug/L	35.782 ppb	07:52:26
1	Mn 257.610†	1967173.0	1951442.4	2066.7 ug/L	2066.7 ppb	07:52:21
1	Mo 202.031†	-49.6	-69.1	6.1072 ug/L	6.1072 ppb	07:52:46
1	Ni 231.604†	2412.5	2268.8	49.782 ug/L	49.782 ppb	07:52:46
1	P 214.914†	1930.0	1666.5	744.56 ug/L	744.56 ppb	07:52:46
1	Pb 220.353†	344.6	419.7	51.034 ug/L	51.034 ppb	07:52:46
1	S 181.975 Axial†	331.9	269.4	290.00 ug/L	290.00 ppb	07:52:46
1	Sb 206.836†	52.5	15.0	-4.2239 ug/L	-4.2239 ppb	07:52:46
1	Se 196.026†	-697.9	-659.2	9.0611 ug/L	9.0611 ppb	07:52:46
1	Si 251.611†	907149.6	899517.1	25800 ug/L	25800 ppb	07:52:21
1	Sn 189.927†	-82.0	-84.7	-9.4109 ug/L	-9.4109 ppb	07:52:46
1	Ti 334.940†	1626028.6	1615270.2	2563.7 ug/L	2563.7 ppb	07:52:21
1	Tl 190.801†	-175.1	-120.3	0.3294 ug/L	0.3294 ppb	07:52:46
1	U 409.014†	-10554.4	-7804.1	-245.82 ug/L	-245.82 ppb	07:52:21
1	V 292.402†	23290.2	24911.9	136.77 ug/L	136.77 ppb	07:52:26
1	Zn 213.857†	34905.1	33803.5	271.48 ug/L	271.48 ppb	07:52:26
1	SiO2†	912025.9	904336.2	55507 ug/L	55507 ppb	07:53:55
2	Sc Radial	4508.9	4508.9	96.6 %		07:51:49
2	Y RADIAL	5113.6	5113.6	103.7 %		07:51:49
2	Al 396.153Radial†	87943.9	91066.4	80769 ug/L	80769 ppb	07:51:29
2	Ca 317.933Radial†	9895.9	10231.8	17145 ug/L	17145 ppb	07:51:29
2	Fe 238.204 Radial†	13135.3	13583.8	119360 ug/L	119360 ppb	07:51:29
2	K 766.490 Radial†	67347.9	66382.0	13163 ug/L	13163 ppb	07:51:29
2	Mg 279.077 IEC†	439.9	453.8	14407 ug/L	14407 ppb	07:51:49
2	Na 589.592 Radial†	4034.1	5926.2	1790.2 ug/L	1790.2 ppb	07:51:29
2	Sr 421.552†	24948.5	25810.7	188.82 ug/L	188.82 ppb	07:51:29
2	Sc 361.383	898117.6	898117.6	101.30 %		07:52:52
2	Y 371.029	824411.1	824411.1	108.22 %		07:52:52
2	Ag 328.068†	-7566.7	-7982.1	6.1551 ug/L	6.1551 ppb	07:52:57
2	As 188.979†	-44.3	-10.3	36.379 ug/L	36.379 ppb	07:53:17
2	B 249.677†	325.2	986.8	4.4212 ug/L	4.4212 ppb	07:52:57
2	Ba 233.527†	120019.0	118473.6	867.23 ug/L	867.23 ppb	07:52:57
2	Be 313.107†	-2559.0	1825.3	5.6615 ug/L	5.6615 ppb	07:52:57
2	Cd 226.502†	794.8	1022.9	-2.2668 ug/L	-2.2668 ppb	07:53:17
2	Co 228.616†	1884.5	1944.3	29.749 ug/L	29.749 ppb	07:53:17
2	Cr 267.716†	6255.6	6071.4	63.312 ug/L	63.312 ppb	07:52:57
2	Cu 324.752†	18186.1	9954.0	35.559 ug/L	35.559 ppb	07:52:57
2	Mn 257.610†	1977772.9	1951914.2	2068.3 ug/L	2068.3 ppb	07:52:52
2	Mo 202.031†	-44.5	-63.8	7.4421 ug/L	7.4421 ppb	07:53:17
2	Ni 231.604†	2419.4	2263.4	49.663 ug/L	49.663 ppb	07:53:17

2	P 214.914†	1934.3	1661.0	735.94 ug/L	735.94 ppb	07:53:17
2	Pb 220.353†	314.4	388.2	48.508 ug/L	48.508 ppb	07:53:17
2	S 181.975 Axial†	341.4	277.1	297.33 ug/L	297.33 ppb	07:53:17
2	Sb 206.836†	63.8	25.9	-1.0163 ug/L	-1.0163 ppb	07:53:17
2	Se 196.026†	-695.0	-652.9	45.557 ug/L	45.557 ppb	07:53:17
2	Si 251.611†	912903.5	900589.4	25831 ug/L	25831 ppb	07:52:52
2	Sn 189.927†	-92.0	-94.3	-10.520 ug/L	-10.520 ppb	07:53:17
2	Ti 334.940†	1636769.0	1617613.6	2567.5 ug/L	2567.5 ppb	07:52:52
2	Tl 190.801†	-184.9	-129.2	-1.8600 ug/L	-1.8600 ppb	07:53:17
2	U 409.014†	-10522.3	-7718.7	-244.60 ug/L	-244.60 ppb	07:52:52
2	V 292.402†	23059.7	24566.1	133.03 ug/L	133.03 ppb	07:52:57
2	Zn 213.857†	34586.2	33311.4	266.86 ug/L	266.86 ppb	07:52:57
2	SiO2†	906107.6	893861.2	54863 ug/L	54863 ppb	07:54:01
3	Sc Radial	4743.5	4743.5	102 %		07:52:14
3	Y RADIAL	5350.2	5350.2	108.5 %		07:52:14
3	Al 396.153Radial†	85364.0	84025.1	74524 ug/L	74524 ppb	07:51:54
3	Ca 317.933Radial†	9588.4	9422.5	15789 ug/L	15789 ppb	07:51:54
3	Fe 238.204 Radial†	12759.3	12541.3	110200 ug/L	110200 ppb	07:51:54
3	K 766.490 Radial†	65519.8	61134.9	12122 ug/L	12122 ppb	07:51:54
3	Mg 279.077 IEC†	428.0	419.5	13319 ug/L	13319 ppb	07:52:14
3	Na 589.592 Radial†	3762.3	5452.2	1647.0 ug/L	1647.0 ppb	07:51:54
3	Sr 421.552†	24140.4	23738.2	173.66 ug/L	173.66 ppb	07:51:54
3	Sc 361.383	927598.9	927598.9	104.62 %		07:53:23
3	Y 371.029	847559.2	847559.2	111.26 %		07:53:23
3	Ag 328.068†	-7446.7	-7629.9	4.5883 ug/L	4.5883 ppb	07:53:29
3	As 188.979†	-39.4	-4.3	36.082 ug/L	36.082 ppb	07:53:49
3	B 249.677†	229.0	884.7	3.5346 ug/L	3.5346 ppb	07:53:29
3	Ba 233.527†	118753.1	113498.1	830.70 ug/L	830.70 ppb	07:53:29
3	Be 313.107†	-2569.9	1895.2	5.4517 ug/L	5.4517 ppb	07:53:29
3	Cd 226.502†	802.4	1005.3	-1.5180 ug/L	-1.5180 ppb	07:53:49
3	Co 228.616†	1852.8	1854.9	28.434 ug/L	28.434 ppb	07:53:49
3	Cr 267.716†	6188.8	5811.3	60.526 ug/L	60.526 ppb	07:53:29
3	Cu 324.752†	18336.5	9527.2	33.828 ug/L	33.828 ppb	07:53:29
3	Mn 257.610†	1951437.0	1864689.1	1975.5 ug/L	1975.5 ppb	07:53:23
3	Mo 202.031†	-50.1	-67.8	6.3177 ug/L	6.3177 ppb	07:53:49
3	Ni 231.604†	2394.0	2163.2	47.465 ug/L	47.465 ppb	07:53:49
3	P 214.914†	1913.0	1579.9	701.96 ug/L	701.96 ppb	07:53:49
3	Pb 220.353†	345.7	408.2	49.931 ug/L	49.931 ppb	07:53:49
3	S 181.975 Axial†	332.6	258.0	276.91 ug/L	276.91 ppb	07:53:49
3	Sb 206.836†	70.4	30.2	0.7255 ug/L	0.7255 ppb	07:53:49
3	Se 196.026†	-696.7	-632.6	26.761 ug/L	26.761 ppb	07:53:49
3	Si 251.611†	900568.8	860157.3	24671 ug/L	24671 ppb	07:53:23
3	Sn 189.927†	-69.3	-69.7	-7.1492 ug/L	-7.1492 ppb	07:53:49
3	Ti 334.940†	1612173.5	1542751.0	2448.6 ug/L	2448.6 ppb	07:53:23
3	Tl 190.801†	-174.8	-113.7	0.7752 ug/L	0.7752 ppb	07:53:49
3	U 409.014†	-10349.4	-7223.4	-228.72 ug/L	-228.72 ppb	07:53:23
3	V 292.402†	22764.4	23560.3	128.25 ug/L	128.25 ppb	07:53:29
3	Zn 213.857†	34408.1	32055.9	257.07 ug/L	257.07 ppb	07:53:29
3	SiO2†	917863.2	876668.0	53808 ug/L	53808 ppb	07:54:07

Mean Data: 243517006|936768|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
Sc 361.383	906412.2	102.23 %		2.086				2.04%
Sc Radial	4653.1	99.7 %		2.70				2.71%
Y 371.029	830685.5	109.05 %		1.939				1.78%
Y RADIAL	5264.4	106.7 %		2.66				2.49%
Ag 328.068†	-7901.2	4.3223 ug/L		1.97920	4.3223 ppb	1.97920		45.79%
Al 396.153Radial†	86039.9	76311 ug/L		3886.0	76311 ppb	3886.0		5.09%
As 188.979†	-8.1	35.820 ug/L		0.7261	35.820 ppb	0.7261		2.03%
B 249.677†	965.2	4.8437 ug/L		1.56380	4.8437 ppb	1.56380		32.28%
Ba 233.527†	117292.5	858.45 ug/L		24.562	858.45 ppb	24.562		2.86%
Be 313.107†	1834.0	5.5842 ug/L		0.11531	5.5842 ppb	0.11531		2.06%
Ca 317.933Radial†	9665.0	16195 ug/L		825.2	16195 ppb	825.2		5.10%
Cd 226.502†	1022.7	-1.6159 ug/L		0.60784	-1.6159 ppb	0.60784		37.62%
Co 228.616†	1914.6	29.365 ug/L		0.8110	29.365 ppb	0.8110		2.76%
Cr 267.716†	6005.3	62.529 ug/L		1.7481	62.529 ppb	1.7481		2.80%
Cu 324.752†	9896.9	35.056 ug/L		1.0695	35.056 ppb	1.0695		3.05%
Fe 238.204 Radial†	12839.8	112820 ug/L		5698.2	112820 ppb	5698.2		5.05%
K 766.490 Radial†	62849.3	12462 ug/L		607.6	12462 ppb	607.6		4.88%

Mg 279.077 IEC†	432.2	13723 ug/L	595.6	13723 ppb	595.6	4.34%
Mn 257.610†	1922681.9	2036.8 ug/L	53.14	2036.8 ppb	53.14	2.61%
Mo 202.031†	-66.9	6.6223 ug/L	0.71770	6.6223 ppb	0.71770	10.84%
Na 589.592 Radial†	5602.3	1692.3 ug/L	84.82	1692.3 ppb	84.82	5.01%
Ni 231.604†	2231.8	48.970 ug/L	1.3047	48.970 ppb	1.3047	2.66%
P 214.914†	1635.8	727.49 ug/L	22.522	727.49 ppb	22.522	3.10%
Pb 220.353†	405.4	49.824 ug/L	1.2663	49.824 ppb	1.2663	2.54%
S 181.975 Axial†	268.2	288.08 ug/L	10.344	288.08 ppb	10.344	3.59%
Sb 206.836†	23.7	-1.5049 ug/L	2.51061	-1.5049 ppb	2.51061	166.83%
Se 196.026†	-648.2	27.126 ug/L	18.2509	27.126 ppb	18.2509	67.28%
Si 251.611†	886754.6	25434 ug/L	660.8	25434 ppb	660.8	2.60%
Sn 189.927†	-82.9	-9.0268 ug/L	1.71808	-9.0268 ppb	1.71808	19.03%
Sr 421.552†	24363.2	178.23 ug/L	9.199	178.23 ppb	9.199	5.16%
Ti 334.940†	1591878.3	2526.6 ug/L	67.55	2526.6 ppb	67.55	2.67%
Tl 190.801†	-121.1	-0.2518 ug/L	1.41047	-0.2518 ppb	1.41047	560.17%
U 409.014†	-7582.1	-239.71 ug/L	9.543	-239.71 ppb	9.543	3.98%
V 292.402†	24346.1	132.68 ug/L	4.271	132.68 ppb	4.271	3.22%
Zn 213.857†	33056.9	265.14 ug/L	7.360	265.14 ppb	7.360	2.78%
SiO2†	891621.8	54726 ug/L	857.5	54726 ppb	857.5	1.57%

Sequence No.: 9
 Sample ID: 243517007|936768|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 111
 Date Collected: 1/7/2010 07:56:19
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 243517007|936768|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4768.9	4768.9	102 %		07:58:33
1	Y RADIAL	5465.0	5465.0	110.8 %		07:58:33
1	Al 396.153Radial†	112227.3	109869.4	97446 ug/L	97446 ppb	07:58:13
1	Ca 317.933Radial†	12651.8	12370.4	20729 ug/L	20729 ppb	07:58:13
1	Fe 238.204 Radial†	14410.3	14090.2	123810 ug/L	123810 ppb	07:58:13
1	K 766.490 Radial†	74840.3	69913.4	13866 ug/L	13866 ppb	07:58:13
1	Mg 279.077 IEC†	621.0	606.1	19274 ug/L	19274 ppb	07:58:33
1	Na 589.592 Radial†	4401.4	6058.0	1830.0 ug/L	1830.0 ppb	07:58:13
1	Sr 421.552†	33189.4	32468.2	237.53 ug/L	237.53 ppb	07:58:13
1	Sc 361.383	893053.4	893053.4	100.73 %		07:59:32
1	Y 371.029	830187.9	830187.9	108.98 %		07:59:32
1	Ag 328.068†	-8791.3	-9240.2	2.3159 ug/L	2.3159 ppb	07:59:32
1	As 188.979†	-26.2	7.4	40.172 ug/L	40.172 ppb	07:59:52
1	B 249.677†	478.6	1141.0	7.0059 ug/L	7.0059 ppb	07:59:32
1	Ba 233.527†	181357.1	180041.0	1316.3 ug/L	1316.3 ppb	07:59:32
1	Be 313.107†	10463.9	14739.9	9.2997 ug/L	9.2997 ppb	07:59:32
1	Cd 226.502†	927.0	1158.6	-1.4221 ug/L	-1.4221 ppb	07:59:52
1	Co 228.616†	1967.8	2037.6	32.422 ug/L	32.422 ppb	07:59:52
1	Cr 267.716†	7240.2	7083.9	73.591 ug/L	73.591 ppb	07:59:52
1	Cu 324.752†	22629.7	14467.4	49.148 ug/L	49.148 ppb	07:59:32
1	Mn 257.610†	1971654.5	1956911.5	2073.9 ug/L	2073.9 ppb	07:59:32
1	Mo 202.031†	-47.9	-67.5	7.6399 ug/L	7.6399 ppb	07:59:52
1	Ni 231.604†	3225.0	3076.7	67.516 ug/L	67.516 ppb	07:59:52
1	P 214.914†	1444.3	1185.3	503.97 ug/L	503.97 ppb	07:59:52
1	Pb 220.353†	338.6	413.9	54.543 ug/L	54.543 ppb	07:59:52
1	S 181.975 Axial†	449.4	386.2	417.32 ug/L	417.32 ppb	07:59:52
1	Sb 206.836†	82.4	44.7	5.0179 ug/L	5.0179 ppb	07:59:52
1	Se 196.026†	-811.2	-772.1	0.8198 ug/L	0.8198 ppb	07:59:52
1	Si 251.611†	927329.4	920021.6	26388 ug/L	26388 ppb	07:59:32
1	Sn 189.927†	-101.6	-104.3	-11.563 ug/L	-11.563 ppb	07:59:52
1	Ti 334.940†	1392764.5	1384532.3	2197.9 ug/L	2197.9 ppb	07:59:32
1	Tl 190.801†	-177.7	-123.1	-2.5934 ug/L	-2.5934 ppb	07:59:52
1	U 409.014†	-12174.2	-9417.6	-295.69 ug/L	-295.69 ppb	07:59:32
1	V 292.402†	26509.7	28120.3	155.08 ug/L	155.08 ppb	07:59:32
1	Zn 213.857†	39224.6	38109.9	305.79 ug/L	305.79 ppb	07:59:32
1	SiO2†	924747.2	917438.6	56310 ug/L	56310 ppb	08:00:52
2	Sc Radial	4755.9	4755.9	102 %		07:58:58
2	Y RADIAL	5459.6	5459.6	110.7 %		07:58:58
2	Al 396.153Radial†	115133.1	113020.7	100240 ug/L	100240 ppb	07:58:38
2	Ca 317.933Radial†	13001.9	12747.7	21361 ug/L	21361 ppb	07:58:38
2	Fe 238.204 Radial†	14829.4	14540.0	127760 ug/L	127760 ppb	07:58:38
2	K 766.490 Radial†	76752.5	71989.7	14279 ug/L	14279 ppb	07:58:38
2	Mg 279.077 IEC†	618.4	605.3	19244 ug/L	19244 ppb	07:58:58
2	Na 589.592 Radial†	4658.8	6322.4	1909.9 ug/L	1909.9 ppb	07:58:38
2	Sr 421.552†	34184.2	33533.0	245.32 ug/L	245.32 ppb	07:58:38
2	Sc 361.383	881988.8	881988.8	99.479 %		07:59:59
2	Y 371.029	820906.5	820906.5	107.76 %		07:59:59
2	Ag 328.068†	-8594.6	-9152.0	4.0124 ug/L	4.0124 ppb	07:59:59
2	As 188.979†	-23.6	9.7	41.584 ug/L	41.584 ppb	08:00:19
2	B 249.677†	479.5	1147.9	6.6212 ug/L	6.6212 ppb	07:59:59
2	Ba 233.527†	179351.2	180283.3	1318.2 ug/L	1318.2 ppb	07:59:59
2	Be 313.107†	10370.3	14776.1	9.3086 ug/L	9.3086 ppb	07:59:59
2	Cd 226.502†	961.9	1205.3	-1.3771 ug/L	-1.3771 ppb	08:00:19
2	Co 228.616†	1982.9	2077.2	33.116 ug/L	33.116 ppb	08:00:19
2	Cr 267.716†	7234.4	7168.3	74.510 ug/L	74.510 ppb	08:00:19
2	Cu 324.752†	22320.2	14438.1	49.263 ug/L	49.263 ppb	07:59:59
2	Mn 257.610†	1945208.7	1954883.1	2072.1 ug/L	2072.1 ppb	07:59:59
2	Mo 202.031†	-42.3	-62.5	8.3312 ug/L	8.3312 ppb	08:00:19
2	Ni 231.604†	3230.7	3122.5	68.522 ug/L	68.522 ppb	08:00:19

2	P 214.914†	1462.8	1221.9	519.59 ug/L	519.59 ppb	08:00:19
2	Pb 220.353†	364.1	443.7	57.933 ug/L	57.933 ppb	08:00:19
2	S 181.975 Axial†	448.8	391.3	422.46 ug/L	422.46 ppb	08:00:19
2	Sb 206.836†	53.5	16.7	-3.3462 ug/L	-3.3462 ppb	08:00:19
2	Se 196.026†	-791.3	-762.2	18.506 ug/L	18.506 ppb	08:00:19
2	Si 251.611†	915802.3	919983.6	26387 ug/L	26387 ppb	07:59:59
2	Sn 189.927†	-93.3	-97.2	-10.393 ug/L	-10.393 ppb	08:00:19
2	Ti 334.940†	1374467.2	1383485.3	2196.2 ug/L	2196.2 ppb	07:59:59
2	Tl 190.801†	-167.9	-115.4	-0.4557 ug/L	-0.4557 ppb	08:00:19
2	U 409.014†	-12145.0	-9539.9	-299.82 ug/L	-299.82 ppb	07:59:59
2	V 292.402†	26300.8	28240.4	155.23 ug/L	155.23 ppb	07:59:59
2	Zn 213.857†	38720.6	38091.8	305.43 ug/L	305.43 ppb	07:59:59
2	SiO2†	937643.2	941919.5	57812 ug/L	57812 ppb	08:00:58
3	Sc Radial	4712.2	4712.2	101 %		07:59:23
3	Y RADIAL	5409.2	5409.2	109.7 %		07:59:23
3	Al 396.153Radial†	114016.0	112963.5	100190 ug/L	100190 ppb	07:59:03
3	Ca 317.933Radial†	12846.8	12712.7	21302 ug/L	21302 ppb	07:59:03
3	Fe 238.204 Radial†	14658.0	14505.4	127460 ug/L	127460 ppb	07:59:03
3	K 766.490 Radial†	76238.6	72180.2	14317 ug/L	14317 ppb	07:59:03
3	Mg 279.077 IEC†	612.1	604.7	19225 ug/L	19225 ppb	07:59:23
3	Na 589.592 Radial†	4521.9	6229.2	1881.7 ug/L	1881.7 ppb	07:59:03
3	Sr 421.552†	33744.2	33408.8	244.41 ug/L	244.41 ppb	07:59:03
3	Sc 361.383	899953.0	899953.0	101.51 %		08:00:26
3	Y 371.029	836630.2	836630.2	109.83 %		08:00:26
3	Ag 328.068†	-8820.1	-9201.6	3.6913 ug/L	3.6913 ppb	08:00:26
3	As 188.979†	-29.1	4.8	39.839 ug/L	39.839 ppb	08:00:46
3	B 249.677†	491.6	1150.1	6.7097 ug/L	6.7097 ppb	08:00:26
3	Ba 233.527†	183020.4	180299.2	1318.3 ug/L	1318.3 ppb	08:00:26
3	Be 313.107†	10484.8	14680.9	9.2838 ug/L	9.2838 ppb	08:00:26
3	Cd 226.502†	938.8	1163.3	-1.7433 ug/L	-1.7433 ppb	08:00:46
3	Co 228.616†	1987.2	2041.7	32.444 ug/L	32.444 ppb	08:00:46
3	Cr 267.716†	7279.2	7067.3	73.489 ug/L	73.489 ppb	08:00:46
3	Cu 324.752†	22740.5	14404.4	49.148 ug/L	49.148 ppb	08:00:26
3	Mn 257.610†	1987593.5	1957607.3	2075.0 ug/L	2075.0 ppb	08:00:26
3	Mo 202.031†	-49.0	-68.2	7.9470 ug/L	7.9470 ppb	08:00:46
3	Ni 231.604†	3235.9	3062.9	67.214 ug/L	67.214 ppb	08:00:46
3	P 214.914†	1440.3	1170.4	494.74 ug/L	494.74 ppb	08:00:46
3	Pb 220.353†	336.4	409.1	54.361 ug/L	54.361 ppb	08:00:46
3	S 181.975 Axial†	454.0	387.4	418.09 ug/L	418.09 ppb	08:00:46
3	Sb 206.836†	64.4	26.4	-0.4092 ug/L	-0.4092 ppb	08:00:46
3	Se 196.026†	-794.6	-749.5	24.026 ug/L	24.026 ppb	08:00:46
3	Si 251.611†	936392.7	921892.4	26441 ug/L	26441 ppb	08:00:26
3	Sn 189.927†	-75.8	-78.0	-7.5707 ug/L	-7.5707 ppb	08:00:46
3	Ti 334.940†	1404856.3	1385844.0	2200.0 ug/L	2200.0 ppb	08:00:26
3	Tl 190.801†	-165.2	-109.3	1.2515 ug/L	1.2515 ppb	08:00:46
3	U 409.014†	-12107.3	-9259.1	-291.43 ug/L	-291.43 ppb	08:00:26
3	V 292.402†	26830.3	28234.3	155.25 ug/L	155.25 ppb	08:00:26
3	Zn 213.857†	39534.9	38117.1	305.66 ug/L	305.66 ppb	08:00:26
3	SiO2†	922231.8	907921.9	55725 ug/L	55725 ppb	08:01:04

Mean Data: 243517007|936768|1

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Sc 361.383	891665.1	100.57 %	1.022			1.02%
Sc Radial	4745.7	102 %	0.6			0.63%
Y 371.029	829241.5	108.86 %	1.038			0.95%
Y RADIAL	5444.6	110.4 %	0.62			0.57%
Ag 328.068†	-9198.0	3.3398 ug/L	0.90122	3.3398 ppb	0.90122	26.98%
Al 396.153Radial†	111951.2	99292 ug/L	1599.2	99292 ppb	1599.2	1.61%
As 188.979†	7.3	40.531 ug/L	0.9264	40.531 ppb	0.9264	2.29%
B 249.677†	1146.4	6.7790 ug/L	0.20148	6.7790 ppb	0.20148	2.97%
Ba 233.527†	180207.8	1317.6 ug/L	1.11	1317.6 ppb	1.11	0.08%
Be 313.107†	14732.3	9.2974 ug/L	0.01257	9.2974 ppb	0.01257	0.14%
Ca 317.933Radial†	12610.3	21131 ug/L	349.4	21131 ppb	349.4	1.65%
Cd 226.502†	1175.7	-1.5141 ug/L	0.19972	-1.5141 ppb	0.19972	13.19%
Co 228.616†	2052.2	32.661 ug/L	0.3946	32.661 ppb	0.3946	1.21%
Cr 267.716†	7106.5	73.863 ug/L	0.5620	73.863 ppb	0.5620	0.76%
Cu 324.752†	14436.6	49.186 ug/L	0.0664	49.186 ppb	0.0664	0.14%
Fe 238.204 Radial†	14378.5	126340 ug/L	2199.0	126340 ppb	2199.0	1.74%
K 766.490 Radial†	71361.1	14154 ug/L	249.8	14154 ppb	249.8	1.77%

Mg 279.077 IEC†	605.4	19248 ug/L	25.0	19248 ppb	25.0	0.13%
Mn 257.610†	1956467.3	2073.7 ug/L	1.43	2073.7 ppb	1.43	0.07%
Mo 202.031†	-66.0	7.9727 ug/L	0.34638	7.9727 ppb	0.34638	4.34%
Na 589.592 Radial†	6203.2	1873.8 ug/L	40.51	1873.8 ppb	40.51	2.16%
Ni 231.604†	3087.4	67.751 ug/L	0.6851	67.751 ppb	0.6851	1.01%
P 214.914†	1192.5	506.10 ug/L	12.562	506.10 ppb	12.562	2.48%
Pb 220.353†	422.3	55.612 ug/L	2.0119	55.612 ppb	2.0119	3.62%
S 181.975 Axial†	388.3	419.29 ug/L	2.773	419.29 ppb	2.773	0.66%
Sb 206.836†	29.3	0.4209 ug/L	4.24338	0.4209 ppb	4.24338	>999.9%
Se 196.026†	-761.3	14.451 ug/L	12.1231	14.451 ppb	12.1231	83.89%
Si 251.611†	920632.5	26405 ug/L	31.3	26405 ppb	31.3	0.12%
Sn 189.927†	-93.2	-9.8424 ug/L	2.05244	-9.8424 ppb	2.05244	20.85%
Sr 421.552†	33136.7	242.42 ug/L	4.260	242.42 ppb	4.260	1.76%
Ti 334.940†	1384620.5	2198.0 ug/L	1.87	2198.0 ppb	1.87	0.09%
Tl 190.801†	-115.9	-0.5992 ug/L	1.92649	-0.5992 ppb	1.92649	321.51%
U 409.014†	-9405.6	-295.65 ug/L	4.194	-295.65 ppb	4.194	1.42%
V 292.402†	28198.4	155.19 ug/L	0.092	155.19 ppb	0.092	0.06%
Zn 213.857†	38106.3	305.63 ug/L	0.182	305.63 ppb	0.182	0.06%
SiO2†	922426.7	56616 ug/L	1076.7	56616 ppb	1076.7	1.90%

Sequence No.: 11
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 1/7/2010 08:10:22
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4256.6	4256.6	91.2 %		08:12:14
1	Y RADIAL	4500.2	4500.2	91.23 %		08:12:14
1	Al 396.153Radial†	5788.1	6373.7	5632.5 ug/L	5632.5 ppb	08:12:14
1	Ca 317.933Radial†	2926.2	3196.2	5355.7 ug/L	5355.7 ppb	08:12:34
1	Fe 238.204 Radial†	571.6	613.0	5401.0 ug/L	5401.0 ppb	08:12:34
1	K 766.490 Radial†	27245.1	26539.0	5259.0 ug/L	5259.0 ppb	08:12:14
1	Mg 279.077 IEC†	152.4	165.5	5297.6 ug/L	5297.6 ppb	08:12:34
1	Na 589.592 Radial†	32646.3	37548.5	11343 ug/L	11343 ppb	08:12:14
1	Sr 421.552†	71856.6	78778.5	576.74 ug/L	576.74 ppb	08:12:14
1	Sc 361.383	891266.3	891266.3	100.53 %		08:13:33
1	Y 371.029	758283.2	758283.2	99.544 %		08:13:33
1	Ag 328.068†	112652.6	111551.7	482.41 ug/L	482.41 ppb	08:13:33
1	As 188.979†	1368.8	1395.0	492.57 ug/L	492.57 ppb	08:13:53
1	B 249.677†	22665.9	23213.3	476.71 ug/L	476.71 ppb	08:13:33
1	Ba 233.527†	66545.8	66190.6	483.86 ug/L	483.86 ppb	08:13:33
1	Be 313.107†	1452779.7	1449540.7	490.89 ug/L	490.89 ppb	08:13:33
1	Cd 226.502†	51461.7	51431.2	484.16 ug/L	484.16 ppb	08:13:33
1	Co 228.616†	25482.3	25433.1	478.32 ug/L	478.32 ppb	08:13:53
1	Cr 267.716†	48529.1	48171.5	483.45 ug/L	483.45 ppb	08:13:33
1	Cu 324.752†	171388.8	162494.3	481.36 ug/L	481.36 ppb	08:13:33
1	Mn 257.610†	465041.9	462095.7	487.33 ug/L	487.33 ppb	08:13:33
1	Mo 202.031†	7712.8	7652.6	479.93 ug/L	479.93 ppb	08:13:53
1	Ni 231.604†	22189.7	21948.7	481.52 ug/L	481.52 ppb	08:13:53
1	P 214.914†	5255.0	4979.0	2354.3 ug/L	2354.3 ppb	08:13:53
1	Pb 220.353†	4639.1	4692.6	487.75 ug/L	487.75 ppb	08:13:53
1	S 181.975 Axial†	912.1	847.4	956.63 ug/L	956.63 ppb	08:13:53
1	Sb 206.836†	1629.9	1584.3	479.99 ug/L	479.99 ppb	08:13:53
1	Se 196.026†	942.3	970.7	515.69 ug/L	515.69 ppb	08:13:53
1	Si 251.611†	84919.8	83859.6	2394.1 ug/L	2394.1 ppb	08:13:33
1	Sn 189.927†	3250.6	3230.2	478.42 ug/L	478.42 ppb	08:13:53
1	Ti 334.940†	305172.5	305395.4	484.45 ug/L	484.45 ppb	08:13:33
1	Tl 190.801†	1729.0	1773.4	487.63 ug/L	487.63 ppb	08:13:53
1	U 409.014†	12737.5	15339.6	454.41 ug/L	454.41 ppb	08:13:33
1	V 292.402†	75473.9	76881.4	488.95 ug/L	488.95 ppb	08:13:33
1	Zn 213.857†	60541.5	59393.5	484.23 ug/L	484.23 ppb	08:13:33
1	SiO2†	86005.2	84919.8	5187.8 ug/L	5187.8 ppb	08:14:53
2	Sc Radial	4927.8	4927.8	106 %		08:12:39
2	Y RADIAL	5152.0	5152.0	104.4 %		08:12:39
2	Al 396.153Radial†	5650.1	5378.5	4749.5 ug/L	4749.5 ppb	08:12:39
2	Ca 317.933Radial†	2940.0	2772.2	4645.3 ug/L	4645.3 ppb	08:12:59
2	Fe 238.204 Radial†	575.6	531.3	4683.6 ug/L	4683.6 ppb	08:12:59
2	K 766.490 Radial†	27023.7	22260.2	4410.3 ug/L	4410.3 ppb	08:12:39
2	Mg 279.077 IEC†	157.6	147.6	4725.9 ug/L	4725.9 ppb	08:12:59
2	Na 589.592 Radial†	31860.2	31928.1	9644.8 ug/L	9644.8 ppb	08:12:39
2	Sr 421.552†	70076.3	66360.3	485.83 ug/L	485.83 ppb	08:12:39
2	Sc 361.383	884841.8	884841.8	99.801 %		08:14:00
2	Y 371.029	752732.0	752732.0	98.815 %		08:14:00
2	Ag 328.068†	112569.2	112281.8	485.33 ug/L	485.33 ppb	08:14:00
2	As 188.979†	1383.0	1419.1	500.93 ug/L	500.93 ppb	08:14:20
2	B 249.677†	22648.9	23360.0	479.82 ug/L	479.82 ppb	08:14:00
2	Ba 233.527†	66706.3	66832.1	488.53 ug/L	488.53 ppb	08:14:00
2	Be 313.107†	1455421.0	1462680.1	495.34 ug/L	495.34 ppb	08:14:00
2	Cd 226.502†	51567.3	51908.7	488.74 ug/L	488.74 ppb	08:14:00
2	Co 228.616†	25613.8	25749.0	484.28 ug/L	484.28 ppb	08:14:20
2	Cr 267.716†	48637.4	48630.5	488.04 ug/L	488.04 ppb	08:14:00
2	Cu 324.752†	171344.9	163688.2	484.86 ug/L	484.86 ppb	08:14:00
2	Mn 257.610†	466225.9	466640.9	492.05 ug/L	492.05 ppb	08:14:00
2	Mo 202.031†	7765.5	7761.1	486.66 ug/L	486.66 ppb	08:14:20
2	Ni 231.604†	22288.0	22207.5	487.20 ug/L	487.20 ppb	08:14:20

2	P 214.914†	5292.5	5054.5	2391.0 ug/L	2391.0 ppb	08:14:20
2	Pb 220.353†	4660.0	4747.1	493.28 ug/L	493.28 ppb	08:14:20
2	S 181.975 Axial†	918.1	860.0	970.99 ug/L	970.99 ppb	08:14:20
2	Sb 206.836†	1655.3	1621.5	491.27 ug/L	491.27 ppb	08:14:20
2	Se 196.026†	949.8	985.0	520.70 ug/L	520.70 ppb	08:14:20
2	Si 251.611†	85072.0	84625.4	2416.2 ug/L	2416.2 ppb	08:14:00
2	Sn 189.927†	3278.4	3281.5	485.92 ug/L	485.92 ppb	08:14:20
2	Ti 334.940†	305518.9	307946.6	488.45 ug/L	488.45 ppb	08:14:00
2	Tl 190.801†	1749.6	1806.4	496.65 ug/L	496.65 ppb	08:14:20
2	U 409.014†	12932.6	15627.1	463.04 ug/L	463.04 ppb	08:14:00
2	V 292.402†	75542.5	77495.3	493.00 ug/L	493.00 ppb	08:14:00
2	Zn 213.857†	60632.4	59921.9	488.60 ug/L	488.60 ppb	08:14:00
2	SiO2†	85549.0	85083.9	5198.2 ug/L	5198.2 ppb	08:14:58
3	Sc Radial	4871.5	4871.5	104 %		08:13:04
3	Y RADIAL	5099.6	5099.6	103.4 %		08:13:04
3	Al 396.153Radial†	5597.1	5389.5	4759.4 ug/L	4759.4 ppb	08:13:04
3	Ca 317.933Radial†	2947.4	2811.4	4711.0 ug/L	4711.0 ppb	08:13:24
3	Fe 238.204 Radial†	570.3	532.5	4694.5 ug/L	4694.5 ppb	08:13:24
3	K 766.490 Radial†	26723.5	22267.9	4411.8 ug/L	4411.8 ppb	08:13:04
3	Mg 279.077 IEC†	158.5	150.2	4807.5 ug/L	4807.5 ppb	08:13:24
3	Na 589.592 Radial†	31426.7	31861.1	9624.6 ug/L	9624.6 ppb	08:13:04
3	Sr 421.552†	69289.0	66372.0	485.91 ug/L	485.91 ppb	08:13:04
3	Sc 361.383	887690.1	887690.1	100.12 %		08:14:28
3	Y 371.029	754607.8	754607.8	99.062 %		08:14:28
3	Ag 328.068†	112883.0	112233.3	485.13 ug/L	485.13 ppb	08:14:28
3	As 188.979†	1368.5	1400.2	494.31 ug/L	494.31 ppb	08:14:48
3	B 249.677†	22792.0	23430.1	481.27 ug/L	481.27 ppb	08:14:28
3	Ba 233.527†	66660.3	66571.6	486.63 ug/L	486.63 ppb	08:14:28
3	Be 313.107†	1459129.9	1461705.2	495.00 ug/L	495.00 ppb	08:14:28
3	Cd 226.502†	51860.3	52035.6	489.93 ug/L	489.93 ppb	08:14:28
3	Co 228.616†	25487.3	25540.2	480.35 ug/L	480.35 ppb	08:14:48
3	Cr 267.716†	48747.3	48584.0	487.57 ug/L	487.57 ppb	08:14:28
3	Cu 324.752†	171914.0	163705.7	484.91 ug/L	484.91 ppb	08:14:28
3	Mn 257.610†	467398.4	466313.0	491.71 ug/L	491.71 ppb	08:14:28
3	Mo 202.031†	7717.6	7688.3	482.10 ug/L	482.10 ppb	08:14:48
3	Ni 231.604†	22128.9	21976.9	482.14 ug/L	482.14 ppb	08:14:48
3	P 214.914†	5264.6	5009.6	2369.0 ug/L	2369.0 ppb	08:14:48
3	Pb 220.353†	4638.1	4710.2	489.44 ug/L	489.44 ppb	08:14:48
3	S 181.975 Axial†	910.0	849.0	958.60 ug/L	958.60 ppb	08:14:48
3	Sb 206.836†	1629.3	1590.2	481.75 ug/L	481.75 ppb	08:14:48
3	Se 196.026†	954.5	986.6	521.56 ug/L	521.56 ppb	08:14:48
3	Si 251.611†	85313.7	84593.3	2415.3 ug/L	2415.3 ppb	08:14:28
3	Sn 189.927†	3252.4	3245.0	480.53 ug/L	480.53 ppb	08:14:48
3	Ti 334.940†	305945.8	307390.7	487.57 ug/L	487.57 ppb	08:14:28
3	Tl 190.801†	1733.2	1784.4	490.66 ug/L	490.66 ppb	08:14:48
3	U 409.014†	12839.4	15492.5	459.04 ug/L	459.04 ppb	08:14:28
3	V 292.402†	75757.6	77467.2	492.76 ug/L	492.76 ppb	08:14:28
3	Zn 213.857†	60762.0	59856.4	488.09 ug/L	488.09 ppb	08:14:28
3	SiO2†	85198.1	84458.4	5160.0 ug/L	5160.0 ppb	08:15:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	887932.7	100.15 %	0.363			0.36%
Sc Radial	4685.3	100 %	8.0			7.95%
Y 371.029	755207.7	99.140 %	0.3707			0.37%
Y RADIAL	4917.3	99.68 %	7.342			7.37%
Ag 328.068†	112022.2	484.29 ug/L	1.627	484.29 ppb	1.627	0.34%
QC value within limits for Ag 328.068 Recovery = 96.86%						
Al 396.153Radial†	5713.9	5047.1 ug/L	506.94	5047.1 ppb	506.94	10.04%
QC value within limits for Al 396.153Radial Recovery = 100.94%						
As 188.979†	1404.8	495.94 ug/L	4.409	495.94 ppb	4.409	0.89%
QC value within limits for As 188.979 Recovery = 99.19%						
B 249.677†	23334.5	479.27 ug/L	2.328	479.27 ppb	2.328	0.49%
QC value within limits for B 249.677 Recovery = 95.85%						
Ba 233.527†	66531.4	486.34 ug/L	2.348	486.34 ppb	2.348	0.48%
QC value within limits for Ba 233.527 Recovery = 97.27%						
Be 313.107†	1457975.3	493.74 ug/L	2.479	493.74 ppb	2.479	0.50%
QC value within limits for Be 313.107 Recovery = 98.75%						
Ca 317.933Radial†	2926.6	4904.0 ug/L	392.54	4904.0 ppb	392.54	8.00%

QC value within limits for Ca 317.933 Radial Recovery = 98.08%							
Cd 226.502†	51791.8	487.61 ug/L	3.043	487.61 ppb	3.043	0.62%	
QC value within limits for Cd 226.502 Recovery = 97.52%							
Co 228.616†	25574.1	480.98 ug/L	3.030	480.98 ppb	3.030	0.63%	
QC value within limits for Co 228.616 Recovery = 96.20%							
Cr 267.716†	48462.0	486.35 ug/L	2.527	486.35 ppb	2.527	0.52%	
QC value within limits for Cr 267.716 Recovery = 97.27%							
Cu 324.752†	163296.1	483.71 ug/L	2.035	483.71 ppb	2.035	0.42%	
QC value within limits for Cu 324.752 Recovery = 96.74%							
Fe 238.204 Radial†	558.9	4926.4 ug/L	411.07	4926.4 ppb	411.07	8.34%	
QC value within limits for Fe 238.204 Radial Recovery = 98.53%							
K 766.490 Radial†	23689.0	4693.7 ug/L	489.56	4693.7 ppb	489.56	10.43%	
QC value within limits for K 766.490 Radial Recovery = 93.87%							
Mg 279.077 IEC†	154.4	4943.7 ug/L	309.24	4943.7 ppb	309.24	6.26%	
QC value within limits for Mg 279.077 IEC Recovery = 98.87%							
Mn 257.610†	465016.6	490.36 ug/L	2.636	490.36 ppb	2.636	0.54%	
QC value within limits for Mn 257.610 Recovery = 98.07%							
Mo 202.031†	7700.7	482.90 ug/L	3.435	482.90 ppb	3.435	0.71%	
QC value within limits for Mo 202.031 Recovery = 96.58%							
Na 589.592 Radial†	33779.2	10204 ug/L	986.1	10204 ppb	986.1	9.66%	
QC value within limits for Na 589.592 Radial Recovery = 102.04%							
Ni 231.604†	22044.4	483.62 ug/L	3.114	483.62 ppb	3.114	0.64%	
QC value within limits for Ni 231.604 Recovery = 96.72%							
P 214.914†	5014.4	2371.4 ug/L	18.43	2371.4 ppb	18.43	0.78%	
QC value within limits for P 214.914 Recovery = 94.86%							
Pb 220.353†	4716.6	490.16 ug/L	2.831	490.16 ppb	2.831	0.58%	
QC value within limits for Pb 220.353 Recovery = 98.03%							
S 181.975 Axial†	852.2	962.07 ug/L	7.783	962.07 ppb	7.783	0.81%	
QC value within limits for S 181.975 Axial Recovery = 96.21%							
Sb 206.836†	1598.7	484.34 ug/L	6.066	484.34 ppb	6.066	1.25%	
QC value within limits for Sb 206.836 Recovery = 96.87%							
Se 196.026†	980.8	519.32 ug/L	3.173	519.32 ppb	3.173	0.61%	
QC value within limits for Se 196.026 Recovery = 103.86%							
Si 251.611†	84359.4	2408.5 ug/L	12.53	2408.5 ppb	12.53	0.52%	
QC value within limits for Si 251.611 Recovery = 96.34%							
Sn 189.927†	3252.2	481.62 ug/L	3.870	481.62 ppb	3.870	0.80%	
QC value within limits for Sn 189.927 Recovery = 96.32%							
Sr 421.552†	70503.6	516.16 ug/L	52.466	516.16 ppb	52.466	10.16%	
QC value within limits for Sr 421.552 Recovery = 103.23%							
Ti 334.940†	306910.9	486.82 ug/L	2.106	486.82 ppb	2.106	0.43%	
QC value within limits for Ti 334.940 Recovery = 97.36%							
Tl 190.801†	1788.1	491.65 ug/L	4.591	491.65 ppb	4.591	0.93%	
QC value within limits for Tl 190.801 Recovery = 98.33%							
U 409.014†	15486.4	458.83 ug/L	4.318	458.83 ppb	4.318	0.94%	
QC value within limits for U 409.014 Recovery = 91.77%							
V 292.402†	77281.3	491.57 ug/L	2.274	491.57 ppb	2.274	0.46%	
QC value within limits for V 292.402 Recovery = 98.31%							
Zn 213.857†	59723.9	486.97 ug/L	2.384	486.97 ppb	2.384	0.49%	
QC value within limits for Zn 213.857 Recovery = 97.39%							
SiO2†	84820.7	5182.0 ug/L	19.74	5182.0 ppb	19.74	0.38%	
QC value within limits for SiO2 Recovery = 96.91%							

All analyte(s) passed QC.

Sequence No.: 12
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 1/7/2010 08:17:14
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc.	Analysis Time
1	Sc Radial	4663.8	4663.8	99.9 %			08:19:06
1	Y RADIAL	4924.9	4924.9	99.84 %			08:19:06
1	Al 396.153Radial†	12.8	39.6	35.064 ug/L		35.064 ppb	08:19:06
1	Ca 317.933Radial†	20.8	8.2	13.823 ug/L		13.823 ppb	08:19:26
1	Fe 238.204 Radial†	15.7	1.8	16.155 ug/L		16.155 ppb	08:19:26
1	K 766.490 Radial†	3389.5	55.6	11.040 ug/L		11.040 ppb	08:19:06
1	Mg 279.077 IEC†	2.6	0.9	29.860 ug/L		29.860 ppb	08:19:26
1	Na 589.592 Radial†	-1827.4	-78.8	-23.801 ug/L		-23.801 ppb	08:19:06
1	Sr 421.552†	19.0	3.1	0.0223 ug/L		0.0223 ppb	08:19:06
1	Sc 361.383	871529.1	871529.1	98.299 %			08:20:23
1	Y 371.029	748345.4	748345.4	98.239 %			08:20:23
1	Ag 328.068†	606.4	104.6	0.4591 ug/L		0.4591 ppb	08:20:28
1	As 188.979†	-33.7	-0.8	-0.2901 ug/L		-0.2901 ppb	08:20:48
1	B 249.677†	-616.3	38.8	0.7993 ug/L		0.7993 ppb	08:20:28
1	Ba 233.527†	32.2	25.2	0.1855 ug/L		0.1855 ppb	08:20:48
1	Be 313.107†	-4356.3	-80.2	-0.0271 ug/L		-0.0271 ppb	08:20:28
1	Cd 226.502†	-226.7	7.8	0.0717 ug/L		0.0717 ppb	08:20:48
1	Co 228.616†	-92.8	-10.4	-0.1935 ug/L		-0.1935 ppb	08:20:48
1	Cr 267.716†	75.3	-27.4	-0.2723 ug/L		-0.2723 ppb	08:20:28
1	Cu 324.752†	7841.1	-22.2	-0.0649 ug/L		-0.0649 ppb	08:20:28
1	Mn 257.610†	982.5	483.1	0.5100 ug/L		0.5100 ppb	08:20:28
1	Mo 202.031†	33.6	14.3	0.8967 ug/L		0.8967 ppb	08:20:48
1	Ni 231.604†	128.0	5.1	0.1126 ug/L		0.1126 ppb	08:20:48
1	P 214.914†	241.1	-3.3	-1.6009 ug/L		-1.6009 ppb	08:20:48
1	Pb 220.353†	-87.4	-11.1	-1.1415 ug/L		-1.1415 ppb	08:20:48
1	S 181.975 Axial†	71.4	12.8	14.420 ug/L		14.420 ppb	08:20:48
1	Sb 206.836†	47.0	10.7	3.2253 ug/L		3.2253 ppb	08:20:48
1	Se 196.026†	-35.3	-2.6	-1.2960 ug/L		-1.2960 ppb	08:20:48
1	Si 251.611†	616.6	10.7	0.2880 ug/L		0.2880 ppb	08:20:48
1	Sn 189.927†	0.9	-2.5	-0.3611 ug/L		-0.3611 ppb	08:20:48
1	Ti 334.940†	-1789.9	-3.6	-0.0033 ug/L		-0.0033 ppb	08:20:28
1	Tl 190.801†	-45.1	7.5	2.0432 ug/L		2.0432 ppb	08:20:48
1	U 409.014†	-2739.5	-118.2	-3.5148 ug/L		-3.5148 ppb	08:20:23
1	V 292.402†	-1701.8	70.6	0.4472 ug/L		0.4472 ppb	08:20:28
1	Zn 213.857†	879.7	63.2	0.5175 ug/L		0.5175 ppb	08:20:48
1	SiO2†	636.1	11.1	0.6423 ug/L		0.6423 ppb	08:21:54
2	Sc Radial	4685.2	4685.2	100 %			08:19:31
2	Y RADIAL	4934.3	4934.3	100.0 %			08:19:31
2	Al 396.153Radial†	9.5	36.2	32.048 ug/L		32.048 ppb	08:19:31
2	Ca 317.933Radial†	19.1	6.5	10.836 ug/L		10.836 ppb	08:19:51
2	Fe 238.204 Radial†	13.3	-0.6	-5.4215 ug/L		-5.4215 ppb	08:19:51
2	K 766.490 Radial†	3410.6	61.1	12.127 ug/L		12.127 ppb	08:19:31
2	Mg 279.077 IEC†	6.4	4.8	152.46 ug/L		152.46 ppb	08:19:51
2	Na 589.592 Radial†	-1817.3	-60.3	-18.225 ug/L		-18.225 ppb	08:19:31
2	Sr 421.552†	25.2	9.1	0.0668 ug/L		0.0668 ppb	08:19:31
2	Sc 361.383	876960.5	876960.5	98.912 %			08:20:53
2	Y 371.029	753964.7	753964.7	98.977 %			08:20:53
2	Ag 328.068†	464.6	-42.6	-0.1811 ug/L		-0.1811 ppb	08:20:58
2	As 188.979†	-28.7	4.4	1.5349 ug/L		1.5349 ppb	08:21:18
2	B 249.677†	-600.6	58.6	1.2103 ug/L		1.2103 ppb	08:20:58
2	Ba 233.527†	12.4	5.0	0.0379 ug/L		0.0379 ppb	08:21:18
2	Be 313.107†	-4286.7	17.7	0.0064 ug/L		0.0064 ppb	08:20:58
2	Cd 226.502†	-228.2	7.7	0.0732 ug/L		0.0732 ppb	08:21:18
2	Co 228.616†	-92.2	-9.3	-0.1718 ug/L		-0.1718 ppb	08:21:18
2	Cr 267.716†	95.0	-8.0	-0.0787 ug/L		-0.0787 ppb	08:20:58
2	Cu 324.752†	7998.2	87.2	0.2579 ug/L		0.2579 ppb	08:20:58
2	Mn 257.610†	988.0	482.4	0.5049 ug/L		0.5049 ppb	08:20:58
2	Mo 202.031†	36.5	17.0	1.0624 ug/L		1.0624 ppb	08:21:18
2	Ni 231.604†	133.9	10.3	0.2256 ug/L		0.2256 ppb	08:21:18

2	P 214.914†	241.7	-4.2	-2.0753 ug/L	-2.0753 ppb	08:21:18
2	Pb 220.353†	-105.6	-29.0	-2.9895 ug/L	-2.9895 ppb	08:21:18
2	S 181.975 Axial†	60.1	0.9	0.9837 ug/L	0.9837 ppb	08:21:18
2	Sb 206.836†	42.3	5.7	1.7506 ug/L	1.7506 ppb	08:21:18
2	Se 196.026†	-34.7	-1.8	-0.9543 ug/L	-0.9543 ppb	08:21:18
2	Si 251.611†	631.9	22.3	0.6140 ug/L	0.6140 ppb	08:21:18
2	Sn 189.927†	12.6	9.4	1.3855 ug/L	1.3855 ppb	08:21:18
2	Ti 334.940†	-1664.4	134.7	0.2149 ug/L	0.2149 ppb	08:20:58
2	Tl 190.801†	-39.6	13.3	3.6454 ug/L	3.6454 ppb	08:21:18
2	U 409.014†	-2690.9	-51.8	-1.5392 ug/L	-1.5392 ppb	08:20:53
2	V 292.402†	-1672.9	110.5	0.7101 ug/L	0.7101 ppb	08:20:58
2	Zn 213.857†	887.2	65.3	0.5303 ug/L	0.5303 ppb	08:21:18
2	SiO2†	668.6	39.9	2.3915 ug/L	2.3915 ppb	08:21:59
3	Sc Radial	4654.9	4654.9	99.7 %		08:19:56
3	Y RADIAL	4924.1	4924.1	99.82 %		08:19:56
3	Al 396.153Radial†	2.5	29.2	25.877 ug/L	25.877 ppb	08:19:56
3	Ca 317.933Radial†	18.0	5.5	9.1795 ug/L	9.1795 ppb	08:20:16
3	Fe 238.204 Radial†	11.0	-2.9	-25.366 ug/L	-25.366 ppb	08:20:16
3	K 766.490 Radial†	3301.5	-26.3	-5.2002 ug/L	-5.2002 ppb	08:19:56
3	Mg 279.077 IEC†	3.9	2.3	73.256 ug/L	73.256 ppb	08:20:16
3	Na 589.592 Radial†	-1880.7	-135.7	-41.002 ug/L	-41.002 ppb	08:19:56
3	Sr 421.552†	-12.9	-29.0	-0.2121 ug/L	-0.2121 ppb	08:19:56
3	Sc 361.383	868642.5	868642.5	97.974 %		08:21:24
3	Y 371.029	746062.6	746062.6	97.940 %		08:21:24
3	Ag 328.068†	523.0	21.5	0.0853 ug/L	0.0853 ppb	08:21:29
3	As 188.979†	-32.0	0.8	0.2696 ug/L	0.2696 ppb	08:21:49
3	B 249.677†	-611.2	42.0	0.8704 ug/L	0.8704 ppb	08:21:29
3	Ba 233.527†	4.5	-2.9	-0.0221 ug/L	-0.0221 ppb	08:21:49
3	Be 313.107†	-4299.5	-37.0	-0.0129 ug/L	-0.0129 ppb	08:21:29
3	Cd 226.502†	-248.0	-14.7	-0.1358 ug/L	-0.1358 ppb	08:21:49
3	Co 228.616†	-97.9	-16.0	-0.2969 ug/L	-0.2969 ppb	08:21:49
3	Cr 267.716†	110.3	8.5	0.0855 ug/L	0.0855 ppb	08:21:29
3	Cu 324.752†	7935.2	100.4	0.2958 ug/L	0.2958 ppb	08:21:29
3	Mn 257.610†	977.9	481.7	0.5036 ug/L	0.5036 ppb	08:21:29
3	Mo 202.031†	37.7	18.6	1.1620 ug/L	1.1620 ppb	08:21:49
3	Ni 231.604†	138.6	16.4	0.3595 ug/L	0.3595 ppb	08:21:49
3	P 214.914†	235.1	-8.6	-4.2127 ug/L	-4.2127 ppb	08:21:49
3	Pb 220.353†	-82.7	-6.7	-0.6792 ug/L	-0.6792 ppb	08:21:49
3	S 181.975 Axial†	56.1	-2.6	-2.9705 ug/L	-2.9705 ppb	08:21:49
3	Sb 206.836†	42.7	6.5	1.9813 ug/L	1.9813 ppb	08:21:49
3	Se 196.026†	-45.6	-13.3	-6.8833 ug/L	-6.8833 ppb	08:21:49
3	Si 251.611†	627.1	23.6	0.6554 ug/L	0.6554 ppb	08:21:49
3	Sn 189.927†	7.1	3.8	0.5658 ug/L	0.5658 ppb	08:21:49
3	Ti 334.940†	-1898.4	-120.3	-0.1894 ug/L	-0.1894 ppb	08:21:29
3	Tl 190.801†	-38.9	13.7	3.7488 ug/L	3.7488 ppb	08:21:49
3	U 409.014†	-2697.5	-84.6	-2.5117 ug/L	-2.5117 ppb	08:21:24
3	V 292.402†	-1786.1	-21.2	-0.1159 ug/L	-0.1159 ppb	08:21:29
3	Zn 213.857†	878.9	65.4	0.5338 ug/L	0.5338 ppb	08:21:49
3	SiO2†	655.1	32.6	1.9581 ug/L	1.9581 ppb	08:22:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	872377.4	98.395 %	0.4764			0.48%
Sc Radial	4668.0	100 %	0.3			0.33%
Y 371.029	749457.6	98.385 %	0.5339			0.54%
Y RADIAL	4927.8	99.90 %	0.115			0.11%
Ag 328.068†	27.8	0.1211 ug/L	0.32161	0.1211 ppb	0.32161	265.52%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	35.0	30.997 ug/L	4.6829	30.997 ppb	4.6829	15.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.4	0.5048 ug/L	0.93493	0.5048 ppb	0.93493	185.22%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	46.5	0.9600 ug/L	0.21964	0.9600 ppb	0.21964	22.88%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.1	0.0671 ug/L	0.10685	0.0671 ppb	0.10685	159.21%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-33.2	-0.0112 ug/L	0.01682	-0.0112 ppb	0.01682	150.19%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	6.7	11.280 ug/L	2.3533	11.280 ppb	2.3533	20.86%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	0.3	0.0030 ug/L	0.12024	0.0030 ppb	0.12024	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-11.9	-0.2207 ug/L	0.06688	-0.2207 ppb	0.06688	30.30%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-9.0	-0.0885 ug/L	0.17910	-0.0885 ppb	0.17910	202.30%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	55.1	0.1629 ug/L	0.19826	0.1629 ppb	0.19826	121.67%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.6	-4.8774 ug/L	20.76582	-4.8774 ppb	20.76582	425.76%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	30.1	5.9889 ug/L	9.70525	5.9889 ppb	9.70525	162.05%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	2.7	85.191 ug/L	62.1640	85.191 ppb	62.1640	72.97%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	482.4	0.5062 ug/L	0.00340	0.5062 ppb	0.00340	0.67%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	16.6	1.0404 ug/L	0.13405	1.0404 ppb	0.13405	12.88%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-91.6	-27.676 ug/L	11.8724	-27.676 ppb	11.8724	42.90%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	10.6	0.2326 ug/L	0.12358	0.2326 ppb	0.12358	53.14%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-5.4	-2.6296 ug/L	1.39137	-2.6296 ppb	1.39137	52.91%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-15.6	-1.6034 ug/L	1.22245	-1.6034 ppb	1.22245	76.24%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	3.7	4.1443 ug/L	9.11582	4.1443 ppb	9.11582	219.96%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	7.7	2.3191 ug/L	0.79327	2.3191 ppb	0.79327	34.21%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-5.9	-3.0445 ug/L	3.32885	-3.0445 ppb	3.32885	109.34%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	18.9	0.5191 ug/L	0.20123	0.5191 ppb	0.20123	38.76%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	3.6	0.5301 ug/L	0.87385	0.5301 ppb	0.87385	164.85%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-5.6	-0.0410 ug/L	0.14983	-0.0410 ppb	0.14983	365.35%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	3.6	0.0074 ug/L	0.20236	0.0074 ppb	0.20236	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	11.5	3.1458 ug/L	0.95629	3.1458 ppb	0.95629	30.40%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-84.9	-2.5219 ug/L	0.98783	-2.5219 ppb	0.98783	39.17%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	53.3	0.3471 ug/L	0.42202	0.3471 ppb	0.42202	121.57%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	64.6	0.5272 ug/L	0.00860	0.5272 ppb	0.00860	1.63%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	27.9	1.6639 ug/L	0.91094	1.6639 ppb	0.91094	54.75%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Daily Performance Report

Sample ID: Sample

Sample Date/Time: Thursday, January 07, 2010 10:41:36

Sample Description:

Method File: c:\elandata\Method\daily2.mth

Dataset File: c:\elandata\Dataset\090811\Sample.347

Tuning File: c:\elandata\Tuning\default2.tun

Optimization File: c:\elandata\Optimize\default.dac

Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35

Current Dead Time (ns): 35

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Be	9.0	1035.6	1035.638	39.109	3.8
Mg	24.0	19340.7	19340.684	122.061	0.6
Co	58.9	50689.4	50689.371	155.025	0.3
Rh	102.9	84264.2	84264.192	495.230	0.6
In	114.9	107705.7	107705.718	943.088	0.9
Pb	208.0	38437.6	38437.644	325.734	0.8
[> Ba	137.9	85539.0	85538.975	598.451	0.7
[Ba++	69.0	1678.6	0.020	0.000	1.0
[> Ce	139.9	100755.1	100755.059	304.348	0.3
[CeO	155.9	2306.1	0.023	0.001	2.4
Bkgd	220.0	8.5	8.500	1.458	17.1

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.0	862.7
Co	59	17	8.5	33104.6
In	115	17	9.5	79556.6

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	617	2060	0.671
Be	9.0	9.1	2062	2045	0.678
Mg	24.0	24.0	5671	2075	0.585
Mg	25.0	24.9	5957	2080	0.645
Mg	26.0	26.0	6149	2085	0.616
Co	58.9	58.9	14186	2140	0.623
Rh	102.9	102.9	24869	2230	0.628
In	114.9	114.9	27789	2255	0.664
Ce	139.9	139.9	33855	2310	0.640
Pb	206.0	206.0	49930	2500	0.686
Pb	207.0	207.0	50101	2380	0.636
Pb	208.0	208.0	50448	2570	0.638
U	238.1	238.1	57705	2510	0.677

ICPMS#4 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, January 07, 2010 17:57:21

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\Blank.101

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		27	
Be	9		ug/L		4	
B	11		ug/L		64	
Na	23		ug/L		14007	
Mg	24		ug/L		667	
Al	27		ug/L		3001	
P	31		ug/L		1820	
K	39		ug/L		389246	
Ca	43		ug/L		387	
> Sc	45		ug/L		218374	
Ti	47		ug/L		161	
V	51		ug/L		2684	
Cr	52		ug/L		3715	
Cr	53		ug/L		134952	
Mn	55		ug/L		799	
Fe	57		ug/L		5211	
Co	59		ug/L		174	
Ni	60		ug/L		45	
Cu	63		ug/L		106	
Cu	65		ug/L		60	
Zn	66		ug/L		103	
Zn	67		ug/L		5573	
Zn	68		ug/L		417	
> Ge	74		ug/L		89952	
As	75		ug/L		293	
Se	77		ug/L		5624	
Se	82		ug/L		6	
Kr	83		ug/L		43	
Sr	88		ug/L		126	
Y	89		ug/L		12	
Zr	90		ug/L		247	
Mo	98		ug/L		39	
Ag	107		ug/L		62	
Cd	111		ug/L		19	
Cd	114		ug/L		35	
> In	115		ug/L		50993	
Sn	120		ug/L		197	
Sb	121		ug/L		415	
Sb	123		ug/L		371	
Ba	135		ug/L		18	
Ba	137		ug/L		33	
Ho	165		ug/L		10	
> Lu	175		ug/L		43020	
Tl	205		ug/L		99	
Pb	208		ug/L		418	
Bi	209		ug/L		19	
Th	232		ug/L		309	
U	238		ug/L		204	

Sample ID: Blank

Report Date/Time: Thursday, January 07, 2010 18:00:09

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Simple Linear	
Be	9Simple Linear	
B	11Simple Linear	
Na	23Simple Linear	
Mg	24Simple Linear	
Al	27Simple Linear	
P	31Simple Linear	
K	39Simple Linear	
Ca	43Simple Linear	
Sc	45Simple Linear	
Ti	47Simple Linear	
V	51Simple Linear	
Cr	52Simple Linear	
Cr	53Simple Linear	
Mn	55Simple Linear	
Fe	57Simple Linear	
Co	59Simple Linear	
Ni	60Simple Linear	
Cu	63Simple Linear	
Cu	65Simple Linear	
Zn	66Simple Linear	
Zn	67Simple Linear	
Zn	68Simple Linear	
Ge	74Simple Linear	
As	75Simple Linear	
Se	77Simple Linear	
Se	82Simple Linear	
Kr	83Simple Linear	
Sr	88Simple Linear	
Y	89Simple Linear	
Zr	90Simple Linear	
Mo	98Simple Linear	
Ag	107Simple Linear	
Cd	111Simple Linear	
Cd	114Simple Linear	
In	115Simple Linear	
Sn	120Simple Linear	
Sb	121Simple Linear	
Sb	123Simple Linear	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Simple Linear	
Th	232Simple Linear	
U	238Simple Linear	

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
|>	Sc	45				
|	Ti	47				
|	V	51				
|	Cr	52				
|	Cr	53				
|	Mn	55				
|	Fe	57				
|	Co	59				
|	Ni	60				
|	Cu	63				
|	Cu	65				
|	Zn	66				
|	Zn	67				
|	Zn	68				
|>	Ge	74				
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
|	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
|>	In	115				
|	Sn	120				
|	Sb	121				
|	Sb	123				
|	Ba	135				
|	Ba	137				
|	Ho	165				
|>	Lu	175				
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Thursday, January 07, 2010 18:00:09

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ICPMS#4 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, January 07, 2010 18:03:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\Standard 1.102

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.000	ug/L	2.464	1949	0.008
Be	9	10.000	ug/L	4.337	555	0.002
B	11	20.000	ug/L	0.769	851	0.003
Na	23	1000.000	ug/L	4.398	1019845	4.351
Mg	24	1000.000	ug/L	4.510	694147	3.002
Al	27	1000.000	ug/L	2.381	1043810	4.504
P	31	1000.000	ug/L	2.181	59055	0.247
K	39	1000.000	ug/L	6.848	2333026	8.316
Ca	43	1000.000	ug/L	2.661	4349	0.017
Sc	45		ug/L		231045	231045.052
Ti	47	10.000	ug/L	1.907	1986	0.008
V	51	10.000	ug/L	3.255	17487	0.063
Cr	52	10.000	ug/L	1.194	21730	0.077
Cr	53		ug/L		130696	-0.052
Mn	55	10.000	ug/L	0.551	30375	0.128
Fe	57	1000.000	ug/L	1.848	65143	0.258
Co	59	10.000	ug/L	0.179	22730	0.098
Ni	60	10.000	ug/L	1.811	4715	0.020
Cu	63		ug/L		10737	0.046
Cu	65	10.000	ug/L	1.227	5244	0.022
Zn	66	10.000	ug/L	2.015	2753	0.029
Zn	67		ug/L		5622	-0.001
Zn	68		ug/L		2254	0.020
Ge	74		ug/L		92565	92565.258
As	75	10.000	ug/L	6.490	3400	0.033
Se	77		ug/L		5719	-0.001
Se	82	10.000	ug/L	7.131	274	0.003
Kr	83		ug/L		50	0.000
Sr	88	10.000	ug/L	0.460	44309	0.858
Y	89		ug/L		13	0.000
Zr	90	10.000	ug/L	1.545	23949	0.460
Mo	98	10.000	ug/L	1.157	10015	0.194
Ag	107	10.000	ug/L	2.037	15576	0.301
Cd	111	10.000	ug/L	2.505	3651	0.070
Cd	114		ug/L		8270	0.160
In	115		ug/L		51525	51524.705
Sn	120	10.000	ug/L	1.071	16234	0.311
Sb	121	10.000	ug/L	4.347	12089	0.226
Sb	123		ug/L		9394	0.175
Ba	135		ug/L		3713	0.084
Ba	137	10.000	ug/L	1.616	6401	0.144
Ho	165		ug/L		9	-0.000
Lu	175		ug/L		44125	44125.484
Tl	205	10.000	ug/L	1.145	13563	0.305
Pb	208	10.000	ug/L	0.605	36742	0.823
Bi	209		ug/L		23	0.000
Th	232	10.000	ug/L	3.327	46836	1.054
U	238	10.000	ug/L	1.395	48702	1.099

Sample ID: Standard 1

Report Date/Time: Thursday, January 07, 2010 18:06:17

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
>	Sc	45				
|	Ti	47				
|	V	51				
|	Cr	52				
|	Cr	53				
|	Mn	55				
|	Fe	57				
|	Co	59				
|	Ni	60				
|	Cu	63				
|	Cu	65				
[	Zn	66				
|	Zn	67				
|	Zn	68				
>	Ge	74				
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
[	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
>	In	115				
|	Sn	120				
|	Sb	121				
|	Sb	123				
[	Ba	135				
|	Ba	137				
|	Ho	165				
>	Lu	175				
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Thursday, January 07, 2010 18:06:17

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ICPMS#4 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, January 07, 2010 18:09:41

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\Standard 2.103

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	99.964	ug/L	2.224	18426	0.080
Be	9	99.962	ug/L	5.146	5266	0.023
B	11	200.196	ug/L	3.226	8692	0.038
Na	23	10000.050	ug/L	1.518	9995486	43.529
Mg	24	9999.483	ug/L	6.205	6845739	29.863
Al	27	9999.101	ug/L	2.616	10237786	44.631
P	31	10000.055	ug/L	2.046	569135	2.474
K	39	9996.147	ug/L	5.719	18760944	80.049
Ca	43	9999.269	ug/L	1.279	39215	0.169
Sc	45		ug/L		229312	229311.883
Ti	47	100.010	ug/L	2.008	18378	0.079
V	51	100.177	ug/L	1.842	179800	0.772
Cr	52	100.000	ug/L	0.758	180606	0.771
Cr	53		ug/L		143612	0.008
Mn	55	99.995	ug/L	1.648	292436	1.272
Fe	57	9998.911	ug/L	1.304	590772	2.553
Co	59	99.974	ug/L	0.402	218319	0.951
Ni	60	99.985	ug/L	0.491	45683	0.199
Cu	63		ug/L		103286	0.450
Cu	65	99.953	ug/L	2.236	49141	0.214
Zn	66	99.986	ug/L	0.606	26077	0.282
Zn	67		ug/L		9290	0.039
Zn	68		ug/L		18967	0.201
Ge	74		ug/L		92107	92106.569
As	75	100.007	ug/L	0.849	31363	0.337
Se	77		ug/L		7462	0.018
Se	82	100.079	ug/L	3.970	2892	0.031
Kr	83		ug/L		50	0.000
Sr	88	99.992	ug/L	2.587	436356	8.504
Y	89		ug/L		51	0.001
Zr	90	99.994	ug/L	2.279	234776	4.572
Mo	98	100.004	ug/L	2.106	99780	1.944
Ag	107	99.989	ug/L	1.669	152923	2.979
Cd	111	99.981	ug/L	1.781	35497	0.692
Cd	114		ug/L		82051	1.599
In	115		ug/L		51318	51317.733
Sn	120	100.013	ug/L	1.209	162079	3.155
Sb	121	100.060	ug/L	2.516	124219	2.412
Sb	123		ug/L		94357	1.831
Ba	135		ug/L		36725	0.812
Ba	137	99.974	ug/L	1.112	63556	1.406
Ho	165		ug/L		8	-0.000
Lu	175		ug/L		45183	45183.459
Tl	205	99.986	ug/L	1.356	136024	3.008
Pb	208	99.982	ug/L	0.603	365496	8.079
Bi	209		ug/L		42	0.000
Th	232	99.996	ug/L	0.845	474707	10.499
U	238	99.988	ug/L	1.041	490734	10.856

Sample ID: Standard 2

Report Date/Time: Thursday, January 07, 2010 18:12:27

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
>	Sc	45				
|	Ti	47				
|	V	51				
|	Cr	52				
|	Cr	53				
|	Mn	55				
|	Fe	57				
|	Co	59				
|	Ni	60				
|	Cu	63				
[	Cu	65				
|	Zn	66				
|	Zn	67				
|	Zn	68				
>	Ge	74				
|	As	75				
|	Se	77				
|	Se	82				
[	Kr	83				
|	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
>	In	115				
|	Sn	120				
|	Sb	121				
[	Sb	123				
|	Ba	135				
|	Ba	137				
|	Ho	165				
>	Lu	175				
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
[	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 2

Report Date/Time: Thursday, January 07, 2010 18:12:27

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ICPMS#4 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Thursday, January 07, 2010 18:15:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 1.104

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	52.431	ug/L	1.504	9672	0.042
Be	9	52.408	ug/L	0.903	2762	0.012
B	11	104.384	ug/L	2.154	4561	0.020
Na	23	5068.578	ug/L	7.652	5071463	22.063
Mg	24	5145.675	ug/L	1.980	3522444	15.367
Al	27	5237.493	ug/L	2.683	5360197	23.378
P	31	5067.455	ug/L	0.589	289174	1.254
K	39	5385.987	ug/L	3.228	10290921	43.131
Ca	43	5047.335	ug/L	1.739	19985	0.085
> Sc	45		ug/L		229153	229153.246
Ti	47	50.946	ug/L	1.028	9439	0.040
V	51	51.960	ug/L	2.703	94532	0.400
Cr	52	51.702	ug/L	0.764	95190	0.398
Cr	53		ug/L		136565	-0.022
Mn	55	52.160	ug/L	0.648	152851	0.663
Fe	57	5017.333	ug/L	0.521	298981	1.281
Co	59	50.272	ug/L	1.228	109796	0.478
Ni	60	51.835	ug/L	0.870	23690	0.103
Cu	63		ug/L		53035	0.231
Cu	65	51.229	ug/L	0.808	25203	0.110
Zn	66	51.646	ug/L	1.985	13480	0.146
Zn	67		ug/L		7417	0.019
Zn	68		ug/L		10074	0.105
> Ge	74		ug/L		91824	91824.079
As	75	48.089	ug/L	2.960	15189	0.162
Se	77		ug/L		6511	0.008
Se	82	49.874	ug/L	2.042	1440	0.016
Kr	83		ug/L		43	-0.000
Sr	88	50.461	ug/L	1.992	224572	4.292
Y	89		ug/L		20	0.000
Zr	90	48.262	ug/L	3.494	115643	2.206
Mo	98	48.369	ug/L	2.910	49212	0.940
Ag	107	50.146	ug/L	1.675	78207	1.494
Cd	111	50.728	ug/L	1.035	18371	0.351
Cd	114		ug/L		42788	0.817
> In	115		ug/L		52307	52307.271
Sn	120	49.931	ug/L	1.746	82575	1.575
Sb	121	49.487	ug/L	2.897	62816	1.193
Sb	123		ug/L		47712	0.905
Ba	135		ug/L		18796	0.423
Ba	137	51.390	ug/L	0.818	32147	0.723
Ho	165		ug/L		12	0.000
> Lu	175		ug/L		44437	44437.117
Tl	205	48.967	ug/L	1.024	65567	1.473
Pb	208	51.506	ug/L	1.708	185396	4.162
Bi	209		ug/L		42	0.001
Th	232	52.027	ug/L	1.237	243052	5.463
U	238	54.056	ug/L	0.784	261020	5.869

Sample ID: QC Std 1

Report Date/Time: Thursday, January 07, 2010 18:18:36

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7	104.861				
|	Be	9	104.815				
|	B	11	104.384				
|	Na	23	101.372				
|	Mg	24	102.914				
|	Al	27	103.713				
|	P	31	101.349				
|	K	39	107.720				
|	Ca	43	100.947				
>	Sc	45		104.9			
|	Ti	47	101.891				
|	V	51	103.921				
|	Cr	52	103.404				
|	Cr	53					
|	Mn	55	104.321				
|	Fe	57	100.347				
|	Co	59	100.545				
|	Ni	60	103.671				
|	Cu	63					
|	Cu	65	102.458				
|	Zn	66	103.292				
|	Zn	67					
|	Zn	68					
>	Ge	74		102.1			
|	As	75	96.177				
|	Se	77					
|	Se	82	99.748				
|	Kr	83					
|	Sr	88	100.922				
|	Y	89					
|	Zr	90	96.524				
|	Mo	98	96.739				
|	Ag	107	100.292				
|	Cd	111	101.457				
|	Cd	114					
>	In	115		102.6			
|	Sn	120	99.861				
|	Sb	121	98.974				
|	Sb	123					
|	Ba	135					
|	Ba	137	102.780				
|	Ho	165					
>	Lu	175		103.3			
|	Tl	205	97.934				
|	Pb	208	103.013				
|	Bi	209					
|	Th	232	104.053				
|	U	238	108.112				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 1

Report Date/Time: Thursday, January 07, 2010 18:18:36

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ICPMS#4 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, January 07, 2010 18:22:02

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 2.105

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.039	ug/L	73.749	35	0.000
Be	9	-0.028	ug/L	71.867	3	-0.000
B	11	4.072	ug/L	13.777	238	0.001
Na	23	2.548	ug/L	130.404	17010	0.011
Mg	24	2.938	ug/L	30.260	2667	0.009
Al	27	1.578	ug/L	163.368	4668	0.007
P	31	-2.191	ug/L	41.352	1760	-0.001
K	39	-2.005	ug/L	881.270	398495	-0.016
Ca	43	-17.959	ug/L	84.784	331	-0.000
> Sc	45		ug/L		225811	225810.683
Ti	47	-0.051	ug/L	55.431	158	-0.000
V	51	0.391	ug/L	694.451	3401	0.003
Cr	52	-0.074	ug/L	155.579	3715	-0.001
Cr	53		ug/L		130404	-0.040
Mn	55	-0.014	ug/L	71.354	786	-0.000
Fe	57	-0.961	ug/L	198.473	5332	-0.000
Co	59	-0.007	ug/L	153.594	164	-0.000
Ni	60	-0.007	ug/L	354.704	43	-0.000
Cu	63		ug/L		108	-0.000
Cu	65	0.013	ug/L	45.669	69	0.000
Zn	66	-0.061	ug/L	64.483	89	-0.000
Zn	67		ug/L		5311	-0.004
Zn	68		ug/L		391	-0.000
> Ge	74		ug/L		91998	91997.557
As	75	0.527	ug/L	64.923	464	0.002
Se	77		ug/L		5674	-0.001
Se	82	-0.169	ug/L	216.779	2	-0.000
Kr	83		ug/L		40	-0.000
Sr	88	-0.002	ug/L	53.726	120	-0.000
Y	89		ug/L		11	-0.000
Zr	90	0.122	ug/L	15.098	541	0.006
Mo	98	0.043	ug/L	24.243	83	0.001
Ag	107	0.019	ug/L	21.412	93	0.001
Cd	111	-0.010	ug/L	277.227	16	-0.000
Cd	114		ug/L		32	-0.000
> In	115		ug/L		51869	51868.858
Sn	120	0.202	ug/L	9.153	531	0.006
Sb	121	0.994	ug/L	18.752	1665	0.024
Sb	123		ug/L		1309	0.018
Ba	135		ug/L		21	0.000
Ba	137	-0.010	ug/L	18.225	27	-0.000
Ho	165		ug/L		10	-0.000
> Lu	175		ug/L		43576	43576.466
Tl	205	0.088	ug/L	26.226	216	0.003
Pb	208	-0.004	ug/L	70.071	408	-0.000
Bi	209		ug/L		18	-0.000
Th	232	0.121	ug/L	24.002	866	0.013
U	238	0.007	ug/L	26.980	239	0.001

Sample ID: QC Std 2

Report Date/Time: Thursday, January 07, 2010 18:24:50

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
|>	Sc	45				
|	Ti	47				
|	V	51				
|	Cr	52				
|	Cr	53				
|	Mn	55				
|	Fe	57				
|	Co	59				
|	Ni	60				
|	Cu	63				
|	Cu	65				
|	Zn	66				
|	Zn	67				
|	Zn	68				
|>	Ge	74				
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
|	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
|>	In	115				
|	Sn	120				
|	Sb	121				
|	Sb	123				
|	Ba	135				
|	Ba	137				
|	Ho	165				
|>	Lu	175				
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Thursday, January 07, 2010 18:24:50

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ICPMS#4 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Thursday, January 07, 2010 18:28:14

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 3.106

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	11.912	ug/L	2.751	2201	0.010
Be	9	0.476	ug/L	15.434	29	0.000
B	11	16.986	ug/L	1.716	791	0.003
Na	23	271.955	ug/L	11.032	283471	1.184
Mg	24	18.688	ug/L	31.103	13340	0.056
Al	27	37.435	ug/L	30.012	41062	0.167
P	31	50.635	ug/L	3.921	4740	0.013
K	39	306.940	ug/L	11.210	963145	2.458
Ca	43	198.311	ug/L	6.347	1165	0.003
> Sc	45		ug/L		227209	227209.452
Ti	47	9.619	ug/L	2.971	1904	0.008
V	51	9.939	ug/L	25.596	20168	0.077
Cr	52	10.949	ug/L	1.127	23033	0.084
Cr	53		ug/L		128943	-0.050
Mn	55	5.602	ug/L	3.365	17014	0.071
Fe	57	103.480	ug/L	4.272	11422	0.026
Co	59	1.094	ug/L	5.328	2544	0.010
Ni	60	2.226	ug/L	2.598	1053	0.004
Cu	63		ug/L		1285	0.005
Cu	65	1.112	ug/L	3.533	604	0.002
Zn	66	11.108	ug/L	3.805	2987	0.031
Zn	67		ug/L		5550	-0.002
Zn	68		ug/L		2415	0.022
> Ge	74		ug/L		92029	92028.766
As	75	6.804	ug/L	21.558	2407	0.023
Se	77		ug/L		5506	-0.003
Se	82	5.124	ug/L	9.472	154	0.002
Kr	83		ug/L		42	-0.000
Sr	88	10.747	ug/L	1.679	47665	0.914
Y	89		ug/L		18	0.000
Zr	90	1.882	ug/L	5.567	4729	0.086
Mo	98	0.520	ug/L	4.985	565	0.010
Ag	107	1.061	ug/L	2.284	1707	0.032
Cd	111	1.143	ug/L	3.247	431	0.008
Cd	114		ug/L		916	0.017
> In	115		ug/L		52020	52019.990
Sn	120	5.235	ug/L	0.863	8791	0.165
Sb	121	3.040	ug/L	5.437	4236	0.073
Sb	123		ug/L		3343	0.057
Ba	135		ug/L		788	0.018
Ba	137	2.165	ug/L	5.563	1371	0.030
Ho	165		ug/L		7	-0.000
> Lu	175		ug/L		43912	43911.835
Tl	205	1.054	ug/L	0.738	1493	0.032
Pb	208	2.184	ug/L	2.221	8175	0.176
Bi	209		ug/L		24	0.000
Th	232	1.055	ug/L	4.563	5178	0.111
U	238	0.205	ug/L	2.845	1187	0.022

Sample ID: QC Std 3

Report Date/Time: Thursday, January 07, 2010 18:31:01

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7	119.119			
|	Be	9	95.200			
|	B	11	113.240			
|	Na	23	108.782			
|	Mg	24	124.584			
|	Al	27	124.782			
|	P	31	101.269			
|	K	39	102.313			
|	Ca	43	99.156			
>	Sc	45		104.0		
|	Ti	47	96.193			
|	V	51	99.388			
|	Cr	52	109.493			
|	Cr	53				
|	Mn	55	112.041			
|	Fe	57	103.480			
|	Co	59	109.352			
|	Ni	60	111.303			
|	Cu	63				
|	Cu	65	111.163			
|	Zn	66	111.078			
|	Zn	67				
|	Zn	68				
>	Ge	74		102.3		
|	As	75	136.089			
|	Se	77				
|	Se	82	102.476			
|	Kr	83				
|	Sr	88	107.465			
|	Y	89				
|	Zr	90	94.124			
|	Mo	98	104.052			
|	Ag	107	106.075			
|	Cd	111	114.255			
|	Cd	114				
>	In	115		102.0		
|	Sn	120	104.702			
|	Sb	121	101.329			
|	Sb	123				
|	Ba	135				
|	Ba	137	108.272			
|	Ho	165				
>	Lu	175		102.1		
|	Tl	205	105.360			
|	Pb	208	109.201			
|	Bi	209				
|	Th	232	105.504			
|	U	238	102.681			

QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
QC Std 3	As	75CRDL is out of limits

QC Action

QC Action Line: Continue

Sample ID: QC Std 3

Report Date/Time: Thursday, January 07, 2010 18:31:01

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ICPMS#4 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, January 07, 2010 18:34:25

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 4.107

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Li	7	0.092 ug/L	29.617	44	0.000
|	Be	9	0.043 ug/L	101.682	7	0.000
|	B	11	1.671 ug/L	20.614	136	0.000
|	Na	23	100845.879 ug/L	4.109	98405568	438.972
|	Mg	24	100610.199 ug/L	2.505	67391946	300.470
|	Al	27	95695.561 ug/L	3.109	95784030	427.139
|	P	31	98426.149 ug/L	2.538	5461012	24.349
|	K	39	104966.140 ug/L	14.591	188645072	840.564
|	Ca	43	97643.575 ug/L	1.408	370995	1.653
>	Sc	45	ug/L		224235	224234.976
|	Ti	47	1495.462 ug/L	0.309	266423	1.187
|	V	51	-2.559 ug/L	33.138	-1680	-0.020
|	Cr	52	3.602 ug/L	4.599	10037	0.028
|	Cr	53	ug/L		109840	-0.128
|	Mn	55	5.775 ug/L	1.559	17287	0.073
|	Fe	57	97170.536 ug/L	2.010	5566707	24.806
|	Co	59	0.230 ug/L	4.677	669	0.002
|	Ni	60	3.259 ug/L	1.889	1500	0.006
|	Cu	63	ug/L		2184	0.009
|	Cu	65	2.355 ug/L	4.370	1192	0.005
[	Zn	66	3.575 ug/L	3.574	994	0.010
|	Zn	67	ug/L		5197	-0.003
|	Zn	68	ug/L		593	0.002
>	Ge	74	ug/L		88515	88515.276
|	As	75	-1.080 ug/L	81.305	-32	-0.004
|	Se	77	ug/L		4891	-0.007
|	Se	82	-0.559 ug/L	93.692	-9	-0.000
[	Kr	83	ug/L		71	0.000
|	Sr	88	1.118 ug/L	3.563	4785	0.095
|	Y	89	ug/L		138	0.003
|	Zr	90	0.558 ug/L	55.561	1484	0.026
|	Mo	98	1923.238 ug/L	1.068	1834505	37.388
|	Ag	107	0.035 ug/L	26.385	111	0.001
|	Cd	111	0.321 ug/L	70.474	127	0.002
|	Cd	114	ug/L		1910	0.038
>	In	115	ug/L		49069	49069.050
|	Sn	120	0.155 ug/L	0.893	430	0.005
|	Sb	121	0.237 ug/L	25.210	679	0.006
|	Sb	123	ug/L		562	0.004
[	Ba	135	ug/L		248	0.005
|	Ba	137	0.672 ug/L	11.484	449	0.009
|	Ho	165	ug/L		165	0.004
>	Lu	175	ug/L		43888	43887.753
|	Tl	205	-0.007 ug/L	217.056	92	-0.000
|	Pb	208	0.136 ug/L	3.466	908	0.011
|	Bi	209	ug/L		129	0.002
|	Th	232	0.097 ug/L	52.648	762	0.010
[U	238	-0.034 ug/L	1.056	46	-0.004

Sample ID: QC Std 4

Report Date/Time: Thursday, January 07, 2010 18:37:12

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7					
|	Be	9					
|	B	11					
|	Na	23	100.846				
|	Mg	24	100.610				
|	Al	27	95.696				
|	P	31	98.426				
|	K	39	104.966				
|	Ca	43	97.644				
>	Sc	45		102.7			
|	Ti	47	74.773				
|	V	51					
|	Cr	52	97.354				
|	Cr	53					
|	Mn	55	99.567				
|	Fe	57	97.171				
|	Co	59	91.988				
|	Ni	60	120.696				
|	Cu	63					
|	Cu	65	81.211				
|	Zn	66	99.312				
|	Zn	67					
|	Zn	68					
>	Ge	74		98.4			
|	As	75					
|	Se	77					
|	Se	82					
|	Kr	83					
|	Sr	88	93.157				
|	Y	89					
|	Zr	90					
|	Mo	98	96.162				
|	Ag	107					
|	Cd	111	80.244				
|	Cd	114					
>	In	115		96.2			
|	Sn	120					
|	Sb	121	236.707				
|	Sb	123					
|	Ba	135					
|	Ba	137	100.324				
|	Ho	165					
>	Lu	175		102.0			
|	Tl	205					
|	Pb	208	67.953				
|	Bi	209					
|	Th	232					
|	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, January 07, 2010 18:40:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 5.108

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	18.467	ug/L	3.717	3367	0.015
Be	9	19.459	ug/L	0.532	1011	0.004
B	11	19.473	ug/L	2.736	890	0.004
Na	23	99444.676	ug/L	4.069	97506887	432.873
Mg	24	97287.670	ug/L	4.109	65480118	290.547
Al	27	98873.350	ug/L	1.341	99427988	441.323
P	31	99103.791	ug/L	0.957	5525477	24.517
K	39	103390.086	ug/L	5.350	187006263	827.943
Ca	43	97682.194	ug/L	0.854	372914	1.653
> Sc	45		ug/L		225294	225294.011
Ti	47	1514.386	ug/L	1.005	271093	1.202
V	51	17.783	ug/L	9.109	33655	0.137
Cr	52	23.183	ug/L	2.420	44077	0.179
Cr	53		ug/L		114007	-0.112
Mn	55	25.205	ug/L	1.029	73039	0.321
Fe	57	96377.334	ug/L	0.048	5548501	24.604
Co	59	19.083	ug/L	1.100	41084	0.182
Ni	60	21.962	ug/L	2.039	9894	0.044
Cu	63		ug/L		20878	0.092
Cu	65	20.683	ug/L	1.652	10040	0.044
Zn	66	22.657	ug/L	2.140	5700	0.064
Zn	67		ug/L		6066	0.007
Zn	68		ug/L		3877	0.040
> Ge	74		ug/L		87635	87634.853
As	75	19.999	ug/L	1.805	6196	0.067
Se	77		ug/L		5231	-0.003
Se	82	21.525	ug/L	2.071	597	0.007
Kr	83		ug/L		69	0.000
Sr	88	21.739	ug/L	0.322	90853	1.849
Y	89		ug/L		137	0.003
Zr	90	21.067	ug/L	1.490	47507	0.963
Mo	98	1963.250	ug/L	0.932	1873086	38.166
Ag	107	19.337	ug/L	1.297	28333	0.576
Cd	111	20.253	ug/L	1.667	6893	0.140
Cd	114		ug/L		17276	0.351
> In	115		ug/L		49074	49074.446
Sn	120	20.225	ug/L	2.113	31496	0.638
Sb	121	21.686	ug/L	1.135	26052	0.523
Sb	123		ug/L		19873	0.398
Ba	135		ug/L		7266	0.163
Ba	137	19.882	ug/L	1.658	12450	0.280
Ho	165		ug/L		169	0.004
> Lu	175		ug/L		44413	44412.714
Tl	205	17.946	ug/L	0.371	24081	0.540
Pb	208	18.901	ug/L	0.916	68261	1.527
Bi	209		ug/L		176	0.004
Th	232	19.979	ug/L	0.769	93481	2.098
U	238	20.400	ug/L	2.602	98563	2.215

Sample ID: QC Std 5

Report Date/Time: Thursday, January 07, 2010 18:43:23

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	92.335				
Be	9	97.295				
B	11	97.364				
Na	23	99.445				
Mg	24	97.288				
Al	27	98.873				
P	31	99.104				
K	39	103.390				
Ca	43	97.682				
> Sc	45		103.2			
Ti	47	75.719				
V	51	88.916				
Cr	52	97.819				
Cr	53					
Mn	55	97.694				
Fe	57	96.377				
Co	59	94.237				
Ni	60	96.748				
Cu	63					
Cu	65	90.318				
Zn	66	96.004				
Zn	67					
Zn	68					
> Ge	74		97.4			
As	75	99.997				
Se	77					
Se	82	107.624				
Kr	83					
Sr	88	102.543				
Y	89					
Zr	90	105.337				
Mo	98	98.163				
Ag	107	96.686				
Cd	111	99.280				
Cd	114					
> In	115		96.2			
Sn	120	101.125				
Sb	121	107.890				
Sb	123					
Ba	135					
Ba	137	96.188				
Ho	165					
> Lu	175		103.2			
Tl	205	89.730				
Pb	208	93.568				
Bi	209					
Th	232	99.897				
U	238	102.001				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	Tl	471CSAB is out of limits

QC Action

QC Action Line: Continue

Sample ID: QC Std 5

Report Date/Time: Thursday, January 07, 2010 18:43:23

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ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 07, 2010 18:46:48

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 6.109

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.957	ug/L	2.792	9312	0.041
Be	9	50.913	ug/L	3.343	2658	0.012
B	11	96.673	ug/L	2.047	4191	0.018
Na	23	5223.104	ug/L	3.474	5174437	22.736
Mg	24	5195.502	ug/L	4.375	3522444	15.516
Al	27	4912.286	ug/L	2.717	4980618	21.926
P	31	5042.065	ug/L	0.672	285088	1.247
K	39	5413.905	ug/L	4.639	10248244	43.354
Ca	43	4955.076	ug/L	0.664	19445	0.084
> Sc	45		ug/L		227062	227062.483
Ti	47	52.564	ug/L	0.950	9646	0.042
V	51	49.421	ug/L	3.199	89276	0.381
Cr	52	51.091	ug/L	1.981	93234	0.394
Cr	53		ug/L		128247	-0.053
Mn	55	51.367	ug/L	1.850	149128	0.653
Fe	57	5035.386	ug/L	2.756	297177	1.285
Co	59	50.131	ug/L	2.226	108456	0.477
Ni	60	52.101	ug/L	1.646	23588	0.104
Cu	63		ug/L		52321	0.230
Cu	65	51.837	ug/L	2.145	25261	0.111
Zn	66	51.815	ug/L	1.839	13373	0.146
Zn	67		ug/L		7189	0.017
Zn	68		ug/L		9905	0.104
> Ge	74		ug/L		90811	90811.369
As	75	47.922	ug/L	1.469	14968	0.162
Se	77		ug/L		5913	0.003
Se	82	50.624	ug/L	1.035	1446	0.016
Kr	83		ug/L		47	0.000
Sr	88	49.645	ug/L	0.826	219142	4.222
Y	89		ug/L		40	0.001
Zr	90	47.631	ug/L	2.104	113225	2.178
Mo	98	48.672	ug/L	0.544	49123	0.946
Ag	107	49.776	ug/L	0.974	76996	1.483
Cd	111	50.532	ug/L	1.739	18151	0.350
Cd	114		ug/L		41932	0.808
> In	115		ug/L		51874	51874.184
Sn	120	50.063	ug/L	0.316	82121	1.579
Sb	121	48.267	ug/L	3.791	60781	1.163
Sb	123		ug/L		46486	0.889
Ba	135		ug/L		18734	0.425
Ba	137	51.819	ug/L	2.303	32121	0.729
Ho	165		ug/L		11	0.000
> Lu	175		ug/L		44041	44041.231
Tl	205	49.456	ug/L	0.453	65632	1.488
Pb	208	51.203	ug/L	1.872	182630	4.138
Bi	209		ug/L		45	0.001
Th	232	52.038	ug/L	0.678	240937	5.464
U	238	53.682	ug/L	1.226	256877	5.829

Sample ID: QC Std 6

Report Date/Time: Thursday, January 07, 2010 18:49:35

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7	101.914				
|	Be	9	101.826				
|	B	11	96.673				
|	Na	23	104.462				
|	Mg	24	103.910				
|	Al	27	97.273				
|	P	31	100.841				
|	K	39	108.278				
|	Ca	43	99.102				
>	Sc	45		104.0			
|	Ti	47	105.127				
|	V	51	98.842				
|	Cr	52	102.182				
|	Cr	53					
|	Mn	55	102.733				
|	Fe	57	100.708				
|	Co	59	100.262				
|	Ni	60	104.202				
|	Cu	63					
|	Cu	65	103.675				
|	Zn	66	103.629				
|	Zn	67					
|	Zn	68					
>	Ge	74		101.0			
|	As	75	95.844				
|	Se	77					
|	Se	82	101.248				
|	Kr	83					
|	Sr	88	99.290				
|	Y	89					
|	Zr	90	95.262				
|	Mo	98	97.344				
|	Ag	107	99.553				
|	Cd	111	101.064				
|	Cd	114					
>	In	115		101.7			
|	Sn	120	100.126				
|	Sb	121	96.533				
|	Sb	123					
|	Ba	135					
|	Ba	137	103.638				
|	Ho	165					
>	Lu	175		102.4			
|	Tl	205	98.912				
|	Pb	208	102.406				
|	Bi	209					
|	Th	232	104.075				
|	U	238	107.364				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, January 07, 2010 18:49:35

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ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 07, 2010 18:53:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 7.110

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.073	ug/L	87.112	41	0.000
Be	9	0.017	ug/L	173.593	5	0.000
B	11	2.671	ug/L	9.844	178	0.001
Na	23	7.865	ug/L	85.185	22018	0.034
Mg	24	1.971	ug/L	76.563	2000	0.006
Al	27	2.906	ug/L	32.384	6001	0.013
P	31	-1.281	ug/L	101.637	1799	-0.000
K	39	-13.025	ug/L	94.980	376574	-0.104
Ca	43	-4.883	ug/L	147.121	379	-0.000
> Sc	45		ug/L		224469	224468.586
Ti	47	0.248	ug/L	58.511	210	0.000
V	51	-0.582	ug/L	299.813	1743	-0.004
Cr	52	-0.555	ug/L	5.089	2860	-0.004
Cr	53		ug/L		121874	-0.075
Mn	55	-0.024	ug/L	28.287	753	-0.000
Fe	57	-10.283	ug/L	19.494	4766	-0.003
Co	59	-0.001	ug/L	1117.703	177	-0.000
Ni	60	-0.004	ug/L	713.476	44	-0.000
Cu	63		ug/L		111	0.000
Cu	65	0.008	ug/L	150.922	66	0.000
Zn	66	-0.057	ug/L	78.550	89	-0.000
Zn	67		ug/L		5090	-0.006
Zn	68		ug/L		366	-0.001
> Ge	74		ug/L		90484	90484.234
As	75	0.339	ug/L	281.594	397	0.001
Se	77		ug/L		5244	-0.005
Se	82	-0.309	ug/L	22.611	-2	-0.000
Kr	83		ug/L		46	0.000
Sr	88	0.002	ug/L	84.271	137	0.000
Y	89		ug/L		9	-0.000
Zr	90	0.092	ug/L	15.366	467	0.004
Mo	98	0.108	ug/L	7.558	147	0.002
Ag	107	0.010	ug/L	65.796	79	0.000
Cd	111	-0.002	ug/L	574.308	19	-0.000
Cd	114		ug/L		35	0.000
> In	115		ug/L		51592	51592.038
Sn	120	0.156	ug/L	21.512	454	0.005
Sb	121	0.584	ug/L	15.864	1146	0.014
Sb	123		ug/L		912	0.010
Ba	135		ug/L		20	0.000
Ba	137	-0.016	ug/L	85.264	24	-0.000
Ho	165		ug/L		8	-0.000
> Lu	175		ug/L		43400	43399.616
Tl	205	0.097	ug/L	19.853	226	0.003
Pb	208	-0.009	ug/L	6.455	390	-0.001
Bi	209		ug/L		19	-0.000
Th	232	0.076	ug/L	46.187	655	0.008
U	238	0.006	ug/L	45.114	233	0.001

Sample ID: QC Std 7

Report Date/Time: Thursday, January 07, 2010 18:55:50

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
> |	Sc	45		102.8		
|	Ti	47				
|	V	51				
|	Cr	52				
|	Cr	53				
|	Mn	55				
|	Fe	57				
|	Co	59				
|	Ni	60				
|	Cu	63				
|	Cu	65				
|	Zn	66				
|	Zn	67				
|	Zn	68				
> |	Ge	74		100.6		
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
|	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
> |	In	115		101.2		
|	Sn	120				
|	Sb	121				
|	Sb	123				
|	Ba	135				
|	Ba	137				
|	Ho	165				
> |	Lu	175		100.9		
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 07, 2010 18:55:50

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ICPMS#4 - Summary Report

Sample ID: QC Std 10

Sample Date/Time: Thursday, January 07, 2010 18:59:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 10.111

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	939.827	ug/L	2.575	167805	0.754
Be	9	998.364	ug/L	1.180	50988	0.229
B	11	1.368	ug/L	26.163	122	0.000
Na	23	50894.427	ug/L	4.250	49277674	221.539
Mg	24	51808.504	ug/L	0.799	34412909	154.725
Al	27	50140.823	ug/L	7.714	49800755	223.804
P	31	24313.454	ug/L	1.565	1339751	6.015
K	39	50781.918	ug/L	3.852	90862829	406.659
Ca	43	49259.641	ug/L	0.662	185847	0.834
> Sc	45		ug/L		222419	222418.690
Ti	47	31.734	ug/L	1.577	5769	0.025
V	51	976.851	ug/L	2.426	1676667	7.525
Cr	52	944.343	ug/L	0.594	1622297	7.277
Cr	53		ug/L		307620	0.765
Mn	55	969.509	ug/L	1.420	2743330	12.330
Fe	57	48724.609	ug/L	1.886	2771995	12.439
Co	59	898.995	ug/L	1.259	1902792	8.554
Ni	60	936.780	ug/L	0.933	414784	1.865
Cu	63		ug/L		915203	4.114
Cu	65	938.686	ug/L	2.178	447124	2.010
Zn	66	2374.410	ug/L	0.762	593427	6.696
Zn	67		ug/L		97656	1.040
Zn	68		ug/L		416542	4.696
> Ge	74		ug/L		88608	88607.838
As	75	914.495	ug/L	0.534	273546	3.084
Se	77		ug/L		14373	0.100
Se	82	478.634	ug/L	1.431	13287	0.150
Kr	83		ug/L		54	0.000
Sr	88	982.197	ug/L	2.481	4131148	83.532
Y	89		ug/L		152	0.003
Zr	90	489.535	ug/L	1.386	1106907	22.381
Mo	98	973.320	ug/L	1.538	935616	18.922
Ag	107	239.820	ug/L	1.710	353372	7.146
Cd	111	977.586	ug/L	1.147	334350	6.761
Cd	114		ug/L		781676	15.807
> In	115		ug/L		49450	49450.105
Sn	120	1004.738	ug/L	2.210	1567268	31.694
Sb	121	247.844	ug/L	4.697	295764	5.974
Sb	123		ug/L		226156	4.567
Ba	135		ug/L		350175	7.761
Ba	137	952.687	ug/L	1.418	604431	13.397
Ho	165		ug/L		60	0.001
> Lu	175		ug/L		45117	45116.916
Tl	205	471.812	ug/L	0.343	640535	14.195
Pb	208	4722.917	ug/L	0.045	17219536	381.655
Bi	209		ug/L		418	0.009
Th	232	2431.622	ug/L	0.254	11519230	255.310
U	238	5017.748	ug/L	0.844	24580365	544.804

Sample ID: QC Std 10

Report Date/Time: Thursday, January 07, 2010 19:01:59

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass QC Std	% Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7	93.983				
|	Be	9	99.836				
|	B	11					
|	Na	23	101.789				
|	Mg	24	103.617				
|	Al	27	100.282				
|	P	31	97.254				
|	K	39	101.564				
|	Ca	43	98.519				
>	Sc	45		101.9			
|	Ti	47					
|	V	51	97.685				
|	Cr	52	94.434				
|	Cr	53					
|	Mn	55	96.951				
|	Fe	57	97.449				
|	Co	59	89.900				
|	Ni	60	93.678				
|	Cu	63					
|	Cu	65	93.869				
|	Zn	66	94.976				
|	Zn	67					
|	Zn	68					
>	Ge	74		98.5			
|	As	75	91.449				
|	Se	77					
|	Se	82	95.727				
|	Kr	83					
|	Sr	88	98.220				
|	Y	89					
|	Zr	90	97.907				
|	Mo	98	97.332				
|	Ag	107	95.928				
|	Cd	111	97.759				
|	Cd	114					
>	In	115		97.0			
|	Sn	120	100.474				
|	Sb	121	99.138				
|	Sb	123					
|	Ba	135					
|	Ba	137	95.269				
|	Ho	165					
>	Lu	175		104.9			
|	Tl	205	94.362				
|	Pb	208	94.458				
|	Bi	209					
|	Th	232	97.265				
|	U	238	100.355				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message
 QC Std 10 Co 59LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 11

Sample Date/Time: Thursday, January 07, 2010 19:05:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 11.112

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	49.427	ug/L	2.512	9088	0.040
Be	9	50.786	ug/L	2.086	2667	0.012
B	11	99.266	ug/L	2.442	4326	0.019
Na	23	5161.582	ug/L	2.140	5146353	22.468
Mg	24	5354.617	ug/L	4.581	3651891	15.991
Al	27	5283.888	ug/L	2.915	5390021	23.585
P	31	5067.842	ug/L	0.403	288200	1.254
K	39	5388.136	ug/L	4.873	10256779	43.148
Ca	43	5018.315	ug/L	0.815	19802	0.085
> Sc	45		ug/L		228365	228364.551
Ti	47	50.923	ug/L	0.526	9403	0.040
V	51	49.725	ug/L	2.473	90299	0.383
Cr	52	50.749	ug/L	0.999	93188	0.391
Cr	53		ug/L		130706	-0.045
Mn	55	51.619	ug/L	0.326	150755	0.656
Fe	57	5032.242	ug/L	0.547	298809	1.285
Co	59	50.593	ug/L	1.141	110111	0.481
Ni	60	52.270	ug/L	1.154	23804	0.104
Cu	63		ug/L		53043	0.232
Cu	65	51.882	ug/L	1.537	25433	0.111
Zn	66	52.796	ug/L	1.169	13772	0.149
Zn	67		ug/L		7561	0.020
Zn	68		ug/L		10118	0.106
> Ge	74		ug/L		91794	91793.916
As	75	48.636	ug/L	2.418	15351	0.164
Se	77		ug/L		5762	0.000
Se	82	48.884	ug/L	2.205	1411	0.015
Kr	83		ug/L		51	0.000
Sr	88	50.437	ug/L	3.233	222915	4.289
Y	89		ug/L		20	0.000
Zr	90	52.032	ug/L	1.113	123854	2.379
Mo	98	48.894	ug/L	2.221	49411	0.951
Ag	107	50.418	ug/L	2.172	78095	1.502
Cd	111	50.660	ug/L	1.403	18221	0.350
Cd	114		ug/L		42386	0.815
> In	115		ug/L		51953	51953.228
Sn	120	53.149	ug/L	1.369	87297	1.677
Sb	121	52.674	ug/L	4.334	66360	1.270
Sb	123		ug/L		50642	0.968
Ba	135		ug/L		19108	0.424
Ba	137	52.027	ug/L	0.835	32936	0.732
Ho	165		ug/L		9	-0.000
> Lu	175		ug/L		44970	44970.462
Tl	205	50.248	ug/L	1.285	68082	1.512
Pb	208	52.816	ug/L	2.023	192338	4.268
Bi	209		ug/L		47	0.001
Th	232	53.664	ug/L	2.765	253646	5.634
U	238	55.002	ug/L	2.590	268711	5.972

Sample ID: QC Std 11

Report Date/Time: Thursday, January 07, 2010 19:08:09

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	98.853				
|	Be	9	101.571				
|	B	11	99.266				
|	Na	23	103.232				
|	Mg	24	107.092				
|	Al	27	104.631				
|	P	31	101.357				
|	K	39	107.763				
|	Ca	43	100.366				
>	Sc	45		104.6			
|	Ti	47	101.846				
|	V	51	99.450				
|	Cr	52	101.498				
|	Cr	53					
|	Mn	55	103.237				
|	Fe	57	100.645				
|	Co	59	101.186				
|	Ni	60	104.540				
|	Cu	63					
|	Cu	65	103.764				
[	Zn	66	105.592				
|	Zn	67					
|	Zn	68					
>	Ge	74		102.0			
|	As	75	97.273				
|	Se	77					
|	Se	82	97.768				
|	Kr	83					
[	Sr	88	100.874				
|	Y	89					
|	Zr	90	104.065				
|	Mo	98	97.787				
|	Ag	107	100.835				
|	Cd	111	101.320				
|	Cd	114					
>	In	115		101.9			
|	Sn	120	106.298				
|	Sb	121	105.349				
|	Sb	123					
[	Ba	135					
|	Ba	137	104.053				
|	Ho	165					
>	Lu	175		104.5			
|	Tl	205	100.496				
|	Pb	208	105.632				
|	Bi	209					
|	Th	232	107.328				
|	U	238	110.005				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 11

Report Date/Time: Thursday, January 07, 2010 19:08:09

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ICPMS#4 - Summary Report

Sample ID: QC Std 12

Sample Date/Time: Thursday, January 07, 2010 19:11:34

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 12.113

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.192	ug/L	32.556	63	0.000
Be	9	-0.004	ug/L	255.085	4	-0.000
B	11	2.474	ug/L	19.032	173	0.000
Na	23	9.767	ug/L	57.557	24355	0.043
Mg	24	2.868	ug/L	77.096	2667	0.009
Al	27	-0.466	ug/L	318.215	2667	-0.002
P	31	-1.506	ug/L	112.061	1819	-0.000
K	39	-5.089	ug/L	169.037	398148	-0.041
Ca	43	-27.108	ug/L	47.307	300	-0.000
> Sc	45		ug/L		228535	228535.368
Ti	47	-0.080	ug/L	64.618	154	-0.000
V	51	-2.244	ug/L	95.890	-1116	-0.017
Cr	52	-0.611	ug/L	20.114	2812	-0.005
Cr	53		ug/L		126037	-0.066
Mn	55	-0.007	ug/L	111.157	817	-0.000
Fe	57	-15.828	ug/L	10.323	4531	-0.004
Co	59	0.010	ug/L	17.394	203	0.000
Ni	60	0.010	ug/L	213.383	51	0.000
Cu	63		ug/L		160	0.000
Cu	65	0.060	ug/L	25.251	93	0.000
Zn	66	0.091	ug/L	22.204	129	0.000
Zn	67		ug/L		5467	-0.002
Zn	68		ug/L		449	0.000
> Ge	74		ug/L		91768	91767.773
As	75	0.505	ug/L	71.790	454	0.002
Se	77		ug/L		5225	-0.006
Se	82	0.095	ug/L	617.798	9	0.000
Kr	83		ug/L		44	0.000
Sr	88	0.020	ug/L	24.064	216	0.002
Y	89		ug/L		12	0.000
Zr	90	0.195	ug/L	8.222	714	0.009
Mo	98	0.144	ug/L	8.267	184	0.003
Ag	107	0.029	ug/L	43.473	108	0.001
Cd	111	0.024	ug/L	94.167	28	0.000
Cd	114		ug/L		52	0.000
> In	115		ug/L		51813	51813.468
Sn	120	0.962	ug/L	7.651	1772	0.030
Sb	121	1.835	ug/L	11.292	2712	0.044
Sb	123		ug/L		2116	0.034
Ba	135		ug/L		26	0.000
Ba	137	0.024	ug/L	19.619	49	0.000
Ho	165		ug/L		6	-0.000
> Lu	175		ug/L		44171	44170.641
Tl	205	0.214	ug/L	11.640	386	0.006
Pb	208	0.269	ug/L	10.682	1392	0.022
Bi	209		ug/L		20	-0.000
Th	232	0.279	ug/L	19.314	1609	0.029
U	238	0.124	ug/L	10.867	805	0.013

Sample ID: QC Std 12

Report Date/Time: Thursday, January 07, 2010 19:14:23

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
> |	Sc	45				104.7
|	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				102.0
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
|	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
> |	In	115				101.6
|	Sn	120				
|	Sb	121				
|	Sb	123				
|	Ba	135				
|	Ba	137				
|	Ho	165				
> |	Lu	175				102.7
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 12

Report Date/Time: Thursday, January 07, 2010 19:14:23

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ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 07, 2010 19:55:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 6.120

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	51.831	ug/L	2.726	9469	0.042
Be	9	51.420	ug/L	3.712	2684	0.012
B	11	101.558	ug/L	2.135	4397	0.019
Na	23	5354.456	ug/L	6.563	5303154	23.307
Mg	24	5155.010	ug/L	6.641	3492572	15.395
Al	27	5075.674	ug/L	6.056	5143294	22.655
P	31	5081.931	ug/L	1.650	287231	1.257
K	39	5155.754	ug/L	1.624	9778793	41.287
Ca	43	5024.786	ug/L	1.754	19708	0.085
> Sc	45		ug/L		227002	227002.342
Ti	47	50.634	ug/L	1.506	9295	0.040
V	51	43.493	ug/L	32.536	79154	0.335
Cr	52	50.737	ug/L	0.181	92609	0.391
Cr	53		ug/L		116693	-0.104
Mn	55	51.761	ug/L	0.287	150261	0.658
Fe	57	4993.122	ug/L	1.065	294755	1.275
Co	59	50.045	ug/L	1.351	108267	0.476
Ni	60	51.782	ug/L	0.537	23444	0.103
Cu	63		ug/L		52153	0.229
Cu	65	51.623	ug/L	0.527	25159	0.111
Zn	66	51.782	ug/L	1.246	13410	0.146
Zn	67		ug/L		6722	0.012
Zn	68		ug/L		9912	0.104
> Ge	74		ug/L		91120	91120.315
As	75	46.717	ug/L	0.593	14653	0.158
Se	77		ug/L		5172	-0.006
Se	82	51.006	ug/L	3.456	1461	0.016
Kr	83		ug/L		37	-0.000
Sr	88	50.305	ug/L	0.794	220856	4.278
Y	89		ug/L		91	0.002
Zr	90	48.472	ug/L	1.318	114574	2.216
Mo	98	48.941	ug/L	1.026	49127	0.951
Ag	107	49.286	ug/L	1.299	75823	1.469
Cd	111	50.486	ug/L	1.234	18035	0.349
Cd	114		ug/L		41749	0.809
> In	115		ug/L		51591	51591.011
Sn	120	48.796	ug/L	2.045	79600	1.539
Sb	121	48.092	ug/L	4.828	60238	1.159
Sb	123		ug/L		45691	0.878
Ba	135		ug/L		18418	0.410
Ba	137	50.227	ug/L	1.254	31742	0.706
Ho	165		ug/L		14	0.000
> Lu	175		ug/L		44892	44891.874
Tl	205	49.949	ug/L	1.440	67560	1.503
Pb	208	51.434	ug/L	0.210	187026	4.156
Bi	209		ug/L		58	0.001
Th	232	52.336	ug/L	0.836	246997	5.495
U	238	54.360	ug/L	0.702	265163	5.902

Sample ID: QC Std 6

Report Date/Time: Thursday, January 07, 2010 19:57:48

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	103.662				
Be	9	102.840				
B	11	101.558				
Na	23	107.089				
Mg	24	103.100				
Al	27	100.508				
P	31	101.639				
K	39	103.115				
Ca	43	100.496				
> Sc	45		104.0			
Ti	47	101.268				
V	51	86.986				
Cr	52	101.474				
Cr	53					
Mn	55	103.522				
Fe	57	99.862				
Co	59	100.090				
Ni	60	103.564				
Cu	63					
Cu	65	103.245				
Zn	66	103.564				
Zn	67					
Zn	68					
> Ge	74		101.3			
As	75	93.435				
Se	77					
Se	82	102.012				
Kr	83					
Sr	88	100.611				
Y	89					
Zr	90	96.943				
Mo	98	97.883				
Ag	107	98.571				
Cd	111	100.971				
Cd	114					
> In	115		101.2			
Sn	120	97.592				
Sb	121	96.185				
Sb	123					
Ba	135					
Ba	137	100.454				
Ho	165					
> Lu	175		104.4			
Tl	205	99.898				
Pb	208	102.869				
Bi	209					
Th	232	104.671				
U	238	108.719				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	V	51CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 6

Report Date/Time: Thursday, January 07, 2010 19:57:48

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ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 07, 2010 20:01:14

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 7.121

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Li	7	0.117 ug/L	57.077	48	0.000
|	Be	9	0.051 ug/L	78.749	7	0.000
|	B	11	3.003 ug/L	23.907	190	0.001
|	Na	23	3.242 ug/L	51.627	17344	0.014
|	Mg	24	3.014 ug/L	104.703	2667	0.009
|	Al	27	1.979 ug/L	52.368	5001	0.009
|	P	31	-1.942 ug/L	47.688	1741	-0.000
|	K	39	-6.916 ug/L	364.149	382768	-0.055
|	Ca	43	-16.493 ug/L	66.934	331	-0.000
>	Sc	45	ug/L		221706	221705.740
|	Ti	47	0.078 ug/L	68.700	178	0.000
|	V	51	-0.834 ug/L	228.249	1298	-0.006
|	Cr	52	-0.591 ug/L	22.483	2762	-0.005
|	Cr	53	ug/L		111932	-0.113
|	Mn	55	0.000 ug/L	1335.459	812	0.000
|	Fe	57	-13.386 ug/L	8.851	4533	-0.003
|	Co	59	-0.002 ug/L	40.206	171	-0.000
|	Ni	60	-0.014 ug/L	78.058	39	-0.000
|	Cu	63	ug/L		123	0.000
[	Cu	65	0.001 ug/L	1721.169	62	0.000
|	Zn	66	-0.028 ug/L	312.860	95	-0.000
|	Zn	67	ug/L		4649	-0.010
|	Zn	68	ug/L		367	-0.001
>	Ge	74	ug/L		89497	89497.365
|	As	75	-0.278 ug/L	345.374	207	-0.001
|	Se	77	ug/L		4422	-0.013
|	Se	82	-0.418 ug/L	90.291	-5	-0.000
[	Kr	83	ug/L		50	0.000
|	Sr	88	0.005 ug/L	74.601	149	0.000
|	Y	89	ug/L		15	0.000
|	Zr	90	0.136 ug/L	17.142	559	0.006
|	Mo	98	0.054 ug/L	28.636	91	0.001
|	Ag	107	0.008 ug/L	43.999	73	0.000
|	Cd	111	-0.012 ug/L	239.653	15	-0.000
|	Cd	114	ug/L		40	0.000
>	In	115	ug/L		50628	50628.222
|	Sn	120	0.197 ug/L	6.087	511	0.006
|	Sb	121	0.616 ug/L	20.578	1162	0.015
[	Sb	123	ug/L		970	0.012
|	Ba	135	ug/L		22	0.000
|	Ba	137	0.006 ug/L	183.938	37	0.000
|	Ho	165	ug/L		8	-0.000
>	Lu	175	ug/L		43512	43511.602
|	Tl	205	0.129 ug/L	14.429	269	0.004
|	Pb	208	0.030 ug/L	20.392	530	0.002
|	Bi	209	ug/L		14	-0.000
|	Th	232	0.094 ug/L	38.772	743	0.010
[U	238	0.008 ug/L	36.534	245	0.001

Sample ID: QC Std 7

Report Date/Time: Thursday, January 07, 2010 20:04:02

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
>	Sc	45	101.5			
|	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	99.5			
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
[	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
>	In	115	99.3			
|	Sn	120				
|	Sb	121				
|	Sb	123				
[	Ba	135				
|	Ba	137				
|	Ho	165				
>	Lu	175	101.1			
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 07, 2010 20:04:02

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ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 07, 2010 20:44:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 6.128

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.502	ug/L	2.097	9339	0.041
Be	9	50.586	ug/L	1.066	2673	0.012
B	11	97.231	ug/L	1.288	4264	0.018
Na	23	5003.768	ug/L	5.471	5017636	21.781
Mg	24	5222.856	ug/L	5.647	3582189	15.598
Al	27	4963.708	ug/L	4.605	5091780	22.156
P	31	5028.247	ug/L	0.819	287655	1.244
K	39	5191.456	ug/L	2.274	9958038	41.573
Ca	43	5036.980	ug/L	0.557	19993	0.085
> Sc	45		ug/L		229709	229709.284
Ti	47	50.592	ug/L	2.266	9397	0.040
V	51	50.726	ug/L	2.634	92581	0.391
Cr	52	50.637	ug/L	0.764	93536	0.390
Cr	53		ug/L		117277	-0.107
Mn	55	51.391	ug/L	2.686	150969	0.654
Fe	57	4939.044	ug/L	3.270	295081	1.261
Co	59	49.304	ug/L	3.164	107940	0.469
Ni	60	51.046	ug/L	0.951	23386	0.102
Cu	63		ug/L		52325	0.227
Cu	65	50.820	ug/L	1.591	25060	0.109
Zn	66	50.452	ug/L	2.315	13378	0.142
Zn	67		ug/L		6536	0.008
Zn	68		ug/L		9909	0.102
> Ge	74		ug/L		93287	93286.601
As	75	45.774	ug/L	0.464	14703	0.154
Se	77		ug/L		5191	-0.007
Se	82	49.782	ug/L	3.347	1461	0.016
Kr	83		ug/L		39	-0.000
Sr	88	50.042	ug/L	1.579	220718	4.256
Y	89		ug/L		109	0.002
Zr	90	48.688	ug/L	1.954	115626	2.226
Mo	98	49.116	ug/L	2.296	49526	0.955
Ag	107	49.255	ug/L	0.999	76130	1.468
Cd	111	51.296	ug/L	1.335	18408	0.355
Cd	114		ug/L		42365	0.817
> In	115		ug/L		51830	51829.949
Sn	120	49.123	ug/L	0.656	80513	1.550
Sb	121	48.270	ug/L	4.722	60732	1.163
Sb	123		ug/L		46464	0.889
Ba	135		ug/L		18960	0.418
Ba	137	50.776	ug/L	1.572	32408	0.714
Ho	165		ug/L		15	0.000
> Lu	175		ug/L		45346	45345.988
Tl	205	49.315	ug/L	2.380	67372	1.484
Pb	208	50.427	ug/L	2.210	185182	4.075
Bi	209		ug/L		49	0.001
Th	232	51.401	ug/L	1.631	245009	5.397
U	238	53.121	ug/L	1.350	261715	5.768

Sample ID: QC Std 6

Report Date/Time: Thursday, January 07, 2010 20:47:30

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	101.004				
Be	9	101.172				
B	11	97.231				
Na	23	100.075				
Mg	24	104.457				
Al	27	98.291				
P	31	100.565				
K	39	103.829				
Ca	43	100.740				
> Sc	45		105.2			
Ti	47	101.185				
V	51	101.452				
Cr	52	101.274				
Cr	53					
Mn	55	102.782				
Fe	57	98.781				
Co	59	98.608				
Ni	60	102.093				
Cu	63					
Cu	65	101.640				
Zn	66	100.904				
Zn	67					
Zn	68					
> Ge	74		103.7			
As	75	91.547				
Se	77					
Se	82	99.564				
Kr	83					
Sr	88	100.084				
Y	89					
Zr	90	97.375				
Mo	98	98.232				
Ag	107	98.511				
Cd	111	102.593				
Cd	114					
> In	115		101.6			
Sn	120	98.247				
Sb	121	96.541				
Sb	123					
Ba	135					
Ba	137	101.553				
Ho	165					
> Lu	175		105.4			
Tl	205	98.630				
Pb	208	100.853				
Bi	209					
Th	232	102.802				
U	238	106.242				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, January 07, 2010 20:47:30

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ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 07, 2010 20:50:56

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 7.129

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.044	ug/L	95.749	36	0.000
Be	9	0.003	ug/L	1601.076	5	0.000
B	11	2.438	ug/L	29.839	170	0.000
Na	23	1.149	ug/L	168.591	15675	0.005
Mg	24	2.905	ug/L	76.485	2667	0.009
Al	27	2.834	ug/L	151.341	6002	0.013
P	31	-2.705	ug/L	25.829	1737	-0.001
K	39	-7.748	ug/L	260.216	389602	-0.062
Ca	43	-21.826	ug/L	23.012	318	-0.000
> Sc	45		ug/L		226513	226512.708
Ti	47	0.109	ug/L	22.103	187	0.000
V	51	-1.424	ug/L	62.600	289	-0.011
Cr	52	-0.545	ug/L	16.723	2901	-0.004
Cr	53		ug/L		112150	-0.123
Mn	55	0.008	ug/L	200.276	851	0.000
Fe	57	-14.867	ug/L	36.729	4543	-0.004
Co	59	0.002	ug/L	161.613	184	0.000
Ni	60	0.005	ug/L	134.464	49	0.000
Cu	63		ug/L		109	-0.000
Cu	65	-0.005	ug/L	336.541	60	-0.000
Zn	66	-0.057	ug/L	22.052	91	-0.000
Zn	67		ug/L		4581	-0.012
Zn	68		ug/L		333	-0.001
> Ge	74		ug/L		92457	92456.866
As	75	0.382	ug/L	75.380	420	0.001
Se	77		ug/L		4333	-0.016
Se	82	0.217	ug/L	227.990	13	0.000
Kr	83		ug/L		44	0.000
Sr	88	0.005	ug/L	40.605	153	0.000
Y	89		ug/L		18	0.000
Zr	90	0.135	ug/L	14.884	573	0.006
Mo	98	0.041	ug/L	16.929	80	0.001
Ag	107	0.006	ug/L	184.743	73	0.000
Cd	111	-0.030	ug/L	9.461	9	-0.000
Cd	114		ug/L		33	-0.000
> In	115		ug/L		51957	51957.115
Sn	120	0.154	ug/L	22.692	453	0.005
Sb	121	0.521	ug/L	24.261	1077	0.013
Sb	123		ug/L		867	0.009
Ba	135		ug/L		38	0.000
Ba	137	0.018	ug/L	52.944	45	0.000
Ho	165		ug/L		12	0.000
> Lu	175		ug/L		43604	43603.904
Tl	205	0.084	ug/L	14.378	210	0.003
Pb	208	0.008	ug/L	130.736	452	0.001
Bi	209		ug/L		20	0.000
Th	232	0.082	ug/L	27.462	686	0.009
U	238	0.006	ug/L	37.711	235	0.001

Sample ID: QC Std 7

Report Date/Time: Thursday, January 07, 2010 20:53:44

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		103.7			
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		102.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		101.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.4			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 07, 2010 20:53:44

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ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 07, 2010 21:28:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 6.135

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	49.899	ug/L	0.874	9351	0.040
Be	9	51.467	ug/L	1.012	2756	0.012
B	11	97.982	ug/L	3.461	4354	0.018
Na	23	5170.400	ug/L	0.630	5254007	22.506
Mg	24	5103.314	ug/L	3.642	3547338	15.241
Al	27	5246.543	ug/L	3.349	5452380	23.418
P	31	4976.410	ug/L	1.248	288475	1.231
K	39	5401.579	ug/L	4.391	10484391	43.256
Ca	43	4930.996	ug/L	0.952	19840	0.083
> Sc	45		ug/L		232777	232776.847
Ti	47	50.543	ug/L	0.730	9515	0.040
V	51	49.569	ug/L	4.517	91758	0.382
Cr	52	49.898	ug/L	1.801	93463	0.384
Cr	53		ug/L		115658	-0.121
Mn	55	50.461	ug/L	0.926	150231	0.642
Fe	57	4862.224	ug/L	1.203	294491	1.241
Co	59	49.089	ug/L	1.737	108903	0.467
Ni	60	50.917	ug/L	2.147	23635	0.101
Cu	63		ug/L		52967	0.227
Cu	65	50.787	ug/L	1.379	25381	0.109
Zn	66	51.316	ug/L	0.605	13653	0.145
Zn	67		ug/L		6500	0.008
Zn	68		ug/L		10021	0.102
> Ge	74		ug/L		93603	93602.990
As	75	46.060	ug/L	0.960	14842	0.155
Se	77		ug/L		5237	-0.007
Se	82	47.429	ug/L	0.830	1397	0.015
Kr	83		ug/L		41	-0.000
Sr	88	49.222	ug/L	0.334	221876	4.186
Y	89		ug/L		130	0.002
Zr	90	48.064	ug/L	1.767	116630	2.197
Mo	98	47.857	ug/L	1.473	49310	0.930
Ag	107	48.693	ug/L	1.622	76898	1.451
Cd	111	49.590	ug/L	2.320	18184	0.343
Cd	114		ug/L		42130	0.795
> In	115		ug/L		52970	52970.074
Sn	120	48.352	ug/L	0.770	81001	1.525
Sb	121	47.325	ug/L	4.229	60891	1.141
Sb	123		ug/L		46767	0.875
Ba	135		ug/L		18911	0.414
Ba	137	50.357	ug/L	1.586	32377	0.708
Ho	165		ug/L		12	0.000
> Lu	175		ug/L		45674	45674.021
Tl	205	50.547	ug/L	2.242	69561	1.521
Pb	208	51.135	ug/L	1.004	189174	4.132
Bi	209		ug/L		43	0.000
Th	232	51.829	ug/L	2.353	248858	5.442
U	238	53.686	ug/L	2.687	266430	5.829

Sample ID: QC Std 6

Report Date/Time: Thursday, January 07, 2010 21:31:02

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7	99.797				
|	Be	9	102.933				
|	B	11	97.982				
|	Na	23	103.408				
|	Mg	24	102.066				
|	Al	27	103.892				
|	P	31	99.528				
|	K	39	108.032				
|	Ca	43	98.620				
>	Sc	45		106.6			
|	Ti	47	101.085				
|	V	51	99.139				
|	Cr	52	99.796				
|	Cr	53					
|	Mn	55	100.922				
|	Fe	57	97.244				
|	Co	59	98.178				
|	Ni	60	101.834				
|	Cu	63					
|	Cu	65	101.573				
|	Zn	66	102.631				
|	Zn	67					
|	Zn	68					
>	Ge	74		104.1			
|	As	75	92.120				
|	Se	77					
|	Se	82	94.859				
|	Kr	83					
|	Sr	88	98.443				
|	Y	89					
|	Zr	90	96.128				
|	Mo	98	95.714				
|	Ag	107	97.385				
|	Cd	111	99.179				
|	Cd	114					
>	In	115		103.9			
|	Sn	120	96.705				
|	Sb	121	94.650				
|	Sb	123					
|	Ba	135					
|	Ba	137	100.714				
|	Ho	165					
>	Lu	175		106.2			
|	Tl	205	101.093				
|	Pb	208	102.270				
|	Bi	209					
|	Th	232	103.657				
|	U	238	107.373				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, January 07, 2010 21:31:02

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ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 07, 2010 21:34:28

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 7.136

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.074	ug/L	4.090	42	0.000
Be	9	-0.004	ug/L	543.427	4	-0.000
B	11	2.457	ug/L	9.886	173	0.000
Na	23	-3.706	ug/L	47.371	11004	-0.016
Mg	24	0.926	ug/L	91.452	1333	0.003
Al	27	0.185	ug/L	2617.830	3334	0.001
P	31	-3.050	ug/L	18.400	1738	-0.001
K	39	-5.703	ug/L	31.646	398139	-0.046
Ca	43	-25.413	ug/L	1.607	308	-0.000
> Sc	45		ug/L		229237	229237.213
Ti	47	0.068	ug/L	92.817	182	0.000
V	51	-2.919	ug/L	13.875	-2337	-0.022
Cr	52	-0.557	ug/L	14.684	2915	-0.004
Cr	53		ug/L		112872	-0.126
Mn	55	-0.011	ug/L	146.383	808	-0.000
Fe	57	-14.231	ug/L	4.347	4637	-0.004
Co	59	-0.009	ug/L	41.698	162	-0.000
Ni	60	-0.016	ug/L	106.426	40	-0.000
Cu	63		ug/L		103	-0.000
Cu	65	0.017	ug/L	126.442	72	0.000
Zn	66	-0.029	ug/L	27.577	98	-0.000
Zn	67		ug/L		4587	-0.012
Zn	68		ug/L		320	-0.001
> Ge	74		ug/L		92565	92564.532
As	75	-0.470	ug/L	177.100	153	-0.002
Se	77		ug/L		4302	-0.016
Se	82	-0.354	ug/L	83.401	-4	-0.000
Kr	83		ug/L		46	0.000
Sr	88	0.004	ug/L	80.928	147	0.000
Y	89		ug/L		23	0.000
Zr	90	0.131	ug/L	37.029	567	0.006
Mo	98	0.023	ug/L	85.830	63	0.000
Ag	107	0.005	ug/L	64.847	72	0.000
Cd	111	-0.015	ug/L	62.647	15	-0.000
Cd	114		ug/L		34	-0.000
> In	115		ug/L		52437	52437.321
Sn	120	0.117	ug/L	12.544	396	0.004
Sb	121	0.447	ug/L	27.521	991	0.011
Sb	123		ug/L		781	0.008
Ba	135		ug/L		29	0.000
Ba	137	0.022	ug/L	60.709	48	0.000
Ho	165		ug/L		8	-0.000
> Lu	175		ug/L		43886	43886.419
Tl	205	0.047	ug/L	21.551	163	0.001
Pb	208	0.008	ug/L	51.524	456	0.001
Bi	209		ug/L		20	0.000
Th	232	0.069	ug/L	26.011	633	0.007
U	238	0.007	ug/L	48.009	242	0.001

Sample ID: QC Std 7

Report Date/Time: Thursday, January 07, 2010 21:37:16

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
>	Sc	45	105.0			
|	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	102.9			
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
[	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
>	In	115	102.8			
|	Sn	120				
|	Sb	121				
|	Sb	123				
[	Ba	135				
|	Ba	137				
|	Ho	165				
>	Lu	175	102.0			
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 07, 2010 21:37:16

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ICPMS#4 - Summary Report

Sample ID: 1202004355

Sample Date/Time: Thursday, January 07, 2010 21:40:42

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\1202004355.137

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Li	7	0.055 ug/L	29.628	38	0.000
|	Be	9	-0.010 ug/L	393.899	4	-0.000
|	B	11	0.798 ug/L	36.596	100	0.000
|	Na	23	0.478 ug/L	1463.668	15009	0.002
|	Mg	24	2.911 ug/L	76.939	2667	0.009
|	Al	27	9.134 ug/L	65.346	12340	0.041
|	P	31	16.447 ug/L	8.826	2810	0.004
|	K	39	-2.664 ug/L	484.279	398834	-0.021
|	Ca	43	-18.685 ug/L	51.918	330	-0.000
>	Sc	45	ug/L		226515	226514.642
|	Ti	47	0.995 ug/L	68.450	346	0.001
|	V	51	-0.298 ug/L	256.584	2262	-0.002
|	Cr	52	-0.112 ug/L	153.921	3657	-0.001
|	Cr	53	ug/L		86137	-0.238
|	Mn	55	0.346 ug/L	16.842	1827	0.004
|	Fe	57	3.641 ug/L	62.451	5616	0.001
|	Co	59	0.001 ug/L	329.155	183	0.000
|	Ni	60	0.102 ug/L	13.028	92	0.000
|	Cu	63	ug/L		231	0.001
|	Cu	65	0.112 ug/L	6.101	117	0.000
[	Zn	66	1.596 ug/L	5.425	509	0.005
|	Zn	67	ug/L		3743	-0.020
|	Zn	68	ug/L		571	0.002
>	Ge	74	ug/L		90138	90138.074
|	As	75	-0.263 ug/L	359.585	212	-0.001
|	Se	77	ug/L		2969	-0.030
|	Se	82	-0.260 ug/L	34.415	-1	-0.000
|	Kr	83	ug/L		40	-0.000
[	Sr	88	0.044 ug/L	27.476	319	0.004
|	Y	89	ug/L		29	0.000
|	Zr	90	0.589 ug/L	38.400	1625	0.027
|	Mo	98	0.036 ug/L	19.504	74	0.001
|	Ag	107	-0.007 ug/L	13.129	52	-0.000
|	Cd	111	-0.018 ug/L	68.642	13	-0.000
|	Cd	114	ug/L		19	-0.000
>	In	115	ug/L		51314	51313.657
|	Sn	120	0.192 ug/L	12.298	509	0.006
|	Sb	121	-0.128 ug/L	18.762	259	-0.003
|	Sb	123	ug/L		227	-0.003
[	Ba	135	ug/L		56	0.001
|	Ba	137	0.082 ug/L	32.113	85	0.001
|	Ho	165	ug/L		7	-0.000
>	Lu	175	ug/L		44359	44358.877
|	Tl	205	0.031 ug/L	11.505	144	0.001
|	Pb	208	0.002 ug/L	162.350	438	0.000
|	Bi	209	ug/L		23	0.000
|	Th	232	0.065 ug/L	47.900	621	0.007
	U	238	-0.022 ug/L	20.960	103	-0.002

Sample ID: 1202004355

Report Date/Time: Thursday, January 07, 2010 21:43:30

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
>	Sc	45	103.7			
|	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	100.2			
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
[	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
>	In	115	100.6			
|	Sn	120				
|	Sb	121				
|	Sb	123				
[	Ba	135				
|	Ba	137				
|	Ho	165				
>	Lu	175	103.1			
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202004355

Report Date/Time: Thursday, January 07, 2010 21:43:30

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ICPMS#4 - Summary Report

Sample ID: 1202004356

Sample Date/Time: Thursday, January 07, 2010 21:46:56

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 936773|40|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\1202004356.138

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	2.849	ug/L	5.298	549	0.002
Be	9	21.117	ug/L	1.733	1109	0.005
B	11	37.774	ug/L	2.462	1684	0.007
Na	23	281.342	ug/L	7.552	293664	1.225
Mg	24	1134.869	ug/L	7.121	773103	3.389
Al	27	3235.614	ug/L	1.489	3294203	14.442
P	31	197.104	ug/L	1.532	13011	0.049
K	39	1225.801	ug/L	0.608	2643148	9.816
Ca	43	2581.222	ug/L	0.420	10360	0.044
> Sc	45		ug/L		227883	227882.788
Ti	47	133.532	ug/L	0.916	24330	0.106
V	51	23.185	ug/L	3.130	43502	0.179
Cr	52	61.919	ug/L	0.495	112602	0.477
Cr	53		ug/L		117152	-0.104
Mn	55	142.555	ug/L	0.917	413999	1.813
Fe	57	4402.209	ug/L	0.898	261541	1.124
Co	59	24.837	ug/L	0.499	54036	0.236
Ni	60	36.341	ug/L	1.126	16531	0.072
Cu	63		ug/L		47185	0.207
Cu	65	46.296	ug/L	0.771	22656	0.099
Zn	66	154.937	ug/L	0.736	39793	0.437
Zn	67		ug/L		10232	0.051
Zn	68		ug/L		28297	0.307
> Ge	74		ug/L		90833	90833.110
As	75	26.063	ug/L	5.151	8277	0.088
Se	77		ug/L		5566	-0.001
Se	82	72.506	ug/L	1.033	2068	0.023
Kr	83		ug/L		45	0.000
Sr	88	59.274	ug/L	2.064	258692	5.041
Y	89		ug/L		12437	0.242
Zr	90	2.013	ug/L	1.414	4971	0.092
Mo	98	12.754	ug/L	0.635	12757	0.248
Ag	107	4.866	ug/L	1.696	7500	0.145
Cd	111	15.810	ug/L	1.180	5629	0.109
Cd	114		ug/L		13135	0.255
> In	115		ug/L		51296	51295.756
Sn	120	7.711	ug/L	0.737	12676	0.243
Sb	121	16.016	ug/L	2.635	20222	0.386
Sb	123		ug/L		15394	0.293
Ba	135		ug/L		18874	0.416
Ba	137	50.766	ug/L	1.308	32373	0.714
Ho	165		ug/L		421	0.009
> Lu	175		ug/L		45303	45303.176
Tl	205	31.821	ug/L	1.535	43480	0.957
Pb	208	21.902	ug/L	0.634	80626	1.770
Bi	209		ug/L		612	0.013
Th	232	2.381	ug/L	1.506	11651	0.250
U	238	0.437	ug/L	3.271	2365	0.047

Sample ID: 1202004356

Report Date/Time: Thursday, January 07, 2010 21:49:44

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		104.4			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		101.0			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		100.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		105.3			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type: Analyte
 Ti
 Mass Out of Limits Message
 47Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202004356

Report Date/Time: Thursday, January 07, 2010 21:49:44

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ICPMS#4 - Summary Report

Sample ID: 243517003

Sample Date/Time: Thursday, January 07, 2010 21:53:10

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\243517003.139

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Li	7	45.762 ug/L	1.669	8473	0.037
|	Be	9	3.178 ug/L	3.936	172	0.001
|	B	11	14.338 ug/L	6.131	686	0.003
|	Na	23	463.817 ug/L	9.702	478944	2.019
|	Mg	24	7639.084 ug/L	5.067	5245081	22.814
|	Al	27	50226.053 ug/L	3.170	51535973	224.185
|	P	31	327.761 ug/L	1.365	20556	0.081
|	K	39	8341.891 ug/L	4.705	15764997	66.801
|	Ca	43	6055.120 ug/L	0.842	23968	0.102
>	Sc	45	ug/L		229876	229875.705
|	Ti	47	1345.808 ug/L	1.100	245824	1.069
|	V	51	79.103 ug/L	0.764	142909	0.609
|	Cr	52	29.547 ug/L	0.730	56248	0.228
|	Cr	53	ug/L		81484	-0.263
|	Mn	55	1228.920 ug/L	0.422	3593720	15.630
|	Fe	57	36381.669 ug/L	0.173	2140514	9.288
|	Co	59	22.588 ug/L	0.774	49590	0.215
|	Ni	60	24.843 ug/L	1.852	11414	0.049
|	Cu	63	ug/L		22716	0.098
|	Cu	65	22.587 ug/L	1.091	11182	0.048
[	Zn	66	94.538 ug/L	0.805	21948	0.267
|	Zn	67	ug/L		7143	0.025
|	Zn	68	ug/L		16863	0.201
>	Ge	74	ug/L		81970	81969.988
|	As	75	7.021 ug/L	5.878	2208	0.024
|	Se	77	ug/L		2398	-0.033
|	Se	82	0.556 ug/L	80.301	20	0.000
[	Kr	83	ug/L		68	0.000
[	Sr	88	84.174 ug/L	1.846	343069	7.159
|	Y	89	ug/L		169736	3.542
|	Zr	90	57.653 ug/L	1.813	126502	2.636
|	Mo	98	1.198 ug/L	3.710	1152	0.023
|	Ag	107	0.252 ug/L	9.549	419	0.008
|	Cd	111	1.019 ug/L	8.479	356	0.007
|	Cd	114	ug/L		253	0.005
>	In	115	ug/L		47916	47915.902
|	Sn	120	0.695 ug/L	6.473	1235	0.022
|	Sb	121	0.199 ug/L	13.765	620	0.005
[	Sb	123	ug/L		510	0.003
[	Ba	135	ug/L		127082	2.748
|	Ba	137	336.217 ug/L	1.411	218621	4.728
|	Ho	165	ug/L		6472	0.140
>	Lu	175	ug/L		46233	46232.822
|	Tl	205	1.074 ug/L	4.387	1601	0.032
|	Pb	208	50.709 ug/L	0.324	189899	4.098
|	Bi	209	ug/L		1910	0.041
|	Th	232	29.106 ug/L	0.370	141618	3.056
[U	238	7.472 ug/L	1.097	37723	0.811

Sample ID: 243517003

Report Date/Time: Thursday, January 07, 2010 21:55:59

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		105.3			
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					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		94.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		107.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 243517004

Sample Date/Time: Thursday, January 07, 2010 21:59:25

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\243517004.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Li	7	75.866	ug/L	1.246	15952	0.061
|	Be	9	3.680	ug/L	8.363	226	0.001
|	B	11	17.399	ug/L	2.043	931	0.003
|	Na	23	1593.911	ug/L	6.322	1828381	6.938
|	Mg	24	11496.773	ug/L	4.995	8979120	34.335
|	Al	27	68341.953	ug/L	6.045	79646503	305.046
|	P	31	370.845	ug/L	0.769	26165	0.092
|	K	39	10637.463	ug/L	4.177	22761230	85.184
|	Ca	43	15576.395	ug/L	0.918	69385	0.264
>	Sc	45		ug/L		261478	261477.682
|	Ti	47	1176.658	ug/L	0.522	244463	0.934
|	V	51	84.709	ug/L	1.918	173759	0.653
|	Cr	52	37.688	ug/L	0.901	80366	0.290
|	Cr	53		ug/L		84159	-0.296
|	Mn	55	1280.024	ug/L	1.115	4256468	16.279
|	Fe	57	53225.261	ug/L	2.343	3556903	13.588
|	Co	59	19.174	ug/L	2.796	47879	0.182
|	Ni	60	31.051	ug/L	2.973	16203	0.062
|	Cu	63		ug/L		26619	0.101
|	Cu	65	23.407	ug/L	2.051	13174	0.050
[	Zn	66	144.866	ug/L	1.697	34397	0.409
|	Zn	67		ug/L		9554	0.052
|	Zn	68		ug/L		27092	0.318
>	Ge	74		ug/L		83975	83974.801
|	As	75	9.741	ug/L	3.700	3034	0.033
|	Se	77		ug/L		2643	-0.031
|	Se	82	1.602	ug/L	18.140	48	0.001
|	Kr	83		ug/L		61	0.000
[	Sr	88	144.212	ug/L	0.507	613584	12.265
|	Y	89		ug/L		241885	4.836
|	Zr	90	91.439	ug/L	0.927	209378	4.181
|	Mo	98	2.371	ug/L	2.212	2343	0.046
|	Ag	107	0.392	ug/L	2.757	645	0.012
|	Cd	111	1.164	ug/L	12.165	422	0.008
|	Cd	114		ug/L		126	0.002
>	In	115		ug/L		50020	50019.712
|	Sn	120	1.357	ug/L	0.536	2335	0.043
|	Sb	121	0.024	ug/L	72.556	437	0.001
|	Sb	123		ug/L		376	0.000
[	Ba	135		ug/L		284537	5.915
|	Ba	137	718.403	ug/L	0.422	485881	10.102
|	Ho	165		ug/L		9495	0.197
>	Lu	175		ug/L		48095	48094.648
|	Tl	205	0.943	ug/L	2.097	1475	0.028
|	Pb	208	34.307	ug/L	1.645	133786	2.772
|	Bi	209		ug/L		1237	0.025
|	Th	232	28.254	ug/L	0.799	143018	2.967
	U	238	3.033	ug/L	1.983	16069	0.329

Sample ID: 243517004

Report Date/Time: Thursday, January 07, 2010 22:02:14

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Calibration

Analyte	Mass Curve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		119.7			
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		93.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		98.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		111.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
	Al	27Sample is out of limits (over linear range)
	Ti	47Sample is out of limits (over linear range)
	Mn	55Sample is out of limits (over linear range)
	Fe	57Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 243517005

Sample Date/Time: Thursday, January 07, 2010 22:05:39

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\243517005.141

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	57.376	ug/L	3.161	10844	0.046
Be	9	3.894	ug/L	8.098	214	0.001
B	11	13.212	ug/L	2.849	652	0.002
Na	23	613.313	ug/L	3.975	641772	2.670
Mg	24	7507.523	ug/L	6.445	5264996	22.421
Al	27	65521.348	ug/L	2.072	68714630	292.456
P	31	278.401	ug/L	2.912	18131	0.069
K	39	8395.874	ug/L	3.043	16208841	67.234
Ca	43	6552.025	ug/L	1.917	26465	0.111
> Sc	45		ug/L		234867	234867.101
Ti	47	1518.584	ug/L	1.056	283374	1.206
V	51	72.073	ug/L	2.452	133265	0.555
Cr	52	30.929	ug/L	2.520	59951	0.238
Cr	53		ug/L		80190	-0.276
Mn	55	1015.274	ug/L	2.059	3032489	12.912
Fe	57	37252.633	ug/L	2.239	2238482	9.510
Co	59	18.748	ug/L	2.244	42068	0.178
Ni	60	25.953	ug/L	3.311	12174	0.052
Cu	63		ug/L		19006	0.080
Cu	65	18.655	ug/L	2.826	9443	0.040
Zn	66	88.372	ug/L	2.444	21160	0.249
Zn	67		ug/L		6978	0.021
Zn	68		ug/L		16746	0.193
> Ge	74		ug/L		84537	84536.627
As	75	6.187	ug/L	6.893	2040	0.021
Se	77		ug/L		2343	-0.035
Se	82	0.693	ug/L	102.651	24	0.000
Kr	83		ug/L		63	0.000
Sr	88	90.547	ug/L	1.759	375326	7.701
Y	89		ug/L		186808	3.834
Zr	90	76.085	ug/L	0.581	169719	3.479
Mo	98	0.998	ug/L	2.294	982	0.019
Ag	107	0.283	ug/L	5.811	471	0.008
Cd	111	1.218	ug/L	14.028	429	0.008
Cd	114		ug/L		182	0.003
> In	115		ug/L		48723	48723.480
Sn	120	0.659	ug/L	1.849	1201	0.021
Sb	121	0.048	ug/L	5.727	453	0.001
Sb	123		ug/L		405	0.001
Ba	135		ug/L		171916	3.674
Ba	137	446.240	ug/L	1.299	293657	6.275
Ho	165		ug/L		6671	0.142
> Lu	175		ug/L		46797	46797.336
Tl	205	0.936	ug/L	3.794	1426	0.028
Pb	208	46.545	ug/L	1.707	176444	3.761
Bi	209		ug/L		2053	0.043
Th	232	34.007	ug/L	1.888	167422	3.571
U	238	5.680	ug/L	3.096	29080	0.617

Sample ID: 243517005

Report Date/Time: Thursday, January 07, 2010 22:08:27

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
>	Sc	45	107.6			
|	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	94.0			
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
[	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
>	In	115	95.5			
|	Sn	120				
|	Sb	121				
|	Sb	123				
[	Ba	135				
|	Ba	137				
|	Ho	165				
>	Lu	175	108.8			
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
	Al	27Sample is out of limits (over linear range)
	Ti	47Sample is out of limits (over linear range)
	Mn	55Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 243517006

Sample Date/Time: Thursday, January 07, 2010 22:11:52

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\243517006.142

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	66.362	ug/L	1.099	13240	0.053
Be	9	3.449	ug/L	3.896	201	0.001
B	11	12.298	ug/L	1.658	645	0.002
Na	23	1196.128	ug/L	11.692	1306563	5.207
Mg	24	9563.655	ug/L	4.182	7082228	28.562
Al	27	62390.731	ug/L	1.289	69061674	278.482
P	31	459.529	ug/L	1.163	30256	0.114
K	39	9154.280	ug/L	6.997	18615841	73.307
Ca	43	7844.953	ug/L	2.201	33367	0.133
> Sc	45		ug/L		247972	247972.141
Ti	47	1192.916	ug/L	0.493	235064	0.947
V	51	72.532	ug/L	0.650	141598	0.559
Cr	52	33.597	ug/L	3.339	68413	0.259
Cr	53		ug/L		82214	-0.286
Mn	55	858.504	ug/L	2.346	2708459	10.919
Fe	57	48271.747	ug/L	2.755	3061711	12.323
Co	59	15.921	ug/L	2.815	37761	0.151
Ni	60	25.360	ug/L	2.448	12567	0.050
Cu	63		ug/L		21774	0.087
Cu	65	19.770	ug/L	1.529	10567	0.042
Zn	66	123.155	ug/L	0.336	29387	0.347
Zn	67		ug/L		8329	0.037
Zn	68		ug/L		22574	0.263
> Ge	74		ug/L		84334	84334.067
As	75	7.180	ug/L	9.742	2317	0.024
Se	77		ug/L		2445	-0.034
Se	82	0.786	ug/L	55.260	27	0.000
Kr	83		ug/L		66	0.000
Sr	88	94.021	ug/L	0.942	393268	7.996
Y	89		ug/L		220556	4.485
Zr	90	78.326	ug/L	0.849	176334	3.581
Mo	98	1.745	ug/L	1.820	1705	0.034
Ag	107	0.312	ug/L	7.870	516	0.009
Cd	111	0.979	ug/L	8.370	352	0.007
Cd	114		ug/L		118	0.002
> In	115		ug/L		49171	49171.479
Sn	120	1.114	ug/L	3.354	1918	0.035
Sb	121	-0.019	ug/L	47.751	378	-0.000
Sb	123		ug/L		309	-0.001
Ba	135		ug/L		157808	3.310
Ba	137	404.022	ug/L	1.945	270859	5.681
Ho	165		ug/L		8263	0.173
> Lu	175		ug/L		47674	47673.573
Tl	205	0.684	ug/L	3.207	1090	0.021
Pb	208	27.968	ug/L	2.495	108180	2.260
Bi	209		ug/L		1223	0.025
Th	232	26.033	ug/L	1.543	130640	2.733
U	238	2.371	ug/L	1.787	12499	0.257

Sample ID: 243517006

Report Date/Time: Thursday, January 07, 2010 22:14:40

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		113.6			
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		93.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		110.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
	Al	27Sample is out of limits (over linear range)
	Ti	47Sample is out of limits (over linear range)

QC Action

Sample ID: 243517006

Report Date/Time: Thursday, January 07, 2010 22:14:40

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QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 243517007

Sample Date/Time: Thursday, January 07, 2010 22:18:05

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\243517007.143

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	79.672	ug/L	3.213	17147	0.064
Be	9	4.790	ug/L	1.984	300	0.001
B	11	16.409	ug/L	2.391	904	0.003
Na	23	1140.322	ug/L	4.863	1345180	4.964
Mg	24	12518.905	ug/L	2.459	10012205	37.387
Al	27	78700.150	ug/L	0.975	94048812	351.280
P	31	301.167	ug/L	2.047	22176	0.075
K	39	11163.976	ug/L	8.527	24400038	89.401
Ca	43	10403.275	ug/L	0.776	47619	0.176
Sc	45		ug/L		267774	267773.588
Ti	47	1114.757	ug/L	0.459	237214	0.885
V	51	87.698	ug/L	2.151	184127	0.676
Cr	52	41.860	ug/L	1.987	90890	0.323
Cr	53		ug/L		83800	-0.305
Mn	55	839.674	ug/L	1.469	2859925	10.679
Fe	57	56425.689	ug/L	1.376	3862500	14.405
Co	59	18.849	ug/L	1.376	48227	0.179
Ni	60	32.558	ug/L	2.735	17401	0.065
Cu	63		ug/L		30592	0.114
Cu	65	25.655	ug/L	1.412	14781	0.055
Zn	66	148.892	ug/L	1.412	35968	0.420
Zn	67		ug/L		9715	0.052
Zn	68		ug/L		28025	0.323
Ge	74		ug/L		85441	85441.005
As	75	9.873	ug/L	13.172	3122	0.033
Se	77		ug/L		2462	-0.034
Se	82	1.007	ug/L	41.567	33	0.000
Kr	83		ug/L		64	0.000
Sr	88	134.740	ug/L	1.589	577147	11.459
Y	89		ug/L		283475	5.631
Zr	90	83.501	ug/L	4.151	192361	3.818
Mo	98	2.412	ug/L	4.076	2398	0.047
Ag	107	0.346	ug/L	13.646	579	0.010
Cd	111	1.205	ug/L	10.899	439	0.008
Cd	114		ug/L		140	0.002
In	115		ug/L		50369	50368.852
Sn	120	0.958	ug/L	3.670	1716	0.030
Sb	121	-0.034	ug/L	48.212	369	-0.001
Sb	123		ug/L		304	-0.001
Ba	135		ug/L		258847	5.280
Ba	137	644.606	ug/L	2.037	444395	9.064
Ho	165		ug/L		10538	0.215
Lu	175		ug/L		49029	49028.832
Tl	205	0.778	ug/L	1.916	1260	0.023
Pb	208	32.118	ug/L	0.975	127712	2.595
Bi	209		ug/L		1518	0.031
Th	232	29.386	ug/L	1.677	151595	3.085
U	238	2.889	ug/L	2.522	15605	0.314

Sample ID: 243517007

Report Date/Time: Thursday, January 07, 2010 22:20:53

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		122.6			
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		95.0			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		98.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		114.0			
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 sanSc	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 07, 2010 22:24:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 6.144

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	54.975	ug/L	1.365	9907	0.044
Be	9	53.042	ug/L	0.645	2731	0.012
B	11	103.978	ug/L	1.032	4440	0.020
Na	23	5072.745	ug/L	2.430	4959128	22.081
Mg	24	5067.226	ug/L	3.784	3390508	15.133
Al	27	5365.584	ug/L	0.191	5365619	23.949
P	31	5025.229	ug/L	0.649	280211	1.243
K	39	5287.471	ug/L	3.527	9875529	42.342
Ca	43	4980.340	ug/L	2.192	19272	0.084
> Sc	45		ug/L		223910	223910.100
Ti	47	50.802	ug/L	1.976	9199	0.040
V	51	50.733	ug/L	2.189	90286	0.391
Cr	52	50.796	ug/L	2.781	91467	0.391
Cr	53		ug/L		109181	-0.130
Mn	55	51.365	ug/L	1.877	147097	0.653
Fe	57	4993.262	ug/L	3.226	290729	1.275
Co	59	50.019	ug/L	3.314	106722	0.476
Ni	60	51.245	ug/L	3.277	22882	0.102
Cu	63		ug/L		51134	0.228
Cu	65	51.129	ug/L	1.776	24578	0.109
Zn	66	50.885	ug/L	1.652	13134	0.144
Zn	67		ug/L		6102	0.005
Zn	68		ug/L		9663	0.102
> Ge	74		ug/L		90821	90820.552
As	75	46.502	ug/L	4.692	14549	0.157
Se	77		ug/L		4665	-0.011
Se	82	50.483	ug/L	1.364	1442	0.016
Kr	83		ug/L		40	-0.000
Sr	88	49.881	ug/L	2.035	217798	4.242
Y	89		ug/L		147	0.003
Zr	90	48.764	ug/L	3.572	114625	2.229
Mo	98	48.406	ug/L	3.707	48320	0.941
Ag	107	49.778	ug/L	3.555	76146	1.483
Cd	111	50.114	ug/L	1.540	17806	0.347
Cd	114		ug/L		41342	0.805
> In	115		ug/L		51331	51331.239
Sn	120	49.530	ug/L	0.634	80394	1.562
Sb	121	48.405	ug/L	3.882	60353	1.167
Sb	123		ug/L		45604	0.881
Ba	135		ug/L		18509	0.409
Ba	137	49.893	ug/L	1.915	31784	0.702
Ho	165		ug/L		18	0.000
> Lu	175		ug/L		45251	45251.007
Tl	205	50.511	ug/L	0.425	68871	1.520
Pb	208	51.215	ug/L	0.379	187715	4.139
Bi	209		ug/L		49	0.001
Th	232	52.189	ug/L	0.534	248283	5.480
U	238	54.546	ug/L	1.116	268204	5.922

Sample ID: QC Std 6

Report Date/Time: Thursday, January 07, 2010 22:27:05

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7	109.950				
|	Be	9	106.084				
|	B	11	103.978				
|	Na	23	101.455				
|	Mg	24	101.345				
|	Al	27	106.249				
|	P	31	100.505				
|	K	39	105.749				
|	Ca	43	99.607				
>	Sc	45		102.5			
|	Ti	47	101.604				
|	V	51	101.466				
|	Cr	52	101.593				
|	Cr	53					
|	Mn	55	102.729				
|	Fe	57	99.865				
|	Co	59	100.038				
|	Ni	60	102.490				
|	Cu	63					
|	Cu	65	102.258				
|	Zn	66	101.771				
|	Zn	67					
|	Zn	68					
>	Ge	74		101.0			
|	As	75	93.004				
|	Se	77					
|	Se	82	100.966				
|	Kr	83					
|	Sr	88	99.763				
|	Y	89					
|	Zr	90	97.528				
|	Mo	98	96.812				
|	Ag	107	99.556				
|	Cd	111	100.228				
|	Cd	114					
>	In	115		100.7			
|	Sn	120	99.060				
|	Sb	121	96.811				
|	Sb	123					
|	Ba	135					
|	Ba	137	99.786				
|	Ho	165					
>	Lu	175		105.2			
|	Tl	205	101.023				
|	Pb	208	102.430				
|	Bi	209					
|	Th	232	104.379				
|	U	238	109.092				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, January 07, 2010 22:27:05

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ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 07, 2010 22:30:31

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 7.145

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.055	ug/L	83.159	38	0.000
Be	9	-0.022	ug/L	50.303	3	-0.000
B	11	2.284	ug/L	37.246	163	0.000
Na	23	0.502	ug/L	530.002	15008	0.002
Mg	24	3.915	ug/L	43.914	3334	0.012
Al	27	1.879	ug/L	190.622	5001	0.008
P	31	-3.258	ug/L	20.764	1703	-0.001
K	39	-16.213	ug/L	117.561	373855	-0.130
Ca	43	-23.131	ug/L	33.524	313	-0.000
Sc	45		ug/L		226218	226217.958
Ti	47	0.070	ug/L	113.904	180	0.000
V	51	-1.544	ug/L	118.192	86	-0.012
Cr	52	-0.752	ug/L	14.963	2536	-0.006
Cr	53		ug/L		104235	-0.157
Mn	55	-0.013	ug/L	52.198	791	-0.000
Fe	57	-18.672	ug/L	13.141	4320	-0.005
Co	59	-0.008	ug/L	43.245	163	-0.000
Ni	60	-0.015	ug/L	86.560	40	-0.000
Cu	63		ug/L		96	-0.000
Cu	65	0.007	ug/L	97.172	66	0.000
Zn	66	-0.050	ug/L	135.748	91	-0.000
Zn	67		ug/L		4328	-0.014
Zn	68		ug/L		294	-0.001
Ge	74		ug/L		90532	90532.193
As	75	-0.105	ug/L	402.077	263	-0.000
Se	77		ug/L		3903	-0.019
Se	82	-0.013	ug/L	2699.799	6	-0.000
Kr	83		ug/L		44	0.000
Sr	88	0.006	ug/L	59.625	152	0.000
Y	89		ug/L		21	0.000
Zr	90	0.128	ug/L	17.867	552	0.006
Mo	98	0.036	ug/L	18.182	75	0.001
Ag	107	0.009	ug/L	4.845	76	0.000
Cd	111	-0.001	ug/L	2362.515	19	-0.000
Cd	114		ug/L		33	-0.000
In	115		ug/L		51506	51506.208
Sn	120	0.140	ug/L	6.032	426	0.004
Sb	121	0.311	ug/L	33.510	806	0.008
Sb	123		ug/L		674	0.006
Ba	135		ug/L		31	0.000
Ba	137	0.028	ug/L	67.094	52	0.000
Ho	165		ug/L		8	-0.000
Lu	175		ug/L		44350	44349.853
Tl	205	0.161	ug/L	20.248	316	0.005
Pb	208	0.001	ug/L	774.186	434	0.000
Bi	209		ug/L		16	-0.000
Th	232	0.069	ug/L	40.916	640	0.007
U	238	0.007	ug/L	25.228	243	0.001

Sample ID: QC Std 7

Report Date/Time: Thursday, January 07, 2010 22:33:20

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45					103.6
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					100.6
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115					101.0
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175					103.1
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 243517008
 Sample Date/Time: Thursday, January 07, 2010 22:36:46
 Sample Type:
 Sample Description: LANL 6020
 Number of Replicates: 3
 Batch ID: 936773|2|skj
 Method File: c:\elandata\Method\6020.mth
 Dataset File: C:\elandata\Dataset\100107\243517008.146

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	57.693	ug/L	2.372	11124	0.046
Be	9	4.240	ug/L	10.282	238	0.001
B	11	15.769	ug/L	9.894	780	0.003
Na	23	571.710	ug/L	5.484	611139	2.489
Mg	24	9186.864	ug/L	2.702	6574399	27.436
Al	27	67133.539	ug/L	5.091	71838023	299.652
P	31	308.451	ug/L	1.323	20279	0.076
K	39	9281.635	ug/L	1.780	18237435	74.327
Ca	43	6993.447	ug/L	1.070	28792	0.118
> Sc	45		ug/L		239606	239605.799
Ti	47	1340.889	ug/L	0.845	255253	1.065
V	51	90.318	ug/L	2.500	169590	0.696
Cr	52	36.906	ug/L	0.339	72211	0.284
Cr	53		ug/L		82134	-0.275
Mn	55	1437.797	ug/L	1.374	4381424	18.286
Fe	57	44410.783	ug/L	1.836	2721475	11.337
Co	59	28.322	ug/L	1.680	64744	0.269
Ni	60	31.407	ug/L	3.206	15022	0.063
Cu	63		ug/L		27857	0.116
Cu	65	26.166	ug/L	1.567	13490	0.056
Zn	66	111.880	ug/L	1.957	26232	0.316
Zn	67		ug/L		7839	0.033
Zn	68		ug/L		20053	0.237
> Ge	74		ug/L		82844	82844.383
As	75	8.206	ug/L	2.598	2562	0.028
Se	77		ug/L		2353	-0.034
Se	82	0.138	ug/L	158.918	9	0.000
Kr	83		ug/L		77	0.000
Sr	88	98.844	ug/L	1.584	408666	8.406
Y	89		ug/L		188735	3.883
Zr	90	64.644	ug/L	1.083	143881	2.955
Mo	98	1.269	ug/L	4.122	1236	0.025
Ag	107	0.271	ug/L	4.190	451	0.008
Cd	111	1.062	ug/L	8.197	375	0.007
Cd	114		ug/L		255	0.005
> In	115		ug/L		48607	48606.830
Sn	120	0.549	ug/L	3.573	1029	0.017
Sb	121	0.185	ug/L	25.516	612	0.004
Sb	123		ug/L		502	0.003
Ba	135		ug/L		161213	3.469
Ba	137	422.536	ug/L	0.937	276108	5.942
Ho	165		ug/L		7101	0.153
> Lu	175		ug/L		46460	46459.568
Tl	205	1.167	ug/L	1.280	1739	0.035
Pb	208	52.049	ug/L	2.423	195816	4.206
Bi	209		ug/L		2150	0.046
Th	232	33.617	ug/L	2.015	164283	3.530
U	238	9.069	ug/L	2.032	45958	0.985

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		109.7			
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		92.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		95.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		108.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
	Al	27Sample is out of limits (over linear range)
	Ti	47Sample is out of limits (over linear range)
	Mn	55Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 243517009

Sample Date/Time: Thursday, January 07, 2010 22:43:00

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\243517009.147

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	67.596	ug/L	2.845	13446	0.054
Be	9	4.599	ug/L	8.775	266	0.001
B	11	16.773	ug/L	4.158	852	0.003
Na	23	579.947	ug/L	4.121	640399	2.524
Mg	24	9893.977	ug/L	6.266	7301292	29.548
Al	27	80441.832	ug/L	8.552	88843158	359.054
P	31	348.759	ug/L	2.817	23392	0.086
K	39	10390.523	ug/L	4.237	21039912	83.207
Ca	43	8768.484	ug/L	0.659	37157	0.148
> Sc	45		ug/L		247367	247367.126
Ti	47	1460.292	ug/L	1.036	286960	1.160
V	51	88.298	ug/L	0.796	171317	0.680
Cr	52	39.794	ug/L	1.480	80037	0.307
Cr	53		ug/L		81636	-0.287
Mn	55	1257.381	ug/L	3.131	3954075	15.992
Fe	57	48694.923	ug/L	3.895	3078729	12.431
Co	59	22.732	ug/L	4.095	53665	0.216
Ni	60	30.945	ug/L	3.145	15283	0.062
Cu	63		ug/L		30350	0.122
Cu	65	27.941	ug/L	3.540	14861	0.060
Zn	66	121.980	ug/L	2.560	28671	0.344
Zn	67		ug/L		8225	0.037
Zn	68		ug/L		21911	0.259
> Ge	74		ug/L		83075	83074.705
As	75	9.663	ug/L	6.131	2977	0.033
Se	77		ug/L		2377	-0.034
Se	82	0.460	ug/L	78.301	18	0.000
Kr	83		ug/L		72	0.000
Sr	88	111.364	ug/L	1.123	463511	9.471
Y	89		ug/L		199190	4.071
Zr	90	90.960	ug/L	0.378	203729	4.159
Mo	98	1.348	ug/L	1.299	1319	0.026
Ag	107	0.379	ug/L	1.701	612	0.011
Cd	111	1.411	ug/L	6.580	497	0.010
Cd	114		ug/L		308	0.006
> In	115		ug/L		48936	48935.594
Sn	120	0.596	ug/L	2.070	1109	0.019
Sb	121	0.087	ug/L	6.314	501	0.002
Sb	123		ug/L		420	0.001
Ba	135		ug/L		179592	3.863
Ba	137	469.738	ug/L	1.115	307105	6.605
Ho	165		ug/L		7397	0.159
> Lu	175		ug/L		46487	46487.312
Tl	205	0.949	ug/L	6.626	1435	0.029
Pb	208	58.422	ug/L	1.204	219918	4.721
Bi	209		ug/L		2493	0.053
Th	232	38.323	ug/L	2.133	187386	4.024
U	238	7.193	ug/L	2.063	36526	0.781

Sample ID: 243517009

Report Date/Time: Thursday, January 07, 2010 22:45:49

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
|>	Sc	45		113.3		
|	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		92.4		
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
|	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
|>	In	115		96.0		
|	Sn	120				
|	Sb	121				
|	Sb	123				
|	Ba	135				
|	Ba	137				
|	Ho	165				
|>	Lu	175		108.1		
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
	Al	27Sample is out of limits (over linear range)
	Ti	47Sample is out of limits (over linear range)
	Mn	55Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202004357

Sample Date/Time: Thursday, January 07, 2010 22:55:31

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\1202004357.149

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	44.899	ug/L	1.635	8712	0.036
Be	9	3.523	ug/L	2.483	200	0.001
B	11	30.074	ug/L	4.518	1432	0.006
Na	23	566.787	ug/L	16.191	610323	2.467
Mg	24	8875.733	ug/L	6.066	6387697	26.507
Al	27	55493.332	ug/L	4.849	59691497	247.695
P	31	922.171	ug/L	0.130	56970	0.228
K	39	9421.108	ug/L	3.564	18604460	75.444
Ca	43	20725.779	ug/L	1.827	84953	0.351
> Sc	45		ug/L		240920	240920.008
Ti	47	1074.179	ug/L	0.056	205666	0.853
V	51	61.237	ug/L	3.109	116599	0.472
Cr	52	26.259	ug/L	1.272	52848	0.202
Cr	53		ug/L		77754	-0.295
Mn	55	1685.444	ug/L	0.105	5165193	21.436
Fe	57	30833.851	ug/L	0.921	1902247	7.871
Co	59	18.070	ug/L	0.680	41618	0.172
Ni	60	29.190	ug/L	1.002	14047	0.058
Cu	63		ug/L		34775	0.144
Cu	65	32.694	ug/L	1.753	16936	0.070
Zn	66	147.192	ug/L	1.233	34806	0.415
Zn	67		ug/L		9367	0.050
Zn	68		ug/L		27209	0.321
> Ge	74		ug/L		83604	83603.833
As	75	9.213	ug/L	6.966	2870	0.031
Se	77		ug/L		2568	-0.032
Se	82	1.119	ug/L	12.420	35	0.000
Kr	83		ug/L		64	0.000
Sr	88	140.605	ug/L	0.847	591236	11.958
Y	89		ug/L		235869	4.771
Zr	90	67.365	ug/L	1.038	152489	3.080
Mo	98	2.262	ug/L	1.642	2211	0.044
Ag	107	0.317	ug/L	8.059	528	0.009
Cd	111	1.987	ug/L	7.474	698	0.014
Cd	114		ug/L		970	0.019
> In	115		ug/L		49437	49437.017
Sn	120	0.802	ug/L	1.021	1442	0.025
Sb	121	0.341	ug/L	3.916	808	0.008
Sb	123		ug/L		635	0.006
Ba	135		ug/L		280527	5.901
Ba	137	714.892	ug/L	1.628	477901	10.053
Ho	165		ug/L		8678	0.182
> Lu	175		ug/L		47544	47543.806
Tl	205	0.743	ug/L	3.747	1172	0.022
Pb	208	80.560	ug/L	0.846	309978	6.510
Bi	209		ug/L		4077	0.085
Th	232	24.297	ug/L	2.537	121596	2.551
U	238	13.390	ug/L	0.247	69346	1.454

Sample ID: 1202004357

Report Date/Time: Thursday, January 07, 2010 22:58:20

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
>	Sc	45		110.3		
|	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		92.9		
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
|	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
>	In	115		96.9		
|	Sn	120				
|	Sb	121				
|	Sb	123				
|	Ba	135				
|	Ba	137				
|	Ho	165				
>	Lu	175		110.5		
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
	Al	27Sample is out of limits (over linear range)
	Ti	47Sample is out of limits (over linear range)
	Mn	55Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202004358

Sample Date/Time: Thursday, January 07, 2010 23:01:45

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\1202004358.150

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	78.615	ug/L	1.507	15650	0.063
Be	9	27.547	ug/L	3.302	1571	0.006
B	11	74.891	ug/L	2.767	3556	0.014
Na	23	1462.118	ug/L	2.892	1591372	6.364
Mg	24	10691.659	ug/L	3.918	7906206	31.930
Al	27	69409.420	ug/L	2.464	76696633	309.810
P	31	1685.064	ug/L	0.721	105235	0.417
K	39	11640.436	ug/L	10.852	23489589	93.216
Ca	43	18998.501	ug/L	1.968	80032	0.322
Sc	45		ug/L		247498	247497.897
Ti	47	1281.170	ug/L	0.654	251958	1.017
V	51	88.339	ug/L	1.830	171451	0.681
Cr	52	53.788	ug/L	1.411	106796	0.414
Cr	53		ug/L		84125	-0.278
Mn	55	1773.342	ug/L	1.723	5583732	22.554
Fe	57	36861.964	ug/L	1.152	2335190	9.410
Co	59	42.828	ug/L	1.431	101067	0.408
Ni	60	55.223	ug/L	2.385	27259	0.110
Cu	63		ug/L		58432	0.236
Cu	65	53.043	ug/L	0.778	28183	0.114
Zn	66	177.664	ug/L	0.519	42411	0.501
Zn	67		ug/L		10572	0.063
Zn	68		ug/L		33040	0.387
Ge	74		ug/L		84460	84459.545
As	75	46.774	ug/L	2.407	13596	0.158
Se	77		ug/L		2694	-0.031
Se	82	8.760	ug/L	6.073	237	0.003
Kr	83		ug/L		63	0.000
Sr	88	160.165	ug/L	0.546	668608	13.621
Y	89		ug/L		225249	4.590
Zr	90	99.137	ug/L	0.960	222642	4.532
Mo	98	23.797	ug/L	2.048	22732	0.463
Ag	107	22.387	ug/L	1.210	32789	0.667
Cd	111	7.187	ug/L	2.511	2457	0.050
Cd	114		ug/L		4588	0.093
In	115		ug/L		49074	49074.118
Sn	120	9.401	ug/L	1.577	14744	0.297
Sb	121	41.042	ug/L	0.970	48949	0.989
Sb	123		ug/L		37491	0.757
Ba	135		ug/L		306613	6.391
Ba	137	777.178	ug/L	1.517	524273	10.929
Ho	165		ug/L		8392	0.175
Lu	175		ug/L		47974	47974.238
Tl	205	45.605	ug/L	1.034	65928	1.372
Pb	208	169.939	ug/L	1.309	659220	13.733
Bi	209		ug/L		3945	0.082
Th	232	48.600	ug/L	2.854	245150	5.103
U	238	35.222	ug/L	2.515	183673	3.824

Sample ID: 1202004358

Report Date/Time: Thursday, January 07, 2010 23:04:32

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
>	Sc	45	113.3			
|	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	93.9			
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
|	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
>	In	115	96.2			
|	Sn	120				
|	Sb	121				
|	Sb	123				
|	Ba	135				
|	Ba	137				
|	Ho	165				
>	Lu	175	111.5			
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
	Al	27Sample is out of limits (over linear range)
	Ti	47Sample is out of limits (over linear range)
	Mn	55Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202004360

Sample Date/Time: Thursday, January 07, 2010 23:07:58

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\1202004360.151

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Li	7	72.313 ug/L	2.446	14172	0.058
|	Be	9	27.593 ug/L	0.833	1548	0.006
|	B	11	82.272 ug/L	1.841	3838	0.015
|	Na	23	1492.195 ug/L	8.917	1597611	6.495
|	Mg	24	9868.326 ug/L	4.125	7179313	29.472
|	Al	27	63682.588 ug/L	4.228	69235196	284.248
|	P	31	1747.580 ug/L	2.627	107351	0.432
|	K	39	11259.673 ug/L	7.104	22397050	90.167
|	Ca	43	22802.631 ug/L	1.659	94459	0.386
>	Sc	45	ug/L		243661	243660.646
|	Ti	47	1096.268 ug/L	1.378	212260	0.870
|	V	51	83.727 ug/L	3.526	160114	0.645
|	Cr	52	48.650 ug/L	3.512	95461	0.375
|	Cr	53	ug/L		81778	-0.282
|	Mn	55	1649.480 ug/L	1.938	5111637	20.978
|	Fe	57	33238.042 ug/L	4.609	2073097	8.485
|	Co	59	38.535 ug/L	2.744	89510	0.367
|	Ni	60	52.111 ug/L	2.209	25319	0.104
|	Cu	63	ug/L		59091	0.242
[	Cu	65	54.768 ug/L	1.884	28645	0.117
|	Zn	66	176.545 ug/L	1.416	42049	0.498
|	Zn	67	ug/L		10457	0.062
|	Zn	68	ug/L		32924	0.386
>	Ge	74	ug/L		84257	84256.602
|	As	75	46.109 ug/L	2.986	13378	0.155
|	Se	77	ug/L		2648	-0.031
|	Se	82	9.021 ug/L	8.237	244	0.003
[	Kr	83	ug/L		73	0.000
|	Sr	88	175.946 ug/L	0.876	733573	14.963
|	Y	89	ug/L		233345	4.760
|	Zr	90	85.475 ug/L	1.009	191812	3.908
|	Mo	98	23.549 ug/L	0.724	22477	0.458
|	Ag	107	22.350 ug/L	1.841	32697	0.666
|	Cd	111	6.837 ug/L	3.469	2337	0.047
|	Cd	114	ug/L		4741	0.096
>	In	115	ug/L		49020	49020.399
|	Sn	120	9.085 ug/L	1.070	14240	0.287
|	Sb	121	43.500 ug/L	0.482	51796	1.049
[	Sb	123	ug/L		39536	0.799
|	Ba	135	ug/L		326054	6.731
|	Ba	137	817.481 ug/L	2.362	556862	11.495
|	Ho	165	ug/L		8764	0.181
>	Lu	175	ug/L		48445	48445.160
|	Tl	205	45.674 ug/L	2.107	66680	1.374
|	Pb	208	174.938 ug/L	1.643	685287	14.137
|	Bi	209	ug/L		4120	0.085
|	Th	232	46.534 ug/L	1.802	237021	4.886
[U	238	36.102 ug/L	3.404	190085	3.920

Sample ID: 1202004360

Report Date/Time: Thursday, January 07, 2010 23:10:46

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		111.6			
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		93.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		112.6			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202004359

Sample Date/Time: Thursday, January 07, 2010 23:14:12

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 936773|10|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\1202004359.152

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.893	ug/L	4.019	1924	0.009
Be	9	1.037	ug/L	4.059	56	0.000
B	11	9.482	ug/L	1.521	450	0.002
Na	23	122.825	ug/L	6.539	129922	0.535
Mg	24	1822.429	ug/L	3.702	1182390	5.443
Al	27	12862.696	ug/L	1.369	12466456	57.413
P	31	195.473	ug/L	1.515	12306	0.048
K	39	2169.753	ug/L	6.444	4156770	17.375
Ca	43	4405.900	ug/L	1.145	16571	0.075
> Sc	45		ug/L		217060	217059.589
Ti	47	240.128	ug/L	0.222	41546	0.191
V	51	13.312	ug/L	10.400	24921	0.103
Cr	52	4.968	ug/L	1.353	12001	0.038
Cr	53		ug/L		86136	-0.221
Mn	55	343.337	ug/L	0.492	948608	4.367
Fe	57	7309.546	ug/L	0.861	410217	1.866
Co	59	3.933	ug/L	2.200	8294	0.037
Ni	60	6.838	ug/L	3.570	2998	0.014
Cu	63		ug/L		7132	0.032
Cu	65	7.395	ug/L	1.095	3497	0.016
Zn	66	30.028	ug/L	1.281	7164	0.085
Zn	67		ug/L		4725	-0.005
Zn	68		ug/L		5748	0.064
> Ge	74		ug/L		83461	83460.930
As	75	1.659	ug/L	37.546	739	0.006
Se	77		ug/L		2874	-0.028
Se	82	0.131	ug/L	185.842	9	0.000
Kr	83		ug/L		42	0.000
Sr	88	27.622	ug/L	1.011	112869	2.349
Y	89		ug/L		45527	0.948
Zr	90	14.251	ug/L	2.247	31502	0.652
Mo	98	0.510	ug/L	1.313	512	0.010
Ag	107	0.059	ug/L	15.165	143	0.002
Cd	111	0.372	ug/L	9.312	142	0.003
Cd	114		ug/L		193	0.003
> In	115		ug/L		48000	48000.038
Sn	120	0.137	ug/L	12.749	394	0.004
Sb	121	-0.024	ug/L	57.160	363	-0.001
Sb	123		ug/L		324	-0.001
Ba	135		ug/L		54716	1.211
Ba	137	148.891	ug/L	1.299	94604	2.094
Ho	165		ug/L		1664	0.037
> Lu	175		ug/L		45170	45169.750
Tl	205	0.221	ug/L	7.066	404	0.007
Pb	208	16.278	ug/L	1.581	59852	1.315
Bi	209		ug/L		752	0.016
Th	232	4.969	ug/L	1.662	23890	0.522
U	238	2.165	ug/L	1.770	10830	0.235

Sample ID: 1202004359

Report Date/Time: Thursday, January 07, 2010 23:17:00

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		99.4			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		92.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		94.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		105.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202004359

Report Date/Time: Thursday, January 07, 2010 23:17:00

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ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 07, 2010 23:20:25

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 6.153

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	57.434	ug/L	4.177	10087	0.046
Be	9	55.962	ug/L	1.074	2810	0.013
B	11	105.398	ug/L	2.856	4390	0.020
Na	23	5063.949	ug/L	3.187	4830410	22.043
Mg	24	5253.836	ug/L	3.282	3425359	15.690
Al	27	5000.293	ug/L	2.438	4877589	22.319
P	31	5016.802	ug/L	0.841	272896	1.241
K	39	5150.240	ug/L	8.632	9380472	41.243
Ca	43	4902.544	ug/L	0.776	18513	0.083
> Sc	45		ug/L		218399	218399.003
Ti	47	49.810	ug/L	4.848	8791	0.040
V	51	49.762	ug/L	4.301	86330	0.383
Cr	52	49.764	ug/L	2.196	87425	0.383
Cr	53		ug/L		106481	-0.130
Mn	55	50.726	ug/L	2.376	141645	0.645
Fe	57	4936.490	ug/L	2.836	280363	1.260
Co	59	48.351	ug/L	2.312	100622	0.460
Ni	60	50.560	ug/L	1.645	22017	0.101
Cu	63		ug/L		48627	0.222
Cu	65	49.731	ug/L	2.418	23312	0.106
Zn	66	51.038	ug/L	0.408	12544	0.144
Zn	67		ug/L		5869	0.006
Zn	68		ug/L		9285	0.103
> Ge	74		ug/L		86455	86454.820
As	75	45.892	ug/L	1.632	13659	0.155
Se	77		ug/L		4637	-0.009
Se	82	49.504	ug/L	3.423	1345	0.016
Kr	83		ug/L		38	-0.000
Sr	88	49.019	ug/L	1.358	206444	4.169
Y	89		ug/L		84	0.001
Zr	90	47.291	ug/L	3.585	107256	2.162
Mo	98	47.713	ug/L	1.427	45943	0.928
Ag	107	48.848	ug/L	2.113	72100	1.455
Cd	111	50.150	ug/L	2.430	17184	0.347
Cd	114		ug/L		39502	0.797
> In	115		ug/L		49490	49489.767
Sn	120	48.853	ug/L	1.846	76460	1.541
Sb	121	47.911	ug/L	5.382	57565	1.155
Sb	123		ug/L		44201	0.886
Ba	135		ug/L		17596	0.401
Ba	137	49.134	ug/L	1.198	30286	0.691
Ho	165		ug/L		13	0.000
> Lu	175		ug/L		43786	43786.452
Tl	205	50.486	ug/L	0.903	66609	1.519
Pb	208	50.829	ug/L	1.227	180253	4.107
Bi	209		ug/L		41	0.000
Th	232	52.420	ug/L	1.075	241290	5.504
U	238	54.303	ug/L	0.308	258376	5.896

Sample ID: QC Std 6

Report Date/Time: Thursday, January 07, 2010 23:23:12

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Calibration

Analyte	Mass Curve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	114.868				
Be	9	111.924				
B	11	105.398				
Na	23	101.279				
Mg	24	105.077				
Al	27	99.016				
P	31	100.336				
K	39	103.005				
Ca	43	98.051				
> Sc	45		100.0			
Ti	47	99.619				
V	51	99.523				
Cr	52	99.528				
Cr	53					
Mn	55	101.451				
Fe	57	98.730				
Co	59	96.703				
Ni	60	101.120				
Cu	63					
Cu	65	99.462				
Zn	66	102.077				
Zn	67					
Zn	68					
> Ge	74		96.1			
As	75	91.783				
Se	77					
Se	82	99.008				
Kr	83					
Sr	88	98.039				
Y	89					
Zr	90	94.582				
Mo	98	95.425				
Ag	107	97.696				
Cd	111	100.300				
Cd	114					
> In	115		97.1			
Sn	120	97.707				
Sb	121	95.821				
Sb	123					
Ba	135					
Ba	137	98.269				
Ho	165					
> Lu	175		101.8			
Tl	205	100.972				
Pb	208	101.658				
Bi	209					
Th	232	104.840				
U	238	108.607				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	7CCV is out of limits (+/- 10%)
QC Std 6	Be	9	9CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 07, 2010 23:26:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100107\QC Std 7.154

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.020	ug/L	112.981	30	0.000
Be	9	0.014	ug/L	142.619	5	0.000
B	11	3.151	ug/L	15.284	191	0.001
Na	23	-5.894	ug/L	57.693	8336	-0.026
Mg	24	1.555	ug/L	114.854	1667	0.005
Al	27	1.751	ug/L	34.419	4667	0.008
P	31	-2.019	ug/L	63.956	1697	-0.000
K	39	-12.338	ug/L	70.958	364599	-0.099
Ca	43	-23.491	ug/L	5.864	298	-0.000
> Sc	45		ug/L		216551	216551.108
Ti	47	0.035	ug/L	161.545	166	0.000
V	51	0.994	ug/L	210.461	4323	0.008
Cr	52	-0.633	ug/L	4.368	2627	-0.005
Cr	53		ug/L		101786	-0.148
Mn	55	-0.010	ug/L	61.405	766	-0.000
Fe	57	-17.741	ug/L	9.138	4187	-0.005
Co	59	-0.000	ug/L	1165.595	171	-0.000
Ni	60	0.007	ug/L	252.590	47	0.000
Cu	63		ug/L		98	-0.000
Cu	65	0.005	ug/L	395.823	62	0.000
Zn	66	-0.050	ug/L	88.267	87	-0.000
Zn	67		ug/L		4181	-0.014
Zn	68		ug/L		276	-0.001
> Ge	74		ug/L		86982	86981.899
As	75	-0.415	ug/L	78.377	162	-0.001
Se	77		ug/L		3834	-0.018
Se	82	0.038	ug/L	920.629	7	0.000
Kr	83		ug/L		33	-0.000
Sr	88	0.007	ug/L	52.432	152	0.001
Y	89		ug/L		16	0.000
Zr	90	0.127	ug/L	15.609	527	0.006
Mo	98	0.038	ug/L	35.474	74	0.001
Ag	107	0.012	ug/L	34.628	78	0.000
Cd	111	-0.022	ug/L	24.078	11	-0.000
Cd	114		ug/L		26	-0.000
> In	115		ug/L		49455	49455.000
Sn	120	0.146	ug/L	22.922	420	0.005
Sb	121	0.375	ug/L	28.785	851	0.009
Sb	123		ug/L		700	0.007
Ba	135		ug/L		28	0.000
Ba	137	0.017	ug/L	32.819	44	0.000
Ho	165		ug/L		8	-0.000
> Lu	175		ug/L		43981	43981.039
Tl	205	0.100	ug/L	9.369	234	0.003
Pb	208	0.001	ug/L	248.277	431	0.000
Bi	209		ug/L		16	-0.000
Th	232	0.090	ug/L	29.356	730	0.009
U	238	0.008	ug/L	20.814	246	0.001

Sample ID: QC Std 7

Report Date/Time: Thursday, January 07, 2010 23:29:26

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9998
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		99.2			
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		96.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		97.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		102.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 07, 2010 23:29:26

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Daily Performance Report

Sample ID: Sample

Sample Date/Time: Monday, January 11, 2010 10:28:49

Sample Description:

Method File: c:\elandata\Method\daily2.mth

Dataset File: c:\elandata\Dataset\090811\Sample.352

Tuning File: c:\elandata\Tuning\default2.tun

Optimization File: c:\elandata\Optimize\default.dac

Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35

Current Dead Time (ns): 35

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD
Be	9.0		1083.4		1083.441		43.527		4.0
Mg	24.0		20649.5		20649.516		295.332		1.4
Co	58.9		49719.0		49718.976		488.113		1.0
Rh	102.9		84971.4		84971.377		873.851		1.0
In	114.9		111362.0		111361.988		875.731		0.8
Pb	208.0		39144.6		39144.561		397.593		1.0
[> Ba	137.9		88523.3		88523.277		397.772		0.4
[Ba++	69.0		1722.0		0.019		0.000		0.7
[> Ce	139.9		104905.2		104905.177		513.975		0.5
[CeO	155.9		2248.1		0.021		0.000		2.1
Bkgd	220.0		6.2		6.200		2.280		36.8

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.8	1040.0
Co	59	17	7.8	34323.2
In	115	17	9.0	83823.2

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	611	2060	0.645
Be	9.0	9.1	2049	2045	0.671
Mg	24.0	24.0	5677	2075	0.598
Mg	25.0	25.0	5951	2080	0.650
Mg	26.0	26.1	6156	2085	0.616
Co	58.9	59.0	14193	2140	0.615
Rh	102.9	102.9	24872	2230	0.630
In	114.9	114.8	27769	2255	0.660
Ce	139.9	139.9	33858	2310	0.617
Pb	206.0	206.0	49933	2500	0.626
Pb	207.0	207.0	50101	2380	0.593
Pb	208.0	208.0	50448	2570	0.590
U	238.1	238.0	57686	2510	0.673

ICPMS#4 - Summary Report

Sample ID: Blank

Sample Date/Time: Monday, January 11, 2010 16:15:35

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\Blank.107

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	ug/L			4
|>	Sc	45	ug/L		181062	
[	Ni	60	ug/L			44

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
|>	Sc	45				
[Ni	60				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Monday, January 11, 2010 16:17:49

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\Standard 1.108

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	10.000 ug/L	6.159	641	0.004
|>	Sc	45	ug/L		173999	173998.605
[	Ni	60	10.000 ug/L	4.532	5611	0.032

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
|>	Sc	45				
[	Ni	60				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Monday, January 11, 2010 16:20:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\Standard 2.109

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	99.900 ug/L	0.453	6149	0.033
|>	Sc	45	ug/L		184533	184532.694
[	Ni	60	99.880 ug/L	0.563	52775	0.286

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	0.9999

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
|>	Sc	45				
[	Ni	60				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Monday, January 11, 2010 16:22:14

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\QC Std 1.110

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.724	ug/L	0.481	3180	0.017
Sc	45		ug/L		184170	184170.467
Ni	60	52.181	ug/L	0.864	27537	0.149

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	103.448				
Sc	45		101.7			
Ni	60	104.363				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Monday, January 11, 2010 16:24:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\QC Std 2.111

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	-0.010 ug/L	346.507	4	-0.000
|>	Sc	45	ug/L		178985	178985.078
[	Ni	60	0.010 ug/L	86.160	48	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	0.9999

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
|>	Sc	45	98.9			
[	Ni	60				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Monday, January 11, 2010 16:26:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\QC Std 3.112

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.540	ug/L	30.964	37	0.000
Sc	45		ug/L		181658	181657.762
Ni	60	2.159	ug/L	4.773	1165	0.006

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	108.094				
Sc	45		100.3			
Ni	60	107.969				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Monday, January 11, 2010 16:28:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\QC Std 4.113

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.049 ug/L	19.211	7	0.000
|>	Sc	45	ug/L		181745	181745.291
[	Ni	60	3.426 ug/L	3.170	1825	0.010

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	0.9999

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
|>	Sc	45		100.4		
[	Ni	60	126.893			

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Monday, January 11, 2010 16:31:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\QC Std 5.114

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	19.579 ug/L	2.956	1181	0.007
|>	Sc	45	ug/L		180296	180296.180
[	Ni	60	21.972 ug/L	1.359	11377	0.063

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	0.9999

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9	97.894			
|>	Sc	45		99.6		
[	Ni	60	96.795			

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, January 11, 2010 16:33:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\QC Std 6.115

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	50.631 ug/L	1.397	3122	0.017
|>	Sc	45	ug/L		184736	184735.650
[	Ni	60	50.885 ug/L	1.445	26936	0.146

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	0.9999

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9	101.262			
|>	Sc	45		102.0		
[	Ni	60	101.769			

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, January 11, 2010 16:35:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\QC Std 7.116

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	-0.011 ug/L	360.167	4	-0.000
|>	Sc	45	ug/L		179474	179473.821
[	Ni	60	0.004 ug/L	333.123	45	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	0.9999

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
|>	Sc	45		99.1		
[	Ni	60				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, January 11, 2010 16:49:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\QC Std 6.122

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	51.820 ug/L	1.337	3107	0.017
>	Sc	45	ug/L		179600	179599.716
[	Ni	60	50.829 ug/L	0.899	26160	0.145

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	0.9999

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9	103.641			
>	Sc	45		99.2		
[	Ni	60	101.657			

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, January 11, 2010 16:51:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\QC Std 7.123

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.009 ug/L	220.142	5	0.000
|>	Sc	45	ug/L		173850	173850.193
[	Ni	60	0.013 ug/L	132.485	49	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	0.9999

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
|>	Sc	45		96.0		
[	Ni	60				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 243517007

Sample Date/Time: Monday, January 11, 2010 17:00:35

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|10|skj

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\243517007.127

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	1.111 ug/L	21.671	73	0.000
|>	Sc	45	ug/L		185025	185025.388
[	Ni	60	8.527 ug/L	2.526	4557	0.024

Calibration

Analyte	Mass Curve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	0.9999

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
|>	Sc	45	102.2			
[Ni	60				

QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, January 11, 2010 17:02:51

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\QC Std 6.128

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	53.372	ug/L	2.208	3121	0.018
Sc	45		ug/L		175204	175203.940
Ni	60	51.502	ug/L	0.239	25857	0.147

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	106.744				
Sc	45		96.8			
Ni	60	103.003				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, January 11, 2010 17:05:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni only.mth

Dataset File: C:\elandata\Dataset\100111\QC Std 7.129

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.008 ug/L	551.723	5	0.000
|>	Sc	45	ug/L		175989	175989.172
[	Ni	60	0.007 ug/L	235.502	46	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	0.9999

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9				
|>	Sc	45	97.2			
[	Ni	60				

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: Tuesday, January 12, 2010 09:56:52

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default2\Sample.1698

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		4761.6		4761.595		221.266		4.6
Mg	24.0		55879.2		55879.203		2158.244		3.9
Co	58.9		111767.2		111767.218		1947.620		1.7
Rh	102.9		213223.4		213223.425		5934.201		2.8
In	114.9		274322.9		274322.922		6393.213		2.3
Pb	208.0		322368.2		322368.242		8104.004		2.5
[> Ba	137.9		284715.5		284715.550		4875.927		1.7
[Ba++	69.0		4343.8		0.015		0.000		1.4
[> Ce	139.9		353453.4		353453.402		6959.552		2.0
[CeO	155.9		9274.2		0.026		0.001		2.2
Bkgd	220.0		13.6		13.600		2.382		17.5

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-1718.75	Analog Stage Voltage
1200.00	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	23	9.8	7179.1
Co	59	23	10.0	114002.4
In	115	23	12.3	282555.3

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	590	2050	0.642
Be	9.0	9.0	2052	2070	0.642
Mg	24.0	24.0	5689	2070	0.628
Mg	25.0	25.0	5929	2070	0.610
Mg	26.0	25.9	6172	2070	0.657
Co	58.9	58.9	14182	2105	0.621
Rh	102.9	102.9	24881	2165	0.614
In	114.9	114.9	27783	2185	0.603
Ce	139.9	139.9	33867	2200	0.626
Pb	206.0	206.0	49948	2270	0.679
Pb	207.0	207.0	50159	2235	0.668
Pb	208.0	208.0	50451	2260	0.708
U	238.1	238.1	57730	2275	0.719

ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Tuesday, January 12, 2010 15:04:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\Blank.133

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9		ug/L			19
45		ug/L		513034		

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[Be	9					
45						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Tuesday, January 12, 2010 15:05:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\Standard 1.134

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	10.000	ug/L	2.542	3603	0.007
45		ug/L		514397	514396.991	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[Be	9					
45						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Tuesday, January 12, 2010 15:07:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\Standard 2.135

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	99.973 ug/L	1.432	35478	0.068
Sc	45	ug/L		522968	522967.762	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9				
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Tuesday, January 12, 2010 15:08:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 1.136

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.311	ug/L	1.235	18721	0.035
Sc	45		ug/L		537392	537392.230

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	102.623					
Sc	45		104.7				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Tuesday, January 12, 2010 15:10:39

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 2.137

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	-0.003	ug/L	302.249	19	-0.000
45		ug/L		541457	541456.682	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
45		105.5				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Tuesday, January 12, 2010 15:12:19

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 3.138

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.532	ug/L	2.018	212	0.000
Sc	45		ug/L		532028	532028.409

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9	106.386				
Sc	45		103.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Tuesday, January 12, 2010 15:13:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 4.139

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.047	ug/L	16.715	36	0.000
[> Sc	45		ug/L		527703	527703.239

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[Be	9					
[> Sc	45		102.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Tuesday, January 12, 2010 15:15:37

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 5.140

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	18.731	ug/L	1.300	6510	0.013
45		ug/L		511011	511011.214	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[Be	9	93.653				
45		99.6				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, January 12, 2010 15:17:17

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 6.141

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	50.913	ug/L	0.683	17948	0.035
45		ug/L		519215	519215.326	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[Be	9	101.826				
45		101.2				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, January 12, 2010 15:18:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 7.142

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.001	ug/L	902.362	20	0.000
45		ug/L		529651	529650.925	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
45		103.2				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004355

Sample Date/Time: Tuesday, January 12, 2010 15:20:39

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\1202004355.143

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	-0.008	ug/L	126.517	17	-0.000
45		ug/L		523179	523179.159	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
45		102.0				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004356

Sample Date/Time: Tuesday, January 12, 2010 15:22:21

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 936773|40|skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\1202004356.144

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	22.858	ug/L	0.485	8462	0.016
Sc	45		ug/L		544540	544539.591

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		106.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243517003

Sample Date/Time: Tuesday, January 12, 2010 15:24:03

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773[2]skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\243517003.145

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	3.545	ug/L	3.451	1321	0.002
[> Sc	45		ug/L		540992	540991.613

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[Be	9					
[> Sc	45		105.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243517004

Sample Date/Time: Tuesday, January 12, 2010 15:25:46

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\243517004.146

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	4.243	ug/L	2.687	1734	0.003
Sc	45		ug/L		594921	594920.942

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		116.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, January 12, 2010 15:27:28

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 8.147

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.339	ug/L	0.305	17439	0.035
Sc	45		ug/L		500334	500334.042

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	102.677				
Sc	45		97.5			

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, January 12, 2010 15:29:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 9.148

Concentration Results

Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	-0.001	ug/L	1405.637	19	-0.000	
45		ug/L		514898	514897.684		

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[Be	9						
45		100.4					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243517005

Sample Date/Time: Tuesday, January 12, 2010 15:30:50

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\243517005.149

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	4.188	ug/L	2.790	1547	0.003
45		ug/L		537494	537494.232	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[Be	9					
45		104.8				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243517006

Sample Date/Time: Tuesday, January 12, 2010 15:32:31

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\243517006.150

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	3.784	ug/L	3.409	1448	0.003
[> Sc	45		ug/L		556160	556159.764

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[Be	9					
[> Sc	45		108.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243517007

Sample Date/Time: Tuesday, January 12, 2010 15:34:12

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\243517007.151

Concentration Results

Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	5.555	ug/L	2.828	2220	0.004	
[> Sc	45		ug/L		583654	583653.735	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[Be	9						
[> Sc	45		113.8				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243517008

Sample Date/Time: Tuesday, January 12, 2010 15:35:54

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773[2]skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\243517008.152

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	4.710	ug/L	1.379	1712	0.003
Sc	45		ug/L		530020	530020.410

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9						
Sc	45		103.3				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243517009

Sample Date/Time: Tuesday, January 12, 2010 15:37:36

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\243517009.153

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	5.212	ug/L	1.577	1917	0.004
45		ug/L		536759	536759.014	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[Be	9					
45		104.6				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, January 12, 2010 15:39:17

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 8.154

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	52.975	ug/L	0.875	17187	0.036
45		ug/L		477881	477881.251	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[Be	9	105.950				
45		93.1				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, January 12, 2010 15:40:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 9.155

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.007	ug/L	254.977	15	-0.000
Sc	45		ug/L		465300	465300.230

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9						
Sc	45		90.7				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004357

Sample Date/Time: Tuesday, January 12, 2010 15:44:25

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\1202004357.157

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	3.778	ug/L	4.031	1356	0.003
Sc	45		ug/L		521612	521611.672

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		101.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004358

Sample Date/Time: Tuesday, January 12, 2010 15:46:07

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\1202004358.158

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	29.651	ug/L	0.807	10782	0.020
Sc	45		ug/L		535141	535141.078

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel.	% Difference
Be	9						
Sc	45		104.3				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004360

Sample Date/Time: Tuesday, January 12, 2010 15:47:48

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\1202004360.159

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	29.405	ug/L	2.787	10602	0.020
Sc	45		ug/L		530769	530768.803

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		103.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004359

Sample Date/Time: Tuesday, January 12, 2010 15:49:30

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 936773|10|skj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\1202004359.160

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.949	ug/L	3.125	321	0.001
45		ug/L		472138	472138.214	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
45		92.0				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, January 12, 2010 15:51:11

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 8.161

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	52.640	ug/L	1.832	16779	0.036
45		ug/L		469548	469548.440	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[Be	9	105.281					
45		91.5					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, January 12, 2010 15:52:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 9.162

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	-0.009	ug/L	49.909	14	-0.000
45		ug/L		467922	467922.082	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[Be	9					
45		91.2				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Tuesday, January 12, 2010 17:21:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\Blank.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ge	74		ug/L		306553	
|	As	75		ug/L		-370	
|	Se	77		ug/L		6046	
|	Se	82		ug/L		-4	
|	Kr	83		ug/L		77	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Tuesday, January 12, 2010 17:23:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\Standard 1.202

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Ge	74		ug/L		294810	294809.789
| As	75	10.000	ug/L	13.284	8646	0.031
| Se	77		ug/L		5436	-0.001
| Se	82	10.000	ug/L	7.339	784	0.003
[Kr	83		ug/L		83	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
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	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[> Ge	74					
| As	75					
| Se	77					
| Se	82					
[Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Tuesday, January 12, 2010 17:25:19

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\Standard 2.203

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
> Ge	74		ug/L		297614	297613.528
| As	75	99.871	ug/L	2.604	80205	0.271
| Se	77		ug/L		11362	0.018
| Se	82	99.971	ug/L	0.969	7737	0.026
| Kr	83		ug/L		90	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	0.9999
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
> Ge	74					
| As	75					
| Se	77					
| Se	82					
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Tuesday, January 12, 2010 17:27:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 1.204

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Ge	74		ug/L		306122	306121.815
| As	75	48.278	ug/L	2.764	39699	0.131
| Se	77		ug/L		8899	0.009
| Se	82	49.575	ug/L	1.021	3945	0.013
| Kr	83		ug/L		96	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	0.9999
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> Ge	74		99.9				
| As	75	96.556					
| Se	77						
| Se	82	99.150					
Kr	83						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Tuesday, January 12, 2010 17:29:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 2.205

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Ge	74		ug/L		303688	303688.473
| As	75	0.276	ug/L	215.112	-133	0.001
| Se	77		ug/L		6595	0.002
| Se	82	-0.050	ug/L	419.873	-8	-0.000
| Kr	83		ug/L		92	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[> Ge	74			99.1			
| As	75						
| Se	77						
| Se	82						
| Kr	83						

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: Tuesday, January 12, 2010 17:30:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 3.206

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		305098	305098.496
As	75	5.689	ug/L	2.657	4338	0.015
Se	77		ug/L		5716	-0.001
Se	82	5.207	ug/L	2.664	410	0.001
Kr	83		ug/L		94	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Ge	74		99.5			
As	75	113.788				
Se	77					
Se	82	104.147				
Kr	83					

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: Tuesday, January 12, 2010 17:32:44

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 4.207

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		302557	302556.564
As	75	0.618	ug/L	36.524	142	0.002
Se	77		ug/L		6500	0.002
Se	82	-1.304	ug/L	16.379	-107	-0.000
Kr	83		ug/L		227	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Ge	74		98.7			
As	75					
Se	77					
Se	82					
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Tuesday, January 12, 2010 17:34:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 5.208

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Ge	74		ug/L		292939	292939.430
| As	75	20.968	ug/L	3.634	16298	0.057
| Se	77		ug/L		6989	0.004
| Se	82	19.339	ug/L	4.225	1470	0.005
[Kr	83		ug/L		215	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> Ge	74		95.6				
| As	75	104.839					
| Se	77						
| Se	82	96.696					
[Kr	83						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, January 12, 2010 17:36:28

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 6.209

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Ge	74		ug/L		303550	303550.052
| As	75	47.264	ug/L	0.818	38533	0.128
| Se	77		ug/L		9120	0.010
| Se	82	48.473	ug/L	2.138	3824	0.013
[Kr	83		ug/L		88	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	0.9999
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> Ge	74		99.0				
| As	75	94.529					
| Se	77						
| Se	82	96.946					
[Kr	83						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, January 12, 2010 17:38:21

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 7.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ge	74		ug/L		301543	301543.487
|	As	75	0.259	ug/L	250.099	-151	0.001
|	Se	77		ug/L		7303	0.004
|	Se	82	-0.071	ug/L	162.395	-9	-0.000
[	Kr	83		ug/L		93	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Ge	74		98.4				
|	As	75						
|	Se	77						
|	Se	82						
[	Kr	83						

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: 1202004355

Sample Date/Time: Tuesday, January 12, 2010 17:40:16

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\1202004355.211

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Ge	74		ug/L		299595	299594.613
| As	75	0.457	ug/L	53.156	11	0.001
| Se	77		ug/L		6014	0.000
| Se	82	-0.113	ug/L	131.745	-13	-0.000
[Kr	83		ug/L		86	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	0.9999
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[> Ge	74		97.7				
| As	75						
| Se	77						
| Se	82						
[Kr	83						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004356

Sample Date/Time: Tuesday, January 12, 2010 17:42:40

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 936773|40|skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\1202004356.212

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		303637	303637.265
As	75	27.441	ug/L	0.836	22221	0.074
Se	77		ug/L		13041	0.023
Se	82	72.364	ug/L	2.501	5713	0.019
Kr	83		ug/L		94	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Ge	74			99.0			
As	75						
Se	77						
Se	82						
Kr	83						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243517003

Sample Date/Time: Tuesday, January 12, 2010 17:45:04

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773[2]skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\243517003.213

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Ge	74		ug/L		281869	281868.573
| As	75	9.201	ug/L	4.688	6692	0.025
| Se	77		ug/L		3193	-0.008
| Se	82	-0.318	ug/L	33.826	-27	-0.000
[Kr	83		ug/L		194	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[> Ge	74			91.9			
| As	75						
| Se	77						
| Se	82						
[Kr	83						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243517004

Sample Date/Time: Tuesday, January 12, 2010 17:47:29

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\243517004.214

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
> Ge	74		ug/L		272317	272317.226
| As	75	11.045	ug/L	2.279	7824	0.030
| Se	77		ug/L		3945	-0.005
| Se	82	-0.137	ug/L	157.917	-13	-0.000
| Kr	83		ug/L		210	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	0.9999
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
> Ge	74		88.8				
| As	75						
| Se	77						
| Se	82						
| Kr	83						

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: Tuesday, January 12, 2010 17:49:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 8.215

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		295635	295634.662
As	75	48.290	ug/L	1.546	38339	0.131
Se	77		ug/L		7952	0.007
Se	82	48.638	ug/L	1.606	3737	0.013
Kr	83		ug/L		92	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Ge	74		96.4				
As	75	96.581					
Se	77						
Se	82	97.276					
Kr	83						

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: Tuesday, January 12, 2010 17:51:47

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 9.216

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Ge	74		ug/L		293132	293131.737
| As	75	0.314	ug/L	93.120	-106	0.001
| Se	77		ug/L		6022	0.001
| Se	82	0.229	ug/L	39.948	14	0.000
[Kr	83		ug/L		83	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	0.9999
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[> Ge	74		95.6			
| As	75					
| Se	77					
| Se	82					
[Kr	83					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243517005

Sample Date/Time: Tuesday, January 12, 2010 17:53:40

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\243517005.217

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Ge	74		ug/L		272706	272705.878
| As	75	8.300	ug/L	2.748	5808	0.023
| Se	77		ug/L		2760	-0.010
| Se	82	-0.701	ug/L	39.265	-53	-0.000
| Kr	83		ug/L		210	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Ge	74		89.0			
| As	75					
| Se	77					
| Se	82					
| Kr	83					

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: 243517006

Sample Date/Time: Tuesday, January 12, 2010 17:56:03

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773[2]skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\243517006.218

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ge	74		ug/L		271237	271236.566
|	As	75	9.173	ug/L	5.687	6416	0.025
|	Se	77		ug/L		2476	-0.011
|	Se	82	-0.781	ug/L	37.630	-59	-0.000
[	Kr	83		ug/L		208	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	0.9999
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Ge	74		88.5			
|	As	75					
|	Se	77					
|	Se	82					
[Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243517007

Sample Date/Time: Tuesday, January 12, 2010 17:58:27

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\243517007.219

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
> Ge	74		ug/L		269467	269467.409
| As	75	10.418	ug/L	5.143	7287	0.028
| Se	77		ug/L		3291	-0.008
| Se	82	-0.770	ug/L	27.583	-58	-0.000
| Kr	83		ug/L		225	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
> Ge	74		87.9				
| As	75						
| Se	77						
| Se	82						
| Kr	83						

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: 243517008

Sample Date/Time: Tuesday, January 12, 2010 18:00:51

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\243517008.220

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		264120	264120.188
As	75	10.423	ug/L	3.525	7145	0.028
Se	77		ug/L		2276	-0.011
Se	82	-0.667	ug/L	43.901	-49	-0.000
Kr	83		ug/L		188	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Ge	74		86.2				
As	75						
Se	77						
Se	82						
Kr	83						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243517009

Sample Date/Time: Tuesday, January 12, 2010 18:03:16

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\243517009.221

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Ge	74		ug/L		260184	260184.026
| As	75	12.106	ug/L	0.205	8225	0.033
| Se	77		ug/L		2173	-0.011
| Se	82	-1.153	ug/L	18.561	-81	-0.000
[Kr	83		ug/L		240	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	0.9999
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[> Ge	74		84.9			
| As	75					
| Se	77					
| Se	82					
[Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, January 12, 2010 18:05:40

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 8.222

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		270055	270054.624
As	75	48.767	ug/L	1.460	35373	0.132
Se	77		ug/L		6340	0.004
Se	82	49.765	ug/L	2.566	3492	0.013
Kr	83		ug/L		75	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	0.9999
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Ge	74		88.1				
As	75	97.534					
Se	77						
Se	82	99.530					
Kr	83						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, January 12, 2010 18:07:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 9.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		273823	273822.556
|	As	75	0.297	ug/L	95.691	-113	0.001
|	Se	77		ug/L		4537	-0.003
|	Se	82	0.169	ug/L	118.231	8	0.000
|	Kr	83		ug/L		78	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
>	Ge	74			89.3			
|	As	75						
|	Se	77						
|	Se	82						
	Kr	83						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004357

Sample Date/Time: Tuesday, January 12, 2010 18:11:54

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\1202004357.225

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		261974	261973.564
As	75	11.796	ug/L	1.218	8063	0.032
Se	77		ug/L		2504	-0.010
Se	82	-0.081	ug/L	99.802	-9	-0.000
Kr	83		ug/L		179	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Ge	74		85.5			
As	75					
Se	77					
Se	82					
Kr	83					

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: 1202004358

Sample Date/Time: Tuesday, January 12, 2010 18:14:19

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\1202004358.226

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ge	74		ug/L		263559	263558.777
|	As	75	54.483	ug/L	0.560	38612	0.148
|	Se	77		ug/L		2798	-0.009
|	Se	82	8.986	ug/L	9.470	612	0.002
|	Kr	83		ug/L		203	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Ge	74			86.0		
|	As	75					
|	Se	77					
|	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004360

Sample Date/Time: Tuesday, January 12, 2010 18:16:42

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 936773|2|skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\1202004360.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ge	74		ug/L		262693	262692.777
|	As	75	51.875	ug/L	1.003	36627	0.141
|	Se	77		ug/L		2714	-0.009
|	Se	82	9.541	ug/L	5.700	649	0.002
|	Kr	83		ug/L		165	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Ge	74			85.7		
|	As	75					
|	Se	77					
|	Se	82					
|	Kr	83					

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: 1202004359

Sample Date/Time: Tuesday, January 12, 2010 18:19:07

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 936773|10|skj

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\1202004359.228

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Ge	74		ug/L		268293	268293.492
| As	75	2.959	ug/L	9.615	1829	0.008
| Se	77		ug/L		2722	-0.010
| Se	82	0.150	ug/L	58.993	7	0.000
| Kr	83		ug/L		86	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	0.9999
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> Ge	74		87.5				
| As	75						
| Se	77						
| Se	82						
Kr	83						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, January 12, 2010 18:21:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 8.229

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ge	74		ug/L		269881	269880.901
|	As	75	47.439	ug/L	0.343	34384	0.129
|	Se	77		ug/L		6343	0.004
|	Se	82	47.697	ug/L	1.289	3345	0.012
[	Kr	83		ug/L		80	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. %	Difference
[>	Ge	74			88.0			
|	As	75	94.878					
|	Se	77						
|	Se	82	95.394					
[	Kr	83						

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: Tuesday, January 12, 2010 18:23:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\as and se.mth

Dataset File: C:\elandata\Dataset\100112\QC Std 9.230

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Ge	74		ug/L		266780	266779.844
| As	75	0.511	ug/L	75.423	47	0.001
| Se	77		ug/L		4355	-0.003
| Se	82	-0.129	ug/L	114.516	-12	-0.000
[Kr	83		ug/L		77	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	0.9999
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[> Ge	74		87.0				
| As	75						
| Se	77						
| Se	82						
[Kr	83						

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Method Name: SOIL
 Method Description: 7471A, ILM04 ANALYST JXL1
 Element: Hg

Date: 01/07/2010
 Technique: FI-MHS
 Calibration Type:
 Hg, Calc. Intercept : Linear
 Wavelength: 253.7 nm
 Sample Info Name: 010710S1.SIF Results Data Set Name: 010710S2

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 01/07/2010
 Sample ID: Calib Blank

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1			0.0034	0.0034	10:15:26	No
2			0.0035	0.0035	10:16:01	No
Mean:			0.0034			
SD :			0.0000			
%RSD:			1.1933			

Auto-zero performed.

Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 01/07/2010
 Sample ID: S0.2

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1			0.0024	0.0058	10:17:24	No
2			0.0021	0.0055	10:17:59	No
Mean:			0.0023			
SD :			0.0002			
%RSD:			10.1161			

[Hg] Standard number 1 applied. [0.200]
 Correlation Coefficient: 1.00000 Slope: 0.01126
 Intercept : 0.00000

Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 01/07/2010
 Sample ID: S0.5

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1			0.0050	0.0084	10:19:22	No
2			0.0040	0.0074	10:19:58	No
Mean:			0.0045			
SD :			0.0007			
%RSD:			16.5462			

[Hg] Standard number 2 applied. [0.500]
 Correlation Coefficient: 0.99318 Slope: 0.00886
 Intercept : 0.00018

Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 01/07/2010
 Sample ID: S2.0

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1			0.0188	0.0222	10:21:22	No
2			0.0195	0.0229	10:21:57	No
Mean:			0.0191			
SD :			0.0005			
%RSD:			2.5139			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99956
Intercept : 0.00004

Slope: 0.00952

=====

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 01/07/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0478	0.0512	10:23:22	No
2			0.0466	0.0500	10:23:57	No
Mean:			0.0472			
SD :			0.0008			
%RSD:			1.7801			
[Hg] Standard number 4 applied. [5.000]						
Correlation Coefficient: 0.99993				Slope: 0.00942		
Intercept : 0.00009						

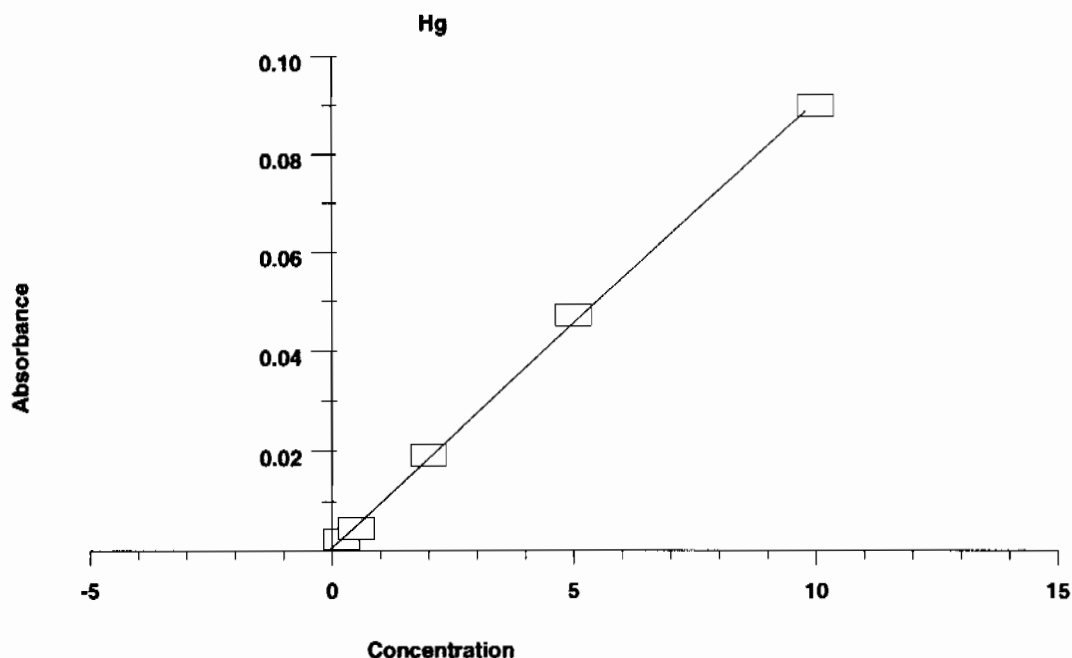
=====

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 01/07/2010
Sample ID: S10

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0897	0.0931	10:25:23	No
2			0.0899	0.0933	10:25:58	No
Mean:			0.0898			
SD :			0.0001			
%RSD:			0.1097			
[Hg] Standard number 5 applied. [10.00]						
Correlation Coefficient: 0.99967				Slope: 0.00901		
Intercept : 0.00056						

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0034	---	---	---	---
S0.2	0.0023	0.200	0.188	0.0002	10.1
S0.5	0.0045	0.500	0.436	0.0007	16.5
S2.0	0.0191	2.000	2.061	0.0005	2.5
S5.0	0.0472	5.000	5.173	0.0008	1.8
S10	0.0898	10.000	9.905	0.0001	0.1
Correlation Coefficient: 0.99967		Slope:	0.00901	Intercept: 0.0006	



=====
 Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 01/07/2010
 Sample ID: ICV

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.017	5.017	0.0458	0.0492	10:27:27	No
2	5.079	5.079	0.0463	0.0497	10:28:02	No
Mean:	5.048	5.048	0.0460			
SD :	0.0436	0.0436	0.0004			
%RSD:	0.9	0.9	0.8525			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 01/07/2010
 Sample ID: ICB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0001	0.0033	10:29:24	No
2	-0.069	-0.069	-0.0001	0.0034	10:29:58	No
Mean:	-0.073	-0.073	-0.0001			
SD :	0.0061	0.0061	0.0001			
%RSD:	8.4	8.4	57.6697			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 01/07/2010
 Sample ID: CRDL

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.212	0.212	0.0025	0.0059	10:31:21	No
2	0.190	0.190	0.0023	0.0057	10:31:56	No
Mean:	0.201	0.201	0.0024			
SD :	0.0158	0.0158	0.0001			
%RSD:	7.8	7.8	5.9868			

QC value within specified limits.

=====

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 01/07/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.068	5.068	0.0462	0.0496	10:33:21	No
2	4.958	4.958	0.0452	0.0486	10:33:55	No
Mean:	5.013	5.013	0.0457			
SD :	0.0782	0.0782	0.0007			
%RSD:	1.6	1.6	1.5400			

QC value within specified limits.

=====

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 01/07/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0033	10:35:23	No
2	-0.073	-0.073	-0.0001	0.0033	10:35:58	No
Mean:	-0.077	-0.077	-0.0001			
SD :	0.0058	0.0058	0.0001			
%RSD:	7.5	7.5	39.2466			

QC value within specified limits.

=====

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 01/07/2010
Sample ID: 1202006434|i||937632|MB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0007	0.0041	10:37:24	No
2	0.012	0.012	0.0007	0.0041	10:37:59	No
Mean:	0.014	0.014	0.0007			
SD :	0.0017	0.0017	0.0000			
%RSD:	12.2	12.2	2.1895			

=====

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 01/07/2010
Sample ID: 1202006439|i|10||LCS

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	2.964	2.964	0.0273	0.0307	10:39:23	No
2	3.060	3.060	0.0281	0.0315	10:39:58	No
Mean:	3.012	3.012	0.0277			
SD :	0.0677	0.0677	0.0006			
%RSD:	2.2	2.2	2.2031			

=====

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 01/07/2010
Sample ID: 243385001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.280	0.280	0.0031	0.0065	10:41:24	No
2	0.269	0.269	0.0030	0.0064	10:41:59	No
Mean:	0.274	0.274	0.0030			
SD :	0.0081	0.0081	0.0001			
%RSD:	2.9	2.9	2.3995			

=====

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 01/07/2010
Sample ID: 1202006435|i|||DUP

%RSD: 3.5 3.5 3.0607

=====
 Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 01/07/2010
 Sample ID: 243385004|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.513	0.513	0.0052	0.0086	10:55:13	No
2	0.349	0.349	0.0037	0.0071	10:55:48	No
Mean:	0.431	0.431	0.0044			
SD :	0.1163	0.1163	0.0010			
%RSD:	27.0	27.0	23.5798			

=====
 Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.266	5.266	0.0480	0.0514	10:57:12	No
2	5.299	5.299	0.0483	0.0517	10:57:47	No
Mean:	5.283	5.283	0.0481			
SD :	0.0232	0.0232	0.0002			
%RSD:	0.4	0.4	0.4345			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.121	-0.121	-0.0005	0.0029	10:59:14	No
2	-0.118	-0.118	-0.0005	0.0029	10:59:49	No
Mean:	-0.119	-0.119	-0.0005			
SD :	0.0023	0.0023	0.0000			
%RSD:	1.9	1.9	4.0037			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 01/07/2010
 Sample ID: 243385005|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.496	0.496	0.0050	0.0084	11:01:14	No
2	0.355	0.355	0.0038	0.0072	11:01:49	No
Mean:	0.425	0.425	0.0044			
SD :	0.0993	0.0993	0.0009			
%RSD:	23.4	23.4	20.3771			

=====
 Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 01/07/2010
 Sample ID: 243385006|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.297	0.297	0.0032	0.0067	11:03:12	No
2	0.239	0.239	0.0027	0.0061	11:03:47	No
Mean:	0.268	0.268	0.0030			
SD :	0.0412	0.0412	0.0004			
%RSD:	15.4	15.4	12.4851			

=====
 Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 01/07/2010
 Sample ID: 243385007|i|||

%RSD: 11.1 11.1 28.9448

=====
 Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 01/07/2010
 Sample ID: 1202006453|i|10|LCS
 =====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	4.321	4.321	0.0395	0.0429	11:17:13	No
2	4.436	4.436	0.0405	0.0439	11:17:49	No
Mean:	4.379	4.379	0.0400			
SD :	0.0814	0.0814	0.0007			
%RSD:	1.9	1.9	1.8329			

=====
 Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 01/07/2010
 Sample ID: 243457001|i|||
 =====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.216	0.216	0.0025	0.0059	11:19:16	No
2	0.194	0.194	0.0023	0.0057	11:19:51	No
Mean:	0.205	0.205	0.0024			
SD :	0.0157	0.0157	0.0001			
%RSD:	7.7	7.7	5.8916			

=====
 Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV
 =====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.476	5.476	0.0499	0.0533	11:21:18	No
2	5.459	5.459	0.0497	0.0532	11:21:53	No
Mean:	5.468	5.468	0.0498			
SD :	0.0118	0.0118	0.0001			
%RSD:	0.2	0.2	0.2141			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB
 =====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.150	-0.150	-0.0008	0.0026	11:23:21	No
2	-0.146	-0.146	-0.0008	0.0027	11:23:56	No
Mean:	-0.148	-0.148	-0.0008			
SD :	0.0031	0.0031	0.0000			
%RSD:	2.1	2.1	3.6014			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 01/07/2010
 Sample ID: 1202006449|i|||DUP
 =====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.188	0.188	0.0023	0.0057	11:25:20	No
2	0.160	0.160	0.0020	0.0054	11:25:55	No
Mean:	0.174	0.174	0.0021			
SD :	0.0196	0.0196	0.0002			
%RSD:	11.2	11.2	8.2869			

=====
 Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 01/07/2010
 Sample ID: 1202006451|i|||MS
 =====

%RSD: 3.6 3.6 2.7838

=====

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 01/07/2010
 Sample ID: 243472001|i|

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0006	0.0040	11:38:56	No
2	0.016	0.016	0.0007	0.0041	11:39:31	No
Mean:	0.010	0.010	0.0007			
SD :	0.0079	0.0079	0.0001			
%RSD:	75.7	75.7	10.9212			

=====

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 01/07/2010
 Sample ID: 243472002|i|

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.006	-0.006	0.0005	0.0039	11:40:55	No
2	-0.020	-0.020	0.0004	0.0038	11:41:29	No
Mean:	-0.013	-0.013	0.0004			
SD :	0.0097	0.0097	0.0001			
%RSD:	75.8	75.8	19.5298			

=====

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 01/07/2010
 Sample ID: 243472003|i|

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.018	-0.018	0.0004	0.0038	11:42:53	No
2	-0.029	-0.029	0.0003	0.0037	11:43:28	No
Mean:	-0.024	-0.024	0.0003			
SD :	0.0076	0.0076	0.0001			
%RSD:	31.9	31.9	19.8760			

=====

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.455	5.455	0.0497	0.0531	11:44:53	No
2	5.509	5.509	0.0502	0.0536	11:45:28	No
Mean:	5.482	5.482	0.0499			
SD :	0.0377	0.0377	0.0003			
%RSD:	0.7	0.7	0.6795			

QC value within specified limits.

=====

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.165	-0.165	-0.0009	0.0025	11:46:56	No
2	-0.162	-0.162	-0.0009	0.0025	11:47:31	No
Mean:	-0.164	-0.164	-0.0009			
SD :	0.0023	0.0023	0.0000			
%RSD:	1.4	1.4	2.3130			

QC value within specified limits.

=====

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 01/07/2010
 Sample ID: 243521001|i|

%RSD: 3.0 3.0 2.3734

=====
 Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 01/07/2010
 Sample ID: 243521007|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.203	0.203	0.0024	0.0058	12:01:02	No
2	0.205	0.205	0.0024	0.0058	12:01:37	No
Mean:	0.204	0.204	0.0024			
SD :	0.0014	0.0014	0.0000			
%RSD:	0.7	0.7	0.5096			

=====
 Element: Hg Seq. No.: 55 AS Loc.: 49 Date: 01/07/2010
 Sample ID: 243521008|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.105	0.105	0.0015	0.0049	12:02:57	No
2	0.096	0.096	0.0014	0.0048	12:03:32	No
Mean:	0.100	0.100	0.0015			
SD :	0.0063	0.0063	0.0001			
%RSD:	6.3	6.3	3.9003			

=====
 Element: Hg Seq. No.: 56 AS Loc.: 50 Date: 01/07/2010
 Sample ID: 243521009|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.038	0.038	0.0009	0.0043	12:04:52	No
2	0.018	0.018	0.0007	0.0041	12:05:27	No
Mean:	0.028	0.028	0.0008			
SD :	0.0138	0.0138	0.0001			
%RSD:	49.4	49.4	15.3202			

=====
 Element: Hg Seq. No.: 57 AS Loc.: 51 Date: 01/07/2010
 Sample ID: 243521010|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.003	0.003	0.0006	0.0040	12:06:48	No
2	-0.009	-0.009	0.0005	0.0039	12:07:23	No
Mean:	-0.003	-0.003	0.0005			
SD :	0.0084	0.0084	0.0001			
%RSD:	245.2	245.2	14.2668			

=====
 Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.051	5.051	0.0461	0.0495	12:08:47	No
2	5.076	5.076	0.0463	0.0497	12:09:22	No
Mean:	5.063	5.063	0.0462			
SD :	0.0174	0.0174	0.0002			
%RSD:	0.3	0.3	0.3398			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 59 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.176	-0.176	-0.0010	0.0024	12:10:50	No
2	-0.186	-0.186	-0.0011	0.0023	12:11:24	No
Mean:	-0.181	-0.181	-0.0011			
SD :	0.0074	0.0074	0.0001			
%RSD:	4.1	4.1	6.1846			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 01/07/2010
 Sample ID: 243521011|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0009	0.0043	12:12:49	No
2	0.018	0.018	0.0007	0.0042	12:13:23	No
Mean:	0.027	0.027	0.0008			
SD :	0.0121	0.0121	0.0001			
%RSD:	44.9	44.9	13.5508			

=====
 Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 01/07/2010
 Sample ID: 1202006370|i||937611|MB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.168	-0.168	-0.0009	0.0025	12:14:46	No
2	-0.168	-0.168	-0.0010	0.0025	12:15:21	No
Mean:	-0.168	-0.168	-0.0010			
SD :	0.0005	0.0005	0.0000			
%RSD:	0.3	0.3	0.5012			

=====
 Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 01/07/2010
 Sample ID: 1202006375|i||10|LCS

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	3.995	3.995	0.0365	0.0400	12:16:43	No
2	4.020	4.020	0.0368	0.0402	12:17:18	No
Mean:	4.007	4.007	0.0367			
SD :	0.0176	0.0176	0.0002			
%RSD:	0.4	0.4	0.4328			

=====
 Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 01/07/2010
 Sample ID: 243517003|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.285	0.285	0.0031	0.0065	12:18:40	No
2	0.272	0.272	0.0030	0.0064	12:19:15	No
Mean:	0.279	0.279	0.0031			
SD :	0.0085	0.0085	0.0001			
%RSD:	3.1	3.1	2.5070			

=====
 Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 01/07/2010
 Sample ID: 1202006371|i|||DUP

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.230	0.230	0.0026	0.0061	12:20:38	No
2	0.222	0.222	0.0026	0.0060	12:21:13	No
Mean:	0.226	0.226	0.0026			
SD :	0.0059	0.0059	0.0001			

%RSD: 2.6 2.6 2.0367

=====
 Element: Hg Seq. No.: 65 AS Loc.: 57 Date: 01/07/2010
 Sample ID: 1202006373|i||MS

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	2.635	2.635	0.0243	0.0277	12:22:37	No
2	2.616	2.616	0.0241	0.0275	12:23:13	No
Mean:	2.625	2.625	0.0242			
SD :	0.0137	0.0137	0.0001			
%RSD:	0.5	0.5	0.5109			

=====
 Element: Hg Seq. No.: 66 AS Loc.: 58 Date: 01/07/2010
 Sample ID: 1202006374|i||MSD

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	2.578	2.578	0.0238	0.0272	12:24:37	No
2	2.632	2.632	0.0243	0.0277	12:25:12	No
Mean:	2.605	2.605	0.0240			
SD :	0.0383	0.0383	0.0003			
%RSD:	1.5	1.5	1.4362			

=====
 Element: Hg Seq. No.: 67 AS Loc.: 59 Date: 01/07/2010
 Sample ID: 1202006372|i|5||SDILT

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.144	-0.144	-0.0007	0.0027	12:26:37	No
2	-0.142	-0.142	-0.0007	0.0027	12:27:11	No
Mean:	-0.143	-0.143	-0.0007			
SD :	0.0014	0.0014	0.0000			
%RSD:	1.0	1.0	1.7294			

=====
 Element: Hg Seq. No.: 68 AS Loc.: 60 Date: 01/07/2010
 Sample ID: 243517004|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.293	0.293	0.0032	0.0066	12:28:37	No
2	0.292	0.292	0.0032	0.0066	12:29:11	No
Mean:	0.293	0.293	0.0032			
SD :	0.0004	0.0004	0.0000			
%RSD:	0.1	0.1	0.1136			

=====
 Element: Hg Seq. No.: 69 AS Loc.: 61 Date: 01/07/2010
 Sample ID: 243517005|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.070	0.070	0.0012	0.0046	12:30:37	No
2	0.061	0.061	0.0011	0.0045	12:31:12	No
Mean:	0.066	0.066	0.0012			
SD :	0.0067	0.0067	0.0001			
%RSD:	10.2	10.2	5.2075			

=====
 Element: Hg Seq. No.: 70 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Time	Peak
------	------------	---------	---------	------	------	------

#	µg/L	µg/L	Signal	Height		Stored
1	5.141	5.141	0.0469	0.0503	12:32:38	No
2	5.012	5.012	0.0457	0.0491	12:33:13	No
Mean:	5.077	5.077	0.0463			
SD :	0.0910	0.0910	0.0008			
%RSD:	1.8	1.8	1.7704			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.209	-0.209	-0.0013	0.0021	12:34:41	No
2	-0.212	-0.212	-0.0013	0.0021	12:35:16	No
Mean:	-0.210	-0.210	-0.0013			
SD :	0.0019	0.0019	0.0000			
%RSD:	0.9	0.9	1.2584			

QC failed, value less than lower limit for Hg.
 Current analysis method being continued.

=====
 Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 01/07/2010
 Sample ID: 243517006|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.139	0.139	0.0018	0.0052	12:36:44	No
2	0.132	0.132	0.0017	0.0052	12:37:19	No
Mean:	0.135	0.135	0.0018			
SD :	0.0047	0.0047	0.0000			
%RSD:	3.5	3.5	2.4009			

=====
 Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 01/07/2010
 Sample ID: 243517007|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.459	0.459	0.0047	0.0081	12:38:42	No
2	0.412	0.412	0.0043	0.0077	12:39:17	No
Mean:	0.436	0.436	0.0045			
SD :	0.0331	0.0331	0.0003			
%RSD:	7.6	7.6	6.6476			

=====
 Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 01/07/2010
 Sample ID: 243517008|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.221	0.221	0.0026	0.0060	12:40:37	No
2	0.213	0.213	0.0025	0.0059	12:41:12	No
Mean:	0.217	0.217	0.0025			
SD :	0.0057	0.0057	0.0001			
%RSD:	2.6	2.6	2.0378			

=====
 Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 01/07/2010
 Sample ID: 243517009|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.208	0.208	0.0024	0.0059	12:42:32	No
2	0.204	0.204	0.0024	0.0058	12:43:07	No
Mean:	0.206	0.206	0.0024			

SD : 0.0030 0.0030 0.0000
 %RSD: 1.5 1.5 1.1137

=====
 Element: Hg Seq. No.: 76 AS Loc.: 66 Date: 01/07/2010
 Sample ID: 243540001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.115	0.115	0.0016	0.0050	12:44:26	No
2	0.107	0.107	0.0015	0.0050	12:45:01	No
Mean:	0.111	0.111	0.0016			
SD :	0.0056	0.0056	0.0001			
%RSD:	5.1	5.1	3.2516			

=====
 Element: Hg Seq. No.: 77 AS Loc.: 67 Date: 01/07/2010
 Sample ID: 243540002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.025	0.025	0.0008	0.0042	12:46:22	No
2	0.018	0.018	0.0007	0.0041	12:46:56	No
Mean:	0.021	0.021	0.0008			
SD :	0.0046	0.0046	0.0000			
%RSD:	21.6	21.6	5.5350			

=====
 Element: Hg Seq. No.: 78 AS Loc.: 68 Date: 01/07/2010
 Sample ID: 243540003|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.327	0.327	0.0035	0.0069	12:48:18	No
2	0.296	0.296	0.0032	0.0066	12:48:54	No
Mean:	0.311	0.311	0.0034			
SD :	0.0218	0.0218	0.0002			
%RSD:	7.0	7.0	5.8311			

=====
 Element: Hg Seq. No.: 79 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.101	5.101	0.0465	0.0499	12:50:18	No
2	5.125	5.125	0.0467	0.0502	12:50:53	No
Mean:	5.113	5.113	0.0466			
SD :	0.0173	0.0173	0.0002			
%RSD:	0.3	0.3	0.3348			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 80 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.210	-0.210	-0.0013	0.0021	12:52:21	No
2	-0.220	-0.220	-0.0014	0.0020	12:52:56	No
Mean:	-0.215	-0.215	-0.0014			
SD :	0.0068	0.0068	0.0001			
%RSD:	3.2	3.2	4.4445			

QC failed, value less than lower limit for Hg.
 Current analysis method being continued.

```

=====
Element: Hg      Seq. No.: 81      AS Loc.: 7      Date: 01/07/2010
Sample ID: CCV
=====
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      ug/L      ug/L      Signal    Height     Stored
1      4.621      4.621      0.0422    0.0456     13:02:46  No
2      4.523      4.523      0.0413    0.0447     13:03:21  No
Mean:   4.572      4.572      0.0417
SD :    0.0693      0.0693      0.0006
%RSD:   1.5        1.5        1.4960
QC value within specified limits.

```

```

=====
Element: Hg      Seq. No.: 82      AS Loc.: 8      Date: 01/07/2010
Sample ID: CCB
=====
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      ug/L      ug/L      Signal    Height     Stored
1      -0.172      -0.172     -0.0010    0.0024     13:04:49  No
2      -0.157      -0.157     -0.0009    0.0026     13:05:24  No
Mean:  -0.165      -0.165     -0.0009
SD :    0.0105      0.0105      0.0001
%RSD:   6.4        6.4       10.2290
QC value within specified limits.

```

```

=====
Element: Hg      Seq. No.: 83      AS Loc.: 52      Date: 01/07/2010
Sample ID: 243521011|i||937638|
=====
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      ug/L      ug/L      Signal    Height     Stored
1      0.018      0.018      0.0007    0.0042     13:06:49  No
2      0.011      0.011      0.0007    0.0041     13:07:23  No
Mean:   0.015      0.015      0.0007
SD :    0.0051      0.0051      0.0000
%RSD:   34.0        34.0       6.5532

```

```

=====
Element: Hg      Seq. No.: 84      AS Loc.: 53      Date: 01/07/2010
Sample ID: 1202006370|i||937611|MB
=====
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      ug/L      ug/L      Signal    Height     Stored
1      -0.176      -0.176     -0.0010    0.0024     13:08:45  No
2      -0.209      -0.209     -0.0013    0.0021     13:09:19  No
Mean:  -0.193      -0.193     -0.0012
SD :    0.0234      0.0234      0.0002
%RSD:   12.1        12.1      17.9087

```

```

=====
Element: Hg      Seq. No.: 85      AS Loc.: 54      Date: 01/07/2010
Sample ID: 1202006375|i|10||LCS
=====
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      ug/L      ug/L      Signal    Height     Stored
1      3.726      3.726      0.0341    0.0375     13:10:42  No
2      3.749      3.749      0.0343    0.0378     13:11:17  No
Mean:   3.737      3.737      0.0342
SD :    0.0162      0.0162      0.0001
%RSD:   0.4         0.4        0.4265

```

```

=====
Element: Hg      Seq. No.: 86      AS Loc.: 55      Date: 01/07/2010
Sample ID: 243517003|i|||
=====
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      ug/L      ug/L      Signal    Height     Stored
1      0.196      0.196      0.0023    0.0058     13:12:40  No

```

2	0.210	0.210	0.0025	0.0059	13:13:15	No
Mean:	0.203	0.203	0.0024			
SD :	0.0098	0.0098	0.0001			
%RSD:	4.8	4.8	3.6799			

=====

Element: Hg Seq. No.: 87 AS Loc.: 56 Date: 01/07/2010
Sample ID: 1202006371|i|||DUP

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.169	0.169	0.0021	0.0055	13:14:38	No
2	0.165	0.165	0.0020	0.0055	13:15:13	No
Mean:	0.167	0.167	0.0021			
SD :	0.0032	0.0032	0.0000			
%RSD:	1.9	1.9	1.3987			

=====

Element: Hg Seq. No.: 88 AS Loc.: 57 Date: 01/07/2010
Sample ID: 1202006373|i|||MS

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.434	2.434	0.0225	0.0259	13:16:37	No
2	2.438	2.438	0.0225	0.0260	13:17:12	No
Mean:	2.436	2.436	0.0225			
SD :	0.0032	0.0032	0.0000			
%RSD:	0.1	0.1	0.1284			

=====

Element: Hg Seq. No.: 89 AS Loc.: 58 Date: 01/07/2010
Sample ID: 1202006374|i|||MSD

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.421	2.421	0.0224	0.0258	13:18:35	No
2	2.391	2.391	0.0221	0.0255	13:19:10	No
Mean:	2.406	2.406	0.0222			
SD :	0.0211	0.0211	0.0002			
%RSD:	0.9	0.9	0.8544			

=====

Element: Hg Seq. No.: 90 AS Loc.: 59 Date: 01/07/2010
Sample ID: 1202006372|i|5||SDILT

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.177	-0.177	-0.0010	0.0024	13:20:34	No
2	-0.166	-0.166	-0.0009	0.0025	13:21:10	No
Mean:	-0.172	-0.172	-0.0010			
SD :	0.0079	0.0079	0.0001			
%RSD:	4.6	4.6	7.1791			

=====

Element: Hg Seq. No.: 91 AS Loc.: 60 Date: 01/07/2010
Sample ID: 243517004|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.254	0.254	0.0028	0.0063	13:22:35	No
2	0.242	0.242	0.0027	0.0062	13:23:10	No
Mean:	0.248	0.248	0.0028			
SD :	0.0082	0.0082	0.0001			
%RSD:	3.3	3.3	2.6447			

=====

Element: Hg Seq. No.: 92 AS Loc.: 61 Date: 01/07/2010

Sample ID: 243517005|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.057	0.057	0.0011	0.0045	13:24:36	No
2	0.040	0.040	0.0009	0.0043	13:25:11	No
Mean:	0.049	0.049	0.0010			
SD :	0.0120	0.0120	0.0001			
%RSD:	24.5	24.5	10.7735			

=====
 Element: Hg Seq. No.: 93 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.101	5.101	0.0465	0.0499	13:26:37	No
2	5.060	5.060	0.0461	0.0496	13:27:12	No
Mean:	5.080	5.080	0.0463			
SD :	0.0287	0.0287	0.0003			
%RSD:	0.6	0.6	0.5578			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 94 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.137	-0.137	-0.0007	0.0028	13:28:40	No
2	-0.158	-0.158	-0.0009	0.0026	13:29:15	No
Mean:	-0.147	-0.147	-0.0008			
SD :	0.0151	0.0151	0.0001			
%RSD:	10.3	10.3	17.7591			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 95 AS Loc.: 62 Date: 01/07/2010
 Sample ID: 243517006|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.140	0.140	0.0018	0.0052	13:30:42	No
2	0.135	0.135	0.0018	0.0052	13:31:17	No
Mean:	0.137	0.137	0.0018			
SD :	0.0034	0.0034	0.0000			
%RSD:	2.5	2.5	1.6959			

=====
 Element: Hg Seq. No.: 96 AS Loc.: 63 Date: 01/07/2010
 Sample ID: 243517007|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.437	0.437	0.0045	0.0079	13:32:41	No
2	0.397	0.397	0.0041	0.0076	13:33:16	No
Mean:	0.417	0.417	0.0043			
SD :	0.0279	0.0279	0.0003			
%RSD:	6.7	6.7	5.8155			

=====
 Element: Hg Seq. No.: 97 AS Loc.: 64 Date: 01/07/2010
 Sample ID: 243517008|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.171	0.171	0.0021	0.0055	13:34:36	No

2	0.187	0.187	0.0022	0.0057	13:35:11	No
Mean:	0.179	0.179	0.0022			
SD :	0.0112	0.0112	0.0001			
%RSD:	6.2	6.2	4.6341			

=====
 Element: Hg Seq. No.: 98 AS Loc.: 65 Date: 01/07/2010
 Sample ID: 243517009|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.198	0.198	0.0023	0.0058	13:36:31	No
2	0.201	0.201	0.0024	0.0058	13:37:06	No
Mean:	0.199	0.199	0.0024			
SD :	0.0022	0.0022	0.0000			
%RSD:	1.1	1.1	0.8371			

=====
 Element: Hg Seq. No.: 99 AS Loc.: 66 Date: 01/07/2010
 Sample ID: 243540001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.099	0.099	0.0014	0.0049	13:38:27	No
2	0.090	0.090	0.0014	0.0048	13:39:02	No
Mean:	0.094	0.094	0.0014			
SD :	0.0062	0.0062	0.0001			
%RSD:	6.6	6.6	3.9566			

=====
 Element: Hg Seq. No.: 100 AS Loc.: 67 Date: 01/07/2010
 Sample ID: 243540002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0008	0.0042	13:40:22	No
2	0.041	0.041	0.0009	0.0044	13:40:57	No
Mean:	0.035	0.035	0.0009			
SD :	0.0084	0.0084	0.0001			
%RSD:	24.1	24.1	8.6595			

=====
 Element: Hg Seq. No.: 101 AS Loc.: 68 Date: 01/07/2010
 Sample ID: 243540003|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.292	0.292	0.0032	0.0066	13:42:19	No
2	0.287	0.287	0.0031	0.0066	13:42:54	No
Mean:	0.290	0.290	0.0032			
SD :	0.0030	0.0030	0.0000			
%RSD:	1.0	1.0	0.8427			

=====
 Element: Hg Seq. No.: 102 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.098	5.098	0.0465	0.0499	13:44:18	No
2	5.079	5.079	0.0463	0.0497	13:44:54	No
Mean:	5.089	5.089	0.0464			
SD :	0.0139	0.0139	0.0001			
%RSD:	0.3	0.3	0.2691			

QC value within specified limits.

Element: Hg Seq. No.: 103 AS Loc.: 8 Date: 01/07/2010
Sample ID: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Time	Peak
#	µg/L	µg/L	Signal	Height		Stored
1	-0.141	-0.141	-0.0007	0.0027	13:46:22	No
2	-0.159	-0.159	-0.0009	0.0026	13:46:57	No
Mean:	-0.150	-0.150	-0.0008			
SD :	0.0129	0.0129	0.0001			
%RSD:	8.6	8.6	14.6477			

QC value within specified limits.

Miscellaneous

Prep LogBook

Analyst: FGA Verified by: _____

Batch: 936766

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004340	UI062540-I	.513	g
MS	1202004342	UI091124-01	.25	mL
MS	1202004342	UI091124-06	.25	mL
MSD	1202004344	UI091124-01	.25	mL
MSD	1202004344	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004339		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
LCS	1202004340		SW846 3050B	29-DEC-2009 13:00	0.513 g	50 mL	97.46589	SOIL
SAMPLE	243517003		SW846 3050B	29-DEC-2009 13:00	0.531 g	50 mL	94.16196	SOIL
SAMPLE	243517004		SW846 3050B	29-DEC-2009 13:00	0.523 g	50 mL	95.60229	SOIL
SAMPLE	243517005		SW846 3050B	29-DEC-2009 13:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	243517006		SW846 3050B	29-DEC-2009 13:00	0.506 g	50 mL	98.81423	SOIL
SAMPLE	243517007		SW846 3050B	29-DEC-2009 13:00	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243517008		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243517009		SW846 3050B	29-DEC-2009 13:00	0.504 g	50 mL	99.20635	SOIL
SAMPLE	243542001		SW846 3050B	29-DEC-2009 13:00	0.517 g	50 mL	96.7118	SOIL
DUP	1202004341	243542001	SW846 3050B	29-DEC-2009 13:00	0.509 g	50 mL	98.23183	SOIL
MS	1202004342	243542001	SW846 3050B	29-DEC-2009 13:00	0.524 g	50 mL	95.41985	SOIL
MSD	1202004344	243542001	SW846 3050B	29-DEC-2009 13:00	0.52 g	50 mL	96.15385	SOIL
SDILT	1202004343	243542001	SW846 3050B	29-DEC-2009 13:00	0.517 g	50 mL	96.7118	SOIL
SAMPLE	243542002		SW846 3050B	29-DEC-2009 13:00	0.512 g	50 mL	97.65625	SOIL
SAMPLE	243542003		SW846 3050B	29-DEC-2009 13:00	0.524 g	50 mL	95.41985	SOIL
SAMPLE	243542004		SW846 3050B	29-DEC-2009 13:00	0.502 g	50 mL	99.60159	SOIL
SAMPLE	243542005		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243542006		SW846 3050B	29-DEC-2009 13:00	0.515 g	50 mL	97.08738	SOIL
SAMPLE	243542007		SW846 3050B	29-DEC-2009 13:00	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243542008		SW846 3050B	29-DEC-2009 13:00	0.502 g	50 mL	99.60159	SOIL
SAMPLE	243542009		SW846 3050B	29-DEC-2009 13:00	0.514 g	50 mL	97.27626	SOIL
SAMPLE	243542010		SW846 3050B	29-DEC-2009 13:00	0.505 g	50 mL	99.0099	SOIL

Comments: Brown, soil w/plant matter, rocks & other artifacts.

Reagent/Solvent Lot ID	Amount	Description
1244970	10 mL	HYDROCHLORIC ACID
1234886	1.25 mL	Nitric Acid CONC.

Prep LogBook

Analyst: FGA
 Batch: 936772
 Lab SOP: GL-MA-E-009 REV# 19

Verified by: _____

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004356	U1062540-MS	.501	g
MS	1202004358	U1091015-A	.5	mL
MS	1202004358	U1091015-B	.5	mL
MSD	1202004360	U1091015-A	.5	mL
MSD	1202004360	U1091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004355		SW846 3050B	29-DEC-2009 13:00	0.512 g	50 mL	97.65625	SOIL
LCS	1202004356		SW846 3050B	29-DEC-2009 13:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	243517003		SW846 3050B	29-DEC-2009 13:00	0.513 g	50 mL	97.46589	SOIL
SAMPLE	243517004		SW846 3050B	29-DEC-2009 13:00	0.523 g	50 mL	95.60229	SOIL
SAMPLE	243517005		SW846 3050B	29-DEC-2009 13:00	0.518 g	50 mL	96.5251	SOIL
SAMPLE	243517006		SW846 3050B	29-DEC-2009 13:00	0.528 g	50 mL	94.69697	SOIL
SAMPLE	243517007		SW846 3050B	29-DEC-2009 13:00	0.511 g	50 mL	97.84736	SOIL
SAMPLE	243517008		SW846 3050B	29-DEC-2009 13:00	0.512 g	50 mL	97.65625	SOIL
SAMPLE	243517009		SW846 3050B	29-DEC-2009 13:00	0.525 g	50 mL	95.2381	SOIL
SAMPLE	243542001		SW846 3050B	29-DEC-2009 13:00	0.513 g	50 mL	97.46589	SOIL
DUP	1202004357	243542001	SW846 3050B	29-DEC-2009 13:00	0.514 g	50 mL	97.27626	SOIL
MS	1202004358	243542001	SW846 3050B	29-DEC-2009 13:00	0.521 g	50 mL	95.96929	SOIL
MSD	1202004360	243542001	SW846 3050B	29-DEC-2009 13:00	0.513 g	50 mL	97.46589	SOIL
SDILT	1202004359	243542001	SW846 3050B	29-DEC-2009 13:00	0.513 g	50 mL	97.46589	SOIL
SAMPLE	243542002		SW846 3050B	29-DEC-2009 13:00	0.51 g	50 mL	98.03922	SOIL
SAMPLE	243542003		SW846 3050B	29-DEC-2009 13:00	0.518 g	50 mL	96.5251	SOIL
SAMPLE	243542004		SW846 3050B	29-DEC-2009 13:00	0.518 g	50 mL	96.5251	SOIL
SAMPLE	243542005		SW846 3050B	29-DEC-2009 13:00	0.525 g	50 mL	95.2381	SOIL
SAMPLE	243542006		SW846 3050B	29-DEC-2009 13:00	0.513 g	50 mL	97.46589	SOIL
SAMPLE	243542007		SW846 3050B	29-DEC-2009 13:00	0.524 g	50 mL	95.41985	SOIL
SAMPLE	243542008		SW846 3050B	29-DEC-2009 13:00	0.512 g	50 mL	97.65625	SOIL
SAMPLE	243542009		SW846 3050B	29-DEC-2009 13:00	0.51 g	50 mL	98.03922	SOIL
SAMPLE	243542010		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL

Reagent/Solvent Lot ID	Amount	Description	Comments
1203655-02	1.5 mL	Hydrogen Peroxide 30%	Brown,soil w/plant matter,rocks & other artifacts.
1234886	5 mL	Nitric Acid CONC.	

Prep LogBook

Analyst: TXB3 Verified by: _____

Batch: 937608

Lab SOP: GL-MA-E-010 REV# 23

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Type	Sample Id	Lot. Id	Spike Amount	Spike Units
MB	1202006370		SW846 7471A Prep	06-JAN-2010 13:05	LCS	1202006375	UI031809A	.206	g
LCS	1202006375		SW846 7471A Prep	06-JAN-2010 13:05	MS	1202006373	WHG100106-14	.3	mL
SAMPLE	243517003		SW846 7471A Prep	06-JAN-2010 13:05	MSD	1202006374	WHG100106-14	.3	mL
DUP	1202006371	243517003	SW846 7471A Prep	06-JAN-2010 13:05					
SDILT	1202006372	243517003	SW846 7471A Prep	06-JAN-2010 13:05					
MS	1202006373	243517003	SW846 7471A Prep	06-JAN-2010 13:05					
MSD	1202006374	243517003	SW846 7471A Prep	06-JAN-2010 13:05					
SAMPLE	243517004		SW846 7471A Prep	06-JAN-2010 13:05					
SAMPLE	243517005		SW846 7471A Prep	06-JAN-2010 13:05					
SAMPLE	243517006		SW846 7471A Prep	06-JAN-2010 13:05					
SAMPLE	243517007		SW846 7471A Prep	06-JAN-2010 13:05					
SAMPLE	243517008		SW846 7471A Prep	06-JAN-2010 13:05					
SAMPLE	243517009		SW846 7471A Prep	06-JAN-2010 13:05					
SAMPLE	243540001		SW846 7471A Prep	06-JAN-2010 13:05					
SAMPLE	243540002		SW846 7471A Prep	06-JAN-2010 13:05					
SAMPLE	243540003		SW846 7471A Prep	06-JAN-2010 13:05					

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution
1206350-C	2 mL	Hg reducing agent
WHG100106-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100106-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100106-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100106-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100106-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100106-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Comments: Sample 243517003 is a rocky brown soil.
Digestion Start Date: 06-JAN-10 13:05
Digestion End Date: 06-JAN-10 13:35

DATA EXCEPTION REPORT

Mo. Day Yr. 08-JAN-10	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: ICP	Test / Method: SW846 3050B/6010B	Matrix Type: Solid	Client Code: LANL
Batch ID: 936768	Sample Numbers: See Below		

Potentially affected work order(s)(SDG): 243517(10-1073),243542(10-1079-1)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

**Specification and Requirements
Exception Description:**

1. Failed Recovery for MS/PS:

QC 1202004342MS

2. Failed RPD for DUP:

QC 1202004341DUP

3. Failed Recovery for MSD/PSD:

QC 1202004344MSD

DER Disposition:

1. The matrix spike recovery failed outside of the control limits for magnesium 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 zinc due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

3. The matrix spike duplicate recovery failed outside of the control limits for barium, magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello

12-JAN-10

Data Validator/Group Leader:

Louise Smith

12-JAN-10

DATA EXCEPTION REPORT

Mo.Day Yr.
13-JAN-10

Division:
Industrial

Quality Criteria:
Specifications

Type:
Process

Instrument Type:
ICP/MS

Test / Method:
SW846 3050B/6020

Matrix Type:
Solid

Client Code:
LANL

Batch ID:
936773

Sample Numbers:
See Below

Potentially affected work order(s)(SDG): 243517(10-1073),243542(10-1079-1)

Application Issues:

Failed RPD for DUP

**Specification and Requirements
Exception Description:**

1. Failed RPD for DUP:

QC 1202004357DUP

DER Disposition:

The sample and sample duplicate % RPD failed outside the control limits for U due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Samantha Jacobs 13-JAN-10

Data Validator/Group Leader:

Paul Boyd 13-JAN-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: UIQ31809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5% HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L +/- 0.5% IN 5% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L **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: O2SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

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

Standard Logbook

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: Q2SI
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

Standard Logbook

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

Standard Logbook

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 :** H2O/tr HF
Supplier: ENVIRONMENTAL EXPRESS
Description: SILICON 1000mg/L H2O/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: O2SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standard **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
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		

Standard Logbook

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standard **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
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: UI091215-48 **Opened:** 04-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSEA **Received:** 18-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-JAN-11 **Lot Number :** 1018219
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: 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: O2SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

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: O2SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Standard Logbook

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: UI091228-40 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
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: UI091228-41 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/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
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

Standard Logbook

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: IHG100106-01 **Opened:** 06-JAN-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 06-JAN-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 07-JAN-10 **Solvent :** 1mL HNO3 + TypeI 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: IHG100106-02 **Opened:** 06-JAN-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 07-JAN-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: WHG100106-07 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALSO.2CRA **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-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.
IHG100106-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100106-08 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALSO.5 **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100106-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100106-09 Opened: 06-JAN-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS2.0 Received: 06-JAN-10 Solvent : 2% HNO3-1240182
 Type: Working Expires: 13-JAN-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.
IHG100106-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100106-10 Opened: 06-JAN-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS5.0CCV Received: 06-JAN-10 Solvent : 2% HNO3-1240182
 Type: Working Expires: 13-JAN-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.
IHG100106-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100106-11 Opened: 06-JAN-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS10.0 Received: 06-JAN-10 Solvent : 2% HNO3-1240182
 Type: Working Expires: 13-JAN-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.
IHG100106-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100106-12 Opened: 06-JAN-10 Pipet Id : Hg1289245
 Name: MHGWORKS5.0ICV Received: 06-JAN-10 Solvent : 2% HNO3-1240182
 Type: Working Expires: 13-JAN-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL

Description: Mercury Working 2nd Source S 5.0/ICV

Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100106-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100106-14 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 07-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL

Description: Mercury soil working intermediate standard for MS

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100106-42 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
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.
WI100106-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100106-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100106-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100106-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100106-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100106-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100106-43 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100106-44 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1249941
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100106-45 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
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: WI100106-46 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1249941
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100106-47 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL &1%HNO3-1249941
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100107-04 **Opened:** 07-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 07-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 08-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1249336
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
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: WMS100107-04A **Opened:** 07-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 07-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 08-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
WMS100107-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100107-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
WMS100107-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100107-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100107-05 **Opened:** 07-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 07-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 08-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: WMS100107-06 **Opened:** 07-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 07-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 08-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
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: WMS100107-07 **Opened:** 07-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 07-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 08-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1249336
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100107-08 **Opened:** 07-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 07-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 08-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
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

Serial ID: WMS100107-70 **Opened:** 07-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 07-JAN-10 **Pipet Id :** 1758088
Type: Working **Expres:** 08-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100111-04 **Opened:** 11-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 11-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 12-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1253206
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: WMS100111-04A Opened: 11-JAN-10 Balance Id : 4025216
 Name: ICPMS Cal Standard 10 Received: 11-JAN-10 Pipet Id : 3541598
 Type: Working Expires: 12-JAN-10 Solvent : 2%HNO3/1%HCl - 1253206

Employee: Paul Boyd

Supplier: GEL

Description: ICPMS Calibration Standard (10 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100111-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100111-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100111-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100111-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100111-05 **Opened:** 11-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 11-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 12-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1253206
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: WMS100111-06 **Opened:** 11-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 11-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 12-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1253206
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: WMS100111-07 **Opened:** 11-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 11-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 12-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1253206
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100111-08 **Opened:** 11-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 11-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 12-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1253206
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
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

Serial ID: WMS100112-04 **Opened:** 12-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 12-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 13-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1253206
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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
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: WMS100112-04A **Opened:** 12-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 12-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 13-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1253206
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100112-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100112-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100112-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100112-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100112-05 **Opened:** 12-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 12-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 13-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1253206
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WMS100112-06 **Opened:** 12-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 12-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 13-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1253206
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100112-07 **Opened:** 12-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 12-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 13-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1253206
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100112-08 **Opened:** 12-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 12-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 13-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1253206
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

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: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxylamine Hydrochloride
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: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1236355-A **Opened:** 01-DEC-09 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 01-DEC-09
Type: Reagent/Solvent **Expires:** 01-DEC-10
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-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%

Standard Logbook

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1249336 **Opened:** 04-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCL-ICPMS **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 11-JAN-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.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1249941 **Opened:** 04-JAN-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 15-DEC-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 10-JAN-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1253206 **Opened:** 11-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCL-ICPMS **Received:** 11-JAN-10
Type: Reagent/Solvent **Expires:** 18-JAN-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.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

**General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1073**

Method/Analysis Information

Product: Cyanide, Total

Analytical Batch: 936839 and 936843 **Method:** SW846 9012A

Prep Batch : 936838 and 936841 **Method:** SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
243517003	RE12-10-7557
243517004	RE12-10-7558
243517005	RE12-10-7555
243517006	RE12-10-7556
243517007	RE12-10-7562
243517008	RE12-10-7561
243517009	RE12-10-7563
1202004489	Method Blank (MB)
1202004490	243501001(RE16-10-2877) Sample Duplicate (DUP)
1202004491	243501002(RE16-10-2881) Sample Duplicate (DUP)
1202004492	243501001(RE16-10-2877) Matrix Spike (MS)
1202004493	243501002(RE16-10-2881) Matrix Spike (MS)
1202004494	243501001(RE16-10-2877) Matrix Spike Duplicate (MSD)
1202004495	243501002(RE16-10-2881) Matrix Spike Duplicate (MSD)
1202004496	Laboratory Control Sample (LCS)
1202004497	Method Blank (MB)
1202004498	243517008(RE12-10-7561) Sample Duplicate (DUP)
1202004499	243517009(RE12-10-7563) Sample Duplicate (DUP)
1202004500	243517008(RE12-10-7561) Matrix Spike (MS)
1202004501	243517009(RE12-10-7563) Matrix Spike (MS)
1202004502	243517008(RE12-10-7561) Matrix Spike Duplicate (MSD)
1202004503	243517009(RE12-10-7563) Matrix Spike Duplicate (MSD)
1202004504	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: 243501001 (RE16-10-2877), 243501002 (RE16-10-2881)- Batch 936839, 243517008 (RE12-10-7561) and 243517009 (RE12-10-7563)- Batch 936843.

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. 1202004491 (RE16-10-2881)- Batch 936839, 1202004498 (RE12-10-7561), 1202004499 (RE12-10-7563), 243517008 (RE12-10-7561) and 243517009 (RE12-10-7563)- Batch 936843.

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: 1202004496 (LCS)- Batch 936839 and 1202004504 (LCS)- Batch 936843.

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation

An NCR 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

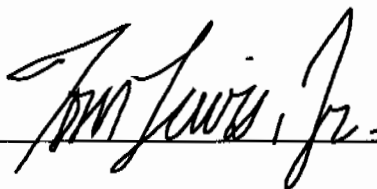
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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:

12Jan10

Sample Data Summary

GEL LABORATORIES LLC

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Certificate of Analysis Report for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1073 GEL Work Order: 243517

The Qualifiers in this report are defined as follows:

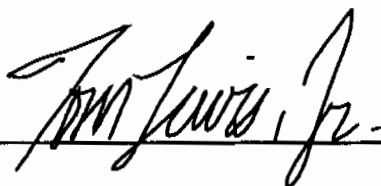
- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by

A handwritten signature in black ink, appearing to read "Tom Lewis, Jr.", is written over a horizontal line.

GEL LABORATORIES LLC

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Certificate of Analysis

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

Report Date: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7557
Sample ID: 243517003
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 14.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	74.7	274	ug/kg	1	AXC2	12/29/09	1043	936839	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/28/09	1555	936838

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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7558
Sample ID: 243517004
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 8.04%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	68.5	252	ug/kg	1	AXC2	12/29/09	1044	936839	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/28/09	1555	936838

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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7555
Sample ID: 243517005
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 14.9%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	79.9	294	ug/kg	1	AXC2	12/29/09	1045	936839	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/28/09	1555	936838

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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7556
Sample ID: 243517006
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 8.21%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	68.6	252	ug/kg	1	AXC2	12/29/09	1046	936839	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/28/09	1555	936838

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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7561
Sample ID: 243517008
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 11.6%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	74.0	272	ug/kg	1	AXC2	01/04/10	1108	936843	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7563
Sample ID: 243517009
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 12.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	76.0	279	ug/kg	1	AXC2	01/04/10	1111	936843	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

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: January 5, 2010

Client SDG: 10-1073

Client Sample ID: RE12-10-7562
Sample ID: 243517007
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 9.88%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	68.6	252	ug/kg	1	AXC2	12/29/09	1046	936839	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/28/09	1555	936838

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: January 5, 2010

Page 1 of 2

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

Contact: Ms. Joylene Valdez

Workorder: 243517

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Flow Injection Analysis											
Batch	936839										
QC1202004490	243501001	DUP									
Cyanide, Total		HUh	ND	HUh	ND	ug/kg	N/A		AXC2	12/29/09	10:21
QC1202004491	243501002	DUP									
Cyanide, Total		HUh	ND	HUh	ND	ug/kg	N/A			12/29/09	10:24
QC1202004496	LCS										
Cyanide, Total	67900				71000	ug/kg	105	(46%-145%)		12/29/09	10:19
QC1202004489	MB										
Cyanide, Total				U	250	ug/kg				12/29/09	10:18
QC1202004492	243501001	MS									
Cyanide, Total	4900	HUh	ND	Hh	4170	ug/kg	85	(50%-130%)		12/29/09	10:22
QC1202004493	243501002	MS									
Cyanide, Total	5000	HUh	ND	Hh	5150	ug/kg	103	(50%-130%)		12/29/09	10:25
QC1202004494	243501001	MSD									
Cyanide, Total	5000	HUh	ND	Hh	5100	ug/kg	20.1	102	(0%-30%)	12/29/09	10:23
QC1202004495	243501002	MSD									
Cyanide, Total	4900	HUh	ND	Hh	5000	ug/kg	2.96	102	(0%-30%)	12/29/09	10:26
Batch	936843										
QC1202004498	243517008	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	01/04/10	11:08
QC1202004499	243517009	DUP									
Cyanide, Total		U	ND	J	96.0	ug/kg	200	(+/-264)		01/04/10	11:12
QC1202004504	LCS										
Cyanide, Total	67900				75500	ug/kg	111	(46%-145%)		01/04/10	11:07
QC1202004497	MB										
Cyanide, Total				U	250	ug/kg				01/04/10	11:02
QC1202004500	243517008	MS									
Cyanide, Total	5340	U	ND		4890	ug/kg	91.7	(50%-130%)		01/04/10	11:09
QC1202004501	243517009	MS									
Cyanide, Total	5590	U	ND		5160	ug/kg	92.2	(50%-130%)		01/04/10	11:13
QC1202004502	243517008	MSD									
Cyanide, Total	5660	U	ND		5230	ug/kg	6.58	92.4	(0%-30%)	01/04/10	11:10
QC1202004503	243517009	MSD									
Cyanide, Total	5480	U	ND		4360	ug/kg	16.9	79.3	(0%-30%)	01/04/10	11:14

Notes:

RER is calculated at the 95% confidence level (2-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

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QC Summary

Workorder: 243517

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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	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: 05-JAN-2010 17:34

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1073

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	29-DEC-2009 10:13:05	OM_12-29-2009_10-02-35	149	150	99	(90%-110%)	Yes
CCV	29-DEC-2009 10:27:23	OM_12-29-2009_10-02-35	104	100	104	(90%-110%)	Yes
CCV	29-DEC-2009 10:39:49	OM_12-29-2009_10-02-35	105	100	105	(90%-110%)	Yes
CCV	29-DEC-2009 10:48:44	OM_12-29-2009_10-02-35	105	100	105	(90%-110%)	Yes
ICV	04-JAN-2010 10:36:47	OM_1-4-2010_10-26-17	137	150	91	(90%-110%)	Yes
CCV	04-JAN-2010 10:51:04	OM_1-4-2010_10-26-17	109	100	109	(90%-110%)	Yes
CCV	04-JAN-2010 11:03:30	OM_1-4-2010_10-26-17	103	100	103	(90%-110%)	Yes
CCV	04-JAN-2010 11:15:55	OM_1-4-2010_10-26-17	103	100	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	29-DEC-2009 10:14:56	OM_12-29-2009_10-02-35	-1.83	5	Yes
CCB	29-DEC-2009 10:29:14	OM_12-29-2009_10-02-35	-1.84	5	Yes
CCB	29-DEC-2009 10:41:39	OM_12-29-2009_10-02-35	-2.37	5	Yes
CCB	29-DEC-2009 10:50:34	OM_12-29-2009_10-02-35	-1.88	5	Yes
ICB	04-JAN-2010 10:38:37	OM_1-4-2010_10-26-17	-3.1	5	Yes
CCB	04-JAN-2010 10:52:55	OM_1-4-2010_10-26-17	-2.04	5	Yes
CCB	04-JAN-2010 11:05:20	OM_1-4-2010_10-26-17	-2.7	5	Yes
CCB	04-JAN-2010 11:17:45	OM_1-4-2010_10-26-17	-1.79	5	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by: _____

Batch: 936841

Lab SOP: GL-GC-E-067 REV# 13

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202004497		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	2.5	g
LCS	1202004504		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.25 g	25 mL	100		SOIL
SAMPLE	243517008		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692		SOIL
DUP	1202004498	243517008	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.57 g	25 mL	43.85965		SOIL
MS	1202004500	243517008	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.53 g	25 mL	47.16981		SOIL
MSD	1202004502	243517008	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50		SOIL
SAMPLE	243517009		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.51 g	25 mL	49.01961		SOIL
DUP	1202004499	243517009	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.54 g	25 mL	46.2963		SOIL
MS	1202004501	243517009	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.51 g	25 mL	49.01961		SOIL
MSD	1202004503	243517009	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692		SOIL
SAMPLE	243521001		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.54 g	25 mL	46.2963		SOIL
SAMPLE	243521002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692		SOIL
SAMPLE	243521003		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.55 g	25 mL	45.45455		SOIL
SAMPLE	243521004		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.56 g	25 mL	44.64286		SOIL
SAMPLE	243521005		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692		SOIL
SAMPLE	243521006		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.57 g	25 mL	43.85965		SOIL
SAMPLE	243521007		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.53 g	25 mL	47.16981		SOIL
SAMPLE	243521008		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.57 g	25 mL	43.85965		SOIL
SAMPLE	243521009		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50		SOIL
SAMPLE	243521010		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692		SOIL
SAMPLE	243521011		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50		SOIL
SAMPLE	243547002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.51 g	25 mL	49.01961		SOIL
SAMPLE	243547003		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.53 g	25 mL	47.16981		SOIL
SAMPLE	243549002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.56 g	25 mL	44.64286		SOIL
SAMPLE	243550001		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50		SOIL
SAMPLE	243550002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.58 g	25 mL	43.10345		SOIL
SAMPLE	243550003		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.55 g	25 mL	45.45455		SOIL
SAMPLE	243550004		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50		SOIL

Prep Data Logbook Version 1:1

GEL Laboratories LLC

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Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN091231-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1238146-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

Prep LogBook

Analyst: AXS5
 Batch: 936838
 Lab SOP: GL-GC-E-067 REV# 13

Verified by: _____

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202004489		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.5 g	25 mL	50	.25	g
LCS	1202004496		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.25 g	25 mL	100	.025	mL
SAMPLE	243501001		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.52 g	25 mL	48.07692	.025	mL
DUP	1202004490	243501001	SW846 9010B Prep	28-DEC-2009 15:55	>12	0.55 g	25 mL	45.45455	.025	mL
MS	1202004492	243501001	SW846 9010B Prep	28-DEC-2009 15:55	>12	0.51 g	25 mL	49.01961	.025	mL
MSD	1202004494	243501001	SW846 9010B Prep	28-DEC-2009 15:55	>12	0.5 g	25 mL	50	.025	mL
SAMPLE	243501002		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.5 g	25 mL	50	.025	mL
DUP	1202004491	243501002	SW846 9010B Prep	28-DEC-2009 15:55	>12	0.54 g	25 mL	46.2963	.025	mL
MS	1202004493	243501002	SW846 9010B Prep	28-DEC-2009 15:55	>12	0.5 g	25 mL	50	.025	mL
MSD	1202004495	243501002	SW846 9010B Prep	28-DEC-2009 15:55	>12	0.51 g	25 mL	49.01961	.025	mL
SAMPLE	243501003		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.52 g	25 mL	48.07692	.025	mL
SAMPLE	243505003		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.51 g	25 mL	49.01961	.025	mL
SAMPLE	243505004		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.52 g	25 mL	48.07692	.025	mL
SAMPLE	243505005		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.58 g	25 mL	43.10345	.025	mL
SAMPLE	243505006		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.54 g	25 mL	46.2963	.025	mL
SAMPLE	243505007		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.53 g	25 mL	47.16981	.025	mL
SAMPLE	243505008		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.55 g	25 mL	45.45455	.025	mL
SAMPLE	243509001		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.53 g	25 mL	47.16981	.025	mL
SAMPLE	243509002		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.51 g	25 mL	49.01961	.025	mL
SAMPLE	243509003		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.52 g	25 mL	48.07692	.025	mL
SAMPLE	243517003		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.53 g	25 mL	47.16981	.025	mL
SAMPLE	243517004		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.54 g	25 mL	46.2963	.025	mL
SAMPLE	243517005		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.5 g	25 mL	50	.025	mL
SAMPLE	243517006		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.54 g	25 mL	46.2963	.025	mL
SAMPLE	243517007		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.55 g	25 mL	45.45455	.025	mL
SAMPLE	243543001		SW846 9010B Prep	28-DEC-2009 15:55	>12	0.5 g	25 mL	50	.025	mL

Reagent/Solvent Lot ID Amount Description

Prep Data Logbook Version 1:1

GEL Laboratories LLC

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Prep LogBook

091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091228-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-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	12/29/2009 10:05:56	OM_12-29-2009_10-02-35
150 ppb		1	axc2	12/29/2009 10:06:48	OM_12-29-2009_10-02-35
100 ppb		1	axc2	12/29/2009 10:07:40	OM_12-29-2009_10-02-35
50 ppb		1	axc2	12/29/2009 10:08:33	OM_12-29-2009_10-02-35
10 ppb		1	axc2	12/29/2009 10:09:27	OM_12-29-2009_10-02-35
CRDL 5.0 ppb		1	axc2	12/29/2009 10:10:20	OM_12-29-2009_10-02-35
ICAL-00		1	axc2	12/29/2009 10:11:15	OM_12-29-2009_10-02-35
ICV		1	axc2	12/29/2009 10:13:05	OM_12-29-2009_10-02-35
ICB		1	axc2	12/29/2009 10:14:56	OM_12-29-2009_10-02-35
CRDL		1	axc2	12/29/2009 10:16:46	OM_12-29-2009_10-02-35
1202004489	936839	1	axc2	12/29/2009 10:18:35	OM_12-29-2009_10-02-35
1202004496	936839	25	axc2	12/29/2009 10:19:29	OM_12-29-2009_10-02-35
243501001	936839	1	axc2	12/29/2009 10:20:22	OM_12-29-2009_10-02-35
1202004490	936839	1	axc2	12/29/2009 10:21:15	OM_12-29-2009_10-02-35
1202004492	936839	1	axc2	12/29/2009 10:22:08	OM_12-29-2009_10-02-35
1202004494	936839	1	axc2	12/29/2009 10:23:01	OM_12-29-2009_10-02-35
243501002	936839	1	axc2	12/29/2009 10:23:53	OM_12-29-2009_10-02-35
1202004491	936839	1	axc2	12/29/2009 10:24:46	OM_12-29-2009_10-02-35
1202004493	936839	1	axc2	12/29/2009 10:25:38	OM_12-29-2009_10-02-35
1202004495	936839	1	axc2	12/29/2009 10:26:31	OM_12-29-2009_10-02-35
CCV		1	axc2	12/29/2009 10:27:23	OM_12-29-2009_10-02-35
CCB		1	axc2	12/29/2009 10:29:14	OM_12-29-2009_10-02-35
243501003	936839	1	axc2	12/29/2009 10:31:02	OM_12-29-2009_10-02-35
243505003	936839	1	axc2	12/29/2009 10:31:54	OM_12-29-2009_10-02-35
243505004	936839	1	axc2	12/29/2009 10:32:46	OM_12-29-2009_10-02-35
243505005	936839	1	axc2	12/29/2009 10:33:37	OM_12-29-2009_10-02-35
243505006	936839	1	axc2	12/29/2009 10:34:29	OM_12-29-2009_10-02-35
243505007	936839	1	axc2	12/29/2009 10:35:23	OM_12-29-2009_10-02-35
243505008	936839	1	axc2	12/29/2009 10:36:16	OM_12-29-2009_10-02-35
243509001	936839	1	axc2	12/29/2009 10:37:10	OM_12-29-2009_10-02-35
243509002	936839	1	axc2	12/29/2009 10:38:03	OM_12-29-2009_10-02-35
243509003	936839	1	axc2	12/29/2009 10:38:56	OM_12-29-2009_10-02-35
CCV		1	axc2	12/29/2009 10:39:49	OM_12-29-2009_10-02-35
CCB		1	axc2	12/29/2009 10:41:39	OM_12-29-2009_10-02-35
243517003	936839	1	axc2	12/29/2009 10:43:29	OM_12-29-2009_10-02-35
243517004	936839	1	axc2	12/29/2009 10:44:22	OM_12-29-2009_10-02-35
243517005	936839	1	axc2	12/29/2009 10:45:15	OM_12-29-2009_10-02-35
243517006	936839	1	axc2	12/29/2009 10:46:07	OM_12-29-2009_10-02-35
243517007	936839	1	axc2	12/29/2009 10:46:59	OM_12-29-2009_10-02-35
243543001	936839	1	axc2	12/29/2009 10:47:52	OM_12-29-2009_10-02-35
CCV		1	axc2	12/29/2009 10:48:44	OM_12-29-2009_10-02-35
CCB		1	axc2	12/29/2009 10:50:34	OM_12-29-2009_10-02-35

Original Run Filename: OM_12-29-2009_10-02-35.OMN created 12/29/2009 10:02:35
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_12-29-2009_10-02-35.OMN last modified 12/29/2009 10:51:39
 Current Run Author's Signature: [axc2]
 Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
 Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE		Detection Time	ADF	MDF	Description
			Conc. (ug/L)	Area (Vs)				
WCN091229-01	1	S1	200	7.42	12/29/2009@10:05:56			200 ppb
WCN091229-02	1	S2	150	5.62	12/29/2009@10:06:48			150 ppb
WCN091229-03	1	S3	100	3.70	12/29/2009@10:07:40			100 ppb
WCN091229-04	1	S4	50.0	2.07	12/29/2009@10:08:33			50 ppb
WCN091229-05	1	S5	10.0	0.457	12/29/2009@10:09:27			10 ppb
WCN091229-06	1	S6	5.00	0.281	12/29/2009@10:10:20			CRDL 5.0 ppb
WCN091229-08	1	S7	0.00	-0.00218	12/29/2009@10:11:15			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99966 > 0.99500					
Message			Pass					
Action			Continue					
WCN091229-07	1	S8	149	5.55	12/29/2009@10:13:05			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-0.9 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-0.9 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN091229-08	1	S7	-1.83	0.0193	12/29/2009@10:14:56			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.83 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.83 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN091229-06	1	S6	5.37	0.284	12/29/2009@10:16:46			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			5.37 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			5.37 > 2.50					
Message			Pass					
Action			None					
1202004489|936839|MB	1	1	-2.36	-1.76e-4	12/29/2009@10:18:35			
1202004496|LCS	1	2	28.4	1.13	12/29/2009@10:19:29		25.00	
243501001	1	3	-1.09	0.0466	12/29/2009@10:20:22			
1202004490|DUP	1	4	-1.18	0.0433	12/29/2009@10:21:15			
1202004492|MS	1	5	85.0	3.21	12/29/2009@10:22:08			
1202004494|MSD	1	6	102	3.84	12/29/2009@10:23:01			
243501002	1	7	-1.09	0.0463	12/29/2009@10:23:53			
1202004491|DUP	1	8	-1.69	0.0243	12/29/2009@10:24:46			
1202004493|MS	1	9	103	3.87	12/29/2009@10:25:38			
1202004495|MSD	1	10	102	3.85	12/29/2009@10:26:31			
WCN091229-03	1	S3	104	3.92	12/29/2009@10:27:23			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					
WCN091229-08	1	S7		-1.84	0.0190	12/29/2009@10:29:14			CCB
			Known Conc:	0.00					
			DQM Test: > + Concentration Limit						
			Result:	-1.84 < 5.00					
			Message	CCB Passed					
			Action	Continue					
			DQM Test: < - Concentration Limit						
			Result:	-1.84 > -5.00					
			Message	CCB Passed					
			Action	Continue					
243501003	1	11		-1.09	0.0465	12/29/2009@10:31:02			
243505003	1	12		-1.78	0.0212	12/29/2009@10:31:54			
243505004	1	13		-1.73	0.0229	12/29/2009@10:32:46			
243505005	1	14		0.958	0.122	12/29/2009@10:33:37			
243505006	1	15		2.37	0.174	12/29/2009@10:34:29			
243505007	1	16		-1.49	0.0317	12/29/2009@10:35:23			
243505008	1	17		-1.26	0.0402	12/29/2009@10:36:16			
243509001	1	18		0.238	0.0953	12/29/2009@10:37:10			
243509002	1	19		2.59	0.182	12/29/2009@10:38:03			
243509003	1	20		-1.40	0.0351	12/29/2009@10:38:56			
WCN091229-03	1	S3		105	3.94	12/29/2009@10:39:49			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					
WCN091229-08	1	S7		-2.37	-3.86e-4	12/29/2009@10:41:39			CCB
			Known Conc:	0.00					
			DQM Test: > + Concentration Limit						
			Result:	-2.37 < 5.00					
			Message	CCB Passed					
			Action	Continue					
			DQM Test: < - Concentration Limit						
			Result:	-2.37 > -5.00					
			Message	CCB Passed					
			Action	Continue					
243517003	1	21		0.325	0.0986	12/29/2009@10:43:29			
243517004	1	22		-1.24	0.0409	12/29/2009@10:44:22			
243517005	1	23		-1.27	0.0399	12/29/2009@10:45:15			
243517006	1	24		-1.47	0.0326	12/29/2009@10:46:07			
243517007	1	25		-0.795	0.0574	12/29/2009@10:46:59			
243543001	1	26		12.2	0.535	12/29/2009@10:47:52			
WCN091229-03	1	S3		105	3.95	12/29/2009@10:48:44			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					
WCN091229-08	1	S7		-1.88	0.0176	12/29/2009@10:50:34			CCB
			Known Conc:	0.00					
			DQM Test: > + Concentration Limit						
			Result:	-1.88 < 5.00					
			Message	CCB Passed					
			Action	Continue					

DQM Test: < - Concentration Limit					
Result:	-1.88 > -5.00				
Message	CCB Passed				
Action	Continue				

Analyte Properties Table for OM_12-29-2009_10-02-35.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Calibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

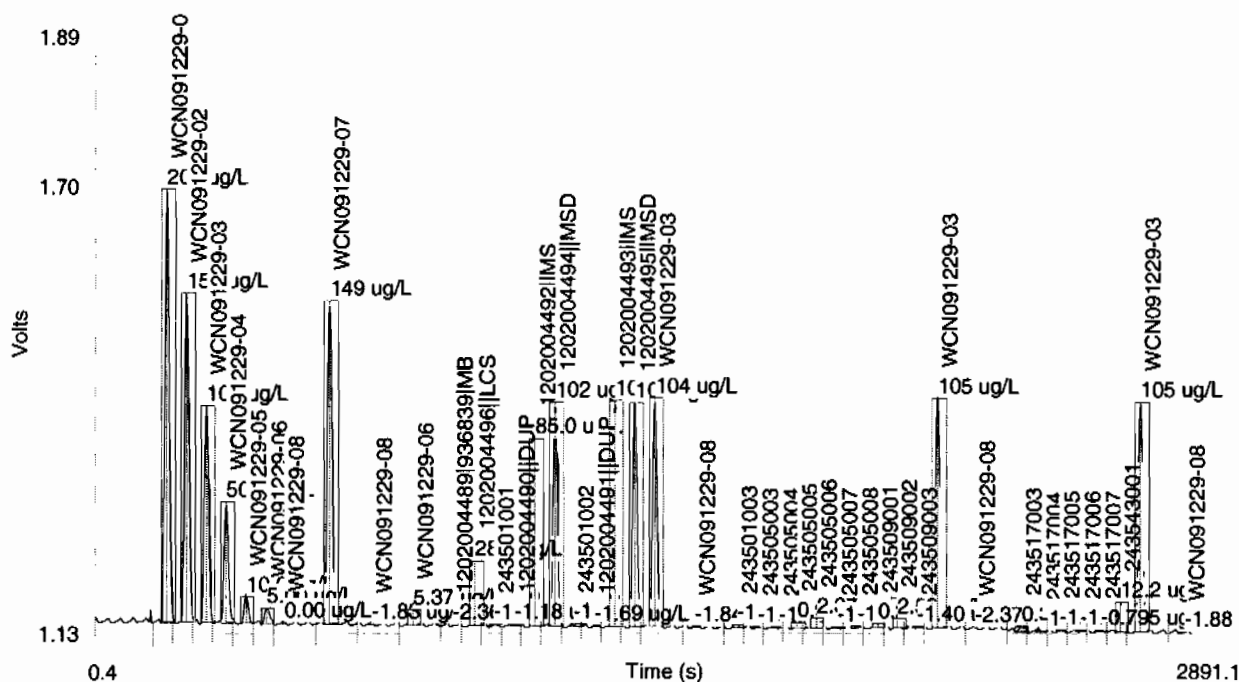
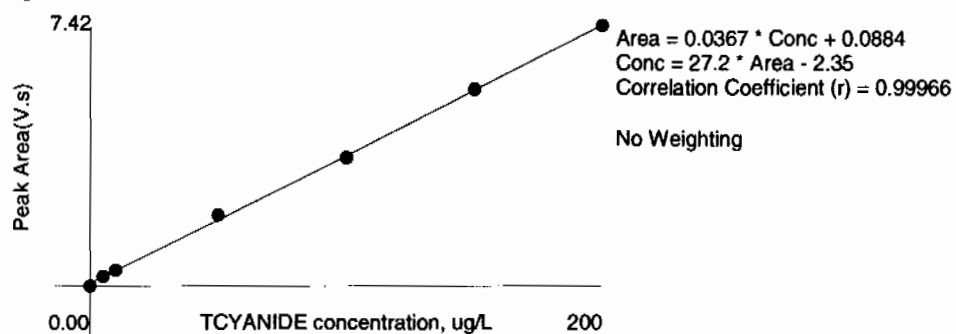


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.42	0.548	0.3	12/29/2009	10:06:59
2	150	1	5.62	0.415	-0.4	12/29/2009	10:07:51
3	100	1	3.70	0.272	1.7	12/29/2009	10:08:44
4	50.0	1	2.07	0.153	-7.4	12/29/2009	10:09:36
5	10.0	1	0.457	0.0333	-0.2	12/29/2009	10:10:30
6	5.00	1	0.281	0.0196	-3.4	12/29/2009	10:11:24
7	0.00	1	-0.00218	-8.80e-4		12/29/2009	10:12:18

Figure 1: TCYANIDE



This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	1/4/2010 10:29:37	OM_1-4-2010_10-26-17
150 ppb		1	axc2	1/4/2010 10:30:29	OM_1-4-2010_10-26-17
100 ppb		1	axc2	1/4/2010 10:31:22	OM_1-4-2010_10-26-17
50 ppb		1	axc2	1/4/2010 10:32:15	OM_1-4-2010_10-26-17
10 ppb		1	axc2	1/4/2010 10:33:08	OM_1-4-2010_10-26-17
CRDL 5.0 ppb		1	axc2	1/4/2010 10:34:02	OM_1-4-2010_10-26-17
ICAL-00		1	axc2	1/4/2010 10:34:56	OM_1-4-2010_10-26-17
ICV		1	axc2	1/4/2010 10:36:47	OM_1-4-2010_10-26-17
ICB		1	axc2	1/4/2010 10:38:37	OM_1-4-2010_10-26-17
CRDL		1	axc2	1/4/2010 10:40:27	OM_1-4-2010_10-26-17
1202005554	937245	1	axc2	1/4/2010 10:42:17	OM_1-4-2010_10-26-17
1202005558*	937245	1	axc2	1/4/2010 10:43:10	OM_1-4-2010_10-26-17
243585002	937245	1	axc2	1/4/2010 10:44:03	OM_1-4-2010_10-26-17
243608001	937245	1	axc2	1/4/2010 10:44:56	OM_1-4-2010_10-26-17
1202005555	937245	1	axc2	1/4/2010 10:45:49	OM_1-4-2010_10-26-17
1202005556	937245	1	axc2	1/4/2010 10:46:42	OM_1-4-2010_10-26-17
1202005557	937245	1	axc2	1/4/2010 10:47:34	OM_1-4-2010_10-26-17
243627001	937245	1	axc2	1/4/2010 10:48:27	OM_1-4-2010_10-26-17
243629001	937245	1	axc2	1/4/2010 10:49:19	OM_1-4-2010_10-26-17
243631001	937245	1	axc2	1/4/2010 10:50:12	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 10:51:04	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 10:52:55	OM_1-4-2010_10-26-17
1202005558	937245	1	axc2	1/4/2010 10:54:44	OM_1-4-2010_10-26-17
243632001	937245	1	axc2	1/4/2010 10:55:36	OM_1-4-2010_10-26-17
243633001	937245	1	axc2	1/4/2010 10:56:28	OM_1-4-2010_10-26-17
243633002	937245	1	axc2	1/4/2010 10:57:20	OM_1-4-2010_10-26-17
243633006	937245	1	axc2	1/4/2010 10:58:12	OM_1-4-2010_10-26-17
1202006217	937245	1	axc2	1/4/2010 10:59:04	OM_1-4-2010_10-26-17
1202006218	937245	1	axc2	1/4/2010 10:59:57	OM_1-4-2010_10-26-17
1202006219	937245	1	axc2	1/4/2010 11:00:51	OM_1-4-2010_10-26-17
243633009	937245	1	axc2	1/4/2010 11:01:44	OM_1-4-2010_10-26-17
1202004497	936843	1	axc2	1/4/2010 11:02:37	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 11:03:30	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 11:05:20	OM_1-4-2010_10-26-17
1202004504	936843	25	axc2	1/4/2010 11:07:10	OM_1-4-2010_10-26-17
243517008	936843	1	axc2	1/4/2010 11:08:03	OM_1-4-2010_10-26-17
1202004498	936843	1	axc2	1/4/2010 11:08:56	OM_1-4-2010_10-26-17
1202004500	936843	1	axc2	1/4/2010 11:09:48	OM_1-4-2010_10-26-17
1202004502	936843	1	axc2	1/4/2010 11:10:41	OM_1-4-2010_10-26-17
243517009	936843	1	axc2	1/4/2010 11:11:34	OM_1-4-2010_10-26-17
1202004499	936843	1	axc2	1/4/2010 11:12:26	OM_1-4-2010_10-26-17
1202004501	936843	1	axc2	1/4/2010 11:13:18	OM_1-4-2010_10-26-17
1202004503	936843	1	axc2	1/4/2010 11:14:10	OM_1-4-2010_10-26-17
243521001	936843	1	axc2	1/4/2010 11:15:02	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 11:15:55	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 11:17:45	OM_1-4-2010_10-26-17
243521002	936843	1	axc2	1/4/2010 11:19:33	OM_1-4-2010_10-26-17
243521003	936843	1	axc2	1/4/2010 11:20:27	OM_1-4-2010_10-26-17
243521004	936843	1	axc2	1/4/2010 11:21:21	OM_1-4-2010_10-26-17
243521005	936843	1	axc2	1/4/2010 11:22:14	OM_1-4-2010_10-26-17
243521006	936843	1	axc2	1/4/2010 11:23:08	OM_1-4-2010_10-26-17
243521007	936843	1	axc2	1/4/2010 11:24:01	OM_1-4-2010_10-26-17
243521008	936843	1	axc2	1/4/2010 11:24:54	OM_1-4-2010_10-26-17
243521009	936843	1	axc2	1/4/2010 11:25:47	OM_1-4-2010_10-26-17
243521010	936843	1	axc2	1/4/2010 11:26:40	OM_1-4-2010_10-26-17
243521011	936843	1	axc2	1/4/2010 11:27:33	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 11:28:25	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 11:30:15	OM_1-4-2010_10-26-17

243547002	936843	1	axc2	1/4/2010	11:32:04	OM_1-4-2010_10-26-17
243547003	936843	1	axc2	1/4/2010	11:32:56	OM_1-4-2010_10-26-17
243549002	936843	1	axc2	1/4/2010	11:33:49	OM_1-4-2010_10-26-17
243550001	936843	1	axc2	1/4/2010	11:34:41	OM_1-4-2010_10-26-17
243550002	936843	1	axc2	1/4/2010	11:35:33	OM_1-4-2010_10-26-17
243550003	936843	1	axc2	1/4/2010	11:36:25	OM_1-4-2010_10-26-17
243550004	936843	1	axc2	1/4/2010	11:37:19	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010	11:38:11	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010	11:40:02	OM_1-4-2010_10-26-17

Author: axc2

Date : 1/4/2010

Original Run Filename: OM_1-4-2010_10-26-17.OMN created 1/4/2010 10:26:17
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_1-4-2010_10-26-17.OMN last modified 1/4/2010 11:41:07
 Current Run Author's Signature: [axc2]
 Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
 Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE		Detection Time	ADF	MDF	Description
			Conc. (ug/L)	Area (Vs)				
WCN100104-01	1	S1	200	7.63	1/4/2010@10:29:37			200 ppb
WCN100104-02	1	S2	150	5.81	1/4/2010@10:30:29			150 ppb
WCN100104-03	1	S3	100	3.99	1/4/2010@10:31:22			100 ppb
WCN100104-04	1	S4	50.0	2.09	1/4/2010@10:32:15			50 ppb
WCN100104-05	1	S5	10.0	0.463	1/4/2010@10:33:08			10 ppb
WCN100104-06	1	S6	5.00	0.277	1/4/2010@10:34:02			CRDL 5.0 ppb
WCN100104-08	1	S7	0.00	0.0108	1/4/2010@10:34:56			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99973 > 0.99500					
Message			Pass					
Action			Continue					
WCN100104-07	1	S8	137	5.30	1/4/2010@10:36:47			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-8.9 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-8.9 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100104-08	1	S7	-3.10	-0.0205	1/4/2010@10:38:37			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-3.10 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-3.10 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100104-06	1	S6	5.20	0.295	1/4/2010@10:40:27			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			5.20 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			5.20 > 2.50					
Message			Pass					
Action			None					
1202005554|937245|MB	1	1	-1.46	0.0418	1/4/2010@10:42:17			
1202005558|LCS	1	2	44.5	1.79	1/4/2010@10:43:10			
243585002	1	3	-0.484	0.0790	1/4/2010@10:44:03			
243608001	1	4	-2.24	0.0123	1/4/2010@10:44:56			
1202005555|DUP	1	5	-1.58	0.0374	1/4/2010@10:45:49			
1202005556|MS	1	6	94.9	3.71	1/4/2010@10:46:42			
1202005557|MSD	1	7	100	3.91	1/4/2010@10:47:34			
243627001	1	8	-1.51	0.0399	1/4/2010@10:48:27			
243629001	1	9	-1.99	0.0217	1/4/2010@10:49:19			
243631001	1	10	-2.35	0.00803	1/4/2010@10:50:12			
WCN100104-03	1	S3	109	4.23	1/4/2010@10:51:04			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			8.6 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-2.04	0.0199	1/4/2010@10:52:55			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.04 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.04 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202005558	LCS	1	2	45.4	1.83	1/4/2010@10:54:44		
243632001		1	11	-1.49	0.0405	1/4/2010@10:55:36		
243633001		1	12	-1.66	0.0344	1/4/2010@10:56:28		
243633002		1	13	-1.45	0.0422	1/4/2010@10:57:20		
243633006		1	14	-2.75	-0.00712	1/4/2010@10:58:12		
1202006217	DUP	1	15	-1.99	0.0215	1/4/2010@10:59:04		
1202006218	MS	1	16	96.0	3.75	1/4/2010@10:59:57		
1202006219	MSD	1	17	100	3.91	1/4/2010@11:00:51		
243633009		1	18	-1.26	0.0496	1/4/2010@11:01:44		
1202004497	936843	1	19	-1.90	0.0251	1/4/2010@11:02:37		
WCN100104-03		1	S3	103	4.01	1/4/2010@11:03:30		CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-2.70	-0.00550	1/4/2010@11:05:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.70 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.70 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202004504	LCS	1	20	30.2	1.25	1/4/2010@11:07:10		25.00
243517008		1	21	-0.543	0.0767	1/4/2010@11:08:03		
1202004498	DUP	1	22	0.103	0.101	1/4/2010@11:08:56		
1202004500	MS	1	23	91.7	3.59	1/4/2010@11:09:48		
1202004502	MSD	1	24	92.4	3.61	1/4/2010@11:10:41		
243517009		1	25	0.220	0.106	1/4/2010@11:11:34		
1202004499	DUP	1	26	1.82	0.166	1/4/2010@11:12:26		
1202004501	MS	1	27	92.4	3.61	1/4/2010@11:13:18		
1202004503	MSD	1	28	79.5	3.12	1/4/2010@11:14:10		
243521001		1	29	-0.679	0.0715	1/4/2010@11:15:02		
WCN100104-03		1	S3	103	4.02	1/4/2010@11:15:55		CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-1.79	0.0294	1/4/2010@11:17:45			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit						
Result:		-1.79 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.79 > -5.00				
Message		CCB Passed				
Action		Continue				
243521002	1	30	-1.46	0.0420	1/4/2010@11:19:33	
243521003	1	31	-0.362	0.0836	1/4/2010@11:20:27	
243521004	1	32	1.22	0.144	1/4/2010@11:21:21	
243521005	1	33	-0.936	0.0618	1/4/2010@11:22:14	
243521006	1	34	3.33	0.224	1/4/2010@11:23:08	
243521007	1	35	-1.34	0.0463	1/4/2010@11:24:01	
243521008	1	36	-0.707	0.0705	1/4/2010@11:24:54	
243521009	1	37	-1.63	0.0352	1/4/2010@11:25:47	
243521010	1	38	0.857	0.130	1/4/2010@11:26:40	
243521011	1	39	-1.68	0.0334	1/4/2010@11:27:33	
WCN100104-03	1	S3	103	4.01	1/4/2010@11:28:25	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				
WCN100104-08	1	S7	-2.53	9.28e-4	1/4/2010@11:30:15	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-2.53 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-2.53 > -5.00				
Message		CCB Passed				
Action		Continue				
243547002	1	40	-1.86	0.0265	1/4/2010@11:32:04	
243547003	1	41	-1.82	0.0282	1/4/2010@11:32:56	
243549002	1	42	1.59	0.158	1/4/2010@11:33:49	
243550001	1	43	-1.68	0.0335	1/4/2010@11:34:41	
243550002	1	44	-1.41	0.0438	1/4/2010@11:35:33	
243550003	1	45	-1.87	0.0261	1/4/2010@11:36:25	
243550004	1	46	-1.49	0.0406	1/4/2010@11:37:19	
WCN100104-03	1	S3	104	4.04	1/4/2010@11:38:11	CCV
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		3.5 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		3.5 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100104-08	1	S7	-2.65	-0.00342	1/4/2010@11:40:02	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-2.65 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-2.65 > -5.00				
Message		CCB Passed				
Action		Continue				

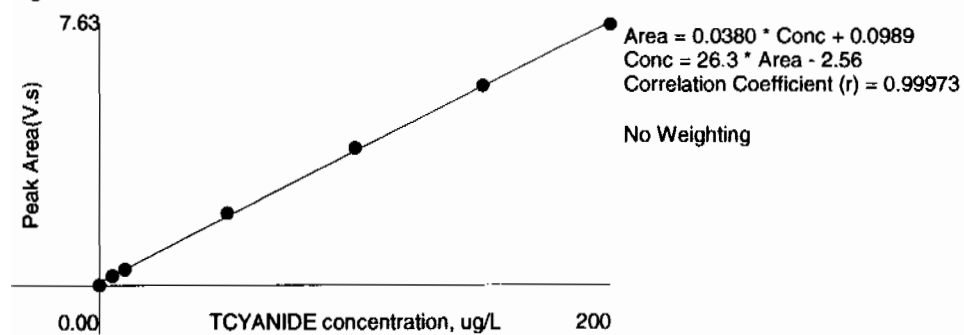
Analyte Properties Table for OM_1-4-2010_10-26-17.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/l
Calibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Chromatogram showing detector response (Volts) versus Time (s). The plot displays numerous peaks, many of which are labeled with sample identifiers (e.g., WCN100104-01, WCN100104-02) and concentrations (e.g., 137 ug/L, 103 ug/L). The x-axis ranges from 0.4 to 443.8 seconds, and the y-axis ranges from 1.14 to 1.91 Volts.

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.63	0.565	0.9	1/4/2010	10:30:40
2	150	1	5.81	0.432	-0.2	1/4/2010	10:31:33
3	100	1	3.99	0.297	-2.2	1/4/2010	10:32:25
4	50.0	1	2.09	0.153	-4.6	1/4/2010	10:33:18
5	10.0	1	0.463	0.0341	3.3	1/4/2010	10:34:11
6	5.00	1	0.277	0.0211	4.2	1/4/2010	10:35:05
7	0.00	1	0.0108	7.90e-4		1/4/2010	10:35:59

Figure 1: TCYANIDE



RADIOLOGICAL ANALYSIS

**Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1073**

Method/Analysis Information

Procedure: **Dry Weight-Percent Moisture**

Analytical Method:

Analytical Batch Number: 936965

Sample ID	Client ID
243517003	RE12-10-7557
243517004	RE12-10-7558
243517005	RE12-10-7555
243517006	RE12-10-7556
243517007	RE12-10-7562
243517008	RE12-10-7561
243517009	RE12-10-7563
1202004889	243509001(RE16-10-2837) 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:

Quality Control (QC) Information:

Designated QC

The following sample was used for QC: 243509001 (RE16-10-2837). The QC was from LANL work order 243509.

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:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) 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:	936978
Prep Batch Number:	936948

Sample ID	Client ID
243517003	RE12-10-7557
243517004	RE12-10-7558
243517005	RE12-10-7555
243517006	RE12-10-7556
243517007	RE12-10-7562
243517008	RE12-10-7561
243517009	RE12-10-7563
1202004936	Method Blank (MB)
1202004937	243546003(RE16-10-1029) Sample Duplicate (DUP)
1202004938	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 1202004936 (MB) was changed to 1.0 per client request.

Designated QC

The following sample was used for QC: 243546003 (RE16-10-1029). The QC was from LANL work order 243546.

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

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) 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:	936982
Prep Batch Number:	936948

Sample ID	Client ID
243517003	RE12-10-7557
243517004	RE12-10-7558
243517005	RE12-10-7555
243517006	RE12-10-7556
243517007	RE12-10-7562
243517008	RE12-10-7561
243517009	RE12-10-7563
1202004939	Method Blank (MB)
1202004940	243546003(RE16-10-1029) Sample Duplicate (DUP)
1202004941	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 1202004939 (MB) was changed to 1.0 per client request.

Designated QC

The following sample was used for QC: 243546003 (RE16-10-1029). The QC was from LANL work order 243546.

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 1202004940 (RE16-10-1029) was recounted to verify results. Sample 1202004940 (RE16-10-1029) was cleaned-up and recounted to remove possible interferences. Clean-up results verified original results. Reporting original recount results.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) 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:	936984
Prep Batch Number:	936948

Sample ID	Client ID
243517003	RE12-10-7557
243517004	RE12-10-7558
243517005	RE12-10-7555
243517006	RE12-10-7556
243517007	RE12-10-7562
243517008	RE12-10-7561
243517009	RE12-10-7563
1202004952	Method Blank (MB)
1202004953	243546003(RE16-10-1029) Sample Duplicate (DUP)
1202004954	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 1202004952 (MB) was changed to 1.0 per client request.

Designated QC

The following sample was used for QC: 243546003 (RE16-10-1029). The QC was from LANL work order 243546.

QC Information

All of the QC samples met the required acceptance limits.

CSU

The U-233/234 and U-238 blank results are 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

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) 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 243517007 (RE12-10-7562) did not meet the client's yield requirement. However, there are 400 tracer counts, GEL's standard tracer yield requirements are met, and the client's detection limits are met.

Blank Decision Level

The U-238 blank 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: 937069

Prep Batch Number: 936948

Sample ID	Client ID
243517003	RE12-10-7557
243517004	RE12-10-7558
243517005	RE12-10-7555
243517006	RE12-10-7556
243517007	RE12-10-7562
243517008	RE12-10-7561
243517009	RE12-10-7563
1202005182	Method Blank (MB)
1202005183	243546001(RE16-10-1031) Sample Duplicate (DUP)
1202005184	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 January 2009, February 2009, March 2009, April 2009, May 2009, June 2009, July 2009, November 2009 and December 2009.

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: 243546001 (RE16-10-1031). The QC was from LANL work order 243546.

QC Information

All of the QC samples met the required acceptance limits.

CSU

The blank 1202005182 (MB) result is greater than 1.65 times the CSU but less than the MDC for Pb-212, Hg-203, and K-40.

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:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Blank Decision Level

The blank 1202005182 (MB) result is greater than the decision level but less than the MDC for Pb-212 and Hg-203.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	243517003	RE12-10-7557
			243517004	RE12-10-7558
			243517005	RE12-10-7555
			243517006	RE12-10-7556
			243517007	RE12-10-7562
			243517008	RE12-10-7561
			243517009	RE12-10-7563

UI	Data rejected due to low abundance.	Cadmium-109	1202005183	RE16-10-1031(243546001DUP)
			243517003	RE12-10-7557
			243517004	RE12-10-7558
			243517005	RE12-10-7555
			243517006	RE12-10-7556
			243517007	RE12-10-7562
			243517008	RE12-10-7561
		Radium-224	243517009	RE12-10-7563
			1202005183	RE16-10-1031(243546001DUP)
			243517003	RE12-10-7557
			243517004	RE12-10-7558
			243517005	RE12-10-7555
			243517006	RE12-10-7556
			243517007	RE12-10-7562
		Cesium-134	243517008	RE12-10-7561
			243517009	RE12-10-7563
			1202005183	RE16-10-1031(243546001DUP)
			243517003	RE12-10-7557
			243517005	RE12-10-7555
			243517006	RE12-10-7556
			243517007	RE12-10-7562
		Strontium-85	243517009	RE12-10-7563
			1202005183	RE16-10-1031(243546001DUP)
			243517003	RE12-10-7557
			243517007	RE12-10-7562
			1202005182	MB for batch 937069

Certification Statement

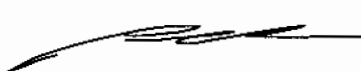
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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:_____

 1/11/10

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: 10-1073 GEL Work Order: 243517

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: January 11, 2010

Client Sample ID: RE12-10-7557
Sample ID: 243517003
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 14.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00432	0.0174	+/-0.00212	0.050	pCi/g		MXA1	01/06/10	2215	936978	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00107	0.0176	+/-0.00107	0.050	pCi/g		MXA1	01/05/10	2008	936982	3
Plutonium-239/240	U	0.0117	0.0202	+/-0.00359	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.20	0.135	+/-0.113	0.100	pCi/g		MXA1	01/07/10	1757	936984	4
Uranium-235/236	U	0.0485	0.0839	+/-0.0197	0.100	pCi/g						
Uranium-238		1.41	0.0784	+/-0.128	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0952	0.112	+/-0.0348	0.200	pCi/g		MXR1	01/07/10	0852	937069	5
Bismuth-211	UI	4.33	0.345	+/-0.326		pCi/g						
Bismuth-214		1.26	0.137	+/-0.110	0.200	pCi/g						
Cadmium-109	UI	3.38	0.952	+/-0.417		pCi/g						
Cerium-139	U	0.00978	0.0553	+/-0.0163	0.050	pCi/g						
Cesium-134	UI	0.117	0.106	+/-0.0278	0.100	pCi/g						
Cesium-137		0.202	0.0752	+/-0.0366	0.100	pCi/g						
Cobalt-60	U	-0.00714	0.058	+/-0.0185	0.100	pCi/g						
Europium-152	U	0.0281	0.171	+/-0.072	0.200	pCi/g						
Lanthanum-140	U	0.107	0.193	+/-0.0566		pCi/g						
Lead-212		1.52	0.099	+/-0.0998	0.100	pCi/g						
Lead-214		1.51	0.120	+/-0.120	0.100	pCi/g						
Mercury-203	U	0.0175	0.0771	+/-0.022	0.100	pCi/g						
Potassium-40		21.5	0.591	+/-1.07	1.00	pCi/g						
Radium-223	U	0.0293	1.19	+/-0.399		pCi/g						
Radium-224	UI	4.28	1.13	+/-0.596		pCi/g						
Radium-226		1.26	0.137	+/-0.110		pCi/g						
Radium-228		1.55	0.237	+/-0.183	0.500	pCi/g						
Ruthenium-106	U	0.0674	0.594	+/-0.179	0.800	pCi/g						
Sodium-22	U	0.0264	0.0779	+/-0.0224	0.080	pCi/g						

GEL LABORATORIES LLC

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Certificate of Analysis

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

Report Date: January 11, 2010

Client Sample ID:			RE12-10-7557		Project:		LANL01004				
Sample ID:			243517003		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	0.116	0.0829	+/-0.024		pCi/g					
Thallium-208		0.443	0.0723	+/-0.0484	0.080	pCi/g					
Thorium-227	U	-0.238	0.656	+/-0.197		pCi/g					
Thorium-231	U	0.0293	1.19	+/-0.399		pCi/g					
Thorium-234		1.55	1.08	+/-0.425	2.00	pCi/g					
Tin-113	U	0.0121	0.0814	+/-0.0237	0.100	pCi/g					
Uranium-235	U	0.235	0.400	+/-0.119	0.500	pCi/g					
Yttrium-88	U	-0.00765	0.0535	+/-0.0172	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"	91.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	81.0	(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 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

GEL LABORATORIES LLC

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Certificate of Analysis

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

Report Date: January 11, 2010

Client Sample ID:	RE12-10-7557	Project:	LANL01004									
Sample ID:	243517003	Client ID:	LANL010									
Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

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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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: January 11, 2010

Client Sample ID: RE12-10-7558
Sample ID: 243517004
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 8.04%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.000262	0.0175	+/-0.00155	0.050	pCi/g	MXA1	01/06/10	2215	936978	2	
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00109	0.018	+/-0.00109	0.050	pCi/g	MXA1	01/05/10	2008	936982	3	
Plutonium-239/240	U	0.00436	0.0206	+/-0.00268	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		0.656	0.218	+/-0.0844	0.100	pCi/g	MXA1	01/07/10	1757	936984	4	
Uranium-235/236	U	0.0347	0.135	+/-0.0176	0.100	pCi/g						
Uranium-238		0.632	0.126	+/-0.0829	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	-0.239	0.341	+/-0.103	0.200	pCi/g	MXR1	01/07/10	0853	937069	5	
Bismuth-211	UI	3.24	0.368	+/-0.254		pCi/g						
Bismuth-214		0.928	0.131	+/-0.0929	0.200	pCi/g						
Cadmium-109	UI	2.28	1.49	+/-0.588		pCi/g						
Cerium-139	U	-0.02	0.0571	+/-0.0176	0.050	pCi/g						
Cesium-134	U	0.0767	0.109	+/-0.0296	0.100	pCi/g						
Cesium-137	U	0.0263	0.0819	+/-0.0241	0.100	pCi/g						
Cobalt-60	U	-0.0222	0.0705	+/-0.0233	0.100	pCi/g						
Europium-152	U	0.0742	0.188	+/-0.0684	0.200	pCi/g						
Lanthanum-140	U	-0.119	0.143	+/-0.0537		pCi/g						
Lead-212		1.57	0.108	+/-0.0844	0.100	pCi/g						
Lead-214		1.13	0.136	+/-0.0932	0.100	pCi/g						
Mercury-203	U	0.0386	0.087	+/-0.0245	0.100	pCi/g						
Potassium-40		30.9	0.507	+/-1.46	1.00	pCi/g						
Radium-223	U	-1.12	1.36	+/-0.437		pCi/g						
Radium-224	UI	4.07	1.22	+/-0.781		pCi/g						
Radium-226		0.928	0.131	+/-0.0929		pCi/g						
Radium-228		1.63	0.231	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	-0.0477	0.590	+/-0.182	0.800	pCi/g						
Sodium-22	U	-0.0125	0.094	+/-0.0295	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: RE12-10-7558
Sample ID: 243517004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
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Rad Gamma Spec Analysis

GAMMA SPEC "Dry Weight Corrected"

Strontium-85	U	0.0453	0.0826	+/-0.0267		pCi/g					
Thallium-208		0.472	0.0672	+/-0.0501	0.080	pCi/g					
Thorium-227	U	-0.478	0.708	+/-0.235		pCi/g					
Thorium-231	U	-1.12	1.36	+/-0.437		pCi/g					
Thorium-234	U	1.85	3.03	+/-0.868	2.00	pCi/g					
Tin-113	U	0.0457	0.0961	+/-0.0272	0.100	pCi/g					
Uranium-235	U	0.311	0.428	+/-0.124	0.500	pCi/g					
Yttrium-88	U	-0.0412	0.056	+/-0.0215	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"	91.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	50.8	(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 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

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: RE12-10-7558
Sample ID: 243517004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
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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: January 11, 2010

Client Sample ID: RE12-10-7555
Sample ID: 243517005
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 14.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.000379	0.0186	+/-0.0011	0.050	pCi/g		MXA1	01/06/10	2215	936978	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00143	0.0236	+/-0.00143	0.050	pCi/g		MXA1	01/05/10	2008	936982	3
Plutonium-239/240	U	0.00571	0.027	+/-0.00287	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.33	0.127	+/-0.121	0.100	pCi/g		MXA1	01/07/10	1757	936984	4
Uranium-235/236	U	0.066	0.0791	+/-0.0189	0.100	pCi/g						
Uranium-238		1.59	0.0739	+/-0.140	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	-0.0129	0.175	+/-0.057	0.200	pCi/g		MXR1	01/07/10	0853	937069	5
Bismuth-211	UI	4.66	0.363	+/-0.324		pCi/g						
Bismuth-214		1.42	0.0989	+/-0.105	0.200	pCi/g						
Cadmium-109	UI	2.52	1.12	+/-0.491		pCi/g						
Cerium-139	U	-0.0155	0.0508	+/-0.016	0.050	pCi/g						
Cesium-134	UI	0.110	0.102	+/-0.0274	0.100	pCi/g						
Cesium-137		0.131	0.0572	+/-0.0357	0.100	pCi/g						
Cobalt-60	U	-0.0298	0.0637	+/-0.0212	0.100	pCi/g						
Europium-152	U	-0.00804	0.165	+/-0.0514	0.200	pCi/g						
Lanthanum-140	U	0.0941	0.174	+/-0.0518		pCi/g						
Lead-212		1.72	0.0889	+/-0.101	0.100	pCi/g						
Lead-214		1.62	0.127	+/-0.120	0.100	pCi/g						
Mercury-203	U	0.0372	0.0747	+/-0.0211	0.100	pCi/g						
Potassium-40		22.2	0.522	+/-1.22	1.00	pCi/g						
Radium-223	U	0.249	1.14	+/-0.378		pCi/g						
Radium-224	UI	4.33	1.01	+/-0.505		pCi/g						
Radium-226		1.42	0.0989	+/-0.105		pCi/g						
Radium-228		1.72	0.219	+/-0.181	0.500	pCi/g						
Ruthenium-106	U	-0.0479	0.519	+/-0.156	0.800	pCi/g						
Sodium-22	U	0.00827	0.0737	+/-0.0219	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: Sample ID:			RE12-10-7555 243517005		Project: Client ID:		LANL01004 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	0.0626	0.0713	+/-0.0213		pCi/g						
Thallium-208		0.510	0.058	+/-0.0431	0.080	pCi/g						
Thorium-227	U	0.127	0.657	+/-0.190		pCi/g						
Thorium-231	U	0.249	1.14	+/-0.378		pCi/g						
Thorium-234	U	0.894	1.63	+/-0.702	2.00	pCi/g						
Tin-113	U	-0.0348	0.0759	+/-0.0242	0.100	pCi/g						
Uranium-235	U	0.131	0.355	+/-0.107	0.500	pCi/g						
Yttrium-88	U	-0.0191	0.0531	+/-0.0179	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"	87.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	63.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	81.6	(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 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

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: RE12-10-7555 Project: LANL01004
Sample ID: 243517005 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
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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: January 11, 2010

Client Sample ID: RE12-10-7556
Sample ID: 243517006
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 8.21%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	-0.00391	0.0178	+/-0.00181	0.050	pCi/g		MXA1	01/06/10	2215	936978	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.000994	0.0164	+/-0.000995	0.050	pCi/g		MXA1	01/05/10	2008	936982	3
Plutonium-239/240	U	0.00298	0.0188	+/-0.00173	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		0.453	0.182	+/-0.0628	0.100	pCi/g		MXA1	01/07/10	1757	936984	4
Uranium-235/236	U	0.0652	0.113	+/-0.0223	0.100	pCi/g						
Uranium-238		0.616	0.105	+/-0.0761	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0339	0.225	+/-0.0764	0.200	pCi/g		MXR1	01/07/10	0854	937069	5
Bismuth-211	UI	3.54	0.356	+/-0.238		pCi/g						
Bismuth-214		1.11	0.119	+/-0.0905	0.200	pCi/g						
Cadmium-109	UI	4.39	1.28	+/-0.645		pCi/g						
Cerium-139	U	0.0299	0.0564	+/-0.0169	0.050	pCi/g						
Cesium-134	UI	0.156	0.108	+/-0.0485	0.100	pCi/g						
Cesium-137	U	-0.0178	0.0671	+/-0.0215	0.100	pCi/g						
Cobalt-60	U	-0.00868	0.072	+/-0.0225	0.100	pCi/g						
Europium-152	U	0.0419	0.178	+/-0.0635	0.200	pCi/g						
Lanthanum-140	U	-0.0767	0.153	+/-0.0536		pCi/g						
Lead-212		1.59	0.0978	+/-0.0822	0.100	pCi/g						
Lead-214		1.23	0.118	+/-0.0888	0.100	pCi/g						
Mercury-203	U	0.044	0.0774	+/-0.0221	0.100	pCi/g						
Potassium-40		33.6	0.667	+/-1.57	1.00	pCi/g						
Radium-223	U	-0.756	1.11	+/-0.418		pCi/g						
Radium-224	UI	4.85	1.11	+/-0.748		pCi/g						
Radium-226		1.11	0.119	+/-0.0905		pCi/g						
Radium-228		1.47	0.250	+/-0.160	0.500	pCi/g						
Ruthenium-106	U	-0.0647	0.526	+/-0.165	0.800	pCi/g						
Sodium-22	U	-0.00221	0.0851	+/-0.0261	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: RE12-10-7556
Sample ID: 243517006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
Rad Gamma Spec Analysis											
<i>GAMMA SPEC "Dry Weight Corrected"</i>											
Strontium-85	U	0.0592	0.073	+/-0.0231		pCi/g					
Thallium-208		0.493	0.0634	+/-0.0464	0.080	pCi/g					
Thorium-227	U	0.123	0.664	+/-0.195		pCi/g					
Thorium-231	U	-0.756	1.11	+/-0.418		pCi/g					
Thorium-234	U	0.296	1.95	+/-0.850	2.00	pCi/g					
Tin-113	U	-0.031	0.0797	+/-0.025	0.100	pCi/g					
Uranium-235	U	0.0999	0.377	+/-0.116	0.500	pCi/g					
Yttrium-88	U	-0.0182	0.0485	+/-0.0174	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"	87.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	58.0	(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 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

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: RE12-10-7556 Project: LANL01004
Sample ID: 243517006 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
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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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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: January 11, 2010

Client Sample ID: RE12-10-7562
Sample ID: 243517007
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 9.88%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	-0.000394	0.0243	+/-0.00143	0.050	pCi/g		MXA1	01/06/10	2215	936978	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00	0.0189	+/-0.00115	0.050	pCi/g		MXA1	01/05/10	2008	936982	3
Plutonium-239/240	U	0.00	0.0216	+/-0.00115	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		0.549	0.222	+/-0.0762	0.100	pCi/g		MXA1	01/07/10	1757	936984	4
Uranium-235/236	U	0.0177	0.138	+/-0.0126	0.100	pCi/g						
Uranium-238		0.545	0.129	+/-0.0752	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0528	0.209	+/-0.0655	0.200	pCi/g		MXR1	01/07/10	0858	937069	5
Bismuth-211	UI	3.31	0.300	+/-0.268		pCi/g						
Bismuth-214		0.958	0.0955	+/-0.0865	0.200	pCi/g						
Cadmium-109	UI	3.06	1.14	+/-0.429		pCi/g						
Cerium-139	U	-0.0217	0.0442	+/-0.0133	0.050	pCi/g						
Cesium-134	UI	0.149	0.0824	+/-0.0289	0.100	pCi/g						
Cesium-137	U	0.00334	0.0538	+/-0.0161	0.100	pCi/g						
Cobalt-60	U	-0.00168	0.053	+/-0.0161	0.100	pCi/g						
Europium-152	U	-0.106	0.139	+/-0.0542	0.200	pCi/g						
Lanthanum-140	U	-0.102	0.114	+/-0.0402		pCi/g						
Lead-212		1.62	0.0864	+/-0.118	0.100	pCi/g						
Lead-214		1.15	0.101	+/-0.0979	0.100	pCi/g						
Mercury-203	U	0.0368	0.0693	+/-0.0205	0.100	pCi/g						
Potassium-40		32.2	0.426	+/-1.67	1.00	pCi/g						
Radium-223	U	0.259	0.979	+/-0.322		pCi/g						
Radium-224	UI	4.00	0.982	+/-0.626		pCi/g						
Radium-226		0.958	0.0955	+/-0.0865		pCi/g						
Radium-228		1.54	0.179	+/-0.174	0.500	pCi/g						
Ruthenium-106	U	0.275	0.485	+/-0.138	0.800	pCi/g						
Sodium-22	U	-0.0253	0.0632	+/-0.020	0.080	pCi/g						

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

Report Date: January 11, 2010

Client Sample ID: RE12-10-7562
Sample ID: 243517007
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
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Rad Gamma Spec Analysis

GAMMA SPEC "Dry Weight Corrected"

Strontium-85	UI	0.127	0.0683	+/-0.021		pCi/g						
Thallium-208		0.479	0.0474	+/-0.0407	0.080	pCi/g						
Thorium-227	U	0.0756	0.605	+/-0.182		pCi/g						
Thorium-231	U	0.259	0.979	+/-0.322		pCi/g						
Thorium-234	U	1.24	1.78	+/-0.766	2.00	pCi/g						
Tin-113	U	0.00679	0.0703	+/-0.0208	0.100	pCi/g						
Uranium-235	U	-0.0134	0.336	+/-0.0986	0.500	pCi/g						
Yttrium-88	U	-0.0194	0.0418	+/-0.0142	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"	65.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	81.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	49.9*	(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 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

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: RE12-10-7562 Project: LANL01004
Sample ID: 243517007 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
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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: January 11, 2010

Client Sample ID: RE12-10-7561
Sample ID: 243517008
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 11.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00514	0.0197	+/-0.00246	0.050	pCi/g		MXA1	01/06/10	1816	936978	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00	0.0186	+/-0.00113	0.050	pCi/g		MXA1	01/05/10	2008	936982	3
Plutonium-239/240	U	0.00676	0.0213	+/-0.00321	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.20	0.143	+/-0.114	0.100	pCi/g		MXA1	01/07/10	1757	936984	4
Uranium-235/236	U	0.0569	0.0885	+/-0.0184	0.100	pCi/g						
Uranium-238		1.27	0.0827	+/-0.120	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0781	0.367	+/-0.114	0.200	pCi/g		MXR1	01/07/10	0912	937069	5
Bismuth-211	UI	3.44	0.280	+/-0.256		pCi/g						
Bismuth-214		1.20	0.101	+/-0.0805	0.200	pCi/g						
Cadmium-109	UI	3.11	1.43	+/-0.611		pCi/g						
Cerium-139	U	0.000167	0.0442	+/-0.0133	0.050	pCi/g						
Cesium-134	U	0.0528	0.0815	+/-0.0224	0.100	pCi/g						
Cesium-137		0.154	0.0552	+/-0.0268	0.100	pCi/g						
Cobalt-60	U	0.000277	0.0556	+/-0.0167	0.100	pCi/g						
Europium-152	U	0.0731	0.152	+/-0.0514	0.200	pCi/g						
Lanthanum-140	U	-0.148	0.130	+/-0.0517		pCi/g						
Lead-212		1.46	0.0855	+/-0.0746	0.100	pCi/g						
Lead-214		1.20	0.0975	+/-0.0943	0.100	pCi/g						
Mercury-203	U	0.0452	0.0688	+/-0.0211	0.100	pCi/g						
Potassium-40		21.4	0.450	+/-1.20	1.00	pCi/g						
Radium-223	U	0.267	1.09	+/-0.314		pCi/g						
Radium-224	UI	4.29	0.972	+/-0.531		pCi/g						
Radium-226		1.20	0.101	+/-0.0805		pCi/g						
Radium-228		1.34	0.211	+/-0.173	0.500	pCi/g						
Ruthenium-106	U	0.0513	0.467	+/-0.135	0.800	pCi/g						
Sodium-22	U	-0.00685	0.0587	+/-0.018	0.080	pCi/g						

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

Report Date: January 11, 2010

Client Sample ID: RE12-10-7561
Sample ID: 243517008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
Rad Gamma Spec Analysis											
<i>GAMMA SPEC "Dry Weight Corrected"</i>											
Strontium-85	U	0.0509	0.0578	+/-0.0175		pCi/g					
Thallium-208		0.398	0.0536	+/-0.0399	0.080	pCi/g					
Thorium-227	U	0.0111	0.572	+/-0.165		pCi/g					
Thorium-231	U	0.267	1.09	+/-0.314		pCi/g					
Thorium-234	U	0.948	2.68	+/-1.06	2.00	pCi/g					
Tin-113	U	0.00254	0.0668	+/-0.0198	0.100	pCi/g					
Uranium-235	U	0.0447	0.330	+/-0.0977	0.500	pCi/g					
Yttrium-88	U	-0.00711	0.0467	+/-0.0153	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"	84.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	74.4	(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 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

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

Report Date: January 11, 2010

Client Sample ID: RE12-10-7561
Sample ID: 243517008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
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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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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: January 11, 2010

Client Sample ID: RE12-10-7563
Sample ID: 243517009
Matrix: R
Collect Date: 21-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 12.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Alpha Spec Analysis												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00205	0.0219	+/-0.00163	0.050	pCi/g		MXA1	01/06/10	1816	936978	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00	0.0179	+/-0.00109	0.050	pCi/g		MXA1	01/05/10	2008	936982	3
Plutonium-239/240	U	0.00326	0.0205	+/-0.00243	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.10	0.138	+/-0.106	0.100	pCi/g		MXA1	01/07/10	1757	936984	4
Uranium-235/236	U	0.055	0.0857	+/-0.0178	0.100	pCi/g						
Uranium-238		1.18	0.080	+/-0.112	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0225	0.176	+/-0.0562	0.200	pCi/g		MXR1	01/07/10	0913	937069	5
Bismuth-211	UI	3.49	0.273	+/-0.292		pCi/g						
Bismuth-214		1.11	0.107	+/-0.100	0.200	pCi/g						
Cadmium-109	UI	3.22	0.893	+/-0.368		pCi/g						
Cerium-139	U	-0.00314	0.0416	+/-0.0121	0.050	pCi/g						
Cesium-134	UI	0.157	0.0811	+/-0.0327	0.100	pCi/g						
Cesium-137		0.142	0.0504	+/-0.0234	0.100	pCi/g						
Cobalt-60	U	-0.0273	0.0472	+/-0.0164	0.100	pCi/g						
Europium-152	U	-0.0474	0.131	+/-0.0419	0.200	pCi/g						
Lanthanum-140	U	0.0718	0.134	+/-0.0368		pCi/g						
Lead-212		1.43	0.0794	+/-0.111	0.100	pCi/g						
Lead-214		1.21	0.0948	+/-0.107	0.100	pCi/g						
Mercury-203	U	-0.0713	0.0528	+/-0.019	0.100	pCi/g						
Potassium-40		21.3	0.435	+/-1.17	1.00	pCi/g						
Radium-223	U	-0.168	0.875	+/-0.309		pCi/g						
Radium-224	UI	3.65	0.903	+/-0.546		pCi/g						
Radium-226		1.11	0.107	+/-0.100		pCi/g						
Radium-228		1.49	0.150	+/-0.154	0.500	pCi/g						
Ruthenium-106	U	-0.125	0.384	+/-0.122	0.800	pCi/g						
Sodium-22	U	-0.0262	0.0534	+/-0.0181	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 11, 2010

Client Sample ID: RE12-10-7563 Project: LANL01004
Sample ID: 243517009 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Strontium-85	U	0.00407	0.0531	+/-0.0176		pCi/g						
Thallium-208		0.480	0.0459	+/-0.0468	0.080	pCi/g						
Thorium-227	U	0.178	0.536	+/-0.156		pCi/g						
Thorium-231	U	-0.168	0.875	+/-0.309		pCi/g						
Thorium-234		2.29	1.43	+/-0.721	2.00	pCi/g						
Tin-113	U	-0.0219	0.0608	+/-0.0183	0.100	pCi/g						
Uranium-235	U	-0.0383	0.282	+/-0.0829	0.500	pCi/g						
Yttrium-88	U	0.020	0.0532	+/-0.0154	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"	72.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	75.6	(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 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

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

Report Date: January 11, 2010

Client Sample ID:	RE12-10-7563	Project:	LANL01004									
Sample ID:	243517009	Client ID:	LANL010									
Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

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

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

QC Summary

Report Date: January 11, 2010

Page 1 of 6

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico
Contact: Ms. Joylene Valdez
Workorder: 243517

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	936978										
QC1202004937	243546003	DUP									
Americium-241	U	0.0146	U	0.00907	pCi/g	0.219		(0-1) MXA1		01/06/10	18:09
	TPU:	+/-0.00588		+/-0.00681							
	Yield:	89.4		88.5							
QC1202004938	LCS										
Americium-241	33.2			35.6	pCi/g		107	(75%-125%)			
	TPU:			+/-2.53							
	Yield:			96.9							
QC1202004936	MB										
Americium-241	U	-0.00546	U	-0.00546	pCi/g						
	TPU:	+/-0.0106		+/-0.0106							
	Yield:	91.0		91.0							
Batch	936982										
QC1202004940	243546003	DUP									
Plutonium-238	U	0.00636	U	0.00712	pCi/g	0.0448		(0-1) MXA1		01/07/10	09:28
	TPU:	+/-0.00561		+/-0.00293							
	Yield:	94.3		94.2							
Plutonium-239/240		0.0328		0.0439	pCi/g	0.376		(0-1)			
	TPU:	+/-0.00647		+/-0.00826							
	Yield:	94.3		94.2							
QC1202004941	LCS										
Plutonium-238				6.88	pCi/g			(75%-125%)		01/05/10	20:09
	TPU:			+/-0.490							
	Yield:			90.3							
Plutonium-239/240	41.8			36.3	pCi/g		86.8	(75%-125%)			
	TPU:	+/-2.20		+/-2.20							
	Yield:	90.3		90.3							
QC1202004939	MB										
Plutonium-238	U	0.00	U	0.00	pCi/g					01/05/10	20:09
	TPU:	+/-0.00132		+/-0.00132							
	Yield:	88.7		88.7							
Plutonium-239/240	U	0.00132	U	0.00132	pCi/g						
	TPU:	+/-0.00228		+/-0.00228							
	Yield:	88.7		88.7							
Batch	936984										
QC1202004953	243546003	DUP									
Uranium-233/234		1.18		0.986	pCi/g	0.470		(0-1) MXA1		01/07/10	09:01
	TPU:	+/-0.107		+/-0.0969							
	Yield:	63.0		60.2							
Uranium-235/236	U	0.0662	U	0.0539	pCi/g	0.172		(0-1)			
	TPU:	+/-0.0183		+/-0.0175							
	Yield:	63.0		60.2							
Uranium-238		1.23		1.11	pCi/g	0.277		(0-1)			
	TPU:	+/-0.111		+/-0.106							

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QC Summary

Workorder: 243517

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Parmname		NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Alpha Spec												
Batch	936984											
		Yield:		63.0		60.2						
QC1202004954	LCS											
Uranium-233/234					7.38	pCi/g			(75%-125%)			
		TPU:			+/-0.620							
		Yield:			84.0							
Uranium-235/236			U		0.259	pCi/g			(75%-125%)			
		TPU:			+/-0.0842							
		Yield:			84.0							
Uranium-238		5.75			5.69	pCi/g		99	(75%-125%)			
		TPU:			+/-0.501							
		Yield:			84.0							
QC1202004952	MB											
Uranium-233/234			U		0.00869	pCi/g					01/07/1009:02	
		TPU:			+/-0.0047							
		Yield:			98.4							
Uranium-235/236			U		0.00295	pCi/g						
		TPU:			+/-0.00296							
		Yield:			98.4							
Uranium-238			U		0.00955	pCi/g						
		TPU:			+/-0.00451							
		Yield:			98.4							
Rad Gamma Spec												
Batch	937069											
QC1202005183	243546001	DUP										
Americium-241		U	0.0283	U	0.223	pCi/g	0.518		(0-1)	MXR1	01/07/1013:06	
		TPU:	+/-0.0807		+/-0.107							
Bismuth-211		UI	2.65	UI	2.98	pCi/g	0.375		(0-1)			
		TPU:	+/-0.195		+/-0.242							
Bismuth-214			0.909		0.877	pCi/g	0.0938		(0-1)			
		TPU:	+/-0.080		+/-0.0863							
Cadmium-109		UI	1.64	UI	2.73	pCi/g	0.489		(0-1)			
		TPU:	+/-0.503		+/-0.612							
Cerium-139		U	0.00656	U	-0.00213	pCi/g	0.164		(0-1)			
		TPU:	+/-0.0123		+/-0.0142							
Cesium-134		UI	0.0836	UI	0.0963	pCi/g	0.121		(0-1)			
		TPU:	+/-0.0294		+/-0.0231							
Cesium-137			0.233		0.219	pCi/g	0.100		(0-1)			
		TPU:	+/-0.0292		+/-0.0387							
Cobalt-60		U	0.0209	U	-0.0292	pCi/g	0.681		(0-1)			
		TPU:	+/-0.018		+/-0.0188							
Europium-152		U	0.00584	U	-0.0296	pCi/g	0.192		(0-1)			
		TPU:	+/-0.0467		+/-0.0455							
Lanthanum-140		U	0.115	U	0.00409	pCi/g	0.677		(0-1)			
		TPU:	+/-0.0358		+/-0.0461							
Lead-212			1.21		1.17	pCi/g	0.148		(0-1)			
		TPU:	+/-0.0638		+/-0.0783							
Lead-214			0.922		1.04	pCi/g	0.355		(0-1)			
		TPU:	+/-0.0719		+/-0.0884							
Mercury-203		UI	0.0666	U	-0.00555	pCi/g	0.915		(0-1)			
		TPU:	+/-0.0197		+/-0.0197							

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QC Summary

Workorder: 243517

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Parname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	937069										
Potassium-40		23.1		23.3	pCi/g	0.0304		(0-1)			
	TPU:	+/-1.12		+/-1.19							
Radium-223	U	0.0444	U	-0.50	pCi/g	0.435		(0-1)			
	TPU:	+/-0.271		+/-0.354							
Radium-224	UI	3.30	UI	2.70	pCi/g	0.303		(0-1)			
	TPU:	+/-0.530		+/-0.466							
Radium-226		0.909		0.877	pCi/g	0.0938		(0-1)			
	TPU:	+/-0.080		+/-0.0863							
Radium-228		1.42		1.16	pCi/g	0.414		(0-1)			
	TPU:	+/-0.162		+/-0.152							
Ruthenium-106	U	0.160	U	0.054	pCi/g	0.186		(0-1)			
	TPU:	+/-0.129		+/-0.156							
Sodium-22	U	0.0132	U	0.0196	pCi/g	0.0751		(0-1)			
	TPU:	+/-0.0194		+/-0.0236							
Strontium-85	UI	0.141	U	0.0181	pCi/g	1.53		(0-1)			
	TPU:	+/-0.019		+/-0.0213							
Thallium-208		0.331		0.406	pCi/g	0.442		(0-1)			
	TPU:	+/-0.0385		+/-0.0462							
Thorium-227	U	-0.113	U	0.162	pCi/g	0.397		(0-1)			
	TPU:	+/-0.160		+/-0.186							
Thorium-231	U	0.0444	U	-0.50	pCi/g	0.435		(0-1)			
	TPU:	+/-0.271		+/-0.354							
Thorium-234	U	0.921	U	0.403	pCi/g	0.165		(0-1)			
	TPU:	+/-0.727		+/-0.841							
Tin-113	U	0.000404	U	-0.0341	pCi/g	0.421		(0-1)			
	TPU:	+/-0.0181		+/-0.023							
Uranium-235	U	0.0984	U	-0.0941	pCi/g	0.489		(0-1)			
	TPU:	+/-0.0953		+/-0.102							
Yttrium-88	U	0.0182	U	-0.00738	pCi/g	0.368		(0-1)			
	TPU:	+/-0.0157		+/-0.0192							
QC1202005184	LCS										
Americium-241	15.9			13.9	pCi/g		87.6	(75%-125%)		01/07/10	10:59
	TPU:			+/-0.789							
Bismuth-211				1.83	pCi/g						
	TPU:			+/-0.349							
Bismuth-214				0.618	pCi/g						
	TPU:			+/-0.121							
Cadmium-109				33.6	pCi/g						
	TPU:			+/-2.22							
Cerium-139			U	0.0183	pCi/g						
	TPU:			+/-0.0231							
Cesium-134			U	0.0158	pCi/g						
	TPU:			+/-0.0494							
Cesium-137	5.57			5.43	pCi/g		97.4	(75%-125%)			
	TPU:			+/-0.198							
Cobalt-60	6.49			6.50	pCi/g		100	(75%-125%)			
	TPU:			+/-0.285							
Europium-152			U	0.0435	pCi/g						
	TPU:			+/-0.105							
Lanthanum-140			U	-0.0504	pCi/g						
	TPU:			+/-0.0379							

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QC Summary

Workorder: 243517

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Parmname	NOM	Sample Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec									
Batch	937069								
Lead-212			0.949	pCi/g					
	TPU:		+/-0.0855						
Lead-214			0.638	pCi/g					
	TPU:		+/-0.123						
Mercury-203		U	0.0224	pCi/g					
	TPU:		+/-0.0325						
Potassium-40		U	0.827	pCi/g					
	TPU:		+/-0.276						
Radium-223		U	-0.506	pCi/g					
	TPU:		+/-0.626						
Radium-224			2.66	pCi/g					
	TPU:		+/-0.763						
Radium-226			0.618	pCi/g					
	TPU:		+/-0.121						
Radium-228			0.987	pCi/g					
	TPU:		+/-0.263						
Ruthenium-106		U	-0.182	pCi/g					
	TPU:		+/-0.317						
Sodium-22		U	0.0383	pCi/g					
	TPU:		+/-0.0307						
Strontium-85		U	-0.117	pCi/g					
	TPU:		+/-0.0405						
Thallium-208			0.206	pCi/g					
	TPU:		+/-0.0847						
Thorium-227		U	-0.634	pCi/g					
	TPU:		+/-0.361						
Thorium-231		U	-0.506	pCi/g					
	TPU:		+/-0.626						
Thorium-234		U	-0.467	pCi/g					
	TPU:		+/-1.22						
Tin-113		U	-0.00823	pCi/g					
	TPU:		+/-0.0441						
Uranium-235		U	0.115	pCi/g					
	TPU:		+/-0.169						
Yttrium-88		U	-0.00164	pCi/g					
	TPU:		+/-0.0222						
QC1202005182	MB								
Americium-241		U	-0.0258	pCi/g					01/07/1009:31
	TPU:		+/-0.0199						
Bismuth-211		U	-0.109	pCi/g					
	TPU:		+/-0.0962						
Bismuth-214		U	-0.0661	pCi/g					
	TPU:		+/-0.0366						
Cadmium-109		U	0.0571	pCi/g					
	TPU:		+/-0.173						
Cerium-139		U	-0.0174	pCi/g					
	TPU:		+/-0.0104						
Cesium-134		U	-0.00315	pCi/g					
	TPU:		+/-0.0193						
Cesium-137		U	-0.0245	pCi/g					
	TPU:		+/-0.0164						

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QC Summary

Workorder: 243517

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Parname	NOM	Sample Qual	QC	Units	RER	REC %	Range	Anlst	Date Time
Rad Gamma Spec									
Batch	937069								
Cobalt-60		U	0.00331	pCi/g					
	TPU:		+/-0.0177						
Europium-152		U	-0.0469	pCi/g					
	TPU:		+/-0.0407						
Lanthanum-140		U	-0.0177	pCi/g					
	TPU:		+/-0.0278						
Lead-212		U	0.0518	pCi/g					
	TPU:		+/-0.030						
Lead-214		U	-0.0944	pCi/g					
	TPU:		+/-0.0356						
Mercury-203		U	0.0252	pCi/g					
	TPU:		+/-0.013						
Potassium-40		U	0.275	pCi/g					
	TPU:		+/-0.164						
Radium-223		U	-0.206	pCi/g					
	TPU:		+/-0.251						
Radium-224		U	0.0884	pCi/g					
	TPU:		+/-0.249						
Radium-226		U	-0.0661	pCi/g					
	TPU:		+/-0.0366						
Radium-228		U	0.0374	pCi/g					
	TPU:		+/-0.0699						
Ruthenium-106		U	-0.0932	pCi/g					
	TPU:		+/-0.144						
Sodium-22		U	-0.00491	pCi/g					
	TPU:		+/-0.0167						
Strontium-85		UI	0.0664	pCi/g					
	TPU:		+/-0.0175						
Thallium-208		U	0.00332	pCi/g					
	TPU:		+/-0.0193						
Thorium-227		U	-0.139	pCi/g					
	TPU:		+/-0.148						
Thorium-231		U	-0.206	pCi/g					
	TPU:		+/-0.251						
Thorium-234		U	0.193	pCi/g					
	TPU:		+/-0.374						
Tin-113		U	0.0017	pCi/g					
	TPU:		+/-0.0174						
Uranium-235		U	0.0665	pCi/g					
	TPU:		+/-0.078						
Yttrium-88		U	-0.0121	pCi/g					
	TPU:		+/-0.014						

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

GEL LABORATORIES LLC

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QC Summary

Workorder: 243517

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Parname	NOM	Sample Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
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	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 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.

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, Rev 9

Batch#

930978

Product:

Am

Date:

1/7/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 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 bug 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.			N/A
Smears Taken for Radioactive batches.	✓		
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.			MA
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 non-conformances completed, if applicable.			MA
Batch non-conformances second reviewed and disposition verified to be completed.			MA
Aliquot Correction completed if required.			MA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By:

Denise Green 1/7/10

Secondary Review Performed By:

Z. [Signature] 1/7/10

1/14

LANC

P

Am/Cm Que Sheet

29-DEC-09

Batch #: 936978 Analyst: MXA1 First Client Due Date: 14-JAN-10 Internal Due Date: 04-JAN-10 Comments:
 Tracer(s): Am241/Cm244 Tracer Code: 445-96-2-SS Expiration Date: 5/11/10 Vol: 0.1mL
 LCS Isotope(s): Am241/Cm244 LCS Code(s): 0244-0 Expiration Date: 4/30/20 Vol(s): 0.105g
 Spike Isotope(s): Am241/Cm244 Spike Code(s): --- Expiration Date: --- Vol(s): ---
 Prep Date: 1/4/10 Initials: CM Pipet ID: 2931068 Balance ID: 50410272 Witness: ME 1/4/10

Sample ID	Client Description	Type	Hazard	Min	Code	CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry	Allquot	Am/Cm	Det #
243517003-1	RE12-10-7557	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	1	1	1.253			245
243517004-1	RE12-10-7558	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	2	2	1.268			241
243517005-1	RE12-10-7555	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	3	3	1.263			242
243517006-1	RE12-10-7556	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	4	4	1.254			248
243517007-1	RE12-10-7562	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	5	5	1.253			249
243517008-1	RE12-10-7561	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	6	6	1.259			201
243517009-1	RE12-10-7563	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	7	7	1.254			210
243540001-1	RE16-10-1101	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	8	8	1.273			71
243540002-1	RE16-10-1103	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	9	9	1.254			72
243540003-1	RE16-10-1105	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	10	10	1.271			73
243546001-1	RE16-10-1031	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	11	11	1.267			74
243546002-1	RE16-10-1027	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	12	12	1.272			76
243546003-1	RE16-10-1029	SAMPLE				.05 pCi/g	SOIL	LANL010	21-DEC-09	13	13	1.257			13
1202004936-1	MB for batch 936978	MB				.05 pCi/g	SOIL	QC ACCOUNT		14	14	1			14
1202004937-1	RE16-10-1029(243546003DUP)	DUP				.05 pCi/g	SOIL	QC ACCOUNT	21-DEC-09	15	15	1.253			16
1202004938-1	LCS for batch 936978	LCS				.05 pCi/g	SOIL	QC ACCOUNT		16	16	0.105			17

Choose SOP Used: GL-RAD-A-011
GL-RAD-A-036

Solid Sample Dissolution by: LEACH OF DIGESTION
 Circle One

Data Reviewed By:

GEL Laboratories LLC, Radiochemistry Division

Page 1 of 1

Blank Correction Report

Batch ID 936978

GEL Sample ID	Client sample ID	Parameter	Allquot	Result	TPU	MDA	Allquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202004937	DUP	Americium-241	1.25 g	0.00907	0.00681	0.0206	-.004368	pCi/g	NO
1202004938	LCS	Americium-241	0.105 g	35.6	2.53	0.266	-.052	pCi/g	NO
1202004936	MB	Americium-241	1.00 g	-0.00546	0.0106	0.027	-.00546	pCi/g	NO
243517003	RE12-10-7557	Americium-241	1.25 g	0.00432	0.00212	0.0174	-.004368	pCi/g	NO
243517004	RE12-10-7558	Americium-241	1.27 g	0.000262	0.00155	0.0175	-.00429921	pCi/g	NO
243517005	RE12-10-7555	Americium-241	1.26 g	0.000379	0.0011	0.0186	-.00433333	pCi/g	NO
243517006	RE12-10-7556	Americium-241	1.25 g	-0.00391	0.00181	0.0178	-.004368	pCi/g	NO
243517007	RE12-10-7582	Americium-241	1.25 g	-0.000394	0.00143	0.0243	-.004368	pCi/g	NO
243517008	RE12-10-7561	Americium-241	1.26 g	0.00514	0.00246	0.0197	-.00433333	pCi/g	NO
243517009	RE12-10-7563	Americium-241	1.25 g	0.00205	0.00163	0.0219	-.004368	pCi/g	NO
243540001	RE16-10-1101	Americium-241	1.27 g	0.0112	0.00525	0.0201	-.00429921	pCi/g	NO
243540002	RE16-10-1103	Americium-241	1.25 g	0.0065	0.00709	0.0202	-.004368	pCi/g	NO
243540003	RE16-10-1105	Americium-241	1.27 g	0.0122	0.0042	0.0199	-.00429921	pCi/g	NO
243546001	RE16-10-1031	Americium-241	1.27 g	-0.000476	0.00315	0.0225	-.00429921	pCi/g	NO
243546002	RE16-10-1027	Americium-241	1.27 g	0.0144	0.00467	0.0212	-.00429921	pCi/g	NO
243546003	RE16-10-1029	Americium-241	1.26 g	0.0146	0.00588	0.020	-.00433333	pCi/g	NO

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936978
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517003_AM
SAMPLE QTY: 1.253 G

DETECTOR NUMBER :79438
AVERAGE %EFFICIENCY :38.2426
% YIELD : 91.830

COUNT DATE: 6-JAN-2010 22:15:03
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	LIB FILE : ENV_ALPHA_AM.N
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	BKG FILE : B245.CNF;66
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG DATE : 3-JAN-2010
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91660 dpm	EFF FILE : W245.CNF;25
		RESULTS : 2.67832 dpm	CAL DATE : 28-DEC-2009

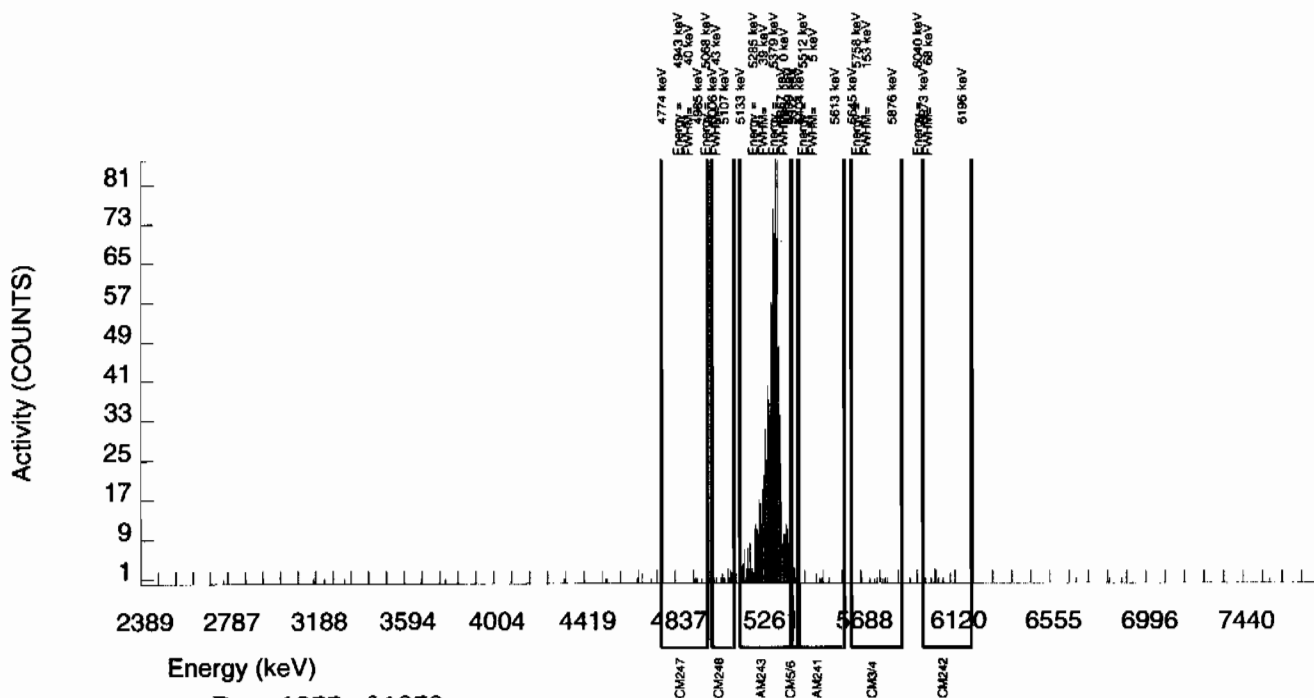
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	9.000	9.000	0.000	5.2338	100.0000	9.23E-03	3.12E-03	1.25E-02	2.77E-02	3.08E-03
CM-5/6	5386.000	16.000	16.000	0.000	19.8463	86.09000	1.90E-02	4.88E-03	5.49E-02	1.13E-01	4.76E-03
AM-241	5479.150	6.000	4.221	0.000	3.0704	99.94000	4.32E-03	2.12E-03	7.32E-03	1.74E-02	2.10E-03
CM-242	6102.000	10.000	10.000	0.000	4.3186	100.0000	1.10E-02	3.54E-03	1.03E-02	2.33E-02	3.48E-03
AM243	5270.000	1022.000	1022.000	0.000	0.0000	99.78000	1.05E+00	6.93E-02	0.00E+00	2.78E-03	3.28E-02
CM-247	4946.000	4.000	4.000	0.000	15.3366	79.30000	5.16E-03	2.60E-03	4.61E-02	9.56E-02	2.58E-03
CM-248	5078.600	15.000	15.000	0.000	22.1555	91.00000	1.69E-02	4.47E-03	5.80E-02	1.19E-01	4.36E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of AM243 calculated as sqrt(BKG AREA)

NOTE: Corrections made to AM-241 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936978
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517004_AM
SAMPLE QTY: 1.268 G

DETECTOR NUMBER :78912
AVERAGE %EFFICIENCY :37.7449
% YIELD : 91.311

COUNT DATE: 6-JAN-2010 22:15:04
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

TRACER
ID : 445-96-2-SS
ISOTOPE : AM243
NOMINAL : 2.91660 dpm
RESULTS : 2.66318 dpm

LIB FILE : ENV_ALPHA_AM.N
BKG FILE : B246.CNF;66
BKG DATE : 3-JAN-2010
EFF FILE : W246.CNF;26
CAL DATE : 28-DEC-2009

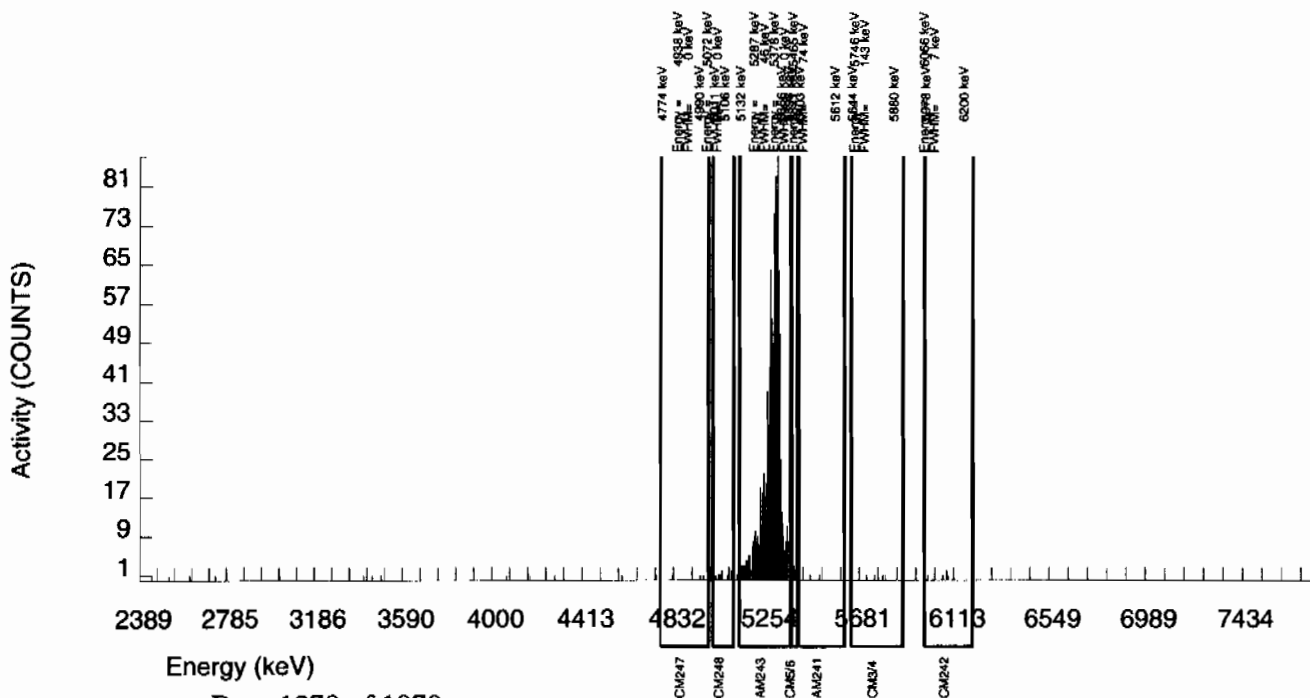
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	5.000	4.000	1.000	5.2338	100.0000	4.13E-03	2.54E-03	1.26E-02	2.79E-02	2.53E-03
CM-5/6	5386.000	19.000	19.000	0.000	19.8463	86.09000	2.27E-02	5.39E-03	5.53E-02	1.14E-01	5.22E-03
AM-241	5479.150	3.000	0.254	1.000	3.0704	99.94000	2.62E-04	1.55E-03	7.37E-03	1.75E-02	1.55E-03
CM-242	6102.000	6.000	6.000	0.000	4.3186	100.0000	6.66E-03	2.74E-03	1.04E-02	2.35E-02	2.72E-03
AM243	5270.000	1004.000	1003.000	1.000	1.0000	99.78000	1.04E+00	6.88E-02	2.40E-03	7.61E-03	3.27E-02
CM-247	4946.000	4.000	3.000	1.000	15.3366	79.30000	3.90E-03	2.92E-03	4.64E-02	9.63E-02	2.91E-03
CM-248	5078.600	14.000	14.000	0.000	22.1555	91.00000	1.59E-02	4.34E-03	5.84E-02	1.20E-01	4.24E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of AM243 calculated as sqrt(BKG AREA)

NOTE: Corrections made to AM-241 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936978
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517005_AM
SAMPLE QTY: 1.263 G

DETECTOR NUMBER :79440
AVERAGE %EFFICIENCY :37.2936
% YIELD : 87.533

COUNT DATE: 6-JAN-2010 22:15:07
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	LIB FILE : ENV_ALPHA_AM.N
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	BKG FILE : B247.CNF;66
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG DATE : 3-JAN-2010
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91660 dpm	EFF FILE : W247.CNF;25
		RESULTS : 2.55298 dpm	CAL DATE : 28-DEC-2009

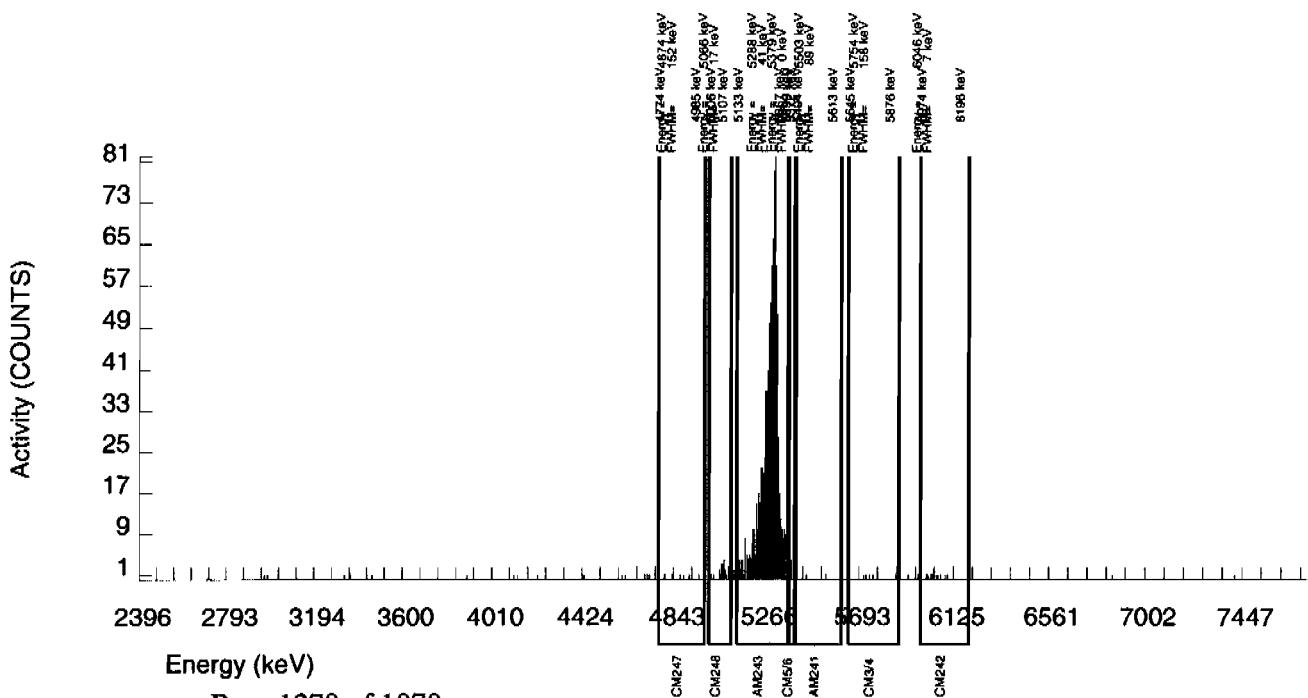
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	6.000	5.000	1.000	5.2338	100.0000	5.47E-03	2.91E-03	1.33E-02	2.96E-02	2.90E-03
CM-5/6	5386.000	15.000	15.000	0.000	19.8463	86.09000	1.90E-02	5.04E-03	5.86E-02	1.21E-01	4.92E-03
AM-241	5479.150	2.000	0.347	0.000	3.0704	99.94000	3.79E-04	1.10E-03	7.81E-03	1.86E-02	1.09E-03
CM-242	6102.000	12.000	12.000	0.000	4.3186	100.0000	1.41E-02	4.16E-03	1.10E-02	2.49E-02	4.07E-03
AM243	5270.000	950.000	950.000	0.000	0.0000	99.78000	1.04E+00	6.99E-02	0.00E+00	2.97E-03	3.37E-02
CM-247	4946.000	7.000	7.000	0.000	15.3366	79.30000	9.64E-03	3.69E-03	4.92E-02	1.02E-01	3.65E-03
CM-248	5078.600	21.000	21.000	0.000	22.1555	91.00000	2.52E-02	5.70E-03	6.19E-02	1.27E-01	5.50E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of AM243 calculated as sqrt(BKG AREA)

NOTE: Corrections made to AM-241 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936978
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517006_AM
SAMPLE QTY: 1.254 G

DETECTOR NUMBER :79441
AVERAGE %EFFICIENCY :39.1318
% YIELD : 87.724

COUNT DATE: 6-JAN-2010 22:15:10
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

TRACER
ID : 445-96-2-SS
ISOTOPE : AM243
NOMINAL : 2.91660 dpm
RESULTS : 2.55855 dpm

LIB FILE : ENV_ALPHA_AM.N
BKG FILE : B248.CNF;68
BKG DATE : 3-JAN-2010
EFF FILE : W248.CNF;25
CAL DATE : 28-DEC-2009

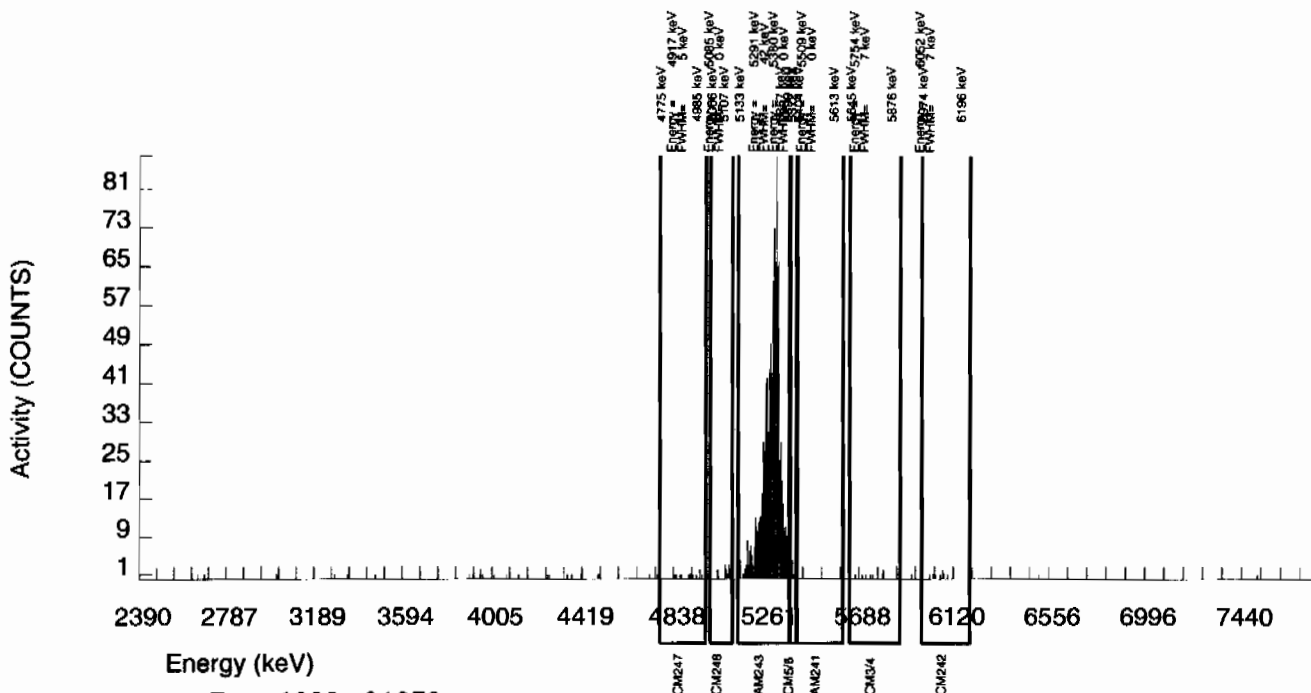
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	8.000	6.000	2.000	5.2338	100.0000	6.29E-03	3.34E-03	1.27E-02	2.83E-02	3.32E-03
CM-5/6	5386.000	24.000	23.000	1.000	19.8463	86.09000	2.80E-02	6.29E-03	5.61E-02	1.16E-01	6.08E-03
AM-241	5479.150	0.000	-3.739	2.000	3.0704	99.94000	-3.91E-03	1.81E-03	7.48E-03	1.78E-02	1.81E-03
CM-242	6102.000	9.000	9.000	0.000	4.3186	100.0000	1.01E-02	3.43E-03	1.05E-02	2.39E-02	3.38E-03
AM243	5270.000	999.000	999.000	0.000	0.0000	99.78000	1.05E+00	6.96E-02	0.00E+00	2.84E-03	3.31E-02
CM-247	4946.000	12.000	11.000	1.000	15.3366	79.30000	1.45E-02	4.83E-03	4.71E-02	9.77E-02	4.76E-03
CM-248	5078.600	19.000	17.000	2.000	22.1555	91.00000	1.95E-02	5.39E-03	5.93E-02	1.22E-01	5.27E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of AM243 calculated as sqrt(BKG AREA)

NOTE: Corrections made to AM-241 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936978
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517007_AM
SAMPLE QTY: 1.253 G

DETECTOR NUMBER : 79442
AVERAGE %EFFICIENCY : 38.7607
% YIELD : 64.982

COUNT DATE: 6-JAN-2010 22:15:13
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST : MXA1

MS/MSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

TRACER
ID : 445-96-2-SS
ISOTOPE : AM243
NOMINAL : 2.91660 dpm
RESULTS : 1.89526 dpm

LIB FILE : ENV_ALPHA_AM.N
BKG FILE : B249.CNF;66
BKG DATE : 3-JAN-2010
EFF FILE : W249.CNF;27
CAL DATE : 28-DEC-2009

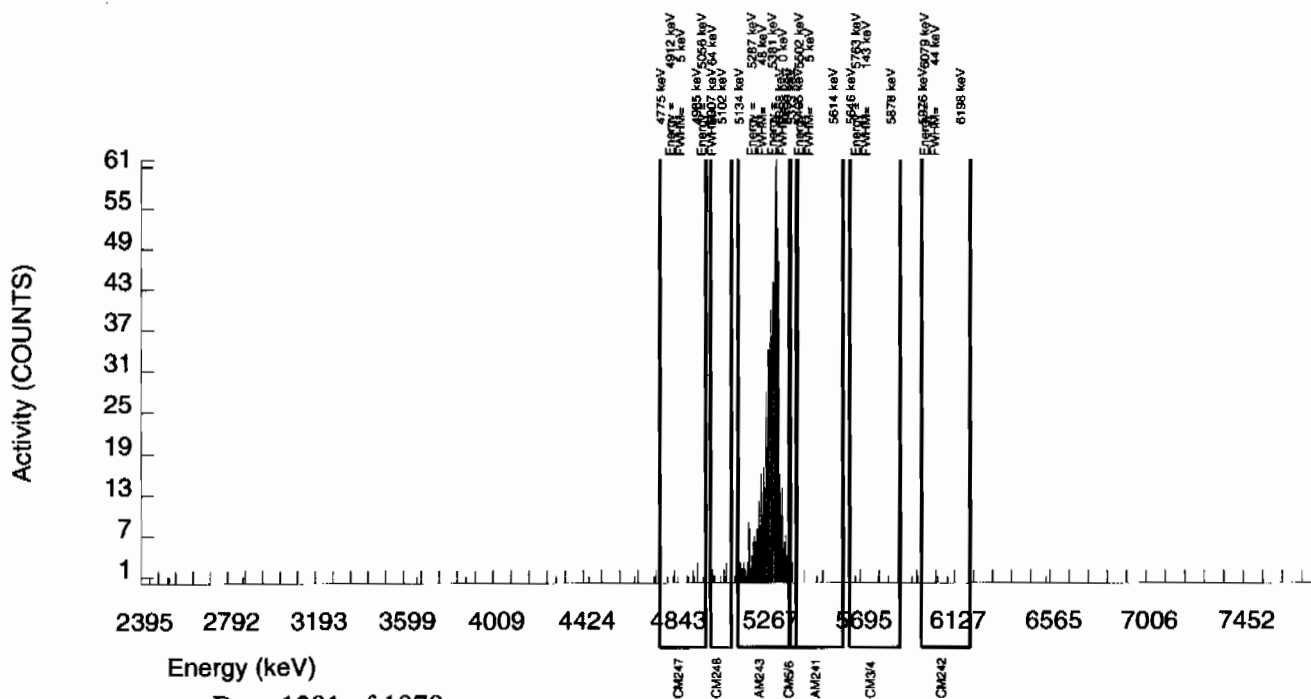
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	3.000	3.000	0.000	5.2338	100.0000	4.29E-03	2.49E-03	1.74E-02	3.86E-02	2.48E-03
CM-5/6	5386.000	19.000	19.000	0.000	19.8463	86.09000	3.15E-02	7.48E-03	7.65E-02	1.58E-01	7.23E-03
AM-241	5479.150	1.000	-0.276	0.000	3.0704	99.94000	-3.94E-04	1.43E-03	1.02E-02	2.43E-02	1.43E-03
CM-242	6102.000	2.000	1.000	1.000	4.3186	100.0000	1.54E-03	2.66E-03	1.43E-02	3.25E-02	2.66E-03
AM243	5270.000	733.000	733.000	0.000	0.0000	99.78000	1.05E+00	7.52E-02	0.00E+00	3.88E-03	3.87E-02
CM-247	4946.000	10.000	10.000	0.000	15.3366	79.30000	1.80E-02	5.80E-03	6.42E-02	1.33E-01	5.69E-03
CM-248	5078.600	12.000	10.000	2.000	22.1555	91.00000	1.57E-02	5.95E-03	8.08E-02	1.66E-01	5.87E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of AM243 calculated as sqrt(BKG AREA)

NOTE: Corrections made to AM-241 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936978
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517008_AM
SAMPLE QTY: 1.259 G

DETECTOR NUMBER :79188
AVERAGE %EFFICIENCY :36.4789
% YIELD : 84.683

COUNT DATE: 6-JAN-2010 18:16:18
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	LIB FILE : ENV_ALPHA_AM.N
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	BKG FILE : B209.CNF;67
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG DATE : 3-JAN-2010
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91660 dpm	EFF FILE : W209.CNF;27
		RESULTS : 2.46988 dpm	CAL DATE : 28-DEC-2009

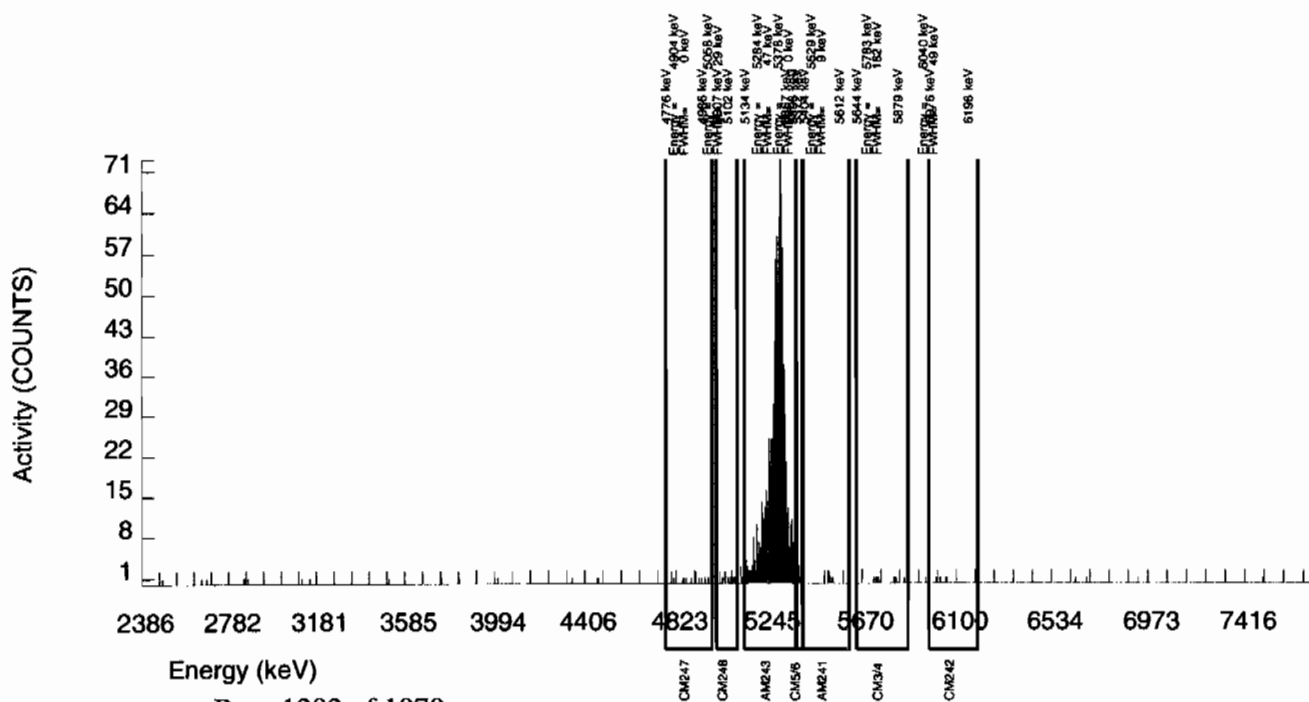
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	10.000	10.000	0.000	5.2338	100.0000	1.16E-02	3.73E-03	1.41E-02	3.13E-02	3.67E-03
CM-5/6	5386.000	19.000	19.000	0.000	19.8463	86.09000	2.56E-02	6.06E-03	6.21E-02	1.28E-01	5.86E-03
AM-241	5479.150	6.000	4.435	0.000	3.0704	99.94000	5.14E-03	2.46E-03	8.28E-03	1.97E-02	2.44E-03
CM-242	6102.000	5.000	5.000	0.000	4.3186	100.0000	6.23E-03	2.81E-03	1.16E-02	2.64E-02	2.79E-03
AM243	5270.000	899.000	899.000	0.000	0.0000	99.78000	1.04E+00	7.11E-02	0.00E+00	3.15E-03	3.48E-02
CM-247	4946.000	16.000	16.000	0.000	15.3366	79.30000	2.34E-02	6.00E-03	5.21E-02	1.08E-01	5.84E-03
CM-248	5078.600	16.000	16.000	0.000	22.1555	91.00000	2.04E-02	5.23E-03	6.56E-02	1.35E-01	5.09E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of AM243 calculated as sqrt(BKG AREA)

NOTE: Corrections made to AM-241 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936978
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517009_AM
SAMPLE QTY: 1.254 G

DETECTOR NUMBER :79189
AVERAGE %EFFICIENCY :38.1693
% YIELD : 72.921

COUNT DATE: 6-JAN-2010 18:16:20
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

TRACER
ID : 445-96-2-SS
ISOTOPE : AM243
NOMINAL : 2.91660 dpm
RESULTS : 2.12681 dpm

LIB FILE : ENV_ALPHA_AM.N
BKG FILE : B210.CNF;66
BKG DATE : 3-JAN-2010
EFF FILE : W210.CNF;25
CAL DATE : 28-DEC-2009

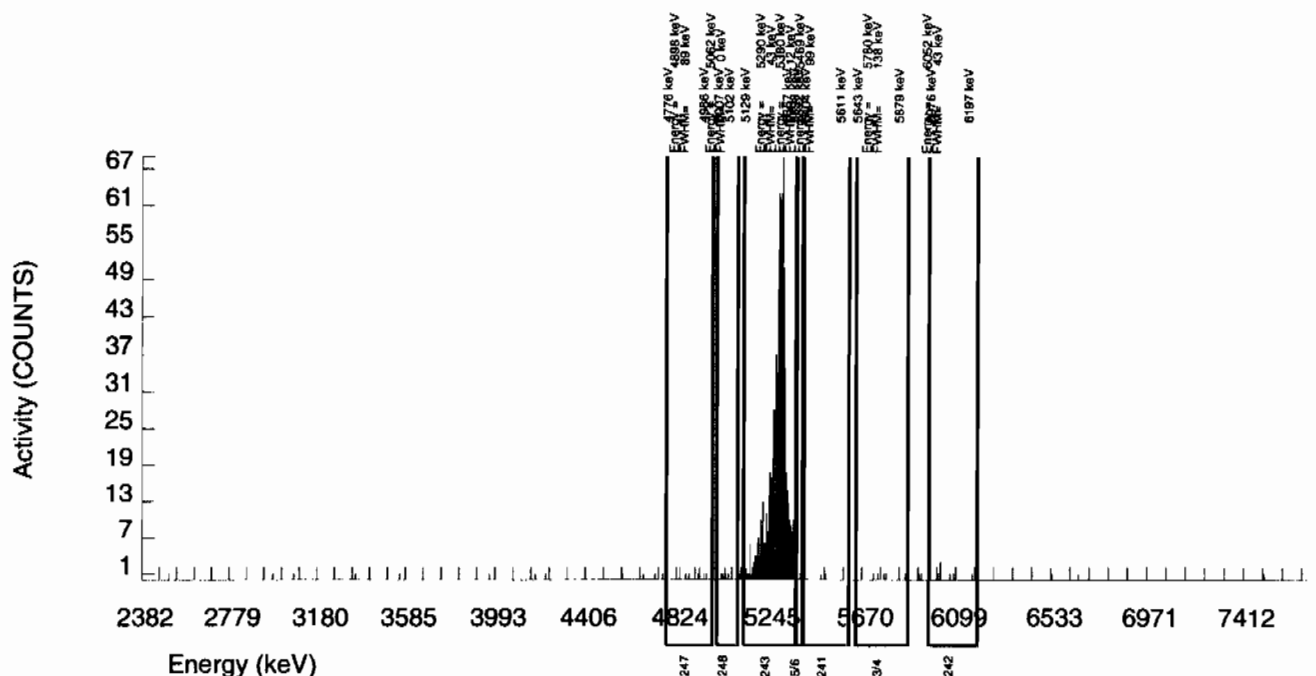
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	6.000	6.000	0.000	5.2338	100.0000	7.76E-03	3.20E-03	1.57E-02	3.49E-02	3.17E-03
CM-5/6	5386.000	11.000	11.000	0.000	19.8463	86.09000	1.65E-02	5.07E-03	6.92E-02	1.42E-01	4.97E-03
AM-241	5479.150	3.000	1.590	0.000	3.0704	99.94000	2.05E-03	1.63E-03	9.22E-03	2.19E-02	1.63E-03
CM-242	6102.000	9.000	9.000	0.000	4.3186	100.0000	1.25E-02	4.23E-03	1.30E-02	2.94E-02	4.16E-03
AM243	5270.000	810.000	810.000	0.000	0.0000	99.78000	1.05E+00	7.32E-02	0.00E+00	3.51E-03	3.68E-02
CM-247	4946.000	13.000	13.000	0.000	15.3366	79.30000	2.12E-02	6.01E-03	5.81E-02	1.21E-01	5.87E-03
CM-248	5078.600	8.000	8.000	0.000	22.1555	91.00000	1.13E-02	4.07E-03	7.31E-02	1.50E-01	4.01E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of AM243 calculated as sqrt(BKG AREA)

NOTE: Corrections made to AM-241 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936978
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243546003_AM
SAMPLE QTY: 1.257 G

DETECTOR NUMBER :78790
AVERAGE %EFFICIENCY :34.1503
% YIELD : 89.351

COUNT DATE: 6-JAN-2010 18:09:48
ELAPSED LIVE TIME(SEC): 59999.99
ANALYST :MXA1

MS/MSD ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	LCS/LCSD ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	TRACER ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.60601 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B013.CNF;1081 BKG DATE : 3-JAN-2010 EFF FILE : W013.CNF;326 CAL DATE : 4-JAN-2010
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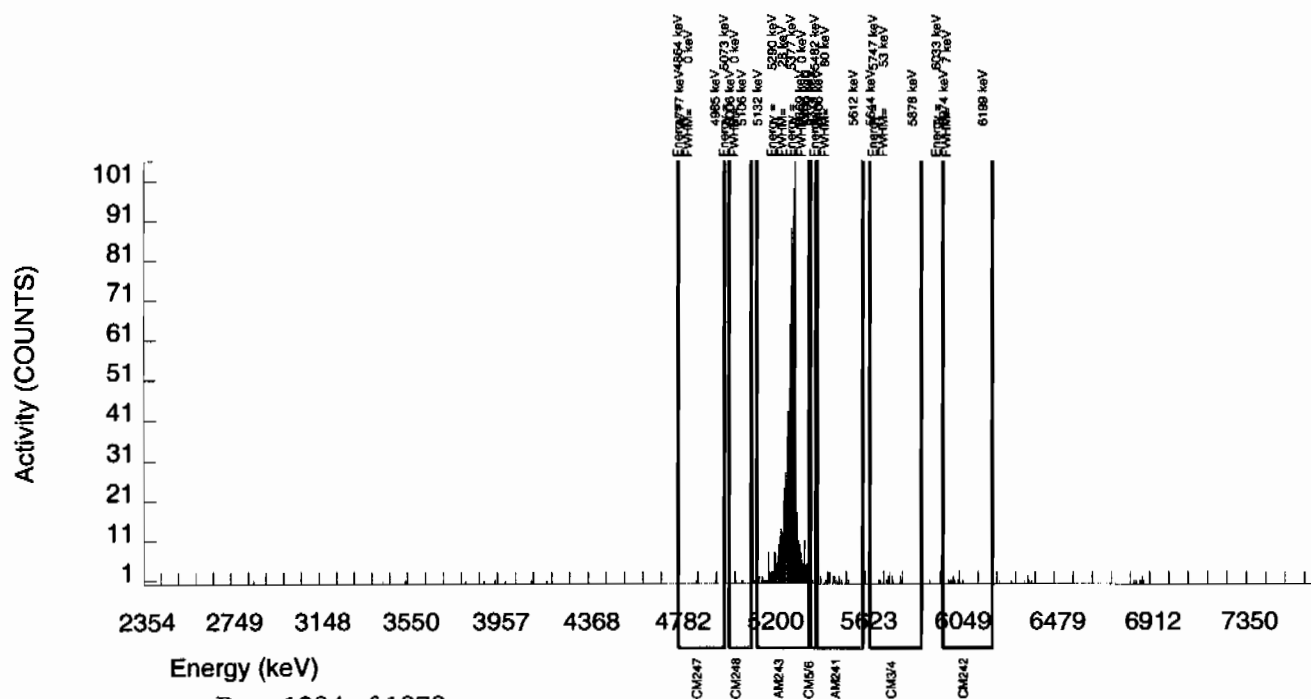
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	16.000	7.000	9.000	5.2338	100.0000	8.24E-03	5.90E-03	1.43E-02	3.18E-02	5.88E-03
CM-5/6	5386.000	8.000	7.000	1.000	19.8463	86.09000	9.55E-03	4.13E-03	6.30E-02	1.30E-01	4.09E-03
AM-241	5479.150	20.000	12.454	6.000	3.0704	99.94000	1.46E-02	5.88E-03	8.39E-03	2.00E-02	5.81E-03
CM-242	6102.000	7.000	4.000	3.000	4.3186	100.0000	5.05E-03	4.01E-03	1.18E-02	2.68E-02	3.99E-03
AM243	5270.000	889.000	888.000	1.000	1.0000	99.78000	1.05E+00	7.15E-02	2.74E-03	8.67E-03	3.51E-02
CM-247	4946.000	3.000	3.000	0.000	15.3366	79.30000	4.44E-03	2.58E-03	5.28E-02	1.10E-01	2.57E-03
CM-248	5078.600	4.000	3.000	1.000	22.1555	91.00000	3.87E-03	2.89E-03	6.65E-02	1.37E-01	2.89E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of AM243 calculated as sqrt(BKG AREA)

NOTE: Corrections made to AM-241 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936978
SAMPLE DATE : 4-JAN-2010 00:00:00.

SAMPLE ID : S1202004936_AM
SAMPLE QTY: 1.000 G

DETECTOR NUMBER :67616
AVERAGE %EFFICIENCY :31.1824
% YIELD : 91.023

COUNT DATE: 6-JAN-2010 18:09:48
ELAPSED LIVE TIME(SEC): 59999.99
ANALYST :MXA1

MS/MSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

TRACER
ID : 445-96-2-SS
ISOTOPE : AM243
NOMINAL : 2.91659 dpm
RESULTS : 2.65477 dpm

LIB FILE : ENV_ALPHA_AM.N
BKG FILE : B014.CNF;1082
BKG DATE : 3-JAN-2010
EFF FILE : W014.CNF;323
CAL DATE : 4-JAN-2010

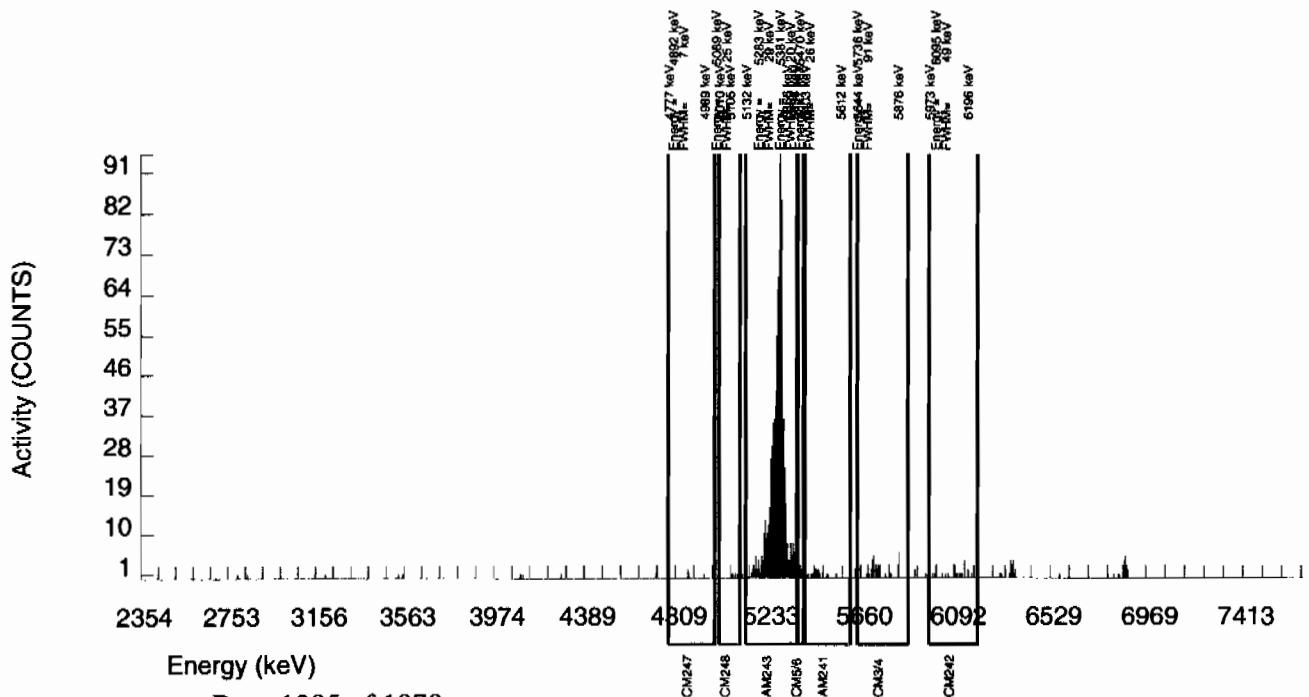
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	33.000	-5.000	38.000	5.2338	100.0000	-7.94E-03	1.34E-02	1.93E-02	4.29E-02	1.34E-02
CM-5/6	5386.000	12.000	8.000	4.000	19.8463	86.09000	1.47E-02	7.43E-03	8.51E-02	1.75E-01	7.37E-03
AM-241	5479.150	22.000	-3.438	24.000	3.0704	99.94000	-5.46E-03	1.06E-02	1.13E-02	2.70E-02	1.06E-02
CM-242	6102.000	22.000	13.000	9.000	4.3186	100.0000	2.09E-02	9.04E-03	1.59E-02	3.62E-02	8.95E-03
AM243	5270.000	833.000	826.000	7.000	2.6458	99.78000	1.31E+00	9.19E-02	9.79E-03	2.39E-02	4.61E-02
CM-247	4946.000	4.000	2.000	2.000	15.3366	79.30000	4.00E-03	4.91E-03	7.14E-02	1.48E-01	4.90E-03
CM-248	5078.600	3.000	-1.000	4.000	22.1555	91.00000	-1.74E-03	4.62E-03	8.99E-02	1.85E-01	4.61E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of AM243 calculated as sqrt(BKG AREA)

NOTE: Corrections made to AM-241 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936978
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S1202004937_AM
SAMPLE QTY: 1.253 G

DETECTOR NUMBER : 78774
AVERAGE %EFFICIENCY : 33.5958
% YIELD : 88.473

COUNT DATE: 6-JAN-2010 18:09:48
ELAPSED LIVE TIME(SEC): 59999.99
ANALYST : MXA1

MS/MSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

TRACER
ID : 445-96-2-SS
ISOTOPE : AM243
NOMINAL : 2.91660 dpm
RESULTS : 2.58041 dpm

LIB FILE : ENV_ALPHA_AM.N
BKG FILE : B016.CNF;1077
BKG DATE : 3-JAN-2010
EFF FILE : W016.CNF;309
CAL DATE : 4-JAN-2010

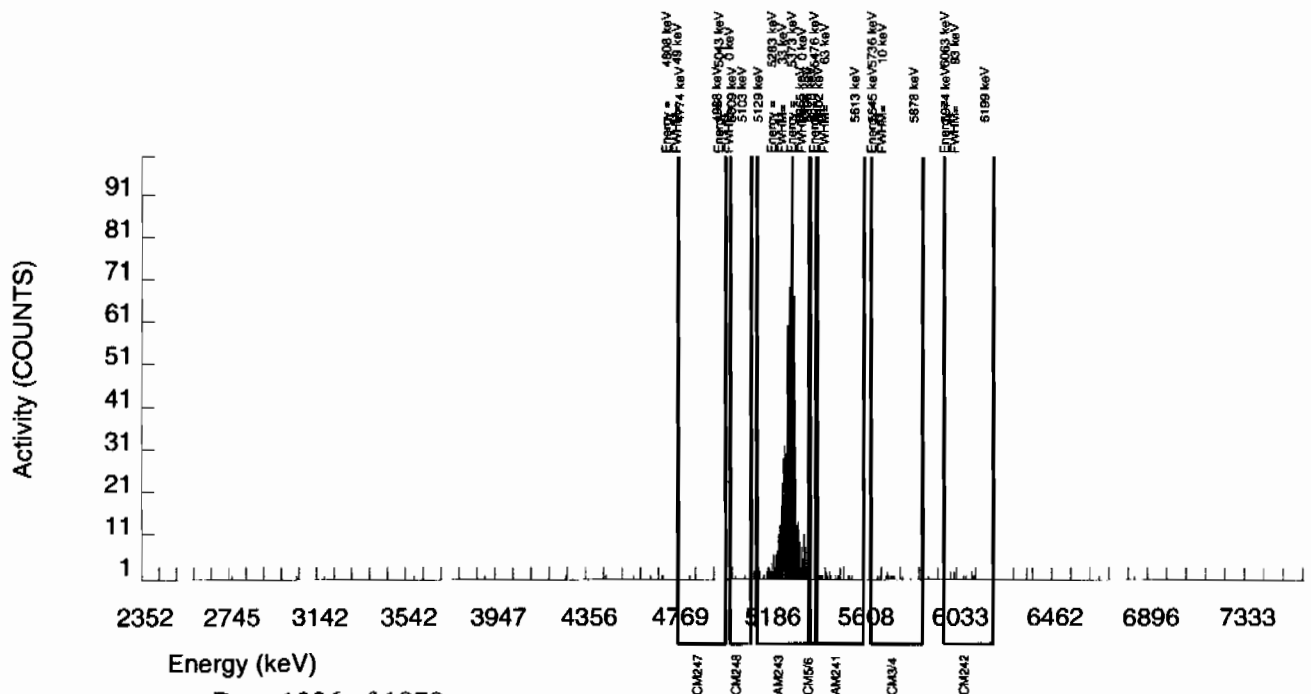
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	12.000	0.000	12.000	5.2338	100.0000	0.00E+00	5.94E-03	1.47E-02	3.27E-02	5.94E-03
CM-5/6	5386.000	7.000	5.000	2.000	19.8463	86.09000	7.02E-03	4.24E-03	6.49E-02	1.34E-01	4.21E-03
AM-241	5479.150	21.000	7.495	12.000	3.0704	99.94000	9.07E-03	6.81E-03	8.64E-03	2.06E-02	6.79E-03
CM-242	6102.000	9.000	6.000	3.000	4.3186	100.0000	7.80E-03	4.53E-03	1.22E-02	2.76E-02	4.51E-03
AM243	5270.000	866.000	865.000	1.000	1.0000	99.78000	1.05E+00	7.22E-02	2.82E-03	8.92E-03	3.57E-02
CM-247	4946.000	2.000	2.000	0.000	15.3366	79.30000	3.05E-03	2.16E-03	5.44E-02	1.13E-01	2.16E-03
CM-248	5078.600	3.000	3.000	0.000	22.1555	91.00000	3.99E-03	2.31E-03	6.85E-02	1.41E-01	2.30E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of AM243 calculated as sqrt(BKG AREA)

NOTE: Corrections made to AM-241 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936978
SAMPLE DATE : 4-JAN-2010 00:00:00.

SAMPLE ID : S1202004938_AM
SAMPLE QTY: 0.105 G

DETECTOR NUMBER :78791
AVERAGE %EFFICIENCY :28.2764
% YIELD : 96.854

COUNT DATE: 6-JAN-2010 18:09:48
ELAPSED LIVE TIME(SEC): 59999.99
ANALYST :MXA1

MS/MSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : AM-241
PCI/G : 3.316E+01

TRACER
ID : 445-96-2-SS
ISOTOPE : AM243
NOMINAL : 2.91659 dpm
RESULTS : 2.82482 dpm

LIB FILE : ENV_ALPHA_AM.N
BKG FILE : B017.CNF;1924
BKG DATE : 3-JAN-2010
EFF FILE : W017.CNF;1260
CAL DATE : 4-JAN-2010

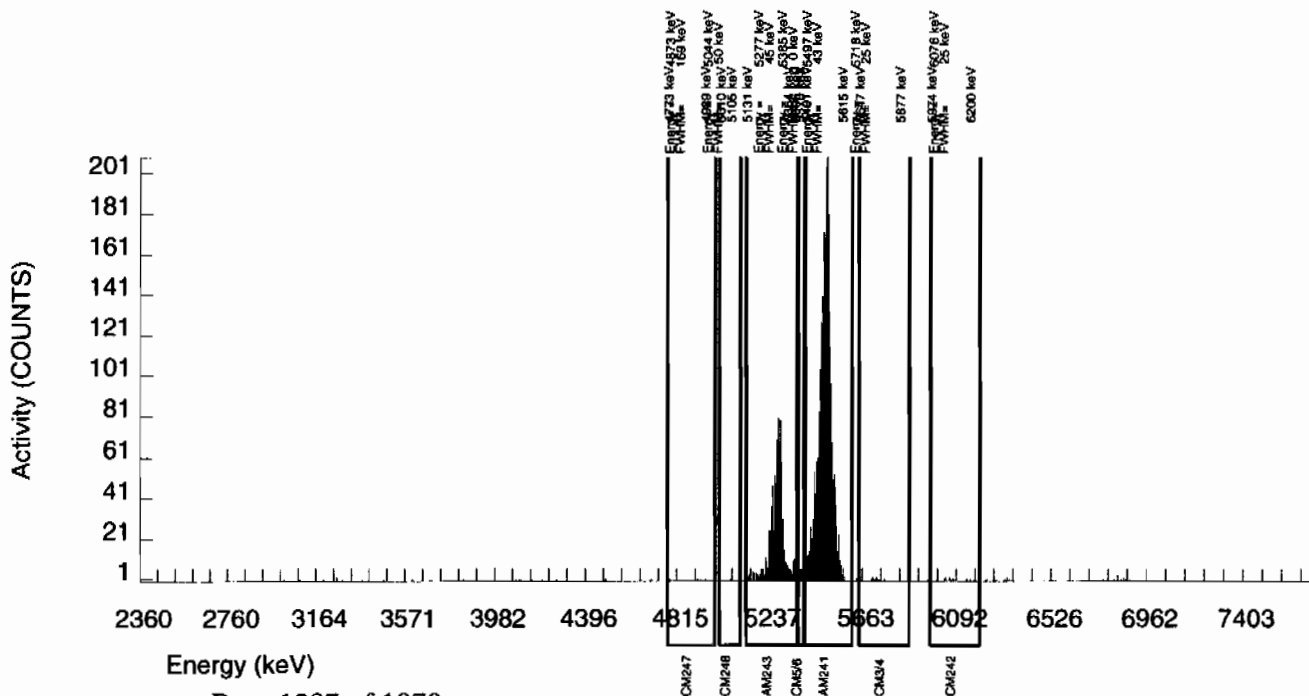
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	12.000	5.000	7.000	5.2338	100.0000	7.83E-02	6.85E-02	1.91E-01	4.24E-01	6.83E-02
CM-5/6	5386.000	29.000	28.000	1.000	19.8463	86.09000	5.09E-01	1.06E-01	8.40E-01	1.73E+00	9.97E-02
AM-241	5479.150	2281.000	2268.613	11.000	3.0704	99.94000	3.56E+01	2.53E+00	1.12E-01	2.66E-01	7.50E-01
CM-242	6102.000	11.000	10.000	1.000	4.3186	100.0000	1.59E-01	5.60E-02	1.57E-01	3.57E-01	5.50E-02
AM243	5270.000	798.000	797.000	1.000	1.0000	99.78000	1.25E+01	9.60E-01	3.65E-02	1.16E-01	4.44E-01
CM-247	4946.000	5.000	4.000	1.000	15.3366	79.30000	7.90E-02	4.87E-02	7.05E-01	1.46E+00	4.84E-02
CM-248	5078.600	2.000	1.000	1.000	22.1555	91.00000	1.72E-02	2.98E-02	8.87E-01	1.82E+00	2.98E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of AM243 calculated as sqrt(BKG AREA)

NOTE: Corrections made to AM-241 net area due to tracer impurity



Radiochemistry Batch Checklist, Rev 9

Batch# 936982 Product: PU Date: 1/11/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 mg for GAB.			NA
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.			NA
Smears Taken for Radioactive batches.			NA
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.			NA
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)			NA
Batch entered into Case Narrative.	/		
Batch non-conformances completed, if applicable.			NA
Batch non-conformances second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMF, results above MDC have been verified by historical results, recount or re-analysis.)	/		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [Signature] 1/11/10

Secondary Review Performed By: [Signature] 1/11/10

1/4 1/11/10
[Signature]

P

Plutonium Que Sheet

29-DEC-09

Batch #: 936982 Analyst: MXA1 First Client Due Date: 14-JAN-10 Internal Due Date: 04-JAN-10
Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1374-A Expiration Date: 12/8/10 Vol: 0.1 ml
LCS Isotope(s): Pu-239/Pu-238 LCS Code: 0244-B Expiration Date: 4/30/20 Vol: 0.105g
Spike Isotope(s): Pu-239/Pu-238 Spike Code: Expiration Date: Vol: 1/4/10
Prep Date: 1/4/10 Initials: CAA Pipet ID: 2971058 Balance ID: 50410272 Witness: WE 1/4/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry	Aliquot @/1/1	Pu Det #
243517003-1	RE12-10-7557	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	1	1	1,253		223
243517004-1	RE12-10-7558	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	2	2	1,268		224
243517005-1	RE12-10-7555	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	3	3	1,263		225
243517006-1	RE12-10-7556	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	4	4	1,254		226
243517007-1	RE12-10-7562	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	5	5	1,253		227
243517008-1	RE12-10-7561	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	6	6	1,259		228
243517009-1	RE12-10-7563	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	7	7	1,254		229
243540001-1	RE16-10-1101	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	8	8	1,273		230
243540002-1	RE16-10-1103	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	9	9	1,254	333	231
243540003-1	RE16-10-1105	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	10	10	1,271	334	232
243546001-1	RE16-10-1031	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	11	11	1,267		232
243546002-1	RE16-10-1027	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	12	12	1,272		234
243546003-1	RE16-10-1029	SAMPLE	.05 pCi/g		SOIL	LANL010	21-DEC-09	13	13	1,257		235
1202004939-1	MB for batch 936982	MB	.05 pCi/g		SOIL	QC ACCOUNT	21-DEC-09	14	14	1.00		236
1202004940-1	RE16-10-1029(243546003DUP)	DUP	.05 pCi/g		SOIL	QC ACCOUNT	21-DEC-09	15	15	1,253		237
1202004941-1	LCS for batch 936982	LCS	.05 pCi/g		SOIL	QC ACCOUNT	21-DEC-09	16	16	0.105		238

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: [Signature]

Blank Correction Report

Batch ID 936982

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202004940	DUP	Plutonium-238	1.25 g	0.00712	0.00293	0.0196	0	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0439	0.00826	0.0224	.001056	pCi/g	NO
1202004941	LCS	Plutonium-238	0.105 g	6.88	0.490	0.198	0	pCi/g	NO
		Plutonium-239/240	0.105 g	36.3	2.20	0.227	.012571429	pCi/g	NO
1202004939	MB	Plutonium-238	1.00 g	0.00	0.00132	0.0218	0	pCi/g	NO
		Plutonium-239/240	1.00 g	0.00132	0.00228	0.0249	.00132	pCi/g	YES
243517003	RE12-10-7557	Plutonium-238	1.25 g	0.00107	0.00107	0.0176	0	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0117	0.00359	0.0202	.001056	pCi/g	NO
243517004	RE12-10-7558	Plutonium-238	1.27 g	0.00109	0.00109	0.018	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00436	0.00268	0.0206	.001039370	pCi/g	YES
243517005	RE12-10-7555	Plutonium-238	1.26 g	0.00143	0.00143	0.0238	0	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00571	0.00287	0.027	.001047619	pCi/g	NO
243517006	RE12-10-7556	Plutonium-238	1.25 g	0.000994	0.000995	0.0164	0	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00298	0.00173	0.0188	.001056	pCi/g	YES
243517007	RE12-10-7562	Plutonium-238	1.25 g	0.00	0.00115	0.0189	0	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00	0.00115	0.0216	.001056	pCi/g	YES
243517008	RE12-10-7561	Plutonium-238	1.26 g	0.00	0.00113	0.0186	0	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00676	0.00321	0.0213	.001047619	pCi/g	NO
243517009	RE12-10-7563	Plutonium-238	1.25 g	0.00	0.00109	0.0179	0	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00326	0.00243	0.0205	.001056	pCi/g	YES
243540001	RE16-10-1101	Plutonium-238	1.27 g	0.00	0.00117	0.0193	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00467	0.00287	0.0221	.001039370	pCi/g	YES
243540002	RE16-10-1103	Plutonium-238	1.25 g	0.00749	0.00729	0.0206	0	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0175	0.00592	0.0236	.001056	pCi/g	NO
243540003	RE16-10-1105	Plutonium-238	1.27 g	0.00344	0.00444	0.0189	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0332	0.00698	0.0216	.001039370	pCi/g	NO
243546001	RE16-10-1031	Plutonium-238	1.27 g	0.00	0.00102	0.0169	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0174	0.0043	0.0193	.001039370	pCi/g	NO
243546002	RE16-10-1027	Plutonium-238	1.27 g	0.00311	0.0022	0.0256	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0279	0.00675	0.0293	.001039370	pCi/g	NO
243546003	RE16-10-1029	Plutonium-238	1.26 g	0.00636	0.00581	0.0175	0	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0328	0.00647	0.020	.001047619	pCi/g	NO

2011/11/12

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936982
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517003_PU
SAMPLE QTY: 1.253 G

DETECTOR NUMBER :79416
AVERAGE %EFFICIENCY :37.0261
% YIELD : 91.105

COUNT DATE: 5-JAN-2010 20:08:44
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

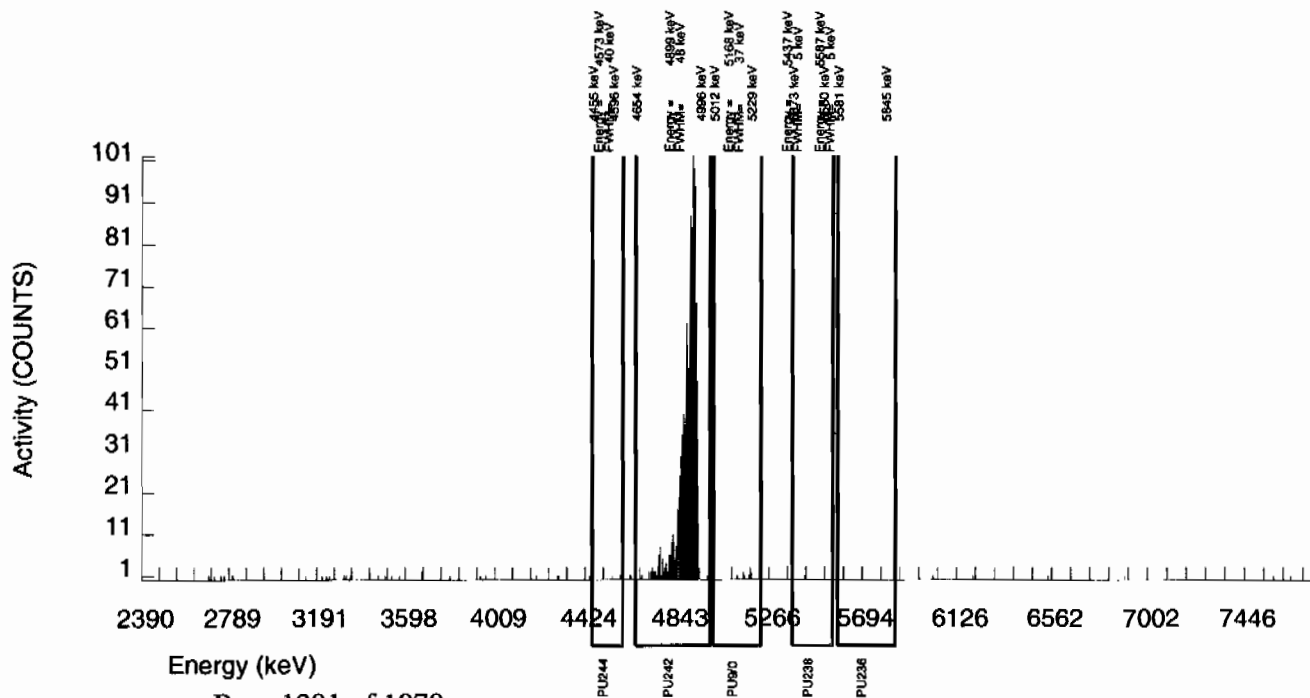
TRACER
ID : 1374-A
ISOTOPE : PU242
NOMINAL : 3.38543 dpm
RESULTS : 3.08431 dpm

LIB FILE : ENV_ALPHA_PU.N
BKG FILE : B223.CNF;68
BKG DATE : 3-JAN-2010
EFF FILE : W223.CNF;24
CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	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-9/0	5155.000	11.000	11.000	0.000	3.4797	99.90000	1.17E-02	3.59E-03	8.64E-03	2.02E-02	3.54E-03
PU-236	5749.000	1.000	1.000	0.000	2.1286	100.0000	1.08E-03	1.08E-03	5.28E-03	1.34E-02	1.08E-03
PU-238	5499.000	1.000	1.000	0.000	2.9680	99.90000	1.07E-03	1.07E-03	7.37E-03	1.76E-02	1.07E-03
PU242	4890.000	1142.000	1142.000	0.000	0.0000	100.0000	1.22E+00	7.01E-02	0.00E+00	2.89E-03	3.60E-02
PU-244	4589.000	2.000	1.000	1.000	5.2050	99.90000	1.07E-03	1.85E-03	1.29E-02	2.87E-02	1.85E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936982
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517004_PU
SAMPLE QTY: 1.268 G

DETECTOR NUMBER :79417
AVERAGE %EFFICIENCY :37.6848
% YIELD : 86.534

COUNT DATE: 5-JAN-2010 20:08:45
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

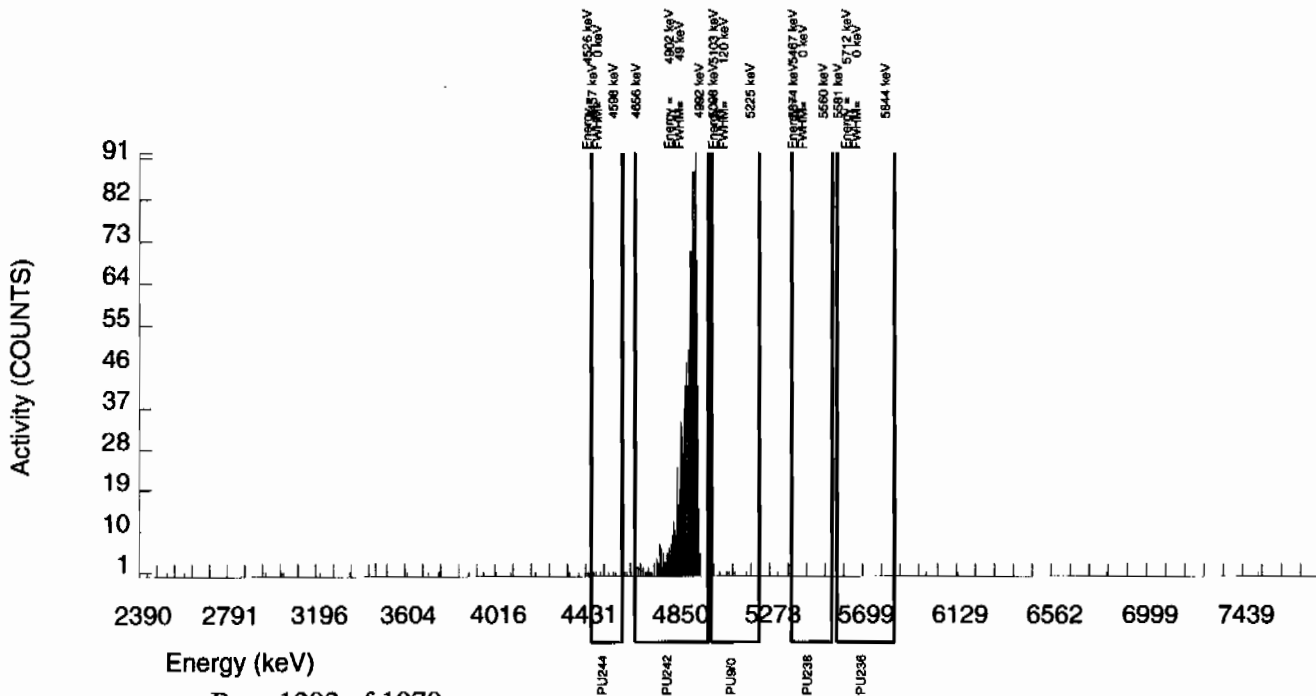
TRACER
ID : 1374-A
ISOTOPE : PU242
NOMINAL : 3.38543 dpm
RESULTS : 2.92956 dpm

LIB FILE : ENV_ALPHA_PU.N
BKG FILE : B224.CNF;66
BKG DATE : 3-JAN-2010
EFF FILE : W224.CNF;24
CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	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-9/0	5155.000	5.000	4.000	1.000	3.4797	99.90000	4.36E-03	2.68E-03	8.83E-03	2.06E-02	2.67E-03
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	1.10E-03	5.39E-03	1.37E-02	1.10E-03
PU-238	5499.000	1.000	1.000	0.000	2.9680	99.90000	1.09E-03	1.09E-03	7.53E-03	1.80E-02	1.09E-03
PU242	4890.000	1106.000	1104.000	2.000	1.4142	100.0000	1.20E+00	6.99E-02	3.58E-03	1.01E-02	3.63E-02
PU-244	4589.000	10.000	9.000	1.000	5.2050	99.90000	9.81E-03	3.65E-03	1.32E-02	2.94E-02	3.62E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936982
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517005_PU
SAMPLE QTY: 1.263 G

DETECTOR NUMBER :79418
AVERAGE %EFFICIENCY :39.4165
% YIELD : 63.398

COUNT DATE: 5-JAN-2010 20:08:48
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

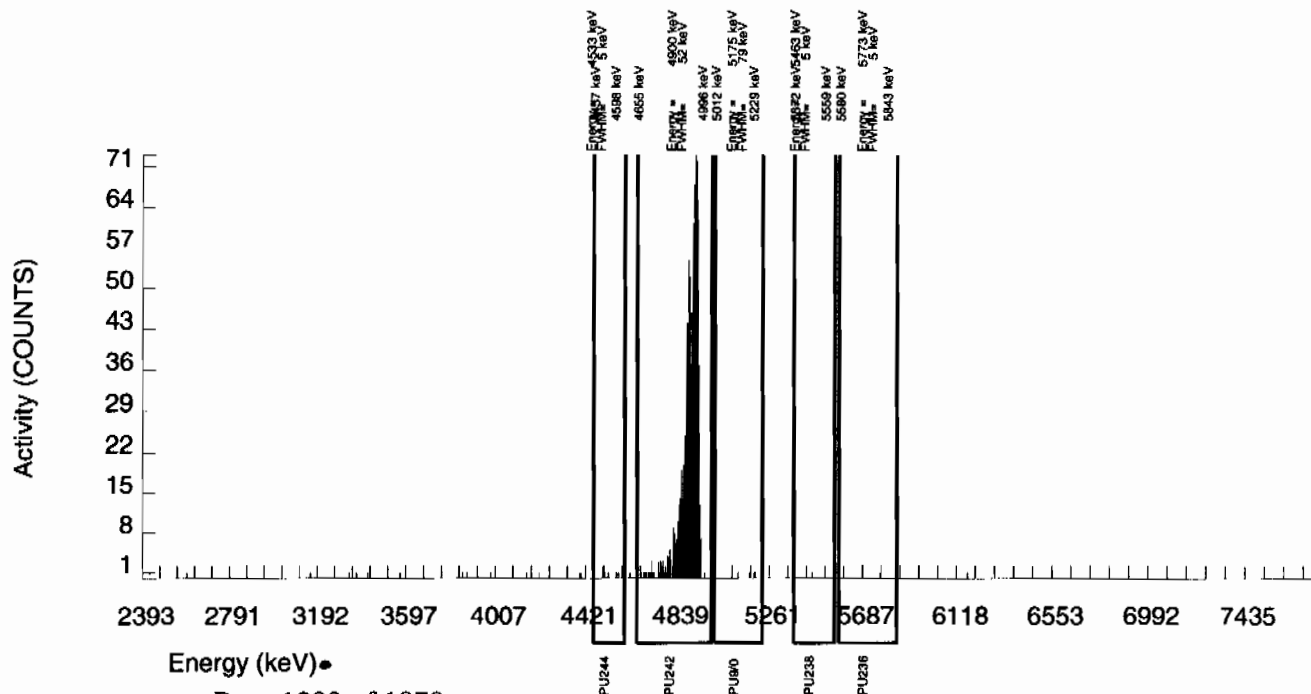
TRACER
ID : 1374-A
ISOTOPE : PU242
NOMINAL : 3.38543 dpm
RESULTS : 2.14631 dpm

LIB FILE : ENV_ALPHA_PU.N
BKG FILE : B225.CNF;66
BKG DATE : 3-JAN-2010
EFF FILE : W225.CNF;24
CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	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-9/0	5155.000	4.000	4.000	0.000	3.4797	99.90000	5.71E-03	2.87E-03	1.16E-02	2.70E-02	2.86E-03
PU-236	5749.000	1.000	1.000	0.000	2.1286	100.0000	1.44E-03	1.44E-03	7.07E-03	1.80E-02	1.44E-03
PU-238	5499.000	1.000	1.000	0.000	2.9680	99.90000	1.43E-03	1.43E-03	9.86E-03	2.36E-02	1.43E-03
PU242	4890.000	846.000	846.000	0.000	0.0000	100.0000	1.21E+00	7.57E-02	0.00E+00	3.87E-03	4.15E-02
PU-244	4589.000	6.000	6.000	0.000	5.2050	99.90000	8.57E-03	3.53E-03	1.73E-02	3.85E-02	3.50E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936982
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517006_PU
SAMPLE QTY: 1.254 G

DETECTOR NUMBER : 79419
AVERAGE %EFFICIENCY : 37.3342
% YIELD : 96.920

COUNT DATE: 5-JAN-2010 20:08:50
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST : MXA1

MS/MSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

TRACER
ID : 1374-A
ISOTOPE : PU242
NOMINAL : 3.38543 dpm
RESULTS : 3.28117 dpm

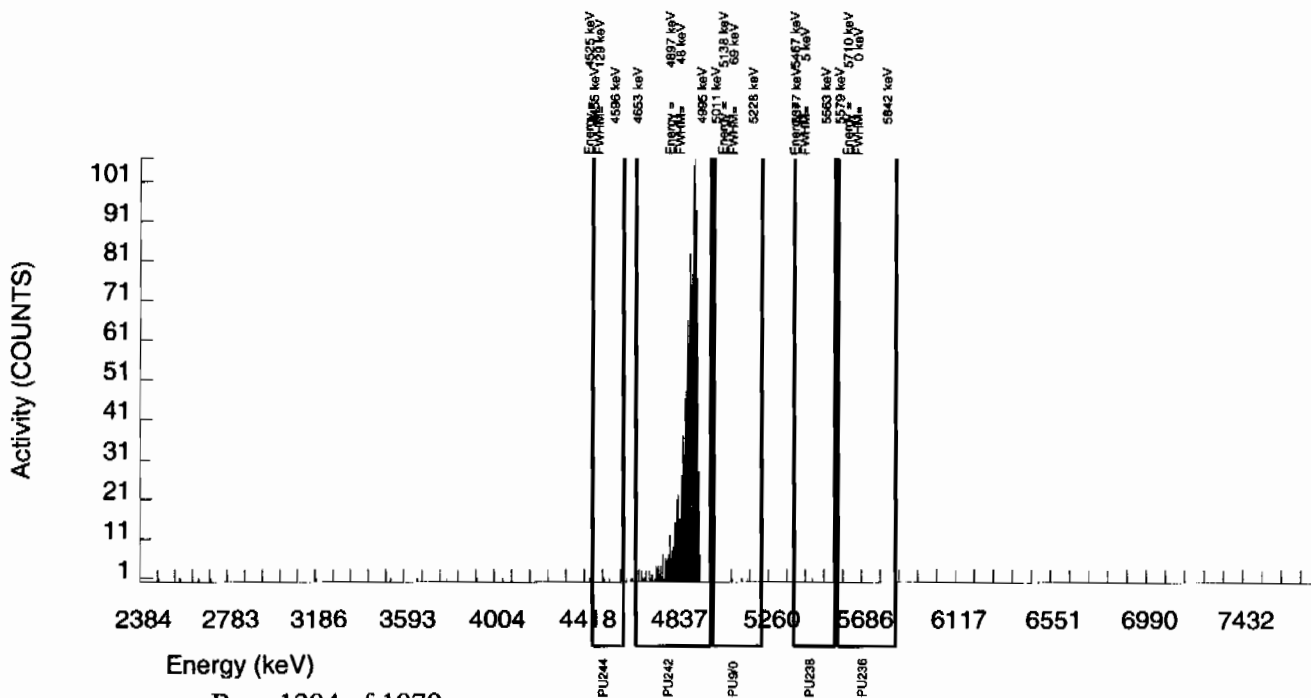
LIB FILE : ENV_ALPHA_PU.N
BKG FILE : B226.CNF;66
BKG DATE : 3-JAN-2010
EFF FILE : W226.CNF;24
CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	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-9/0	5155.000	3.000	3.000	0.000	3.4797	99.90000	2.98E-03	1.73E-03	8.04E-03	1.88E-02	1.72E-03
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	1.00E-03	4.92E-03	1.25E-02	1.00E-03
PU-238	5499.000	1.000	1.000	0.000	2.9680	99.90000	9.94E-04	9.95E-04	6.86E-03	1.64E-02	9.94E-04
PU242	4890.000	1227.000	1225.000	2.000	1.4142	100.0000	1.22E+00	6.88E-02	3.27E-03	9.22E-03	3.48E-02
PU-244	4589.000	4.000	4.000	0.000	5.2050	99.90000	3.97E-03	2.00E-03	1.20E-02	2.68E-02	1.99E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of PU242 calculated as sqrt(BKG AREA)



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936982
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517007_PU
SAMPLE QTY: 1.253 G

DETECTOR NUMBER :79420
AVERAGE %EFFICIENCY :38.4824
% YIELD : 81.747

COUNT DATE: 5-JAN-2010 20:08:53
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

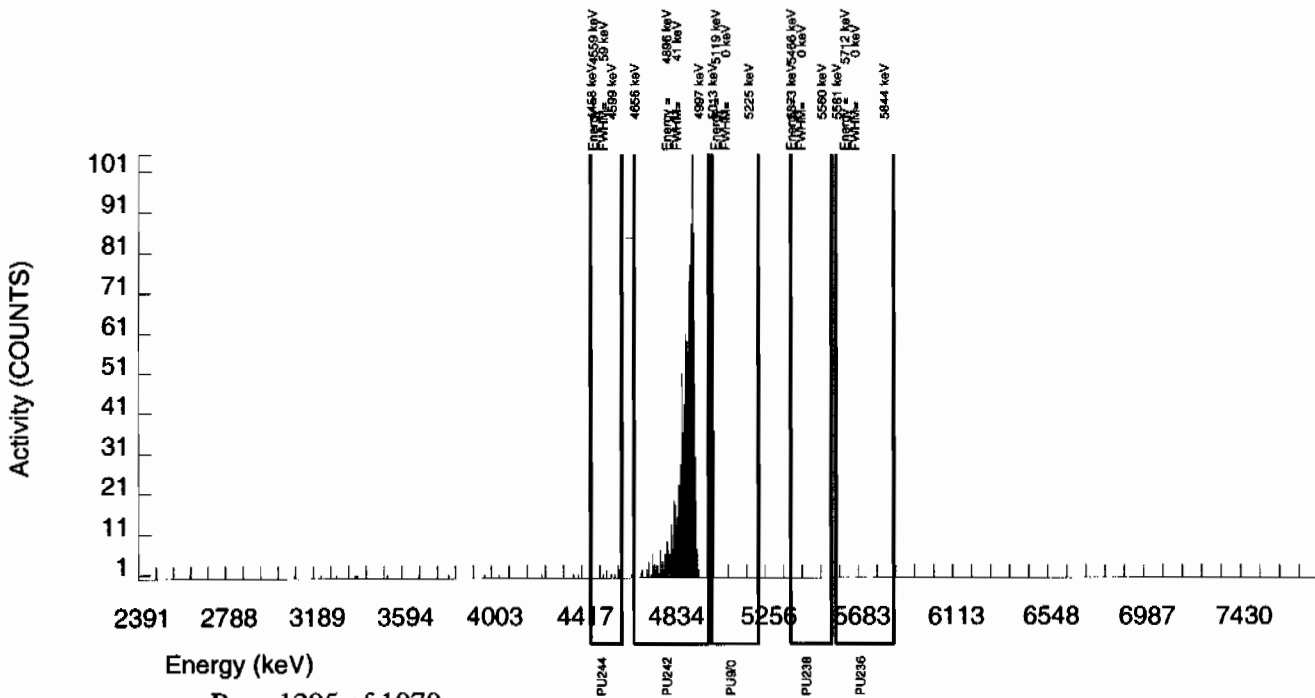
TRACER
ID : 1374-A
ISOTOPE : PU242
NOMINAL : 3.38543 dpm
RESULTS : 2.76750 dpm

LIB FILE : ENV_ALPHA_PU.N
BKG FILE : B227.CNF;66
BKG DATE : 3-JAN-2010
EFF FILE : W227.CNF;24
CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	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-9/0	5155.000	0.000	0.000	0.000	3.4797	99.90000	0.00E+00	1.15E-03	9.26E-03	2.16E-02	1.14E-03
PU-236	5749.000	0.000	-1.000	1.000	2.1286	100.0000	-1.16E-03	1.63E-03	5.66E-03	1.44E-02	1.63E-03
PU-238	5499.000	0.000	0.000	0.000	2.9680	99.90000	0.00E+00	1.15E-03	7.90E-03	1.89E-02	1.14E-03
PU242	4890.000	1065.000	1065.000	0.000	0.0000	100.0000	1.22E+00	7.14E-02	0.00E+00	3.10E-03	3.73E-02
PU-244	4589.000	7.000	6.000	1.000	5.2050	99.90000	6.86E-03	3.25E-03	1.39E-02	3.08E-02	3.24E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936982
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517008_PU
SAMPLE QTY: 1.259 G

DETECTOR NUMBER : 79421
AVERAGE %EFFICIENCY : 36.8770
% YIELD : 86.187

COUNT DATE: 5-JAN-2010 20:08:55
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST : MXA1

MS/MSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

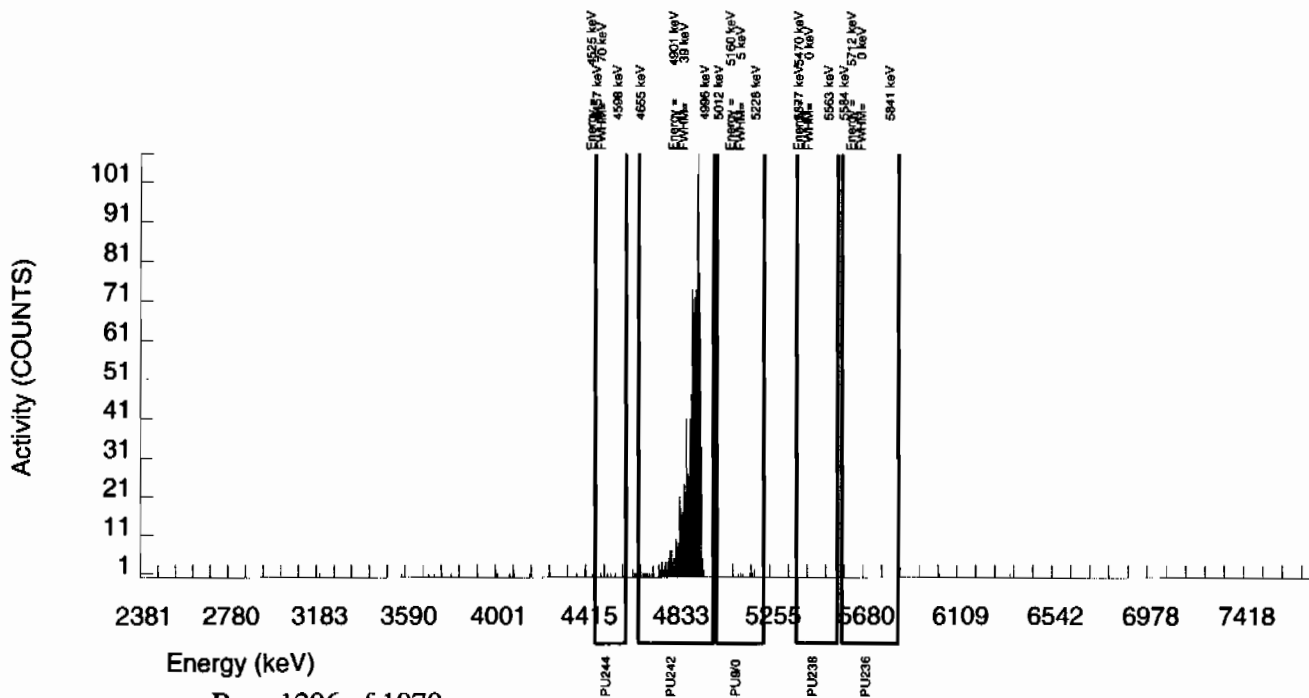
TRACER
ID : 1374-A
ISOTOPE : PU242
NOMINAL : 3.38543 dpm
RESULTS : 2.91781 dpm

LIB FILE : ENV_ALPHA_PU.N
BKG FILE : B228.CNF;66
BKG DATE : 3-JAN-2010
EFF FILE : W228.CNF;24
CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	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-9/0	5155.000	7.000	6.000	1.000	3.4797	99.90000	6.76E-03	3.20E-03	9.12E-03	2.13E-02	3.19E-03
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	1.14E-03	5.57E-03	1.42E-02	1.14E-03
PU-238	5499.000	0.000	0.000	0.000	2.9680	99.90000	0.00E+00	1.13E-03	7.78E-03	1.86E-02	1.13E-03
PU242	4890.000	1077.000	1076.000	1.000	1.0000	100.0000	1.21E+00	7.09E-02	2.62E-03	8.29E-03	3.70E-02
PU-244	4589.000	4.000	4.000	0.000	5.2050	99.90000	4.51E-03	2.26E-03	1.36E-02	3.03E-02	2.25E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936982
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517009_PU
SAMPLE QTY: 1.254 G

DETECTOR NUMBER : 79422
AVERAGE %EFFICIENCY : 37.2913
% YIELD : 88.794

COUNT DATE: 5-JAN-2010 20:08:58
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST : MXA1

MS/MSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

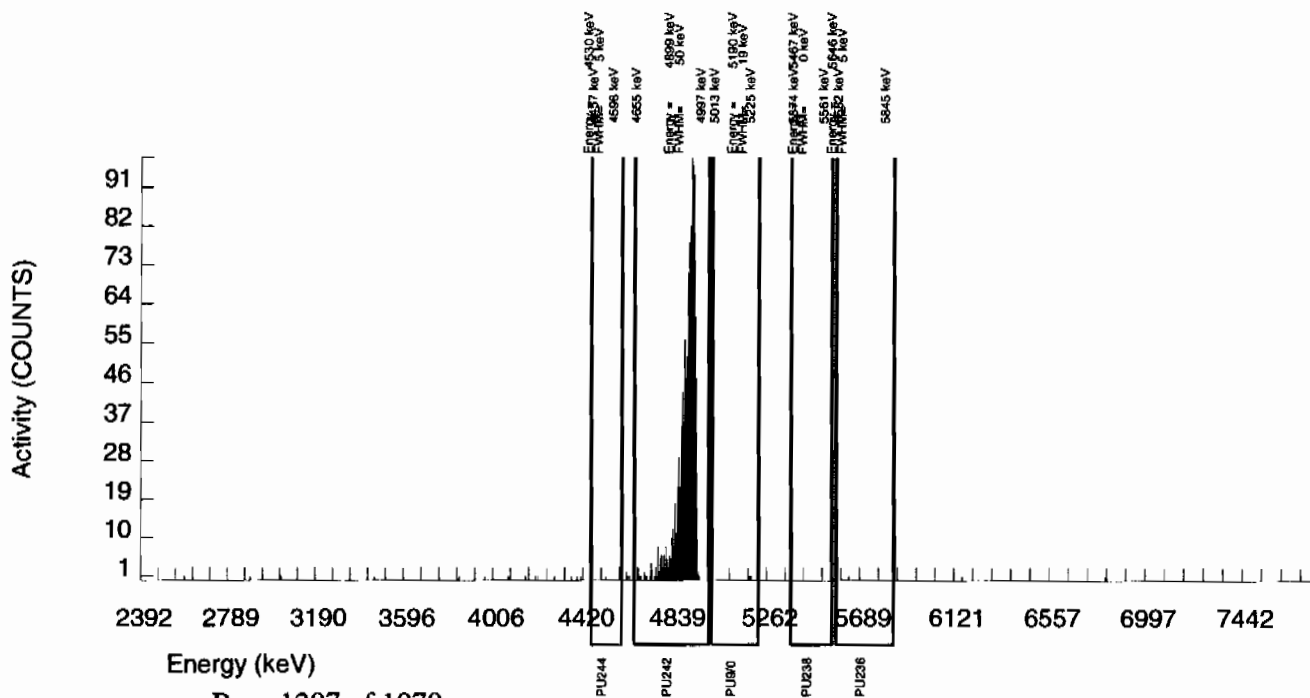
TRACER
ID : 1374-A
ISOTOPE : PU242
NOMINAL : 3.38543 dpm
RESULTS : 3.00606 dpm

LIB FILE : ENV_ALPHA_PU.N
BKG FILE : B229.CNF;66
BKG DATE : 3-JAN-2010
EFF FILE : W229.CNF;24
CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	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-9/0	5155.000	4.000	3.000	1.000	3.4797	99.90000	3.26E-03	2.43E-03	8.79E-03	2.05E-02	2.43E-03
PU-236	5749.000	1.000	1.000	0.000	2.1286	100.0000	1.10E-03	1.10E-03	5.37E-03	1.37E-02	1.10E-03
PU-238	5499.000	0.000	0.000	0.000	2.9680	99.90000	0.00E+00	1.09E-03	7.50E-03	1.79E-02	1.09E-03
PU242	4890.000	1122.000	1121.000	1.000	1.0000	100.0000	1.22E+00	7.04E-02	2.52E-03	7.99E-03	3.64E-02
PU-244	4589.000	1.000	1.000	0.000	5.2050	99.90000	1.09E-03	1.09E-03	1.31E-02	2.92E-02	1.09E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)



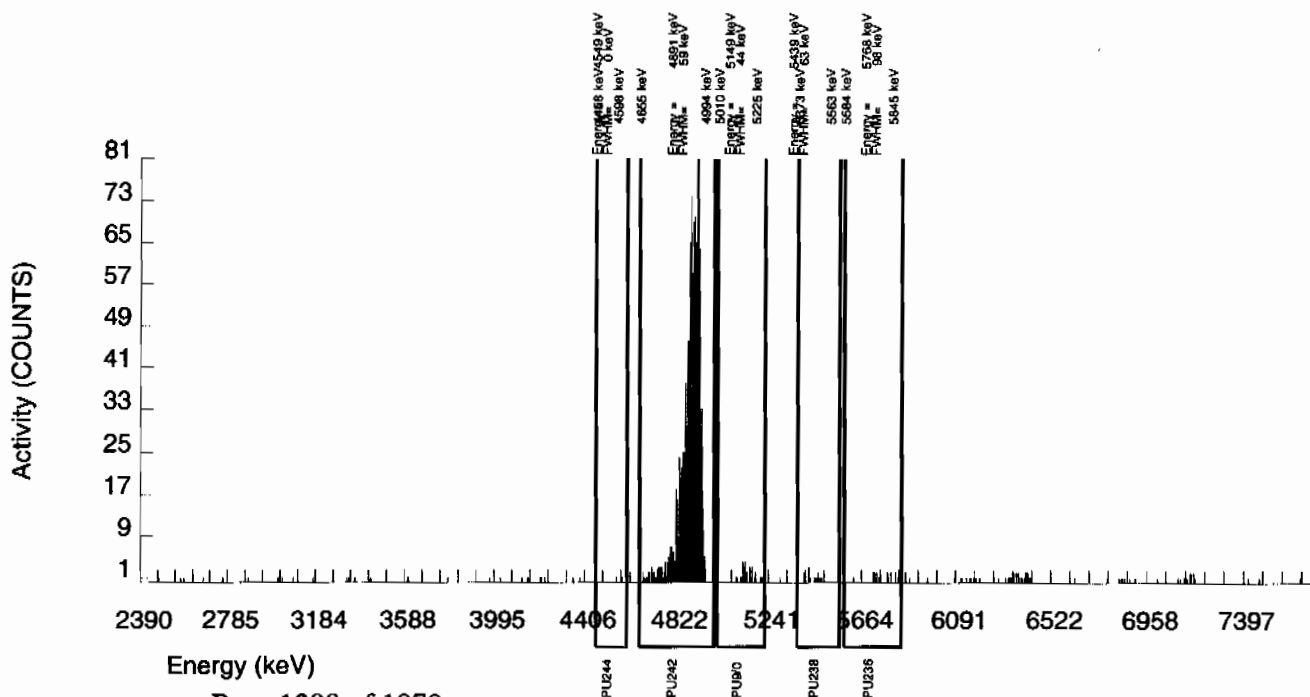
GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORTBATCH NUMBER: 936982
SAMPLE DATE : 21-DEC-2009 00:00:00SAMPLE ID : S0243546003_PU
SAMPLE QTY: 1.257 GDETECTOR NUMBER :45-149BB2
AVERAGE %EFFICIENCY :35.9356
% YIELD : 94.281COUNT DATE: 7-JAN-2010 09:28:01
ELAPSED LIVE TIME(SEC): 59999.99
ANALYST :MXA1MS/MSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01LCS/LCSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01TRACER
ID : 1374-A
ISOTOPE : PU242
NOMINAL : 3.38543 dpm
RESULTS : 3.19182 dpmLIB FILE : ENV_ALPHA_PU.N
BKG FILE : B039.CNF;1101
BKG DATE : 3-JAN-2010
EFF FILE : W039.CNF;296
CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	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-9/0	5155.000	33.000	31.000	2.000	3.4797	99.90000	3.28E-02	6.47E-03	8.57E-03	2.00E-02	6.26E-03
PU-236	5749.000	21.000	-5.000	26.000	2.1286	100.0000	-5.35E-03	7.34E-03	5.24E-03	1.33E-02	7.34E-03
PU-238	5499.000	17.000	6.000	11.000	2.9680	99.90000	6.35E-03	5.61E-03	7.31E-03	1.75E-02	5.60E-03
PU242	4890.000	1149.000	1147.000	2.000	1.4142	100.0000	1.21E+00	7.00E-02	3.48E-03	9.83E-03	3.59E-02
PU-244	4589.000	4.000	4.000	0.000	5.2050	99.90000	4.24E-03	2.13E-03	1.28E-02	2.85E-02	2.12E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of PU242 calculated as sqrt(BKG AREA)



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936982
SAMPLE DATE : 4-JAN-2010 00:00:00.

SAMPLE ID : S1202004939_PU
SAMPLE QTY: 1.000 G

DETECTOR NUMBER : 79429
AVERAGE %EFFICIENCY : 38.5832
% YIELD : 88.654

COUNT DATE: 5-JAN-2010 20:09:16
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST : MXA1

MS/MSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

TRACER
ID : 1374-A
ISOTOPE : PU242
NOMINAL : 3.38543 dpm
RESULTS : 3.00130 dpm

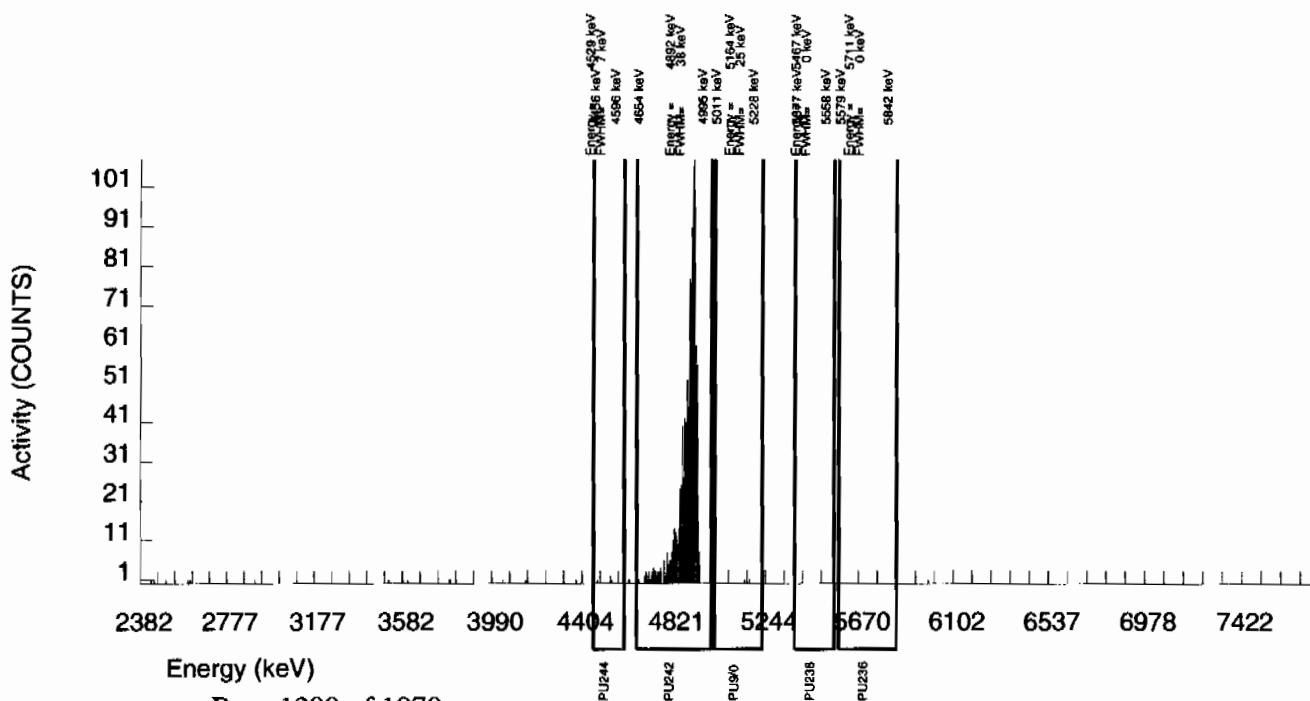
LIB FILE : ENV_ALPHA_PU.N
BKG FILE : B236.CNF;66
BKG DATE : 3-JAN-2010
EFF FILE : W236.CNF;24
CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	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-9/0	5155.000	2.000	1.000	1.000	3.4797	99.90000	1.32E-03	2.28E-03	1.07E-02	2.49E-02	2.28E-03
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	1.32E-03	6.52E-03	1.66E-02	1.32E-03
PU-238	5499.000	0.000	0.000	0.000	2.9680	99.90000	0.00E+00	1.32E-03	9.10E-03	2.18E-02	1.32E-03
PU242	4890.000	1159.000	1158.000	1.000	1.0000	100.0000	1.52E+00	8.76E-02	3.06E-03	9.70E-03	4.49E-02
PU-244	4589.000	6.000	6.000	0.000	5.2050	99.90000	7.91E-03	3.25E-03	1.60E-02	3.55E-02	3.23E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of PU242 calculated as sqrt(BKG AREA)



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936982
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S1202004940_PU
SAMPLE QTY: 1.253 G

DETECTOR NUMBER :78773
AVERAGE %EFFICIENCY :32.1969
% YIELD : 94.220

COUNT DATE: 7-JAN-2010 09:28:01
ELAPSED LIVE TIME(SEC): 59999.99
ANALYST :MXA1

MS/MSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

TRACER
ID : 1374-A
ISOTOPE : PU242
NOMINAL : 3.38543 dpm
RESULTS : 3.18975 dpm

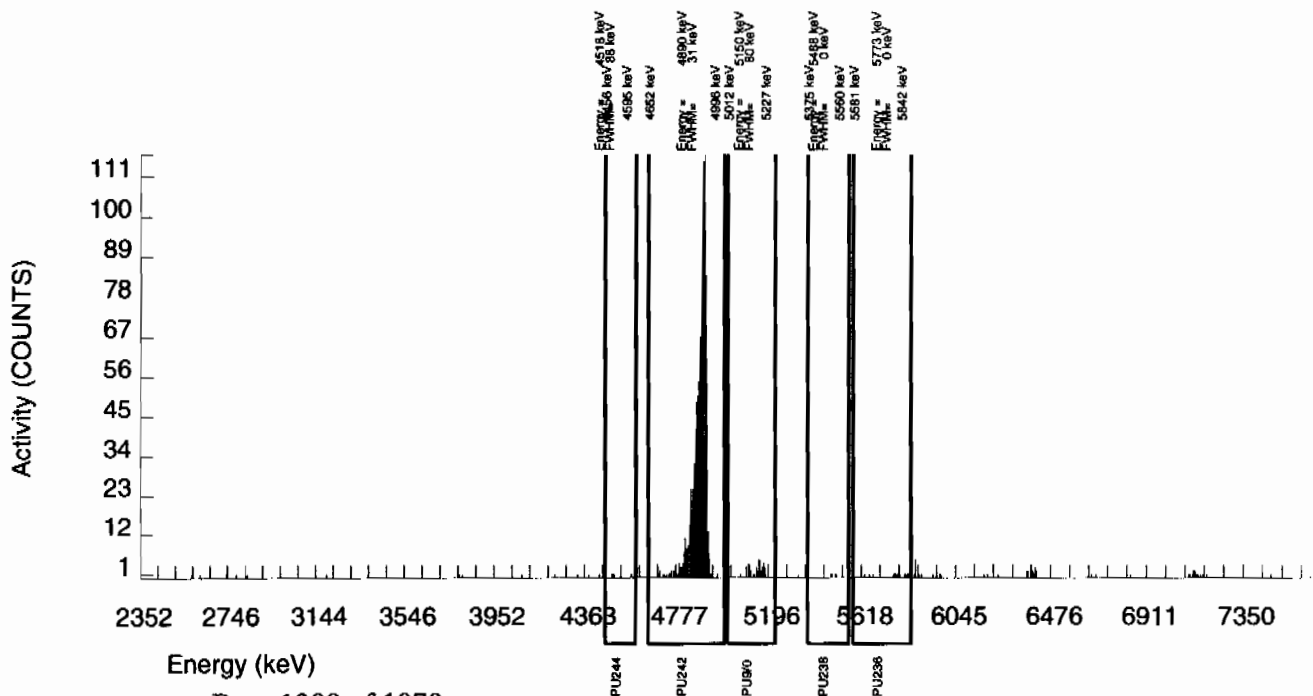
LIB FILE : ENV_ALPHA_PU.N
BKG FILE : B040.CNF;1104
BKG DATE : 3-JAN-2010
EFF FILE : W040.CNF;315
CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	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-9/0	5155.000	41.000	37.000	4.000	3.4797	99.90000	4.39E-02	8.26E-03	9.60E-03	2.24E-02	7.96E-03
PU-236	5749.000	14.000	-4.000	18.000	2.1286	100.0000	-4.80E-03	6.78E-03	5.87E-03	1.49E-02	6.78E-03
PU-238	5499.000	6.000	6.000	0.000	2.9680	99.90000	7.12E-03	2.93E-03	8.19E-03	1.96E-02	2.91E-03
PU242	4890.000	1029.000	1027.000	2.000	1.4142	100.0000	1.22E+00	7.24E-02	3.90E-03	1.10E-02	3.81E-02
PU-244	4589.000	4.000	4.000	0.000	5.2050	99.90000	4.74E-03	2.38E-03	1.44E-02	3.19E-02	2.37E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of PU242 calculated as sqrt(BKG AREA)



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936982
SAMPLE DATE : 4-JAN-2010 00:00:00.

SAMPLE ID : S1202004941_PU
SAMPLE QTY: 0.105 G

DETECTOR NUMBER :79431
AVERAGE %EFFICIENCY :39.6257
% YIELD : 90.272

COUNT DATE: 5-JAN-2010 20:09:21
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

LCS/LCSD
ID : 0244-B
ISOTOPE : PU-9/0
PCI/G : 4.178E+01

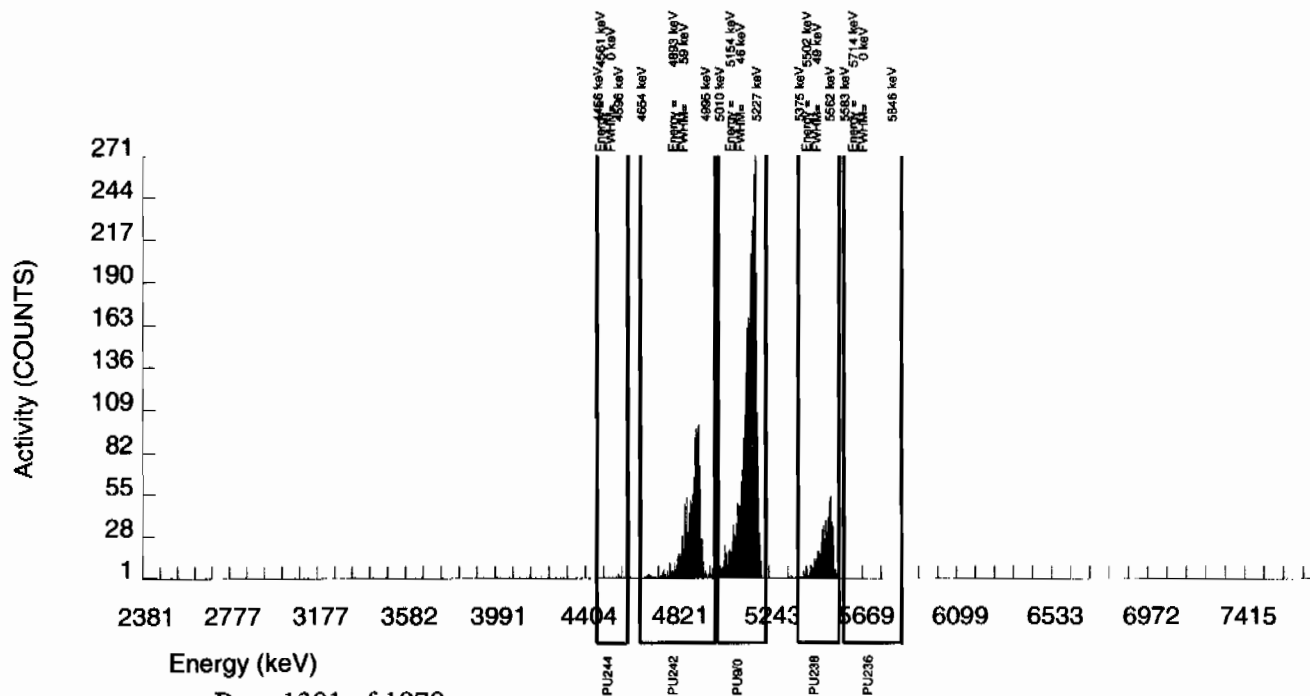
TRACER
ID : 1374-A
ISOTOPE : PU242
NOMINAL : 3.38543 dpm
RESULTS : 3.05610 dpm

LIB FILE : ENV_ALPHA_PU.N
BKG FILE : B238.CNF;66
BKG DATE : 3-JAN-2010
EFF FILE : W238.CNF;26
CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	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-9/0	5155.000	3022.000	3021.000	1.000	3.4797	99.90000	3.63E+01	2.20E+00	9.72E-02	2.27E-01	6.60E-01
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	1.20E-02	5.94E-02	1.51E-01	1.20E-02
PU-238	5499.000	574.000	573.000	1.000	2.9680	99.90000	6.88E+00	4.90E-01	8.29E-02	1.98E-01	2.88E-01
PU242	4890.000	1211.000	1211.000	0.000	0.0000	100.0000	1.45E+01	9.37E-01	0.00E+00	3.25E-02	4.17E-01
PU-244	4589.000	13.000	13.000	0.000	5.2050	99.90000	1.56E-01	4.42E-02	1.45E-01	3.23E-01	4.33E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)



Radiochemistry Batch Checklist, Rev 9

Batch# 936984 Product: U Date: 1/11/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 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%.	✓		CASE NARRATIVE
Or meets the client's contract acceptance criteria.	✓		CASE NARRATIVE
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.			N/A
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 initiated 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 stated.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMF, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [Signature] 1/11/10

Secondary Review Performed By: J. L. L. - 1/11/10

1/4 - 1/14
CANL

Uranium Que Sheet

29-DEC-09

Batch #: 936984 Analyst: MXA1 First Client Due Date: 14-JAN-10 Internal Due Date: 04-JAN-10
 Tracer Isotope: U-232/U-236 Tracer Code: 1233-14 Expiration Date: 12/4/10 Vol: 0.1mL
 LCS Isotope: U-238 LCS Code: 0244-A Expiration Date: 10/31/20 Vol: 0.100g
 Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —
 Prep Date: 1/4/10 Initials: CMAA Pipet ID: 2471058 Balance ID: 50410272

Witness: ME 1/4/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet Allotment (g/L)	U Det #
243517003-1	RE12-10-7557	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	1	1	0.516	121
243517004-1	RE12-10-7558	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	2	2	0.502	122
243517005-1	RE12-10-7555	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	3	3	0.517	123
243517006-1	RE12-10-7556	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	4	4	0.513	124
243517007-1	RE12-10-7562	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	5	5	0.509	127
243517008-1	RE12-10-7561	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	6	6	0.511	128
243517009-1	RE12-10-7563	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	7	7	0.508	129
243540001-1	RE16-10-1101	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	8	8	0.505	130
243540002-1	RE16-10-1103	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	9	9	0.512	132
243540003-1	RE16-10-1105	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	10	10	0.509	134
243546001-1	RE16-10-1031	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	11	11	0.524	136
243546002-1	RE16-10-1027	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	12	12	0.520	169
243546003-1	RE16-10-1029	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	13	13	0.509	170
243546003-1	RE16-10-1029	SAMPLE		.1 pC/g	SOIL	LANL010	21-DEC-09	14	14	0.509	171
1202004952-1	MB for batch 936984	MB		.1 pC/g	SOIL	QC ACCOUNT	21-DEC-09	15	15	0.528	23
1202004953-1	RE16-10-1029(243546003DUP)	DUP		.1 pC/g	SOIL	QC ACCOUNT	21-DEC-09	16	16	0.100	24
1202004954-1	LCS for batch 936984	LCS		.1 pC/g	SOIL	QC ACCOUNT	21-DEC-09				

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
 Circle One

Data Reviewed By: Paul 1/11/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 936984

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202004953	DUP	Uranium-233/234	0.528 g	0.986	0.0969	0.135	.016458333	pCi/g	NO
		Uranium-235/236	0.528 g	0.0539	0.0175	0.0839	.005587121	pCi/g	NO
		Uranium-238	0.528 g	1.11	0.106	0.0784	.018087121	pCi/g	NO
1202004954	LCS	Uranium-233/234	0.100 g	7.38	0.620	0.500	.0869	pCi/g	NO
		Uranium-235/236	0.100 g	0.259	0.0842	0.310	.0295	pCi/g	NO
		Uranium-238	0.100 g	5.69	0.501	0.290	.0955	pCi/g	NO
1202004952	MB	Uranium-233/234	1.00 g	0.00869	0.0047	0.037	.00869	pCi/g	YES
		Uranium-235/236	1.00 g	0.00295	0.00296	0.023	.00295	pCi/g	YES
		Uranium-238	1.00 g	0.00955	0.00451	0.0215	.00955	pCi/g	YES
243517003	RE12-10-7557	Uranium-233/234	0.516 g	1.20	0.113	0.135	.018841085	pCi/g	NO
		Uranium-235/236	0.516 g	0.0485	0.0197	0.0839	.005717054	pCi/g	NO
		Uranium-238	0.516 g	1.41	0.128	0.0784	.018507752	pCi/g	NO
243517004	RE12-10-7558	Uranium-233/234	0.502 g	0.656	0.0844	0.218	.017310757	pCi/g	NO
		Uranium-235/236	0.502 g	0.0347	0.0176	0.135	.005876494	pCi/g	NO
		Uranium-238	0.502 g	0.632	0.0829	0.126	.019023904	pCi/g	NO
243517005	RE12-10-7555	Uranium-233/234	0.517 g	1.33	0.121	0.127	.018808511	pCi/g	NO
		Uranium-235/236	0.517 g	0.066	0.0189	0.0791	.005705998	pCi/g	NO
		Uranium-238	0.517 g	1.59	0.140	0.0739	.018471954	pCi/g	NO
243517006	RE12-10-7556	Uranium-233/234	0.513 g	0.453	0.0628	0.182	.016939571	pCi/g	NO
		Uranium-235/236	0.513 g	0.0652	0.0223	0.113	.005750487	pCi/g	NO
		Uranium-238	0.513 g	0.616	0.0761	0.105	.018615984	pCi/g	NO
243517007	RE12-10-7562	Uranium-233/234	0.509 g	0.549	0.0762	0.222	.017072692	pCi/g	NO
		Uranium-235/236	0.509 g	0.0177	0.0126	0.138	.005795678	pCi/g	YES
		Uranium-238	0.509 g	0.545	0.0752	0.129	.018762279	pCi/g	NO
243517008	RE12-10-7561	Uranium-233/234	0.511 g	1.20	0.114	0.143	.017005871	pCi/g	NO
		Uranium-235/236	0.511 g	0.0569	0.0184	0.0885	.005772994	pCi/g	NO
		Uranium-238	0.511 g	1.27	0.120	0.0827	.018688845	pCi/g	NO
243517009	RE12-10-7563	Uranium-233/234	0.508 g	1.10	0.106	0.138	.017106299	pCi/g	NO
		Uranium-235/236	0.508 g	0.055	0.0178	0.0857	.005807087	pCi/g	NO
		Uranium-238	0.508 g	1.18	0.112	0.080	.018799213	pCi/g	NO
243540001	RE16-10-1101	Uranium-233/234	0.505 g	0.953	0.105	0.191	.017207921	pCi/g	NO
		Uranium-235/236	0.505 g	0.0382	0.0173	0.119	.005841584	pCi/g	NO
		Uranium-238	0.505 g	0.871	0.0985	0.111	.018910891	pCi/g	NO
243540002	RE16-10-1103	Uranium-233/234	0.512 g	1.25	0.132	0.208	.016972656	pCi/g	NO
		Uranium-235/236	0.512 g	0.0492	0.0235	0.128	.005761719	pCi/g	NO
		Uranium-238	0.512 g	1.17	0.126	0.119	.018652344	pCi/g	NO
243540003	RE16-10-1105	Uranium-233/234	0.509 g	1.02	0.111	0.191	.017072692	pCi/g	NO
		Uranium-235/236	0.509 g	0.0534	0.0206	0.118	.005795678	pCi/g	NO
		Uranium-238	0.509 g	1.03	0.111	0.111	.018762279	pCi/g	NO
243546001	RE16-10-1031	Uranium-233/234	0.524 g	1.11	0.113	0.189	.016583989	pCi/g	NO
		Uranium-235/236	0.524 g	0.0338	0.0153	0.105	.005629771	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
243546001	RE16-10-1031	Uranium-238	0.524 g	0.957	0.102	0.0983	.018225191	pCi/g	NO
243546002	RE16-10-1027	Uranium-233/234	0.520 g	1.21	0.108	0.110	.016711538	pCi/g	NO
		Uranium-235/236	0.520 g	0.101	0.0222	0.0682	.005673077	pCi/g	NO
		Uranium-238	0.520 g	1.25	0.110	0.0637	.018385385	pCi/g	NO
243546003	RE16-10-1029	Uranium-233/234	0.509 g	1.18	0.107	0.119	.017072692	pCi/g	NO
		Uranium-235/236	0.509 g	0.0662	0.0183	0.0736	.005795678	pCi/g	NO
		Uranium-238	0.509 g	1.23	0.111	0.0688	.018762279	pCi/g	NO

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936984
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517003_UU
SAMPLE QTY: 0.516 G

DETECTOR NUMBER :75545
AVERAGE %EFFICIENCY :24.7171
% YIELD : 81.030

COUNT DATE: 7-JAN-2010 17:57:20
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

LCS/LCSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

TRACER
ID : 1283-H
ISOTOPE : U232
NOMINAL : 4.51090 dpm
RESULTS : 3.65516 dpm

LIB FILE : ENV_ALPHA_UU.N
BKG FILE : B121.CNF;427
BKG DATE : 3-JAN-2010
EFF FILE : W121.CNF;115
CAL DATE : 15-DEC-2009

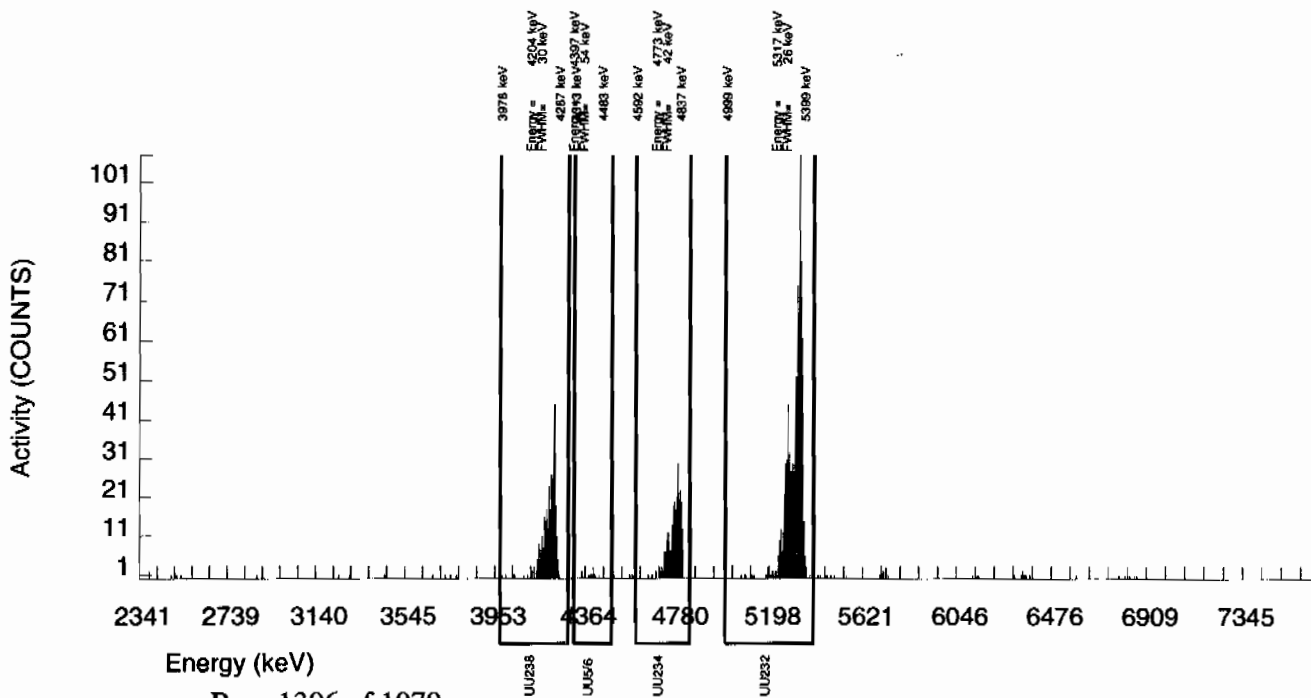
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	278.000	276.087	1.000	6.0782	100.0000	1.20E+00	1.13E-01	6.16E-02	1.35E-01	7.27E-02
U232	5302.100	904.000	903.000	1.000	1.0000	100.0000	3.94E+00	3.12E-01	1.01E-02	3.21E-02	1.31E-01
U-235	4391.000	11.000	9.000	2.000	2.7628	80.90000	4.85E-02	1.97E-02	3.46E-02	8.39E-02	1.94E-02
U-238	4184.730	324.000	323.000	1.000	3.2810	100.0000	1.41E+00	1.28E-01	3.33E-02	7.84E-02	7.86E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of U232 calculated as sqrt(BKG AREA)

NOTE: Corrections made to U-3/4 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936984
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517004_UU
SAMPLE QTY: 0.502 G

DETECTOR NUMBER :75546
AVERAGE %EFFICIENCY :25.1424
% YIELD : 50.812

COUNT DATE: 7-JAN-2010 17:57:22
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

LCS/LCSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

TRACER
ID : 1283-H
ISOTOPE : U232
NOMINAL : 4.51090 dpm
RESULTS : 2.29209 dpm

LIB FILE : ENV_ALPHA_UU.N
BKG FILE : B122.CNF;429
BKG DATE : 3-JAN-2010
EFF FILE : W122.CNF;118
CAL DATE : 15-DEC-2009

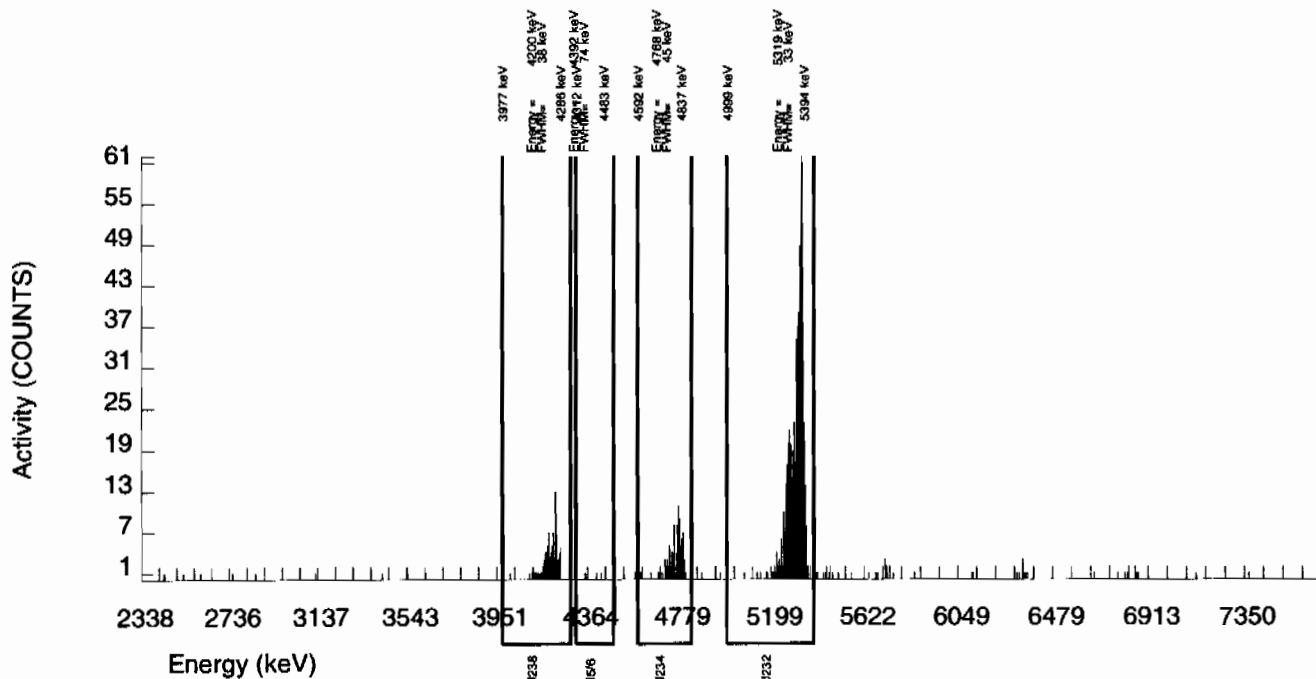
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	94.000	93.418	0.000	6.0782	100.0000	6.56E-01	8.44E-02	9.93E-02	2.18E-01	6.79E-02
U232	5302.100	584.000	576.000	8.000	2.8284	100.0000	4.05E+00	3.54E-01	4.62E-02	1.11E-01	1.71E-01
U-235	4391.000	4.000	4.000	0.000	2.7628	80.90000	3.47E-02	1.76E-02	5.58E-02	1.35E-01	1.74E-02
U-238	4184.730	91.000	90.000	1.000	3.2810	100.0000	6.32E-01	8.29E-02	5.36E-02	1.26E-01	6.74E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of U232 calculated as sqrt(BKG AREA)

NOTE: Corrections made to U-3/4 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936984
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517005_UU
SAMPLE QTY: 0.517 G

DETECTOR NUMBER :45-142V3
AVERAGE %EFFICIENCY :25.9872
% YIELD : 81.593

COUNT DATE: 7-JAN-2010 17:57:24
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

LCS/LCSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

TRACER
ID : 1283-H
ISOTOPE : U232
NOMINAL : 4.51089 dpm
RESULTS : 3.68057 dpm

LIB FILE : ENV_ALPHA_UU.N
BKG FILE : B123.CNF;427
BKG DATE : 3-JAN-2010
EFF FILE : W123.CNF;114
CAL DATE : 15-DEC-2009

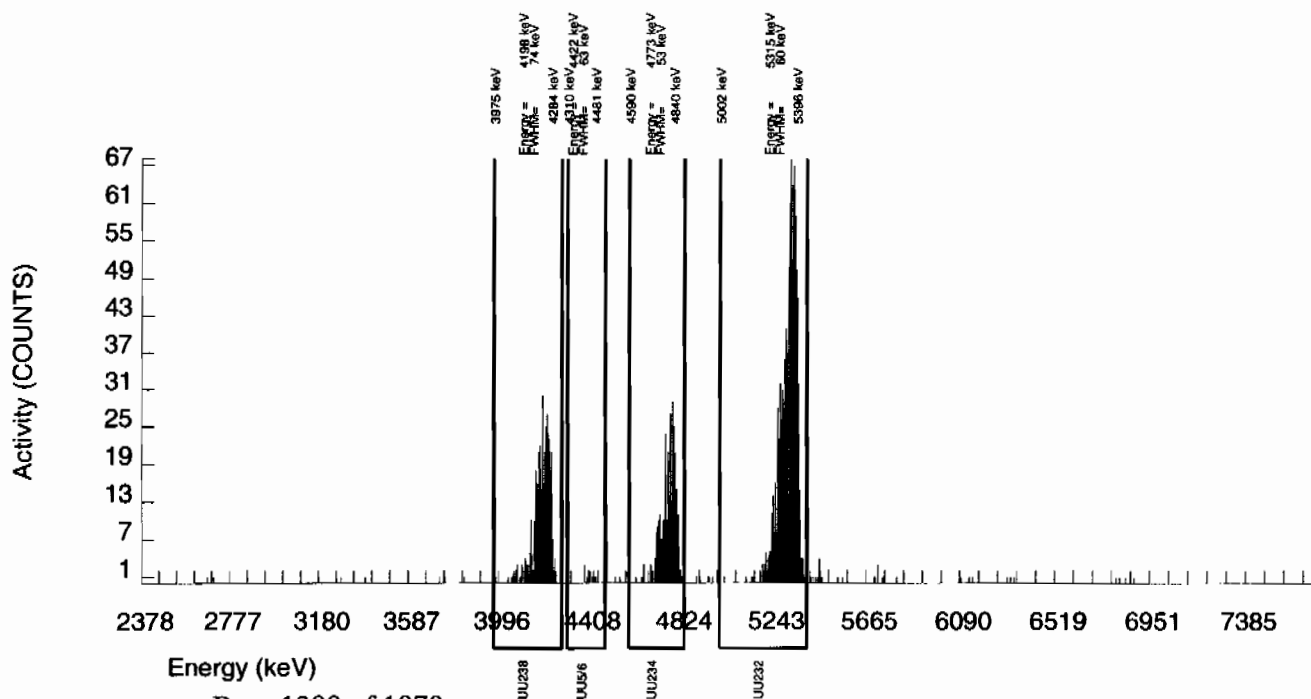
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	327.000	324.034	2.000	6.0782	100.0000	1.33E+00	1.21E-01	5.81E-02	1.27E-01	7.44E-02
U232	5302.100	963.000	956.000	7.000	2.6458	100.0000	3.93E+00	3.09E-01	2.53E-02	6.17E-02	1.28E-01
U-235	4391.000	13.000	13.000	0.000	2.7628	80.90000	6.60E-02	1.89E-02	3.26E-02	7.91E-02	1.83E-02
U-238	4184.730	387.000	387.000	0.000	3.2810	100.0000	1.59E+00	1.40E-01	3.14E-02	7.39E-02	8.08E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of U232 calculated as sqrt(BKG AREA)

NOTE: Corrections made to U-3/4 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936984
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517006_UU
SAMPLE QTY: 0.513 G

DETECTOR NUMBER :45-142V2
AVERAGE %EFFICIENCY :25.8094
% YIELD : 58.007

COUNT DATE: 7-JAN-2010 17:57:27
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	LIB FILE : ENV_ALPHA_UU.N
ID : 0244-A	ID : 0244-A	ID : 1283-H	BKG FILE : B124.CNF;423
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG DATE : 3-JAN-2010
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51089 dpm	EFF FILE : W124.CNF;110
		RESULTS : 2.61663 dpm	CAL DATE : 15-DEC-2009

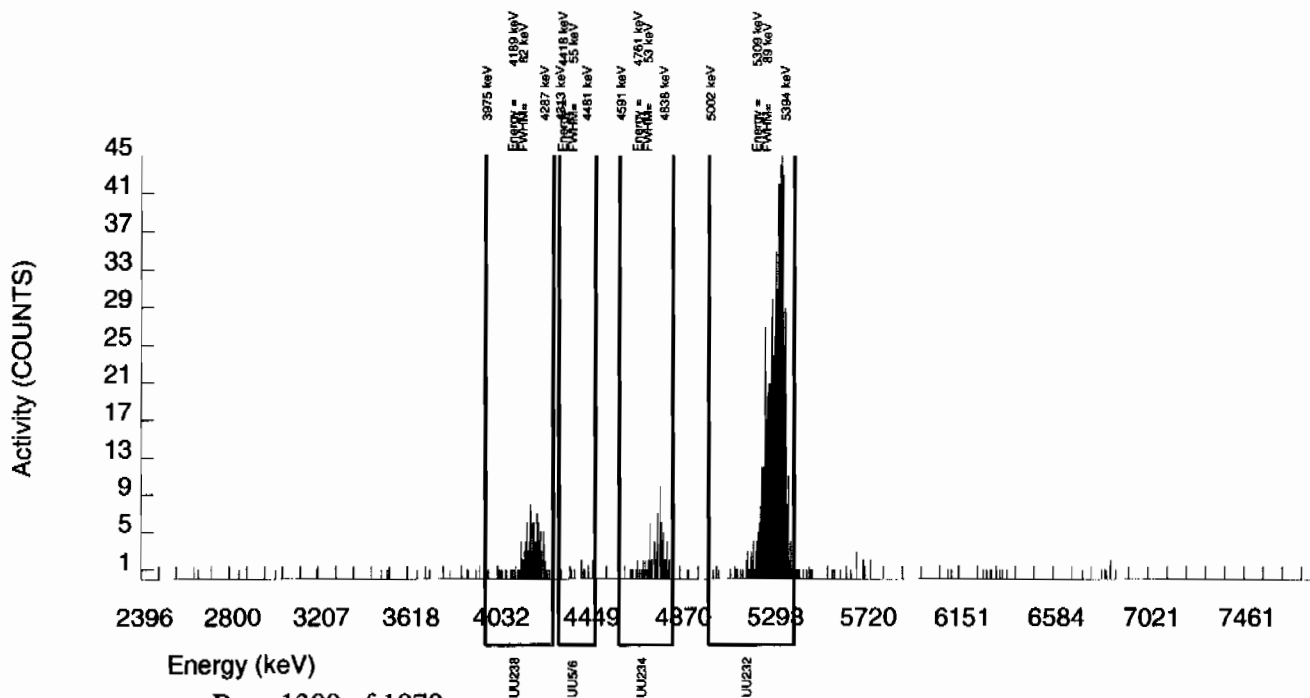
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	80.000	77.318	2.000	6.0782	100.0000	4.53E-01	6.28E-02	8.29E-02	1.82E-01	5.29E-02
U232	5302.100	677.000	675.000	2.000	1.4142	100.0000	3.96E+00	3.32E-01	1.93E-02	5.45E-02	1.53E-01
U-235	4391.000	9.000	9.000	0.000	2.7628	80.90000	6.52E-02	2.23E-02	4.66E-02	1.13E-01	2.17E-02
U-238	4184.730	106.000	105.000	1.000	3.2810	100.0000	6.16E-01	7.61E-02	4.48E-02	1.05E-01	6.07E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of U232 calculated as sqrt(BKG AREA)

NOTE: Corrections made to U-3/4 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936984
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517007_UU
SAMPLE QTY: 0.509 G

DETECTOR NUMBER :78770
AVERAGE %EFFICIENCY :24.6888
% YIELD : 49.949

COUNT DATE: 7-JAN-2010 17:57:30
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

LCS/LCSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

TRACER
ID : 1283-H
ISOTOPE : U232
NOMINAL : 4.51089 dpm
RESULTS : 2.25315 dpm

LIB FILE : ENV_ALPHA_UU.N
BKG FILE : B127.CNF;436
BKG DATE : 3-JAN-2010
EFF FILE : W127.CNF;121
CAL DATE : 15-DEC-2009

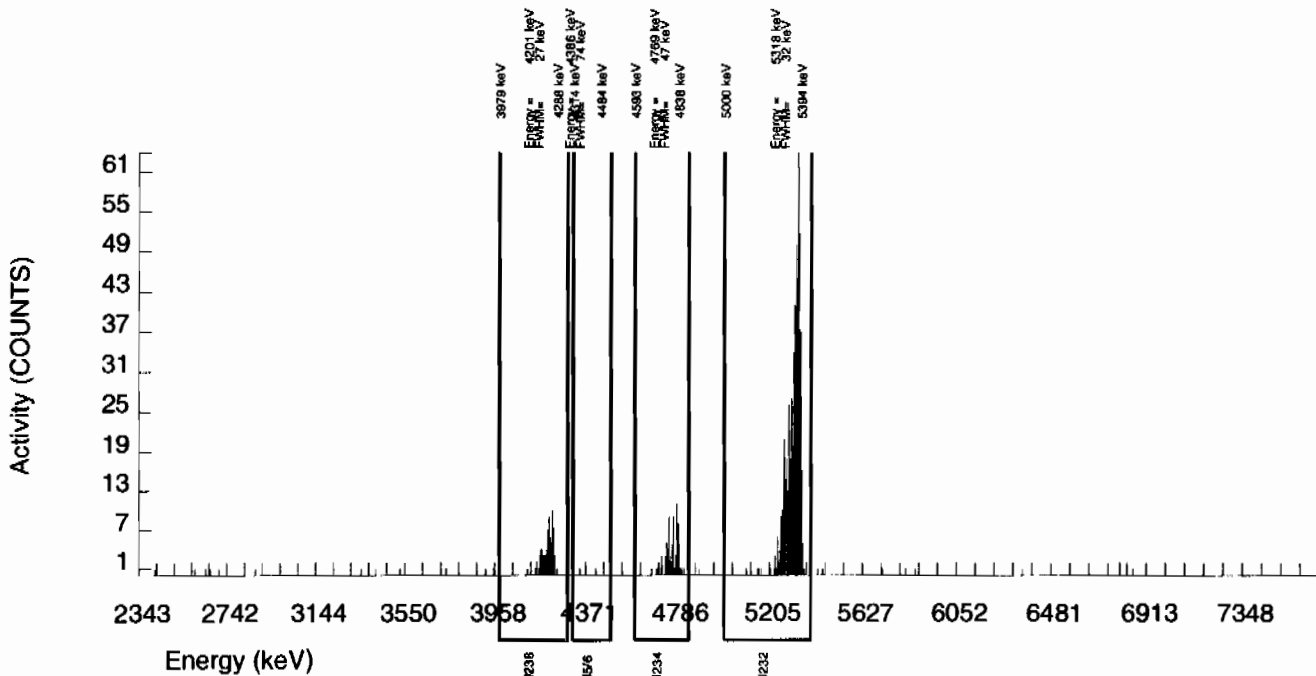
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	78.000	76.438	1.000	6.0782	100.0000	5.49E-01	7.62E-02	1.01E-01	2.22E-01	6.36E-02
U232	5302.100	557.000	556.000	1.000	1.0000	100.0000	3.99E+00	3.50E-01	1.67E-02	5.28E-02	1.70E-01
U-235	4391.000	2.000	2.000	0.000	2.7628	80.90000	1.77E-02	1.26E-02	5.70E-02	1.38E-01	1.25E-02
U-238	4184.730	76.000	76.000	0.000	3.2810	100.0000	5.45E-01	7.52E-02	5.48E-02	1.29E-01	6.26E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of U232 calculated as sqrt(BKG AREA)

NOTE: Corrections made to U-3/4 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936984
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517008_UU
SAMPLE QTY: 0.511 G

DETECTOR NUMBER :75549
AVERAGE %EFFICIENCY :25.7685
% YIELD : 74.367

COUNT DATE: 7-JAN-2010 17:57:33
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

LCS/LCSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

TRACER
ID : 1283-H
ISOTOPE : U232
NOMINAL : 4.51089 dpm
RESULTS : 3.35460 dpm

LIB FILE : ENV_ALPHA_UU.N
BKG FILE : B128.CNF;442
BKG DATE : 3-JAN-2010
EFF FILE : W128.CNF;131
CAL DATE : 15-DEC-2009

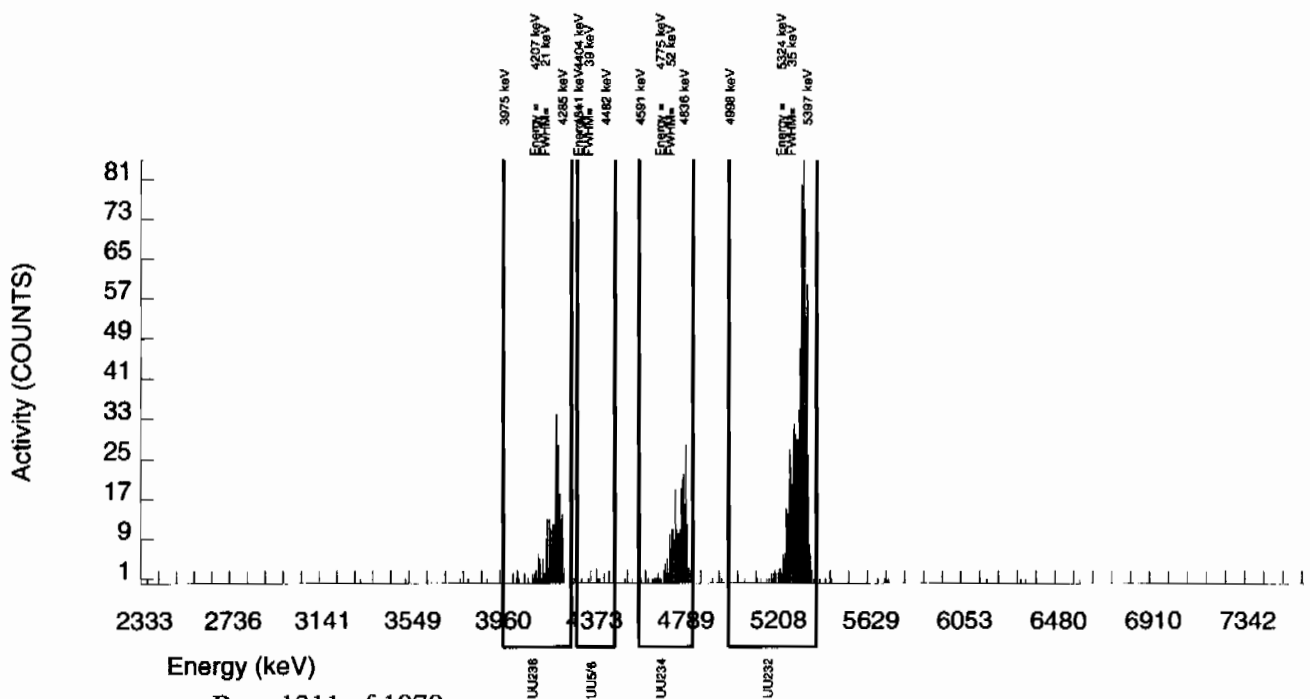
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	263.000	261.127	1.000	6.0782	100.0000	1.20E+00	1.14E-01	6.50E-02	1.43E-01	7.46E-02
U232	5302.100	867.000	864.000	3.000	1.7321	100.0000	3.98E+00	3.18E-01	1.85E-02	4.95E-02	1.36E-01
U-235	4391.000	10.000	10.000	0.000	2.7628	80.90000	5.69E-02	1.84E-02	3.65E-02	8.85E-02	1.80E-02
U-238	4184.730	277.000	276.000	1.000	3.2810	100.0000	1.27E+00	1.20E-01	3.51E-02	8.27E-02	7.67E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of U232 calculated as sqrt(BKG AREA)

NOTE: Corrections made to U-3/4 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936984
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243517009_UU
SAMPLE QTY: 0.508 G

DETECTOR NUMBER :76227
AVERAGE %EFFICIENCY :26.3585
% YIELD : 75.563

COUNT DATE: 7-JAN-2010 17:57:35
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

LCS/LCSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

TRACER
ID : 1283-H
ISOTOPE : U232
NOMINAL : 4.51090 dpm
RESULTS : 3.40856 dpm

LIB FILE : ENV_ALPHA_UU.N
BKG FILE : B129.CNF;431
BKG DATE : 3-JAN-2010
EFF FILE : W129.CNF;126
CAL DATE : 15-DEC-2009

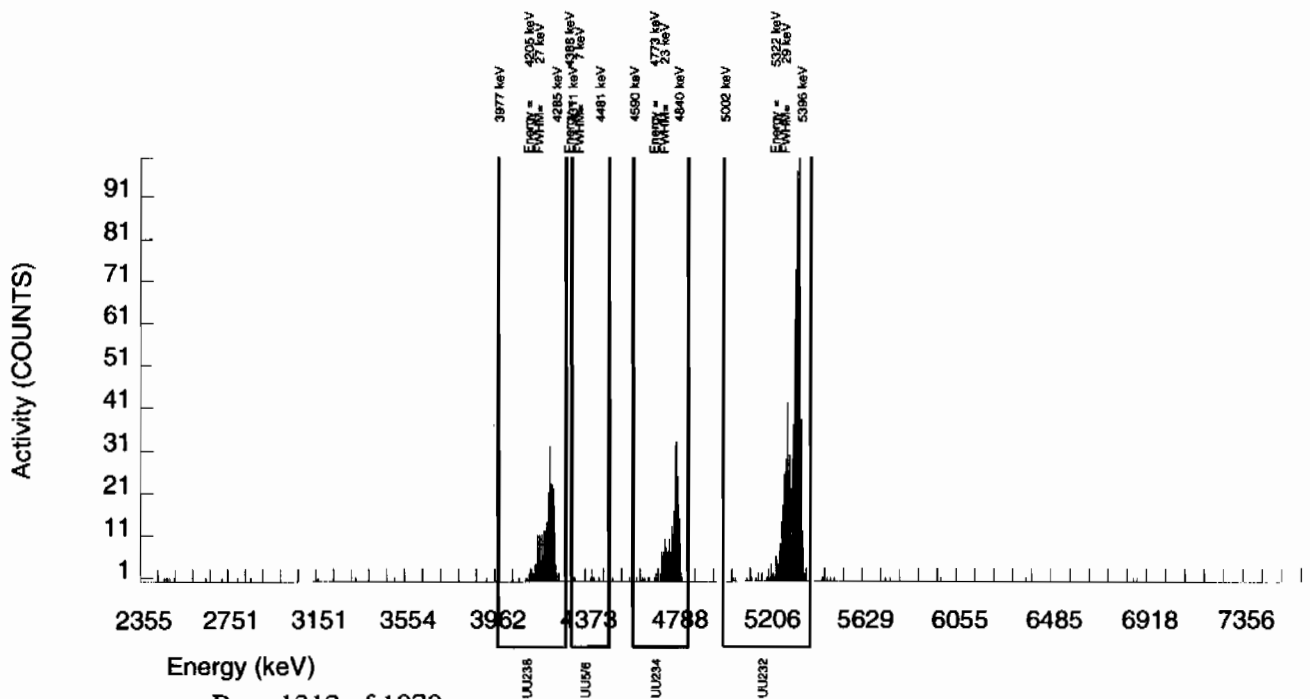
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	250.000	248.092	1.000	6.0782	100.0000	1.10E+00	1.06E-01	6.30E-02	1.38E-01	7.04E-02
U232	5302.100	902.000	898.000	4.000	2.0000	100.0000	4.00E+00	3.18E-01	2.07E-02	5.35E-02	1.34E-01
U-235	4391.000	10.000	10.000	0.000	2.7628	80.90000	5.50E-02	1.78E-02	3.54E-02	8.57E-02	1.74E-02
U-238	4184.730	267.000	266.000	1.000	3.2810	100.0000	1.18E+00	1.12E-01	3.40E-02	8.00E-02	7.29E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of U232 calculated as sqrt(BKG AREA)

NOTE: Corrections made to U-3/4 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936984
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243546003_UU
SAMPLE QTY: 0.509 G

DETECTOR NUMBER :72549
AVERAGE %EFFICIENCY :36.7019
% YIELD : 63.030

COUNT DATE: 7-JAN-2010 09:02:46
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

LCS/LCSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

TRACER
ID : 1283-H
ISOTOPE : U232
NOMINAL : 4.51089 dpm
RESULTS : 2.84320 dpm

LIB FILE : ENV_ALPHA_UU.N
BKG FILE : B170.CNF;157
BKG DATE : 3-JAN-2010
EFF FILE : W170.CNF;52
CAL DATE : 21-DEC-2009

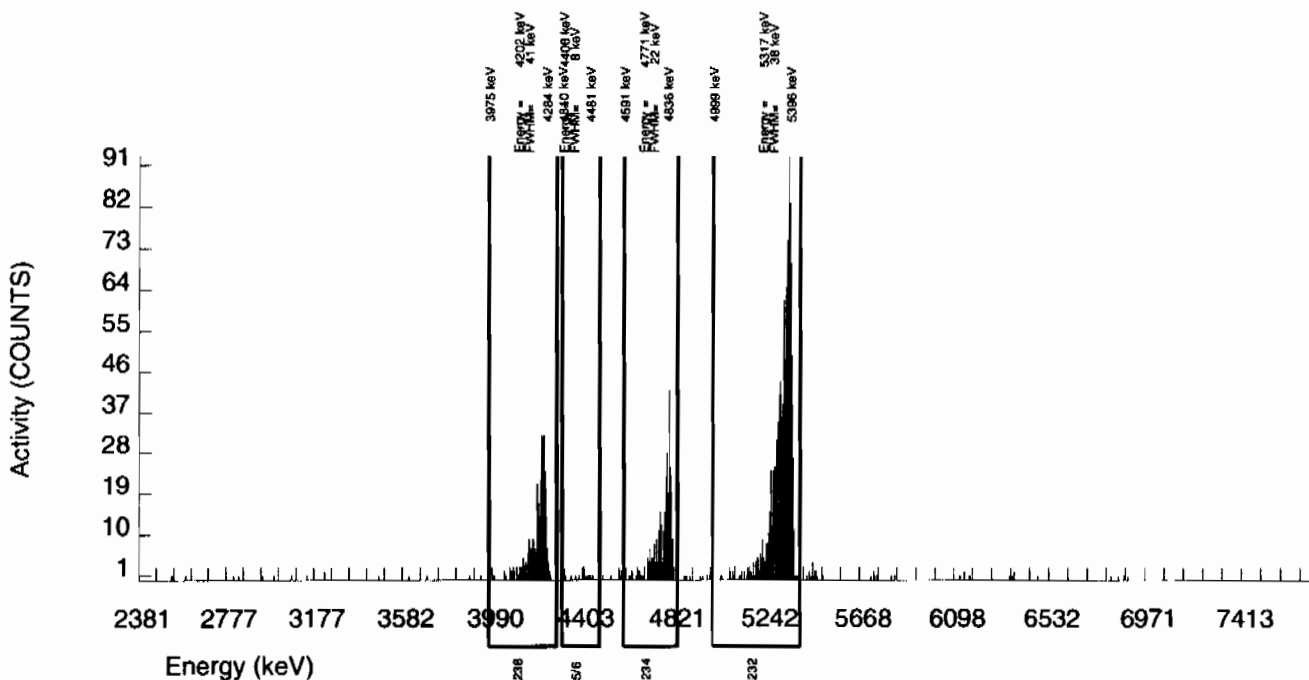
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	310.000	307.946	1.000	6.0782	100.0000	1.18E+00	1.07E-01	5.41E-02	1.19E-01	6.73E-02
U232	5302.100	1044.000	1043.000	1.000	1.0000	100.0000	3.99E+00	3.08E-01	8.90E-03	2.82E-02	1.24E-01
U-235	4391.000	14.000	14.000	0.000	2.7628	80.90000	6.62E-02	1.83E-02	3.04E-02	7.36E-02	1.77E-02
U-238	4184.730	323.000	321.000	2.000	3.2810	100.0000	1.23E+00	1.11E-01	2.92E-02	6.88E-02	6.90E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of U232 calculated as sqrt(BKG AREA)

NOTE: Corrections made to U-3/4 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936984
SAMPLE DATE : 4-JAN-2010 00:00:00.

SAMPLE ID : S1202004952_UU
SAMPLE QTY: 1.000 G

DETECTOR NUMBER :78260
AVERAGE %EFFICIENCY :38.3524
% YIELD : 98.370

COUNT DATE: 7-JAN-2010 09:02:49
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXA1

MS/MSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

LCS/LCSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

TRACER
ID : 1283-H
ISOTOPE : U232
NOMINAL : 4.50915 dpm
RESULTS : 4.43564 dpm

LIB FILE : ENV_ALPHA_UU.N
BKG FILE : B171.CNF;163
BKG DATE : 3-JAN-2010
EFF FILE : W171.CNF;69
CAL DATE : 21-DEC-2009

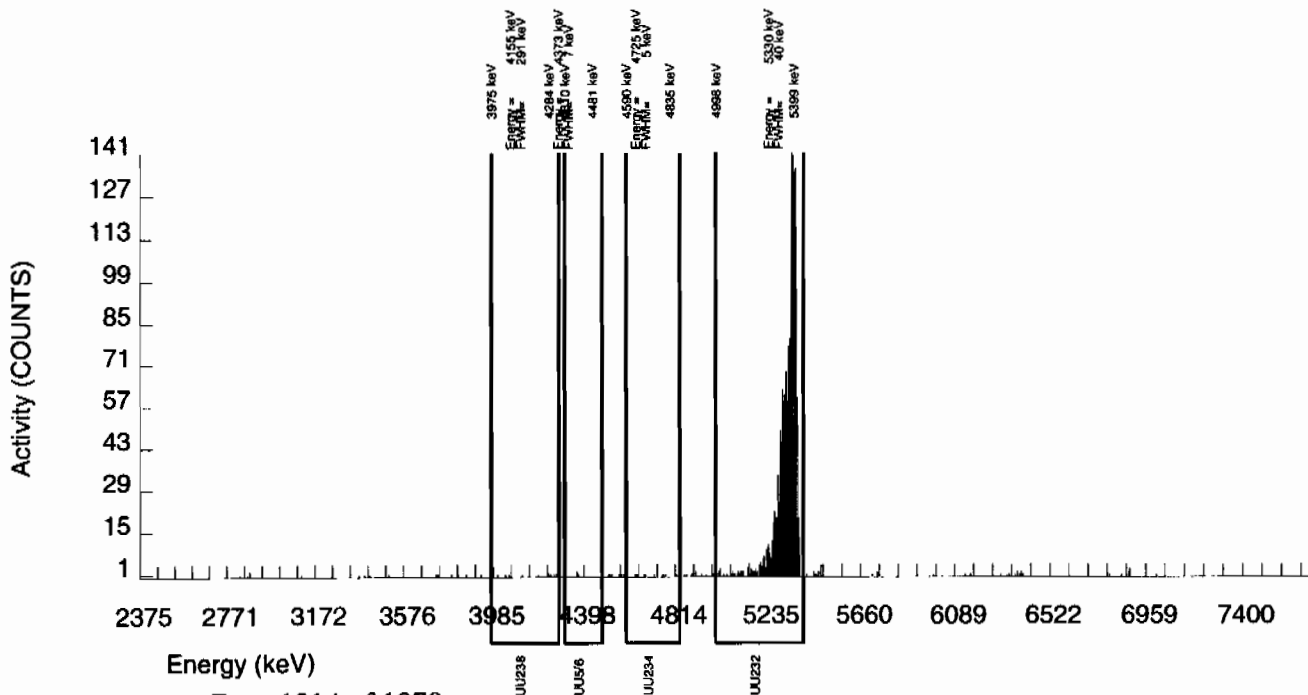
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	13.000	7.280	4.000	6.0782	100.0000	8.69E-03	4.70E-03	1.69E-02	3.70E-02	4.67E-03
U232	5302.100	1709.000	1701.000	8.000	2.8284	100.0000	2.03E+00	1.46E-01	7.86E-03	1.89E-02	4.95E-02
U-235	4391.000	3.000	2.000	1.000	2.7628	80.90000	2.95E-03	2.96E-03	9.49E-03	2.30E-02	2.95E-03
U-238	4184.730	11.000	8.000	3.000	3.2810	100.0000	9.55E-03	4.51E-03	9.11E-03	2.15E-02	4.47E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of U232 calculated as sqrt(BKG AREA)

NOTE: Corrections made to U-3/4 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936984
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S1202004953_UU
SAMPLE QTY: 0.528 G

DETECTOR NUMBER :78264
AVERAGE %EFFICIENCY :32.5118
% YIELD : 60.170

COUNT DATE: 7-JAN-2010 09:01:35
ELAPSED LIVE TIME(SEC): 59999.99
ANALYST :MXA1

MS/MSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

LCS/LCSD
ID : 0244-A
ISOTOPE : U-238
PCI/G : 5.750E+00

TRACER
ID : 1283-H
ISOTOPE : U232
NOMINAL : 4.51089 dpm
RESULTS : 2.71418 dpm

LIB FILE : ENV_ALPHA_UU.N
BKG FILE : B023.CNF;1097
BKG DATE : 3-JAN-2010
EFF FILE : W023.CNF;299
CAL DATE : 4-JAN-2010

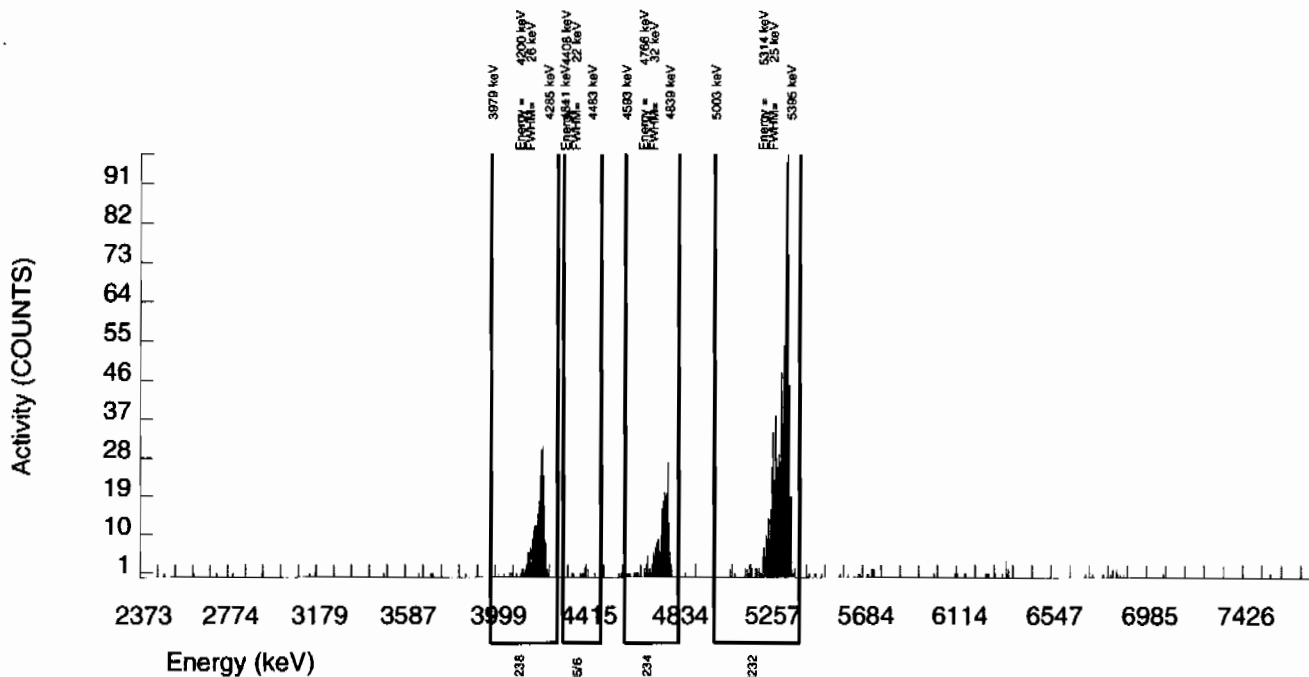
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	228.000	226.108	1.000	6.0782	100.0000	9.86E-01	9.69E-02	6.17E-02	1.35E-01	6.59E-02
U232	5302.100	886.000	882.000	4.000	2.0000	100.0000	3.85E+00	3.07E-01	2.03E-02	5.24E-02	1.30E-01
U-235	4391.000	10.000	10.000	0.000	2.7628	80.90000	5.39E-02	1.75E-02	3.46E-02	8.39E-02	1.70E-02
U-238	4184.730	256.000	254.000	2.000	3.2810	100.0000	1.11E+00	1.06E-01	3.33E-02	7.84E-02	7.00E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of U232 calculated as sqrt(BKG AREA)

NOTE: Corrections made to U-3/4 net area due to tracer impurity



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936984
SAMPLE DATE : 4-JAN-2010 00:00:00.

SAMPLE ID : S1202004954_UU
SAMPLE QTY: 0.100 G

DETECTOR NUMBER :76542
AVERAGE %EFFICIENCY :33.2605
% YIELD : 83.955

COUNT DATE: 7-JAN-2010 09:01:35
ELAPSED LIVE TIME(SEC): 59999.99
ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	LIB FILE : ENV_ALPHA_UU.N
ID : 0244-A	ID : 0244-A	ID : 1283-H	BKG FILE : B024.CNF;1090
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG DATE : 3-JAN-2010
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.50915 dpm	EFF FILE : W024.CNF;299
		RESULTS : 3.78566 dpm	CAL DATE : 4-JAN-2010

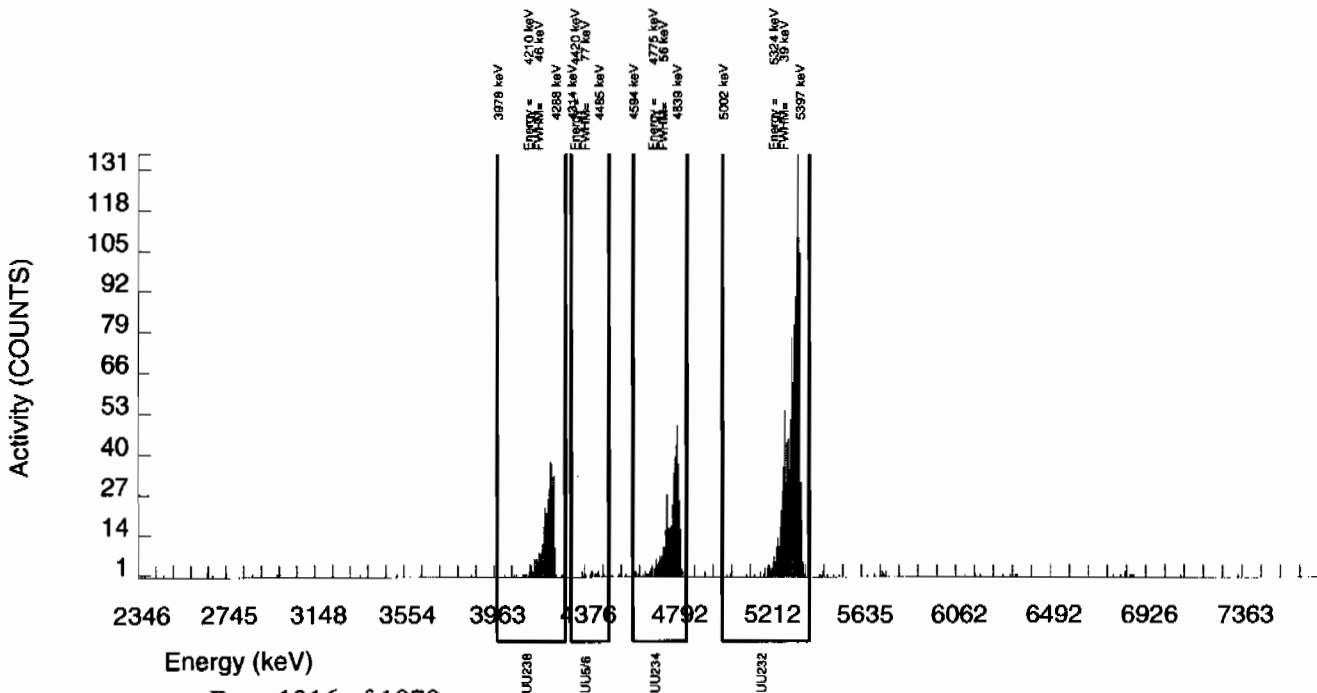
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	462.000	457.727	3.000	6.0782	100.0000	7.38E+00	6.20E-01	2.28E-01	5.00E-01	3.47E-01
U232	5302.100	1263.000	1259.000	4.000	2.0000	100.0000	2.03E+01	1.52E+00	7.51E-02	1.94E-01	5.74E-01
U-235	4391.000	15.000	13.000	2.000	2.7628	80.90000	2.59E-01	8.42E-02	1.28E-01	3.10E-01	8.22E-02
U-238	4184.730	358.000	353.000	5.000	3.2810	100.0000	5.69E+00	5.01E-01	1.23E-01	2.90E-01	3.07E-01

NOTE: Sg calculated via blank population (updated 5-JAN-2010)

NOTE: Sg of U232 calculated as sqrt(BKG AREA)

NOTE: Corrections made to U-3/4 net area due to tracer impurity



Radiochemistry Batch Checklist, Rev 9

Batch# 937069 Product: YS Date: 1/8/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
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%.			NA
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.			NA
Smears Taken for Radioactive batches.			NA
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.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly stasured.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			NA
Batch non-conformances second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (if REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [Signature] 1/8/10

Secondary Review Performed By: [Signature] 1/8/10

Gamma Spec Que Sheet

12/29/2009

Batch #: 937069 Analyst: MXR1 First Client Due Date: 01/04/2010 Internal Due Date: 01/04/2010
 Gamma Spike Isotope: Mixed Gamma Spike Code: hla Expiration Date: hla Vol: hla Nominal Concentration: hla
 Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/2/10 Vol: 1.0ml Nominal Concentration: 15.91 Cs-137 5.573,
 Initials: MS Prep Date: 12/31/09 Library: SOLID Witness: hla Co-60 6.488

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Detector	Sealing Date/Time (if Applicable)
243509001-1	RE16-10-2837	SAMPLE	LANL010	SOIL	18-DEC-09 12:00:00	RF	CAV	122.78	1
243509002-1	RE16-10-2835	SAMPLE	LANL010	SOIL	18-DEC-09 12:00:00	RF		124.05	2
243509003-1	RE16-10-2838	SAMPLE	LANL010	SOIL	18-DEC-09 12:00:00	RF		127.68	4
243517003-1	RE12-10-7557	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		131.50	5
243517004-1	RE12-10-7558	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		120.08	6
243517005-1	RE12-10-7555	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		125.38	7
243517006-1	RE12-10-7556	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		109.75	14
243517007-1	RE12-10-7562	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		127.40	22
243517008-1	RE12-10-7561	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		135.63	10
243517009-1	RE12-10-7563	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		171.44	11
243540001-1	RE16-10-1101	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		124.34	12
243540002-1	RE16-10-1103	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		124.32	16
243540003-1	RE16-10-1105	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		117.70	20
243543001-1	RE16-10-2836	SAMPLE	LANL010	SOIL	18-DEC-09 12:00:00	RF		120.96	25
243546001-1	RE16-10-1031	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		110.30	18
243546002-1	RE16-10-1027	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		119.41	15
243546003-1	RE16-10-1029	SAMPLE	LANL010	SOIL	21-DEC-09 12:00:00	RF		118.07	14
1202005182-1	MB	MB	QC ACCOUNT	SOIL	12/31/09	RF		135.63	13
1202005183-1	DUP RE16-10-1031(243546001)	DUP	QC ACCOUNT	SOIL	12/31/09	RF		110.30	4
1202005184-1	LCS	LCS	QC ACCOUNT	SOIL	12/31/09	RF		155.44	1

Data Reviewed By: Jeffrey 11/1/10
 ✓ no history
 ✓ daily

GEL Laboratories LLC, Radiochemistry Division

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
937069	243509001	SAMPLE	07-JAN-10		Americium-241	0.1109	0.3131	0.200
					Cerium-139	-0.02357	0.0531	0.050
					Thorium-234	0.2923	2.516	2.00
937069	243509002	SAMPLE	07-JAN-10		Americium-241	-0.07296	0.3036	0.200
					Cerium-139	-0.00436	0.05473	0.050
					Sodium-22	0.02785	0.08247	0.080
					Thorium-234	1.229	2.313	2.00
937069	243509003	SAMPLE	07-JAN-10		Americium-241	-0.2069	0.3227	0.200
937069	243517003	SAMPLE	07-JAN-10		Cerium-139	0.00978	0.05529	0.050
937069	243517004	SAMPLE	07-JAN-10		Americium-241	-0.2388	0.3412	0.200
					Cerium-139	-0.01998	0.0571	0.050
					Cesium-134	0.07671	0.1091	0.100
					Sodium-22	-0.01245	0.09398	0.080
					Thorium-234	1.853	3.028	2.00
937069	243517005	SAMPLE	07-JAN-10		Cerium-139	-0.01545	0.05084	0.050
937069	243517006	SAMPLE	07-JAN-10		Americium-241	0.03385	0.2245	0.200
					Cerium-139	0.02988	0.05644	0.050
					Sodium-22	-0.00221	0.08511	0.080
937069	243517007	SAMPLE	07-JAN-10		Americium-241	0.05276	0.2087	0.200
937069	243517008	SAMPLE	07-JAN-10		Americium-241	0.07805	0.367	0.200
					Thorium-234	0.9482	2.682	2.00
937069	243517009	SAMPLE	07-JAN-10					
937069	243540001	SAMPLE	07-JAN-10		Americium-241	-0.03484	0.2186	0.200
937069	243540002	SAMPLE	07-JAN-10		Americium-241	-0.03693	0.2158	0.200
937069	243540003	SAMPLE	07-JAN-10					
937069	243543001	SAMPLE	07-JAN-10		Sodium-22	0.0269	0.09211	0.080
937069	243546001	SAMPLE	07-JAN-10		Americium-241	0.02829	0.2772	0.200
					Thorium-234	0.921	2.455	2.00
937069	243546002	SAMPLE	07-JAN-10		Americium-241	0.3227	0.5081	0.200
					Cerium-139	-0.01724	0.06195	0.050
					Europium-152	0.00859	0.2038	0.200
					Sodium-22	-0.00781	0.08423	0.080
937069	243546003	SAMPLE	07-JAN-10		Americium-241	0.05308	0.2582	0.200
					Cerium-139	-0.00311	0.05294	0.050
					Thorium-234	0.7964	2.25	2.00
937069	1202005182	MB	07-JAN-10		Lead-214	-0.09439	0.1061	0.100
937069	1202005183	DUP	07-JAN-10		Americium-241	0.2226	0.3839	0.200
					Sodium-22	0.01963	0.08218	0.080
					Thorium-234	0.403	2.897	2.00
937069	1202005184	LCS	07-JAN-10		Cerium-139	0.0183	0.08449	0.050
					Cesium-134	0.01582	0.1689	0.100
					Europium-152	0.04352	0.3191	0.200
					Mercury-203	0.02239	0.1152	0.100

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
937069	1202005184	LCS	07-JAN-10		Potassium-40	0.8267	1.165	1.00
					Ruthenium-106	-0.1816	1.072	0.800
					Sodium-22	0.03827	0.1122	0.080
					Thorium-234	-0.467	3.859	2.00
					Tin-113	-0.00823	0.1488	0.100
					Uranium-235	0.1153	0.6206	0.500

GEL QUALS

Batch ID: 937069

Report run on: January 8, 2010 1:02 PM

Samp Id	Parname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
243509001-1 07-JAN-2010 08:51	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.304			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.435			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1311		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.272			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.09247			
243509002-1 07-JAN-2010 08:52	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.061			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.338			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.142			
243509003-1 07-JAN-2010 08:52	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.892			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		1.992			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.031			
243517003-1 07-JAN-2010 08:52	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.325			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.38			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1165		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.28			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1156			
243517004-1 07-JAN-2010 08:53	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.244			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.277			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.073			

GEL QUALS

Batch ID: 937069

Report run on: January 8, 2010 1:02 PM

Samp Id	Parmname	Cofa	Edd	Qual Comments	Auto	Result	MDA	Uncert	SQL
243517005-1 07-JAN-2010 08:53	Bismuth-211	UI	UI	Data rejected due to interference.		4.659			
	Cadmium-109	UI	UI	Data rejected due to interference.		2.524			
	Cesium-134	UI	UI	Data rejected due to low abundance.		.11		.1	.1
	Radium-224	UI	UI	Data rejected due to interference.		4.334			
243517006-1 07-JAN-2010 08:54	Bismuth-211	UI	UI	Data rejected due to interference.		3.537			
	Cadmium-109	UI	UI	Data rejected due to interference.		4.387			
	Cesium-134	UI	UI	Data rejected due to low abundance.		.1564		.1	.1
	Radium-224	UI	UI	Data rejected due to interference.		4.849			
243517007-1 07-JAN-2010 08:58	Bismuth-211	UI	UI	Data rejected due to interference.		3.312			
	Cadmium-109	UI	UI	Data rejected due to interference.		3.06			
	Cesium-134	UI	UI	Data rejected due to low abundance.		.1493		.1	.1
	Radium-224	UI	UI	Data rejected due to interference.		3.998			
	Strontium-85	UI	UI	Data rejected due to low abundance.		.1265			
243517008-1 07-JAN-2010 08:12	Bismuth-211	UI	UI	Data rejected due to interference.		3.441			
	Cadmium-109	UI	UI	Data rejected due to interference.		3.11			
	Radium-224	UI	UI	Data rejected due to interference.		4.29			
243517009-1 07-JAN-2010 08:13	Bismuth-211	UI	UI	Data rejected due to interference.		3.49			
	Cadmium-109	UI	UI	Data rejected due to interference.		3.217			
	Cesium-134	UI	UI	Data rejected due to low abundance.		.1571		.1	.1
	Radium-224	UI	UI	Data rejected due to interference.		3.647			

GEL QUALS

Batch ID: 937069

Report run on: January 8, 2010 1:02 PM

Samp Id	Parname	Cofa	Edd	Qual Comments	Auto	Result	MDA	Uncert	SQL
243540001-1 07-JAN-2010 09:13	Bismuth-211	UI	UI	Data rejected due to interference.		2.922			
	Radium-224	UI	UI	Data rejected due to interference.		3.993			
243540002-1 07-JAN-2010 09:14	Bismuth-211	UI	UI	Data rejected due to interference.		2.961			
	Cadmium-109	UI	UI	Data rejected due to interference.		3.096			
	Cesium-134	UI	UI	Data rejected due to low abundance.		.09445		.1	.1
	Radium-224	UI	UI	Data rejected due to interference.		4.518			
243540003-1 07-JAN-2010 09:14	Bismuth-211	UI	UI	Data rejected due to interference.		3.304			
	Cadmium-109	UI	UI	Data rejected due to interference.		2.39			
	Radium-224	UI	UI	Data rejected due to interference.		3.928			
243540001-1 07-JAN-2010 09:15	Bismuth-211	UI	UI	Data rejected due to interference.		3.092			
	Cadmium-109	UI	UI	Data rejected due to interference.		2.695			
	Cesium-134	UI	UI	Data rejected due to low abundance.		.1759		.1	.1
	Radium-224	UI	UI	Data rejected due to interference.		4.494			
	Strontium-85	UI	UI	Data rejected due to low abundance.		.1226			
243540001-1 07-JAN-2010 09:19	Bismuth-211	UI	UI	Data rejected due to interference.		2.651			
	Cadmium-109	UI	UI	Data rejected due to interference.		1.637			
	Cesium-134	UI	UI	Data rejected due to low abundance.		.0836		.1	.1
	Mercury-203	UI	UI	Data rejected due to low abundance.		.06659		.1	.1
	Radium-224	UI	UI	Data rejected due to interference.		3.3			
	Strontium-85	UI	UI	Data rejected due to low abundance.		.1411			

GEL QUALS

Batch ID: 937069

Report run on: January 8, 2010 1:02 PM

Samp Id	Parname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
243546002-1 07-JAN-2010 09:23	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.241			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.314			
	Thorium-234	UI	UI	UI	Data rejected due to high peak-width.		6.739		2	2
243546003-1 07-JAN-2010 09:24	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.113			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		1.703			
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.845			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.09004			
1202005182-1 MB 07-JAN-2010 09:31	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.06635			
1202005183-1 DUP 07-JAN-2010 13:06	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.979			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.727			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.09628		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.697			

Gamma Review Report based on Result > MDA for Batch:937069

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243509001	18-DEC-09 12:00	07-JAN-10 08:51	19.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	1.21	0.1542	pCi/g	0.2384	N	910.9 3	1.08	IDENTIFIED 11.71	<input type="checkbox"/>	
Americium-243	0.3143	0.04235	pCi/g	0.09895	N	74.88 1	1.14	IDENTIFIED 12.8	<input type="checkbox"/>	
Annihilation Rad.	0.1091	0.04097	pCi/g	0.04998	N	510.7 1	1.599	IDENTIFIED 37.45	<input type="checkbox"/>	
Barium-137m	0.4146	0.04281	pCi/g	0.07253	N	661.5 2	1.607	IDENTIFIED 10.01	<input type="checkbox"/>	
Bismuth-211	3.304	0.2912	pCi/g	0.3541	Y	351.9 4	1.414	IDENTIFIED 8.225	<input checked="" type="checkbox"/>	✓
Bismuth-214	1.294	0.1019	pCi/g	0.1175	0.200	609.2 4	1.647	IDENTIFIED 6.952	<input type="checkbox"/>	
Bromine-77	24.92	23.12	pCi/g	0	N	0 10 0		SHORT_HLIF 0	<input type="checkbox"/>	
Cadmium-109	2.435	0.5723	pCi/g	1.663	Y	87.01 3	0.8977	IDENTIFIED 23.06	<input checked="" type="checkbox"/>	✓
Cadmium-115	20.52	25.86	pCi/g	0	N	0 10 0		SHORT_HLIF 0	<input type="checkbox"/>	
Cerium-143	2220	1010	pCi/g	0	N	0 10 0		SHORT_HLIF 0	<input type="checkbox"/>	
Cesium-134	0.1311	0.03621	pCi/g	0.1075	0.100	0 10 0		FAIL_ABUND 0	<input checked="" type="checkbox"/>	UI Data rejected due to low abundance.
Cesium-137	0.4382	0.04527	pCi/g	0.07667	0.100	661.5 2	1.607	IDENTIFIED 10.01	<input type="checkbox"/>	
Gross Gamma	8.361	1.868	pCi/g	2.667	N	0			<input type="checkbox"/>	
Iodine-123	4.19E+07	1.24E+09	pCi/g	0	N	0 10 0		SHORT_HLIF 0	<input type="checkbox"/>	
Krypton-85	17.16	4.806	pCi/g	15.89	N	0 10 0		NOT_IDENTI 0	<input type="checkbox"/>	
Lead-212	1.427	0.07935	pCi/g	0.1018	0.100	238.8 4	1.316	IDENTIFIED 4.203	<input type="checkbox"/>	
Lead-214	1.149	0.1056	pCi/g	0.1234	0.100	351.9 4	1.414	IDENTIFIED 8.225	<input type="checkbox"/>	
Neptunium-237	0.6978	0.1791	pCi/g	0.4712	N	87.01 3	0.8977	IDENTIFIED 23.06	<input type="checkbox"/>	
Polonium-212	1.427	0.07935	pCi/g	0.1018	N	238.8 4	1.316	IDENTIFIED 4.203	<input type="checkbox"/>	
Polonium-214	1.149	0.1056	pCi/g	0.1234	N	351.9 4	1.414	IDENTIFIED 8.225	<input type="checkbox"/>	
Polonium-216	1.427	0.07935	pCi/g	0.1018	N	238.8 4	1.316	IDENTIFIED 4.203	<input type="checkbox"/>	
Polonium-218	1.149	0.1056	pCi/g	0.1234	N	351.9 4	1.414	IDENTIFIED 8.225	<input type="checkbox"/>	
Potassium-40	31.32	1.498	pCi/g	0.6251	1.00	1460 1	1.892	IDENTIFIED 3.2	<input type="checkbox"/>	
Radium-224	4.272	0.7785	pCi/g	1.158	Y	241.6 1	1.879	IDENTIFIED 17.99	<input checked="" type="checkbox"/>	✓
Radium-226	1.294	0.1019	pCi/g	0.1175	Y	609.2 4	1.647	IDENTIFIED 6.952	<input type="checkbox"/>	
Radium-228	1.21	0.1542	pCi/g	0.2384	0.500	910.9 3	1.08	IDENTIFIED 11.71	<input type="checkbox"/>	
Strontium-85	0.09247	0.0259	pCi/g	0.08566	Y	0 10 0		NOT_IDENTI 0	<input checked="" type="checkbox"/>	UI Data rejected due to low abundance.
Thallium-200	6351	5407	pCi/g	0	N	0 10 0		SHORT_HLIF 0	<input type="checkbox"/>	
Thallium-208	0.4226	0.04272	pCi/g	0.06461	0.080	583.1 1	1.59	IDENTIFIED 9.6	<input type="checkbox"/>	
Thorium-228	1.455	0.08093	pCi/g	0.1038	N	238.8 4	1.316	IDENTIFIED 4.203	<input type="checkbox"/>	
Thorium-230	1.294	0.1019	pCi/g	0.1174	N	609.2 4	1.647	IDENTIFIED 6.952	<input type="checkbox"/>	
Thorium-232	1.21	0.1542	pCi/g	0.2384	N	910.9 3	1.08	IDENTIFIED 11.71	<input type="checkbox"/>	
Tin-126	0.2376	0.05586	pCi/g	0.1656	N	87.01 3	0.8977	IDENTIFIED 23.06	<input type="checkbox"/>	
Titanium-44	0.3081	0.03137	pCi/g	0.08867	N	0 10 0		FAIL_ABUND 0	<input type="checkbox"/>	
Uranium-234	1.294	0.1019	pCi/g	0.1174	N	609.2 4	1.647	IDENTIFIED 6.952	<input type="checkbox"/>	
Zirconium-97	3.24E+08	1.12E+08	pCi/g	0	N	0 10 0		SHORT_HLIF 0	<input type="checkbox"/>	

*** = 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
243509002	18-DEC-09 12:00	07-JAN-10 08:52	19.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	1.57	0.1907	pCi/g	0.2242	N	911.4 3	2.123	IDENTIFIED 10.43	<input type="checkbox"/>	
Americium-243	0.2819	0.03503	pCi/g	0.0923	N	74.57 1	0.8753	IDENTIFIED 11.63	<input type="checkbox"/>	
Annihilation Rad.	0.1037	0.04372	pCi/g	0.05566	N	511.3 1	1.921	IDENTIFIED 41.85	<input type="checkbox"/>	
Barium-137m	0.7141	0.05299	pCi/g	0.05848	N	661.5 2	1.504	IDENTIFIED 6.04	<input type="checkbox"/>	
Bismuth-211	3.061	0.2967	pCi/g	0.3543	Y	351.7 4	1.187	IDENTIFIED 7.795	<input checked="" type="checkbox"/>	✓
Bismuth-212	1.311	0.2269	pCi/g	0.7132	N	0 8 0		FAIL_ABUND 0	<input type="checkbox"/>	
Bismuth-214	1.027	0.1026	pCi/g	0.1218	0.200	609.3 4	1.146	IDENTIFIED 8.484	<input type="checkbox"/>	
Cadmium-109	2.338	0.5113	pCi/g	1.557	Y	87.04 3	1.035	IDENTIFIED 21.3	<input checked="" type="checkbox"/>	✓
Cadmium-115	2.124	26.67	pCi/g	0	N	0 8 0		SHORT_HLIF 0	<input type="checkbox"/>	
Cerium-143	6871	1301	pCi/g	0	N	0 8 0		SHORT_HLIF 0	<input type="checkbox"/>	

Cesium-137	✓	0.7549	0.05605	pCi/g	0.06182	0.100	661.5	2	1.504	IDENTIFIED	6.04	☐
Gross Gamma	—	9.068	1.837	pCi/g	3.177	N		0				☐
Iodine-123	HE	2.67E+08	1.21E+09	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐
Iodine-135	—	1.50E+20	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐
Lead-212	✓	1.463	0.109	pCi/g	0.09841	0.100	238.4	4	1.111	IDENTIFIED	3.991	☐
Lead-214	✓	1.065	0.1069	pCi/g	0.1235	0.100	351.7	4	1.187	IDENTIFIED	7.795	☐
Lutetium-177	HE	3.498	1.459	pCi/g	3.498	N	0	8	0	FAIL_ABUND	0	☐
Neptunium-237	HE	0.67	0.162	pCi/g	0.4225	N	87.04	3	1.035	IDENTIFIED	21.3	☐
Polonium-212	NR	1.463	0.109	pCi/g	0.09841	N	238.4	4	1.111	IDENTIFIED	3.991	☐
Polonium-214	NR	1.065	0.1069	pCi/g	0.1235	N	351.7	4	1.187	IDENTIFIED	7.795	☐
Polonium-216	NR	1.463	0.109	pCi/g	0.09841	N	238.4	4	1.111	IDENTIFIED	3.991	☐
Polonium-218	NR	1.065	0.1069	pCi/g	0.1235	N	351.7	4	1.187	IDENTIFIED	7.795	☐
Potassium-40	✓	29.83	1.687	pCi/g	0.4379	1.00	1461	1	2.293	IDENTIFIED	3.065	☐
Radium-224	INT	4.142	0.7017	pCi/g	1.12	Y	241.3	1	1.704	IDENTIFIED	15.88	☐✓
Radium-226	✓	1.027	0.1026	pCi/g	0.1218	Y	609.3	4	1.146	IDENTIFIED	8.484	☐
Radium-228	✓	1.57	0.1907	pCi/g	0.2242	0.500	911.4	3	2.123	IDENTIFIED	10.43	☐
Thallium-208	✓	0.5061	0.0476	pCi/g	0.06605	0.080	583	1	1.593	IDENTIFIED	7.959	☐
Thorium-228	NR	1.493	0.1112	pCi/g	0.1004	N	238.4	4	1.111	IDENTIFIED	3.991	☐
Thorium-230	NR	1.027	0.1026	pCi/g	0.1218	N	609.3	4	1.146	IDENTIFIED	8.484	☐
Thorium-232	NR	1.57	0.1907	pCi/g	0.2242	N	911.4	3	2.123	IDENTIFIED	10.43	☐
Tin-126	HE	0.2282	0.0499	pCi/g	0.1561	N	87.04	3	1.035	IDENTIFIED	21.3	☐
Titanium-44	LN	0.3009	0.03025	pCi/g	0.07014	N	0	8	0	FAIL_ABUND	0	☐
Total Uranium	—	3.7179	4.30E-06	ug/g	3.444	N		0				☐
Uranium-234	NR	1.027	0.1026	pCi/g	0.1218	N	609.3	4	1.146	IDENTIFIED	8.484	☐
Zirconium-97	HE	2.39E+08	1.28E+08	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
243509003	18-DEC-09 12:00	07-JAN-10 08:52	19.9	SAMPLE	LOAD	1	LANL	LANL01004JGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment	
Actinium-228	NR	1.294	0.1621	pCi/g	0.2107	N	910.6	3	1.76	IDENTIFIED	11.28	☐
Americium-243	INT	0.2821	0.04169	pCi/g	0.09839	N	74.7	1	0.9493	IDENTIFIED	13.63	☐
Annihilation Rad.	HE	0.07626	0.03153	pCi/g	0.04146	N	510.4	1	1.71	IDENTIFIED	41.25	☐
Bismuth-211	NR	2.892	0.2491	pCi/g	0.2856	Y	351.6	4	1.308	IDENTIFIED	7.926	☐✓
Bismuth-212	NR	1.402	0.2883	pCi/g	0.6805	N	0	11	0	FAIL_ABUND	0	☐
Bismuth-214	✓	0.8738	0.08657	pCi/g	0.1137	0.200	609	4	1.715	IDENTIFIED	9.201	☐
Bromine-77	HE	28.69	20.78	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Cadmium-109	INT	1.992	0.5461	pCi/g	1.391	Y	87.2	3	1.155	IDENTIFIED	26.75	☐✓
Cadmium-115	HE	10.62	23.35	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Cerium-143	—	4558	1000	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Gross Gamma	—	9.121	1.598	pCi/g	2.314	N		0				☐
Iodine-133	HE	53930	1.36E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Iodine-135	—	1.04E+21	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Lead-212	✓	1.359	0.07624	pCi/g	0.08678	0.100	238.4	4	1.113	IDENTIFIED	3.917	☐
Lead-214	✓	1.006	0.09055	pCi/g	0.09956	0.100	351.6	4	1.308	IDENTIFIED	7.926	☐
Lutetium-177	HE	4.433	1.259	pCi/g	3.055	N	0	11	0	FAIL_ABUND	0	☐
Neptunium-237	HE	0.5709	0.1672	pCi/g	0.4226	N	87.2	3	1.155	IDENTIFIED	26.75	☐
Polonium-212	NR	1.359	0.07624	pCi/g	0.08678	N	238.4	4	1.113	IDENTIFIED	3.917	☐
Polonium-214	NR	1.006	0.09055	pCi/g	0.09956	N	351.6	4	1.308	IDENTIFIED	7.926	☐
Polonium-216	NR	1.359	0.07624	pCi/g	0.08678	N	238.4	4	1.113	IDENTIFIED	3.917	☐
Polonium-218	NR	1.006	0.09055	pCi/g	0.09956	N	351.6	4	1.308	IDENTIFIED	7.926	☐
Potassium-40	✓	38.19	1.688	pCi/g	0.513	1.00	1460	1	1.988	IDENTIFIED	2.625	☐
Radium-224	INT	3.031	0.5273	pCi/g	0.9877	Y	241.3	1	1.541	IDENTIFIED	17.07	☐✓
Radium-226	✓	0.8738	0.08657	pCi/g	0.1137	Y	609	4	1.715	IDENTIFIED	9.201	☐
Radium-228	✓	1.294	0.1621	pCi/g	0.2107	0.500	910.6	3	1.76	IDENTIFIED	11.28	☐
Sodium-24	HE	8.40E+07	7.11E+07	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Thallium-200	HE	1818	3934	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.4802	0.04175	pCi/g	0.05523	0.080	582.5	1	1.42	IDENTIFIED	8.103	☐

Thorium-228	NR	1.386	0.07777	pCi/g	0.08852	N	238.4	4	1.113	IDENTIFIED	3.917	<input type="checkbox"/>
Thorium-230	NR	0.8737	0.08657	pCi/g	0.1137	N	609	4	1.715	IDENTIFIED	9.201	<input type="checkbox"/>
Thorium-232	NR	1.294	0.1621	pCi/g	0.2107	N	910.6	3	1.76	IDENTIFIED	11.28	<input type="checkbox"/>
Thorium-234	✓	3.287	1.317	pCi/g	2.585	2.00	62.75	2	2.035	IDENTIFIED	38.81	<input type="checkbox"/>
Tin-126	HE	0.1944	0.05329	pCi/g	0.1368	N	87.2	3	1.155	IDENTIFIED	26.75	<input type="checkbox"/>
Titanium-44	LA	0.3135	0.03315	pCi/g	0.07425	N	0	11	0	FAIL_ABUND	0	<input type="checkbox"/>
Total Uranium		9.8622	3.92E-06	ug/g	3.8486	N	0					<input type="checkbox"/>
Uranium-234	NR	0.8737	0.08657	pCi/g	0.1137	N	609	4	1.715	IDENTIFIED	9.201	<input type="checkbox"/>
Uranium-238	HE	3.287	1.317	pCi/g	2.585	N	62.75	2	2.035	IDENTIFIED	38.81	<input type="checkbox"/>
Zirconium-97	HE	1.43E+08	1.12E+08	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quas	Zero?	queue
243517003	21-DEC-09 12:00	07-JAN-10 08:52	16.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	NR	1.55	0.1825	pCi/g	0.2374	N	911.4	3	1.615	IDENTIFIED 10.01 <input type="checkbox"/>
Americium-243	INT	0.3286	0.02582	pCi/g	0.06197	N	74.84	1	1.047	IDENTIFIED 6.811 <input type="checkbox"/>
Annihilation Rad.	—	0.1186	0.0338	pCi/g	0.04765	N	510.9	1	1.36	IDENTIFIED 28.31 <input type="checkbox"/>
Barium-137m	NR	0.1906	0.03463	pCi/g	0.07112	N	661.4	2	1.612	IDENTIFIED 17.87 <input type="checkbox"/>
Bismuth-210	HE	1.233	0.4493	pCi/g	0.8903	N	46.48	3	0.8308	IDENTIFIED 36.23 <input type="checkbox"/>
Bismuth-211	INT	4.325	0.3255	pCi/g	0.3448	Y	352.2	4	1.523	IDENTIFIED 6.411 <input checked="" type="checkbox"/> UT
Bismuth-212	HE	0.8563	0.2724	pCi/g	0.4723	N	727.9	1	1.634	IDENTIFIED 31.49 <input type="checkbox"/>
Bismuth-214	✓	1.261	0.1101	pCi/g	0.1366	0.200	609.6	4	1.421	IDENTIFIED 7.662 <input type="checkbox"/>
Cadmium-109	INT	3.38	0.4174	pCi/g	0.9521	Y	87.36	3	1.251	IDENTIFIED 11.75 <input checked="" type="checkbox"/> UT
Cerium-143	—	1930	318.1	pCi/g	0	N	0	12	0	SHORT_HLIF 0 <input type="checkbox"/>
Cesium-134	LA	0.1165	0.02781	pCi/g	0.1061	0.100	0	12	0	NOT_IDENTI 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Cesium-137	✓	0.2015	0.03661	pCi/g	0.07518	0.100	661.4	2	1.612	IDENTIFIED 17.87 <input type="checkbox"/>
Gross Gamma	—	8.704	1.328	pCi/g	5.047	N	0			<input type="checkbox"/>
Iodine-123	HE	7.72E+06	2.88E+07	pCi/g	0	N	0	12	0	SHORT_HLIF 0 <input type="checkbox"/>
Krypton-85	HE	22.13	4.6	pCi/g	15.86	N	0	12	0	NOT_IDENTI 0 <input type="checkbox"/>
Lead-210	HE	1.233	0.4493	pCi/g	0.8903	N	46.48	3	0.8308	IDENTIFIED 36.23 <input type="checkbox"/>
Lead-212	✓	1.515	0.09975	pCi/g	0.09903	0.100	238.8	4	1.251	IDENTIFIED 3.78 <input type="checkbox"/>
Lead-214	✓	1.505	0.1199	pCi/g	0.1202	0.100	352.2	4	1.523	IDENTIFIED 6.411 <input type="checkbox"/>
Lutetium-177	HE	2.972	0.8	pCi/g	2.569	N	0	12	0	FAIL_ABUND 0 <input type="checkbox"/>
Neptunium-237	INT	0.9731	0.1566	pCi/g	0.2729	N	87.36	3	1.251	IDENTIFIED 11.75 <input type="checkbox"/>
Niobium-97	HE	3.43E+05	3.62E+05	pCi/g	0	N	0	12	0	SHORT_HLIF 0 <input type="checkbox"/>
Polonium-210	HE	1.233	0.4486	pCi/g	0.8903	N	46.48	3	0.8308	IDENTIFIED 36.23 <input type="checkbox"/>
Polonium-212	NR	1.515	0.09975	pCi/g	0.09903	N	238.8	4	1.251	IDENTIFIED 3.78 <input type="checkbox"/>
Polonium-214	NR	1.505	0.1199	pCi/g	0.1202	N	352.2	4	1.523	IDENTIFIED 6.411 <input type="checkbox"/>
Polonium-216	NR	1.515	0.09975	pCi/g	0.09903	N	238.8	4	1.251	IDENTIFIED 3.78 <input type="checkbox"/>
Polonium-218	NR	1.505	0.1199	pCi/g	0.1202	N	352.2	4	1.523	IDENTIFIED 6.411 <input type="checkbox"/>
Potassium-40	✓	21.51	1.071	pCi/g	0.5907	1.00	1461	1	1.935	IDENTIFIED 3.892 <input type="checkbox"/>
Radium-224	INT	4.28	0.5958	pCi/g	1.127	Y	241.8	1	1.596	IDENTIFIED 13.03 <input checked="" type="checkbox"/> UT
Radium-226	✓	1.261	0.1101	pCi/g	0.1366	Y	609.6	4	1.421	IDENTIFIED 7.662 <input type="checkbox"/>
Radium-228	✓	1.55	0.1825	pCi/g	0.2374	0.500	911.4	3	1.615	IDENTIFIED 10.01 <input type="checkbox"/>
Sodium-24	HE	2.10E+05	2.48E+06	pCi/g	0	N	0	12	0	SHORT_HLIF 0 <input type="checkbox"/>
Strontium-85	LA	0.1156	0.02402	pCi/g	0.08286	Y	0	12	0	NOT_IDENTI 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-200	HE	270.9	767.1	pCi/g	0	N	0	12	0	SHORT_HLIF 0 <input type="checkbox"/>
Thallium-208	✓	0.4432	0.0484	pCi/g	0.07228	0.080	583.5	1	1.45	IDENTIFIED 10.28 <input type="checkbox"/>
Thorium-228	NR	1.541	0.1014	pCi/g	0.1007	N	238.8	4	1.251	IDENTIFIED 3.78 <input type="checkbox"/>
Thorium-230	NR	1.261	0.1101	pCi/g	0.1366	N	609.6	4	1.421	IDENTIFIED 7.662 <input type="checkbox"/>
Thorium-232	NR	1.55	0.1825	pCi/g	0.2374	N	911.4	3	1.615	IDENTIFIED 10.01 <input type="checkbox"/>
Thorium-234	✓	1.548	0.4246	pCi/g	1.077	2.00	63.4	2	1.221	IDENTIFIED 25.95 <input type="checkbox"/>
Tin-126	INT	0.3314	0.04092	pCi/g	0.09322	N	87.36	3	1.251	IDENTIFIED 11.75 <input type="checkbox"/>
Titanium-44	LA	0.3557	0.02358	pCi/g	0.06722	N	0	12	0	FAIL_ABUND 0 <input type="checkbox"/>
Total Uranium		4.7142	1.26E-06	ug/g	1.6064	N	0			<input type="checkbox"/>
Tungsten-181	HE	0.4618	0.1093	pCi/g	0.3574	N	0	12	0	NOT_IDENTI 0 <input type="checkbox"/>
Uranium-234	NR	1.261	0.1101	pCi/g	0.1366	N	609.6	4	1.421	IDENTIFIED 7.662 <input type="checkbox"/>

Uranium-238 HE 1.548 0.4246 pCi/g 1.077 N 63.4 2 1.221 IDENTIFIED 25.95 ☐
 Zirconium-97 HE 1.06E+07 6.15E+06 pCi/g 0 N 0 12 0 SHORT_HLIF 0 ☐

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243517004	21-DEC-09 12:00	07-JAN-10 08:53	16.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228 NR	1.634	0.1823	pCi/g	0.2306	N	910.8 3	1.302	IDENTIFIED 9.919	<input type="checkbox"/>	
Americium-243 NT	0.4085	0.05526	pCi/g	0.1095	N	74.58 1	1.465	IDENTIFIED 12.75	<input type="checkbox"/>	
Annihilation Rad.	HE	0.07474	0.04579	pCi/g	0.06246	N	511 1	2.074 IDENTIFIED 61.21	<input type="checkbox"/>	
Bismuth-211 NT	3.244	0.2543	pCi/g	0.3676	Y	351.7 4	1.238	IDENTIFIED 7.145	<input checked="" type="checkbox"/>	UF
Bismuth-212 HE	1.084	0.2554	pCi/g	0.771	N	0 10 0		FAIL_ABUND 0	<input type="checkbox"/>	
Bismuth-214 ✓	0.9279	0.09291	pCi/g	0.1311	0.200	609.1 4	1.445	IDENTIFIED 9.307	<input type="checkbox"/>	
Cadmium-109 NT	2.277	0.5876	pCi/g	1.491	Y	87.05 3	1.117	IDENTIFIED 25.34	<input checked="" type="checkbox"/>	UI
Cerium-143 —	2419	360.2	pCi/g	0	N	0 10 0		SHORT_HLIF 0	<input type="checkbox"/>	
Gold-195 HE	0.508	0.1385	pCi/g	0.4538	N	0 10 0		FAIL_ABUND 0	<input type="checkbox"/>	
Gross Gamma —	8.324	1.309	pCi/g	2.819	N	0			<input type="checkbox"/>	
Iodine-133 HE	10730	14720	pCi/g	0	N	0 10 0		SHORT_HLIF 0	<input type="checkbox"/>	
Iodine-135 —	1.60E+16 0		pCi/g	0	N	0 10 0		SHORT_HLIF 0	<input type="checkbox"/>	
Lead-212 ✓	1.566	0.08442	pCi/g	0.1076	0.100	238.4 4	1.157	IDENTIFIED 3.935	<input type="checkbox"/>	
Lead-214 ✓	1.128	0.09322	pCi/g	0.1359	0.100	351.7 4	1.238	IDENTIFIED 7.145	<input type="checkbox"/>	
Lutetium-177 HE	2.891	1.097	pCi/g	2.712	N	0 10 0		FAIL_ABUND 0	<input type="checkbox"/>	
Neptunium-237 HE	0.6554	0.1822	pCi/g	0.501	N	87.05 3	1.117	IDENTIFIED 25.34	<input type="checkbox"/>	
Niobium-95m LA	0.5677	0.09495	pCi/g	0.3123	N	0 10 0		NOT_IDENTI 0	<input type="checkbox"/>	
Polonium-212 NR	1.566	0.08442	pCi/g	0.1076	N	238.4 4	1.157	IDENTIFIED 3.935	<input type="checkbox"/>	
Polonium-214 NR	1.128	0.09322	pCi/g	0.1359	N	351.7 4	1.238	IDENTIFIED 7.145	<input type="checkbox"/>	
Polonium-216 NR	1.566	0.08442	pCi/g	0.1076	N	238.4 4	1.157	IDENTIFIED 3.935	<input type="checkbox"/>	
Polonium-218 NR	1.128	0.09322	pCi/g	0.1359	N	351.7 4	1.238	IDENTIFIED 7.145	<input type="checkbox"/>	
Potassium-40 ✓	30.92	1.46	pCi/g	0.5068	1.00	1460 1	1.942	IDENTIFIED 3.37	<input type="checkbox"/>	
Radium-224 NT	4.073	0.7807	pCi/g	1.224	Y	241.3 1	1.848	IDENTIFIED 18.94	<input checked="" type="checkbox"/>	UF
Radium-226 ✓	0.9279	0.09291	pCi/g	0.1311	Y	609.1 4	1.445	IDENTIFIED 9.307	<input type="checkbox"/>	
Radium-228 ✓	1.634	0.1823	pCi/g	0.2306	0.500	910.8 3	1.302	IDENTIFIED 9.919	<input type="checkbox"/>	
Sodium-24 —	5.54E+06	2.55E+06	pCi/g	0	N	0 10 0		SHORT_HLIF 0	<input type="checkbox"/>	
Thallium-208 ✓	0.4716	0.05014	pCi/g	0.0672	0.080	583 1	1.41	IDENTIFIED 10.15	<input type="checkbox"/>	
Thorium-228 NR	1.592	0.08585	pCi/g	0.1094	N	238.4 4	1.157	IDENTIFIED 3.935	<input type="checkbox"/>	
Thorium-230 NR	0.9279	0.0929	pCi/g	0.1311	N	609.1 4	1.445	IDENTIFIED 9.307	<input type="checkbox"/>	
Thorium-232 NR	1.634	0.1823	pCi/g	0.2306	N	910.8 3	1.302	IDENTIFIED 9.919	<input type="checkbox"/>	
Tin-126 HE	0.2232	0.05761	pCi/g	0.1672	N	87.05 3	1.117	IDENTIFIED 25.34	<input type="checkbox"/>	
Titanium-44 LA	0.3322	0.03018	pCi/g	0.09255	N	0 10 0		FAIL_ABUND 0	<input type="checkbox"/>	
Total Uranium —	5.6566	2.58E-06	ug/g	4.5074	N	0			<input type="checkbox"/>	
Uranium-234 NR	0.9279	0.0929	pCi/g	0.1311	N	609.1 4	1.445	IDENTIFIED 9.307	<input type="checkbox"/>	
Zirconium-97 —	2.72E+07	7.81E+06	pCi/g	0	N	0 10 0		SHORT_HLIF 0	<input type="checkbox"/>	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243517005	21-DEC-09 12:00	07-JAN-10 08:53	16.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228 NR	1.718	0.1808	pCi/g	0.2191	N	911.4 3	1.518	IDENTIFIED 8.766	<input type="checkbox"/>	
Americium-243 NT	0.3765	0.03623	pCi/g	0.07424	N	74.78 1	1.106	IDENTIFIED 8.74	<input type="checkbox"/>	
Annihilation Rad.	HE	0.06466	0.03626	pCi/g	0.04642	N	511 1	1.532 IDENTIFIED 55.91	<input type="checkbox"/>	
Barium-137m NR	0.1242	0.0338	pCi/g	0.0541	N	661.8 2	1.414	IDENTIFIED 26.85	<input type="checkbox"/>	
Bismuth-211 NT	4.659	0.3235	pCi/g	0.3632	Y	351.8 4	1.299	IDENTIFIED 5.302	<input checked="" type="checkbox"/>	UI
Bismuth-212 LA	1.457	0.234	pCi/g	0.6887	N	0 9 0		FAIL_ABUND 0	<input type="checkbox"/>	
Bismuth-214 ✓	1.415	0.1048	pCi/g	0.09891	0.200	609.5 4	1.571	IDENTIFIED 5.299	<input type="checkbox"/>	
Cadmium-109 NT	2.524	0.4909	pCi/g	1.123	Y	87.19 3	1.098	IDENTIFIED 18.89	<input checked="" type="checkbox"/>	UI
Cerium-143 —	1500	266.8	pCi/g	0	N	0 9 0		SHORT_HLIF 0	<input type="checkbox"/>	
Cesium-134 LA	0.11	0.02735	pCi/g	0.1019	0.100	0 9 0		NOT_IDENTI 0	<input checked="" type="checkbox"/>	UI Data rejected due to low abundance.

Cesium-137	✓	0.1313	0.03573	pCi/g	0.05719	0.100	661.8	2	1.414	IDENTIFIED	26.85	<input type="checkbox"/>
Gross Gamma	✓	8.858	1.495	pCi/g	3.737	N		0				<input type="checkbox"/>
Lead-212	✓	1.722	0.1013	pCi/g	0.08887	0.100	238.7	4	1.111	IDENTIFIED	3.42	<input type="checkbox"/>
Lead-214	✓	1.621	0.1202	pCi/g	0.1266	0.100	351.8	4	1.299	IDENTIFIED	5.302	<input type="checkbox"/>
Lutetium-177	HE	4.332	1.197	pCi/g	2.562	N	0	9	0	FAIL_ABUND	0	<input type="checkbox"/>
Neptunium-237	INT	0.7265	0.16	pCi/g	0.3257	N	87.19	3	1.098	IDENTIFIED	18.89	<input type="checkbox"/>
Niobium-97	HE	1.97E+05	3.07E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>
Polonium-212	NR	1.722	0.1013	pCi/g	0.08887	N	238.7	4	1.111	IDENTIFIED	3.42	<input type="checkbox"/>
Polonium-214	NR	1.621	0.1202	pCi/g	0.1266	N	351.8	4	1.299	IDENTIFIED	5.302	<input type="checkbox"/>
Polonium-216	NR	1.722	0.1013	pCi/g	0.08887	N	238.7	4	1.111	IDENTIFIED	3.42	<input type="checkbox"/>
Polonium-218	NR	1.621	0.1202	pCi/g	0.1266	N	351.8	4	1.299	IDENTIFIED	5.302	<input type="checkbox"/>
Potassium-40	✓	22.21	1.219	pCi/g	0.5224	1.00	1461	1	2.143	IDENTIFIED	3.416	<input type="checkbox"/>
Radium-224	INT	4.334	0.5053	pCi/g	1.011	Y	241.8	1	1.663	IDENTIFIED	10.86	<input checked="" type="checkbox"/> VI
Radium-226	✓	1.415	0.1048	pCi/g	0.09891	Y	609.5	4	1.571	IDENTIFIED	5.299	<input type="checkbox"/>
Radium-228	✓	1.718	0.1808	pCi/g	0.2191	0.500	911.4	3	1.518	IDENTIFIED	8.766	<input type="checkbox"/>
Sodium-24	HE	8.10E+05	3.09E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-200	HE	89.82	712.6	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	✓	0.5103	0.04308	pCi/g	0.05798	0.080	583.4	1	1.512	IDENTIFIED	6.955	<input type="checkbox"/>
Thorium-228	NR	1.751	0.103	pCi/g	0.09037	N	238.7	4	1.111	IDENTIFIED	3.42	<input type="checkbox"/>
Thorium-230	NR	1.415	0.1048	pCi/g	0.0989	N	609.5	4	1.571	IDENTIFIED	5.299	<input type="checkbox"/>
Thorium-232	NR	1.718	0.1808	pCi/g	0.2191	N	911.4	3	1.518	IDENTIFIED	8.766	<input type="checkbox"/>
Tin-126	INT	0.2474	0.04813	pCi/g	0.1103	N	87.19	3	1.098	IDENTIFIED	18.89	<input type="checkbox"/>
Titanium-44	LA	0.4354	0.02813	pCi/g	0.07328	N	0	9	0	FAIL_ABUND	0	<input type="checkbox"/>
Total Uranium	✓	2.7186	2.09E-06	ug/g	2.4279	N		0				<input type="checkbox"/>
Uranium-234	NR	1.415	0.1048	pCi/g	0.0989	N	609.5	4	1.571	IDENTIFIED	5.299	<input type="checkbox"/>
Zirconium-97	✓	1.53E+07	5.52E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue	
243517006	21-DEC-09 12:00	07-JAN-10 08:54	16.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP	
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment	
Actinium-228	NR	1.474	0.1595	pCi/g	0.2495	N	911.1	3	2.026	IDENTIFIED 9.084	<input type="checkbox"/>
Americium-243	INT	0.3841	0.04116	pCi/g	0.08694	N	74.75	1	1.536	IDENTIFIED 10.03	<input type="checkbox"/>
Annihilation Rad.	HE	0.0649	0.03781	pCi/g	0.04666	N	510.7	1	1.427	IDENTIFIED 58.18	<input type="checkbox"/>
Bismuth-211	INT	3.537	0.2381	pCi/g	0.356	Y	351.6	4	1.485	IDENTIFIED 5.939	<input checked="" type="checkbox"/>
Bismuth-212	LA	1.573	0.3122	pCi/g	0.7457	N	0	9	0	FAIL_ABUND 0	<input type="checkbox"/>
Bismuth-214	✓	1.112	0.09054	pCi/g	0.1194	0.200	609	4	1.465	IDENTIFIED 7.117	<input type="checkbox"/>
Cadmium-109	INT	4.387	0.6446	pCi/g	1.284	Y	87.16	3	1.879	IDENTIFIED 14.04	<input checked="" type="checkbox"/> VI
Cerium-143	—	2346	344.5	pCi/g	0	N	0	9	0	SHORT_HLIF 0	<input type="checkbox"/>
Cesium-134	LA	0.1564	0.04847	pCi/g	0.1082	0.100	0	9	0	FAIL_ABUND 0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Cesium-135	HE	0.3151	0.09817	pCi/g	0.314	N	0	9	0	NOT_IDENTI 0	<input type="checkbox"/>
Gross Gamma	—	9.681	1.828	pCi/g	3.572	N	0				<input type="checkbox"/>
Lead-212	✓	1.585	0.08219	pCi/g	0.09784	0.100	238.4	4	1.354	IDENTIFIED 3.692	<input type="checkbox"/>
Lead-214	✓	1.231	0.08883	pCi/g	0.1184	0.100	351.6	4	1.485	IDENTIFIED 5.939	<input type="checkbox"/>
Lutetium-177	HE	3.491	0.8717	pCi/g	2.671	N	0	9	0	FAIL_ABUND 0	<input type="checkbox"/>
Neptunium-237	WT	1.263	0.2267	pCi/g	0.3739	N	87.16	3	1.879	IDENTIFIED 14.04	<input type="checkbox"/>
Niobium-95m	LA	0.812	0.09438	pCi/g	0.3171	N	0	9	0	NOT_IDENTI 0	<input type="checkbox"/>
Polonium-212	NR	1.585	0.08219	pCi/g	0.09784	N	238.4	4	1.354	IDENTIFIED 3.692	<input type="checkbox"/>
Polonium-214	NR	1.231	0.08883	pCi/g	0.1184	N	351.6	4	1.485	IDENTIFIED 5.939	<input type="checkbox"/>
Polonium-216	NR	1.585	0.08219	pCi/g	0.09784	N	238.4	4	1.354	IDENTIFIED 3.692	<input type="checkbox"/>
Polonium-218	NR	1.231	0.08883	pCi/g	0.1184	N	351.6	4	1.485	IDENTIFIED 5.939	<input type="checkbox"/>
Potassium-40	✓	33.64	1.566	pCi/g	0.6668	1.00	1461	1	1.991	IDENTIFIED 2.913	<input type="checkbox"/>
Radium-224	INT	4.849	0.7476	pCi/g	1.113	Y	241.4	1	2.062	IDENTIFIED 15.15	<input checked="" type="checkbox"/> VI
Radium-226	✓	1.112	0.09054	pCi/g	0.1194	Y	609	4	1.465	IDENTIFIED 7.117	<input type="checkbox"/>
Radium-228	✓	1.474	0.1595	pCi/g	0.2495	0.500	911.1	3	2.026	IDENTIFIED 9.084	<input type="checkbox"/>
Thallium-200	HE	1169	739.6	pCi/g	0	N	0	9	0	SHORT_HLIF 0	<input type="checkbox"/>
Thallium-208	✓	0.4926	0.04638	pCi/g	0.06337	0.080	583	1	1.61	IDENTIFIED 8.772	<input type="checkbox"/>
Thorium-228	NR	1.612	0.08359	pCi/g	0.09949	N	238.4	4	1.354	IDENTIFIED 3.692	<input type="checkbox"/>

Thorium-230	NR	1.112	0.09054	pCi/g	0.1194	N	609	4	1.465	IDENTIFIED	7.117	<input type="checkbox"/>
Thorium-232	NR	1.474	0.1595	pCi/g	0.2495	N	911.1	3	2.026	IDENTIFIED	9.084	<input type="checkbox"/>
Tin-126	INT	0.4301	0.06319	pCi/g	0.1263	N	87.16	3	1.879	IDENTIFIED	14.04	<input type="checkbox"/>
Titanium-44	LA	0.3795	0.02916	pCi/g	0.08343	N	0	9	0	FAIL_ABUND	0	<input type="checkbox"/>
Uranium-234	NR	1.112	0.09054	pCi/g	0.1194	N	609	4	1.465	IDENTIFIED	7.117	<input type="checkbox"/>
Zirconium-97	—	3.21E+07	6.52E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = 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
243517007	21-DEC-09 12:00	07-JAN-10 08:58	16.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment			
Actinium-228	NR	1.544	0.174	pCi/g	0.1789	N	911.2	3	1.925	IDENTIFIED	9.114	<input type="checkbox"/>	
Americium-243	INT	0.3344	0.03505	pCi/g	0.07406	N	74.75	1	1.224	IDENTIFIED	9.655	<input type="checkbox"/>	
Annihilation Rad.		0.1438	0.02853	pCi/g	0.04043	N	510.9	1	2.181	IDENTIFIED	19.2	<input type="checkbox"/>	
Bismuth-211	INT	3.312	0.2678	pCi/g	0.2995	Y	352.1	4	1.406	IDENTIFIED	5.622	<input checked="" type="checkbox"/>	✓
Bismuth-212	NR	1.319	0.2067	pCi/g	0.5791	N	0	11	0	FAIL_ABUND	0	<input type="checkbox"/>	
Bismuth-214	✓	0.9578	0.08654	pCi/g	0.09547	0.200	609.2	4	1.552	IDENTIFIED	6.916	<input type="checkbox"/>	
Cadmium-109	INT	3.06	0.4292	pCi/g	1.14	Y	87.23	3	1.305	IDENTIFIED	13.22	<input checked="" type="checkbox"/>	✓
Cerium-143	—	1690	278.5	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>	
Cesium-134	LA	0.1493	0.02894	pCi/g	0.08242	0.100	0	11	0	FAIL_ABUND	0	<input checked="" type="checkbox"/>	UI Data rejected due to low abundance.
Gross Gamma	—	8.821	1.187	pCi/g	1.844	N	0					<input type="checkbox"/>	
Iodine-123	HE	3.79E+07	2.54E+07	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>	
Iodine-135	—	3.17E+17	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>	
Krypton-85	LA	24.22	4.011	pCi/g	13.07	N	0	11	0	NOT_IDENTI	0	<input type="checkbox"/>	
Lead-212	✓	1.622	0.1181	pCi/g	0.08637	0.100	238.7	4	1.189	IDENTIFIED	3.056	<input type="checkbox"/>	
Lead-214	✓	1.152	0.09789	pCi/g	0.1013	0.100	352.1	4	1.406	IDENTIFIED	5.622	<input type="checkbox"/>	
Lutetium-177	HE	3.338	0.9338	pCi/g	2.204	N	0	11	0	FAIL_ABUND	0	<input type="checkbox"/>	
Neptunium-237	INT	0.8808	0.1534	pCi/g	0.3538	N	87.23	3	1.305	IDENTIFIED	13.22	<input type="checkbox"/>	
Polonium-212	NR	1.622	0.1181	pCi/g	0.08637	N	238.7	4	1.189	IDENTIFIED	3.056	<input type="checkbox"/>	
Polonium-214	NR	1.152	0.09789	pCi/g	0.1013	N	352.1	4	1.406	IDENTIFIED	5.622	<input type="checkbox"/>	
Polonium-216	NR	1.622	0.1181	pCi/g	0.08637	N	238.7	4	1.189	IDENTIFIED	3.056	<input type="checkbox"/>	
Polonium-218	NR	1.152	0.09789	pCi/g	0.1013	N	352.1	4	1.406	IDENTIFIED	5.622	<input type="checkbox"/>	
Potassium-40	✓	32.19	1.668	pCi/g	0.426	1.00	1461	1	2.687	IDENTIFIED	2.423	<input type="checkbox"/>	
Radium-224	INT	3.998	0.6263	pCi/g	0.9818	Y	241.6	1	1.839	IDENTIFIED	14.35	<input checked="" type="checkbox"/>	✓
Radium-226	✓	0.9578	0.08654	pCi/g	0.09547	Y	609.2	4	1.552	IDENTIFIED	6.916	<input type="checkbox"/>	
Radium-228	✓	1.544	0.174	pCi/g	0.1789	0.500	911.2	3	1.925	IDENTIFIED	9.114	<input type="checkbox"/>	
Strontium-85	LA	0.1265	0.02095	pCi/g	0.06825	Y	0	11	0	NOT_IDENTI	0	<input checked="" type="checkbox"/>	UI Data rejected due to low abundance.
Technetium-99m	—	1.21E+18	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>	
Thallium-208	✓	0.4788	0.04072	pCi/g	0.04742	0.880	583.2	1	1.458	IDENTIFIED	6.552	<input type="checkbox"/>	
Thorium-228	NR	1.649	0.1201	pCi/g	0.08783	N	238.7	4	1.189	IDENTIFIED	3.056	<input type="checkbox"/>	
Thorium-230	NR	0.9578	0.08653	pCi/g	0.09547	N	609.2	4	1.552	IDENTIFIED	6.916	<input type="checkbox"/>	
Thorium-232	NR	1.544	0.174	pCi/g	0.1789	N	911.2	3	1.925	IDENTIFIED	9.114	<input type="checkbox"/>	
Tin-126	INT	0.3	0.04208	pCi/g	0.1159	N	87.23	3	1.305	IDENTIFIED	13.22	<input type="checkbox"/>	
Titanium-44	LA	0.3621	0.02677	pCi/g	0.07034	N	0	11	0	FAIL_ABUND	0	<input type="checkbox"/>	
Total Uranium	—	3.6876	2.28E-06	ug/g	2.4465	N	0					<input type="checkbox"/>	
Uranium-234	NR	0.9578	0.08653	pCi/g	0.09547	N	609.2	4	1.552	IDENTIFIED	6.916	<input type="checkbox"/>	
Zirconium-97	—	3.37E+07	5.51E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>	

*** = 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
243517008	21-DEC-09 12:00	07-JAN-10 09:12	16.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment		
Actinium-228	NR	1.338	0.1726	pCi/g	0.2106	N	911.7	3	1.651	IDENTIFIED	11.32	<input type="checkbox"/>
Americium-243	INT	0.3352	0.04563	pCi/g	0.1005	N	74.6	1	1.182	IDENTIFIED	12.46	<input type="checkbox"/>
Annihilation Rad.	—	0.1385	0.02916	pCi/g	0.04226	N	511.1	1	1.505	IDENTIFIED	20.81	<input type="checkbox"/>
Barium-137m	NR	0.1457	0.02538	pCi/g	0.05224	N	661.7	2	1.333	IDENTIFIED	17.24	<input type="checkbox"/>
Bismuth-211	INT	3.441	0.2559	pCi/g	0.2797	Y	351.8	4	1.223	IDENTIFIED	6.481	<input checked="" type="checkbox"/> J4

Bismuth-212	LA	1.19	0.2384	pCi/g	0.6407	N	0	8	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214	✓	1.203	0.08047	pCi/g	0.1005	0.200	609.5	4	1.446	IDENTIFIED	5.499	<input type="checkbox"/>
Cadmium-109	INT	3.11	0.6107	pCi/g	1.433	Y	86.98	3	1.227	IDENTIFIED	18.81	<input checked="" type="checkbox"/> ✓
Cerium-143	—	1349	237.6	pCi/g	0	N	0	8	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-137	✓	0.1541	0.02683	pCi/g	0.05522	0.100	661.7	2	1.333	IDENTIFIED	17.24	<input type="checkbox"/>
Gross Gamma	—	7.754	1.307	pCi/g	2.638	N	0	0	0			<input type="checkbox"/>
Iodine-123	HE	2.65E+07	2.47E+07	pCi/g	0	N	0	8	0	SHORT_HLIF	0	<input type="checkbox"/>
Iodine-135	—	5.10E+17	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-212	✓	1.457	0.07459	pCi/g	0.08545	0.100	238.6	4	1.126	IDENTIFIED	3.437	<input type="checkbox"/>
Lead-214	✓	1.197	0.09432	pCi/g	0.0975	0.100	351.8	4	1.223	IDENTIFIED	6.481	<input type="checkbox"/>
Lutetium-177	HE	2.616	0.7488	pCi/g	2.209	N	0	8	0	FAIL_ABUND	0	<input type="checkbox"/>
Neptunium-237	INT	0.8953	0.1986	pCi/g	0.4548	N	86.98	3	1.227	IDENTIFIED	18.81	<input type="checkbox"/>
Polonium-212	NR	1.457	0.07459	pCi/g	0.08545	N	238.6	4	1.126	IDENTIFIED	3.437	<input type="checkbox"/>
Polonium-214	NR	1.197	0.09432	pCi/g	0.0975	N	351.8	4	1.223	IDENTIFIED	6.481	<input type="checkbox"/>
Polonium-216	NR	1.457	0.07459	pCi/g	0.08545	N	238.6	4	1.126	IDENTIFIED	3.437	<input type="checkbox"/>
Polonium-218	NR	1.197	0.09432	pCi/g	0.0975	N	351.8	4	1.223	IDENTIFIED	6.481	<input type="checkbox"/>
Potassium-40	✓	21.36	1.196	pCi/g	0.4495	1.00	1461	1	2.074	IDENTIFIED	3.583	<input type="checkbox"/>
Radium-224	INT	4.29	0.5313	pCi/g	0.9721	Y	241.6	1	1.956	IDENTIFIED	12	<input checked="" type="checkbox"/> ✓
Radium-226	✓	1.203	0.08047	pCi/g	0.1005	Y	609.5	4	1.446	IDENTIFIED	5.499	<input type="checkbox"/>
Radium-228	✓	1.338	0.1726	pCi/g	0.2106	0.500	911.7	3	1.651	IDENTIFIED	11.32	<input type="checkbox"/>
Sodium-24	HE	1.44E+06	2.39E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	<input type="checkbox"/>
Technetium-99m	—	1.35E+18	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	✓	0.3977	0.0399	pCi/g	0.05357	0.080	583.3	1	1.361	IDENTIFIED	9.453	<input type="checkbox"/>
Thorium-228	NR	1.482	0.07585	pCi/g	0.0869	N	238.6	4	1.126	IDENTIFIED	3.437	<input type="checkbox"/>
Thorium-230	NR	1.203	0.08047	pCi/g	0.1005	N	609.5	4	1.446	IDENTIFIED	5.499	<input type="checkbox"/>
Thorium-232	NR	1.338	0.1726	pCi/g	0.2106	N	911.7	3	1.651	IDENTIFIED	11.32	<input type="checkbox"/>
Tin-126	INT	0.3049	0.05987	pCi/g	0.1505	N	86.98	3	1.227	IDENTIFIED	18.81	<input type="checkbox"/>
Titanium-44	LA	0.3242	0.02903	pCi/g	0.07986	N	0	8	0	FAIL_ABUND	0	<input type="checkbox"/>
Uranium-234	NR	1.203	0.08047	pCi/g	0.1005	N	609.5	4	1.446	IDENTIFIED	5.499	<input type="checkbox"/>

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Qals	Zero?	queue
243517009	21-DEC-09 12:00	07-JAN-10 09:13	16.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	NR	1.486	0.154	pCi/g	0.1504	N	910.3	3	1.576	IDENTIFIED 8.39 <input type="checkbox"/>
Americium-243	INT	0.281	0.02847	pCi/g	0.06939	N	74.7	1	0.8181	IDENTIFIED 9.288 <input type="checkbox"/>
Annihilation Rad.	HE	0.07021	0.0331	pCi/g	0.03863	N	510.2	1	1.431	IDENTIFIED 46.83 <input type="checkbox"/>
Barium-137m	NR	0.1346	0.02217	pCi/g	0.04766	N	661.2	2	1.229	IDENTIFIED 15.78 <input type="checkbox"/>
Bismuth-211	INT	3.49	0.2924	pCi/g	0.2734	Y	351.5	4	1.123	IDENTIFIED 5.177 <input checked="" type="checkbox"/> ✓
Bismuth-212	HE	0.9217	0.2122	pCi/g	0.5822	N	0	8	0	FAIL_ABUND 0 <input type="checkbox"/>
Bismuth-214	✓	1.107	0.1003	pCi/g	0.1066	0.200	608.6	4	1.288	IDENTIFIED 7.081 <input type="checkbox"/>
Cadmium-109	INT	3.217	0.3675	pCi/g	0.893	Y	86.99	3	1.138	IDENTIFIED 10.42 <input checked="" type="checkbox"/> ✓
Cerium-143	—	1625	282.2	pCi/g	0	N	0	8	0	SHORT_HLIF 0 <input type="checkbox"/>
Cesium-134	LA	0.1571	0.03266	pCi/g	0.08112	0.100	0	8	0	FAIL_ABUND 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Cesium-137	✓	0.1423	0.02344	pCi/g	0.05038	0.100	661.2	2	1.229	IDENTIFIED 15.78 <input type="checkbox"/>
Gross Gamma	—	8.395	1.732	pCi/g	4.005	N	0	0	0	
Iodine-135	—	9.03E+16	0	pCi/g	0	N	0	8	0	SHORT_HLIF 0 <input type="checkbox"/>
Lead-212	✓	1.428	0.1113	pCi/g	0.07936	0.100	238.3	4	0.9759	IDENTIFIED 3.448 <input type="checkbox"/>
Lead-214	✓	1.214	0.1065	pCi/g	0.09477	0.100	351.5	4	1.123	IDENTIFIED 5.177 <input type="checkbox"/>
Lutetium-177	HE	3.149	0.8641	pCi/g	2.17	N	0	8	0	FAIL_ABUND 0 <input type="checkbox"/>
Neptunium-237	INT	0.9261	0.1426	pCi/g	0.2634	N	86.99	3	1.138	IDENTIFIED 10.42 <input type="checkbox"/>
Polonium-212	NR	1.428	0.1113	pCi/g	0.07936	N	238.3	4	0.9759	IDENTIFIED 3.448 <input type="checkbox"/>
Polonium-214	NR	1.214	0.1065	pCi/g	0.09477	N	351.5	4	1.123	IDENTIFIED 5.177 <input type="checkbox"/>
Polonium-216	NR	1.428	0.1113	pCi/g	0.07936	N	238.3	4	0.9759	IDENTIFIED 3.448 <input type="checkbox"/>
Polonium-218	NR	1.214	0.1065	pCi/g	0.09477	N	351.5	4	1.123	IDENTIFIED 5.177 <input type="checkbox"/>
Potassium-40	✓	21.3	1.166	pCi/g	0.4349	1.00	1459	1	1.722	IDENTIFIED 3.357 <input type="checkbox"/>
Radium-224	INT	3.647	0.546	pCi/g	0.9033	Y	241.3	1	1.513	IDENTIFIED 13.39 <input checked="" type="checkbox"/> ✓
Radium-226	✓	1.107	0.1003	pCi/g	0.1066	Y	608.6	4	1.288	IDENTIFIED 7.081 <input type="checkbox"/>

Radium-228	✓	1.486	0.154	pCi/g	0.1504	0.500	910.3	3	1.576	IDENTIFIED	8.39	☐
Thallium-200	HE	12.44	573	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.4796	0.0468	pCi/g	0.04591	0.080	582.5	1	1.215	IDENTIFIED	8.127	☐
Thorium-228	NR	1.452	0.1132	pCi/g	0.0887	N	238.3	4	0.9759	IDENTIFIED	3.448	☐
Thorium-230	NR	1.107	0.1003	pCi/g	0.1066	N	608.6	4	1.288	IDENTIFIED	7.081	☐
Thorium-232	NR	1.486	0.154	pCi/g	0.1504	N	910.3	3	1.576	IDENTIFIED	8.39	☐
Thorium-234	✓	2.29	0.721	pCi/g	1.425	2.00	63.25	2	0.9999	IDENTIFIED	30.26	☐
Tin-126	INT	0.3154	0.03603	pCi/g	0.08783	N	86.99	3	1.138	IDENTIFIED	10.42	☐
Titanium-44	LA	0.3442	0.02366	pCi/g	0.05199	N	0	8	0	FAIL_ABUND	0	☐
Total Uranium	—	6.7947	2.15E-06	ug/g	2.1215	N		0				☐
Uranium-234	NR	1.107	0.1003	pCi/g	0.1066	N	608.6	4	1.288	IDENTIFIED	7.081	☐
Uranium-238	HE	2.29	0.721	pCi/g	1.425	N	63.25	2	0.9999	IDENTIFIED	30.26	☐
Zirconium-97	✓	2.56E+07	4.61E+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
243540001	21-DEC-09 12:00	07-JAN-10 09:13	16.9	SAMPLE	LOAD	1	LANL	LANLO1004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	NR	1.068	0.1682	pCi/g	0.2182	N	910.5	3	1.462	IDENTIFIED 14.75 ☐
Americium-243	INT	0.2856	0.03736	pCi/g	0.08374	N	74.66	1	1.09	IDENTIFIED 12.63 ☐
Annihilation Rad.	—	0.1535	0.03434	pCi/g	0.04645	N	510.3	1	2.272	IDENTIFIED 22.17 ☐
Barium-137m	HE	0.07654	0.02843	pCi/g	0.05608	N	661.3	2	1.444	IDENTIFIED 37 ☐
Bismuth-211	INT	2.922	0.2121	pCi/g	0.3008	Y	351.6	4	1.378	IDENTIFIED 6.545 ✓/✓
Bismuth-212	HE	0.9851	0.2518	pCi/g	0.6606	N	0	8	0	FAIL_ABUND 0 ☐
Bismuth-214	✓	0.8665	0.08265	pCi/g	0.1133	0.200	608.9	4	1.638	IDENTIFIED 8.605 ☐
Cerium-143	—	1427	242.2	pCi/g	0	N	0	8	0	SHORT_HLIF 0 ☐
Cesium-137	✓	0.08091	0.03005	pCi/g	0.05928	0.100	661.3	2	1.444	IDENTIFIED 37 ☐
Gross Gamma	—	7.9	1.339	pCi/g	2.411	N		0		☐
Iodine-123	HE	1.67E+07	2.37E+07	pCi/g	0	N	0	8	0	SHORT_HLIF 0 ☐
Lead-212	✓	1.144	0.06384	pCi/g	0.08132	0.100	238.4	4	1.125	IDENTIFIED 4.303 ☐
Lead-214	✓	1.016	0.07842	pCi/g	0.1049	0.100	351.6	4	1.378	IDENTIFIED 6.545 ☐
Lutetium-177	HE	2.691	0.8408	pCi/g	2.135	N	0	8	0	FAIL_ABUND 0 ☐
Niobium-97	HE	4.32E+05	2.81E+05	pCi/g	0	N	0	8	0	SHORT_HLIF 0 ☐
Polonium-212	NR	1.144	0.06384	pCi/g	0.08132	N	238.4	4	1.125	IDENTIFIED 4.303 ☐
Polonium-214	NR	1.016	0.07842	pCi/g	0.1049	N	351.6	4	1.378	IDENTIFIED 6.545 ☐
Polonium-216	NR	1.144	0.06384	pCi/g	0.08132	N	238.4	4	1.125	IDENTIFIED 4.303 ☐
Polonium-218	NR	1.016	0.07842	pCi/g	0.1049	N	351.6	4	1.378	IDENTIFIED 6.545 ☐
Potassium-40	✓	32.14	1.468	pCi/g	0.5593	1.00	1460	1	2.074	IDENTIFIED 2.853 ☐
Radium-224	INT	3.993	0.6078	pCi/g	0.9254	Y	241.3	1	1.749	IDENTIFIED 14.97 ✓/✓
Radium-226	✓	0.8665	0.08265	pCi/g	0.1133	Y	608.9	4	1.638	IDENTIFIED 8.605 ☐
Radium-228	✓	1.068	0.1682	pCi/g	0.2182	0.500	910.5	3	1.462	IDENTIFIED 14.75 ☐
Thallium-200	HE	118.8	608.4	pCi/g	0	N	0	8	0	SHORT_HLIF 0 ☐
Thallium-208	✓	0.3737	0.03939	pCi/g	0.05897	0.080	582.8	1	1.386	IDENTIFIED 9.914 ☐
Thorium-228	NR	1.164	0.06492	pCi/g	0.0827	N	238.4	4	1.125	IDENTIFIED 4.303 ☐
Thorium-230	NR	0.8665	0.08265	pCi/g	0.1133	N	608.9	4	1.638	IDENTIFIED 8.605 ☐
Thorium-232	NR	1.068	0.1682	pCi/g	0.2182	N	910.5	3	1.462	IDENTIFIED 14.75 ☐
Titanium-44	LA	0.3109	0.02466	pCi/g	0.06628	N	0	8	0	FAIL_ABUND 0 ☐
Total Uranium	—	3.3614	2.69E-06	ug/g	2.8511	N		0		☐
Uranium-234	NR	0.8665	0.08265	pCi/g	0.1133	N	608.9	4	1.638	IDENTIFIED 8.605 ☐
Zirconium-97	—	3.41E+07	6.31E+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
243540002	21-DEC-09 12:00	07-JAN-10 09:14	16.9	SAMPLE	LOAD	1	LANL	LANLO1004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	NR	1.265	0.1729	pCi/g	0.2102	N	910.5	3	1.322	IDENTIFIED 12.31 ☐
Americium-243	INT	0.2262	0.03018	pCi/g	0.07822	N	74.78	1	0.8704	IDENTIFIED 12.68 ☐

Annihilation Rad.	—	0.1498	0.03607	pCi/g	0.04452	N	510.6	1	1.659	IDENTIFIED	23.61	<input type="checkbox"/>
Barium-137m	NR	0.582	0.05004	pCi/g	0.06298	N	661.2	2	1.368	IDENTIFIED	7.362	<input type="checkbox"/>
Bismuth-211	INT	2.861	0.2551	pCi/g	0.3013	Y	351.6	4	1.107	IDENTIFIED	7.05	<input checked="" type="checkbox"/> VF
Bismuth-212	HE	0.9402	0.2044	pCi/g	0.6022	N	0	11	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214	✓	0.8215	0.07869	pCi/g	0.1129	0.200	608.9	4	1.249	IDENTIFIED	7.988	<input type="checkbox"/>
Cadmium-109	INT	3.066	0.4906	pCi/g	1.069	Y	87.15	3	1.249	IDENTIFIED	15.27	<input checked="" type="checkbox"/> VF
Cerium-143	—	1163	240.8	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-134	LA	0.09445	0.02125	pCi/g	0.08208	0.100	0	11	0	FAIL_ABUND	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Cesium-137	✓	0.6153	0.05292	pCi/g	0.06657	0.100	661.2	2	1.368	IDENTIFIED	7.362	<input type="checkbox"/>
Gross Gamma	—	9.569	1.37	pCi/g	2.932	N	0					<input type="checkbox"/>
Iodine-123	HE	2.33E+07	2.35E+07	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-212	✓	1.402	0.09734	pCi/g	0.0822	0.100	238.4	4	1.001	IDENTIFIED	3.634	<input type="checkbox"/>
Lead-214	✓	0.9954	0.09247	pCi/g	0.105	0.100	351.6	4	1.107	IDENTIFIED	7.05	<input type="checkbox"/>
Lutetium-177	HE	2.573	0.7864	pCi/g	2.194	N	0	11	0	FAIL_ABUND	0	<input type="checkbox"/>
Neptunium-237	INT	0.8826	0.168	pCi/g	0.3468	N	87.15	3	1.249	IDENTIFIED	15.27	<input type="checkbox"/>
Niobium-97	HE	2.44E+05	3.24E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>
Polonium-212	NR	1.402	0.09734	pCi/g	0.0822	N	238.4	4	1.001	IDENTIFIED	3.634	<input type="checkbox"/>
Polonium-214	NR	0.9954	0.09247	pCi/g	0.105	N	351.6	4	1.107	IDENTIFIED	7.05	<input type="checkbox"/>
Polonium-216	NR	1.402	0.09734	pCi/g	0.0822	N	238.4	4	1.001	IDENTIFIED	3.634	<input type="checkbox"/>
Polonium-218	NR	0.9954	0.09247	pCi/g	0.105	N	351.6	4	1.107	IDENTIFIED	7.05	<input type="checkbox"/>
Potassium-40	✓	37.73	1.915	pCi/g	0.3621	1.00	1460	1	1.837	IDENTIFIED	2.541	<input type="checkbox"/>
Radium-224	INT	4.518	0.6078	pCi/g	0.9355	Y	241.4	1	1.678	IDENTIFIED	12.27	<input checked="" type="checkbox"/> VK
Radium-226	✓	0.8215	0.07869	pCi/g	0.1129	Y	608.9	4	1.249	IDENTIFIED	7.988	<input type="checkbox"/>
Radium-228	✓	1.265	0.1729	pCi/g	0.2102	0.500	910.5	3	1.322	IDENTIFIED	12.31	<input type="checkbox"/>
Sodium-24	HE	2.83E+06	2.42E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>
Technetium-99m	—	3.65E+18	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-200	HE	1089	664.8	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	✓	0.4093	0.04114	pCi/g	0.04931	0.080	582.7	1	1.345	IDENTIFIED	8.744	<input type="checkbox"/>
Thorium-228	NR	1.426	0.09899	pCi/g	0.08359	N	238.4	4	1.001	IDENTIFIED	3.634	<input type="checkbox"/>
Thorium-230	NR	0.8215	0.07869	pCi/g	0.1129	N	608.9	4	1.249	IDENTIFIED	7.988	<input type="checkbox"/>
Thorium-232	NR	1.265	0.1729	pCi/g	0.2102	N	910.5	3	1.322	IDENTIFIED	12.31	<input type="checkbox"/>
Tin-126	INT	0.3006	0.0481	pCi/g	0.1052	N	87.15	3	1.249	IDENTIFIED	15.27	<input type="checkbox"/>
Titanium-44	LA	0.3151	0.02484	pCi/g	0.06516	N	0	11	0	FAIL_ABUND	0	<input type="checkbox"/>
Total Uranium	—	3.3251	1.80E-06	ug/g	2.729	N	0					<input type="checkbox"/>
Uranium-234	NR	0.8215	0.07869	pCi/g	0.1129	N	608.9	4	1.249	IDENTIFIED	7.988	<input type="checkbox"/>
Zirconium-97	—	1.83E+07	5.41E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = 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	
243540003	21-DEC-09 12:00	07-JAN-10 09:14	16.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP	
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment	
Actinium-228	NR	1.208	0.1794	pCi/g	0.2124	N	911.5	3	1.559	IDENTIFIED 13.53	<input type="checkbox"/>
Americium-243	INT	0.2778	0.02986	pCi/g	0.07399	N	74.93	1	1.007	IDENTIFIED 9.964	<input type="checkbox"/>
Annihilation Rad.	—	0.1331	0.03266	pCi/g	0.04102	N	511.1	1	1.9	IDENTIFIED 24.09	<input type="checkbox"/>
Barium-137m	NR	0.4974	0.04818	pCi/g	0.05397	N	662	2	1.262	IDENTIFIED 8.286	<input type="checkbox"/>
Bismuth-211	INT	3.304	0.2666	pCi/g	0.3067	Y	352	4	1.168	IDENTIFIED 6.499	<input checked="" type="checkbox"/> VF
Bismuth-212	HE	0.8522	0.2175	pCi/g	0.612	N	0	9	0	FAIL_ABUND 0	<input type="checkbox"/>
Bismuth-214	✓	0.8396	0.08904	pCi/g	0.1101	0.200	609.8	4	1.427	IDENTIFIED 9.029	<input type="checkbox"/>
Cadmium-109	INT	2.39	0.4613	pCi/g	1.088	Y	87.14	3	1.093	IDENTIFIED 18.73	<input checked="" type="checkbox"/> VF
Cerium-143	—	944	215	pCi/g	0	N	0	9	0	SHORT_HLIF 0	<input type="checkbox"/>
Cesium-137	✓	0.5258	0.05095	pCi/g	0.05705	0.100	662	2	1.262	IDENTIFIED 8.286	<input type="checkbox"/>
Gross Gamma	—	8.199	1.396	pCi/g	2.532	N	0				<input type="checkbox"/>
Iodine-123	HE	8.69E+05	2.52E+07	pCi/g	0	N	0	9	0	SHORT_HLIF 0	<input type="checkbox"/>
Iodine-135	—	9.43E+16	0	pCi/g	0	N	0	9	0	SHORT_HLIF 0	<input type="checkbox"/>
Lead-212	✓	1.444	0.09266	pCi/g	0.07938	0.100	238.6	4	1.129	IDENTIFIED 3.591	<input type="checkbox"/>
Lead-214	✓	1.149	0.09745	pCi/g	0.09896	0.100	352	4	1.168	IDENTIFIED 6.499	<input type="checkbox"/>
Lutetium-177	HE	3.198	0.8706	pCi/g	2.213	N	0	9	0	FAIL_ABUND 0	<input type="checkbox"/>
Neptunium-237	INT	0.6879	0.1506	pCi/g	0.2926	N	87.14	3	1.093	IDENTIFIED 18.73	<input type="checkbox"/>

Polonium-212	NL	1.444	0.09266	pCi/g	0.07938	N	238.6	4	1.129	IDENTIFIED	3.591	<input type="checkbox"/>
Polonium-214	NL	1.149	0.09745	pCi/g	0.09896	N	352	4	1.168	IDENTIFIED	6.499	<input type="checkbox"/>
Polonium-216	NL	1.444	0.09266	pCi/g	0.07938	N	238.6	4	1.129	IDENTIFIED	3.591	<input type="checkbox"/>
Polonium-218	NL	1.149	0.09745	pCi/g	0.09896	N	352	4	1.168	IDENTIFIED	6.499	<input type="checkbox"/>
Potassium-40	✓	28.6	1.521	pCi/g	0.5021	1.00	1461	1	1.828	IDENTIFIED	3.043	<input type="checkbox"/>
Radium-224	INT	3.928	0.6559	pCi/g	0.9031	Y	241.6	1	1.793	IDENTIFIED	15.98	<input checked="" type="checkbox"/>
Radium-226	✓	0.8396	0.08904	pCi/g	0.1101	Y	609.8	4	1.427	IDENTIFIED	9.029	<input type="checkbox"/>
Radium-228	✓	1.208	0.1794	pCi/g	0.2124	0.500	911.6	3	1.559	IDENTIFIED	13.53	<input type="checkbox"/>
Sodium-24	HE	3.48E+06	1.96E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-200	HE	227.3	667.7	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	✓	0.4155	0.04086	pCi/g	0.0535	0.080	583.4	1	1.324	IDENTIFIED	8.381	<input type="checkbox"/>
Thorium-228	NL	1.469	0.09423	pCi/g	0.08873	N	238.6	4	1.129	IDENTIFIED	3.591	<input type="checkbox"/>
Thorium-230	NL	0.8396	0.08904	pCi/g	0.1101	N	609.8	4	1.427	IDENTIFIED	9.029	<input type="checkbox"/>
Thorium-232	NL	1.208	0.1794	pCi/g	0.2124	N	911.6	3	1.559	IDENTIFIED	13.53	<input type="checkbox"/>
Tin-126	INT	0.2343	0.04522	pCi/g	0.1139	N	87.14	3	1.093	IDENTIFIED	18.73	<input type="checkbox"/>
Titanium-44	LA	0.3234	0.02406	pCi/g	0.06955	N	0	9	0	FAIL_ABUND	0	<input type="checkbox"/>
Uranium-234	NL	0.8396	0.08904	pCi/g	0.1101	N	609.8	4	1.427	IDENTIFIED	9.029	<input type="checkbox"/>
Zirconium-97	HE	1.60E+06	5.40E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = 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
243543001	18-DEC-09 12:00	07-JAN-10 09:15	19.9	SAMPLE	LOAD	1	LANL	LANL01004GEL		N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	1.609	0.182	pCi/g	0.237	N	911	3	1.551	IDENTIFIED	9.624	<input type="checkbox"/>
Americium-243	0.3056	0.02599	pCi/g	0.04554	N	74.83	1	0.9534	IDENTIFIED	6.822	<input type="checkbox"/>
Annihilation Rad.	0.141	0.03369	pCi/g	0.05051	N	510.8	1	2.035	IDENTIFIED	23.33	<input type="checkbox"/>
Bismuth-210	0.7266	0.2732	pCi/g	0.6393	N	46.58	3	0.9488	IDENTIFIED	37.24	<input type="checkbox"/>
Bismuth-211	3.092	0.2498	pCi/g	0.3216	Y	351.9	4	1.276	IDENTIFIED	6.134	<input checked="" type="checkbox"/>
Bismuth-212	1.198	0.2412	pCi/g	0.7043	N	0	14	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214	0.8621	0.08923	pCi/g	0.1182	0.200	609.3	4	1.419	IDENTIFIED	8.409	<input type="checkbox"/>
Bromine-77	50.21	20.65	pCi/g	0	N	0	14	0	SHORT_HLIF	0	<input type="checkbox"/>
Cadmium-109	2.695	0.4019	pCi/g	0.833	Y	87.21	3	1.231	IDENTIFIED	13.92	<input checked="" type="checkbox"/>
Cadmium-115	11.15	25.35	pCi/g	0	N	0	14	0	SHORT_HLIF	0	<input type="checkbox"/>
Cerium-143	5085	998.6	pCi/g	0	N	0	14	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-134	0.1759	0.03883	pCi/g	0.108	0.100	0	14	0	FAIL_ABUND	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Gross Gamma	10.07	1.628	pCi/g	4.328	N	0	0	0			<input type="checkbox"/>
Iodine-133	1.83E+05	1.48E+05	pCi/g	0	N	0	14	0	SHORT_HLIF	0	<input type="checkbox"/>
Krypton-85	22.75	4.003	pCi/g	14.18	N	0	14	0	NOT_IDENTI	0	<input type="checkbox"/>
Lead-210	0.7266	0.2732	pCi/g	0.6393	N	46.58	3	0.9488	IDENTIFIED	37.24	<input type="checkbox"/>
Lead-212	1.708	0.1109	pCi/g	0.08463	0.100	238.6	4	1.016	IDENTIFIED	3.124	<input type="checkbox"/>
Lead-214	1.075	0.09132	pCi/g	0.109	0.100	351.9	4	1.276	IDENTIFIED	6.134	<input type="checkbox"/>
Lutetium-177	3.785	1.148	pCi/g	3.003	N	0	14	0	FAIL_ABUND	0	<input type="checkbox"/>
Neptunium-237	0.7722	0.1401	pCi/g	0.2642	N	87.21	3	1.231	IDENTIFIED	13.92	<input type="checkbox"/>
Niobium-97	1.01E+06	6.52E+06	pCi/g	0	N	0	14	0	SHORT_HLIF	0	<input type="checkbox"/>
Polonium-210	0.7266	0.2728	pCi/g	0.6393	N	46.58	3	0.9488	IDENTIFIED	37.24	<input type="checkbox"/>
Polonium-212	1.708	0.1109	pCi/g	0.08463	N	238.6	4	1.016	IDENTIFIED	3.124	<input type="checkbox"/>
Polonium-214	1.075	0.09132	pCi/g	0.109	N	351.9	4	1.276	IDENTIFIED	6.134	<input type="checkbox"/>
Polonium-216	1.708	0.1109	pCi/g	0.08463	N	238.6	4	1.016	IDENTIFIED	3.124	<input type="checkbox"/>
Polonium-218	1.075	0.09132	pCi/g	0.109	N	351.9	4	1.276	IDENTIFIED	6.134	<input type="checkbox"/>
Potassium-40	36.28	1.868	pCi/g	0.6345	1.00	1460	1	2.049	IDENTIFIED	2.896	<input type="checkbox"/>
Radium-224	4.494	0.6771	pCi/g	0.9642	Y	241.5	1	1.746	IDENTIFIED	14.12	<input checked="" type="checkbox"/>
Radium-226	0.8621	0.08923	pCi/g	0.1182	Y	609.3	4	1.419	IDENTIFIED	8.409	<input type="checkbox"/>
Radium-228	1.609	0.182	pCi/g	0.237	0.500	911	3	1.551	IDENTIFIED	9.624	<input type="checkbox"/>
Strontium-85	0.1226	0.02158	pCi/g	0.07645	Y	0	14	0	NOT_IDENTI	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Technetium-99m	2.82E+21	0	pCi/g	0	N	0	14	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-200	1050	4575	pCi/g	0	N	0	14	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	0.4878	0.04646	pCi/g	0.06202	0.080	582.9	1	1.448	IDENTIFIED	7.678	<input type="checkbox"/>
Thorium-228	1.742	0.1131	pCi/g	0.08632	N	238.6	4	1.016	IDENTIFIED	3.124	<input type="checkbox"/>

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	NR	1.364	0.1754	pCi/g	0.2442	N	910.7 3	1.558 IDENTIFIED	11.6	
Americium-243	INT	0.3037	0.05598	pCi/g	0.1369	N	74.34 1	1.387 IDENTIFIED	17.57	
Annihilation Rad.	HE	0.07137	0.03904	pCi/g	0.05926	N	510.2 1	2.291 IDENTIFIED	54.62	
Barium-137m	NR	0.5243	0.05255	pCi/g	0.06892	N	661.3 2	1.564 IDENTIFIED	9.703	
Bismuth-211	INT	3.241	0.2555	pCi/g	0.4258	Y	351.5 4	1.417 IDENTIFIED	7.096	✓
Bismuth-214	✓	0.9374	0.09594	pCi/g	0.1206	0.200	609.2 4	1.491 IDENTIFIED	9.537	
Cerium-143	✓	2410	386.1	pCi/g	0	N	0 8	0 SHORT_HLIF	0	
Cesium-137	✓	0.5542	0.05557	pCi/g	0.07285	0.100	661.3 2	1.564 IDENTIFIED	9.703	
Gross Gamma	—	8.465	1.546	pCi/g	3.759	N	0			
Iodine-135	—	8.96E+16	0	pCi/g	0	N	0 8	0 SHORT_HLIF	0	
Lead-212	✓	1.434	0.08858	pCi/g	0.1182	0.100	238.2 4	1.388 IDENTIFIED	4.584	
Lead-214	✓	1.128	0.09363	pCi/g	0.1313	0.100	351.5 4	1.417 IDENTIFIED	7.096	
Niobium-95m	✓	1.253	0.1194	pCi/g	0.403	N	0 8	0 NOT_IDENTI	0	
Niobium-97	—	1.69E+06	4.28E+05	pCi/g	0	N	0 8	0 SHORT_HLIF	0	
Polonium-212	NR	1.434	0.08858	pCi/g	0.1182	N	238.2 4	1.388 IDENTIFIED	4.584	
Polonium-214	NR	1.128	0.09363	pCi/g	0.1313	N	351.5 4	1.417 IDENTIFIED	7.096	
Polonium-216	NR	1.434	0.08858	pCi/g	0.1182	N	238.2 4	1.388 IDENTIFIED	4.584	
Polonium-218	NR	1.128	0.09363	pCi/g	0.1313	N	351.5 4	1.417 IDENTIFIED	7.096	
Potassium-40	✓	26.56	1.398	pCi/g	0.703	1.00	1461 1	1.868 IDENTIFIED	3.62	
Radium-224	INT	3.314	0.8163	pCi/g	1.344	Y	241.2 1	2.019 IDENTIFIED	24.39	✓
Radium-226	✓	0.9374	0.09594	pCi/g	0.1206	Y	609.2 4	1.491 IDENTIFIED	9.537	
Radium-228	✓	1.364	0.1754	pCi/g	0.2442	0.500	910.7 3	1.558 IDENTIFIED	11.6	
Thallium-200	HE	159.3	901.9	pCi/g	0	N	0 8	0 SHORT_HLIF	0	
Thallium-208	✓	0.4571	0.05242	pCi/g	0.0734	0.080	582.6 1	1.794 IDENTIFIED	11.02	
Thorium-228	NR	1.459	0.09008	pCi/g	0.1202	N	238.2 4	1.388 IDENTIFIED	4.584	
Thorium-230	NR	0.9374	0.09593	pCi/g	0.1205	N	609.2 4	1.491 IDENTIFIED	9.537	
Thorium-232	NR	1.364	0.1754	pCi/g	0.2442	N	910.7 3	1.558 IDENTIFIED	11.6	
Thorium-234	TPW	6.739	2.092	pCi/g	3.674	2.00	63.95 2	4.544 IDENTIFIED	29.44	✓ UI Data rejected due to high peak-width.
Titanium-44	LP	0.1993	0.02973	pCi/g	0.1041	N	0 8	0 NOT_IDENTI	0	
Total Uranium	—	20.053	6.22E-06	ug/g	5.4698	N	0			
Tungsten-181	HE	2.045	0.6139	pCi/g	1.072	N	0 8	0 FAIL_ABUND	0	
Uranium-234	NR	0.9374	0.09593	pCi/g	0.1205	N	609.2 4	1.491 IDENTIFIED	9.537	
Uranium-238	HE	6.739	2.092	pCi/g	3.674	N	63.95 2	4.544 IDENTIFIED	29.44	
Zirconium-97	—	4.89E+07	7.73E+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
243546003	21-DEC-09 12:00	07-JAN-10 09:24	16.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	NR	1.002	0.1546	pCi/g	0.2252	N	911.3 3	1.812 IDENTIFIED	14.36	
Americium-243	INT	0.4601	0.04954	pCi/g	0.09259	N	74.86 1	1.617 IDENTIFIED	10.01	
Annihilation Rad.	—	0.1653	0.03354	pCi/g	0.04711	N	510.7 1	2.311 IDENTIFIED	20.08	
Barium-137m	NR	0.8999	0.05583	pCi/g	0.06839	N	661.5 2	1.757 IDENTIFIED	5.479	
Bismuth-211	INT	3.113	0.2497	pCi/g	0.328	Y	351.8 4	1.489 IDENTIFIED	7.36	✓
Bismuth-212	HE	0.6651	0.2314	pCi/g	0.4202	N	0 11	0 FAIL_ABUND	0	
Bismuth-214	✓	1.106	0.08517	pCi/g	0.1073	0.200	609 4	1.476 IDENTIFIED	6.624	
Cadmium-109	INT	1.703	0.4253	pCi/g	1.344	Y	87.13 3	1.327 IDENTIFIED	24.58	✓
Cerium-143	—	2002	315.5	pCi/g	0	N	0 11	0 SHORT_HLIF	0	
Cesium-137	✓	0.9513	0.05908	pCi/g	0.06384	0.100	661.5 2	1.757 IDENTIFIED	5.479	
Gross Gamma	—	8.527	1.54	pCi/g	2.703	N	0			
Iodine-133	HE	10430	13320	pCi/g	0	N	0 11	0 SHORT_HLIF	0	
Krypton-85	HE	17.24	4.052	pCi/g	13.99	N	0 11	0 NOT_IDENTI	0	
Lead-212	✓	1.253	0.07075	pCi/g	0.09871	0.100	238.4 4	1.336 IDENTIFIED	4.343	
Lead-214	✓	1.083	0.09136	pCi/g	0.1143	0.100	351.8 4	1.489 IDENTIFIED	7.36	
Latetium-177	HE	2.753	1.163	pCi/g	2.617	N	0 11	0 FAIL_ABUND	0	
Neptunium-237	HE	0.4901	0.1325	pCi/g	0.4085	N	87.13 3	1.327 IDENTIFIED	24.58	
Niobium-95m	LP	0.4647	0.08817	pCi/g	0.2834	N	0 11	0 NOT_IDENTI	0	

Niobium-97	—	8.28E+05	3.82E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>	
Polonium-212	NR	1.253	0.07075	pCi/g	0.09871	N	238.4	4	1.336	IDENTIFIED	4.343	<input type="checkbox"/>	
Polonium-214	NR	1.083	0.09136	pCi/g	0.1143	N	351.8	4	1.489	IDENTIFIED	7.36	<input type="checkbox"/>	
Polonium-216	NR	1.253	0.07075	pCi/g	0.09871	N	238.4	4	1.336	IDENTIFIED	4.343	<input type="checkbox"/>	
Polonium-218	NR	1.083	0.09136	pCi/g	0.1143	N	351.8	4	1.489	IDENTIFIED	7.36	<input type="checkbox"/>	
Potassium-40	✓	29.81	1.443	pCi/g	0.4985	1.00	1461	1	1.962	IDENTIFIED	3.092	<input type="checkbox"/>	
Radium-224	INT	2.845	0.5748	pCi/g	1.123	Y	241.7	1	1.798	IDENTIFIED	20.01	<input checked="" type="checkbox"/>	UI
Radium-226	✓	1.106	0.08517	pCi/g	0.1073	Y	609	4	1.476	IDENTIFIED	6.624	<input type="checkbox"/>	
Radium-228	✓	1.002	0.1546	pCi/g	0.2252	0.500	911.3	3	1.812	IDENTIFIED	14.36	<input type="checkbox"/>	
Strontium-85	LA	0.09004	0.02117	pCi/g	0.0731	Y	0	11	0	NOT_IDENTI	0	<input checked="" type="checkbox"/>	UI Data rejected due to low abundance.
Thallium-200	HE	1208	750	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>	
Thallium-208	✓	0.4377	0.04537	pCi/g	0.05799	0.080	583	1	1.603	IDENTIFIED	9.793	<input type="checkbox"/>	
Thorium-228	NR	1.274	0.07195	pCi/g	0.1004	N	238.4	4	1.336	IDENTIFIED	4.343	<input type="checkbox"/>	
Thorium-230	NR	1.106	0.08517	pCi/g	0.1073	N	609	4	1.476	IDENTIFIED	6.624	<input type="checkbox"/>	
Thorium-232	NR	1.002	0.1546	pCi/g	0.2252	N	911.3	3	1.812	IDENTIFIED	14.36	<input type="checkbox"/>	
Tin-126	HE	0.1669	0.04169	pCi/g	0.1323	N	87.13	3	1.327	IDENTIFIED	24.58	<input type="checkbox"/>	
Titanium-44	LA	0.3178	0.02928	pCi/g	0.08389	N	0	11	0	FAIL_ABUND	0	<input type="checkbox"/>	
Uranium-234	NR	1.106	0.08517	pCi/g	0.1073	N	609	4	1.476	IDENTIFIED	6.624	<input type="checkbox"/>	
Zirconium-97	—	2.67E+07	6.60E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>	

*** = 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
1202005182		07-JAN-10 09:31	0	MB	LOAD	1		GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy	*** FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Iodine-123	✓	246.5	116.6	pCi/g	0	N	0	7	0	SHORT_HLIF 0 <input type="checkbox"/>
Iodine-133	HE	2.746	5.349	pCi/g	0	N	0	7	0	SHORT_HLIF 0 <input type="checkbox"/>
Krypton-85	HE	14.03	3.691	pCi/g	12.88	N	0	7	0	NOT_IDENTI 0 <input type="checkbox"/>
Niobium-97	HE	9.862	19.26	pCi/g	0	N	0	7	0	SHORT_HLIF 0 <input type="checkbox"/>
Sodium-24	HE	56.54	73.86	pCi/g	0	N	0	7	0	SHORT_HLIF 0 <input type="checkbox"/>
Strontium-85	LA	0.06635	0.01745	pCi/g	0.06088	Y	0	7	0	NOT_IDENTI 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Zirconium-97	—	1282	455.6	pCi/g	0	N	0	7	0	SHORT_HLIF 0 <input type="checkbox"/>

*** = 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
1202005183	21-DEC-09 12:00	07-JAN-10 13:06	17	DUP	LOAD	1		LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy	*** FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	NR	1.16	0.1522	pCi/g	0.2137	N	910.4	3	1.64	IDENTIFIED 11.93 <input type="checkbox"/>
Americium-243	INT	0.2867	0.04362	pCi/g	0.09063	N	74.7	1	1.022	IDENTIFIED 14.09 <input type="checkbox"/>
Annihilation Rad.	HE	0.07888	0.03617	pCi/g	0.0506	N	510.7	1	2.16	IDENTIFIED 45.77 <input type="checkbox"/>
Barium-137m	NR	0.2073	0.03657	pCi/g	0.05985	N	661.4	2	1.888	IDENTIFIED 17.47 <input type="checkbox"/>
Bismuth-211	INT	2.979	0.242	pCi/g	0.3252	Y	351.6	4	1.167	IDENTIFIED 7.388 <input checked="" type="checkbox"/>
Bismuth-212	LA	1.232	0.2528	pCi/g	0.6664	N	0	11	0	FAIL_ABUND 0 <input type="checkbox"/>
Bismuth-214	✓	0.8773	0.08632	pCi/g	0.1065	0.200	608.9	4	1.318	IDENTIFIED 9.127 <input type="checkbox"/>
Cadmium-109	INT	2.727	0.6119	pCi/g	1.31	Y	87.17	3	1.253	IDENTIFIED 21.62 <input checked="" type="checkbox"/>
Cerium-143	—	1654	289.8	pCi/g	0	N	0	11	0	SHORT_HLIF 0 <input type="checkbox"/>
Cesium-134	LA	0.09626	0.02311	pCi/g	0.09059	0.100	0	11	0	NOT_IDENTI 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Cesium-135	HE	0.2535	0.1043	pCi/g	0.2368	N	269.7	1	1.531	IDENTIFIED 40.94 <input type="checkbox"/>
Cesium-137	✓	0.2191	0.03866	pCi/g	0.06326	0.100	661.4	2	1.888	IDENTIFIED 17.47 <input type="checkbox"/>
Gross Gamma	—	6.989	1.133	pCi/g	2.169	N	0			<input type="checkbox"/>
Iodine-123	HE	4.25E+07	3.10E+07	pCi/g	0	N	0	11	0	SHORT_HLIF 0 <input type="checkbox"/>
Iodine-135	—	5.66E+17	0	pCi/g	0	N	0	11	0	SHORT_HLIF 0 <input type="checkbox"/>
Lead-212	✓	1.17	0.07828	pCi/g	0.1195	0.100	238.4	4	1.106	IDENTIFIED 5.354 <input type="checkbox"/>
Lead-214	✓	1.036	0.08841	pCi/g	0.1133	0.100	351.6	4	1.167	IDENTIFIED 7.388 <input type="checkbox"/>
Lutetium-177	HE	2.763	0.8356	pCi/g	2.416	N	0	11	0	FAIL_ABUND 0 <input type="checkbox"/>
Neptunium-237	NR	0.7849	0.1938	pCi/g	0.3871	N	87.17	3	1.253	IDENTIFIED 21.62 <input type="checkbox"/>
Niobium-95	HE	0.112	0.02752	pCi/g	0.07094	N	767.3	1	3.434	IDENTIFIED 24.37 <input type="checkbox"/>
Niobium-97	HE	4.51E+05	3.41E+05	pCi/g	0	N	0	11	0	SHORT_HLIF 0 <input type="checkbox"/>
Polonium-212	NR	1.17	0.07828	pCi/g	0.1195	N	238.4	4	1.106	IDENTIFIED 5.354 <input type="checkbox"/>

Polonium-214	ML	1.036	0.08841	pCi/g	0.1133	N	351.6	4	1.167	IDENTIFIED	7.388	<input type="checkbox"/>
Polonium-216	ML	1.17	0.07828	pCi/g	0.1195	N	238.4	4	1.106	IDENTIFIED	5.354	<input type="checkbox"/>
Polonium-218	ML	1.036	0.08841	pCi/g	0.1133	N	351.6	4	1.167	IDENTIFIED	7.388	<input type="checkbox"/>
Potassium-40	✓	23.27	1.19	pCi/g	0.3967	1.00	1460	1	1.999	IDENTIFIED	3.676	<input type="checkbox"/>
Radium-224	WT	2.697	0.4661	pCi/g	1.36	Y	241.5	1	1.246	IDENTIFIED	16.96	<input checked="" type="checkbox"/>
Radium-226	✓	0.8773	0.08632	pCi/g	0.1065	Y	608.9	4	1.318	IDENTIFIED	9.127	<input type="checkbox"/>
Radium-228	✓	1.16	0.1522	pCi/g	0.2137	0.500	910.4	3	1.64	IDENTIFIED	11.93	<input type="checkbox"/>
Sodium-24	HE	6.63E+05	3.09E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>
Technetium-99m	✓	6.31E+18	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	✓	0.4062	0.0462	pCi/g	0.05378	0.080	582.8	1	1.504	IDENTIFIED	10.93	<input type="checkbox"/>
Thorium-228	ML	1.19	0.07962	pCi/g	0.1215	N	238.4	4	1.106	IDENTIFIED	5.354	<input type="checkbox"/>
Thorium-230	ML	0.8773	0.08632	pCi/g	0.1065	N	608.9	4	1.318	IDENTIFIED	9.127	<input type="checkbox"/>
Thorium-232	ML	1.16	0.1522	pCi/g	0.2137	N	910.4	3	1.64	IDENTIFIED	11.93	<input type="checkbox"/>
Tin-126	WT	0.2673	0.05997	pCi/g	0.1294	N	87.17	3	1.253	IDENTIFIED	21.62	<input type="checkbox"/>
Titanium-44	LA	0.2951	0.03198	pCi/g	0.07708	N	0	11	0	FAIL_ABUND	0	<input type="checkbox"/>
Uranium-234	ML	0.8773	0.08632	pCi/g	0.1065	N	608.9	4	1.318	IDENTIFIED	9.127	<input type="checkbox"/>
Zirconium-97	—	2.10E+07	6.96E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	<input type="checkbox"/>

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quas	Zero?	queue		
1202005184		07-JAN-10 10:59	0	LCS	LOAD	1		GEL	N	RGSP		
Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment	
Actinium-228	HE	0.9872	0.2627	pCi/g	0.6307	N	910.9	3	1.692	IDENTIFIED	26.12	
Americium-241	✓	13.93	0.789	pCi/g	0.6466	0.200	59.47	1	1.204	IDENTIFIED	3.348	
Barium-137m		5.134	0.1872	pCi/g	0.1236	N	661.5	2	1.582	IDENTIFIED	2.629	
Bismuth-211		1.834	0.3488	pCi/g	0.6482	Y	352.3	4	1.351	IDENTIFIED	18.75	
Bismuth-214		0.6182	0.1214	pCi/g	0.2511	0.200	609.4	4	1.294	IDENTIFIED	19.29	
Cadmium-109		33.61	2.217	pCi/g	2.176	Y	87.9	3	1.159	IDENTIFIED	4.727	
Cesium-137	✓	5.427	0.1984	pCi/g	0.1306	0.100	661.5	2	1.582	IDENTIFIED	2.629	
Cobalt-57		0.2393	0.03477	pCi/g	0.07624	N	122.1	1	1.075	IDENTIFIED	14.2	
Cobalt-60	✓	6.504	0.2853	pCi/g	0.07067	0.100	1332	1	1.853	IDENTIFIED	2.693	
Gross Gamma		25.93	2.689	pCi/g	4.61	N	0					
Iodine-133	HE	0.9844	13.32	pCi/g	0	N	0	7	0	SHORT_HLIF	0	
Lead-212		0.9493	0.0855	pCi/g	0.2946	0.100	0	7	0	FAIL_ABUND	0	
Lead-214		0.638	0.1225	pCi/g	0.226	0.100	352.3	4	1.351	IDENTIFIED	18.75	
Neptunium-237		9.813	1.202	pCi/g	0.6474	N	87.9	3	1.159	IDENTIFIED	4.727	
Niobium-97		310	68.13	pCi/g	0	N	0	7	0	SHORT_HLIF	0	
Polonium-212		0.9493	0.0855	pCi/g	0.2946	N	0	7	0	FAIL_ABUND	0	
Polonium-214		0.638	0.1225	pCi/g	0.226	N	352.3	4	1.351	IDENTIFIED	18.75	
Polonium-216		0.9493	0.0855	pCi/g	0.2946	N	0	7	0	FAIL_ABUND	0	
Polonium-218		0.638	0.1225	pCi/g	0.226	N	352.3	4	1.351	IDENTIFIED	18.75	
Radium-224		2.658	0.7625	pCi/g	1.928	Y	241.8	1	1.308	IDENTIFIED	28.54	
Radium-226		0.6182	0.1214	pCi/g	0.2511	Y	609.4	4	1.294	IDENTIFIED	19.29	
Radium-228		0.9872	0.2627	pCi/g	0.6307	0.500	910.9	3	1.692	IDENTIFIED	26.12	
Thallium-208		0.2058	0.08471	pCi/g	0.1838	0.080	0	7	0	FAIL_ABUND	0	
Thorium-228		0.9563	0.08614	pCi/g	0.2968	N	0	7	0	FAIL_ABUND	0	
Thorium-230		0.6182	0.1214	pCi/g	0.2511	N	609.4	4	1.294	IDENTIFIED	19.29	
Thorium-232	HE	0.9872	0.2627	pCi/g	0.6307	N	910.9	3	1.692	IDENTIFIED	26.12	
Tin-126		3.342	0.2204	pCi/g	0.2175	N	87.9	3	1.159	IDENTIFIED	4.727	
Uranium-234		0.6182	0.1214	pCi/g	0.2511	N	609.4	4	1.294	IDENTIFIED	19.29	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parname	Result	Uncertainty	Units	DL	RDL
937069	243546003	SAMPLE	07-JAN-10	Thallium-200	1208	750	pCi/g	0	N
				Thallium-208	0.4377	0.04537	pCi/g	0.02901	0.080
				Zirconium-97	2.67E+07	6.60E+06	pCi/g	0	N
937069	1202005182	MB	07-JAN-10	Iodine-123	246.5	116.6	pCi/g	0	N
				Krypton-85	14.03	3.691	pCi/g	6.443	N
				Lead-212	0.05176	0.02999	pCi/g	0.04111	0.100
				Mercury-203	0.02524	0.01301	pCi/g	0.02366	0.100
				Niobium-97	9.862	19.26	pCi/g	0	N
				Sodium-24	56.54	73.86	pCi/g	0	N
				Strontium-85	0.06635	0.01745	pCi/g	0.03046	Y ✓
				Zirconium-97	1282	455.8	pCi/g	0	N
937069	1202005183	DUP	07-JAN-10	Americium-241	0.2226	0.1068	pCi/g	0.1921	0.200
				Bismuth-211	2.979	0.242	pCi/g	0.1627	Y
				Bismuth-214	0.8773	0.08632	pCi/g	0.05327	0.200
				Cadmium-109	2.727	0.6119	pCi/g	0.6555	Y
				Cadmium-115	22.96	8.691	pCi/g	15.99	N
				Cerium-143	1654	289.8	pCi/g	0	N
				Cesium-134	0.09626	0.02311	pCi/g	0.04532	0.100
				Cesium-137	0.2191	0.03866	pCi/g	0.03165	0.100
				Gross Gamma	6.989	1.133	pCi/g	1.037	N
				Iodine-123	4.25E+07	3.10E+07	pCi/g	0	N
				Iodine-135	5.86E+17	0	pCi/g	0	N
				Lead-212	1.17	0.07828	pCi/g	0.05976	0.100
				Lead-214	1.036	0.08841	pCi/g	0.05671	0.100
				Niobium-97	4.51E+05	3.41E+05	pCi/g	0	N
				Potassium-40	23.27	1.19	pCi/g	0.1985	1.00
				Radium-224	2.697	0.4661	pCi/g	0.6803	Y
				Radium-226	0.8773	0.08632	pCi/g	0.05327	Y
				Radium-228	1.16	0.1522	pCi/g	0.1069	0.500
				Sodium-24	6.83E+05	3.09E+06	pCi/g	0	N
				Technetium-99m	6.31E+18	0	pCi/g	0	N
				Thallium-208	0.4062	0.0462	pCi/g	0.02691	0.080
				Zirconium-97	2.10E+07	6.96E+06	pCi/g	0	N
937069	1202005184	LCS	07-JAN-10	Americium-241	13.93	0.789	pCi/g	0.9235	0.200
				Barium-137m	5.134	0.1872	pCi/g	0.06183	N
				Bismuth-211	1.834	0.3488	pCi/g	0.3243	Y
				Bismuth-214	0.6182	0.1214	pCi/g	0.1256	0.200

VAX/VMS Nuclide Identification Report Generated 7-JAN-2010 10:54:47.48

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517003.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:52:57.
Sample ID          : G243517003          Sample quantity  : 1.31500E+02 GRAM
Detector name      : GAM05              Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00      Elapsed real time: 0 02:00:01.72  0.0%
Energy tolerance   : 1.50000 keV        Analyst Initials : MXR1
Abundance limit    : 75.00000           Sensitivity       : 5.00000
Batch ID           : 937069             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	46.48*	133	532	0.83	93.94	89	10	1.85E-02	36.2	
2	0	63.40*	166	523	1.22	127.78	124	8	2.31E-02	25.9	
3	5	74.84*	611	441	1.05	150.67	146	20	8.48E-02	6.8	1.67E+00
4	5	77.16*	974	493	1.25	155.30	146	20	1.35E-01	5.4	
5	4	84.23*	140	354	1.57	169.43	166	29	1.94E-02	24.0	7.40E-01
6	4	87.36*	337	388	1.25	175.70	166	29	4.69E-02	11.7	
7	4	89.88	257	373	1.40	180.74	166	29	3.58E-02	14.9	
8	4	92.90*	398	445	1.69	186.78	166	29	5.52E-02	11.9	
9	0	129.84	183	564	1.73	260.65	254	16	2.55E-02	30.0	
10	0	185.83*	215	335	1.48	372.60	366	11	2.98E-02	18.4	
11	0	209.31	104	220	1.50	419.57	416	8	1.45E-02	26.5	
12	3	238.80*	1129	204	1.25	478.53	470	20	1.57E-01	3.8	1.75E+00
13	3	241.79	280	259	1.60	484.51	470	20	3.89E-02	13.0	
14	0	270.95	96	254	1.95	542.82	536	13	1.33E-02	35.8	
15	0	295.38*	369	169	1.37	591.65	586	10	5.13E-02	8.5	
16	0	328.18	75	203	1.83	657.23	653	14	1.04E-02	41.8	
17	0	338.47	266	172	1.36	677.81	671	13	3.69E-02	11.9	
18	0	352.23*	689	234	1.52	705.33	697	17	9.57E-02	6.4	
19	0	463.34	84	98	1.61	927.47	923	11	1.17E-02	25.4	
20	0	510.90*	106	109	1.36	1022.55	1015	16	1.47E-02	28.3	
21	0	583.54*	295	127	1.45	1167.76	1162	14	4.10E-02	10.3	
22	0	609.56*	444	134	1.42	1219.76	1212	16	6.16E-02	7.7	
23	0	661.39	121	77	1.61	1323.36	1315	14	1.68E-02	17.9	
24	0	727.87	65	85	1.63	1456.24	1449	13	9.09E-03	31.5	
25	0	768.81	33	95	1.04	1538.09	1532	13	4.58E-03	63.3	
26	0	785.98*	33	36	1.57	1572.39	1568	9	4.64E-03	39.3	
27	0	860.91	28	43	1.70	1722.15	1717	9	3.95E-03	45.4	
28	0	911.42*	227	50	1.61	1823.08	1815	17	3.15E-02	10.0	
29	1	964.85	60	47	2.19	1929.87	1920	34	8.33E-03	27.0	6.37E-01
30	1	969.12*	129	42	1.79	1938.40	1920	34	1.79E-02	13.4	
31	0	1120.42*	74	52	1.70	2240.73	2234	13	1.02E-02	23.7	
32	0	1378.01*	29	10	1.13	2755.36	2750	10	3.97E-03	29.8	
33	0	1461.17*	806	32	1.94	2921.49	2910	19	1.12E-01	3.9	
34	0	1588.04	33	16	2.46	3174.91	3167	16	4.53E-03	32.6	
35	0	1593.22	19	2	2.47	3185.25	3182	8	2.70E-03	25.7	
36	0	1621.25	24	11	1.67	3241.24	3233	15	3.33E-03	36.7	
37	0	1764.99*	63	13	1.66	3528.31	3519	16	8.78E-03	18.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 7-JAN-2010 10:54:50

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Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517003.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:52:57
Sample ID         : G243517003 Sample quantity : 131.50 GRAM
Sample type       : SOLID Sample geometry :
Detector name     : GAMMA5 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.72 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

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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	*	2.151E+01	2.142E+00	5.901E-01	3.670E-02	36.446
CD-109	+	88.03	*	3.380E+00	8.348E-01	9.076E-01	6.911E-02	3.724
SN-126	+	64.28		6.128E-01	3.309E-01	3.919E-01	5.841E-02	1.564
	+	86.94		1.378E+00	6.529E-01	3.687E-01	1.518E-01	3.736
	+	87.57	*	3.314E-01	8.183E-02	8.886E-02	6.767E-03	3.729
BA-137M	+	661.65	*	1.906E-01	6.926E-02	7.007E-02	4.608E-03	2.720
CS-137	+	661.65	*	2.015E-01	7.322E-02	7.408E-02	4.887E-03	2.720
TL-208		277.35		4.170E-01	4.276E-01	6.836E-01	8.770E-02	0.610
	+	510.84		5.492E-01	3.163E-01	2.163E-01	2.273E-02	2.538
	+	583.14	*	4.432E-01	9.680E-02	7.107E-02	5.230E-03	6.236
	+	860.37		4.102E-01	3.752E-01	4.755E-01	4.826E-02	0.863
BI-210	+	46.50	*	1.233E+00	8.986E-01	8.403E-01	6.555E-02	1.467
PB-210	+	46.50	*	1.233E+00	8.986E-01	8.403E-01	6.555E-02	1.467
PO-210	+	46.50	*	1.233E+00	8.972E-01	8.403E-01	5.652E-02	1.467
BI-211		72.87		1.086E+01	2.513E+00	3.964E+00	3.121E-01	2.739
	+	351.07	*	4.325E+00	6.511E-01	3.361E-01	2.664E-02	12.868
BI-212	+	727.18	*	8.563E-01	5.449E-01	4.661E-01	4.229E-02	1.837
	+	785.46		2.807E+00	2.219E+00	2.897E+00	2.430E-01	0.969
	+	1620.62		2.701E+00	1.986E+00	1.859E+00	1.091E-01	1.452
PB-212	+	74.81		2.027E+00	3.706E-01	3.635E-01	4.432E-02	5.576
	+	77.11		1.927E+00	2.556E-01	2.171E-01	1.689E-02	8.879
	+	87.30		1.533E+00	4.083E-01	4.106E-01	5.162E-02	3.732
	+	238.63	*	1.515E+00	1.995E-01	9.594E-02	1.034E-02	15.793
		300.09		1.909E+00	9.364E-01	1.510E+00	1.605E-01	1.264
PO-212	+	74.81		2.027E+00	3.706E-01	3.635E-01	4.432E-02	5.576
	+	77.11		1.927E+00	2.556E-01	2.171E-01	1.689E-02	8.879
	+	87.30		1.533E+00	4.083E-01	4.106E-01	5.162E-02	3.732
	+	115.19		2.072E+00	3.478E+00	5.780E+00	7.355E-01	0.358
	+	238.63	*	1.515E+00	1.995E-01	9.594E-02	1.034E-02	15.793
		300.09		1.909E+00	9.364E-01	1.510E+00	1.605E-01	1.264
BI-214	+	609.31	*	1.261E+00	2.202E-01	1.344E-01	1.126E-02	9.382
	+	1120.29		1.109E+00	5.357E-01	5.115E-01	4.886E-02	2.168
	+	1764.49		1.326E+00	4.930E-01	3.886E-01	2.247E-02	3.412
PB-214	+	74.81		3.493E+00	6.067E-01	6.264E-01	6.751E-02	5.576

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	77.11		3.304E+00	5.053E-01	3.721E-01	4.053E-02	8.879
	+	87.30		2.626E+00	6.792E-01	7.035E-01	7.624E-02	3.732
	+	241.98		2.257E+00	6.411E-01	5.777E-01	6.511E-02	3.907
	+	295.21		1.354E+00	2.742E-01	2.475E-01	2.706E-02	5.472
	+	351.92	*	1.505E+00	2.397E-01	1.172E-01	1.109E-02	12.839
	+	74.81		3.493E+00	6.067E-01	6.264E-01	6.751E-02	5.576
	+	77.11		3.304E+00	5.053E-01	3.721E-01	4.053E-02	8.879
	+	87.30		2.626E+00	6.792E-01	7.035E-01	7.624E-02	3.732
PO-216	+	241.98		2.257E+00	6.411E-01	5.777E-01	6.511E-02	3.907
	+	295.21		1.354E+00	2.742E-01	2.475E-01	2.706E-02	5.472
	+	351.92	*	1.505E+00	2.397E-01	1.172E-01	1.109E-02	12.839
	+	74.81		2.027E+00	3.706E-01	3.635E-01	4.432E-02	5.576
	+	77.11		1.927E+00	2.556E-01	2.171E-01	1.689E-02	8.879
	+	87.30		1.533E+00	4.083E-01	4.106E-01	5.162E-02	3.732
	+	238.63	*	1.515E+00	1.995E-01	9.594E-02	1.034E-02	15.793
	+	300.09		1.909E+00	9.364E-01	1.510E+00	1.605E-01	1.264
PO-218	+	74.81		3.493E+00	6.067E-01	6.264E-01	6.751E-02	5.576
	+	77.11		3.304E+00	5.053E-01	3.721E-01	4.053E-02	8.879
	+	87.30		2.626E+00	6.792E-01	7.035E-01	7.624E-02	3.732
	+	241.98		2.257E+00	6.411E-01	5.777E-01	6.511E-02	3.907
	+	295.21		1.354E+00	2.742E-01	2.475E-01	2.706E-02	5.472
	+	351.92	*	1.505E+00	2.397E-01	1.172E-01	1.109E-02	12.839
	+	240.98	*	4.280E+00	1.192E+00	1.092E+00	1.068E-01	3.921
	+	609.31	*	1.261E+00	2.202E-01	1.344E-01	1.126E-02	9.382
RA-224	+	1120.29		1.109E+00	5.357E-01	5.115E-01	4.886E-02	2.168
	+	1764.49		1.326E+00	4.930E-01	3.886E-01	2.247E-02	3.412
	+	338.32		1.833E+00	8.704E-01	3.902E-01	1.604E-01	4.698
	+	911.07	*	1.550E+00	3.649E-01	2.352E-01	2.911E-02	6.591
	+	969.11		1.553E+00	5.553E-01	4.177E-01	9.865E-02	3.717
	+	338.32		1.833E+00	8.704E-01	3.902E-01	1.604E-01	4.698
	+	911.07	*	1.550E+00	3.649E-01	2.352E-01	2.911E-02	6.591
	+	969.11		1.553E+00	5.553E-01	4.177E-01	9.865E-02	3.717
TH-228	+	74.81		2.061E+00	3.247E-01	3.697E-01	2.924E-02	5.576
	+	77.11		1.960E+00	2.599E-01	2.208E-01	1.718E-02	8.879
	+	87.30		1.559E+00	3.849E-01	4.176E-01	3.182E-02	3.732
	+	238.63	*	1.541E+00	2.029E-01	9.756E-02	1.052E-02	15.793
	+	300.09		1.942E+00	1.480E+00	1.536E+00	9.108E-01	1.264
	+	609.31	*	1.261E+00	2.202E-01	1.344E-01	1.126E-02	9.382
	+	1120.29		1.109E+00	5.356E-01	5.115E-01	4.886E-02	2.168
	+	1764.49		1.326E+00	4.930E-01	3.886E-01	2.247E-02	3.412
TH-232	+	338.32		1.833E+00	4.587E-01	3.902E-01	3.059E-02	4.698
	+	911.07	*	1.550E+00	3.649E-01	2.352E-01	2.911E-02	6.591
	+	969.11		1.553E+00	5.553E-01	4.177E-01	9.865E-02	3.717
	+	63.29	*	1.548E+00	8.492E-01	1.022E+00	1.816E-01	1.515
	+	92.38		2.707E+00	8.091E-01	6.167E-01	1.108E-01	4.390
	+	609.31	*	1.261E+00	2.202E-01	1.344E-01	1.126E-02	9.382
	+	1120.29		1.109E+00	5.356E-01	5.115E-01	4.886E-02	2.168
	+	1764.49		1.326E+00	4.930E-01	3.886E-01	2.247E-02	3.412
U-234	+	86.50	*	9.731E-01	3.132E-01	2.601E-01	5.723E-02	3.741
	+							

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		95.87		-2.097E-02	9.526E-01	1.365E+00	3.382E-01	-0.015
U-238	+	63.29	*	1.548E+00	8.492E-01	1.022E+00	1.816E-01	1.515
	+	92.38		2.707E+00	6.851E-01	6.167E-01	5.160E-02	4.390
AM-243	+	74.67	*	3.286E-01	5.163E-02	5.892E-02	4.615E-03	5.577
	+	86.72		3.649E+01	9.011E+00	9.761E+00	7.444E-01	3.739
		117.66		-6.256E+00	3.828E+00	5.663E+00	7.498E-01	-1.105
		142.18		2.087E+00	1.875E+01	3.047E+01	3.787E+00	0.068
ANH-511	+	511.00	*	1.186E-01	6.760E-02	4.675E-02	2.992E-03	2.538

---- 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	*	-1.546E-01	3.597E-01	5.685E-01	4.072E-02	-0.272
NA-22		1274.54	*	2.640E-02	4.486E-02	7.760E-02	4.520E-03	0.340
NA-24		1368.53	*	2.102E-01	4.486E-02	Half-Life too short		
AL-26		1129.67		-1.948E+00	1.966E+00	2.877E+00	1.928E-01	-0.677
		1808.65	*	-6.724E-03	3.028E-02	4.726E-02	2.712E-03	-0.142
TI-44		67.85		-1.388E-02	2.903E-02	4.122E-02	3.299E-03	-0.337
	+	78.38	*	3.557E-01	4.716E-02	6.397E-02	4.963E-03	5.561
SC-46		889.25	*	1.405E-02	4.518E-02	7.680E-02	7.714E-03	0.183
	+	1120.51		1.926E-01	9.216E-02	1.373E-01	9.444E-03	1.403
V-48		944.10		1.582E-01	1.144E+00	1.909E+00	1.846E-01	0.083
		983.50	*	-4.024E-02	8.779E-02	1.378E-01	1.262E-02	-0.292
		1312.09		-3.771E-02	9.059E-02	1.381E-01	8.005E-03	-0.273
CR-51		320.08	*	3.154E-02	4.217E-01	7.036E-01	6.222E-02	0.045
MN-52		744.21		1.128E-01	3.223E-01	5.535E-01	4.298E-02	0.204
		848.13		-6.126E+00	9.784E+00	1.530E+01	1.434E+00	-0.400
		935.52		2.842E-01	3.852E-01	6.726E-01	6.575E-02	0.423
		1246.25		5.009E+00	1.012E+01	1.719E+01	9.996E-01	0.291
		1333.61		-1.931E+00	5.926E+00	9.071E+00	5.250E-01	-0.213
		1434.06	*	2.203E-01	3.099E-01	5.655E-01	3.312E-02	0.390
MN-54		834.83	*	-3.394E-02	4.389E-02	6.803E-02	6.232E-03	-0.499
CO-56		846.75	*	-4.568E-02	4.486E-02	6.701E-02	6.266E-03	-0.682
		977.42		1.060E+00	3.839E+00	5.636E+00	5.210E-01	0.188
		1037.82		2.154E-01	3.252E-01	5.695E-01	5.024E-02	0.378
		1175.09		1.452E+00	2.669E+00	4.557E+00	2.644E-01	0.319
		1238.25		1.374E-01	1.043E-01	1.870E-01	1.155E-02	0.735
		1360.21		-3.937E-01	1.034E+00	1.567E+00	9.104E-02	-0.251
		1771.40		8.980E-02	2.368E-01	3.759E-01	2.171E-02	0.239
CO-57		122.06	*	1.664E-02	2.512E-02	4.177E-02	5.926E-03	0.398
		136.48		1.367E-01	2.416E-01	3.525E-01	4.722E-02	0.388
CO-58		810.76	*	-1.909E-02	4.421E-02	7.063E-02	6.216E-03	-0.270
FE-59		142.65		1.696E+00	2.982E+00	4.921E+00	6.093E-01	0.345
		192.34		-4.322E-01	1.062E+00	1.667E+00	2.390E-01	-0.259
		1099.22	*	1.145E-02	9.490E-02	1.571E-01	1.272E-02	0.073
		1291.56		2.472E-02	1.366E-01	2.256E-01	1.676E-02	0.110
CO-60		1173.22		8.951E-03	5.224E-02	8.636E-02	5.009E-03	0.104
		1332.49	*	-7.144E-03	3.697E-02	5.785E-02	3.348E-03	-0.123

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZN-65		1115.52	*	9.291E-02	9.937E-02	1.588E-01	1.110E-02	0.585
GE-68		1077.35	*	1.863E+00	1.417E+00	2.595E+00	1.993E-01	0.718
AS-73		53.44	*	-1.545E-02	2.341E-01	3.843E-01	2.893E-02	-0.040
AS-74		595.88	*	5.750E-02	1.160E-01	1.943E-01	1.278E-02	0.296
		634.78		-7.143E-02	4.296E-01	6.811E-01	4.490E-02	-0.105
SE-75		66.05		1.520E+00	2.812E+00	4.169E+00	4.159E-01	0.365
		96.73		-5.755E-01	7.861E-01	1.080E+00	1.508E-01	-0.533
		121.11		7.665E-02	1.352E-01	2.241E-01	3.522E-02	0.342
		136.00		1.421E-02	4.572E-02	6.590E-02	8.594E-03	0.216
		198.60		-2.553E+00	2.075E+00	3.083E+00	3.332E-01	-0.828
		264.65	*	3.857E-03	5.474E-02	8.011E-02	7.648E-03	0.048
		279.53		6.571E-02	1.148E-01	1.968E-01	1.884E-02	0.334
		303.91		-2.755E+00	2.383E+00	3.705E+00	4.295E-01	-0.744
		400.65		-1.197E-01	2.745E-01	4.387E-01	4.015E-02	-0.273
BR-77	+	87.88		1.215E+03	3.000E+02	4.942E+02	3.761E+01	2.458
		200.40		4.876E+01	3.063E+02	4.932E+02	4.924E+01	0.099
	+	239.00		4.057E+02	5.023E+01	6.338E+01	6.213E+00	6.401
		249.79		-3.219E+00	1.097E+02	1.838E+02	1.782E+01	-0.018
		281.68		-1.681E+02	1.617E+02	2.551E+02	2.356E+01	-0.659
		297.23		5.634E+02	1.478E+02	2.411E+02	2.152E+01	2.337
		303.76		-3.873E+02	3.338E+02	5.209E+02	4.575E+01	-0.743
		439.47		-2.633E+01	2.737E+02	4.458E+02	2.717E+01	-0.059
		484.57		-6.896E+00	4.357E+02	7.100E+02	4.476E+01	-0.010
		520.65	*	1.057E+01	1.838E+01	3.122E+01	2.007E+00	0.339
		574.64		-1.044E+02	3.804E+02	6.013E+02	3.940E+01	-0.174
		578.91		-1.446E+02	1.926E+02	2.453E+02	1.609E+01	-0.589
		585.48		2.855E+03	5.387E+02	9.688E+02	6.362E+01	2.947
		755.35		-3.923E+00	3.182E+02	5.306E+02	4.208E+01	-0.007
		817.79		-2.175E+01	2.426E+02	3.998E+02	3.555E+01	-0.054
SR-82		698.33		-6.896E+00	4.047E+01	6.697E+01	4.751E+00	-0.103
		776.49	*	-3.184E-01	4.831E-01	6.940E-01	5.726E-02	-0.459
		1395.20		-1.015E+00	1.248E+01	2.065E+01	1.205E+00	-0.049
RB-83		520.41	*	4.397E-02	7.309E-02	1.244E-01	7.999E-03	0.353
		529.64		-3.124E-02	1.158E-01	1.785E-01	1.152E-02	-0.175
		552.65		1.008E-01	2.309E-01	3.865E-01	2.517E-02	0.261
RB-84		881.50	*	7.372E-02	8.477E-02	1.503E-01	1.490E-02	0.491
KR-85		513.99	*	2.213E+01	9.200E+00	1.557E+01	9.978E-01	1.422
SR-85		513.99	*	1.156E-01	4.805E-02	8.130E-02	5.211E-03	1.422
RB-86		1076.63	*	1.075E+00	9.829E-01	1.765E+00	1.358E-01	0.609
Y-88		898.02		-1.835E-03	4.095E-02	6.737E-02	6.888E-03	-0.027
		1836.01	*	-7.651E-03	3.444E-02	5.369E-02	3.072E-03	-0.142
ZR-88		392.90	*	-2.279E-02	3.421E-02	5.397E-02	3.143E-03	-0.422
Y-91		1204.90	*	-1.082E+01	2.196E+01	3.397E+01	1.974E+00	-0.319
NB-94		702.63	*	1.304E-03	3.716E-02	6.241E-02	4.465E-03	0.021
		871.10		1.789E-02	3.933E-02	6.767E-02	6.595E-03	0.264
NB-95		765.79	*	5.709E-02	5.327E-02	8.543E-02	6.910E-03	0.668
NB-95M		235.69	*	2.162E-01	1.593E-01	2.475E-01	2.708E-02	0.873
ZR-95		724.18		-2.843E-02	1.278E-01	1.690E-01	1.406E-02	-0.168
		756.15	*	2.780E-04	8.235E-02	1.375E-01	1.221E-02	0.002

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	657.90	*		3.433E-01	8.235E-02	Half-Life	too short	
	1024.50			2.057E+01	8.235E-02	Half-Life	too short	
ZR-97	254.15			-5.304E+00	8.235E-02	Half-Life	too short	
	355.39			5.837E+01	8.235E-02	Half-Life	too short	
	507.63	*		1.061E+01	8.235E-02	Half-Life	too short	
	602.52			8.801E+00	8.235E-02	Half-Life	too short	
	1021.30			3.102E+01	8.235E-02	Half-Life	too short	
	1147.95			-6.102E+00	8.235E-02	Half-Life	too short	
	1362.66			3.283E+00	8.235E-02	Half-Life	too short	
	1750.46			-4.417E+01	8.235E-02	Half-Life	too short	
MO-99	140.51			-4.707E+01	4.532E+01	6.686E+01	1.950E+01	-0.704
	181.06			9.424E+00	3.098E+01	4.416E+01	8.373E+00	0.213
	366.43			-1.286E+02	1.455E+02	2.271E+02	1.559E+01	-0.566
	739.58	*		1.128E+01	1.937E+01	3.379E+01	4.961E+00	0.334
	778.00			-1.183E+01	6.077E+01	9.737E+01	8.058E+00	-0.122
TC-99M	140.51	*		-5.588E+12	6.077E+01	Half-Life	too short	
RH-101	127.23			2.890E-02	3.774E-02	5.552E-02	7.643E-03	0.521
	198.01	*		-3.430E-02	3.735E-02	5.661E-02	5.653E-03	-0.606
	325.23			1.281E-01	2.641E-01	3.948E-01	3.249E-02	0.324
RH-102	418.52			-1.066E-02	3.229E-01	5.293E-01	3.165E-02	-0.020
	475.06	*		-1.407E-02	3.232E-02	5.110E-02	3.201E-03	-0.275
	631.29			-1.722E-02	6.217E-02	9.764E-02	6.437E-03	-0.176
	697.49			6.869E-03	8.697E-02	1.466E-01	1.038E-02	0.047
	766.84			1.396E-01	1.445E-01	2.277E-01	1.845E-02	0.613
	1046.59			7.832E-02	1.234E-01	2.149E-01	1.764E-02	0.364
	1112.84			-4.258E-02	2.717E-01	3.706E-01	2.604E-02	-0.115
RU-103	497.08	*		-2.029E-02	4.681E-02	7.368E-02	9.510E-03	-0.275
	610.33	+		1.404E+01	3.083E+00	3.445E+00	5.419E-01	4.076
RH-106	511.85	+		5.945E-01	3.388E-01	4.672E-01	2.991E-02	1.272
	621.84	*		6.744E-02	3.575E-01	5.850E-01	7.106E-02	0.115
	1050.47			-2.676E-01	2.535E+00	4.107E+00	3.343E-01	-0.065
RU-106	511.85	+		5.945E-01	3.388E-01	4.672E-01	2.991E-02	1.272
	621.84	*		6.744E-02	3.575E-01	5.850E-01	3.856E-02	0.115
	1050.47			-2.676E-01	2.535E+00	4.107E+00	3.343E-01	-0.065
AG-108M	433.93	*		1.074E-02	3.634E-02	6.073E-02	3.974E-03	0.177
	614.37			1.863E-02	4.833E-02	7.016E-02	4.930E-03	0.266
	722.95			-2.105E-02	4.899E-02	6.682E-02	5.238E-03	-0.315
AG-110M	657.75	*		2.015E-02	4.636E-02	6.743E-02	4.661E-03	0.299
	677.61			3.051E-01	3.629E-01	6.437E-01	4.573E-02	0.474
	706.67			-1.086E-01	2.469E-01	3.937E-01	2.951E-02	-0.276
	763.93			5.200E-02	2.014E-01	2.984E-01	2.483E-02	0.174
	884.67			-1.066E-02	5.942E-02	9.675E-02	9.877E-03	-0.110
	937.48			5.134E-02	1.316E-01	2.243E-01	2.250E-02	0.229
	1384.27			3.068E-03	2.009E-01	2.889E-01	1.786E-02	0.011
IN-111	171.28			-4.028E-01	1.590E+00	2.527E+00	2.512E-01	-0.159
	245.39	*		-5.342E-02	1.894E+00	2.763E+00	2.692E-01	-0.019
IN-113M	391.69	*		1.214E-02	4.748E-02	7.948E-02	4.930E-03	0.153
SN-113	391.69	*		1.214E-02	4.748E-02	7.948E-02	4.930E-03	0.153
IN-114M	190.27	*		6.958E-02	2.238E-01	3.188E-01	3.183E-02	0.218

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CD-115		260.90		6.632E+01	2.407E+02	4.081E+02	3.902E+01	0.163
		492.35		3.493E+00	6.959E+01	1.138E+02	7.211E+00	0.031
		527.90	*	-6.716E+00	2.015E+01	3.086E+01	1.991E+00	-0.218
SN-117M		156.02		2.260E+00	2.648E+00	4.404E+00	4.856E-01	0.513
		158.56	*	-5.243E-03	6.555E-02	1.054E-01	1.133E-02	-0.050
SB-122		563.90	*	-5.608E-01	3.911E+00	6.266E+00	4.095E-01	-0.089
		692.80		5.072E-02	7.797E+01	1.307E+02	9.169E+00	0.000
I-123		159.00	*	7.722E+00	7.797E+01	Half-Life	too short	
		528.96		-1.686E+02	7.797E+01	Half-Life	too short	
TE-123M		159.00	*	4.180E-03	3.121E-02	5.061E-02	5.438E-03	0.083
I-124		602.71	*	-1.691E-01	1.233E+00	1.690E+00	1.112E-01	-0.100
		722.78		-7.466E-01	6.589E+00	9.367E+00	6.976E-01	-0.080
		1325.50		-8.606E+00	4.865E+01	7.662E+01	4.437E+00	-0.112
		1376.25		7.056E+01	5.002E+01	8.880E+01	5.170E+00	0.795
		1509.49		3.685E+00	2.032E+01	3.476E+01	2.044E+00	0.106
		1691.02		3.135E+00	5.861E+00	1.055E+01	6.155E-01	0.297
SB-124		602.71		-7.501E-03	5.468E-02	7.493E-02	4.935E-03	-0.100
		645.85		1.920E-01	6.098E-01	1.005E+00	7.289E-02	0.191
		709.31		1.322E+00	3.272E+00	5.637E+00	4.087E-01	0.235
		713.82		4.211E-01	1.902E+00	3.236E+00	3.605E-01	0.130
		722.78		-4.799E-02	4.235E-01	6.021E-01	4.614E-02	-0.080
	+	968.20		1.631E+01	4.638E+00	8.264E+00	7.741E-01	1.974
		1045.16		-1.030E-01	2.721E+00	4.441E+00	3.654E-01	-0.023
		1325.50		-5.909E-01	3.340E+00	5.260E+00	3.046E-01	-0.112
		1368.21		6.881E-01	1.679E+00	2.882E+00	3.424E-01	0.239
		1436.60		5.895E-01	3.879E+00	6.617E+00	3.876E-01	0.089
		1691.02	*	4.753E-02	8.887E-02	1.599E-01	1.012E-02	0.297
SB-125		427.89	*	-2.852E-02	9.953E-02	1.601E-01	1.004E-02	-0.178
	+	463.38		8.440E-01	4.329E-01	6.205E-01	4.418E-02	1.360
		600.56		-1.696E-01	2.196E-01	3.220E-01	2.381E-02	-0.527
		635.90		-1.505E-02	3.047E-01	4.880E-01	3.650E-02	-0.031
TE-125M		109.28	*	-5.377E+00	9.478E+00	1.510E+01	1.941E+00	-0.356
I-126		388.63		6.626E-02	2.382E-01	3.993E-01	2.376E-02	0.166
		666.33	*	5.865E-02	2.570E-01	3.650E-01	2.424E-02	0.161
		753.82		4.141E-01	1.834E+00	3.115E+00	2.463E-01	0.133
SB-126		223.80		6.071E-01	4.525E+00	7.664E+00	7.594E-01	0.079
		278.60		2.046E+00	2.919E+00	4.910E+00	4.561E-01	0.417
	+	296.50		1.487E+01	2.864E+00	4.311E+00	3.855E-01	3.450
		414.70		4.544E-02	9.244E-02	1.564E-01	9.321E-03	0.290
		415.30		5.247E+00	7.715E+00	1.320E+01	7.866E-01	0.398
		555.20		4.300E+00	5.012E+00	8.634E+00	5.628E-01	0.498
		573.80		1.041E-03	1.278E+00	2.067E+00	1.354E-01	0.001
		593.00		-3.191E-01	1.272E+00	2.014E+00	1.324E-01	-0.158
		656.30		1.594E+00	4.974E+00	7.140E+00	4.698E-01	0.223
		666.33		2.461E-02	1.078E-01	1.532E-01	1.017E-02	0.161
		675.00		2.056E+00	2.553E+00	4.522E+00	3.058E-01	0.455
		695.00		7.915E-02	9.785E-02	1.731E-01	1.219E-02	0.457
		697.00		2.333E-01	3.338E-01	5.867E-01	4.150E-02	0.398
		720.50	*	-3.454E-02	1.951E-01	2.755E-01	2.043E-02	-0.125

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127		856.80		-2.700E-01	6.924E-01	9.371E-01	8.915E-02	-0.288
		989.30		3.431E-01	1.619E+00	2.714E+00	2.464E-01	0.126
		1034.80		3.009E+00	1.004E+01	1.698E+01	1.426E+00	0.177
		1213.00		4.361E+00	5.994E+00	1.035E+01	6.018E-01	0.421
		61.10		4.774E+01	3.972E+01	6.004E+01	6.854E+00	0.795
		252.40		-1.511E+00	6.019E+00	9.915E+00	4.204E+00	-0.152
		290.80		-9.164E+00	3.566E+01	5.073E+01	6.102E+00	-0.181
		411.60		2.165E+00	1.854E+01	3.068E+01	4.557E+00	0.071
		444.90		-7.162E+00	1.514E+01	2.398E+01	2.760E+00	-0.299
		473.00		-7.379E-01	2.528E+00	4.039E+00	4.824E-01	-0.183
		543.00		-2.233E+01	2.637E+01	3.964E+01	5.425E+00	-0.563
		603.60		7.812E+00	2.169E+01	3.128E+01	3.672E+00	0.250
		685.20	*	-2.921E-01	2.023E+00	3.354E+00	3.601E-01	-0.087
		698.50		-6.203E+00	2.339E+01	3.839E+01	5.930E+00	-0.162
XE-127		722.20		1.017E+01	4.703E+01	6.964E+01	7.561E+00	0.146
		783.80		2.706E+00	7.018E+00	1.047E+01	1.333E+00	0.258
		57.60		-4.232E-01	2.369E+00	3.772E+00	3.037E-01	-0.112
		145.22		5.841E-01	8.058E-01	1.305E+00	1.583E-01	0.448
		172.10		-5.580E-02	1.281E-01	2.017E-01	2.006E-02	-0.277
I-131		202.84	*	3.335E-02	5.431E-02	8.899E-02	8.882E-03	0.375
		374.96		-1.795E-01	2.276E-01	3.574E-01	2.332E-02	-0.502
		80.18		-1.129E+00	4.442E+00	6.341E+00	4.948E-01	-0.178
		284.30		5.010E-01	1.841E+00	3.114E+00	2.997E-01	0.161
TE-132		364.48	*	-4.247E-02	1.427E-01	2.314E-01	1.742E-02	-0.184
		636.97		2.856E-01	2.081E+00	3.387E+00	2.447E-01	0.084
		722.89		-4.079E+00	9.600E+00	1.310E+01	9.865E-01	-0.311
		49.72		-4.383E+00	6.581E+00	9.292E+00	9.494E-01	-0.472
		111.76		2.372E+00	4.240E+01	6.928E+01	9.766E+00	0.034
BA-133		116.30		-1.181E+01	3.900E+01	6.269E+01	9.341E+00	-0.188
		228.16	*	-6.541E-01	1.055E+00	1.720E+00	2.883E-01	-0.380
		53.15		-2.348E-01	9.727E-01	1.587E+00	1.189E-01	-0.148
		79.62		2.056E+00	1.164E+00	1.736E+00	2.559E-01	1.184
		81.00		9.415E-02	1.019E-01	1.131E-01	1.741E-02	0.833
I-133		276.40		4.695E-01	4.307E-01	6.647E-01	9.891E-02	0.706
		302.84		6.834E-02	1.601E-01	2.717E-01	3.642E-02	0.252
		356.01	*	7.336E-02	5.067E-02	8.040E-02	9.930E-03	0.912
		383.85		-3.052E-01	3.220E-01	4.957E-01	5.486E-02	-0.616
	+	510.53		4.905E+00	3.220E-01	Half-Life too short		
		529.87	*	-5.498E-03	3.220E-01	Half-Life too short		
		706.58		-8.272E-01	3.220E-01	Half-Life too short		
		856.28		-2.674E-01	3.220E-01	Half-Life too short		
		875.33		-3.480E-01	3.220E-01	Half-Life too short		
		1236.41		4.519E+00	3.220E-01	Half-Life too short		
CS-134		1298.22		6.145E-02	3.220E-01	Half-Life too short		
		475.35		-1.358E+00	2.127E+00	3.309E+00	2.074E-01	-0.410
		563.23		-4.076E-02	4.299E-01	6.911E-01	4.590E-02	-0.059
		569.32		1.373E-01	2.325E-01	3.921E-01	2.626E-02	0.350
		604.70		6.846E-03	4.474E-02	6.325E-02	4.183E-03	0.108
		795.84	*	1.165E-01	5.563E-02	1.049E-01	9.035E-03	1.110

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135 I-135	801.93			-9.270E-01	4.993E-01	6.884E-01	5.983E-02	-1.347
	1038.57			2.152E+00	4.034E+00	6.979E+00	5.817E-01	0.308
	1167.94			-4.379E-01	2.856E+00	4.578E+00	2.707E-01	-0.096
	1365.15			1.629E-02	1.267E+00	2.046E+00	1.306E-01	0.008
	268.24	*		9.318E-02	1.957E-01	2.896E-01	3.098E-02	0.322
	288.45			-3.639E+11	1.957E-01	Half-Life	too short	
	417.63			-1.370E+12	1.957E-01	Half-Life	too short	
	546.56			7.820E+11	1.957E-01	Half-Life	too short	
	836.80			1.241E+12	1.957E-01	Half-Life	too short	
	1038.76			3.812E+11	1.957E-01	Half-Life	too short	
	1124.00			7.780E+12	1.957E-01	Half-Life	too short	
	1131.51			-2.132E+11	1.957E-01	Half-Life	too short	
	1260.41	*		-2.512E+10	1.957E-01	Half-Life	too short	
	1457.56			2.984E+13	1.957E-01	Half-Life	too short	
	1678.03			4.305E+11	1.957E-01	Half-Life	too short	
CS-136	1706.46			4.596E+11	1.957E-01	Half-Life	too short	
	1791.20			6.683E+11	1.957E-01	Half-Life	too short	
	66.91			5.107E-02	5.053E-01	7.363E-01	1.113E-01	0.069
	86.29	+		4.743E+00	1.255E+00	1.858E+00	2.269E-01	2.552
	153.22			1.806E-01	7.786E-01	1.268E+00	1.537E-01	0.142
	163.89			3.394E-01	1.282E+00	2.087E+00	2.306E-01	0.163
	176.55			8.753E-02	4.223E-01	6.847E-01	7.118E-02	0.128
	273.65			-4.429E-01	6.171E-01	8.373E-01	8.289E-02	-0.529
	340.57			7.345E-01	1.866E-01	3.221E-01	2.592E-02	2.281
	818.51			2.368E-03	9.070E-02	1.511E-01	1.346E-02	0.016
CE-139 BA-140	1048.07	*		3.867E-02	1.269E-01	2.144E-01	1.837E-02	0.180
	1235.34			6.703E-01	7.564E-01	1.312E+00	1.311E-01	0.511
	165.85	*		9.783E-03	3.267E-02	5.325E-02	5.287E-03	0.184
	162.64			2.498E-01	9.160E-01	1.492E+00	1.599E-01	0.167
	304.84			-1.605E+00	1.613E+00	2.444E+00	6.861E-01	-0.656
LA-140	423.70			5.208E-01	2.305E+00	3.829E+00	1.218E+00	0.136
	537.32	*		4.063E-01	3.465E-01	5.681E-01	1.855E-01	0.715
	328.77	+		6.988E-01	5.873E-01	6.299E-01	5.442E-02	1.109
	432.53			6.699E-01	2.495E+00	4.165E+00	2.766E-01	0.161
	487.03			7.773E-02	1.681E-01	2.830E-01	1.988E-02	0.275
	751.79			4.209E-01	2.149E+00	3.642E+00	3.233E-01	0.116
	815.85			-3.963E-01	3.796E-01	5.636E-01	5.539E-02	-0.703
	867.82			-8.385E-01	1.857E+00	2.795E+00	2.823E-01	-0.300
	919.63			1.262E+00	3.749E+00	5.774E+00	6.788E-01	0.218
	925.24			-4.870E-01	1.419E+00	2.264E+00	2.347E-01	-0.215
CE-141 CE-143	1596.49	*		1.073E-01	1.132E-01	1.933E-01	1.136E-02	0.555
	145.44	*		2.824E-02	7.398E-02	1.186E-01	1.450E-02	0.238
	57.37			-3.051E-04	7.398E-02	Half-Life	too short	
	231.56			2.983E-03	7.398E-02	Half-Life	too short	
	293.26	*		1.930E-03	7.398E-02	Half-Life	too short	
	350.59			7.364E-02	7.398E-02	Half-Life	too short	
	490.36			5.983E-05	7.398E-02	Half-Life	too short	
	664.57			9.479E-03	7.398E-02	Half-Life	too short	
	721.93			1.004E-03	7.398E-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
CE-144		80.11		-1.191E-01	1.772E+00	2.550E+00	1.971E-01	-0.047
		133.54	*	-7.550E-02	2.396E-01	3.330E-01	6.165E-02	-0.227
PM-144		476.78		-3.536E-02	7.479E-02	1.178E-01	8.652E-03	-0.300
		618.01		1.078E-02	3.869E-02	6.021E-02	4.155E-03	0.179
		696.49	*	3.698E-02	3.961E-02	7.056E-02	4.989E-03	0.524
		778.57		-6.542E-01	2.678E+00	4.159E+00	3.446E-01	-0.157
PR-144		696.49	*	2.508E+00	2.686E+00	4.786E+00	3.382E-01	0.524
		1489.15		-3.191E+00	1.167E+01	1.855E+01	1.090E+00	-0.172
PM-146		453.90	*	-2.068E-02	4.897E-02	7.776E-02	6.900E-03	-0.266
		633.02		6.805E-01	1.564E+00	2.579E+00	9.530E-01	0.264
		735.90		-1.191E-02	1.589E-01	2.581E-01	7.309E-02	-0.046
		747.13		-5.195E-02	1.049E-01	1.677E-01	2.274E-02	-0.310
ND-147	+	91.11		9.775E-01	3.037E-01	5.303E-01	4.717E-02	1.843
		319.41		-2.564E-01	3.908E+00	6.472E+00	5.431E-01	-0.040
		439.89		2.049E+00	7.491E+00	1.249E+01	7.620E-01	0.164
		531.02	*	-3.433E-01	6.818E-01	1.059E+00	1.464E-01	-0.324
PM-149		285.90	*	5.403E+01	1.673E+02	2.834E+02	4.492E+01	0.191
EU-152		121.78		5.667E-02	7.244E-02	1.207E-01	1.806E-02	0.469
		244.69		2.192E-01	3.971E-01	5.995E-01	5.845E-02	0.366
		344.27	*	2.812E-02	1.440E-01	1.670E-01	1.373E-02	0.168
		443.98		-5.410E-01	1.091E+00	1.728E+00	1.057E-01	-0.313
		778.89		1.476E-01	2.996E-01	4.870E-01	4.036E-02	0.303
		867.32		-4.505E-01	1.047E+00	1.529E+00	1.481E-01	-0.295
	+	964.01		8.305E-01	4.554E-01	6.428E-01	6.057E-02	1.292
		1085.78		-7.439E-02	4.288E-01	6.880E-01	5.181E-02	-0.108
		1112.02		-7.082E-02	3.662E-01	5.392E-01	3.797E-02	-0.131
		1407.95		3.295E-01	2.154E-01	4.178E-01	2.441E-02	0.789
GD-153		69.67		-9.693E-01	1.094E+00	1.522E+00	1.211E-01	-0.637
	+	83.37		2.411E+01	1.170E+01	1.918E+01	1.472E+00	1.257
		97.43	*	-1.757E-03	7.825E-02	1.121E-01	1.039E-02	-0.016
		103.18		-1.468E-01	1.028E-01	1.572E-01	1.626E-02	-0.934
EU-154		123.07		6.239E-03	5.605E-02	8.469E-02	1.350E-02	0.074
		247.94		-1.163E-01	4.061E-01	6.095E-01	7.510E-02	-0.191
		591.81		-1.936E-01	8.149E-01	1.212E+00	1.243E-01	-0.160
		723.30		1.945E-02	1.928E-01	2.818E-01	2.392E-02	0.069
		756.87		1.433E-01	8.918E-01	1.506E+00	1.733E-01	0.095
		873.19		1.150E-01	3.459E-01	5.889E-01	7.707E-02	0.195
		996.32		-5.441E-01	4.316E-01	5.999E-01	1.076E-01	-0.907
		1004.76		1.844E-02	2.405E-01	3.980E-01	4.703E-02	0.046
		1274.45	*	7.756E-02	1.258E-01	2.179E-01	2.038E-02	0.356
EU-155		48.70		8.529E-01	5.329E-01	8.309E-01	5.791E-02	1.026
		60.01		2.759E+00	2.282E+00	3.477E+00	2.879E-01	0.793
	+	86.54		3.994E-01	9.875E-02	1.556E-01	1.202E-02	2.567
		105.31	*	9.091E-02	1.045E-01	1.753E-01	1.899E-02	0.519
TB-160	+	86.79		1.084E+00	2.677E-01	4.201E-01	3.204E-02	2.581
		197.04		-6.534E-01	6.370E-01	9.585E-01	9.572E-02	-0.682
		215.65		2.389E-02	8.011E-01	1.319E+00	1.312E-01	0.018
		298.57		1.982E-01	1.437E-01	2.253E-01	2.005E-02	0.880
		879.36	*	-3.796E-02	1.668E-01	2.704E-01	2.672E-02	-0.140

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	(pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
HO-166M		962.29		6.863E-01	7.306E-01	1.141E+00	1.077E-01	0.602
	+	966.15		5.798E-01	3.180E-01	5.775E-01	5.425E-02	1.004
		1177.93		-1.612E-02	4.289E-01	6.953E-01	4.034E-02	-0.023
		1271.85		8.350E-03	8.075E-01	1.309E+00	7.606E-02	0.006
		80.57		2.913E-01	2.784E-01	3.138E-01	2.423E-02	0.928
	+	184.41		1.502E-01	5.728E-02	7.160E-02	7.145E-03	2.098
		280.46		-3.652E-02	9.041E-02	1.480E-01	1.370E-02	-0.247
		410.95		9.823E-02	2.739E-01	4.599E-01	2.729E-02	0.214
		711.68	*	8.082E-03	6.968E-02	1.177E-01	8.572E-03	0.069
		752.31		2.263E-02	3.115E-01	5.230E-01	4.124E-02	0.043
TM-171		810.29		-8.710E-03	6.562E-02	1.078E-01	9.460E-03	-0.081
		51.35		-4.640E+00	8.262E+00	1.174E+01	8.540E-01	-0.395
		52.39		-1.567E+00	4.179E+00	6.562E+00	4.856E-01	-0.239
		59.40		1.594E+01	1.190E+01	1.822E+01	1.510E+00	0.875
LU-176		66.72	*	4.563E+00	1.651E+01	2.423E+01	1.947E+00	0.188
	+	88.36		7.860E-01	1.941E-01	3.302E-01	2.533E-02	2.381
		201.83		3.274E-02	3.178E-02	5.284E-02	5.275E-03	0.620
		306.84	*	-9.280E-03	2.683E-02	4.384E-02	3.818E-03	-0.212
LU-177		401.10		-4.859E+00	7.162E+00	1.126E+01	6.617E-01	-0.431
		112.95		6.026E-01	1.952E+00	3.216E+00	3.943E-01	0.187
	+	208.36	*	2.972E+00	1.600E+00	2.483E+00	2.476E-01	1.197
LU-177M		52.97		-1.305E-01	4.372E-01	7.119E-01	5.318E-02	-0.183
		54.07		5.592E-03	2.500E-01	4.117E-01	3.131E-02	0.014
		61.30		1.174E+00	7.661E-01	1.173E+00	9.652E-02	1.000
		121.62		2.823E-01	3.726E-01	6.212E-01	8.751E-02	0.454
		147.16		-6.031E-01	7.435E-01	1.159E+00	1.384E-01	-0.521
		171.86		-1.870E-01	5.023E-01	7.933E-01	7.889E-02	-0.236
		218.09		-2.776E-01	8.772E-01	1.459E+00	1.450E-01	-0.190
		268.79		8.461E-01	1.020E+00	1.539E+00	1.454E-01	0.550
		319.02		-4.373E-02	2.750E-01	4.531E-01	3.806E-02	-0.097
		367.43		-7.873E-02	1.005E+00	1.653E+00	1.128E-01	-0.048
HF-181		413.65	*	-7.746E-02	2.017E-01	3.235E-01	1.925E-02	-0.239
		56.28		-2.720E-01	3.306E-01	5.326E-01	4.198E-02	-0.511
		57.53		-4.343E-02	1.975E-01	3.140E-01	2.525E-02	-0.138
		65.20		1.211E+00	5.729E-01	8.888E-01	7.185E-02	1.362
		133.02		9.075E-03	7.814E-02	1.115E-01	1.480E-02	0.081
		136.25		3.371E-01	5.374E-01	7.867E-01	1.021E-01	0.429
		345.85		-8.982E-02	2.529E-01	3.312E-01	2.516E-02	-0.271
		482.03	*	9.008E-03	4.946E-02	8.174E-02	5.144E-03	0.110
W-181		56.28		-1.043E-01	1.271E-01	2.047E-01	1.613E-02	-0.509
		57.53		-1.679E-02	7.592E-02	1.207E-01	9.708E-03	-0.139
		65.20	*	4.618E-01	2.186E-01	3.391E-01	2.741E-02	1.362
TA-182		67.75		-1.087E-03	6.852E-02	9.932E-02	7.951E-03	-0.011
		100.10		6.584E-02	1.753E-01	2.696E-01	2.632E-02	0.244
		152.43		3.260E-01	3.662E-01	6.094E-01	6.951E-02	0.535
		222.10		8.579E-02	3.545E-01	6.031E-01	5.982E-02	0.142
		1001.68		1.322E+00	2.400E+00	4.053E+00	3.608E-01	0.326
	+	1121.28		5.299E-01	2.535E-01	3.836E-01	2.633E-02	1.382
		1189.05		1.160E-02	3.435E-01	5.603E-01	3.254E-02	0.021

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RE-183	1221.42	*		-1.154E-01	2.153E-01	3.304E-01	1.921E-02	-0.349
	1230.97			-1.077E-01	5.751E-01	9.176E-01	5.336E-02	-0.117
	57.98			2.682E-02	8.132E-02	1.265E-01	1.025E-02	0.212
	59.32			6.652E-02	4.946E-02	7.575E-02	6.270E-03	0.878
	67.20			1.700E-02	1.213E-01	1.770E-01	1.420E-02	0.096
+ RE-184	162.32	*		5.708E-02	1.238E-01	2.030E-01	2.098E-02	0.281
	208.81			2.268E+00	1.221E+00	1.885E+00	1.879E-01	1.204
	291.72			-2.027E-01	1.164E+00	1.667E+00	1.508E-01	-0.122
	57.98			9.783E-02	2.966E-01	4.615E-01	3.738E-02	0.212
	59.32			2.425E-01	1.802E-01	2.761E-01	2.285E-02	0.878
RE-184	67.20			6.198E-02	4.423E-01	6.454E-01	5.177E-02	0.096
	161.27			-3.034E-02	3.941E-01	6.332E-01	6.618E-02	-0.048
	216.55			-8.670E-02	2.778E-01	4.623E-01	4.597E-02	-0.188
	252.85	*		1.616E-03	2.346E-01	3.936E-01	3.803E-02	0.004
	318.01			-3.868E-01	4.776E-01	7.562E-01	6.373E-02	-0.511
OS-185	792.07			-3.581E-01	1.329E+00	1.928E+00	1.637E-01	-0.186
	903.28			-4.555E-01	1.184E+00	1.580E+00	1.602E-01	-0.288
	920.93			6.894E-02	5.368E-01	8.569E-01	8.521E-02	0.080
	59.72			1.627E-01	1.358E-01	2.069E-01	1.715E-02	0.787
	61.14			1.065E-01	8.344E-02	1.269E-01	1.045E-02	0.839
RE-188	69.30			-1.678E-01	1.959E-01	2.730E-01	2.174E-02	-0.614
	592.07			-9.148E-01	3.361E+00	4.983E+00	3.276E-01	-0.184
	646.12	*		1.410E-02	5.135E-02	8.440E-02	5.560E-03	0.167
	717.42			-1.722E-01	1.001E+00	1.651E+00	1.217E-01	-0.104
	874.81			-1.381E-01	6.817E-01	1.108E+00	1.086E-01	-0.125
+ W-188	880.27			6.225E-01	9.011E-01	1.579E+00	1.562E-01	0.394
	155.03	*		-1.055E-02	1.895E-01	3.052E-01	3.398E-02	-0.035
	477.96			8.684E-01	3.381E+00	5.622E+00	3.529E-01	0.154
	633.10			1.440E+00	3.178E+00	5.311E+00	3.501E-01	0.271
	63.58			6.332E+01	3.327E+01	4.812E+01	3.917E+00	1.316
IR-192	227.08			-8.288E+00	1.344E+01	2.199E+01	2.175E+00	-0.377
	290.67	*		-2.679E+00	9.149E+00	1.298E+01	1.177E+00	-0.206
	295.96			1.050E+00	2.025E-01	3.048E-01	2.748E-02	3.444
	308.46			-2.621E-02	1.064E-01	1.748E-01	1.523E-02	-0.150
	316.51	*		-4.058E-02	3.749E-02	5.831E-02	4.949E-03	-0.696
AU-195	468.07			-3.619E-02	8.421E-02	1.136E-01	8.025E-03	-0.319
	604.41			2.832E-01	6.035E-01	8.807E-01	1.037E-01	0.322
	612.46			3.895E+00	1.183E+00	2.019E+00	1.654E-01	1.930
	65.12			2.267E-01	1.012E-01	1.574E-01	1.273E-02	1.441
	66.83			5.018E-03	5.558E-02	8.095E-02	6.502E-03	0.062
+ TL-200	75.70			1.071E+00	1.682E-01	3.658E-01	2.857E-02	2.927
	98.88	*		3.255E-01	2.235E-01	3.415E-01	3.256E-02	0.953
	129.76			1.000E+01	6.147E+00	5.388E+00	7.302E-01	1.856
	367.94	*		2.709E-04	6.147E+00	Half-Life	too short	
	579.30			-6.069E-03	6.147E+00	Half-Life	too short	
TL-201	828.27			-5.276E-03	6.147E+00	Half-Life	too short	
	1205.75			2.737E-03	6.147E+00	Half-Life	too short	
	68.90			-4.894E+00	4.628E+00	6.386E+00	5.091E-01	-0.766
	70.82			4.628E-01	2.704E+00	3.944E+00	3.124E-01	0.117

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-202		80.30		9.100E+00	7.670E+00	8.725E+00	6.740E-01	1.043
		135.34		-8.315E-01	4.396E+01	6.224E+01	8.129E+00	-0.013
		167.43	*	-3.024E+00	1.132E+01	1.800E+01	1.787E+00	-0.168
		68.90		-3.261E-01	3.084E-01	4.255E-01	3.393E-02	-0.766
		70.82		3.076E-02	1.797E-01	2.621E-01	2.076E-02	0.117
HG-203		80.30		6.050E-01	5.099E-01	5.800E-01	4.481E-02	1.043
		439.56	*	-3.910E-03	8.805E-02	1.439E-01	8.771E-03	-0.027
		70.83		1.298E-01	7.241E-01	1.056E+00	1.392E-01	0.123
		72.87		2.217E+00	5.589E-01	8.093E-01	1.030E-01	2.739
		82.60		1.587E+00	1.251E+00	1.430E+00	1.885E-01	1.109
BI-207		279.20	*	1.754E-02	4.402E-02	7.489E-02	7.120E-03	0.234
		72.80		5.728E-01	1.436E-01	2.265E-01	1.783E-02	2.529
	+	74.97		5.900E-01	9.269E-02	1.774E-01	1.389E-02	3.325
	+	84.90		3.102E-01	1.506E-01	2.621E-01	2.006E-02	1.184
		569.67		1.849E-02	3.579E-02	6.010E-02	3.933E-03	0.308
TL-207		1063.62	*	2.205E-02	6.364E-02	1.074E-01	8.508E-03	0.205
		1770.23		2.785E-01	4.842E-01	8.051E-01	4.650E-02	0.346
		81.07		2.069E-01	2.232E-01	2.496E-01	1.925E-02	0.829
	+	83.78		2.045E-01	9.932E-02	1.616E-01	1.239E-02	1.266
		94.90		8.263E-01	2.423E-01	3.829E-01	3.374E-02	2.158
PO-209		122.32		9.656E-01	1.779E+00	2.853E+00	4.155E-01	0.338
		144.24		6.852E-01	7.650E-01	1.243E+00	1.613E-01	0.551
		154.21		-3.114E-01	4.386E-01	6.851E-01	8.148E-02	-0.454
	+	269.46		4.649E-01	3.359E-01	3.693E-01	3.546E-02	1.259
		323.87	*	2.926E-02	7.980E-01	1.154E+00	2.024E-01	0.025
PB-211		338.28		7.655E+00	2.030E+00	2.658E+00	3.132E-01	2.879
		445.03		-1.217E+00	2.572E+00	4.074E+00	4.259E-01	-0.299
		260.50		4.996E+00	1.025E+01	1.753E+01	1.677E+00	0.285
		262.80		-1.294E+01	2.978E+01	4.750E+01	4.529E+00	-0.272
		896.60	*	2.581E+00	7.350E+00	1.259E+01	1.280E+00	0.205
PO-215		404.84	*	-3.054E-02	1.021E+00	1.677E+00	1.045E+00	-0.018
		427.08		2.296E-01	2.228E+00	3.673E+00	2.271E+00	0.062
		831.96		-1.239E+00	1.505E+00	1.947E+00	1.221E+00	-0.636
		81.07		2.069E-01	2.232E-01	2.496E-01	1.925E-02	0.829
	+	83.78		2.045E-01	9.932E-02	1.616E-01	1.239E-02	1.266
RN-219		94.90		8.263E-01	2.423E-01	3.829E-01	3.374E-02	2.158
		122.32		9.656E-01	1.779E+00	2.853E+00	4.155E-01	0.338
		144.24		6.852E-01	7.650E-01	1.243E+00	1.613E-01	0.551
		154.21		-3.114E-01	4.386E-01	6.851E-01	8.148E-02	-0.454
	+	269.46		4.649E-01	3.359E-01	3.693E-01	3.546E-02	1.259
RN-220		323.87	*	2.926E-02	7.980E-01	1.154E+00	2.024E-01	0.025
		338.28		7.655E+00	2.030E+00	2.658E+00	3.132E-01	2.879
		445.03		-1.217E+00	2.572E+00	4.074E+00	4.259E-01	-0.299
	+	271.23		5.965E-01	4.322E-01	4.840E-01	5.316E-02	1.232
		401.81	*	-4.978E-01	4.479E-01	6.751E-01	9.208E-02	-0.737
RA-223		549.76	*	-4.023E+01	3.109E+01	4.512E+01	2.935E+00	-0.892
		81.07		2.069E-01	2.232E-01	2.496E-01	1.925E-02	0.829
	+	83.78		2.045E-01	9.932E-02	1.616E-01	1.239E-02	1.266
		94.90		8.263E-01	2.423E-01	3.829E-01	3.374E-02	2.158

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		122.32		9.656E-01	1.779E+00	2.853E+00	4.155E-01	0.338
		144.24		6.852E-01	7.650E-01	1.243E+00	1.613E-01	0.551
		154.21		-3.114E-01	4.386E-01	6.851E-01	8.148E-02	-0.454
	+	269.46		4.649E-01	3.359E-01	3.693E-01	3.546E-02	1.259
		323.87	*	2.926E-02	7.980E-01	1.154E+00	2.024E-01	0.025
	+	338.28		7.655E+00	2.030E+00	2.658E+00	3.132E-01	2.879
		445.03		-1.217E+00	2.572E+00	4.074E+00	4.259E-01	-0.299
		79.80		1.027E+00	1.405E+00	2.064E+00	4.368E-01	0.498
		236.00		8.689E-01	3.231E-01	5.044E-01	6.619E-02	1.723
		256.20	*	-2.382E-01	3.927E-01	6.360E-01	1.013E-01	-0.374
		286.10		4.702E-01	1.615E+00	2.733E+00	3.705E-01	0.172
		299.80		2.713E+00	1.798E+00	2.773E+00	4.885E-01	0.978
TH-227		304.40		-2.765E+00	2.153E+00	3.251E+00	6.015E-01	-0.851
		334.20		1.080E+00	3.903E+00	3.926E+00	7.510E-01	0.275
		79.80		1.027E+00	1.406E+00	2.064E+00	4.426E-01	0.498
	+	94.00		1.046E+01	3.374E+00	3.499E+00	7.625E-01	2.990
		236.00		8.689E-01	3.199E-01	5.044E-01	6.073E-02	1.723
		256.20	*	-2.382E-01	3.933E-01	6.360E-01	1.181E-01	-0.374
		286.10		4.702E-01	1.681E+00	2.733E+00	2.744E+00	0.172
		299.80		2.713E+00	1.798E+00	2.773E+00	4.885E-01	0.978
		304.40		-2.765E+00	2.153E+00	3.251E+00	6.015E-01	-0.851
		334.20		1.080E+00	3.903E+00	3.926E+00	7.510E-01	0.275
	+	85.43		3.062E-01	1.487E-01	2.777E-01	2.123E-02	1.103
	+	88.47		4.524E-01	1.117E-01	1.900E-01	1.461E-02	2.381
PA-231		100.00		6.947E-02	1.800E-01	2.769E-01	2.698E-02	0.251
		193.63	*	1.558E-01	5.387E-01	8.738E-01	8.727E-02	0.178
		210.97		1.346E+00	9.813E-01	1.464E+00	1.458E-01	0.920
		283.67	*	4.574E-01	1.611E+00	2.725E+00	4.229E-01	0.168
TH-231		301.29		8.438E-01	6.643E-01	1.104E+00	1.369E-01	0.764
		81.07		2.069E-01	2.232E-01	2.496E-01	1.925E-02	0.829
	+	83.78		2.045E-01	9.932E-02	1.616E-01	1.239E-02	1.266
		94.90		8.263E-01	2.423E-01	3.829E-01	3.374E-02	2.158
U-231		122.32		9.656E-01	1.779E+00	2.853E+00	4.155E-01	0.338
		144.24		6.852E-01	7.650E-01	1.243E+00	1.613E-01	0.551
		154.21		-3.114E-01	4.386E-01	6.851E-01	8.148E-02	-0.454
	+	269.46		4.649E-01	3.359E-01	3.693E-01	3.546E-02	1.259
		323.87	*	2.926E-02	7.980E-01	1.154E+00	2.024E-01	0.025
	+	338.28		7.655E+00	2.030E+00	2.658E+00	3.132E-01	2.879
		445.03		-1.217E+00	2.572E+00	4.074E+00	4.259E-01	-0.299
	+	84.21		1.176E+01	5.711E+00	9.337E+00	7.155E-01	1.260
	+	92.29		1.380E+01	3.492E+00	4.856E+00	4.055E-01	2.842
		95.87	*	-3.174E-02	1.442E+00	2.066E+00	1.857E-01	-0.015
		108.00		-2.560E+00	2.762E+00	4.330E+00	4.881E-01	-0.591
	+	75.28		1.721E+01	3.478E+00	5.507E+00	8.213E-01	3.126
PA-233	+	86.59		6.487E+00	2.298E+00	2.524E+00	6.694E-01	2.570
		300.12		9.924E-01	4.955E-01	7.811E-01	1.173E-01	1.271
		311.98	*	2.092E-02	6.918E-02	1.169E-01	1.032E-02	0.179
		340.50		3.393E+00	1.123E+00	1.443E+00	3.398E-01	2.351
		398.62		1.301E+00	2.230E+00	3.764E+00	9.736E-01	0.346

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	+	415.76		1.335E+00	1.833E+00	3.114E+00	6.425E-01	0.429
		63.00		1.805E+00	9.761E-01	1.383E+00	2.110E-01	1.304
		94.67		6.955E-01	1.907E-01	2.851E-01	3.566E-02	2.439
		98.44		9.393E-02	1.042E-01	1.360E-01	7.608E-02	0.690
		99.86		1.822E-01	4.554E-01	7.012E-01	6.813E-02	0.260
		111.00		8.914E-02	1.836E-01	3.040E-01	4.433E-02	0.293
		131.20		3.725E-01	2.289E-01	1.919E-01	2.576E-02	1.941
		152.70		2.997E-01	3.512E-01	5.794E-01	1.077E-01	0.517
		186.00		5.409E+00	2.624E+00	2.690E+00	8.506E-01	2.010
		226.40		-1.235E-01	4.147E-01	6.889E-01	9.691E-02	-0.179
		227.20		-2.727E-01	4.462E-01	7.303E-01	7.222E-02	-0.373
		248.90		-5.491E-01	8.621E-01	1.348E+00	3.081E-01	-0.407
		293.70		5.476E+00	1.374E+00	1.818E+00	3.181E-01	3.012
		369.80		9.707E-01	9.622E-01	1.645E+00	3.470E-01	0.590
		568.70		5.680E-01	1.192E+00	1.994E+00	1.305E-01	0.285
		569.50		1.776E-01	3.203E-01	5.390E-01	3.527E-02	0.329
		574.00		-1.232E-01	1.655E+00	2.660E+00	1.743E-01	-0.046
		699.00		-6.219E-01	8.145E-01	1.273E+00	2.348E-01	-0.488
		706.10		-4.380E-01	1.255E+00	1.994E+00	8.840E-01	-0.220
		733.00		-4.212E-01	4.833E-01	6.071E-01	1.325E-01	-0.694
		742.81		2.417E-01	1.518E+00	2.554E+00	1.714E+00	0.095
		796.30		1.883E+00	1.208E+00	2.044E+00	5.525E-01	0.921
		805.60		9.216E-01	1.203E+00	2.065E+00	6.333E-01	0.446
		819.60		1.484E-01	1.410E+00	2.362E+00	8.997E-01	0.063
		826.30		-2.381E-01	9.400E-01	1.516E+00	6.796E-01	-0.157
		831.60		-4.862E-01	6.811E-01	1.029E+00	3.087E-01	-0.472
		876.40		-7.198E-01	1.246E+00	1.519E+00	1.563E+00	-0.474
		880.51		2.366E-01	3.231E-01	5.676E-01	5.619E-02	0.417
		883.24		1.727E-01	3.590E-01	5.865E-01	3.953E-01	0.294
		899.00		-4.109E-01	8.514E-01	1.302E+00	5.737E-01	-0.315
		925.00		-3.852E-01	1.324E+00	2.122E+00	2.101E-01	-0.181
		926.50		3.297E-02	1.895E-01	3.177E-01	8.176E-02	0.104
		946.00	*	1.988E-01	3.509E-01	6.044E-01	1.164E-01	0.329
		949.00		4.025E-02	4.950E-01	8.222E-01	7.903E-02	0.049
		980.50		4.600E-01	9.283E-01	1.403E+00	1.291E-01	0.328
		1394.10		1.752E-01	1.261E+00	2.139E+00	1.386E+00	0.082
PA-234M		766.42		1.251E+01	1.627E+01	2.341E+01	1.186E+01	0.534
		1001.03	*	1.466E-01	5.394E+00	8.698E+00	8.888E-01	0.017
U-235	+	89.95		3.486E+00	1.491E+00	1.698E+00	5.209E-01	2.053
	+	93.35		3.255E+00	1.197E+00	1.110E+00	3.109E-01	2.931
		105.00		1.351E+00	1.087E+00	1.723E+00	5.256E-01	0.784
		143.76	*	2.345E-01	2.386E-01	3.846E-01	7.526E-02	0.610
		163.35		2.242E-01	5.209E-01	8.509E-01	1.689E-01	0.264
	+	185.71		2.003E-01	7.638E-02	9.937E-02	9.918E-03	2.016
		205.31		-3.725E-01	6.676E-01	8.915E-01	1.759E-01	-0.418
NP-236		94.67		5.299E-01	1.369E-01	2.164E-01	1.898E-02	2.448
		98.44		7.097E-02	6.837E-02	1.028E-01	9.722E-03	0.690
		111.00		6.743E-02	1.387E-01	2.299E-01	2.729E-02	0.293
		160.31	*	-2.445E-02	8.809E-02	1.403E-01	1.482E-02	-0.174

---- 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		1.247E-01	1.575E-01	2.344E-01	2.264E-02	0.532
		117.00	*	-2.197E-01	1.877E-01	2.873E-01	3.764E-02	-0.765
	+	209.75		1.759E+00	9.468E-01	1.476E+00	1.471E-01	1.192
		228.18		-1.463E-01	2.368E-01	3.875E-01	3.830E-02	-0.377
		277.60		2.164E-01	2.058E-01	3.313E-01	3.084E-02	0.653
		334.30		6.998E-01	2.213E+00	2.241E+00	1.785E-01	0.312
AM-241		59.54	*	9.521E-02	6.959E-02	1.065E-01	9.531E-03	0.894
CM-243		99.55		1.283E-01	1.621E-01	2.412E-01	2.330E-02	0.532
		103.76	*	1.088E-02	9.255E-02	1.519E-01	1.587E-02	0.072
		117.00		-2.261E-01	1.931E-01	2.956E-01	3.873E-02	-0.765
	+	209.75		1.734E+00	9.334E-01	1.455E+00	1.450E-01	1.192
		228.18		-1.478E-01	2.393E-01	3.916E-01	3.870E-02	-0.377
		277.60		2.182E-01	2.075E-01	3.341E-01	3.109E-02	0.653
AM-246		798.80		-1.312E-01	1.682E-01	2.620E-01	2.251E-02	-0.501
		1036.00		1.602E-01	3.076E-01	5.319E-01	4.456E-02	0.301
		1062.04		1.045E-01	2.788E-01	4.718E-01	3.749E-02	0.221
		1078.86	*	1.667E-01	1.613E-01	2.890E-01	2.212E-02	0.577
		278.00		9.687E-01	8.233E-01	1.375E+00	1.279E-01	0.704
CM-247		287.40		5.101E-01	1.307E+00	2.222E+00	2.029E-01	0.230
		402.60	*	-1.984E-02	3.893E-02	6.190E-02	3.643E-03	-0.321
CF-249		252.85		6.020E-03	8.741E-01	1.466E+00	1.417E-01	0.004
		333.44		2.147E-02	2.866E-01	2.796E-01	2.234E-02	0.077
		387.95	*	-7.507E-03	4.328E-02	7.057E-02	4.220E-03	-0.106
CF-251		176.60	*	5.757E-02	1.315E-01	2.153E-01	2.144E-02	0.267
		227.00		-1.802E-01	3.938E-01	6.493E-01	6.422E-02	-0.277
		285.00		-2.939E-01	1.865E+00	3.089E+00	2.834E-01	-0.095

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]G243517003          *
* Acquisition date   : 7-JAN-2010 08:52:57 Detector SN#      :                  *
* Detector ID        : GAM05                      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 02:00:01.72             Half life ratio : 8.000         *
*****
*                               SAMPLE DATA                                *
*
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library : SOLID              *
* Sample ID          : G243517003                 Analyst initials: MXR1         *
* Batch Number       : 937069                     Sample Quantity : 1.3150E+02 GRAM *
* Recovery           : 1.00000                     Carrier Weight  : 0.00000      *
*****
*                               QC DATA                                    *
*
* Standard Weight    : 0.00000
* CALIB. DATE/TIME   : 11-JUN-2009 16:41:00 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	MDA (pCi/GRAM)	
K-40	2.151E+01	2.100E+00	5.907E-01	0.000E+00
CD-109	3.380E+00	8.181E-01	9.521E-01	0.000E+00
SN-126	3.314E-01	8.020E-02	9.322E-02	0.000E+00
BA-137M	1.906E-01	6.788E-02	7.112E-02	0.000E+00
CS-137	2.015E-01	7.176E-02	7.518E-02	0.000E+00
TL-208	4.432E-01	9.486E-02	7.228E-02	0.000E+00
BI-210	1.233E+00	8.806E-01	8.903E-01	0.000E+00
PB-210	1.233E+00	8.806E-01	8.903E-01	0.000E+00
PO-210	1.233E+00	8.793E-01	8.903E-01	0.000E+00
BI-211	4.325E+00	6.380E-01	3.448E-01	0.000E+00
BI-212	8.563E-01	5.340E-01	4.723E-01	0.000E+00
PB-212	1.515E+00	1.955E-01	9.903E-02	0.000E+00
PO-212	1.515E+00	1.955E-01	9.903E-02	0.000E+00
BI-214	1.261E+00	2.158E-01	1.366E-01	0.000E+00
PB-214	1.505E+00	2.349E-01	1.202E-01	0.000E+00
PO-214	1.505E+00	2.349E-01	1.202E-01	0.000E+00
PO-216	1.515E+00	1.955E-01	9.903E-02	0.000E+00
PO-218	1.505E+00	2.349E-01	1.202E-01	0.000E+00
RA-224	4.280E+00	1.168E+00	1.127E+00	0.000E+00
RA-226	1.261E+00	2.158E-01	1.366E-01	0.000E+00
AC-228	1.550E+00	3.576E-01	2.374E-01	0.000E+00
RA-228	1.550E+00	3.576E-01	2.374E-01	0.000E+00
TH-228	1.541E+00	1.988E-01	1.007E-01	0.000E+00
TH-230	1.261E+00	2.158E-01	1.366E-01	0.000E+00
TH-232	1.550E+00	3.576E-01	2.374E-01	0.000E+00
TH-234	1.548E+00	8.322E-01	1.077E+00	0.000E+00
U-234	1.261E+00	2.158E-01	1.366E-01	0.000E+00
NP-237	9.731E-01	3.069E-01	2.729E-01	0.000E+00
U-238	1.548E+00	8.322E-01	1.077E+00	0.000E+00
AM-243	3.286E-01	5.060E-02	6.197E-02	0.000E+00
ANH-511	1.186E-01	6.625E-02	4.765E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	-1.546E-01	3.526E-01	5.801E-01	0.000E+00	NOT IDENT.
NA-22	2.640E-02	4.396E-02	7.787E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	4.862E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-6.724E-03	2.968E-02	4.714E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.622E-02	6.722E-02	0.000E+00	FAIL ABUN
SC-46	1.405E-02	4.428E-02	7.755E-02	0.000E+00	FAIL ABUN
V-48	-4.024E-02	8.604E-02	1.389E-01	0.000E+00	NOT IDENT.
CR-51	3.154E-02	4.133E-01	7.228E-01	0.000E+00	NOT IDENT.
MN-52	2.203E-01	3.037E-01	5.663E-01	0.000E+00	NOT IDENT.
MN-54	-3.394E-02	4.301E-02	6.877E-02	0.000E+00	NOT IDENT.
CO-56	-4.568E-02	4.397E-02	6.772E-02	0.000E+00	NOT IDENT.
CO-57	1.664E-02	2.462E-02	4.359E-02	0.000E+00	NOT IDENT.
CO-58	-1.909E-02	4.333E-02	7.143E-02	0.000E+00	NOT IDENT.
FE-59	1.145E-02	9.300E-02	1.580E-01	0.000E+00	NOT IDENT.
CO-60	-7.144E-03	3.623E-02	5.801E-02	0.000E+00	NOT IDENT.
ZN-65	9.291E-02	9.738E-02	1.597E-01	0.000E+00	NOT IDENT.
GE-68	1.863E+00	1.389E+00	2.611E+00	0.000E+00	NOT IDENT.
AS-73	-1.545E-02	2.294E-01	4.063E-01	0.000E+00	NOT IDENT.
AS-74	5.750E-02	1.137E-01	1.975E-01	0.000E+00	NOT IDENT.
SE-75	3.857E-03	5.364E-02	8.255E-02	0.000E+00	NOT IDENT.
BR-77	1.057E+01	1.802E+01	3.181E+01	0.000E+00	FAIL ABUN
SR-82	-3.184E-01	4.734E-01	7.024E-01	0.000E+00	NOT IDENT.
RB-83	4.397E-02	7.163E-02	1.268E-01	0.000E+00	NOT IDENT.
RB-84	7.372E-02	8.307E-02	1.517E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	9.016E+00	1.586E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.709E-02	8.286E-02	0.000E+00	NOT IDENT.
RB-86	1.075E+00	9.632E-01	1.777E+00	0.000E+00	NOT IDENT.
Y-88	-7.651E-03	3.375E-02	5.354E-02	0.000E+00	NOT IDENT.
ZR-88	-2.279E-02	3.353E-02	5.526E-02	0.000E+00	NOT IDENT.
Y-91	-1.082E+01	2.153E+01	3.412E+01	0.000E+00	NOT IDENT.
NB-94	1.304E-03	3.642E-02	6.327E-02	0.000E+00	NOT IDENT.
NB-95	5.709E-02	5.220E-02	8.649E-02	0.000E+00	NOT IDENT.
NB-95M	2.162E-01	1.561E-01	2.556E-01	0.000E+00	NOT IDENT.
ZR-95	2.780E-04	8.071E-02	1.392E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.101E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.205E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.128E+01	1.898E+01	3.423E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.350E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.430E-02	3.661E-02	5.862E-02	0.000E+00	NOT IDENT.
RH-102	-1.407E-02	3.168E-02	5.215E-02	0.000E+00	NOT IDENT.
RU-103	-2.029E-02	4.587E-02	7.513E-02	0.000E+00	FAIL ABUN
RH-106	6.744E-02	3.504E-01	5.943E-01	0.000E+00	FAIL ABUN
RU-106	6.744E-02	3.503E-01	5.943E-01	0.000E+00	FAIL ABUN
AG-108M	1.074E-02	3.561E-02	6.207E-02	0.000E+00	NOT IDENT.
AG-110M	2.015E-02	4.544E-02	6.844E-02	0.000E+00	NOT IDENT.
IN-111	-5.342E-02	1.856E+00	2.851E+00	0.000E+00	NOT IDENT.
IN-113M	1.214E-02	4.653E-02	8.137E-02	0.000E+00	NOT IDENT.
SN-113	1.214E-02	4.653E-02	8.137E-02	0.000E+00	NOT IDENT.
IN-114M	6.958E-02	2.193E-01	3.303E-01	0.000E+00	NOT IDENT.
CD-115	-6.716E+00	1.975E+01	3.144E+01	0.000E+00	NOT IDENT.
SN-117M	-5.243E-03	6.424E-02	1.095E-01	0.000E+00	NOT IDENT.
SB-122	-5.608E-01	3.833E+00	6.376E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.651E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	4.180E-03	3.059E-02	5.259E-02	0.000E+00	NOT IDENT.
I-124	-1.691E-01	1.208E+00	1.718E+00	0.000E+00	NOT IDENT.
SB-124	4.753E-02	8.709E-02	1.597E-01	0.000E+00	FAIL ABUN
SB-125	-2.852E-02	9.754E-02	1.637E-01	0.000E+00	FAIL ABUN
TE-125M	-5.377E+00	9.288E+00	1.578E+01	0.000E+00	NOT IDENT.
I-126	5.865E-02	2.519E-01	3.704E-01	0.000E+00	NOT IDENT.
SB-126	-3.454E-02	1.912E-01	2.792E-01	0.000E+00	FAIL ABUN
SB-127	-2.921E-01	1.982E+00	3.402E+00	0.000E+00	NOT IDENT.
XE-127	3.335E-02	5.322E-02	9.210E-02	0.000E+00	NOT IDENT.
I-131	-4.247E-02	1.398E-01	2.372E-01	0.000E+00	NOT IDENT.
TE-132	-6.541E-01	1.034E+00	1.776E+00	0.000E+00	NOT IDENT.
BA-133	7.336E-02	4.966E-02	8.245E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.617E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.452E-02	1.061E-01	0.000E+00	NOT IDENT.
CS-135	9.318E-02	1.918E-01	2.983E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.176E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.867E-02	1.244E-01	2.159E-01	0.000E+00	FAIL ABUN
CE-139	9.783E-03	3.202E-02	5.529E-02	0.000E+00	NOT IDENT.
BA-140	4.063E-01	3.395E-01	5.786E-01	0.000E+00	NOT IDENT.
LA-140	1.073E-01	1.110E-01	1.932E-01	0.000E+00	FAIL ABUN
CE-141	2.824E-02	7.250E-02	1.234E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	6.235E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-7.550E-02	2.348E-01	3.470E-01	0.000E+00	NOT IDENT.
PM-144	3.698E-02	3.882E-02	7.155E-02	0.000E+00	NOT IDENT.
PR-144	2.508E+00	2.633E+00	4.853E+00	0.000E+00	NOT IDENT.
PM-146	-2.068E-02	4.799E-02	7.942E-02	0.000E+00	NOT IDENT.
ND-147	-3.433E-01	6.681E-01	1.079E+00	0.000E+00	FAIL ABUN
PM-149	5.403E+01	1.639E+02	2.916E+02	0.000E+00	NOT IDENT.
EU-152	2.812E-02	1.411E-01	1.713E-01	0.000E+00	FAIL ABUN
GD-153	-1.757E-03	7.669E-02	1.174E-01	0.000E+00	FAIL ABUN
EU-154	7.756E-02	1.232E-01	2.187E-01	0.000E+00	NOT IDENT.
EU-155	9.091E-02	1.024E-01	1.834E-01	0.000E+00	FAIL ABUN
TB-160	-3.796E-02	1.634E-01	2.731E-01	0.000E+00	FAIL ABUN
HO-166M	8.082E-03	6.829E-02	1.193E-01	0.000E+00	FAIL ABUN
TM-171	4.563E+00	1.618E+01	2.553E+01	0.000E+00	NOT IDENT.
LU-176	-9.280E-03	2.629E-02	4.506E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.568E+00	2.569E+00	0.000E+00	FAIL ABUN
LU-177M	-7.746E-02	1.976E-01	3.309E-01	0.000E+00	NOT IDENT.
HF-181	9.008E-03	4.847E-02	8.339E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	2.142E-01	3.574E-01	0.000E+00	NOT IDENT.
TA-182	-1.154E-01	2.110E-01	3.318E-01	0.000E+00	FAIL ABUN
RE-183	5.708E-02	1.213E-01	2.109E-01	0.000E+00	FAIL ABUN
RE-184	1.616E-03	2.299E-01	4.059E-01	0.000E+00	NOT IDENT.
OS-185	1.410E-02	5.032E-02	8.569E-02	0.000E+00	NOT IDENT.
RE-188	-1.055E-02	1.858E-01	3.173E-01	0.000E+00	NOT IDENT.
W-188	-2.679E+00	8.966E+00	1.336E+01	0.000E+00	FAIL ABUN
IR-192	-4.058E-02	3.674E-02	5.991E-02	0.000E+00	FAIL ABUN
AU-195	3.255E-01	2.190E-01	3.576E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.504E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.024E+00	1.109E+01	1.869E+01	0.000E+00	NOT IDENT.
TL-202	-3.910E-03	8.628E-02	1.470E-01	0.000E+00	NOT IDENT.
HG-203	1.754E-02	4.314E-02	7.710E-02	0.000E+00	NOT IDENT.
BI-207	2.205E-02	6.237E-02	1.082E-01	0.000E+00	FAIL ABUN
TL-207	2.926E-02	7.821E-01	1.185E+00	0.000E+00	FAIL ABUN
PO-209	2.581E+00	7.203E+00	1.271E+01	0.000E+00	NOT IDENT.
PB-211	-3.054E-02	1.001E+00	1.716E+00	0.000E+00	NOT IDENT.
PO-215	2.926E-02	7.821E-01	1.185E+00	0.000E+00	FAIL ABUN
RN-219	-4.978E-01	4.389E-01	6.909E-01	0.000E+00	FAIL ABUN
RN-220	-4.023E+01	3.047E+01	4.593E+01	0.000E+00	NOT IDENT.
RA-223	2.926E-02	7.821E-01	1.185E+00	0.000E+00	FAIL ABUN
AC-227	-2.382E-01	3.848E-01	6.558E-01	0.000E+00	NOT IDENT.
TH-227	-2.382E-01	3.855E-01	6.558E-01	0.000E+00	FAIL ABUN
TH-229	1.558E-01	5.279E-01	9.051E-01	0.000E+00	FAIL ABUN
PA-231	4.574E-01	1.578E+00	2.804E+00	0.000E+00	NOT IDENT.
TH-231	2.926E-02	7.821E-01	1.185E+00	0.000E+00	FAIL ABUN
U-231	-3.174E-02	1.413E+00	2.165E+00	0.000E+00	FAIL ABUN
PA-233	2.092E-02	6.780E-02	1.201E-01	0.000E+00	FAIL ABUN
PA-234	1.988E-01	3.438E-01	6.096E-01	0.000E+00	FAIL ABUN
PA-234M	1.466E-01	5.286E+00	8.765E+00	0.000E+00	NOT IDENT.
U-235	2.345E-01	2.339E-01	4.003E-01	0.000E+00	FAIL ABUN
NP-236	-2.445E-02	8.633E-02	1.458E-01	0.000E+00	NOT IDENT.
NP-239	-2.197E-01	1.839E-01	3.000E-01	0.000E+00	FAIL ABUN
AM-241	9.521E-02	6.820E-02	1.124E-01	0.000E+00	NOT IDENT.
CM-243	1.088E-02	9.070E-02	1.589E-01	0.000E+00	FAIL ABUN
AM-246	1.667E-01	1.581E-01	2.909E-01	0.000E+00	NOT IDENT.
CM-247	-1.984E-02	3.815E-02	6.334E-02	0.000E+00	NOT IDENT.
CF-249	-7.507E-03	4.241E-02	7.226E-02	0.000E+00	NOT IDENT.
CF-251	5.757E-02	1.289E-01	2.233E-01	0.000E+00	NOT IDENT.

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517003.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:52:57.
Sample ID          : G243517003 Sample quantity : 1.31500E+02 GRAM
Detector name      : GAM05 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:01.72 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 937069 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	806	10.67*	1.003E+00	2.151E+01	2.151E+01	9.96
CD-109	88.03	337	3.72*	7.857E+00	3.296E+00	3.380E+00	24.69
SN-126	64.28	166	9.60	8.066E+00	6.128E-01	6.128E-01	54.00
	86.94	337	8.90	7.857E+00	1.378E+00	1.378E+00	47.39
	87.57	337	37.00*	7.857E+00	3.314E-01	3.314E-01	24.69
BA-137M	661.65	121	89.98*	2.016E+00	1.904E-01	1.906E-01	36.34
CS-137	661.65	121	85.12*	2.016E+00	2.013E-01	2.015E-01	36.34
TL-208	277.35	-----	6.80	4.261E+00	-----	Line Not Found	-----
	510.84	106	21.60	2.544E+00	5.492E-01	5.492E-01	57.59
	583.14	295	84.20*	2.258E+00	4.432E-01	4.432E-01	21.84
	860.37	28	12.46	1.589E+00	4.102E-01	4.102E-01	91.46
BI-210	46.50	133	4.05*	7.630E+00	1.231E+00	1.233E+00	72.87
PB-210	46.50	133	4.05*	7.630E+00	1.231E+00	1.233E+00	72.87
PO-210	46.50	133	4.05*	7.630E+00	1.231E+00	1.233E+00	72.77
BI-211	72.87	-----	1.27	8.052E+00	-----	Line Not Found	-----
	351.07	689	12.94*	3.513E+00	4.325E+00	4.325E+00	15.05
BI-212	727.18	65	11.80*	1.849E+00	8.563E-01	8.563E-01	63.63
	785.46	33	1.97	1.725E+00	2.807E+00	2.807E+00	79.04
	1620.62	24	2.75	9.213E-01	2.701E+00	2.701E+00	73.54
PB-212	74.81	611	10.70	8.036E+00	2.027E+00	2.027E+00	18.28
	77.11	974	18.00	8.011E+00	1.927E+00	1.927E+00	13.26
	87.30	337	8.00	7.857E+00	1.533E+00	1.533E+00	26.64
	238.63	1129	44.60*	4.770E+00	1.515E+00	1.515E+00	13.17
	300.09	-----	3.41	4.005E+00	-----	Line Not Found	-----
PO-212	74.81	611	10.70	8.036E+00	2.027E+00	2.027E+00	18.28
	77.11	974	18.00	8.011E+00	1.927E+00	1.927E+00	13.26
	87.30	337	8.00	7.857E+00	1.533E+00	1.533E+00	26.64
	115.19	-----	0.60	7.241E+00	-----	Line Not Found	-----
	238.63	1129	44.60*	4.770E+00	1.515E+00	1.515E+00	13.17
	300.09	-----	3.41	4.005E+00	-----	Line Not Found	-----
BI-214	609.31	444	46.30*	2.171E+00	1.261E+00	1.261E+00	17.47
	1120.29	74	15.10	1.258E+00	1.109E+00	1.109E+00	48.30

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PB-214	1764.49	63	15.80	8.610E-01	1.326E+00	1.326E+00	37.18
	74.81	611	6.21	8.036E+00	3.493E+00	3.493E+00	17.37
	77.11	974	10.50	8.011E+00	3.304E+00	3.304E+00	15.29
	87.30	337	4.67	7.857E+00	2.625E+00	2.626E+00	25.87
	241.98	280	7.49	4.727E+00	2.257E+00	2.257E+00	28.40
PO-214	295.21	369	19.20	4.056E+00	1.354E+00	1.354E+00	20.25
	351.92	689	37.20*	3.513E+00	1.505E+00	1.505E+00	15.93
	74.81	611	6.21	8.036E+00	3.493E+00	3.493E+00	17.37
	77.11	974	10.50	8.011E+00	3.304E+00	3.304E+00	15.29
	87.30	337	4.67	7.857E+00	2.625E+00	2.626E+00	25.87
PO-216	241.98	280	7.49	4.727E+00	2.257E+00	2.257E+00	28.40
	295.21	369	19.20	4.056E+00	1.354E+00	1.354E+00	20.25
	351.92	689	37.20*	3.513E+00	1.505E+00	1.505E+00	15.93
	74.81	611	10.70	8.036E+00	2.027E+00	2.027E+00	18.28
	77.11	974	18.00	8.011E+00	1.927E+00	1.927E+00	13.26
PO-218	87.30	337	8.00	7.857E+00	1.533E+00	1.533E+00	26.64
	238.63	1129	44.60*	4.770E+00	1.515E+00	1.515E+00	13.17
	300.09	-----	3.41	4.005E+00	-----	Line Not Found	-----
	74.81	611	6.21	8.036E+00	3.493E+00	3.493E+00	17.37
	77.11	974	10.50	8.011E+00	3.304E+00	3.304E+00	15.29
RA-224	87.30	337	4.67	7.857E+00	2.625E+00	2.626E+00	25.87
	241.98	280	7.49	4.727E+00	2.257E+00	2.257E+00	28.40
	295.21	369	19.20	4.056E+00	1.354E+00	1.354E+00	20.25
	351.92	689	37.20*	3.513E+00	1.505E+00	1.505E+00	15.93
	240.98	280	3.95*	4.727E+00	4.280E+00	4.280E+00	27.84
RA-226	609.31	444	46.30*	2.171E+00	1.261E+00	1.261E+00	17.47
	1120.29	74	15.10	1.258E+00	1.109E+00	1.109E+00	48.30
	1764.49	63	15.80	8.610E-01	1.326E+00	1.326E+00	37.18
	338.32	266	11.40	3.631E+00	1.833E+00	1.833E+00	47.48
	911.07	227	27.70*	1.510E+00	1.550E+00	1.550E+00	23.54
RA-228	969.11	129	16.60	1.429E+00	1.553E+00	1.553E+00	35.76
	338.32	266	11.40	3.631E+00	1.833E+00	1.833E+00	47.48
	911.07	227	27.70*	1.510E+00	1.550E+00	1.550E+00	23.54
	969.11	129	16.60	1.429E+00	1.553E+00	1.553E+00	35.76
	74.81	611	10.70	8.036E+00	2.027E+00	2.061E+00	15.75
TH-228	77.11	974	18.00	8.011E+00	1.927E+00	1.960E+00	13.26
	87.30	337	8.00	7.857E+00	1.533E+00	1.559E+00	24.69
	238.63	1129	44.60*	4.770E+00	1.515E+00	1.541E+00	13.17
	300.09	-----	3.41	4.005E+00	-----	Line Not Found	-----
	609.31	444	46.30*	2.171E+00	1.261E+00	1.261E+00	17.47
TH-230	1120.29	74	15.10	1.258E+00	1.109E+00	1.109E+00	48.30
	1764.49	63	15.80	8.610E-01	1.326E+00	1.326E+00	37.18
	338.32	266	11.40	3.631E+00	1.833E+00	1.833E+00	25.02
	911.07	227	27.70*	1.510E+00	1.550E+00	1.550E+00	23.54
	969.11	129	16.60	1.429E+00	1.553E+00	1.553E+00	35.76
TH-232	63.29	166	3.80*	8.066E+00	1.548E+00	1.548E+00	54.86
	92.38	398	5.41	7.749E+00	2.707E+00	2.707E+00	29.88
	609.31	444	46.30*	2.171E+00	1.261E+00	1.261E+00	17.47
	1120.29	74	15.10	1.258E+00	1.109E+00	1.109E+00	48.30

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	63	15.80	8.610E-01	1.326E+00	1.326E+00	37.18
NP-237	86.50	337	12.60*	7.857E+00	9.731E-01	9.731E-01	32.18
	95.87	-----	2.60	7.687E+00	-----	Line Not Found	-----
U-238	63.29	166	3.80*	8.066E+00	1.548E+00	1.548E+00	54.86
	92.38	398	5.41	7.749E+00	2.707E+00	2.707E+00	25.30
AM-243	74.67	611	66.00*	8.036E+00	3.286E-01	3.286E-01	15.71
	86.72	337	0.34	7.857E+00	3.649E+01	3.649E+01	24.69
	117.66	-----	0.55	7.181E+00	-----	Line Not Found	-----
	142.18	-----	0.13	6.593E+00	-----	Line Not Found	-----
ANH-511	511.00	106	100.00*	2.544E+00	1.186E-01	1.186E-01	56.99

Flag: "*" = Keyline

Total number of lines in spectrum 37
Number of unidentified lines 4
Number of lines tentatively identified by NID 33 89.19%

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	2.151E+01	2.151E+01	0.214E+01	9.96	
CD-109	464.00D	1.03	3.296E+00	3.380E+00	0.835E+00	24.69	
SN-126	1.00E+05Y	1.00	3.314E-01	3.314E-01	0.818E-01	24.69	
BA-137M	30.17Y	1.00	1.904E-01	1.906E-01	0.693E-01	36.34	
CS-137	30.17Y	1.00	2.013E-01	2.015E-01	0.732E-01	36.34	
TL-208	1.41E+10Y	1.00	4.432E-01	4.432E-01	0.968E-01	21.84	
BI-210	22.26Y	1.00	1.231E+00	1.233E+00	0.899E+00	72.87	
PB-210	22.26Y	1.00	1.231E+00	1.233E+00	0.899E+00	72.87	
PO-210	22.26Y	1.00	1.231E+00	1.233E+00	0.897E+00	72.77	
BI-211	7.04E+08Y	1.00	4.325E+00	4.325E+00	0.651E+00	15.05	
BI-212	1.41E+10Y	1.00	8.563E-01	8.563E-01	5.449E-01	63.63	
PB-212	1.41E+10Y	1.00	1.515E+00	1.515E+00	0.200E+00	13.17	
PO-212	1.41E+10Y	1.00	1.515E+00	1.515E+00	0.200E+00	13.17	
BI-214	1600.00Y	1.00	1.261E+00	1.261E+00	0.220E+00	17.47	
PB-214	1600.00Y	1.00	1.505E+00	1.505E+00	0.240E+00	15.93	
PO-214	1600.00Y	1.00	1.505E+00	1.505E+00	0.240E+00	15.93	
PO-216	1.41E+10Y	1.00	1.515E+00	1.515E+00	0.200E+00	13.17	
PO-218	1600.00Y	1.00	1.505E+00	1.505E+00	0.240E+00	15.93	
RA-224	1.41E+10Y	1.00	4.280E+00	4.280E+00	1.192E+00	27.84	
RA-226	1600.00Y	1.00	1.261E+00	1.261E+00	0.220E+00	17.47	
AC-228	1.41E+10Y	1.00	1.550E+00	1.550E+00	0.365E+00	23.54	
RA-228	1.41E+10Y	1.00	1.550E+00	1.550E+00	0.365E+00	23.54	
TH-228	1.91Y	1.02	1.515E+00	1.541E+00	0.203E+00	13.17	
TH-230	4.47E+09Y	1.00	1.261E+00	1.261E+00	0.220E+00	17.47	
TH-232	1.41E+10Y	1.00	1.550E+00	1.550E+00	0.365E+00	23.54	
TH-234	4.47E+09Y	1.00	1.548E+00	1.548E+00	0.849E+00	54.86	
U-234	4.47E+09Y	1.00	1.261E+00	1.261E+00	0.220E+00	17.47	
NP-237	2.14E+06Y	1.00	9.731E-01	9.731E-01	3.132E-01	32.18	
U-238	4.47E+09Y	1.00	1.548E+00	1.548E+00	0.849E+00	54.86	
AM-243	7380.00Y	1.00	3.286E-01	3.286E-01	0.516E-01	15.71	
ANH-511	1.00E+09Y	1.00	1.186E-01	1.186E-01	0.676E-01	56.99	

Total Activity : 6.391E+01 6.402E+01

Grand Total Activity : 6.391E+01 6.402E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G243517003

Page : 5
Acquisition date : 7-JAN-2010 08:52:57

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	84.23	140	354	1.57	169.43	166	29	1.94E-02	47.9	7.91E+00	T
4	89.88	257	373	1.40	180.74	166	29	3.58E-02	29.8	7.81E+00	T
0	129.84	183	564	1.73	260.65	254	16	2.55E-02	60.0	6.89E+00	T
0	185.83	215	335	1.48	372.60	366	11	2.98E-02	36.8	5.66E+00	T
0	209.31	104	220	1.50	419.57	416	8	1.45E-02	52.9	5.23E+00	T
0	270.95	96	254	1.95	542.82	536	13	1.33E-02	71.6	4.34E+00	T
0	328.18	75	203	1.83	657.23	653	14	1.04E-02	83.6	3.72E+00	T
0	463.34	84	98	1.61	927.47	923	11	1.17E-02	50.8	2.77E+00	T
0	768.81	33	95	1.04	1538.09	1532	13	4.58E-03	****	1.76E+00	
1	964.85	60	47	2.19	1929.87	1920	34	8.33E-03	54.0	1.43E+00	T
0	1378.01	29	10	1.13	2755.36	2750	10	3.97E-03	59.6	1.05E+00	
0	1588.04	33	16	2.46	3174.91	3167	16	4.53E-03	65.2	9.37E-01	
0	1593.22	19	2	2.47	3185.25	3182	8	2.70E-03	51.4	9.34E-01	

Flags: "T" = Tentatively associated

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517003.CNF;1  *
* Acquisition date   : 7-JAN-2010 08:52:57.  Detector SN#      :             *
* Detector ID        : GAM05                      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 02:00:01.72             Half life ratio : 8.00000      *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 21-DEC-2009 12:00:00  Nuclide Library : SOLID          *
* Sample ID          : G243517003             Analyst initials: MXR1          *
* Batch Number       : 937069                 Sample Quantity : 1.31500E+02 GRAM  *
*****
*                                     QC DATA                                *
*
* CALIB. DATE/TIME   : 11-JUN-2009 16:41:00.5MS Isotope        :             *
* MSD ID             :                      MSD Isotope         :             *
* LCS ID             : 1032-A                 LCS Isotope       :             *
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.151E+01	2.142E+00	5.901E-01	3.670E-02	36.446
CD-109	3.380E+00	8.348E-01	9.076E-01	6.911E-02	3.724
SN-126	3.314E-01	8.183E-02	8.886E-02	6.767E-03	3.729
BA-137M	1.906E-01	6.926E-02	7.007E-02	4.608E-03	2.720
CS-137	2.015E-01	7.322E-02	7.408E-02	4.887E-03	2.720
TL-208	4.432E-01	9.680E-02	7.107E-02	5.230E-03	6.236
BI-210	1.233E+00	8.986E-01	8.403E-01	6.555E-02	1.467
PB-210	1.233E+00	8.986E-01	8.403E-01	6.555E-02	1.467
PO-210	1.233E+00	8.972E-01	8.403E-01	5.652E-02	1.467
BI-211	4.325E+00	6.511E-01	3.361E-01	2.664E-02	12.868
BI-212	8.563E-01	5.449E-01	4.661E-01	4.229E-02	1.837
PB-212	1.515E+00	1.995E-01	9.594E-02	1.034E-02	15.793
PO-212	1.515E+00	1.995E-01	9.594E-02	1.034E-02	15.793
BI-214	1.261E+00	2.202E-01	1.344E-01	1.126E-02	9.382
PB-214	1.505E+00	2.397E-01	1.172E-01	1.109E-02	12.839
PO-214	1.505E+00	2.397E-01	1.172E-01	1.109E-02	12.839
PO-216	1.515E+00	1.995E-01	9.594E-02	1.034E-02	15.793
PO-218	1.505E+00	2.397E-01	1.172E-01	1.109E-02	12.839

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	4.280E+00	1.192E+00	1.092E+00	1.068E-01	3.921
RA-226	1.261E+00	2.202E-01	1.344E-01	1.126E-02	9.382
AC-228	1.550E+00	3.649E-01	2.352E-01	2.911E-02	6.591
RA-228	1.550E+00	3.649E-01	2.352E-01	2.911E-02	6.591
TH-228	1.541E+00	2.029E-01	9.756E-02	1.052E-02	15.793
TH-230	1.261E+00	2.202E-01	1.344E-01	1.126E-02	9.382
TH-232	1.550E+00	3.649E-01	2.352E-01	2.911E-02	6.591
TH-234	1.548E+00	8.492E-01	1.022E+00	1.816E-01	1.515
U-234	1.261E+00	2.202E-01	1.344E-01	1.126E-02	9.382
NP-237	9.731E-01	3.132E-01	2.601E-01	5.723E-02	3.741
U-238	1.548E+00	8.492E-01	1.022E+00	1.816E-01	1.515
AM-243	3.286E-01	5.163E-02	5.892E-02	4.615E-03	5.577
ANH-511	1.186E-01	6.760E-02	4.675E-02	2.992E-03	2.538

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.546E-01		3.597E-01	5.685E-01	4.072E-02	-0.272
NA-22	2.640E-02		4.486E-02	7.760E-02	4.520E-03	0.340
NA-24	2.102E-01		2.481E+00	Half-Life	too short	
AL-26	-6.724E-03		3.028E-02	4.726E-02	2.712E-03	-0.142
TI-44	3.557E-01	+	4.716E-02	6.397E-02	4.963E-03	5.561
SC-46	1.405E-02		4.518E-02	7.680E-02	7.714E-03	0.183
V-48	-4.024E-02		8.779E-02	1.378E-01	1.262E-02	-0.292
CR-51	3.154E-02		4.217E-01	7.036E-01	6.222E-02	0.045
MN-52	2.203E-01		3.099E-01	5.655E-01	3.312E-02	0.390
MN-54	-3.394E-02		4.389E-02	6.803E-02	6.232E-03	-0.499
CO-56	-4.568E-02		4.486E-02	6.701E-02	6.266E-03	-0.682
CO-57	1.664E-02		2.512E-02	4.177E-02	5.926E-03	0.398
CO-58	-1.909E-02		4.421E-02	7.063E-02	6.216E-03	-0.270
FE-59	1.145E-02		9.490E-02	1.571E-01	1.272E-02	0.073
CO-60	-7.144E-03		3.697E-02	5.785E-02	3.348E-03	-0.123
ZN-65	9.291E-02		9.937E-02	1.588E-01	1.110E-02	0.585
GE-68	1.863E+00		1.417E+00	2.595E+00	1.993E-01	0.718
AS-73	-1.545E-02		2.341E-01	3.843E-01	2.893E-02	-0.040
AS-74	5.750E-02		1.160E-01	1.943E-01	1.278E-02	0.296
SE-75	3.857E-03		5.474E-02	8.011E-02	7.648E-03	0.048
BR-77	1.057E+01		1.838E+01	3.122E+01	2.007E+00	0.339
SR-82	-3.184E-01		4.831E-01	6.940E-01	5.726E-02	-0.459
RB-83	4.397E-02		7.309E-02	1.244E-01	7.999E-03	0.353
RB-84	7.372E-02		8.477E-02	1.503E-01	1.490E-02	0.491
KR-85	2.213E+01		9.200E+00	1.557E+01	9.978E-01	1.422
SR-85	1.156E-01		4.805E-02	8.130E-02	5.211E-03	1.422
RB-86	1.075E+00		9.829E-01	1.765E+00	1.358E-01	0.609
Y-88	-7.651E-03		3.444E-02	5.369E-02	3.072E-03	-0.142
ZR-88	-2.279E-02		3.421E-02	5.397E-02	3.143E-03	-0.422
Y-91	-1.082E+01		2.196E+01	3.397E+01	1.974E+00	-0.319

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	1.304E-03		3.716E-02	6.241E-02	4.465E-03	0.021
NB-95	5.709E-02		5.327E-02	8.543E-02	6.910E-03	0.668
NB-95M	2.162E-01		1.593E-01	2.475E-01	2.708E-02	0.873
ZR-95	2.780E-04		8.235E-02	1.375E-01	1.221E-02	0.002
NB-97	3.433E-01		3.623E-01	Half-Life	too short	
ZR-97	1.061E+01		6.147E+00	Half-Life	too short	
MO-99	1.128E+01		1.937E+01	3.379E+01	4.961E+00	0.334
TC-99M	-5.588E+12		2.730E+12	Half-Life	too short	
RH-101	-3.430E-02		3.735E-02	5.661E-02	5.653E-03	-0.606
RH-102	-1.407E-02		3.232E-02	5.110E-02	3.201E-03	-0.275
RU-103	-2.029E-02		4.681E-02	7.368E-02	9.510E-03	-0.275
RH-106	6.744E-02		3.575E-01	5.850E-01	7.106E-02	0.115
RU-106	6.744E-02		3.575E-01	5.850E-01	3.856E-02	0.115
AG-108M	1.074E-02		3.634E-02	6.073E-02	3.974E-03	0.177
AG-110M	2.015E-02		4.636E-02	6.743E-02	4.661E-03	0.299
IN-111	-5.342E-02		1.894E+00	2.763E+00	2.692E-01	-0.019
IN-113M	1.214E-02		4.748E-02	7.948E-02	4.930E-03	0.153
SN-113	1.214E-02		4.748E-02	7.948E-02	4.930E-03	0.153
IN-114M	6.958E-02		2.238E-01	3.188E-01	3.183E-02	0.218
CD-115	-6.716E+00		2.015E+01	3.086E+01	1.991E+00	-0.218
SN-117M	-5.243E-03		6.555E-02	1.054E-01	1.133E-02	-0.050
SB-122	-5.608E-01		3.911E+00	6.266E+00	4.095E-01	-0.089
I-123	7.722E+00		2.883E+01	Half-Life	too short	
TE-123M	4.180E-03		3.121E-02	5.061E-02	5.438E-03	0.083
I-124	-1.691E-01		1.233E+00	1.690E+00	1.112E-01	-0.100
SB-124	4.753E-02		8.887E-02	1.599E-01	1.012E-02	0.297
SB-125	-2.852E-02		9.953E-02	1.601E-01	1.004E-02	-0.178
TE-125M	-5.377E+00		9.478E+00	1.510E+01	1.941E+00	-0.356
I-126	5.865E-02		2.570E-01	3.650E-01	2.424E-02	0.161
SB-126	-3.454E-02		1.951E-01	2.755E-01	2.043E-02	-0.125
SB-127	-2.921E-01		2.023E+00	3.354E+00	3.601E-01	-0.087
XE-127	3.335E-02		5.431E-02	8.899E-02	8.882E-03	0.375
I-131	-4.247E-02		1.427E-01	2.314E-01	1.742E-02	-0.184
TE-132	-6.541E-01		1.055E+00	1.720E+00	2.883E-01	-0.380
BA-133	7.336E-02		5.067E-02	8.040E-02	9.930E-03	0.912
I-133	-5.498E-03		1.335E-02	Half-Life	too short	
CS-134	1.165E-01		5.563E-02	1.049E-01	9.035E-03	1.110
CS-135	9.318E-02		1.957E-01	2.896E-01	3.098E-02	0.322
I-135	-2.512E+10		2.641E+11	Half-Life	too short	
CS-136	3.867E-02		1.269E-01	2.144E-01	1.837E-02	0.180
CE-139	9.783E-03		3.267E-02	5.325E-02	5.287E-03	0.184
BA-140	4.063E-01		3.465E-01	5.681E-01	1.855E-01	0.715
LA-140	1.073E-01		1.132E-01	1.933E-01	1.136E-02	0.555
CE-141	2.824E-02		7.398E-02	1.186E-01	1.450E-02	0.238
CE-143	1.930E-03		3.181E-04	Half-Life	too short	
CE-144	-7.550E-02		2.396E-01	3.330E-01	6.165E-02	-0.227
PM-144	3.698E-02		3.961E-02	7.056E-02	4.989E-03	0.524
PR-144	2.508E+00		2.686E+00	4.786E+00	3.382E-01	0.524

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	-2.068E-02		4.897E-02	7.776E-02	6.900E-03	-0.266
ND-147	-3.433E-01		6.818E-01	1.059E+00	1.464E-01	-0.324
PM-149	5.403E+01		1.673E+02	2.834E+02	4.492E+01	0.191
EU-152	2.812E-02		1.440E-01	1.670E-01	1.373E-02	0.168
GD-153	-1.757E-03		7.825E-02	1.121E-01	1.039E-02	-0.016
EU-154	7.756E-02		1.258E-01	2.179E-01	2.038E-02	0.356
EU-155	9.091E-02		1.045E-01	1.753E-01	1.899E-02	0.519
TB-160	-3.796E-02		1.668E-01	2.704E-01	2.672E-02	-0.140
HO-166M	8.082E-03		6.968E-02	1.177E-01	8.572E-03	0.069
TM-171	4.563E+00		1.651E+01	2.423E+01	1.947E+00	0.188
LU-176	-9.280E-03		2.683E-02	4.384E-02	3.818E-03	-0.212
LU-177	2.972E+00	+	1.600E+00	2.483E+00	2.476E-01	1.197
LU-177M	-7.746E-02		2.017E-01	3.235E-01	1.925E-02	-0.239
HF-181	9.008E-03		4.946E-02	8.174E-02	5.144E-03	0.110
W-181	4.618E-01		2.186E-01	3.391E-01	2.741E-02	1.362
TA-182	-1.154E-01		2.153E-01	3.304E-01	1.921E-02	-0.349
RE-183	5.708E-02		1.238E-01	2.030E-01	2.098E-02	0.281
RE-184	1.616E-03		2.346E-01	3.936E-01	3.803E-02	0.004
OS-185	1.410E-02		5.135E-02	8.440E-02	5.560E-03	0.167
RE-188	-1.055E-02		1.895E-01	3.052E-01	3.398E-02	-0.035
W-188	-2.679E+00		9.149E+00	1.298E+01	1.177E+00	-0.206
IR-192	-4.058E-02		3.749E-02	5.831E-02	4.949E-03	-0.696
AU-195	3.255E-01		2.235E-01	3.415E-01	3.256E-02	0.953
TL-200	2.709E-04		7.671E-04	Half-Life too short		
TL-201	-3.024E+00		1.132E+01	1.800E+01	1.787E+00	-0.168
TL-202	-3.910E-03		8.805E-02	1.439E-01	8.771E-03	-0.027
HG-203	1.754E-02		4.402E-02	7.489E-02	7.120E-03	0.234
BI-207	2.205E-02		6.364E-02	1.074E-01	8.508E-03	0.205
TL-207	2.926E-02		7.980E-01	1.154E+00	2.024E-01	0.025
PO-209	2.581E+00		7.350E+00	1.259E+01	1.280E+00	0.205
PB-211	-3.054E-02		1.021E+00	1.677E+00	1.045E+00	-0.018
PO-215	2.926E-02		7.980E-01	1.154E+00	2.024E-01	0.025
RN-219	-4.978E-01		4.479E-01	6.751E-01	9.208E-02	-0.737
RN-220	-4.023E+01		3.109E+01	4.512E+01	2.935E+00	-0.892
RA-223	2.926E-02		7.980E-01	1.154E+00	2.024E-01	0.025
AC-227	-2.382E-01		3.927E-01	6.360E-01	1.013E-01	-0.374
TH-227	-2.382E-01		3.933E-01	6.360E-01	1.181E-01	-0.374
TH-229	1.558E-01		5.387E-01	8.738E-01	8.727E-02	0.178
PA-231	4.574E-01		1.611E+00	2.725E+00	4.229E-01	0.168
TH-231	2.926E-02		7.980E-01	1.154E+00	2.024E-01	0.025
U-231	-3.174E-02		1.442E+00	2.066E+00	1.857E-01	-0.015
PA-233	2.092E-02		6.918E-02	1.169E-01	1.032E-02	0.179
PA-234	1.988E-01		3.509E-01	6.044E-01	1.164E-01	0.329
PA-234M	1.466E-01		5.394E+00	8.698E+00	8.888E-01	0.017
U-235	2.345E-01		2.386E-01	3.846E-01	7.526E-02	0.610
NP-236	-2.445E-02		8.809E-02	1.403E-01	1.482E-02	-0.174
NP-239	-2.197E-01		1.877E-01	2.873E-01	3.764E-02	-0.765
AM-241	9.521E-02		6.959E-02	1.065E-01	9.531E-03	0.894

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.088E-02		9.255E-02	1.519E-01	1.587E-02	0.072
AM-246	1.667E-01		1.613E-01	2.890E-01	2.212E-02	0.577
CM-247	-1.984E-02		3.893E-02	6.190E-02	3.643E-03	-0.321
CF-249	-7.507E-03		4.328E-02	7.057E-02	4.220E-03	-0.106
CF-251	5.757E-02		1.315E-01	2.153E-01	2.144E-02	0.267

VAX/VMS Nuclide Identification Report Generated

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*
*                                     DETECTOR DATA                          *
*
* Configuration      : SYSSYSROOT:[ALPHA.ARCHIVE.GAMMA]G243517003            *
* Acquisition date   : 7-JAN-2010 08:52:57 Detector SN#      :                *
* Detector ID        : GAM05 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 02:00:01.72 Half life ratio : 8.000     *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date       : 21-DEC-2009 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G243517003 Analyst initials: MXR1             *
* Batch Number      : 937069 Sample Quantity : 1.3150E+02 GRAM        *
* Recovery          : 1.00000 Carrier Weight : 0.00000              *
*****
*
*                                     QC DATA                               *
*
* CALIB. DATE/TIME  : 11-JUN-2009 16:41:00 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	2.151E+01	2.100E+00	2.955E-01	1.071E+00
CD-109	3.380E+00	8.181E-01	4.763E-01	4.174E-01
SN-126	3.314E-01	8.020E-02	4.664E-02	4.092E-02
BA-137M	1.906E-01	6.788E-02	3.558E-02	3.463E-02
CS-137	2.015E-01	7.176E-02	3.761E-02	3.661E-02
TL-208	4.432E-01	9.486E-02	3.616E-02	4.840E-02
BI-210	1.233E+00	8.806E-01	4.454E-01	4.493E-01
PB-210	1.233E+00	8.806E-01	4.454E-01	4.493E-01
PO-210	1.233E+00	8.793E-01	4.454E-01	4.486E-01
BI-211	4.325E+00	6.380E-01	1.725E-01	3.255E-01
BI-212	8.563E-01	5.340E-01	2.363E-01	2.724E-01
PB-212	1.515E+00	1.955E-01	4.954E-02	9.975E-02
PO-212	1.515E+00	1.955E-01	4.954E-02	9.975E-02
BI-214	1.261E+00	2.158E-01	6.832E-02	1.101E-01
PB-214	1.505E+00	2.349E-01	6.013E-02	1.199E-01
PO-214	1.505E+00	2.349E-01	6.013E-02	1.199E-01
PO-216	1.515E+00	1.955E-01	4.954E-02	9.975E-02
PO-218	1.505E+00	2.349E-01	6.013E-02	1.199E-01
RA-224	4.280E+00	1.168E+00	5.638E-01	5.958E-01
RA-226	1.261E+00	2.158E-01	6.832E-02	1.101E-01
AC-228	1.550E+00	3.576E-01	1.188E-01	1.825E-01
RA-228	1.550E+00	3.576E-01	1.188E-01	1.825E-01
TH-228	1.541E+00	1.988E-01	5.038E-02	1.014E-01
TH-230	1.261E+00	2.158E-01	6.832E-02	1.101E-01
TH-232	1.550E+00	3.576E-01	1.188E-01	1.825E-01
TH-234	1.548E+00	8.322E-01	5.391E-01	4.246E-01
U-234	1.261E+00	2.158E-01	6.832E-02	1.101E-01
NP-237	9.731E-01	3.069E-01	1.366E-01	1.566E-01
U-238	1.548E+00	8.322E-01	5.391E-01	4.246E-01
AM-243	3.286E-01	5.060E-02	3.100E-02	2.582E-02
ANH-511	1.186E-01	6.625E-02	2.384E-02	3.380E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-1.546E-01	3.526E-01	2.902E-01	1.799E-01 NOT IDENT.
NA-22	2.640E-02	4.396E-02	3.896E-02	2.243E-02 NOT IDENT.
NA-24	2.102E+05	4.862E+06	0.000E+00	2.481E+06 SHORT HLIF
AL-26	-6.724E-03	2.968E-02	2.358E-02	1.514E-02 NOT IDENT.
TI-44	3.557E-01	4.622E-02	3.363E-02	2.358E-02 FAIL ABUN
SC-46	1.405E-02	4.428E-02	3.880E-02	2.259E-02 FAIL ABUN
V-48	-4.024E-02	8.604E-02	6.947E-02	4.390E-02 NOT IDENT.
CR-51	3.154E-02	4.133E-01	3.616E-01	2.109E-01 NOT IDENT.
MN-52	2.203E-01	3.037E-01	2.833E-01	1.549E-01 NOT IDENT.
MN-54	-3.394E-02	4.301E-02	3.441E-02	2.195E-02 NOT IDENT.
CO-56	-4.568E-02	4.397E-02	3.388E-02	2.243E-02 NOT IDENT.
CO-57	1.664E-02	2.462E-02	2.181E-02	1.256E-02 NOT IDENT.
CO-58	-1.909E-02	4.333E-02	3.574E-02	2.211E-02 NOT IDENT.
FE-59	1.145E-02	9.300E-02	7.907E-02	4.745E-02 NOT IDENT.
CO-60	-7.144E-03	3.623E-02	2.902E-02	1.848E-02 NOT IDENT.
ZN-65	9.291E-02	9.738E-02	7.992E-02	4.969E-02 NOT IDENT.
GE-68	1.863E+00	1.389E+00	1.306E+00	7.086E-01 NOT IDENT.
AS-73	-1.545E-02	2.294E-01	2.033E-01	1.170E-01 NOT IDENT.
AS-74	5.750E-02	1.137E-01	9.880E-02	5.802E-02 NOT IDENT.
SE-75	3.857E-03	5.364E-02	4.130E-02	2.737E-02 NOT IDENT.
BR-77	1.057E+01	1.802E+01	1.591E+01	9.192E+00 FAIL ABUN
SR-82	-3.184E-01	4.734E-01	3.514E-01	2.415E-01 NOT IDENT.
RB-83	4.397E-02	7.163E-02	6.342E-02	3.654E-02 NOT IDENT.
RB-84	7.372E-02	8.307E-02	7.592E-02	4.238E-02 NOT IDENT.
KR-85	2.213E+01	9.016E+00	7.937E+00	4.600E+00 NOT IDENT.
SR-85	1.156E-01	4.709E-02	4.145E-02	2.402E-02 NOT IDENT.
RB-86	1.075E+00	9.632E-01	8.888E-01	4.914E-01 NOT IDENT.
Y-88	-7.651E-03	3.375E-02	2.678E-02	1.722E-02 NOT IDENT.
ZR-88	-2.279E-02	3.353E-02	2.764E-02	1.711E-02 NOT IDENT.
Y-91	-1.082E+01	2.153E+01	1.707E+01	1.098E+01 NOT IDENT.
NB-94	1.304E-03	3.642E-02	3.165E-02	1.858E-02 NOT IDENT.
NB-95	5.709E-02	5.220E-02	4.327E-02	2.663E-02 NOT IDENT.
NB-95M	2.162E-01	1.561E-01	1.279E-01	7.966E-02 NOT IDENT.
ZR-95	2.780E-04	8.071E-02	6.964E-02	4.118E-02 NOT IDENT.
NB-97	3.433E+05	7.101E+05	0.000E+00	3.623E+05 SHORT HLIF
ZR-97	1.061E+07	1.205E+07	0.000E+00	6.147E+06 SHORT HLIF
MO-99	1.128E+01	1.898E+01	1.713E+01	9.685E+00 NOT IDENT.
TC-99M	-5.588E+18	5.350E+18	0.000E+00	0.000E+00 SHORT HLIF
RH-101	-3.430E-02	3.661E-02	2.933E-02	1.868E-02 NOT IDENT.
RH-102	-1.407E-02	3.168E-02	2.609E-02	1.616E-02 NOT IDENT.
RU-103	-2.029E-02	4.587E-02	3.759E-02	2.340E-02 FAIL ABUN
RH-106	6.744E-02	3.504E-01	2.973E-01	1.788E-01 FAIL ABUN
RU-106	6.744E-02	3.503E-01	2.973E-01	1.787E-01 FAIL ABUN
AG-108M	1.074E-02	3.561E-02	3.106E-02	1.817E-02 NOT IDENT.
AG-110M	2.015E-02	4.544E-02	3.424E-02	2.318E-02 NOT IDENT.
IN-111	-5.342E-02	1.856E+00	1.426E+00	9.468E-01 NOT IDENT.
IN-113M	1.214E-02	4.653E-02	4.071E-02	2.374E-02 NOT IDENT.
SN-113	1.214E-02	4.653E-02	4.071E-02	2.374E-02 NOT IDENT.
IN-114M	6.958E-02	2.193E-01	1.652E-01	1.119E-01 NOT IDENT.
CD-115	-6.716E+00	1.975E+01	1.573E+01	1.008E+01 NOT IDENT.
SN-117M	-5.243E-03	6.424E-02	5.477E-02	3.277E-02 NOT IDENT.
SB-122	-5.608E-01	3.833E+00	3.190E+00	1.956E+00 NOT IDENT.
I-123	7.722E+06	5.651E+07	0.000E+00	2.883E+07 SHORT HLIF
TE-123M	4.180E-03	3.059E-02	2.631E-02	1.561E-02 NOT IDENT.
I-124	-1.691E-01	1.208E+00	8.593E-01	6.165E-01 NOT IDENT.
SB-124	4.753E-02	8.709E-02	7.989E-02	4.443E-02 FAIL ABUN
SB-125	-2.852E-02	9.754E-02	8.191E-02	4.977E-02 FAIL ABUN
TE-125M	-5.377E+00	9.288E+00	7.897E+00	4.739E+00 NOT IDENT.
I-126	5.865E-02	2.519E-01	1.853E-01	1.285E-01 NOT IDENT.
SB-126	-3.454E-02	1.912E-01	1.397E-01	9.757E-02 FAIL ABUN
SB-127	-2.921E-01	1.982E+00	1.702E+00	1.011E+00 NOT IDENT.
XE-127	3.335E-02	5.322E-02	4.608E-02	2.715E-02 NOT IDENT.
I-131	-4.247E-02	1.398E-01	1.187E-01	7.134E-02 NOT IDENT.
TE-132	-6.541E-01	1.034E+00	8.887E-01	5.274E-01 NOT IDENT.
BA-133	7.336E-02	4.966E-02	4.125E-02	2.534E-02 NOT IDENT.
I-133	-5.498E+03	2.617E+04	0.000E+00	1.335E+04 SHORT HLIF
CS-134	1.165E-01	5.452E-02	5.311E-02	2.781E-02 NOT IDENT.
CS-135	9.318E-02	1.918E-01	1.493E-01	9.787E-02 NOT IDENT.
I-135	-2.512E+16	5.176E+17	0.000E+00	0.000E+00 SHORT HLIF
CS-136	3.867E-02	1.244E-01	1.080E-01	6.345E-02 FAIL ABUN
CE-139	9.783E-03	3.202E-02	2.766E-02	1.634E-02 NOT IDENT.
BA-140	4.063E-01	3.395E-01	2.894E-01	1.732E-01 NOT IDENT.
LA-140	1.073E-01	1.110E-01	9.666E-02	5.661E-02 FAIL ABUN
CE-141	2.824E-02	7.250E-02	6.173E-02	3.699E-02 NOT IDENT.

CE-143	1.930E+03	6.235E+02	0.000E+00	3.181E+02	SHORT HLIF
CE-144	-7.550E-02	2.348E-01	1.736E-01	1.198E-01	NOT IDENT.
PM-144	3.698E-02	3.882E-02	3.579E-02	1.980E-02	NOT IDENT.
PR-144	2.508E+00	2.633E+00	2.428E+00	1.343E+00	NOT IDENT.
PM-146	-2.068E-02	4.799E-02	3.973E-02	2.448E-02	NOT IDENT.
ND-147	-3.433E-01	6.681E-01	5.398E-01	3.409E-01	FAIL ABUN
PM-149	5.403E+01	1.639E+02	1.459E+02	8.365E+01	NOT IDENT.
EU-152	2.812E-02	1.411E-01	8.571E-02	7.200E-02	FAIL ABUN
GD-153	-1.757E-03	7.669E-02	5.873E-02	3.913E-02	FAIL ABUN
EU-154	7.756E-02	1.232E-01	1.094E-01	6.288E-02	NOT IDENT.
EU-155	9.091E-02	1.024E-01	9.174E-02	5.226E-02	FAIL ABUN
TB-160	-3.796E-02	1.634E-01	1.366E-01	8.339E-02	FAIL ABUN
HO-166M	8.082E-03	6.829E-02	5.966E-02	3.484E-02	FAIL ABUN
TM-171	4.563E+00	1.618E+01	1.277E+01	8.254E+00	NOT IDENT.
LU-176	-9.280E-03	2.629E-02	2.255E-02	1.341E-02	FAIL ABUN
LU-177	2.972E+00	1.568E+00	1.285E+00	8.000E-01	FAIL ABUN
LU-177M	-7.746E-02	1.976E-01	1.656E-01	1.008E-01	NOT IDENT.
HF-181	9.008E-03	4.847E-02	4.172E-02	2.473E-02	NOT IDENT.
W-181	4.618E-01	2.142E-01	1.788E-01	1.093E-01	NOT IDENT.
TA-182	-1.154E-01	2.110E-01	1.660E-01	1.076E-01	FAIL ABUN
RE-183	5.708E-02	1.213E-01	1.055E-01	6.191E-02	FAIL ABUN
RE-184	1.616E-03	2.299E-01	2.031E-01	1.173E-01	NOT IDENT.
OS-185	1.410E-02	5.032E-02	4.287E-02	2.568E-02	NOT IDENT.
RE-188	-1.055E-02	1.858E-01	1.587E-01	9.477E-02	NOT IDENT.
W-188	-2.679E+00	8.966E+00	6.684E+00	4.575E+00	FAIL ABUN
IR-192	-4.058E-02	3.674E-02	2.997E-02	1.874E-02	FAIL ABUN
AU-195	3.255E-01	2.190E-01	1.789E-01	1.117E-01	FAIL ABUN
TL-200	2.709E+02	1.504E+03	0.000E+00	7.671E+02	SHORT HLIF
TL-201	-3.024E+00	1.109E+01	9.350E+00	5.658E+00	NOT IDENT.
TL-202	-3.910E-03	8.628E-02	7.356E-02	4.402E-02	NOT IDENT.
HG-203	1.754E-02	4.314E-02	3.857E-02	2.201E-02	NOT IDENT.
BI-207	2.205E-02	6.237E-02	5.411E-02	3.182E-02	FAIL ABUN
TL-207	2.926E-02	7.821E-01	5.931E-01	3.990E-01	FAIL ABUN
PO-209	2.581E+00	7.203E+00	6.358E+00	3.675E+00	NOT IDENT.
PB-211	-3.054E-02	1.001E+00	8.583E-01	5.106E-01	NOT IDENT.
PO-215	2.926E-02	7.821E-01	5.931E-01	3.990E-01	FAIL ABUN
RN-219	-4.978E-01	4.389E-01	3.456E-01	2.239E-01	FAIL ABUN
RN-220	-4.023E+01	3.047E+01	2.298E+01	1.555E+01	NOT IDENT.
RA-223	2.926E-02	7.821E-01	5.931E-01	3.990E-01	FAIL ABUN
AC-227	-2.382E-01	3.848E-01	3.281E-01	1.963E-01	NOT IDENT.
TH-227	-2.382E-01	3.855E-01	3.281E-01	1.967E-01	FAIL ABUN
TH-229	1.558E-01	5.279E-01	4.528E-01	2.693E-01	FAIL ABUN
PA-231	4.574E-01	1.578E+00	1.403E+00	8.053E-01	NOT IDENT.
TH-231	2.926E-02	7.821E-01	5.931E-01	3.990E-01	FAIL ABUN
U-231	-3.174E-02	1.413E+00	1.083E+00	7.208E-01	FAIL ABUN
PA-233	2.092E-02	6.780E-02	6.008E-02	3.459E-02	FAIL ABUN
PA-234	1.988E-01	3.438E-01	3.050E-01	1.754E-01	FAIL ABUN
PA-234M	1.466E-01	5.286E+00	4.385E+00	2.697E+00	NOT IDENT.
U-235	2.345E-01	2.339E-01	2.003E-01	1.193E-01	FAIL ABUN
NP-236	-2.445E-02	8.633E-02	7.294E-02	4.405E-02	NOT IDENT.
NP-239	-2.197E-01	1.839E-01	1.501E-01	9.383E-02	FAIL ABUN
AM-241	9.521E-02	6.820E-02	5.625E-02	3.479E-02	NOT IDENT.
CM-243	1.088E-02	9.070E-02	7.949E-02	4.627E-02	FAIL ABUN
AM-246	1.667E-01	1.581E-01	1.455E-01	8.065E-02	NOT IDENT.
CM-247	-1.984E-02	3.815E-02	3.169E-02	1.946E-02	NOT IDENT.
CF-249	-7.507E-03	4.241E-02	3.615E-02	2.164E-02	NOT IDENT.
CF-251	5.757E-02	1.289E-01	1.117E-01	6.574E-02	NOT IDENT.

 * GEL Laboratories LLC *
 * 2040 SAVAGE ROAD *
 * CHARLESTON ,SC 29417 *
 * GAMMA SPECTROSCOPY BACKGROUND REPORT *

ENERGY	MDA COUNTS
--------	------------

46.50	381.6496
46.50	381.6496
46.50	381.6496
48.70	384.2262
49.72	424.5914
51.35	427.2622
52.39	407.6024
52.97	408.8048
53.15	408.9222
53.44	408.1512
54.07	410.4824
56.28	485.2128
56.28	485.2147
57.37	0.0000
57.53	477.1717
57.53	477.1726
57.60	477.2226
57.98	465.5242
57.98	465.5242
59.32	437.2627
59.32	437.2627
59.40	438.8659
59.54	438.9575
59.72	453.0393
60.01	453.2345
61.10	514.5985
61.14	514.6288
61.30	514.7500
63.00	550.5190
63.29	556.5978
63.29	556.5978
63.58	569.5083
64.28	523.2233
65.12	503.5205
65.20	503.5775
65.20	503.5775
66.05	510.4455
66.72	504.6541
66.83	520.4076
66.91	520.4664
67.20	520.6761
67.20	520.6761
67.75	533.6282
67.85	566.6669
68.90	592.6383
68.90	592.6383
69.30	580.3800
69.67	580.6750
70.82	548.4802
70.82	548.4802
70.83	548.4887
72.80	543.6141
72.87	543.6645
72.87	543.6645
74.67	554.4586
74.81	554.5590
74.81	554.5590
74.81	554.5590
74.81	554.5590
74.81	554.5590
74.81	554.5590
74.81	554.5590
74.97	554.6744
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75.70	555.2020
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77.11	556.2103

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77.11	556.2103
77.11	556.2103
77.11	556.2103
78.38	557.1118
79.62	557.9855
79.80	558.1116
79.80	558.1116
80.11	558.3295
80.18	558.3786
80.30	410.8684
80.30	410.8684
80.57	411.0067
81.00	411.2267
81.07	411.2629
81.07	411.2629
81.07	411.2629
81.07	411.2629
82.60	412.0424
83.37	412.4291
83.78	412.6381
83.78	412.6381
83.78	412.6381
83.78	412.6381
84.21	412.8534
84.90	377.0944
85.43	377.3354
86.29	377.7255
86.50	377.8202
86.54	377.8388
86.59	377.8618
86.72	377.9206
86.79	377.9507
86.94	378.0195
87.30	378.1816
87.30	378.1816
87.30	378.1816
87.30	378.1816
87.30	378.1816
87.30	378.1816
87.57	378.3021
87.88	378.4412
88.03	378.5086
88.36	378.6564
88.47	378.7051
89.95	379.3635
91.11	379.8770
92.29	380.3948
92.38	380.4335
92.38	380.4335
93.35	380.8566
94.00	381.1392
94.67	381.4261
94.67	381.4289
94.90	370.1632
94.90	370.1632
94.90	370.1632
94.90	370.1632
95.87	424.2031
95.87	424.2031
96.73	419.7334
97.43	372.8434
98.44	330.8823
98.44	330.8823
98.88	313.1051
99.55	341.0792
99.55	341.0792
99.86	363.2343
100.00	363.2899
100.10	363.3307
103.18	437.2489
103.76	383.2150
105.00	341.6570
105.31	363.3218
108.00	431.2530
109.28	409.1548

111.00	366.5190
111.00	366.5190
111.76	371.9710
112.95	371.3883
115.19	328.6826
116.30	343.5799
117.00	360.4395
117.00	360.4395
117.66	375.2269
121.11	300.3662
121.62	292.1680
121.78	293.2564
122.06	298.5564
122.32	298.3322
122.32	298.3322
122.32	298.3322
122.32	298.3322
123.07	323.2292
127.23	335.7050
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131.20	314.8406
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133.54	330.9271
135.34	319.6342
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136.25	289.4309
136.48	296.2631
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140.51	0.0000
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144.24	330.2737
144.24	330.2737
144.24	330.2737
145.22	333.7565
145.44	350.8853
147.16	403.7447
152.43	310.0744
152.70	310.1450
153.22	331.7521
154.21	369.6362
154.21	369.6362
154.21	369.6362
154.21	369.6362
155.03	339.7834
156.02	300.2456
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162.32	321.2749
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163.89	316.2672
165.85	307.0008
167.43	316.0789
171.28	275.6397
171.86	279.0352
172.10	281.2683
176.55	271.2992
176.60	260.3706
181.06	263.4521
184.41	251.7914
185.71	297.8604
186.00	297.9265
190.27	265.2667
192.34	296.6623
193.63	263.7008
197.04	292.1168
198.01	298.9883
198.60	309.1210
200.40	297.2705
201.83	265.2515
202.84	282.1697
205.31	312.8232

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208.81	285.5871
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209.75	271.2032
210.97	270.9816
215.65	257.0436
216.55	268.4091
218.09	256.9662
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223.80	237.1289
226.40	251.1344
227.00	252.1394
227.08	258.5022
227.20	258.5230
228.16	264.1308
228.18	264.1344
228.18	264.1344
231.56	0.0000
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236.00	273.6804
236.00	273.6804
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238.63	236.6726
238.63	236.6726
238.63	236.6726
239.00	236.7280
240.98	237.0236
241.98	237.1722
241.98	237.1722
241.98	237.1722
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245.39	212.5949
247.94	208.7735
248.90	211.5245
249.79	189.5567
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252.85	189.9125
254.15	0.0000
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256.20	210.6217
260.50	198.2008
260.90	203.8062
262.80	222.5859
264.65	205.8101
268.24	206.2458
268.79	210.9644
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269.46	203.2883
269.46	203.2883
269.46	203.2883
271.23	195.7317
273.65	230.2292
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277.60	179.0811
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278.60	186.1670
279.20	191.0159
279.53	183.5586
280.46	207.0823
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284.30	180.3000
285.00	190.7065
285.90	176.7044
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286.10	176.7250
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290.80	196.3526
291.72	198.0260
293.26	0.0000
293.70	185.6546
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295.21	211.0053

295.21	211.0053
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299.80	167.3352
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300.09	149.9934
300.09	149.9934
300.09	149.9934
300.12	149.9953
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303.76	221.1680
303.91	221.1850
304.40	223.1439
304.40	223.1439
304.84	211.7983
306.84	181.6015
308.46	179.8568
311.98	163.0324
316.51	180.6251
318.01	172.1602
319.02	160.7669
319.41	158.8854
320.08	165.6424
323.87	159.8938
323.87	159.8938
323.87	159.8938
323.87	159.8938
325.23	150.4073
328.77	163.5046
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334.20	139.8457
334.30	139.8528
338.28	148.1879
338.28	148.1879
338.28	148.1879
338.28	148.1879
338.32	148.1917
338.32	148.1917
338.32	148.1917
340.50	119.3286
340.57	119.3316
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345.85	149.3962
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351.92	133.3024
351.92	133.3024
351.92	133.3024
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364.48	136.0731
366.43	155.7975
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369.80	122.6791
374.96	154.4606
383.85	142.2580
387.95	134.6088
388.63	121.7793
391.69	118.9746
391.69	118.9746
392.90	142.8486
398.62	111.3930
400.65	129.4128
401.10	135.4140
401.81	143.4252
402.60	128.5292
404.84	131.6503
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411.60	131.0448
413.65	142.1768
414.70	120.2051
415.30	117.2299

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427.89	116.8638
432.53	110.0299
433.93	111.1058
439.47	123.5161
439.56	123.5205
439.89	118.4739
443.98	125.7786
444.90	122.7828
445.03	122.7887
445.03	122.7887
445.03	122.7887
453.90	119.1680
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468.07	107.5648
473.00	105.7259
475.06	108.8946
475.35	113.0172
476.78	108.9696
477.59	105.9195
477.96	93.5927
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484.57	106.2125
487.03	92.8971
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497.08	103.6243
507.63	0.0000
510.53	0.0000
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511.00	80.2174
511.85	80.2428
511.85	80.2428
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513.99	79.9605
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529.64	81.8295
529.87	0.0000
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537.32	73.6436
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546.56	0.0000
549.76	116.2520
552.65	85.6927
555.20	78.3594
563.23	103.0080
563.90	106.2183
568.70	94.6950
569.32	90.4598
569.50	90.4640
569.67	89.4059
573.80	86.3374
574.00	86.3433
574.64	86.3631
578.91	105.0001
579.30	0.0000
583.14	103.7280
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591.81	103.2338
592.07	103.2432
593.00	104.0808
595.88	86.9999
600.56	111.1641
602.52	0.0000
602.71	104.0677
602.71	104.0677
603.60	96.9192
604.41	87.9691
604.70	95.1589
609.31	103.5797

609.31	103.5797
609.31	103.5797
609.31	103.5797
610.33	103.6148
612.46	90.0085
614.37	75.6550
618.01	78.4526
621.84	74.7595
621.84	74.7595
631.29	80.4262
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633.10	68.5125
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635.90	75.1049
636.97	77.3096
645.85	78.6234
646.12	78.6305
656.30	76.6958
657.75	73.0778
657.90	0.0000
661.65	91.4591
661.65	91.4591
664.57	0.0000
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666.33	73.2764
675.00	73.4766
677.61	73.5352
685.20	73.7093
692.80	84.0406
695.00	73.9307
696.49	73.0403
696.49	73.0403
697.00	73.9762
697.49	83.2361
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698.50	86.9622
699.00	94.3778
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720.50	70.2447
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722.78	62.3059
722.78	62.3059
722.89	70.2953
722.95	70.2969
723.30	57.5219
724.18	70.3230
727.18	58.7869
733.00	78.5176
735.90	62.2550
739.58	57.1292
742.81	66.5582
744.21	61.8951
747.13	78.8440
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752.31	71.4417
753.82	69.5918
755.35	74.3261
756.15	72.4616
756.87	72.4773
763.93	64.6736
765.79	59.8553
766.42	74.4275
766.84	74.4372
776.49	75.7227
778.00	70.2457
778.57	69.3264
778.89	54.3052
783.80	79.6729
785.46	55.0382
792.07	84.1355

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798.80	88.5782
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805.60	61.0716
810.29	63.0620
810.76	65.9369
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819.60	61.3060
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831.60	66.3103
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836.80	0.0000
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867.82	66.3669
871.10	54.3822
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875.33	0.0000
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880.51	50.6204
881.50	50.6331
883.24	56.5014
884.67	65.2920
889.25	53.6617
896.60	40.0774
898.02	43.0251
899.00	48.9044
903.28	50.3561
911.07	54.9404
911.07	54.9404
911.07	54.9404
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920.93	53.1090
925.00	57.1008
925.24	59.0735
926.50	48.2593
935.52	58.2378
937.48	57.2778
944.10	58.3602
946.00	51.4604
949.00	52.4889
962.29	63.0195
964.01	55.6616
966.15	55.6912
968.20	55.7186
969.11	55.7300
969.11	55.7300
969.11	55.7300
977.42	47.8643
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983.50	58.9184
989.30	53.0000
996.32	69.1137
1001.03	50.1383
1001.68	44.1280
1004.76	53.1930
1021.30	0.0000
1024.50	0.0000
1034.80	39.4158
1036.00	37.4050
1037.82	36.4087
1038.57	38.4376
1038.76	0.0000
1045.16	47.6139
1046.59	40.5355
1048.07	43.5896

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1050.47	49.6998
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1063.62	55.9511
1076.63	42.8494
1077.35	37.7558
1078.86	40.8301
1085.78	48.0480
1099.22	41.0140
1112.02	50.7244
1112.84	47.6003
1115.52	33.5164
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1120.29	53.5636
1120.29	53.5636
1120.29	53.5636
1120.51	63.5725
1121.28	61.8164
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1147.95	0.0000
1167.94	58.2718
1173.22	57.2939
1175.09	54.1899
1177.93	60.4780
1189.05	54.3465
1204.90	66.0582
1205.75	0.0000
1213.00	55.6655
1221.42	62.0729
1230.97	73.7883
1235.34	63.3032
1236.41	0.0000
1238.25	55.9502
1246.25	48.6373
1260.41	0.0000
1271.85	43.5725
1274.45	31.8982
1274.54	31.8982
1291.56	36.2716
1298.22	0.0000
1312.09	35.3458
1325.50	31.1405
1325.50	31.1405
1332.49	24.7304
1333.61	25.8115
1360.21	27.0223
1362.66	0.0000
1365.15	23.8011
1368.21	17.3197
1368.53	0.0000
1376.25	17.8878
1384.27	27.6862
1394.10	25.1722
1395.20	27.9743
1407.95	20.5628
1434.06	18.7814
1436.60	20.6695
1457.56	0.0000
1460.81	22.6456
1489.15	18.9655
1509.49	18.0809
1596.49	13.5205
1620.62	12.6046
1678.03	0.0000
1691.02	12.7484
1691.02	12.7484
1706.46	0.0000
1750.46	0.0000
1764.49	15.8705
1764.49	15.8705
1764.49	15.8705
1764.49	15.8705
1770.23	6.9495
1771.40	6.9507
1791.20	0.0000
1808.65	10.9847

1836.01

11.0295

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243517003

Total Uranium Activity	4.7142E+00	ug/g
Total Uranium Counting Unc.	2.4783E+00	ug/g
Total Uranium Tpu	1.2644E-06	ug/g
Total Uranium Mda	1.6064E+00	ug/g

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*
*               GEL Laboratories LLC
*               2040 SAVAGE ROAD
*               CHARLESTON ,SC 29417
*               GROSS GAMMA REPORT
*
*****
*
*  BATCH ID      : 937069          SAMPLE ID   : G243517003
*  ANALYST       : MXR1            DETECTOR    : GAM05
*  SAMPLE DATE   : 21-DEC-2009 12:00:00.00  COUNT TIME : 0 02:00:00.00
*  ANALYSIS DATE : 7-JAN-2010 08:52:57.12  SAMPLE ALQT: 131.500 GRAM
*
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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 8.704E+00
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.328E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 5.047E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 2.460E+00

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VAX/VMS Nuclide Identification Report Generated 7-JAN-2010 10:55:38.37

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517004.CNF;1
Sample date       : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:53:23.
Sample ID        : G243517004 Sample quantity : 1.20080E+02 GRAM
Detector name    : GAM06 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.15 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit  : 75.00000 Sensitivity : 5.00000
Batch ID        : 937069 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	74.58	353	495	1.47	149.16	143	15	4.91E-02	12.8	2.38E+00
2	2	76.92	449	297	1.06	153.85	143	15	6.24E-02	7.9	
3	0	87.05	136	384	1.12	174.11	171	7	1.89E-02	25.3	
4	0	92.95*	213	466	1.71	185.91	182	13	2.96E-02	22.7	
5	0	185.94*	173	277	1.11	371.88	366	11	2.40E-02	20.9	
6	0	208.78	85	256	1.46	417.57	414	11	1.18E-02	37.8	
7	4	238.43*	976	161	1.16	476.86	470	20	1.35E-01	3.9	1.24E+00
8	4	241.33	223	245	1.85	482.65	470	20	3.09E-02	18.9	
9	0	270.44	103	254	1.59	540.89	534	15	1.43E-02	35.1	
10	0	295.02	245	147	1.08	590.03	586	9	3.40E-02	11.0	
11	0	299.66	66	151	1.34	599.33	595	9	9.23E-03	35.5	
12	0	338.15*	168	219	1.39	676.30	670	15	2.33E-02	21.1	
13	0	351.72*	435	131	1.24	703.44	697	11	6.05E-02	7.1	
14	0	462.76	81	63	1.81	925.53	921	10	1.13E-02	21.3	
15	0	511.04*	58	179	2.07	1022.08	1012	18	7.99E-03	61.2	
16	0	583.02*	274	94	1.41	1166.03	1158	16	3.81E-02	10.2	
17	0	609.09*	286	89	1.44	1218.17	1212	14	3.97E-02	9.3	
18	0	727.30*	73	50	1.10	1454.60	1449	12	1.02E-02	23.3	
19	0	861.62	69	72	5.17	1723.24	1713	22	9.61E-03	34.3	
20	0	910.83*	212	47	1.30	1821.66	1815	15	2.94E-02	9.9	
21	0	968.80	72	54	1.22	1937.61	1932	10	1.00E-02	22.4	
22	0	1119.87	75	38	2.03	2239.73	2233	15	1.04E-02	21.4	
23	0	1460.44*	1016	29	1.94	2920.88	2912	16	1.41E-01	3.4	
24	0	1764.45	57	10	1.93	3528.90	3522	14	7.88E-03	18.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 7-JAN-2010 10:55:41

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Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517004.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:53:23
Sample ID         : G243517004 Sample quantity : 120.08 GRAM
Sample type       : SOLID Sample geometry :
Detector name     : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.15 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

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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	*	3.092E+01	2.920E+00	5.081E-01	3.361E-02	60.863
CD-109	+	88.03	*	2.277E+00	1.175E+00	1.447E+00	1.428E-01	1.574
SN-126		64.28		6.745E-01	6.500E-01	1.101E+00	1.694E-01	0.613
	+	86.94		9.278E-01	6.085E-01	7.004E-01	2.915E-01	1.325
	+	87.57	*	2.232E-01	1.152E-01	1.621E-01	1.596E-02	1.376
TL-208		277.35		5.625E-01	5.287E-01	7.905E-01	8.419E-02	0.712
	+	510.84		3.460E-01	4.250E-01	2.862E-01	2.872E-02	1.209
	+	583.14	*	4.716E-01	1.003E-01	6.663E-02	4.211E-03	7.078
	+	860.37		1.129E+00	7.805E-01	5.351E-01	4.091E-02	2.110
BI-211		72.87		1.437E+01	4.591E+00	7.321E+00	6.573E-01	1.963
	+	351.07	*	3.244E+00	5.085E-01	3.623E-01	2.338E-02	8.953
PB-212	+	74.81		2.520E+00	7.213E-01	6.514E-01	8.468E-02	3.868
	+	77.11		1.800E+00	3.271E-01	3.564E-01	3.254E-02	5.051
	+	87.30		1.032E+00	5.428E-01	7.741E-01	1.085E-01	1.333
	+	238.63	*	1.566E+00	1.688E-01	1.056E-01	7.781E-03	14.835
	+	300.09		1.659E+00	1.185E+00	1.388E+00	1.162E-01	1.194
PO-212	+	74.81		2.520E+00	7.213E-01	6.514E-01	8.468E-02	3.868
	+	77.11		1.800E+00	3.271E-01	3.564E-01	3.254E-02	5.051
	+	87.30		1.032E+00	5.428E-01	7.741E-01	1.085E-01	1.333
		115.19		-1.169E+00	4.151E+00	6.758E+00	4.460E-01	-0.173
	+	238.63	*	1.566E+00	1.688E-01	1.056E-01	7.781E-03	14.835
	+	300.09		1.659E+00	1.185E+00	1.388E+00	1.162E-01	1.194
BI-214	+	609.31	*	9.279E-01	1.858E-01	1.300E-01	9.594E-03	7.137
	+	1120.29		1.275E+00	5.567E-01	4.841E-01	4.421E-02	2.633
	+	1764.49		1.335E+00	4.859E-01	3.407E-01	1.995E-02	3.919
PB-214	+	74.81		4.341E+00	1.218E+00	1.122E+00	1.311E-01	3.868
	+	77.11		3.086E+00	6.081E-01	6.110E-01	7.266E-02	5.051
	+	87.30		1.768E+00	9.229E-01	1.326E+00	1.655E-01	1.333
	+	241.98		2.148E+00	8.322E-01	6.357E-01	5.158E-02	3.379
	+	295.21		1.073E+00	2.528E-01	2.419E-01	2.091E-02	4.437
	+	351.92	*	1.128E+00	1.864E-01	1.340E-01	1.112E-02	8.421
PO-214	+	74.81		4.341E+00	1.218E+00	1.122E+00	1.311E-01	3.868
	+	77.11		3.086E+00	6.081E-01	6.110E-01	7.266E-02	5.051
	+	87.30		1.768E+00	9.229E-01	1.326E+00	1.655E-01	1.333

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-216	+	241.98		2.148E+00	8.322E-01	6.357E-01	5.158E-02	3.379
	+	295.21		1.073E+00	2.528E-01	2.419E-01	2.091E-02	4.437
	+	351.92	*	1.128E+00	1.864E-01	1.340E-01	1.112E-02	8.421
	+	74.81		2.520E+00	7.213E-01	6.514E-01	8.468E-02	3.868
	+	77.11		1.800E+00	3.271E-01	3.564E-01	3.254E-02	5.051
	+	87.30		1.032E+00	5.428E-01	7.741E-01	1.085E-01	1.333
PO-218	+	238.63	*	1.566E+00	1.688E-01	1.056E-01	7.781E-03	14.835
	+	300.09		1.659E+00	1.185E+00	1.388E+00	1.162E-01	1.194
	+	74.81		4.341E+00	1.218E+00	1.122E+00	1.311E-01	3.868
	+	77.11		3.086E+00	6.081E-01	6.110E-01	7.266E-02	5.051
	+	87.30		1.768E+00	9.229E-01	1.326E+00	1.655E-01	1.333
	+	241.98		2.148E+00	8.322E-01	6.357E-01	5.158E-02	3.379
RA-224	+	295.21		1.073E+00	2.528E-01	2.419E-01	2.091E-02	4.437
	+	351.92	*	1.128E+00	1.864E-01	1.340E-01	1.112E-02	8.421
RA-226	+	240.98	*	4.073E+00	1.561E+00	1.201E+00	7.041E-02	3.391
	+	609.31	*	9.279E-01	1.858E-01	1.300E-01	9.594E-03	7.137
AC-228	+	1120.29		1.275E+00	5.567E-01	4.841E-01	4.421E-02	2.633
	+	1764.49		1.335E+00	4.859E-01	3.407E-01	1.995E-02	3.919
	+	338.32		1.377E+00	8.076E-01	4.082E-01	1.665E-01	3.372
	+	911.07	*	1.634E+00	3.646E-01	2.298E-01	2.349E-02	7.108
RA-228	+	969.11		9.856E-01	4.962E-01	5.288E-01	1.206E-01	1.864
	+	338.32		1.377E+00	8.076E-01	4.082E-01	1.665E-01	3.372
	+	911.07	*	1.634E+00	3.646E-01	2.298E-01	2.349E-02	7.108
	+	969.11		9.856E-01	4.962E-01	5.288E-01	1.206E-01	1.864
TH-228	+	74.81		2.562E+00	6.939E-01	6.624E-01	6.032E-02	3.868
	+	77.11		1.831E+00	3.326E-01	3.625E-01	3.309E-02	5.051
	+	87.30		1.050E+00	5.419E-01	7.872E-01	7.728E-02	1.333
	+	238.63	*	1.592E+00	1.717E-01	1.073E-01	7.913E-03	14.835
TH-230	+	300.09		1.687E+00	1.556E+00	1.412E+00	8.324E-01	1.194
	+	609.31	*	9.279E-01	1.858E-01	1.300E-01	9.594E-03	7.137
	+	1120.29		1.275E+00	5.566E-01	4.840E-01	4.421E-02	2.633
	+	1764.49		1.335E+00	4.859E-01	3.407E-01	1.995E-02	3.919
TH-232	+	338.32		1.377E+00	5.862E-01	4.082E-01	2.401E-02	3.372
	+	911.07	*	1.634E+00	3.646E-01	2.298E-01	2.349E-02	7.108
	+	969.11		9.856E-01	4.962E-01	5.288E-01	1.206E-01	1.864
	+	609.31	*	9.279E-01	1.858E-01	1.300E-01	9.594E-03	7.137
U-234	+	1120.29		1.275E+00	5.566E-01	4.840E-01	4.421E-02	2.633
	+	1764.49		1.335E+00	4.859E-01	3.407E-01	1.995E-02	3.919
	+	86.50	*	6.554E-01	3.643E-01	4.858E-01	1.109E-01	1.349
	+	95.87		-2.705E-01	1.211E+00	1.738E+00	4.277E-01	-0.156
AM-243	+	74.67	*	4.085E-01	1.105E-01	1.060E-01	9.570E-03	3.855
	+	86.72		2.458E+01	1.269E+01	1.849E+01	1.806E+00	1.329
	+	117.66		-1.362E+00	4.398E+00	7.145E+00	4.581E-01	-0.191
	+	142.18		6.499E+00	2.040E+01	3.383E+01	1.931E+00	0.192
ANH-511	+	511.00	*	7.474E-02	9.159E-02	6.183E-02	3.456E-03	1.209

---- 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	*	4.139E-01	3.829E-01	6.790E-01	4.485E-02	0.610

---- 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	*		-1.245E-02	5.902E-02	9.405E-02	5.808E-03	-0.132
NA-24	1368.53	*		5.543E+00	5.902E-02	Half-Life too short		
AL-26	1129.67			6.242E-01	2.153E+00	3.562E+00	2.218E-01	0.175
	1808.65	*		-2.841E-03	3.083E-02	4.985E-02	2.864E-03	-0.057
TI-44	67.85			-6.324E-02	5.706E-02	8.776E-02	7.831E-03	-0.721
	78.38	*	+	3.322E-01	6.037E-02	8.965E-02	8.241E-03	3.706
SC-46	889.25	*		1.406E-02	4.814E-02	8.237E-02	5.904E-03	0.171
	1120.51	*	+	2.214E-01	9.556E-02	1.409E-01	8.861E-03	1.572
V-48	944.10			7.639E-01	1.116E+00	1.976E+00	1.411E-01	0.387
	983.50	*		-2.191E-02	9.213E-02	1.489E-01	1.042E-02	-0.147
	1312.09			-7.303E-03	9.887E-02	1.592E-01	9.937E-03	-0.046
CR-51	320.08	*		-1.512E-01	4.742E-01	7.813E-01	5.147E-02	-0.194
MN-52	744.21			3.470E-02	3.377E-01	5.488E-01	3.130E-02	0.063
	848.13			-6.425E-02	1.008E+01	1.683E+01	1.134E+00	-0.004
	935.52			-1.172E-01	3.610E-01	5.798E-01	4.154E-02	-0.202
	1246.25			4.519E+00	1.166E+01	1.973E+01	1.203E+00	0.229
	1333.61			-1.324E+00	7.323E+00	1.160E+01	7.285E-01	-0.114
	1434.06	*		1.920E-02	2.931E-01	4.798E-01	3.019E-02	0.040
MN-54	834.83	*		-3.409E-02	4.272E-02	6.601E-02	4.357E-03	-0.516
CO-56	846.75	*		3.276E-02	4.681E-02	8.306E-02	5.584E-03	0.394
	977.42			-1.408E+00	3.379E+00	5.340E+00	3.752E-01	-0.264
	1037.82			-1.148E-02	3.802E-01	6.257E-01	4.593E-02	-0.018
	1175.09			8.735E-01	3.041E+00	5.110E+00	3.026E-01	0.171
	1238.25			1.296E-01	1.156E-01	2.059E-01	1.324E-02	0.629
	1360.21			1.226E-01	1.135E+00	1.871E+00	1.178E-01	0.066
	1771.40			-7.854E-01	4.052E-01	4.600E-01	2.686E-02	-1.707
CO-57	122.06	*		7.442E-03	3.027E-02	5.028E-02	3.071E-03	0.148
	136.48			2.660E-03	2.345E-01	3.846E-01	2.584E-02	0.007
CO-58	810.76	*		-2.947E-02	4.809E-02	7.599E-02	4.852E-03	-0.388
FE-59	142.65			1.327E+00	3.208E+00	5.339E+00	3.045E-01	0.249
	192.34			4.476E-01	1.119E+00	1.785E+00	2.089E-01	0.251
	1099.22	*		-1.099E-02	1.256E-01	2.050E-01	1.504E-02	-0.054
	1291.56			3.513E-02	1.517E-01	2.537E-01	1.963E-02	0.138
CO-60	1173.22			2.735E-02	5.685E-02	9.734E-02	5.759E-03	0.281
	1332.49	*		-2.220E-02	4.660E-02	7.060E-02	4.435E-03	-0.315
ZN-65	1115.52	*		4.324E-04	1.171E-01	1.653E-01	1.047E-02	0.003
GE-68	1077.35	*		9.071E-01	1.418E+00	2.494E+00	1.634E-01	0.364
AS-73	53.44	*		8.869E-01	1.145E+00	1.976E+00	1.807E-01	0.449
AS-74	595.88	*		-8.058E-02	1.194E-01	1.831E-01	9.737E-03	-0.440
	634.78			1.874E-01	4.581E-01	7.699E-01	3.935E-02	0.243
SE-75	66.05			-5.807E+00	6.030E+00	9.696E+00	1.038E+00	-0.599
	96.73			-3.129E-01	1.001E+00	1.430E+00	1.934E-01	-0.219
	121.11			-4.376E-02	1.618E-01	2.630E-01	2.489E-02	-0.166
	136.00			6.080E-03	4.402E-02	7.259E-02	4.278E-03	0.084
	198.60			3.173E-01	2.313E+00	3.567E+00	2.490E-01	0.089
	264.65	*		-8.082E-03	6.167E-02	8.497E-02	5.097E-03	-0.095
	279.53			2.627E-02	1.308E-01	2.227E-01	1.431E-02	0.118
	303.91			-3.531E-01	2.684E+00	3.886E+00	3.748E-01	-0.091
	400.65			5.099E-03	3.072E-01	5.106E-01	4.574E-02	0.010

---- 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		8.181E+02	4.223E+02	6.798E+02	6.708E+01	1.204
		200.40		-2.882E+01	3.376E+02	5.436E+02	3.062E+01	-0.053
	+	239.00		4.193E+02	4.112E+01	7.155E+01	4.187E+00	5.861
		249.79		-2.858E+01	1.321E+02	2.089E+02	1.232E+01	-0.137
		281.68		-1.515E+02	1.758E+02	2.829E+02	1.688E+01	-0.536
		297.23		4.527E+02	1.821E+02	2.328E+02	1.391E+01	1.945
		303.76		-1.023E+01	3.795E+02	5.544E+02	3.309E+01	-0.018
		439.47		-2.880E+02	2.839E+02	4.291E+02	2.414E+01	-0.671
		484.57		-5.237E+01	4.058E+02	6.604E+02	3.714E+01	-0.079
		520.65	*	1.588E+01	2.080E+01	3.608E+01	2.010E+00	0.440
		574.64		1.508E+02	4.660E+02	7.371E+02	3.987E+01	0.205
		578.91		-1.148E+02	2.155E+02	2.857E+02	1.540E+01	-0.402
		585.48		1.870E+03	4.668E+02	8.608E+02	4.618E+01	2.172
		755.35		1.899E+01	3.422E+02	5.526E+02	3.211E+01	0.034
		817.79		-3.060E+01	2.418E+02	3.996E+02	2.568E+01	-0.077
SR-82		698.33		-5.003E+01	4.406E+01	6.232E+01	3.285E+00	-0.803
		776.49	*	-4.968E-01	4.674E-01	7.073E-01	4.255E-02	-0.702
		1395.20		9.604E-01	1.311E+01	2.147E+01	1.352E+00	0.045
RB-83		520.41	*	6.859E-02	8.399E-02	1.462E-01	8.147E-03	0.469
		529.64		4.163E-02	1.278E-01	2.147E-01	1.192E-02	0.194
		552.65		-8.007E-02	2.331E-01	3.697E-01	2.028E-02	-0.217
RB-84		881.50	*	2.744E-02	8.181E-02	1.409E-01	9.982E-03	0.195
KR-85		513.99	*	8.669E+00	1.021E+01	1.565E+01	8.743E-01	0.554
SR-85		513.99	*	4.528E-02	5.330E-02	8.176E-02	4.566E-03	0.554
RB-86		1076.63	*	8.537E-01	9.366E-01	1.691E+00	1.109E-01	0.505
Y-88		898.02		-1.962E-02	4.896E-02	7.823E-02	5.719E-03	-0.251
		1836.01	*	-4.118E-02	4.306E-02	5.624E-02	3.196E-03	-0.732
ZR-88		392.90	*	1.184E-02	3.669E-02	6.224E-02	3.454E-03	0.190
Y-91		1204.90	*	-1.217E+01	2.635E+01	4.131E+01	2.478E+00	-0.295
NB-94		702.63	*	9.557E-03	3.919E-02	6.465E-02	3.434E-03	0.148
		871.10		-1.068E-02	4.392E-02	6.357E-02	4.434E-03	-0.168
NB-95		765.79	*	3.482E-02	5.306E-02	9.007E-02	5.324E-03	0.387
NB-95M		235.69	*	5.677E-01	1.899E-01	3.064E-01	2.315E-02	1.853
ZR-95		724.18		1.081E-01	1.357E-01	2.064E-01	1.366E-02	0.524
		756.15	*	1.555E-03	8.767E-02	1.411E-01	9.942E-03	0.011
NB-97		657.90	*	-7.649E-01	8.767E-02	Half-Life	too short	
		1024.50		4.730E+01	8.767E-02	Half-Life	too short	
ZR-97		254.15		-7.313E-01	8.767E-02	Half-Life	too short	
		355.39		-1.335E+01	8.767E-02	Half-Life	too short	
		507.63	*	2.718E+01	8.767E-02	Half-Life	too short	
		602.52		-2.925E+01	8.767E-02	Half-Life	too short	
		1021.30		-1.518E+00	8.767E-02	Half-Life	too short	
		1147.95		-1.141E+01	8.767E-02	Half-Life	too short	
		1362.66		9.836E+00	8.767E-02	Half-Life	too short	
		1750.46		-4.679E-01	8.767E-02	Half-Life	too short	
MO-99		140.51		-3.106E+01	4.900E+01	7.493E+01	2.018E+01	-0.415
		181.06		-2.590E+01	3.759E+01	5.067E+01	8.635E+00	-0.511
		366.43		-2.684E+01	1.473E+02	2.426E+02	1.392E+01	-0.111
		739.58	*	-9.384E+00	2.057E+01	3.140E+01	4.309E+00	-0.299

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.00		-2.448E+00	6.093E+01	1.019E+02	6.147E+00	-0.024
TC-99M		140.51	*	-3.691E+12	6.093E+01	Half-Life too short		
RH-101		127.23		2.864E-02	3.801E-02	6.426E-02	3.837E-03	0.446
		198.01	*	1.558E-02	4.160E-02	6.481E-02	3.640E-03	0.240
		325.23		1.815E-02	2.871E-01	4.827E-01	2.861E-02	0.038
RH-102		418.52		3.265E-02	3.309E-01	5.522E-01	3.093E-02	0.059
		475.06	*	-5.552E-04	3.492E-02	5.746E-02	3.236E-03	-0.010
		631.29		8.171E-02	6.303E-02	1.138E-01	5.840E-03	0.718
		697.49		-6.042E-02	9.372E-02	1.398E-01	7.360E-03	-0.432
		766.84		7.910E-02	1.328E-01	2.242E-01	1.328E-02	0.353
		1046.59		-1.725E-02	1.453E-01	2.369E-01	1.592E-02	-0.073
		1112.84		1.950E-01	2.894E-01	4.503E-01	2.855E-02	0.433
RU-103		497.08	*	-3.810E-03	4.715E-02	7.698E-02	9.668E-03	-0.049
	+	610.33		1.033E+01	2.485E+00	3.177E+00	4.834E-01	3.253
RH-106	+	511.85		3.745E-01	4.590E-01	5.078E-01	2.838E-02	0.738
		621.84	*	-4.768E-02	3.648E-01	5.852E-01	6.698E-02	-0.081
		1050.47		1.748E+00	2.967E+00	5.162E+00	3.459E-01	0.339
RU-106	+	511.85		3.745E-01	4.590E-01	5.078E-01	2.838E-02	0.738
		621.84	*	-4.768E-02	3.647E-01	5.852E-01	3.035E-02	-0.081
		1050.47		1.748E+00	2.967E+00	5.162E+00	3.459E-01	0.339
AG-108M		433.93	*	8.953E-03	3.623E-02	6.104E-02	3.743E-03	0.147
		614.37		-4.200E-02	5.499E-02	6.987E-02	4.029E-03	-0.601
		722.95		-1.882E-02	5.510E-02	7.273E-02	4.376E-03	-0.259
AG-110M		657.75	*	-5.174E-02	4.378E-02	6.308E-02	3.405E-03	-0.820
		677.61		-1.496E-01	3.652E-01	5.669E-01	3.109E-02	-0.264
		706.67		-4.367E-02	2.552E-01	4.052E-01	2.319E-02	-0.108
		763.93		-1.892E-01	2.081E-01	3.046E-01	1.902E-02	-0.621
		884.67		-5.961E-02	5.971E-02	8.923E-02	6.650E-03	-0.668
		937.48		-1.000E-01	1.281E-01	1.950E-01	1.468E-02	-0.513
		1384.27		7.186E-03	2.250E-01	3.662E-01	2.426E-02	0.020
IN-111		171.28		-4.941E-01	1.791E+00	2.874E+00	1.562E-01	-0.172
		245.39	*	3.178E-01	2.177E+00	3.079E+00	1.810E-01	0.103
IN-113M		391.69	*	4.570E-02	5.431E-02	9.485E-02	5.644E-03	0.482
SN-113		391.69	*	4.570E-02	5.431E-02	9.485E-02	5.644E-03	0.482
IN-114M		190.27	*	1.662E-01	2.286E-01	3.400E-01	1.892E-02	0.489
CD-115		260.90		1.743E+02	2.744E+02	4.545E+02	2.695E+01	0.383
		492.35		4.585E+00	7.183E+01	1.187E+02	6.668E+00	0.039
		527.90	*	7.884E+00	2.210E+01	3.724E+01	2.069E+00	0.212
SN-117M		156.02		1.357E+00	2.923E+00	4.862E+00	2.686E-01	0.279
		158.56	*	6.337E-03	7.016E-02	1.149E-01	6.309E-03	0.055
SB-122		563.90	*	5.906E-01	4.005E+00	6.615E+00	3.605E-01	0.089
		692.80		3.706E+01	8.041E+01	1.352E+02	7.060E+00	0.274
I-123		159.00	*	-3.146E+01	8.041E+01	Half-Life too short		
		528.96		-6.370E+02	8.041E+01	Half-Life too short		
TE-123M		159.00	*	-1.703E-02	3.370E-02	5.366E-02	2.989E-03	-0.317
I-124		602.71	*	-3.293E-01	1.169E+00	1.585E+00	8.375E-02	-0.208
		722.78		-2.629E+00	7.697E+00	1.016E+01	5.588E-01	-0.259
		1325.50		5.272E+01	5.480E+01	9.983E+01	6.257E+00	0.528
		1376.25		5.779E+01	4.794E+01	8.961E+01	5.642E+00	0.645

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124		1509.49		9.292E+00	2.215E+01	3.834E+01	2.399E+00	0.242
		1691.02		4.461E+00	4.875E+00	9.663E+00	5.811E-01	0.462
		602.71		-1.460E-02	5.184E-02	7.027E-02	3.716E-03	-0.208
		645.85		-5.582E-01	6.499E-01	9.711E-01	5.713E-02	-0.575
		709.31		1.592E+00	3.252E+00	5.485E+00	2.947E-01	0.290
		713.82		-7.592E-01	1.994E+00	3.093E+00	3.093E-01	-0.245
		722.78		-1.690E-01	4.948E-01	6.531E-01	3.779E-02	-0.259
	+	968.20		1.035E+01	4.704E+00	7.700E+00	5.435E-01	1.345
		1045.16		4.058E-01	2.947E+00	4.934E+00	3.319E-01	0.082
		1325.50		3.620E+00	3.762E+00	6.853E+00	4.296E-01	0.528
SB-125		1368.21		1.953E+00	1.773E+00	3.370E+00	4.084E-01	0.580
		1436.60		1.494E+00	4.061E+00	6.984E+00	4.395E-01	0.214
		1691.02	*	6.764E-02	7.394E-02	1.465E-01	9.514E-03	0.462
		427.89	*	8.803E-02	1.049E-01	1.836E-01	1.077E-02	0.479
	+	463.38		9.516E-01	4.110E-01	6.580E-01	4.357E-02	1.446
		600.56		3.310E-02	2.115E-01	3.486E-01	2.188E-02	0.095
		635.90		-2.335E-01	3.365E-01	5.112E-01	3.174E-02	-0.457
	TE-125M	109.28	*	-6.321E+00	1.111E+01	1.788E+01	1.627E+00	-0.353
	I-126	388.63		-1.520E-01	2.775E-01	4.455E-01	2.482E-02	-0.341
		666.33	*	-8.159E-02	2.605E-01	4.105E-01	2.044E-02	-0.199
SB-126		753.82		-1.462E-01	1.973E+00	3.147E+00	1.824E-01	-0.046
		223.80		-2.269E+00	5.542E+00	8.734E+00	5.045E-01	-0.260
		278.60		3.538E+00	3.296E+00	5.704E+00	3.403E-01	0.620
	+	296.50		1.179E+01	2.677E+00	4.450E+00	2.658E-01	2.648
		414.70		9.130E-04	9.820E-02	1.629E-01	9.115E-03	0.006
		415.30		1.764E+00	8.197E+00	1.378E+01	7.712E-01	0.128
		555.20		9.386E-01	4.924E+00	8.180E+00	4.482E-01	0.115
		573.80		9.186E-01	1.490E+00	2.484E+00	1.345E-01	0.370
		593.00		5.614E-02	1.223E+00	2.000E+00	1.066E-01	0.028
		656.30		-4.856E+00	4.703E+00	6.905E+00	3.435E-01	-0.703
SB-127		666.33		-3.423E-02	1.093E-01	1.722E-01	8.577E-03	-0.199
		675.00		-6.031E-01	2.551E+00	4.030E+00	2.039E-01	-0.150
		695.00		4.900E-03	1.010E-01	1.637E-01	8.580E-03	0.030
		697.00		-2.375E-01	3.585E-01	5.335E-01	2.806E-02	-0.445
		720.50	*	-1.212E-01	2.145E-01	2.904E-01	1.591E-02	-0.417
		856.80		6.499E-01	6.794E-01	1.099E+00	7.504E-02	0.591
		989.30		-1.081E-01	1.765E+00	2.904E+00	2.027E-01	-0.037
		1034.80		3.822E+00	1.223E+01	2.080E+01	1.410E+00	0.184
		1213.00		-1.183E+00	6.874E+00	1.106E+01	6.659E-01	-0.107
		61.10		2.435E+01	1.007E+02	1.700E+02	2.049E+01	0.143
SB-127		252.40		6.239E+00	7.493E+00	1.183E+01	4.933E+00	0.528
		290.80		-2.161E+01	3.803E+01	5.322E+01	5.275E+00	-0.406
		411.60		-4.401E+00	1.981E+01	3.235E+01	4.760E+00	-0.136
		444.90		1.378E+01	1.632E+01	2.839E+01	3.196E+00	0.485
		473.00		2.832E-01	2.632E+00	4.372E+00	5.084E-01	0.065
		543.00		-2.209E+01	2.754E+01	4.178E+01	5.537E+00	-0.529
		603.60		-2.465E+01	2.282E+01	2.749E+01	3.040E+00	-0.897
		685.20	*	-1.048E+00	2.280E+00	3.521E+00	3.416E-01	-0.298
		698.50		-3.107E+01	2.602E+01	3.599E+01	5.290E+00	-0.863

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
XE-127		722.20		-3.879E+01	5.678E+01	7.112E+01	6.848E+00	-0.545
		783.80		3.462E+00	5.752E+00	1.011E+01	1.150E+00	0.342
		57.60		-1.784E+00	8.141E+00	1.354E+01	1.247E+00	-0.132
		145.22		4.554E-01	8.395E-01	1.403E+00	7.952E-02	0.324
		172.10		-1.382E-01	1.442E-01	2.234E-01	1.216E-02	-0.619
I-131		202.84	*	3.602E-02	6.136E-02	9.848E-02	5.563E-03	0.366
		374.96		2.761E-02	2.333E-01	3.916E-01	2.223E-02	0.071
		80.18		-3.552E+00	6.963E+00	9.926E+00	9.287E-01	-0.358
		284.30		-1.388E+00	2.017E+00	3.271E+00	2.166E-01	-0.424
		364.48	*	6.459E-03	1.555E-01	2.600E-01	1.676E-02	0.025
TE-132		636.97		-2.869E+00	2.276E+00	3.258E+00	1.921E-01	-0.880
		722.89		-3.687E+00	1.079E+01	1.425E+01	7.989E-01	-0.259
		49.72		-3.855E+01	4.017E+01	6.468E+01	7.357E+00	-0.596
		111.76		-2.326E+00	5.023E+01	8.268E+01	8.328E+00	-0.028
		116.30		8.888E+00	4.536E+01	7.532E+01	7.403E+00	0.118
BA-133		228.16	*	-9.441E-02	1.205E+00	1.930E+00	2.843E-01	-0.049
		53.15		3.513E+00	4.867E+00	8.384E+00	7.653E-01	0.419
		79.62		-3.993E-01	1.687E+00	2.440E+00	3.806E-01	-0.164
		81.00		-8.363E-02	1.289E-01	1.816E-01	2.957E-02	-0.460
		276.40		2.398E-01	5.280E-01	7.586E-01	9.890E-02	0.316
I-133		302.84		1.034E-01	1.827E-01	2.788E-01	3.274E-02	0.371
		356.01	*	-4.370E-02	6.012E-02	8.138E-02	9.407E-03	-0.537
		383.85		-3.292E-02	3.507E-01	5.799E-01	6.246E-02	-0.057
	+	510.53		3.091E+00	3.507E-01	Half-Life	too short	
		529.87	*	1.073E-02	3.507E-01	Half-Life	too short	
CS-134		706.58		-3.182E-01	3.507E-01	Half-Life	too short	
		856.28		2.993E+00	3.507E-01	Half-Life	too short	
		875.33		-1.364E-01	3.507E-01	Half-Life	too short	
		1236.41		4.257E+00	3.507E-01	Half-Life	too short	
		1298.22		-7.907E-01	3.507E-01	Half-Life	too short	
		475.35		1.134E+00	2.220E+00	3.796E+00	2.137E-01	0.299
		563.23		2.025E-01	4.314E-01	7.306E-01	4.077E-02	0.277
		569.32		-9.509E-02	2.571E-01	4.023E-01	2.258E-02	-0.236
		604.70		-2.947E-02	4.638E-02	5.977E-02	3.175E-03	-0.493
		795.84	*	7.671E-02	5.922E-02	1.086E-01	6.832E-03	0.707
		801.93		-1.103E-01	5.101E-01	8.398E-01	5.319E-02	-0.131
		1038.57		-2.259E+00	4.653E+00	7.281E+00	4.922E-01	-0.310
		1167.94		-1.466E+00	3.062E+00	4.770E+00	2.841E-01	-0.307
		1365.15		-1.322E+00	1.356E+00	1.819E+00	1.241E-01	-0.727
		268.24	*	2.210E-01	2.255E-01	3.361E-01	2.611E-02	0.658
CS-135		288.45		-8.997E+11	2.255E-01	Half-Life	too short	
I-135		417.63		2.698E+12	2.255E-01	Half-Life	too short	
		546.56		4.048E+11	2.255E-01	Half-Life	too short	
		836.80		1.802E+12	2.255E-01	Half-Life	too short	
		1038.76		-1.170E+12	2.255E-01	Half-Life	too short	
		1124.00		-2.096E+12	2.255E-01	Half-Life	too short	
		1131.51		3.731E+11	2.255E-01	Half-Life	too short	
		1260.41	*	1.598E+10	2.255E-01	Half-Life	too short	
		1457.56		7.655E+13	2.255E-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-136		1678.03		5.286E+11	2.255E-01	Half-Life	too short	
		1706.46		-1.016E+12	2.255E-01	Half-Life	too short	
		1791.20		-9.349E+11	2.255E-01	Half-Life	too short	
		66.91		-1.962E+00	1.097E+00	1.646E+00	2.570E-01	-1.192
	+	86.29		3.194E+00	1.677E+00	2.603E+00	3.546E-01	1.227
		153.22		3.180E-01	8.459E-01	1.403E+00	9.868E-02	0.227
		163.89		-1.506E-01	1.337E+00	2.167E+00	1.508E-01	-0.070
		176.55		2.873E-01	4.693E-01	7.835E-01	4.880E-02	0.367
		273.65		-9.158E-01	7.369E-01	9.210E-01	6.223E-02	-0.994
		340.57		4.524E-01	1.932E-01	3.247E-01	2.025E-02	1.393
		818.51		-5.433E-02	9.052E-02	1.423E-01	9.171E-03	-0.382
		1048.07	*	-1.488E-02	1.529E-01	2.499E-01	1.794E-02	-0.060
BA-137M		1235.34		4.545E-01	8.324E-01	1.420E+00	1.441E-01	0.320
		661.65	*	2.489E-02	4.551E-02	7.695E-02	3.800E-03	0.323
CS-137		661.65	*	2.631E-02	4.811E-02	8.134E-02	4.041E-03	0.323
CE-139		165.85	*	-1.998E-02	3.521E-02	5.579E-02	3.017E-03	-0.358
BA-140		162.64		-4.782E-01	9.454E-01	1.503E+00	9.332E-02	-0.318
		304.84		1.382E-01	1.810E+00	2.665E+00	7.283E-01	0.052
LA-140		423.70		-8.454E-01	2.392E+00	3.836E+00	1.218E+00	-0.220
		537.32	*	-1.322E-01	3.393E-01	5.329E-01	1.731E-01	-0.248
		328.77		6.623E-01	4.230E-01	7.573E-01	4.999E-02	0.875
		432.53		-2.892E+00	2.692E+00	4.094E+00	2.557E-01	-0.706
		487.03		-1.150E-02	1.692E-01	2.768E-01	1.774E-02	-0.042
		751.79		-5.486E-01	2.332E+00	3.662E+00	2.592E-01	-0.150
		815.85		1.040E-01	4.047E-01	6.937E-01	5.336E-02	0.150
		867.82		1.719E-01	1.958E+00	2.852E+00	2.139E-01	0.060
		919.63		-4.333E-01	3.764E+00	5.895E+00	5.625E-01	-0.073
		925.24		6.049E-01	1.499E+00	2.586E+00	2.026E-01	0.234
CE-141		1596.49	*	-1.187E-01	1.073E-01	1.434E-01	8.846E-03	-0.828
		145.44	*	3.980E-02	7.615E-02	1.272E-01	7.506E-03	0.313
CE-143		57.37		-9.634E-04	7.615E-02	Half-Life	too short	
		231.56		-3.455E-03	7.615E-02	Half-Life	too short	
+		293.26	*	2.419E-03	7.615E-02	Half-Life	too short	
		350.59		6.223E-02	7.615E-02	Half-Life	too short	
		490.36		2.003E-03	7.615E-02	Half-Life	too short	
		664.57		-2.029E-03	7.615E-02	Half-Life	too short	
		721.93		-4.149E-03	7.615E-02	Half-Life	too short	
CE-144		80.11		-1.391E+00	2.769E+00	3.949E+00	3.668E-01	-0.352
		133.54	*	-1.270E-02	2.302E-01	3.765E-01	5.354E-02	-0.034
PM-144		476.78		7.257E-02	7.857E-02	1.380E-01	9.386E-03	0.526
		618.01		2.447E-02	3.856E-02	6.597E-02	3.690E-03	0.371
+		696.49	*	6.674E-03	3.866E-02	6.343E-02	3.337E-03	0.105
		778.57		1.250E+00	2.494E+00	4.376E+00	2.644E-01	0.286
PR-144		696.49	*	4.527E-01	2.622E+00	4.302E+00	2.261E-01	0.105
		1489.15		9.389E+00	1.402E+01	2.511E+01	1.575E+00	0.374
PM-146		453.90	*	3.040E-02	4.716E-02	8.160E-02	6.945E-03	0.372
		633.02		1.145E+00	1.728E+00	2.880E+00	1.058E+00	0.397
		735.90		-1.703E-02	1.842E-01	2.936E-01	8.176E-02	-0.058
		747.13		2.316E-02	1.089E-01	1.787E-01	2.229E-02	0.130

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147		91.11		7.868E-01	5.437E-01	6.653E-01	6.631E-02	1.183
		319.41		-5.471E-01	4.463E+00	7.435E+00	4.420E-01	-0.074
		439.89		-7.821E+00	7.710E+00	1.165E+01	6.556E-01	-0.672
		531.02	*	8.773E-01	7.583E-01	1.338E+00	1.795E-01	0.656
PM-149		285.90	*	1.484E+02	1.792E+02	3.129E+02	4.460E+01	0.474
EU-152		121.78		2.099E-03	8.663E-02	1.426E-01	1.120E-02	0.015
		244.69		1.232E-01	4.345E-01	6.212E-01	3.650E-02	0.198
		344.27	*	7.423E-02	1.368E-01	1.853E-01	1.221E-02	0.401
		443.98		6.387E-01	1.169E+00	2.003E+00	1.128E-01	0.319
		778.89		1.907E-01	2.918E-01	5.181E-01	3.129E-02	0.368
		867.32		2.166E-01	1.092E+00	1.614E+00	1.120E-01	0.134
		964.01		6.929E-01	3.753E-01	6.544E-01	4.629E-02	1.059
		1085.78		3.983E-01	4.542E-01	8.157E-01	5.307E-02	0.488
		1112.02		2.192E-01	3.965E-01	6.281E-01	3.985E-02	0.349
		1407.95		2.167E-01	2.194E-01	4.032E-01	2.539E-02	0.537
		69.67		2.391E-01	2.207E+00	3.262E+00	2.912E-01	0.073
		83.37		7.672E+00	1.950E+01	2.886E+01	2.742E+00	0.266
GD-153		97.43	*	4.250E-02	9.916E-02	1.477E-01	1.234E-02	0.288
		103.18		-1.475E-01	1.229E-01	1.922E-01	1.476E-02	-0.767
		123.07		4.916E-02	6.105E-02	1.034E-01	9.902E-03	0.475
		247.94		-2.740E-01	4.962E-01	6.613E-01	6.345E-02	-0.414
EU-154		591.81		-1.563E-01	7.861E-01	1.223E+00	1.163E-01	-0.128
		723.30		-1.782E-02	2.247E-01	3.082E-01	2.108E-02	-0.058
		756.87		1.061E-01	9.274E-01	1.506E+00	1.529E-01	0.070
		873.19		-3.820E-02	3.400E-01	5.606E-01	6.258E-02	-0.068
		996.32		2.721E-01	4.847E-01	8.387E-01	1.427E-01	0.325
		1004.76		-2.741E-01	2.568E-01	3.739E-01	3.904E-02	-0.733
		1274.45	*	-2.884E-02	1.653E-01	2.645E-01	2.531E-02	-0.109
		48.70		-1.795E+00	3.541E+00	5.841E+00	4.891E-01	-0.307
		60.01		-6.909E+00	6.514E+00	1.046E+01	9.578E-01	-0.661
	+	86.54		2.690E-01	1.389E-01	2.184E-01	2.147E-02	1.232
TB-160		105.31	*	1.691E-01	1.252E-01	2.168E-01	1.645E-02	0.780
	+	86.79		7.302E-01	3.769E-01	5.912E-01	5.778E-02	1.235
		197.04		-3.606E-01	7.207E-01	1.075E+00	6.030E-02	-0.336
		215.65		-2.455E-01	1.001E+00	1.467E+00	8.406E-02	-0.167
	+	298.57		2.454E-01	1.748E-01	2.493E-01	1.489E-02	0.984
		879.36	*	9.528E-02	1.574E-01	2.781E-01	1.964E-02	0.343
		962.29		4.276E-01	7.427E-01	1.136E+00	8.042E-02	0.376
		966.15		9.706E-01	3.391E-01	6.065E-01	4.286E-02	1.600
		1177.93		-1.512E-01	5.340E-01	8.535E-01	5.060E-02	-0.177
		1271.85		2.940E-01	9.339E-01	1.573E+00	9.681E-02	0.187
		80.57		-3.118E-01	3.604E-01	5.036E-01	4.692E-02	-0.619
		184.41		9.216E-02	4.987E-02	7.818E-02	4.319E-03	1.179
		280.46		-9.398E-02	1.012E-01	1.623E-01	9.687E-03	-0.579
		410.95		3.586E-02	2.912E-01	4.868E-01	2.720E-02	0.074
HO-166M		711.68	*	-8.380E-02	7.521E-02	1.080E-01	5.826E-03	-0.776
		752.31		-7.185E-02	3.431E-01	5.401E-01	3.122E-02	-0.133
		810.29		-2.131E-02	7.034E-02	1.146E-01	7.276E-03	-0.186
		51.35		-4.177E+00	4.268E+01	7.151E+01	6.413E+00	-0.058
TM-171								

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
LU-176	+	52.39		3.447E+00	2.174E+01	3.676E+01	3.337E+00	0.094
		59.40		-1.963E+01	3.463E+01	5.679E+01	5.219E+00	-0.346
		66.72	*	-5.328E+01	3.507E+01	5.498E+01	4.911E+00	-0.969
		88.36		5.293E-01	2.733E-01	4.450E-01	4.364E-02	1.190
		201.83		1.175E-02	3.502E-02	5.747E-02	3.243E-03	0.204
LU-177	+	306.84	*	-7.970E-03	2.818E-02	4.658E-02	2.779E-03	-0.171
		401.10		6.701E-01	8.016E+00	1.338E+01	7.452E-01	0.050
		112.95		1.482E+00	2.260E+00	3.820E+00	2.590E-01	0.388
LU-177M	+	208.36	*	2.891E+00	2.195E+00	2.657E+00	1.510E-01	1.088
		52.97		1.439E+00	2.219E+00	3.815E+00	3.479E-01	0.377
HF-181		54.07		6.202E-01	1.154E+00	1.976E+00	1.812E-01	0.314
		61.30		3.333E-01	1.932E+00	3.255E+00	2.960E-01	0.102
		121.62		-1.409E-01	4.523E-01	7.341E-01	4.496E-02	-0.192
		147.16		-5.471E-02	7.497E-01	1.221E+00	6.889E-02	-0.045
		171.86		-5.367E-01	5.666E-01	8.782E-01	4.778E-02	-0.611
		218.09		-2.582E-01	1.041E+00	1.656E+00	9.513E-02	-0.156
		268.79		2.147E+00	1.122E+00	1.774E+00	1.055E-01	1.210
		319.02		5.950E-03	3.145E-01	5.280E-01	3.138E-02	0.011
		367.43		-5.150E-01	1.019E+00	1.640E+00	9.396E-02	-0.314
		413.65	*	-7.218E-02	2.151E-01	3.488E-01	1.951E-02	-0.207
		56.28		-4.837E-01	1.290E+00	2.134E+00	1.965E-01	-0.227
		57.53		-9.501E-02	6.786E-01	1.132E+00	1.042E-01	-0.084
		65.20		4.902E-01	1.201E+00	2.036E+00	1.823E-01	0.241
		133.02		-5.608E-02	7.764E-02	1.232E-01	7.218E-03	-0.455
		136.25		-5.142E-02	5.302E-01	8.651E-01	5.019E-02	-0.059
W-181		345.85		4.868E-02	3.114E-01	3.649E-01	2.134E-02	0.133
		482.03	*	-4.772E-02	4.818E-02	7.248E-02	4.078E-03	-0.658
		56.28		-1.852E-01	4.958E-01	8.200E-01	7.549E-02	-0.226
TA-182	+	57.53		-3.679E-02	2.609E-01	4.354E-01	4.007E-02	-0.084
		65.20	*	1.870E-01	4.582E-01	7.765E-01	6.956E-02	0.241
RE-183		67.75		-1.532E-01	1.377E-01	2.118E-01	1.890E-02	-0.723
		100.10		7.608E-02	2.289E-01	3.388E-01	2.719E-02	0.225
		152.43		-1.251E-01	3.961E-01	6.377E-01	3.552E-02	-0.196
		222.10		-9.369E-02	4.320E-01	6.880E-01	3.968E-02	-0.136
		1001.68		6.580E-01	2.678E+00	4.350E+00	3.014E-01	0.151
		1121.28		6.091E-01	2.629E-01	3.859E-01	2.425E-02	1.578
		1189.05		-2.181E-01	3.872E-01	5.977E-01	3.561E-02	-0.365
RE-184	+	1221.42	*	1.394E-01	2.626E-01	4.487E-01	2.709E-02	0.311
		1230.97		-1.495E-01	6.307E-01	1.008E+00	6.113E-02	-0.148
		57.98		-7.250E-02	2.636E-01	4.375E-01	4.026E-02	-0.166
		59.32		-8.653E-02	1.446E-01	2.369E-01	2.178E-02	-0.365
		67.20		-3.629E-01	2.475E-01	3.889E-01	3.472E-02	-0.933
RE-184	+	162.32	*	-5.226E-02	1.268E-01	2.025E-01	1.103E-02	-0.258
		208.81		2.207E+00	1.675E+00	2.029E+00	1.154E-01	1.088
		291.72		-9.810E-01	1.247E+00	1.716E+00	1.025E-01	-0.572
		57.98		-2.644E-01	9.616E-01	1.596E+00	1.469E-01	-0.166
RE-184		59.32		-3.154E-01	5.272E-01	8.634E-01	7.936E-02	-0.365
		67.20		-1.323E+00	9.026E-01	1.418E+00	1.266E-01	-0.933
		161.27		1.532E-02	4.011E-01	6.547E-01	3.575E-02	0.023

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
OS-185		216.55		-2.993E-01	3.310E-01	5.087E-01	2.917E-02	-0.588
		252.85	*	2.271E-01	2.766E-01	4.634E-01	2.737E-02	0.490
		318.01		1.270E-01	5.370E-01	9.124E-01	5.425E-02	0.139
		792.07		-2.585E-01	1.223E+00	2.015E+00	1.243E-01	-0.128
		903.28		-1.331E-01	1.317E+00	1.941E+00	1.407E-01	-0.069
		920.93		7.587E-02	5.362E-01	9.040E-01	6.513E-02	0.084
		59.72		-4.701E-01	3.961E-01	6.321E-01	5.801E-02	-0.744
		61.14		1.040E-02	2.132E-01	3.578E-01	3.256E-02	0.029
		69.30		-9.295E-02	4.011E-01	5.830E-01	5.203E-02	-0.159
		592.07		-1.404E-01	3.121E+00	5.063E+00	2.701E-01	-0.028
		646.12	*	-4.288E-02	5.363E-02	8.050E-02	4.058E-03	-0.533
		717.42		5.873E-01	1.093E+00	1.849E+00	1.007E-01	0.318
		874.81		-2.622E-01	6.709E-01	1.073E+00	7.530E-02	-0.244
		880.27		1.249E-01	8.867E-01	1.499E+00	1.060E-01	0.083
		155.03	*	7.003E-02	2.057E-01	3.405E-01	1.886E-02	0.206
RE-188		477.96		2.137E+00	3.695E+00	6.341E+00	3.570E-01	0.337
		633.10		2.469E+00	3.457E+00	5.952E+00	3.048E-01	0.415
		63.58		8.597E+01	6.896E+01	1.183E+02	1.065E+01	0.727
W-188		227.08		2.472E+00	1.578E+01	2.559E+01	1.483E+00	0.097
		290.67	*	-5.683E+00	9.757E+00	1.365E+01	8.157E-01	-0.416
		295.96		8.319E-01	1.891E-01	3.183E-01	1.930E-02	2.613
IR-192	+	308.46		8.803E-02	1.122E-01	1.964E-01	1.184E-02	0.448
		316.51	*	1.933E-02	4.154E-02	7.144E-02	4.271E-03	0.271
		468.07		3.176E-03	8.196E-02	1.176E-01	7.695E-03	0.027
AU-195		604.41		-5.108E-01	6.314E-01	7.898E-01	8.761E-02	-0.647
		612.46		9.658E-01	9.964E-01	1.545E+00	1.105E-01	0.625
		65.12		1.128E-01	2.128E-01	3.618E-01	3.242E-02	0.312
		66.83		-1.811E-01	1.163E-01	1.820E-01	1.625E-02	-0.995
	+	75.70		1.331E+00	3.601E-01	5.606E-01	5.085E-02	2.374
		98.88	*	5.080E-01	2.770E-01	4.407E-01	3.603E-02	1.153
TL-200		129.76		4.046E+00	3.343E+00	5.742E+00	3.399E-01	0.705
		367.94	*	-6.359E-04	3.343E+00	Half-Life	too short	
		579.30		-3.396E-03	3.343E+00	Half-Life	too short	
		828.27		-2.355E-03	3.343E+00	Half-Life	too short	
TL-201		1205.75		-3.760E-03	3.343E+00	Half-Life	too short	
		68.90		-5.284E+00	9.526E+00	1.361E+01	1.214E+00	-0.388
		70.82		5.548E+00	5.301E+00	8.145E+00	7.280E-01	0.681
		80.30		-4.699E+00	9.725E+00	1.388E+01	1.291E+00	-0.338
TL-202		135.34		-1.283E+01	4.222E+01	6.826E+01	3.971E+00	-0.188
		167.43	*	7.839E+00	1.224E+01	2.049E+01	1.109E+00	0.383
		68.90		-3.521E-01	6.348E-01	9.068E-01	8.091E-02	-0.388
		70.82		3.686E-01	3.522E-01	5.412E-01	4.838E-02	0.681
HG-203		80.30		-3.124E-01	6.465E-01	9.229E-01	8.583E-02	-0.338
		439.56	*	-9.057E-02	9.114E-02	1.380E-01	7.765E-03	-0.656
		70.83		1.491E+00	1.427E+00	2.180E+00	3.011E-01	0.684
		72.87		2.935E+00	9.821E-01	1.495E+00	2.009E-01	1.963
BI-207		82.60		2.112E-01	1.606E+00	2.197E+00	3.137E-01	0.096
		279.20	*	3.857E-02	4.891E-02	8.553E-02	5.402E-03	0.451
		72.80		7.799E-01	2.651E-01	4.221E-01	3.789E-02	1.848

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-207	+	74.97		7.333E-01	1.984E-01	2.870E-01	2.595E-02	2.555
		84.90		2.754E-01	2.542E-01	3.857E-01	3.711E-02	0.714
		569.67		-7.243E-03	3.991E-02	6.340E-02	3.441E-03	-0.114
		1063.62	*	7.338E-02	6.027E-02	1.114E-01	7.384E-03	0.659
		1770.23		-8.307E-01	7.273E-01	6.627E-01	3.871E-02	-1.254
		81.07		-1.801E-01	2.834E-01	4.011E-01	3.750E-02	-0.449
		83.78		3.227E-02	1.650E-01	2.419E-01	2.306E-02	0.133
		94.90		-6.421E-02	2.829E-01	4.649E-01	4.048E-02	-0.138
		122.32		8.783E-01	2.092E+00	3.498E+00	2.432E-01	0.251
		144.24		7.986E-01	7.924E-01	1.347E+00	9.615E-02	0.593
		154.21		3.177E-01	4.537E-01	7.624E-01	5.189E-02	0.417
	+	269.46		5.974E-01	4.208E-01	4.229E-01	2.625E-02	1.413
		323.87	*	-1.116E+00	8.739E-01	1.334E+00	2.209E-01	-0.837
	+	338.28		5.749E+00	2.499E+00	2.856E+00	3.021E-01	2.013
PO-209		445.03		2.238E+00	2.762E+00	4.801E+00	4.884E-01	0.466
		260.50		5.893E+00	1.173E+01	1.930E+01	1.144E+00	0.305
		262.80		-6.096E+00	3.403E+01	5.186E+01	3.078E+00	-0.118
		896.60	*	-5.319E-02	8.626E+00	1.436E+01	1.040E+00	-0.004
BI-210		46.50	*	1.924E+00	5.397E+00	9.022E+00	7.428E-01	0.213
PB-210		46.50	*	1.924E+00	5.397E+00	9.022E+00	7.428E-01	0.213
PO-210		46.50	*	1.924E+00	5.397E+00	9.022E+00	6.517E-01	0.213
PB-211		404.84	*	3.973E-02	1.131E+00	1.880E+00	1.172E+00	0.021
BI-212		427.08		2.092E+00	2.664E+00	4.099E+00	2.533E+00	0.510
		831.96		-6.732E-01	1.375E+00	2.079E+00	1.297E+00	-0.324
	+	727.18	*	1.084E+00	5.107E-01	7.664E-01	5.764E-02	1.415
		785.46		4.806E-01	2.067E+00	3.535E+00	2.158E-01	0.136
PO-215		1620.62		1.009E+00	1.525E+00	2.794E+00	1.714E-01	0.361
		81.07		-1.801E-01	2.834E-01	4.011E-01	3.750E-02	-0.449
		83.78		3.227E-02	1.650E-01	2.419E-01	2.306E-02	0.133
		94.90		-6.421E-02	2.829E-01	4.649E-01	4.048E-02	-0.138
RN-219		122.32		8.783E-01	2.092E+00	3.498E+00	2.432E-01	0.251
		144.24		7.986E-01	7.924E-01	1.347E+00	9.615E-02	0.593
		154.21		3.177E-01	4.537E-01	7.624E-01	5.189E-02	0.417
	+	269.46		5.974E-01	4.208E-01	4.229E-01	2.625E-02	1.413
		323.87	*	-1.116E+00	8.739E-01	1.334E+00	2.209E-01	-0.837
	+	338.28		5.749E+00	2.499E+00	2.856E+00	3.021E-01	2.013
		445.03		2.238E+00	2.762E+00	4.801E+00	4.884E-01	0.466
	+	271.23		7.665E-01	5.415E-01	5.416E-01	4.450E-02	1.415
		401.81	*	1.444E-01	4.868E-01	8.231E-01	1.112E-01	0.175
RN-220		549.76	*	1.020E+00	2.982E+01	4.891E+01	2.688E+00	0.021
RA-223		81.07		-1.801E-01	2.834E-01	4.011E-01	3.750E-02	-0.449
		83.78		3.227E-02	1.650E-01	2.419E-01	2.306E-02	0.133
		94.90		-6.421E-02	2.829E-01	4.649E-01	4.048E-02	-0.138
		122.32		8.783E-01	2.092E+00	3.498E+00	2.432E-01	0.251
RA-223		144.24		7.986E-01	7.924E-01	1.347E+00	9.615E-02	0.593
		154.21		3.177E-01	4.537E-01	7.624E-01	5.189E-02	0.417
	+	269.46		5.974E-01	4.208E-01	4.229E-01	2.625E-02	1.413
		323.87	*	-1.116E+00	8.739E-01	1.334E+00	2.209E-01	-0.837
	+	338.28		5.749E+00	2.499E+00	2.856E+00	3.021E-01	2.013

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		445.03		2.238E+00	2.762E+00	4.801E+00	4.884E-01	0.466
		79.80		-6.794E-01	2.136E+00	3.071E+00	6.687E-01	-0.221
		236.00		1.980E+00	4.290E-01	6.674E-01	6.990E-02	2.967
		256.20	*	-4.777E-01	4.674E-01	6.950E-01	9.737E-02	-0.687
		286.10		1.383E+00	1.741E+00	3.043E+00	3.545E-01	0.455
+ TH-227		299.80		3.074E+00	2.239E+00	3.152E+00	5.153E-01	0.975
		304.40		-8.010E-01	2.465E+00	3.508E+00	6.088E-01	-0.228
		334.20		-2.653E+00	3.200E+00	4.290E+00	7.879E-01	-0.618
		79.80		-6.794E-01	2.136E+00	3.071E+00	6.770E-01	-0.221
		94.00		8.676E+00	4.375E+00	4.266E+00	9.329E-01	2.033
+ TH-229		236.00		1.980E+00	4.164E-01	6.674E-01	6.061E-02	2.967
		256.20	*	-4.777E-01	4.696E-01	6.950E-01	1.177E-01	-0.687
		286.10		1.383E+00	2.220E+00	3.043E+00	3.049E+00	0.455
		299.80		3.074E+00	2.239E+00	3.152E+00	5.153E-01	0.975
		304.40		-8.010E-01	2.465E+00	3.508E+00	6.088E-01	-0.228
+ TH-229		334.20		-2.653E+00	3.200E+00	4.290E+00	7.879E-01	-0.618
		85.43		4.948E-01	2.580E-01	4.020E-01	3.884E-02	1.231
		88.47		3.047E-01	1.573E-01	2.531E-01	2.477E-02	1.204
		100.00		9.909E-02	2.359E-01	3.508E-01	2.820E-02	0.282
		193.63	*	-5.821E-01	5.741E-01	8.793E-01	4.913E-02	-0.662
PA-231		210.97		5.669E-01	1.053E+00	1.534E+00	8.747E-02	0.369
		283.67	*	-8.035E-01	1.786E+00	2.934E+00	4.064E-01	-0.274
TH-231		301.29		1.686E+00	7.513E-01	1.245E+00	1.314E-01	1.354
		81.07		-1.801E-01	2.834E-01	4.011E-01	3.750E-02	-0.449
		83.78		3.227E-02	1.650E-01	2.419E-01	2.306E-02	0.133
		94.90		-6.421E-02	2.829E-01	4.649E-01	4.048E-02	-0.138
		122.32		8.783E-01	2.092E+00	3.498E+00	2.432E-01	0.251
+ U-231		144.24		7.986E-01	7.924E-01	1.347E+00	9.615E-02	0.593
		154.21		3.177E-01	4.537E-01	7.624E-01	5.189E-02	0.417
		269.46		5.974E-01	4.208E-01	4.229E-01	2.625E-02	1.413
		323.87	*	-1.116E+00	8.739E-01	1.334E+00	2.209E-01	-0.837
		338.28		5.749E+00	2.499E+00	2.856E+00	3.021E-01	2.013
+ PA-233		445.03		2.238E+00	2.762E+00	4.801E+00	4.884E-01	0.466
		84.21		1.363E+00	9.449E+00	1.382E+01	1.322E+00	0.099
		92.29		1.144E+01	5.298E+00	5.886E+00	5.360E-01	1.944
		95.87	*	-4.093E-01	1.830E+00	2.630E+00	2.253E-01	-0.156
		108.00		-1.926E+00	3.254E+00	5.240E+00	3.776E-01	-0.368
+ PA-234		75.28		2.140E+01	6.395E+00	8.825E+00	1.376E+00	2.424
		86.59		4.369E+00	2.514E+00	3.545E+00	9.644E-01	1.233
		300.12		8.569E-01	6.191E-01	8.743E-01	1.181E-01	0.980
		311.98	*	-6.384E-02	7.405E-02	1.179E-01	7.438E-03	-0.541
		340.50		2.184E+00	9.908E-01	1.464E+00	3.366E-01	1.492
PA-234		398.62		9.329E-02	2.406E+00	4.006E+00	1.034E+00	0.023
		415.76		2.490E-01	1.956E+00	3.270E+00	6.713E-01	0.076
		63.00		2.360E+00	2.045E+00	3.465E+00	5.450E-01	0.681
		94.67		7.447E-02	2.065E-01	3.460E-01	4.320E-02	0.215
		98.44		2.060E-01	1.591E-01	1.775E-01	9.893E-02	1.161
		99.86		3.223E-01	6.002E-01	8.980E-01	7.234E-02	0.359
		111.00		3.158E-02	2.155E-01	3.574E-01	3.915E-02	0.088

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		131.20		1.259E-02	1.209E-01	1.993E-01	1.174E-02	0.063
		152.70		6.441E-03	3.756E-01	6.137E-01	9.651E-02	0.010
	+	186.00		5.221E+00	2.701E+00	2.877E+00	8.778E-01	1.815
		226.40		1.297E-01	4.915E-01	8.009E-01	9.255E-02	0.162
		227.20		4.999E-02	5.224E-01	8.445E-01	4.893E-02	0.059
		248.90		-4.330E-01	1.020E+00	1.527E+00	3.285E-01	-0.284
	+	293.70		5.151E+00	1.402E+00	1.951E+00	3.150E-01	2.640
		369.80		5.195E-01	9.157E-01	1.575E+00	3.275E-01	0.330
		568.70		-7.247E-01	1.305E+00	2.010E+00	1.092E-01	-0.360
		569.50		-7.743E-02	3.532E-01	5.593E-01	3.036E-02	-0.138
		574.00		1.421E+00	1.932E+00	3.249E+00	1.758E-01	0.437
		699.00		-1.217E+00	9.075E-01	1.214E+00	2.163E-01	-1.003
		706.10		1.946E-02	1.268E+00	2.048E+00	9.027E-01	0.010
		733.00		6.194E-01	5.128E-01	8.032E-01	1.703E-01	0.771
		742.81		-1.020E+00	1.712E+00	2.349E+00	1.571E+00	-0.434
		796.30		1.746E+00	1.221E+00	2.116E+00	5.581E-01	0.825
		805.60		9.873E-01	1.292E+00	2.239E+00	6.735E-01	0.441
		819.60		-1.005E+00	1.378E+00	2.042E+00	7.676E-01	-0.492
		826.30		-3.096E-01	8.743E-01	1.390E+00	6.170E-01	-0.223
		831.60		-3.185E-01	6.609E-01	1.039E+00	3.047E-01	-0.306
		876.40		-1.334E-01	9.801E-01	1.596E+00	1.639E+00	-0.084
		880.51		6.082E-02	3.182E-01	5.406E-01	3.824E-02	0.113
		883.24		2.057E-02	3.180E-01	5.331E-01	3.574E-01	0.039
		899.00		1.311E-01	1.002E+00	1.687E+00	7.334E-01	0.078
		925.00		5.200E-01	1.411E+00	2.427E+00	1.746E-01	0.214
		926.50		7.831E-02	2.148E-01	3.679E-01	9.134E-02	0.213
		946.00	*	-1.567E-01	3.646E-01	5.775E-01	1.047E-01	-0.271
		949.00		-1.618E-01	4.951E-01	7.927E-01	5.647E-02	-0.204
		980.50		6.999E-02	8.366E-01	1.398E+00	9.806E-02	0.050
		1394.10		-2.216E-02	1.363E+00	2.202E+00	1.427E+00	-0.010
PA-234M		766.42		1.163E+01	1.487E+01	2.359E+01	1.188E+01	0.493
		1001.03	*	1.693E+00	5.719E+00	9.720E+00	8.308E-01	0.174
TH-234		63.29	*	1.853E+00	1.736E+00	2.926E+00	5.319E-01	0.633
	+	92.38		2.245E+00	1.099E+00	1.157E+00	2.118E-01	1.941
U-235		89.95		2.391E+00	2.004E+00	2.180E+00	6.782E-01	1.097
	+	93.35		2.699E+00	1.442E+00	1.380E+00	3.882E-01	1.955
		105.00		1.968E+00	1.338E+00	2.121E+00	6.265E-01	0.928
		143.76	*	3.113E-01	2.476E-01	4.176E-01	6.793E-02	0.745
		163.35		5.115E-02	5.344E-01	8.741E-01	1.562E-01	0.059
	+	185.71		1.934E-01	8.148E-02	1.073E-01	5.939E-03	1.802
		205.31		-3.902E-01	7.157E-01	9.678E-01	1.736E-01	-0.403
NP-236		94.67		5.844E-02	1.566E-01	2.626E-01	2.295E-02	0.223
		98.44		1.557E-01	8.428E-02	1.342E-01	1.104E-02	1.161
		111.00		2.389E-02	1.630E-01	2.704E-01	1.877E-02	0.088
		160.31	*	-3.928E-02	9.184E-02	1.467E-01	8.028E-03	-0.268
U-238		63.29	*	1.853E+00	1.736E+00	2.926E+00	5.319E-01	0.633
	+	92.38		2.245E+00	1.039E+00	1.157E+00	1.052E-01	1.941
NP-239		99.55		2.568E-01	1.953E-01	3.035E-01	2.456E-02	0.846
		117.00	*	-1.300E-02	2.190E-01	3.598E-01	2.325E-02	-0.036

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	209.75		1.711E+00	1.299E+00	1.592E+00	9.066E-02	1.074
		228.18		-2.101E-02	2.715E-01	4.348E-01	2.522E-02	-0.048
		277.60		3.483E-01	2.365E-01	3.818E-01	2.277E-02	0.912
		334.30		-1.494E+00	1.795E+00	2.433E+00	1.435E-01	-0.614
AM-241		59.54	*	-2.388E-01	2.064E-01	3.295E-01	3.222E-02	-0.725
CM-243		99.55		2.643E-01	2.009E-01	3.124E-01	2.528E-02	0.846
		103.76	*	1.470E-02	1.105E-01	1.835E-01	1.399E-02	0.080
		117.00		-1.338E-02	2.254E-01	3.702E-01	2.392E-02	-0.036
	+	209.75		1.687E+00	1.280E+00	1.570E+00	8.938E-02	1.074
		228.18		-2.123E-02	2.743E-01	4.394E-01	2.548E-02	-0.048
		277.60		3.511E-01	2.385E-01	3.850E-01	2.296E-02	0.912
AM-246		798.80		-1.283E-01	1.836E-01	2.904E-01	1.811E-02	-0.442
		1036.00		2.252E-01	3.669E-01	6.419E-01	4.348E-02	0.351
		1062.04		2.630E-01	2.629E-01	4.772E-01	3.168E-02	0.551
		1078.86	*	-3.543E-02	1.617E-01	2.597E-01	1.700E-02	-0.136
CM-247		278.00		1.347E+00	9.321E-01	1.558E+00	9.291E-02	0.865
		287.40		6.870E-01	1.414E+00	2.441E+00	1.458E-01	0.281
		402.60	*	5.879E-03	4.372E-02	7.321E-02	4.079E-03	0.080
CF-249		252.85		8.461E-01	1.031E+00	1.727E+00	1.020E-01	0.490
		333.44		-2.034E-01	2.377E-01	3.219E-01	1.899E-02	-0.632
		387.95	*	-3.368E-02	4.874E-02	7.745E-02	4.320E-03	-0.435
CF-251		176.60	*	9.234E-02	1.476E-01	2.466E-01	1.349E-02	0.374
		227.00		1.781E-01	4.598E-01	7.543E-01	4.370E-02	0.236
		285.00		-3.902E-01	1.996E+00	3.327E+00	1.987E-01	-0.117

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]G243517004
* Acquisition date   : 7-JAN-2010 08:53:23 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 02:00:01.15 Half life ratio        : 8.000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library : SOLID
* Sample ID          : G243517004 Analyst initials       : MXR1
* Batch Number       : 937069 Sample Quantity           : 1.2008E+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                  :
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.092E+01	2.862E+00	5.068E-01	0.000E+00
CD-109	2.277E+00	1.152E+00	1.491E+00	0.000E+00
SN-126	2.232E-01	1.129E-01	1.672E-01	0.000E+00
TL-208	4.716E-01	9.827E-02	6.720E-02	0.000E+00
BI-211	3.244E+00	4.984E-01	3.676E-01	0.000E+00
PB-212	1.566E+00	1.655E-01	1.076E-01	0.000E+00
PO-212	1.566E+00	1.655E-01	1.076E-01	0.000E+00
BI-214	9.279E-01	1.821E-01	1.311E-01	0.000E+00
PB-214	1.128E+00	1.827E-01	1.359E-01	0.000E+00
PO-214	1.128E+00	1.827E-01	1.359E-01	0.000E+00
PO-216	1.566E+00	1.655E-01	1.076E-01	0.000E+00
PO-218	1.128E+00	1.827E-01	1.359E-01	0.000E+00
RA-224	4.073E+00	1.530E+00	1.224E+00	0.000E+00
RA-226	9.279E-01	1.821E-01	1.311E-01	0.000E+00
AC-228	1.634E+00	3.573E-01	2.306E-01	0.000E+00
RA-228	1.634E+00	3.573E-01	2.306E-01	0.000E+00
TH-228	1.592E+00	1.683E-01	1.094E-01	0.000E+00
TH-230	9.279E-01	1.821E-01	1.311E-01	0.000E+00
TH-232	1.634E+00	3.573E-01	2.306E-01	0.000E+00
U-234	9.279E-01	1.821E-01	1.311E-01	0.000E+00
NP-237	6.554E-01	3.571E-01	5.010E-01	0.000E+00
AM-243	4.085E-01	1.083E-01	1.095E-01	0.000E+00
ANH-511	7.474E-02	8.976E-02	6.246E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	4.139E-01	3.752E-01	6.865E-01	0.000E+00 NOT IDENT.
NA-22	-1.245E-02	5.784E-02	9.398E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	5.000E+06	0.000E+00	0.000E+00 SHORT HLIF
AL-26	-2.841E-03	3.021E-02	4.960E-02	0.000E+00 NOT IDENT.

TI-44	0.000E+00	5.916E-02	9.255E-02	0.000E+00	FAIL ABUN
SC-46	1.406E-02	4.717E-02	8.267E-02	0.000E+00	FAIL ABUN
V-48	-2.191E-02	9.028E-02	1.492E-01	0.000E+00	NOT IDENT.
CR-51	-1.512E-01	4.648E-01	7.936E-01	0.000E+00	NOT IDENT.
MN-52	1.920E-02	2.873E-01	4.787E-01	0.000E+00	NOT IDENT.
MN-54	-3.409E-02	4.186E-02	6.630E-02	0.000E+00	NOT IDENT.
CO-56	3.276E-02	4.587E-02	8.341E-02	0.000E+00	NOT IDENT.
CO-57	7.442E-03	2.966E-02	5.165E-02	0.000E+00	NOT IDENT.
CO-58	-2.947E-02	4.712E-02	7.635E-02	0.000E+00	NOT IDENT.
FE-59	-1.099E-02	1.231E-01	2.052E-01	0.000E+00	NOT IDENT.
CO-60	-2.220E-02	4.567E-02	7.051E-02	0.000E+00	NOT IDENT.
ZN-65	4.324E-04	1.147E-01	1.654E-01	0.000E+00	NOT IDENT.
GE-68	9.071E-01	1.390E+00	2.497E+00	0.000E+00	NOT IDENT.
AS-73	8.869E-01	1.122E+00	2.049E+00	0.000E+00	NOT IDENT.
AS-74	-8.058E-02	1.170E-01	1.846E-01	0.000E+00	NOT IDENT.
SE-75	-8.082E-03	6.043E-02	8.650E-02	0.000E+00	NOT IDENT.
BR-77	1.588E+01	2.038E+01	3.644E+01	0.000E+00	FAIL ABUN
SR-82	-4.968E-01	4.580E-01	7.110E-01	0.000E+00	NOT IDENT.
RB-83	6.859E-02	8.231E-02	1.477E-01	0.000E+00	NOT IDENT.
RB-84	2.744E-02	8.017E-02	1.414E-01	0.000E+00	NOT IDENT.
KR-85	8.669E+00	1.000E+01	1.581E+01	0.000E+00	NOT IDENT.
SR-85	4.528E-02	5.224E-02	8.259E-02	0.000E+00	NOT IDENT.
RB-86	8.537E-01	9.178E-01	1.693E+00	0.000E+00	NOT IDENT.
Y-88	-4.118E-02	4.220E-02	5.595E-02	0.000E+00	NOT IDENT.
ZR-88	1.184E-02	3.596E-02	6.307E-02	0.000E+00	NOT IDENT.
Y-91	-1.217E+01	2.582E+01	4.131E+01	0.000E+00	NOT IDENT.
NB-94	9.557E-03	3.841E-02	6.506E-02	0.000E+00	NOT IDENT.
NB-95	3.482E-02	5.200E-02	9.055E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.861E-01	3.123E-01	0.000E+00	NOT IDENT.
ZR-95	1.555E-03	8.591E-02	1.418E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.718E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.531E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-9.384E+00	2.016E+01	3.158E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.737E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.558E-02	4.077E-02	6.620E-02	0.000E+00	NOT IDENT.
RH-102	-5.552E-04	3.423E-02	5.810E-02	0.000E+00	NOT IDENT.
RU-103	-3.810E-03	4.621E-02	7.779E-02	0.000E+00	FAIL ABUN
RH-106	-4.768E-02	3.575E-01	5.898E-01	0.000E+00	FAIL ABUN
RU-106	-4.768E-02	3.574E-01	5.898E-01	0.000E+00	FAIL ABUN
AG-108M	8.953E-03	3.551E-02	6.178E-02	0.000E+00	NOT IDENT.
AG-110M	-5.174E-02	4.290E-02	6.353E-02	0.000E+00	NOT IDENT.
IN-111	3.178E-01	2.133E+00	3.137E+00	0.000E+00	NOT IDENT.
IN-113M	4.570E-02	5.323E-02	9.611E-02	0.000E+00	NOT IDENT.
SN-113	4.570E-02	5.323E-02	9.611E-02	0.000E+00	NOT IDENT.
IN-114M	1.662E-01	2.240E-01	3.474E-01	0.000E+00	NOT IDENT.
CD-115	7.884E+00	2.166E+01	3.760E+01	0.000E+00	NOT IDENT.
SN-117M	6.337E-03	6.876E-02	1.176E-01	0.000E+00	NOT IDENT.
SB-122	5.906E-01	3.925E+00	6.675E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.103E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.703E-02	3.302E-02	5.495E-02	0.000E+00	NOT IDENT.
I-124	-3.293E-01	1.146E+00	1.598E+00	0.000E+00	NOT IDENT.
SB-124	6.764E-02	7.246E-02	1.459E-01	0.000E+00	FAIL ABUN
SB-125	8.803E-02	1.028E-01	1.859E-01	0.000E+00	FAIL ABUN
TE-125M	-6.321E+00	1.089E+01	1.839E+01	0.000E+00	NOT IDENT.
I-126	-8.159E-02	2.553E-01	4.134E-01	0.000E+00	NOT IDENT.
SB-126	-1.212E-01	2.102E-01	2.922E-01	0.000E+00	FAIL ABUN
SB-127	-1.048E+00	2.235E+00	3.545E+00	0.000E+00	NOT IDENT.
XE-127	3.602E-02	6.013E-02	1.006E-01	0.000E+00	NOT IDENT.
I-131	6.459E-03	1.524E-01	2.637E-01	0.000E+00	NOT IDENT.
TE-132	-9.441E-02	1.181E+00	1.968E+00	0.000E+00	NOT IDENT.
BA-133	-4.370E-02	5.892E-02	8.256E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.886E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.671E-02	5.803E-02	1.091E-01	0.000E+00	NOT IDENT.
CS-135	2.210E-01	2.210E-01	3.421E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.708E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.488E-02	1.499E-01	2.503E-01	0.000E+00	FAIL ABUN
BA-137M	2.489E-02	4.460E-02	7.749E-02	0.000E+00	NOT IDENT.
CS-137	2.631E-02	4.715E-02	8.192E-02	0.000E+00	NOT IDENT.
CE-139	-1.998E-02	3.450E-02	5.710E-02	0.000E+00	NOT IDENT.
BA-140	-1.322E-01	3.325E-01	5.381E-01	0.000E+00	NOT IDENT.
LA-140	-1.187E-01	1.052E-01	1.429E-01	0.000E+00	NOT IDENT.
CE-141	3.980E-02	7.463E-02	1.304E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.059E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.270E-02	2.256E-01	3.863E-01	0.000E+00	NOT IDENT.
PM-144	6.674E-03	3.788E-02	6.384E-02	0.000E+00	NOT IDENT.
PR-144	4.527E-01	2.569E+00	4.330E+00	0.000E+00	NOT IDENT.
PM-146	3.040E-02	4.621E-02	8.255E-02	0.000E+00	NOT IDENT.
ND-147	8.773E-01	7.431E-01	1.351E+00	0.000E+00	NOT IDENT.

PM-149	1.484E+02	1.756E+02	3.183E+02	0.000E+00	NOT IDENT.
EU-152	7.423E-02	1.341E-01	1.880E-01	0.000E+00	NOT IDENT.
GD-153	4.250E-02	9.717E-02	1.521E-01	0.000E+00	NOT IDENT.
EU-154	-2.884E-02	1.620E-01	2.643E-01	0.000E+00	NOT IDENT.
EU-155	1.691E-01	1.227E-01	2.231E-01	0.000E+00	FAIL ABUN
TB-160	9.528E-02	1.543E-01	2.791E-01	0.000E+00	FAIL ABUN
HO-166M	-8.380E-02	7.371E-02	1.087E-01	0.000E+00	NOT IDENT.
TM-171	-5.328E+01	3.436E+01	5.687E+01	0.000E+00	NOT IDENT.
LU-176	-7.970E-03	2.762E-02	4.734E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.151E+00	2.712E+00	0.000E+00	FAIL ABUN
LU-177M	-7.218E-02	2.108E-01	3.532E-01	0.000E+00	NOT IDENT.
HF-181	-4.772E-02	4.722E-02	7.327E-02	0.000E+00	NOT IDENT.
W-181	1.870E-01	4.491E-01	8.033E-01	0.000E+00	NOT IDENT.
TA-182	1.394E-01	2.573E-01	4.486E-01	0.000E+00	FAIL ABUN
RE-183	-5.226E-02	1.242E-01	2.073E-01	0.000E+00	FAIL ABUN
RE-184	2.271E-01	2.711E-01	4.721E-01	0.000E+00	NOT IDENT.
OS-185	-4.288E-02	5.256E-02	8.110E-02	0.000E+00	NOT IDENT.
RE-188	7.003E-02	2.016E-01	3.488E-01	0.000E+00	NOT IDENT.
W-188	-5.683E+00	9.562E+00	1.388E+01	0.000E+00	NOT IDENT.
IR-192	1.933E-02	4.070E-02	7.258E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	2.715E-01	4.538E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.544E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	7.839E+00	1.200E+01	2.097E+01	0.000E+00	NOT IDENT.
TL-202	-9.057E-02	8.932E-02	1.397E-01	0.000E+00	NOT IDENT.
HG-203	3.857E-02	4.793E-02	8.702E-02	0.000E+00	NOT IDENT.
BI-207	7.338E-02	5.906E-02	1.115E-01	0.000E+00	FAIL ABUN
TL-207	-1.116E+00	8.564E-01	1.355E+00	0.000E+00	FAIL ABUN
PO-209	-5.319E-02	8.453E+00	1.441E+01	0.000E+00	NOT IDENT.
BI-210	1.924E+00	5.289E+00	9.369E+00	0.000E+00	NOT IDENT.
PB-210	1.924E+00	5.289E+00	9.369E+00	0.000E+00	NOT IDENT.
PO-210	1.924E+00	5.289E+00	9.369E+00	0.000E+00	NOT IDENT.
PB-211	3.973E-02	1.108E+00	1.905E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.005E-01	7.710E-01	0.000E+00	FAIL ABUN
PO-215	-1.116E+00	8.564E-01	1.355E+00	0.000E+00	FAIL ABUN
RN-219	1.444E-01	4.771E-01	8.339E-01	0.000E+00	FAIL ABUN
RN-220	1.020E+00	2.923E+01	4.936E+01	0.000E+00	NOT IDENT.
RA-223	-1.116E+00	8.564E-01	1.355E+00	0.000E+00	FAIL ABUN
AC-227	-4.777E-01	4.581E-01	7.078E-01	0.000E+00	FAIL ABUN
TH-227	-4.777E-01	4.602E-01	7.078E-01	0.000E+00	FAIL ABUN
TH-229	-5.821E-01	5.626E-01	8.984E-01	0.000E+00	FAIL ABUN
PA-231	-8.035E-01	1.751E+00	2.984E+00	0.000E+00	NOT IDENT.
TH-231	-1.116E+00	8.564E-01	1.355E+00	0.000E+00	FAIL ABUN
U-231	-4.093E-01	1.793E+00	2.709E+00	0.000E+00	FAIL ABUN
PA-233	-6.384E-02	7.257E-02	1.198E-01	0.000E+00	FAIL ABUN
PA-234	-1.567E-01	3.573E-01	5.792E-01	0.000E+00	FAIL ABUN
PA-234M	1.693E+00	5.604E+00	9.741E+00	0.000E+00	NOT IDENT.
TH-234	1.853E+00	1.701E+00	3.028E+00	0.000E+00	FAIL ABUN
U-235	3.113E-01	2.426E-01	4.282E-01	0.000E+00	FAIL ABUN
NP-236	-3.928E-02	9.001E-02	1.502E-01	0.000E+00	NOT IDENT.
U-238	1.853E+00	1.701E+00	3.028E+00	0.000E+00	FAIL ABUN
NP-239	-1.300E-02	2.147E-01	3.698E-01	0.000E+00	FAIL ABUN
AM-241	-2.388E-01	2.022E-01	3.412E-01	0.000E+00	NOT IDENT.
CM-243	1.470E-02	1.082E-01	1.889E-01	0.000E+00	FAIL ABUN
AM-246	-3.543E-02	1.584E-01	2.600E-01	0.000E+00	NOT IDENT.
CM-247	5.879E-03	4.285E-02	7.417E-02	0.000E+00	NOT IDENT.
CF-249	-3.368E-02	4.776E-02	7.849E-02	0.000E+00	NOT IDENT.
CF-251	9.234E-02	1.447E-01	2.523E-01	0.000E+00	NOT IDENT.

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*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517004.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:53:23.
Sample ID          : G243517004 Sample quantity : 1.20080E+02 GRAM
Detector name      : GAM06 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.15 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 937069 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	1016	10.67*	9.625E-01	3.092E+01	3.092E+01	9.44
CD-109	88.03	136	3.72*	5.148E+00	2.220E+00	2.277E+00	51.62
SN-126	64.28	-----	9.60	2.881E+00	-----	Line Not Found	-----
	86.94	136	8.90	5.148E+00	9.278E-01	9.278E-01	65.58
	87.57	136	37.00*	5.148E+00	2.232E-01	2.232E-01	51.62
TL-208	277.35	-----	6.80	3.899E+00	-----	Line Not Found	-----
	510.84	58	21.60	2.406E+00	3.460E-01	3.460E-01	122.83
	583.14	274	84.20*	2.158E+00	4.716E-01	4.716E-01	21.26
	860.37	69	12.46	1.537E+00	1.129E+00	1.129E+00	69.12
BI-211	72.87	-----	1.27	3.913E+00	-----	Line Not Found	-----
	351.07	435	12.94*	3.242E+00	3.244E+00	3.244E+00	15.68
PB-212	74.81	353	10.70	4.096E+00	2.520E+00	2.520E+00	28.63
	77.11	449	18.00	4.331E+00	1.800E+00	1.800E+00	18.17
	87.30	136	8.00	5.148E+00	1.032E+00	1.032E+00	52.58
	238.63	976	44.60*	4.367E+00	1.566E+00	1.566E+00	10.78
	300.09	66	3.41	3.673E+00	1.659E+00	1.659E+00	71.46
PO-212	74.81	353	10.70	4.096E+00	2.520E+00	2.520E+00	28.63
	77.11	449	18.00	4.331E+00	1.800E+00	1.800E+00	18.17
	87.30	136	8.00	5.148E+00	1.032E+00	1.032E+00	52.58
	115.19	-----	0.60	6.030E+00	-----	Line Not Found	-----
	238.63	976	44.60*	4.367E+00	1.566E+00	1.566E+00	10.78
	300.09	66	3.41	3.673E+00	1.659E+00	1.659E+00	71.46
BI-214	609.31	286	46.30*	2.080E+00	9.279E-01	9.279E-01	20.02
	1120.29	75	15.10	1.211E+00	1.275E+00	1.275E+00	43.67
	1764.49	57	15.80	8.404E-01	1.335E+00	1.335E+00	36.39
PB-214	74.81	353	6.21	4.096E+00	4.341E+00	4.341E+00	28.05
	77.11	449	10.50	4.331E+00	3.086E+00	3.086E+00	19.70
	87.30	136	4.67	5.148E+00	1.768E+00	1.768E+00	52.20
	241.98	223	7.49	4.328E+00	2.148E+00	2.148E+00	38.74
	295.21	245	19.20	3.718E+00	1.073E+00	1.073E+00	23.56
	351.92	435	37.20*	3.242E+00	1.128E+00	1.128E+00	16.52
PO-214	74.81	353	6.21	4.096E+00	4.341E+00	4.341E+00	28.05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	449	10.50	4.331E+00	3.086E+00	3.086E+00	19.70
	87.30	136	4.67	5.148E+00	1.768E+00	1.768E+00	52.20
	241.98	223	7.49	4.328E+00	2.148E+00	2.148E+00	38.74
	295.21	245	19.20	3.718E+00	1.073E+00	1.073E+00	23.56
	351.92	435	37.20*	3.242E+00	1.128E+00	1.128E+00	16.52
PO-216	74.81	353	10.70	4.096E+00	2.520E+00	2.520E+00	28.63
	77.11	449	18.00	4.331E+00	1.800E+00	1.800E+00	18.17
	87.30	136	8.00	5.148E+00	1.032E+00	1.032E+00	52.58
	238.63	976	44.60*	4.367E+00	1.566E+00	1.566E+00	10.78
	300.09	66	3.41	3.673E+00	1.659E+00	1.659E+00	71.46
PO-218	74.81	353	6.21	4.096E+00	4.341E+00	4.341E+00	28.05
	77.11	449	10.50	4.331E+00	3.086E+00	3.086E+00	19.70
	87.30	136	4.67	5.148E+00	1.768E+00	1.768E+00	52.20
	241.98	223	7.49	4.328E+00	2.148E+00	2.148E+00	38.74
	295.21	245	19.20	3.718E+00	1.073E+00	1.073E+00	23.56
	351.92	435	37.20*	3.242E+00	1.128E+00	1.128E+00	16.52
RA-224	240.98	223	3.95*	4.328E+00	4.073E+00	4.073E+00	38.33
RA-226	609.31	286	46.30*	2.080E+00	9.279E-01	9.279E-01	20.02
	1120.29	75	15.10	1.211E+00	1.275E+00	1.275E+00	43.67
	1764.49	57	15.80	8.404E-01	1.335E+00	1.335E+00	36.39
AC-228	338.32	168	11.40	3.344E+00	1.377E+00	1.377E+00	58.66
	911.07	212	27.70*	1.462E+00	1.634E+00	1.634E+00	22.31
	969.11	72	16.60	1.382E+00	9.856E-01	9.856E-01	50.34
RA-228	338.32	168	11.40	3.344E+00	1.377E+00	1.377E+00	58.66
	911.07	212	27.70*	1.462E+00	1.634E+00	1.634E+00	22.31
	969.11	72	16.60	1.382E+00	9.856E-01	9.856E-01	50.34
TH-228	74.81	353	10.70	4.096E+00	2.520E+00	2.562E+00	27.08
	77.11	449	18.00	4.331E+00	1.800E+00	1.831E+00	18.17
	87.30	136	8.00	5.148E+00	1.032E+00	1.050E+00	51.62
	238.63	976	44.60*	4.367E+00	1.566E+00	1.592E+00	10.78
	300.09	66	3.41	3.673E+00	1.659E+00	1.687E+00	92.26
TH-230	609.31	286	46.30*	2.080E+00	9.279E-01	9.279E-01	20.02
	1120.29	75	15.10	1.211E+00	1.275E+00	1.275E+00	43.67
	1764.49	57	15.80	8.404E-01	1.335E+00	1.335E+00	36.39
TH-232	338.32	168	11.40	3.344E+00	1.377E+00	1.377E+00	42.58
	911.07	212	27.70*	1.462E+00	1.634E+00	1.634E+00	22.31
	969.11	72	16.60	1.382E+00	9.856E-01	9.856E-01	50.34
U-234	609.31	286	46.30*	2.080E+00	9.279E-01	9.279E-01	20.02
	1120.29	75	15.10	1.211E+00	1.275E+00	1.275E+00	43.67
	1764.49	57	15.80	8.404E-01	1.335E+00	1.335E+00	36.39
NP-237	86.50	136	12.60*	5.148E+00	6.554E-01	6.554E-01	55.59
	95.87	-----	2.60	5.611E+00	-----	Line Not Found	-----
AM-243	74.67	353	66.00*	4.096E+00	4.085E-01	4.085E-01	27.06
	86.72	136	0.34	5.148E+00	2.458E+01	2.458E+01	51.62
	117.66	-----	0.55	6.042E+00	-----	Line Not Found	-----
	142.18	-----	0.13	5.887E+00	-----	Line Not Found	-----
ANH-511	511.00	58	100.00*	2.406E+00	7.474E-02	7.474E-02	122.55

Flag: "*" = Keyline

Total number of lines in spectrum 24
Number of unidentified lines 0
Number of lines tentatively identified by NID 24 100.00%

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	3.092E+01	3.092E+01	0.292E+01	9.44	
CD-109	464.00D	1.03	2.220E+00	2.277E+00	1.175E+00	51.62	
SN-126	1.00E+05Y	1.00	2.232E-01	2.232E-01	1.152E-01	51.62	
TL-208	1.41E+10Y	1.00	4.716E-01	4.716E-01	1.003E-01	21.26	
BI-211	7.04E+08Y	1.00	3.244E+00	3.244E+00	0.509E+00	15.68	
PB-212	1.41E+10Y	1.00	1.566E+00	1.566E+00	0.169E+00	10.78	
PO-212	1.41E+10Y	1.00	1.566E+00	1.566E+00	0.169E+00	10.78	
BI-214	1600.00Y	1.00	9.279E-01	9.279E-01	1.858E-01	20.02	
PB-214	1600.00Y	1.00	1.128E+00	1.128E+00	0.186E+00	16.52	
PO-214	1600.00Y	1.00	1.128E+00	1.128E+00	0.186E+00	16.52	
PO-216	1.41E+10Y	1.00	1.566E+00	1.566E+00	0.169E+00	10.78	
PO-218	1600.00Y	1.00	1.128E+00	1.128E+00	0.186E+00	16.52	
RA-224	1.41E+10Y	1.00	4.073E+00	4.073E+00	1.561E+00	38.33	
RA-226	1600.00Y	1.00	9.279E-01	9.279E-01	1.858E-01	20.02	
AC-228	1.41E+10Y	1.00	1.634E+00	1.634E+00	0.365E+00	22.31	
RA-228	1.41E+10Y	1.00	1.634E+00	1.634E+00	0.365E+00	22.31	
TH-228	1.91Y	1.02	1.566E+00	1.592E+00	0.172E+00	10.78	
TH-230	4.47E+09Y	1.00	9.279E-01	9.279E-01	1.858E-01	20.02	
TH-232	1.41E+10Y	1.00	1.634E+00	1.634E+00	0.365E+00	22.31	
U-234	4.47E+09Y	1.00	9.279E-01	9.279E-01	1.858E-01	20.02	
NP-237	2.14E+06Y	1.00	6.554E-01	6.554E-01	3.643E-01	55.59	
AM-243	7380.00Y	1.00	4.085E-01	4.085E-01	1.105E-01	27.06	
ANH-511	1.00E+09Y	1.00	7.474E-02	7.474E-02	9.159E-02	122.55	
Total Activity :			6.055E+01	6.064E+01			

Grand Total Activity : 6.055E+01 6.064E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G243517004

Page : 4
Acquisition date : 7-JAN-2010 08:53:23

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.95	213	466	1.71	185.91	182	13	2.96E-02	45.4	5.48E+00	T
0	185.94	173	277	1.11	371.88	366	11	2.40E-02	41.8	5.17E+00	T
0	208.78	85	256	1.46	417.57	414	11	1.18E-02	75.7	4.80E+00	T
0	270.44	103	254	1.59	540.89	534	15	1.43E-02	70.2	3.97E+00	T
0	462.76	81	63	1.81	925.53	921	10	1.13E-02	42.7	2.61E+00	T
0	727.30	73	50	1.10	1454.60	1449	12	1.02E-02	46.5	1.79E+00	T

Flags: "T" = Tentatively associated

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*****
*                               GEL Laboratories LLC
*                               2040 Savage Road
*                               Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517004.CNF;1
* Acquisition date   : 7-JAN-2010 08:53:23.  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 02:00:01.15          Half life ratio  : 8.00000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 21-DEC-2009 12:00:00  Nuclide Library : SOLID
* Sample ID          : G243517004           Analyst initials: MXR1
* Batch Number       : 937069               Sample Quantity : 1.20080E+02 GRAM
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 4-FEB-2009 13:05:54.47MS Isotope      :
* MSD ID             :                      MSD Isotope      :
* LCS ID             : 1032-A               LCS Isotope      :
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.092E+01	2.920E+00	5.081E-01	3.361E-02	60.863
CD-109	2.277E+00	1.175E+00	1.447E+00	1.428E-01	1.574
SN-126	2.232E-01	1.152E-01	1.621E-01	1.596E-02	1.376
TL-208	4.716E-01	1.003E-01	6.663E-02	4.211E-03	7.078
BI-211	3.244E+00	5.085E-01	3.623E-01	2.338E-02	8.953
PB-212	1.566E+00	1.688E-01	1.056E-01	7.781E-03	14.835
PO-212	1.566E+00	1.688E-01	1.056E-01	7.781E-03	14.835
BI-214	9.279E-01	1.858E-01	1.300E-01	9.594E-03	7.137
PB-214	1.128E+00	1.864E-01	1.340E-01	1.112E-02	8.421
PO-214	1.128E+00	1.864E-01	1.340E-01	1.112E-02	8.421
PO-216	1.566E+00	1.688E-01	1.056E-01	7.781E-03	14.835
PO-218	1.128E+00	1.864E-01	1.340E-01	1.112E-02	8.421
RA-224	4.073E+00	1.561E+00	1.201E+00	7.041E-02	3.391
RA-226	9.279E-01	1.858E-01	1.300E-01	9.594E-03	7.137
AC-228	1.634E+00	3.646E-01	2.298E-01	2.349E-02	7.108
RA-228	1.634E+00	3.646E-01	2.298E-01	2.349E-02	7.108
TH-228	1.592E+00	1.717E-01	1.073E-01	7.913E-03	14.835
TH-230	9.279E-01	1.858E-01	1.300E-01	9.594E-03	7.137

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.634E+00	3.646E-01	2.298E-01	2.349E-02	7.108
U-234	9.279E-01	1.858E-01	1.300E-01	9.594E-03	7.137
NP-237	6.554E-01	3.643E-01	4.858E-01	1.109E-01	1.349
AM-243	4.085E-01	1.105E-01	1.060E-01	9.570E-03	3.855
ANH-511	7.474E-02	9.159E-02	6.183E-02	3.456E-03	1.209

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.139E-01		3.829E-01	6.790E-01	4.485E-02	0.610
NA-22	-1.245E-02		5.902E-02	9.405E-02	5.808E-03	-0.132
NA-24	5.543E+00		2.551E+00	Half-Life too short		
AL-26	-2.841E-03		3.083E-02	4.985E-02	2.864E-03	-0.057
TI-44	3.322E-01	+	6.037E-02	8.965E-02	8.241E-03	3.706
SC-46	1.406E-02		4.814E-02	8.237E-02	5.904E-03	0.171
V-48	-2.191E-02		9.213E-02	1.489E-01	1.042E-02	-0.147
CR-51	-1.512E-01		4.742E-01	7.813E-01	5.147E-02	-0.194
MN-52	1.920E-02		2.931E-01	4.798E-01	3.019E-02	0.040
MN-54	-3.409E-02		4.272E-02	6.601E-02	4.357E-03	-0.516
CO-56	3.276E-02		4.681E-02	8.306E-02	5.584E-03	0.394
CO-57	7.442E-03		3.027E-02	5.028E-02	3.071E-03	0.148
CO-58	-2.947E-02		4.809E-02	7.599E-02	4.852E-03	-0.388
FE-59	-1.099E-02		1.256E-01	2.050E-01	1.504E-02	-0.054
CO-60	-2.220E-02		4.660E-02	7.060E-02	4.435E-03	-0.315
ZN-65	4.324E-04		1.171E-01	1.653E-01	1.047E-02	0.003
GE-68	9.071E-01		1.418E+00	2.494E+00	1.634E-01	0.364
AS-73	8.869E-01		1.145E+00	1.976E+00	1.807E-01	0.449
AS-74	-8.058E-02		1.194E-01	1.831E-01	9.737E-03	-0.440
SE-75	-8.082E-03		6.167E-02	8.497E-02	5.097E-03	-0.095
BR-77	1.588E+01		2.080E+01	3.608E+01	2.010E+00	0.440
SR-82	-4.968E-01		4.674E-01	7.073E-01	4.255E-02	-0.702
RB-83	6.859E-02		8.399E-02	1.462E-01	8.147E-03	0.469
RB-84	2.744E-02		8.181E-02	1.409E-01	9.982E-03	0.195
KR-85	8.669E+00		1.021E+01	1.565E+01	8.743E-01	0.554
SR-85	4.528E-02		5.330E-02	8.176E-02	4.566E-03	0.554
RB-86	8.537E-01		9.366E-01	1.691E+00	1.109E-01	0.505
Y-88	-4.118E-02		4.306E-02	5.624E-02	3.196E-03	-0.732
ZR-88	1.184E-02		3.669E-02	6.224E-02	3.454E-03	0.190
Y-91	-1.217E+01		2.635E+01	4.131E+01	2.478E+00	-0.295
NB-94	9.557E-03		3.919E-02	6.465E-02	3.434E-03	0.148
NB-95	3.482E-02		5.306E-02	9.007E-02	5.324E-03	0.387
NB-95M	5.677E-01		1.899E-01	3.064E-01	2.315E-02	1.853
ZR-95	1.555E-03		8.767E-02	1.411E-01	9.942E-03	0.011
NB-97	-7.649E-01		3.428E-01	Half-Life too short		
ZR-97	2.718E+01		7.810E+00	Half-Life too short		
MO-99	-9.384E+00		2.057E+01	3.140E+01	4.309E+00	-0.299
TC-99M	-3.691E+12		2.927E+12	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
RH-101	1.558E-02		4.160E-02	6.481E-02	3.640E-03	0.240
RH-102	-5.552E-04		3.492E-02	5.746E-02	3.236E-03	-0.010
RU-103	-3.810E-03		4.715E-02	7.698E-02	9.668E-03	-0.049
RH-106	-4.768E-02		3.648E-01	5.852E-01	6.698E-02	-0.081
RU-106	-4.768E-02		3.647E-01	5.852E-01	3.035E-02	-0.081
AG-108M	8.953E-03		3.623E-02	6.104E-02	3.743E-03	0.147
AG-110M	-5.174E-02		4.378E-02	6.308E-02	3.405E-03	-0.820
IN-111	3.178E-01		2.177E+00	3.079E+00	1.810E-01	0.103
IN-113M	4.570E-02		5.431E-02	9.485E-02	5.644E-03	0.482
SN-113	4.570E-02		5.431E-02	9.485E-02	5.644E-03	0.482
IN-114M	1.662E-01		2.286E-01	3.400E-01	1.892E-02	0.489
CD-115	7.884E+00		2.210E+01	3.724E+01	2.069E+00	0.212
SN-117M	6.337E-03		7.016E-02	1.149E-01	6.309E-03	0.055
SB-122	5.906E-01		4.005E+00	6.615E+00	3.605E-01	0.089
I-123	-3.146E+01		3.114E+01	Half-Life too short		
TE-123M	-1.703E-02		3.370E-02	5.366E-02	2.989E-03	-0.317
I-124	-3.293E-01		1.169E+00	1.585E+00	8.375E-02	-0.208
SB-124	6.764E-02		7.394E-02	1.465E-01	9.514E-03	0.462
SB-125	8.803E-02		1.049E-01	1.836E-01	1.077E-02	0.479
TE-125M	-6.321E+00		1.111E+01	1.788E+01	1.627E+00	-0.353
I-126	-8.159E-02		2.605E-01	4.105E-01	2.044E-02	-0.199
SB-126	-1.212E-01		2.145E-01	2.904E-01	1.591E-02	-0.417
SB-127	-1.048E+00		2.280E+00	3.521E+00	3.416E-01	-0.298
XE-127	3.602E-02		6.136E-02	9.848E-02	5.563E-03	0.366
I-131	6.459E-03		1.555E-01	2.600E-01	1.676E-02	0.025
TE-132	-9.441E-02		1.205E+00	1.930E+00	2.843E-01	-0.049
BA-133	-4.370E-02		6.012E-02	8.138E-02	9.407E-03	-0.537
I-133	1.073E-02		1.472E-02	Half-Life too short		
CS-134	7.671E-02		5.922E-02	1.086E-01	6.832E-03	0.707
CS-135	2.210E-01		2.255E-01	3.361E-01	2.611E-02	0.658
I-135	1.598E+10		2.912E+11	Half-Life too short		
CS-136	-1.488E-02		1.529E-01	2.499E-01	1.794E-02	-0.060
BA-137M	2.489E-02		4.551E-02	7.695E-02	3.800E-03	0.323
CS-137	2.631E-02		4.811E-02	8.134E-02	4.041E-03	0.323
CE-139	-1.998E-02		3.521E-02	5.579E-02	3.017E-03	-0.358
BA-140	-1.322E-01		3.393E-01	5.329E-01	1.731E-01	-0.248
LA-140	-1.187E-01		1.073E-01	1.434E-01	8.846E-03	-0.828
CE-141	3.980E-02		7.615E-02	1.272E-01	7.506E-03	0.313
CE-143	2.419E-03		3.602E-04	Half-Life too short		
CE-144	-1.270E-02		2.302E-01	3.765E-01	5.354E-02	-0.034
PM-144	6.674E-03		3.866E-02	6.343E-02	3.337E-03	0.105
PR-144	4.527E-01		2.622E+00	4.302E+00	2.261E-01	0.105
PM-146	3.040E-02		4.716E-02	8.160E-02	6.945E-03	0.372
ND-147	8.773E-01		7.583E-01	1.338E+00	1.795E-01	0.656
PM-149	1.484E+02		1.792E+02	3.129E+02	4.460E+01	0.474
EU-152	7.423E-02		1.368E-01	1.853E-01	1.221E-02	0.401
GD-153	4.250E-02		9.916E-02	1.477E-01	1.234E-02	0.288
EU-154	-2.884E-02		1.653E-01	2.645E-01	2.531E-02	-0.109

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	1.691E-01		1.252E-01	2.168E-01	1.645E-02	0.780
TB-160	9.528E-02		1.574E-01	2.781E-01	1.964E-02	0.343
HO-166M	-8.380E-02		7.521E-02	1.080E-01	5.826E-03	-0.776
TM-171	-5.328E+01		3.507E+01	5.498E+01	4.911E+00	-0.969
LU-176	-7.970E-03		2.818E-02	4.658E-02	2.779E-03	-0.171
LU-177	2.891E+00	+	2.195E+00	2.657E+00	1.510E-01	1.088
LU-177M	-7.218E-02		2.151E-01	3.488E-01	1.951E-02	-0.207
HF-181	-4.772E-02		4.818E-02	7.248E-02	4.078E-03	-0.658
W-181	1.870E-01		4.582E-01	7.765E-01	6.956E-02	0.241
TA-182	1.394E-01		2.626E-01	4.487E-01	2.709E-02	0.311
RE-183	-5.226E-02		1.268E-01	2.025E-01	1.103E-02	-0.258
RE-184	2.271E-01		2.766E-01	4.634E-01	2.737E-02	0.490
OS-185	-4.288E-02		5.363E-02	8.050E-02	4.058E-03	-0.533
RE-188	7.003E-02		2.057E-01	3.405E-01	1.886E-02	0.206
W-188	-5.683E+00		9.757E+00	1.365E+01	8.157E-01	-0.416
IR-192	1.933E-02		4.154E-02	7.144E-02	4.271E-03	0.271
AU-195	5.080E-01		2.770E-01	4.407E-01	3.603E-02	1.153
TL-200	-6.359E-04		7.877E-04	Half-Life too short		
TL-201	7.839E+00		1.224E+01	2.049E+01	1.109E+00	0.383
TL-202	-9.057E-02		9.114E-02	1.380E-01	7.765E-03	-0.656
HG-203	3.857E-02		4.891E-02	8.553E-02	5.402E-03	0.451
BI-207	7.338E-02		6.027E-02	1.114E-01	7.384E-03	0.659
TL-207	-1.116E+00		8.739E-01	1.334E+00	2.209E-01	-0.837
PO-209	-5.319E-02		8.626E+00	1.436E+01	1.040E+00	-0.004
BI-210	1.924E+00		5.397E+00	9.022E+00	7.428E-01	0.213
PB-210	1.924E+00		5.397E+00	9.022E+00	7.428E-01	0.213
PO-210	1.924E+00		5.397E+00	9.022E+00	6.517E-01	0.213
PB-211	3.973E-02		1.131E+00	1.880E+00	1.172E+00	0.021
BI-212	1.084E+00	+	5.107E-01	7.664E-01	5.764E-02	1.415
PO-215	-1.116E+00		8.739E-01	1.334E+00	2.209E-01	-0.837
RN-219	1.444E-01		4.868E-01	8.231E-01	1.112E-01	0.175
RN-220	1.020E+00		2.982E+01	4.891E+01	2.688E+00	0.021
RA-223	-1.116E+00		8.739E-01	1.334E+00	2.209E-01	-0.837
AC-227	-4.777E-01		4.674E-01	6.950E-01	9.737E-02	-0.687
TH-227	-4.777E-01		4.696E-01	6.950E-01	1.177E-01	-0.687
TH-229	-5.821E-01		5.741E-01	8.793E-01	4.913E-02	-0.662
PA-231	-8.035E-01		1.786E+00	2.934E+00	4.064E-01	-0.274
TH-231	-1.116E+00		8.739E-01	1.334E+00	2.209E-01	-0.837
U-231	-4.093E-01		1.830E+00	2.630E+00	2.253E-01	-0.156
PA-233	-6.384E-02		7.405E-02	1.179E-01	7.438E-03	-0.541
PA-234	-1.567E-01		3.646E-01	5.775E-01	1.047E-01	-0.271
PA-234M	1.693E+00		5.719E+00	9.720E+00	8.308E-01	0.174
TH-234	1.853E+00		1.736E+00	2.926E+00	5.319E-01	0.633
U-235	3.113E-01		2.476E-01	4.176E-01	6.793E-02	0.745
NP-236	-3.928E-02		9.184E-02	1.467E-01	8.028E-03	-0.268
U-238	1.853E+00		1.736E+00	2.926E+00	5.319E-01	0.633
NP-239	-1.300E-02		2.190E-01	3.598E-01	2.325E-02	-0.036
AM-241	-2.388E-01		2.064E-01	3.295E-01	3.222E-02	-0.725

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.470E-02		1.105E-01	1.835E-01	1.399E-02	0.080
AM-246	-3.543E-02		1.617E-01	2.597E-01	1.700E-02	-0.136
CM-247	5.879E-03		4.372E-02	7.321E-02	4.079E-03	0.080
CF-249	-3.368E-02		4.874E-02	7.745E-02	4.320E-03	-0.435
CF-251	9.234E-02		1.476E-01	2.466E-01	1.349E-02	0.374

VAX/VMS Nuclide Identification Report Generated

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                    *
*****
*
*                                     DETECTOR DATA                          *
*
* Configuration      : SYSSYSROOT:[ALPHA.ARCHIVE.GAMMA]G243517004          *
* Acquisition date   : 7-JAN-2010 08:53:23 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 02:00:01.15 Half life ratio : 8.000              *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G243517004 Analyst initials: MXR1                 *
* Batch Number       : 937069 Sample Quantity : 1.2008E+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	3.092E+01	2.862E+00	2.536E-01	1.460E+00
CD-109	2.277E+00	1.152E+00	7.462E-01	5.876E-01
SN-126	2.232E-01	1.129E-01	8.364E-02	5.761E-02
TL-208	4.716E-01	9.827E-02	3.362E-02	5.014E-02
BI-211	3.244E+00	4.984E-01	1.839E-01	2.543E-01
PB-212	1.566E+00	1.655E-01	5.383E-02	8.442E-02
PO-212	1.566E+00	1.655E-01	5.383E-02	8.442E-02
BI-214	9.279E-01	1.821E-01	6.557E-02	9.291E-02
PB-214	1.128E+00	1.827E-01	6.801E-02	9.322E-02
PO-214	1.128E+00	1.827E-01	6.801E-02	9.322E-02
PO-216	1.566E+00	1.655E-01	5.383E-02	8.442E-02
PO-218	1.128E+00	1.827E-01	6.801E-02	9.322E-02
RA-224	4.073E+00	1.530E+00	6.125E-01	7.807E-01
RA-226	9.279E-01	1.821E-01	6.557E-02	9.291E-02
AC-228	1.634E+00	3.573E-01	1.154E-01	1.823E-01
RA-228	1.634E+00	3.573E-01	1.154E-01	1.823E-01
TH-228	1.592E+00	1.683E-01	5.474E-02	8.585E-02
TH-230	9.279E-01	1.821E-01	6.557E-02	9.290E-02
TH-232	1.634E+00	3.573E-01	1.154E-01	1.823E-01
U-234	9.279E-01	1.821E-01	6.557E-02	9.290E-02
NP-237	6.554E-01	3.571E-01	2.506E-01	1.822E-01
AM-243	4.085E-01	1.083E-01	5.476E-02	5.526E-02
ANH-511	7.474E-02	8.976E-02	3.125E-02	4.579E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	4.139E-01	3.752E-01	3.434E-01	1.914E-01 NOT IDENT.
NA-22	-1.245E-02	5.784E-02	4.702E-02	2.951E-02 NOT IDENT.
NA-24	5.543E+06	5.000E+06	0.000E+00	2.551E+06 SHORT HLIF
AL-26	-2.841E-03	3.021E-02	2.482E-02	1.541E-02 NOT IDENT.

TI-44	3.322E-01	5.916E-02	4.630E-02	3.018E-02	FAIL ABUN
SC-46	1.406E-02	4.717E-02	4.136E-02	2.407E-02	FAIL ABUN
V-48	-2.191E-02	9.028E-02	7.466E-02	4.606E-02	NOT IDENT.
CR-51	-1.512E-01	4.648E-01	3.970E-01	2.371E-01	NOT IDENT.
MN-52	1.920E-02	2.873E-01	2.395E-01	1.466E-01	NOT IDENT.
MN-54	-3.409E-02	4.186E-02	3.317E-02	2.136E-02	NOT IDENT.
CO-56	3.276E-02	4.587E-02	4.173E-02	2.340E-02	NOT IDENT.
CO-57	7.442E-03	2.966E-02	2.584E-02	1.513E-02	NOT IDENT.
CO-58	-2.947E-02	4.712E-02	3.820E-02	2.404E-02	NOT IDENT.
FE-59	-1.099E-02	1.231E-01	1.026E-01	6.280E-02	NOT IDENT.
CO-60	-2.220E-02	4.567E-02	3.527E-02	2.330E-02	NOT IDENT.
ZN-65	4.324E-04	1.147E-01	8.275E-02	5.854E-02	NOT IDENT.
GE-68	9.071E-01	1.390E+00	1.249E+00	7.092E-01	NOT IDENT.
AS-73	8.869E-01	1.122E+00	1.025E+00	5.727E-01	NOT IDENT.
AS-74	-8.058E-02	1.170E-01	9.238E-02	5.972E-02	NOT IDENT.
SE-75	-8.082E-03	6.043E-02	4.328E-02	3.083E-02	NOT IDENT.
BR-77	1.588E+01	2.038E+01	1.823E+01	1.040E+01	FAIL ABUN
SR-82	-4.968E-01	4.580E-01	3.557E-01	2.337E-01	NOT IDENT.
RB-83	6.859E-02	8.231E-02	7.388E-02	4.200E-02	NOT IDENT.
RB-84	2.744E-02	8.017E-02	7.074E-02	4.090E-02	NOT IDENT.
KR-85	8.669E+00	1.000E+01	7.911E+00	5.103E+00	NOT IDENT.
SR-85	4.528E-02	5.224E-02	4.132E-02	2.665E-02	NOT IDENT.
RB-86	8.537E-01	9.178E-01	8.472E-01	4.683E-01	NOT IDENT.
Y-88	-4.118E-02	4.220E-02	2.799E-02	2.153E-02	NOT IDENT.
ZR-88	1.184E-02	3.596E-02	3.155E-02	1.835E-02	NOT IDENT.
Y-91	-1.217E+01	2.582E+01	2.067E+01	1.317E+01	NOT IDENT.
NB-94	9.557E-03	3.841E-02	3.255E-02	1.960E-02	NOT IDENT.
NB-95	3.482E-02	5.200E-02	4.530E-02	2.653E-02	NOT IDENT.
NB-95M	5.677E-01	1.861E-01	1.562E-01	9.495E-02	NOT IDENT.
ZR-95	1.555E-03	8.591E-02	7.096E-02	4.383E-02	NOT IDENT.
NB-97	-7.649E+05	6.718E+05	0.000E+00	3.428E+05	SHORT HLIF
ZR-97	2.718E+07	1.531E+07	0.000E+00	7.810E+06	SHORT HLIF
MO-99	-9.384E+00	2.016E+01	1.580E+01	1.028E+01	NOT IDENT.
TC-99M	-3.691E+18	5.737E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.558E-02	4.077E-02	3.312E-02	2.080E-02	NOT IDENT.
RH-102	-5.552E-04	3.423E-02	2.907E-02	1.746E-02	NOT IDENT.
RU-103	-3.810E-03	4.621E-02	3.892E-02	2.358E-02	FAIL ABUN
RH-106	-4.768E-02	3.575E-01	2.951E-01	1.824E-01	FAIL ABUN
RU-106	-4.768E-02	3.574E-01	2.951E-01	1.824E-01	FAIL ABUN
AG-108M	8.953E-03	3.551E-02	3.091E-02	1.812E-02	NOT IDENT.
AG-110M	-5.174E-02	4.290E-02	3.178E-02	2.189E-02	NOT IDENT.
IN-111	3.178E-01	2.133E+00	1.570E+00	1.088E+00	NOT IDENT.
IN-113M	4.570E-02	5.323E-02	4.809E-02	2.716E-02	NOT IDENT.
SN-113	4.570E-02	5.323E-02	4.809E-02	2.716E-02	NOT IDENT.
IN-114M	1.662E-01	2.240E-01	1.738E-01	1.143E-01	NOT IDENT.
CD-115	7.884E+00	2.166E+01	1.881E+01	1.105E+01	NOT IDENT.
SN-117M	6.337E-03	6.876E-02	5.885E-02	3.508E-02	NOT IDENT.
SB-122	5.906E-01	3.925E+00	3.339E+00	2.002E+00	NOT IDENT.
I-123	-3.146E+07	6.103E+07	0.000E+00	3.114E+07	SHORT HLIF
TE-123M	-1.703E-02	3.302E-02	2.749E-02	1.685E-02	NOT IDENT.
I-124	-3.293E-01	1.146E+00	7.993E-01	5.846E-01	NOT IDENT.
SB-124	6.764E-02	7.246E-02	7.299E-02	3.697E-02	FAIL ABUN
SB-125	8.803E-02	1.028E-01	9.299E-02	5.244E-02	FAIL ABUN
TE-125M	-6.321E+00	1.089E+01	9.202E+00	5.555E+00	NOT IDENT.
I-126	-8.159E-02	2.553E-01	2.068E-01	1.302E-01	NOT IDENT.
SB-126	-1.212E-01	2.102E-01	1.462E-01	1.073E-01	FAIL ABUN
SB-127	-1.048E+00	2.235E+00	1.773E+00	1.140E+00	NOT IDENT.
XE-127	3.602E-02	6.013E-02	5.031E-02	3.068E-02	NOT IDENT.
I-131	6.459E-03	1.524E-01	1.319E-01	7.775E-02	NOT IDENT.
TE-132	-9.441E-02	1.181E+00	9.847E-01	6.026E-01	NOT IDENT.
BA-133	-4.370E-02	5.892E-02	4.130E-02	3.006E-02	NOT IDENT.
I-133	1.073E+04	2.886E+04	0.000E+00	1.472E+04	SHORT HLIF
CS-134	7.671E-02	5.803E-02	5.458E-02	2.961E-02	NOT IDENT.
CS-135	2.210E-01	2.210E-01	1.711E-01	1.127E-01	NOT IDENT.
I-135	1.598E+16	5.708E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.488E-02	1.499E-01	1.252E-01	7.646E-02	FAIL ABUN
BA-137M	2.489E-02	4.460E-02	3.877E-02	2.276E-02	NOT IDENT.
CS-137	2.631E-02	4.715E-02	4.098E-02	2.406E-02	NOT IDENT.
CE-139	-1.998E-02	3.450E-02	2.857E-02	1.760E-02	NOT IDENT.
BA-140	-1.322E-01	3.325E-01	2.692E-01	1.696E-01	NOT IDENT.
LA-140	-1.187E-01	1.052E-01	7.148E-02	5.365E-02	NOT IDENT.
CE-141	3.980E-02	7.463E-02	6.524E-02	3.808E-02	NOT IDENT.
CE-143	2.419E+03	7.059E+02	0.000E+00	3.602E+02	SHORT HLIF
CE-144	-1.270E-02	2.256E-01	1.933E-01	1.151E-01	NOT IDENT.
PM-144	6.674E-03	3.788E-02	3.194E-02	1.933E-02	NOT IDENT.
PR-144	4.527E-01	2.569E+00	2.166E+00	1.311E+00	NOT IDENT.
PM-146	3.040E-02	4.621E-02	4.130E-02	2.358E-02	NOT IDENT.
ND-147	8.773E-01	7.431E-01	6.759E-01	3.791E-01	NOT IDENT.

PM-149	1.484E+02	1.756E+02	1.592E+02	8.958E+01	NOT IDENT.
EU-152	7.423E-02	1.341E-01	9.408E-02	6.840E-02	NOT IDENT.
GD-153	4.250E-02	9.717E-02	7.608E-02	4.958E-02	NOT IDENT.
EU-154	-2.884E-02	1.620E-01	1.322E-01	8.264E-02	NOT IDENT.
EU-155	1.691E-01	1.227E-01	1.116E-01	6.262E-02	FAIL ABUN
TB-160	9.528E-02	1.543E-01	1.396E-01	7.872E-02	FAIL ABUN
HO-166M	-8.380E-02	7.371E-02	5.436E-02	3.761E-02	NOT IDENT.
TM-171	-5.328E+01	3.436E+01	2.845E+01	1.753E+01	NOT IDENT.
LU-176	-7.970E-03	2.762E-02	2.368E-02	1.409E-02	FAIL ABUN
LU-177	2.891E+00	2.151E+00	1.357E+00	1.097E+00	FAIL ABUN
LU-177M	-7.218E-02	2.108E-01	1.767E-01	1.075E-01	NOT IDENT.
HF-181	-4.772E-02	4.722E-02	3.666E-02	2.409E-02	NOT IDENT.
W-181	1.870E-01	4.491E-01	4.019E-01	2.291E-01	NOT IDENT.
TA-182	1.394E-01	2.573E-01	2.244E-01	1.313E-01	FAIL ABUN
RE-183	-5.226E-02	1.242E-01	1.037E-01	6.338E-02	FAIL ABUN
RE-184	2.271E-01	2.711E-01	2.362E-01	1.383E-01	NOT IDENT.
OS-185	-4.288E-02	5.256E-02	4.057E-02	2.682E-02	NOT IDENT.
RE-188	7.003E-02	2.016E-01	1.745E-01	1.029E-01	NOT IDENT.
W-188	-5.683E+00	9.562E+00	6.946E+00	4.879E+00	NOT IDENT.
IR-192	1.933E-02	4.070E-02	3.631E-02	2.077E-02	FAIL ABUN
AU-195	5.080E-01	2.715E-01	2.270E-01	1.385E-01	FAIL ABUN
TL-200	-6.359E+02	1.544E+03	0.000E+00	7.877E+02	SHORT HLIF
TL-201	7.839E+00	1.200E+01	1.049E+01	6.122E+00	NOT IDENT.
TL-202	-9.057E-02	8.932E-02	6.988E-02	4.557E-02	NOT IDENT.
HG-203	3.857E-02	4.793E-02	4.354E-02	2.445E-02	NOT IDENT.
BI-207	7.338E-02	5.906E-02	5.580E-02	3.014E-02	FAIL ABUN
TL-207	-1.116E+00	8.564E-01	6.778E-01	4.369E-01	FAIL ABUN
PO-209	-5.319E-02	8.453E+00	7.207E+00	4.313E+00	NOT IDENT.
BI-210	1.924E+00	5.289E+00	4.687E+00	2.699E+00	NOT IDENT.
PB-210	1.924E+00	5.289E+00	4.687E+00	2.699E+00	NOT IDENT.
PO-210	1.924E+00	5.289E+00	4.687E+00	2.698E+00	NOT IDENT.
PB-211	3.973E-02	1.108E+00	9.529E-01	5.653E-01	NOT IDENT.
BI-212	1.084E+00	5.005E-01	3.857E-01	2.554E-01	FAIL ABUN
PO-215	-1.116E+00	8.564E-01	6.778E-01	4.369E-01	FAIL ABUN
RN-219	1.444E-01	4.771E-01	4.172E-01	2.434E-01	FAIL ABUN
RN-220	1.020E+00	2.923E+01	2.470E+01	1.491E+01	NOT IDENT.
RA-223	-1.116E+00	8.564E-01	6.778E-01	4.369E-01	FAIL ABUN
AC-227	-4.777E-01	4.581E-01	3.541E-01	2.337E-01	FAIL ABUN
TH-227	-4.777E-01	4.602E-01	3.541E-01	2.348E-01	FAIL ABUN
TH-229	-5.821E-01	5.626E-01	4.495E-01	2.870E-01	FAIL ABUN
PA-231	-8.035E-01	1.751E+00	1.493E+00	8.932E-01	NOT IDENT.
TH-231	-1.116E+00	8.564E-01	6.778E-01	4.369E-01	FAIL ABUN
U-231	-4.093E-01	1.793E+00	1.355E+00	9.150E-01	FAIL ABUN
PA-233	-6.384E-02	7.257E-02	5.994E-02	3.702E-02	FAIL ABUN
PA-234	-1.567E-01	3.573E-01	2.898E-01	1.823E-01	FAIL ABUN
PA-234M	1.693E+00	5.604E+00	4.874E+00	2.859E+00	NOT IDENT.
TH-234	1.853E+00	1.701E+00	1.515E+00	8.680E-01	FAIL ABUN
U-235	3.113E-01	2.426E-01	2.142E-01	1.238E-01	FAIL ABUN
NP-236	-3.928E-02	9.001E-02	7.516E-02	4.592E-02	NOT IDENT.
U-238	1.853E+00	1.701E+00	1.515E+00	8.680E-01	FAIL ABUN
NP-239	-1.300E-02	2.147E-01	1.850E-01	1.095E-01	FAIL ABUN
AM-241	-2.388E-01	2.022E-01	1.707E-01	1.032E-01	NOT IDENT.
CM-243	1.470E-02	1.082E-01	9.448E-02	5.523E-02	FAIL ABUN
AM-246	-3.543E-02	1.584E-01	1.301E-01	8.083E-02	NOT IDENT.
CM-247	5.879E-03	4.285E-02	3.711E-02	2.186E-02	NOT IDENT.
CF-249	-3.368E-02	4.776E-02	3.927E-02	2.437E-02	NOT IDENT.
CF-251	9.234E-02	1.447E-01	1.262E-01	7.382E-02	NOT IDENT.

 * GEL Laboratories LLC *
 * 2040 SAVAGE ROAD *
 * CHARLESTON, SC 29417 *
 * GAMMA SPECTROSCOPY BACKGROUND REPORT *

ENERGY	MDA COUNTS
46.50	298.1316
46.50	298.1316
46.50	298.1316
48.70	318.3629
49.72	322.5719
51.35	299.7953
52.39	295.7657
52.97	279.6092
53.15	278.7803
53.44	280.7454
54.07	285.6195
56.28	326.1707
56.28	326.1721
57.37	0.0000
57.53	319.4690
57.53	319.4697
57.60	325.0294
57.98	333.5199
57.98	333.5199
59.32	365.6245
59.32	365.6245
59.40	365.6705
59.54	399.9251
59.72	401.8868
60.01	395.6001
61.10	366.6464
61.14	378.7061
61.30	378.8006
63.00	355.6495
63.29	358.5932
63.29	358.5932
63.58	351.3166
64.28	356.3406
65.12	380.0798
65.20	380.1249
65.20	380.1249
66.05	420.7205
66.72	436.0756
66.83	436.1486
66.91	452.0791
67.20	427.0411
67.20	427.0411
67.75	402.9359
67.85	402.9950
68.90	389.6937
68.90	389.6937
69.30	383.9203
69.67	373.6231
70.82	351.6913
70.82	351.6913
70.83	351.6970
72.80	397.8917
72.87	397.9304
72.87	397.9304
74.67	390.0486
74.81	390.1242
74.81	390.1242
74.81	390.1242
74.81	390.1242
74.81	390.1242
74.81	390.1242
74.81	390.1242
74.97	390.2093
75.28	390.3763
75.70	390.6000
77.11	368.4185
77.11	368.4185

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77.11	368.4185
77.11	368.4185
77.11	368.4185
77.11	368.4185
78.38	375.1237
79.62	397.0405
79.80	397.1345
79.80	397.1345
80.11	403.3875
80.18	403.4247
80.30	403.4877
80.30	403.4877
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81.00	414.5277
81.07	414.5659
81.07	414.5659
81.07	414.5659
81.07	414.5659
82.60	387.5232
83.37	379.1173
83.78	386.9662
83.78	386.9662
83.78	386.9662
83.78	386.9662
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84.90	385.9904
85.43	396.9795
86.29	414.2911
86.50	463.3239
86.54	463.3461
86.59	463.3755
86.72	479.7650
86.79	479.8050
86.94	485.9295
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87.30	483.9549
87.30	483.9549
87.30	483.9549
87.30	483.9549
87.30	483.9549
87.57	457.2229
87.88	353.6208
88.03	353.6868
88.36	388.4453
88.47	388.4992
89.95	354.5291
91.11	358.8935
92.29	517.8576
92.38	517.9149
92.38	517.9149
93.35	410.1742
94.00	410.4944
94.67	410.8204
94.67	410.8228
94.90	410.9360
94.90	410.9360
94.90	410.9360
94.90	410.9360
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95.87	316.7080
96.73	312.3683
97.43	272.1857
98.44	218.0049
98.44	218.0057
98.88	219.6748
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99.55	241.6747
99.86	274.5155
100.00	274.5596
100.10	274.5929
103.18	325.8571
103.76	282.9861
105.00	248.0808
105.31	261.8992
108.00	326.6301
109.28	316.2513

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111.00	295.1288
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112.95	278.9330
115.19	298.4372
116.30	267.0216
117.00	278.1447
117.00	278.1447
117.66	285.2954
121.11	287.3123
121.62	295.4478
121.78	281.5191
122.06	281.5998
122.32	279.6764
122.32	279.6764
122.32	279.6764
122.32	279.6764
123.07	262.8967
127.23	285.0763
129.76	266.6700
131.20	277.1233
133.02	291.7451
133.54	260.5825
135.34	263.0568
136.00	249.0480
136.25	261.2596
136.48	255.2396
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140.51	0.0000
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142.65	273.0197
143.76	251.8845
144.24	261.1777
144.24	261.1777
144.24	261.1777
144.24	261.1777
145.22	274.6870
145.44	272.6997
147.16	271.0815
152.43	280.5877
152.70	270.3740
153.22	268.4414
154.21	247.0569
154.21	247.0569
154.21	247.0569
154.21	247.0569
155.03	269.8997
156.02	264.9783
158.56	260.3979
159.00	0.0000
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161.27	239.2550
162.32	255.0182
162.64	261.3093
163.35	242.7907
163.89	250.1686
165.85	270.3387
167.43	241.5439
171.28	248.5825
171.86	264.3768
172.10	264.4289
176.55	228.6745
176.60	228.6828
181.06	294.7720
184.41	256.7078
185.71	241.9655
186.00	242.0214
190.27	190.0172
192.34	203.9121
193.63	239.1947
197.04	232.3518
198.01	211.1892
198.60	221.9521
200.40	262.8558
201.83	246.0192
202.84	239.7808
205.31	259.0907

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208.81	237.3896
209.75	240.9924
209.75	240.9924
210.97	241.2043
215.65	234.8099
216.55	255.1397
218.09	229.4424
222.10	232.2584
223.80	237.9657
226.40	213.3552
227.00	202.5534
227.08	212.3663
227.20	212.3842
228.16	211.4326
228.18	211.4356
228.18	211.4356
231.56	0.0000
235.69	206.8155
236.00	219.1299
236.00	219.1299
238.63	199.7582
238.63	199.7582
238.63	199.7582
238.63	199.7582
239.00	199.8068
240.98	200.0692
241.98	200.2011
241.98	200.2011
241.98	200.2011
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245.39	176.3940
247.94	185.5201
248.90	183.1098
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252.85	152.8737
254.15	0.0000
256.20	195.3843
256.20	195.3843
260.50	164.7453
260.90	161.4479
262.80	177.0854
264.65	169.6362
268.24	173.5912
268.79	150.3776
269.46	155.5881
269.46	155.5881
269.46	155.5881
269.46	155.5881
271.23	155.7578
273.65	228.0326
276.40	176.2541
277.35	160.1587
277.60	146.9841
277.60	146.9841
278.00	144.0195
278.60	161.0786
279.20	159.4361
279.53	176.5842
280.46	194.7111
281.68	184.0283
283.67	168.8912
284.30	170.7621
285.00	156.3694
285.90	132.9406
286.10	135.6683
286.10	135.6683
287.40	145.7294
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290.67	164.7507
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291.72	172.4125
293.26	0.0000
293.70	115.0746
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295.21	140.9361

295.21	140.9361
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296.50	154.6913
297.23	154.7556
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299.80	151.9450
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300.09	142.8512
300.09	142.8512
300.09	142.8512
300.12	142.8531
301.29	117.0963
302.84	132.4205
303.76	140.1038
303.91	140.1151
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304.40	152.3417
304.84	140.1881
306.84	142.7880
308.46	125.5109
311.98	152.3767
316.51	134.3531
318.01	139.0704
319.02	147.4395
319.41	149.3141
320.08	156.7457
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323.87	199.5706
323.87	199.5706
323.87	199.5706
325.23	176.6004
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334.20	164.1348
334.20	164.1348
334.30	164.1434
338.28	114.5212
338.28	114.5212
338.28	114.5212
338.28	114.5212
338.32	114.5227
338.32	114.5227
338.32	114.5227
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340.57	122.7367
344.27	102.7383
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350.59	0.0000
351.07	109.6604
351.92	123.4600
351.92	123.4600
351.92	123.4600
355.39	0.0000
356.01	142.5096
364.48	112.2932
366.43	107.6807
367.43	111.5137
367.94	0.0000
369.80	87.0451
374.96	106.2373
383.85	112.4140
387.95	132.6812
388.63	133.6785
391.69	104.2299
391.69	104.2299
392.90	106.2034
398.62	104.5719
400.65	112.3540
401.10	113.3388
401.81	106.6505
402.60	109.5733
404.84	117.3848
410.95	111.9275
411.60	114.8571
413.65	118.8289
414.70	106.3208
415.30	103.4499

415.76	103.4721
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427.89	80.7041
432.53	113.0250
433.93	81.8959
439.47	103.5984
439.56	103.6023
439.89	102.6403
443.98	93.0309
444.90	87.1900
445.03	87.1954
445.03	87.1954
445.03	87.1954
445.03	87.1954
453.90	69.8274
463.38	80.6438
468.07	72.5581
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475.35	78.4031
476.78	72.4912
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477.96	79.4814
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492.35	77.9533
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511.85	104.7528
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513.99	95.7677
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552.65	75.7127
555.20	64.5196
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563.90	82.1953
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569.32	90.5953
569.50	87.5131
569.67	87.5172
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574.00	75.6250
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578.91	99.8645
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591.81	79.5716
592.07	75.7731
593.00	71.6448
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602.71	74.6691
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604.41	81.6648
604.70	81.6724
609.31	74.1461

609.31	74.1461
609.31	74.1461
609.31	74.1461
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612.46	71.4397
614.37	88.9242
618.01	63.8966
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621.84	63.9800
631.29	47.3522
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633.10	60.0156
634.78	62.1574
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656.30	88.0740
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661.65	71.2218
664.57	0.0000
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666.33	86.2365
675.00	62.9914
677.61	66.2504
685.20	70.6970
692.80	59.0579
695.00	64.4722
696.49	56.9776
696.49	56.9776
697.00	66.6636
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698.33	75.2961
698.50	76.3770
699.00	78.5409
702.63	61.3961
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713.82	65.9354
717.42	56.2707
720.50	71.1787
721.93	0.0000
722.20	72.2485
722.78	63.2281
722.78	63.2281
722.89	63.2310
722.95	63.2324
723.30	57.8190
724.18	63.2566
727.18	61.8678
733.00	43.4932
735.90	63.1217
739.58	56.6541
742.81	59.9817
744.21	51.2789
747.13	54.6008
751.79	64.5183
752.31	65.6221
753.82	61.2760
755.35	61.3033
756.15	59.1284
756.87	56.9512
763.93	80.1182
765.79	61.4947
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766.84	63.7108
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778.89	45.0124
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785.46	58.9049
792.07	70.0842

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801.93	71.2084
805.60	55.5444
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810.76	63.9702
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831.60	49.4255
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836.80	0.0000
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860.37	49.8190
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867.82	43.5953
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876.40	49.0907
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883.24	42.5601
884.67	60.5534
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896.60	47.4579
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911.07	40.9686
911.07	40.9686
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920.93	45.8496
925.00	44.9413
925.24	44.9441
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937.48	53.7191
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969.11	69.6211
969.11	69.6211
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989.30	52.4773
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1038.76	0.0000
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1046.59	52.2193
1048.07	54.2078

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1050.47	46.3498
1062.04	32.6321
1063.62	30.6657
1076.63	30.7578
1077.35	34.7323
1078.86	42.6851
1085.78	32.8107
1099.22	58.8416
1112.02	37.5076
1112.84	36.0146
1115.52	44.6150
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1120.29	37.0768
1120.29	37.0768
1120.29	37.0768
1120.51	37.0783
1121.28	41.2366
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1167.94	55.6938
1173.22	49.6759
1175.09	57.8094
1177.93	76.1108
1189.05	60.0179
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1274.54	51.7761
1291.56	34.2891
1298.22	0.0000
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1325.50	21.9681
1325.50	21.9681
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1333.61	29.3376
1360.21	22.1177
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1368.53	0.0000
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1384.27	33.8594
1394.10	22.2612
1395.20	21.2061
1407.95	18.0680
1434.06	14.9525
1436.60	14.9593
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1596.49	24.4992
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1750.46	0.0000
1764.49	9.6865
1764.49	9.6865
1764.49	9.6865
1764.49	9.6865
1770.23	22.0565
1771.40	40.7271
1791.20	0.0000
1808.65	8.7784

1836.01

17.6309

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243517004

Total Uranium Activity	5.6566E+00	ug/g
Total Uranium Counting Unc.	5.0627E+00	ug/g
Total Uranium Tpu	2.5830E-06	ug/g
Total Uranium Mda	4.5074E+00	ug/g

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*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 937069                          SAMPLE ID   : G243517004
*  ANALYST       : MXR1                             DETECTOR    : GAM06
*  SAMPLE DATE   : 21-DEC-2009 12:00:00.00          COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 7-JAN-2010 08:53:23.87          SAMPLE ALQT  : 120.080 GRAM
*
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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 8.324E+00
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.309E+00
GROSS GAMMA MDA      (pCi/GRAM ) : 2.819E+00
GROSS GAMMA DLC      (pCi/GRAM ) : 1.366E+00

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VAX/VMS Nuclide Identification Report Generated 7-JAN-2010 10:56:30.93

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517005.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:53:48.
Sample ID          : G243517005 Sample quantity : 1.25380E+02 GRAM
Detector name      : GAM07 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:01.28 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 937069 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	46.62*	31	335	1.04	92.90	90	7	4.27E-03	105.0	
2	0	63.56*	55	566	0.94	126.77	123	8	7.61E-03	78.1	
3	1	74.78	504	486	1.11	149.20	142	17	7.00E-02	8.7	1.72E+00
4	1	77.07*	887	395	1.08	153.80	142	17	1.23E-01	5.0	
5	2	87.19	209	554	1.10	174.02	169	25	2.90E-02	18.9	2.70E+00
6	2	89.87	125	424	1.05	179.38	169	25	1.73E-02	27.1	
7	2	92.72*	256	409	1.14	185.09	169	25	3.55E-02	15.9	
8	0	185.87*	257	314	1.30	371.34	367	10	3.57E-02	14.8	
9	0	209.56	149	376	0.95	418.72	413	12	2.07E-02	27.3	
10	3	238.73*	1259	171	1.11	477.04	470	17	1.75E-01	3.4	2.37E+00
11	3	241.79	278	164	1.66	483.17	470	17	3.86E-02	10.9	
12	0	270.31*	118	259	1.23	540.20	533	14	1.64E-02	30.7	
13	0	295.39*	377	221	1.08	590.35	585	11	5.23E-02	9.3	
14	0	300.48	76	187	1.07	600.52	596	10	1.06E-02	35.2	
15	0	328.16	79	207	1.01	655.88	650	12	1.10E-02	38.0	
16	0	338.44*	203	177	1.30	676.44	670	10	2.82E-02	14.3	
17	0	351.83*	741	178	1.30	703.22	696	13	1.03E-01	5.3	
18	0	463.28	74	127	1.55	926.07	920	14	1.03E-02	34.1	
19	0	510.96*	60	164	1.53	1021.42	1014	16	8.26E-03	55.9	
20	0	583.38*	355	59	1.51	1166.24	1161	11	4.94E-02	7.0	
21	0	609.51*	523	52	1.57	1218.49	1213	12	7.26E-02	5.3	
22	0	661.84*	83	101	1.41	1323.13	1319	13	1.16E-02	26.9	
23	0	727.59	118	46	1.63	1454.63	1448	14	1.64E-02	15.2	
24	0	769.13	34	74	1.40	1537.69	1531	11	4.68E-03	52.4	
25	0	861.27*	52	55	1.11	1721.94	1717	12	7.21E-03	32.9	
26	0	911.36*	269	57	1.52	1822.12	1816	15	3.74E-02	8.8	
27	0	969.49	98	112	0.91	1938.36	1931	12	1.37E-02	23.9	
28	0	1120.92*	127	55	1.03	2241.20	2234	17	1.77E-02	16.8	
29	0	1377.92	32	26	2.15	2755.16	2744	17	4.49E-03	39.9	
30	0	1461.13*	894	4	2.14	2921.56	2913	17	1.24E-01	3.4	
31	0	1590.29*	23	23	2.37	3179.85	3168	18	3.23E-03	54.0	
32	0	1730.25	31	8	1.66	3459.76	3451	16	4.31E-03	27.2	
33	0	1765.02*	94	0	1.84	3529.30	3522	14	1.30E-02	11.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 7-JAN-2010 10:56:34

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517005.CNF;1
 Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
 Sample title : MXR1
 Sample date : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:53:48
 Sample ID : G243517005 Sample quantity : 125.38 GRAM
 Sample type : SOLID Sample geometry :
 Detector name : GAMMA7 Detector geometry: CAN
 Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.28 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	*	2.221E+01	2.438E+00	5.228E-01	4.489E-02	42.488
CD-109	+	88.03	*	2.524E+00	9.818E-01	1.080E+00	1.017E-01	2.336
SN-126	+	64.28		3.537E-01	5.549E-01	6.137E-01	8.900E-02	0.576
	+	86.94		1.029E+00	5.772E-01	4.426E-01	1.837E-01	2.324
	+	87.57	*	2.474E-01	9.625E-02	1.061E-01	9.943E-03	2.331
BA-137M	+	661.65	*	1.242E-01	6.759E-02	5.352E-02	4.737E-03	2.320
CS-137	+	661.65	*	1.313E-01	7.145E-02	5.658E-02	5.016E-03	2.320
TL-208		277.35		4.793E-01	3.837E-01	6.510E-01	7.971E-02	0.736
	+	510.84		2.993E-01	3.367E-01	2.118E-01	2.580E-02	1.413
	+	583.14	*	5.103E-01	8.615E-02	5.726E-02	5.477E-03	8.913
	+	860.37		7.003E-01	4.665E-01	5.087E-01	4.975E-02	1.377
BI-210	+	46.50	*	1.090E+00	2.291E+00	2.888E+00	2.709E-01	0.377
PB-210	+	46.50	*	1.090E+00	2.291E+00	2.888E+00	2.709E-01	0.377
PO-210	+	46.50	*	1.090E+00	2.290E+00	2.888E+00	2.457E-01	0.377
BI-211		72.87		6.149E+00	2.561E+00	4.443E+00	3.507E-01	1.384
	+	351.07	*	4.659E+00	6.470E-01	3.562E-01	3.195E-02	13.079
PB-212	+	74.81		2.323E+00	4.969E-01	4.388E-01	5.413E-02	5.293
	+	77.11		2.359E+00	3.048E-01	2.537E-01	2.094E-02	9.299
	+	87.30		1.144E+00	4.596E-01	4.915E-01	6.724E-02	2.328
	+	238.63	*	1.722E+00	2.025E-01	8.667E-02	8.290E-03	19.871
	+	300.09		1.618E+00	1.153E+00	1.215E+00	1.260E-01	1.331
PO-212	+	74.81		2.323E+00	4.969E-01	4.388E-01	5.413E-02	5.293
	+	77.11		2.359E+00	3.048E-01	2.537E-01	2.094E-02	9.299
	+	87.30		1.144E+00	4.596E-01	4.915E-01	6.724E-02	2.328
	+	115.19		2.350E+00	3.469E+00	5.745E+00	4.948E-01	0.409
	+	238.63	*	1.722E+00	2.025E-01	8.667E-02	8.290E-03	19.871
	+	300.09		1.618E+00	1.153E+00	1.215E+00	1.260E-01	1.331
BI-214	+	609.31	*	1.415E+00	2.096E-01	9.774E-02	1.011E-02	14.477
	+	1120.29		1.788E+00	6.318E-01	4.471E-01	4.800E-02	3.999
	+	1764.49		1.803E+00	4.221E-01	2.599E-01	2.137E-02	6.935
PB-214	+	74.81		4.002E+00	8.252E-01	7.561E-01	8.272E-02	5.293
	+	77.11		4.045E+00	6.066E-01	4.350E-01	4.886E-02	9.299
	+	87.30		1.960E+00	7.774E-01	8.419E-01	1.019E-01	2.328
	+	241.98		2.286E+00	5.481E-01	4.705E-01	4.775E-02	4.858

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	295.21		1.398E+00	3.000E-01	1.884E-01	1.994E-02	7.421
	+	351.92	*	1.621E+00	2.404E-01	1.242E-01	1.288E-02	13.051
	+	74.81		4.002E+00	8.252E-01	7.561E-01	8.272E-02	5.293
	+	77.11		4.045E+00	6.066E-01	4.350E-01	4.886E-02	9.299
	+	87.30		1.960E+00	7.774E-01	8.419E-01	1.019E-01	2.328
	+	241.98		2.286E+00	5.481E-01	4.705E-01	4.775E-02	4.858
PO-216	+	295.21		1.398E+00	3.000E-01	1.884E-01	1.994E-02	7.421
	+	351.92	*	1.621E+00	2.404E-01	1.242E-01	1.288E-02	13.051
	+	74.81		2.323E+00	4.969E-01	4.388E-01	5.413E-02	5.293
	+	77.11		2.359E+00	3.048E-01	2.537E-01	2.094E-02	9.299
	+	87.30		1.144E+00	4.596E-01	4.915E-01	6.724E-02	2.328
	+	238.63	*	1.722E+00	2.025E-01	8.667E-02	8.290E-03	19.871
PO-218	+	300.09		1.618E+00	1.153E+00	1.215E+00	1.260E-01	1.331
	+	74.81		4.002E+00	8.252E-01	7.561E-01	8.272E-02	5.293
	+	77.11		4.045E+00	6.066E-01	4.350E-01	4.886E-02	9.299
	+	87.30		1.960E+00	7.774E-01	8.419E-01	1.019E-01	2.328
	+	241.98		2.286E+00	5.481E-01	4.705E-01	4.775E-02	4.858
	+	295.21		1.398E+00	3.000E-01	1.884E-01	1.994E-02	7.421
RA-224	+	351.92	*	1.621E+00	2.404E-01	1.242E-01	1.288E-02	13.051
	+	240.98	*	4.334E+00	1.011E+00	9.866E-01	8.343E-02	4.393
RA-226	+	609.31	*	1.415E+00	2.096E-01	9.774E-02	1.011E-02	14.477
	+	1120.29		1.788E+00	6.318E-01	4.471E-01	4.800E-02	3.999
AC-228	+	1764.49		1.803E+00	4.221E-01	2.599E-01	2.137E-02	6.935
	+	338.32		1.405E+00	7.048E-01	3.993E-01	1.647E-01	3.519
RA-228	+	911.07	*	1.718E+00	3.615E-01	2.178E-01	2.537E-02	7.888
	+	969.11		1.104E+00	5.880E-01	3.638E-01	8.546E-02	3.035
	+	338.32		1.405E+00	7.048E-01	3.993E-01	1.647E-01	3.519
TH-228	+	911.07	*	1.718E+00	3.615E-01	2.178E-01	2.537E-02	7.888
	+	969.11		1.104E+00	5.880E-01	3.638E-01	8.546E-02	3.035
	+	74.81		2.362E+00	4.553E-01	4.463E-01	3.627E-02	5.293
TH-230	+	77.11		2.399E+00	3.100E-01	2.580E-01	2.130E-02	9.299
	+	87.30		1.164E+00	4.527E-01	4.998E-01	4.667E-02	2.328
	+	238.63	*	1.751E+00	2.059E-01	8.814E-02	8.431E-03	19.870
TH-232	+	300.09		1.645E+00	1.515E+00	1.236E+00	7.325E-01	1.331
	+	609.31	*	1.415E+00	2.096E-01	9.774E-02	1.011E-02	14.477
	+	1120.29		1.788E+00	6.318E-01	4.471E-01	4.800E-02	3.999
TH-234	+	1764.49		1.803E+00	4.221E-01	2.599E-01	2.137E-02	6.935
	+	338.32		1.405E+00	4.187E-01	3.993E-01	3.418E-02	3.519
	+	911.07	*	1.718E+00	3.615E-01	2.178E-01	2.537E-02	7.888
U-234	+	969.11		1.104E+00	5.880E-01	3.638E-01	8.546E-02	3.035
	+	63.29	*	8.935E-01	1.404E+00	1.562E+00	2.717E-01	0.572
NP-237	+	92.38		2.017E+00	7.405E-01	7.124E-01	1.307E-01	2.831
	+	609.31	*	1.415E+00	2.096E-01	9.774E-02	1.011E-02	14.477
U-238	+	1120.29		1.788E+00	6.318E-01	4.471E-01	4.800E-02	3.999
	+	1764.49		1.803E+00	4.221E-01	2.599E-01	2.137E-02	6.935
U-238	+	86.50	*	7.265E-01	3.199E-01	3.133E-01	7.084E-02	2.319
	+	95.87		-9.419E-01	9.510E-01	1.259E+00	3.120E-01	-0.748
U-238	+	63.29	*	8.935E-01	1.404E+00	1.562E+00	2.717E-01	0.572
	+	92.38		2.017E+00	6.675E-01	7.124E-01	6.526E-02	2.831

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	+	74.67	*	3.765E-01	7.246E-02	7.127E-02	5.729E-03	5.283
	+	86.72		2.724E+01	1.060E+01	1.174E+01	1.088E+00	2.321
		117.66		-5.204E+00	3.656E+00	5.452E+00	4.689E-01	-0.955
		142.18		3.509E-01	1.708E+01	2.728E+01	2.252E+00	0.013
ANH-511	+	511.00	*	6.466E-02	7.253E-02	4.576E-02	4.066E-03	1.413

---- 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	*	1.216E-01	3.424E-01	5.639E-01	5.322E-02	0.216
NA-22		1274.54	*	8.271E-03	4.370E-02	7.365E-02	6.046E-03	0.112
NA-24		1368.53	*	8.097E-01	4.370E-02	Half-Life too short		
AL-26		1129.67		-1.384E+00	2.003E+00	2.732E+00	2.295E-01	-0.507
		1808.65	*	-1.531E-02	2.697E-02	3.900E-02	3.180E-03	-0.393
TI-44		67.85		-3.589E-02	4.009E-02	5.653E-02	4.265E-03	-0.635
	+	78.38	*	4.354E-01	5.625E-02	7.040E-02	5.894E-03	6.185
SC-46		889.25	*	1.082E-02	3.671E-02	6.155E-02	5.640E-03	0.176
	+	1120.51		3.105E-01	1.078E-01	1.450E-01	1.225E-02	2.141
V-48		944.10		-2.074E-01	1.051E+00	1.664E+00	1.513E-01	-0.125
		983.50	*	3.483E-02	7.752E-02	1.308E-01	1.177E-02	0.266
		1312.09		-6.057E-02	7.856E-02	1.155E-01	9.465E-03	-0.525
CR-51		320.08	*	5.100E-02	3.920E-01	6.496E-01	5.870E-02	0.079
MN-52		744.21		1.014E-01	3.023E-01	5.115E-01	4.643E-02	0.198
		848.13		1.035E+00	8.697E+00	1.433E+01	1.316E+00	0.072
		935.52		3.529E-01	3.294E-01	5.851E-01	5.328E-02	0.603
		1246.25		-1.463E+00	8.735E+00	1.421E+01	1.164E+00	-0.103
		1333.61		-2.335E+00	6.677E+00	1.053E+01	8.625E-01	-0.222
		1434.06	*	2.036E-01	2.638E-01	4.825E-01	4.012E-02	0.422
MN-54		834.83	*	6.872E-03	3.776E-02	6.261E-02	5.747E-03	0.110
CO-56		846.75	*	-8.284E-03	4.140E-02	6.613E-02	6.072E-03	-0.125
		977.42		-1.303E+00	2.995E+00	4.584E+00	4.134E-01	-0.284
		1037.82		-1.551E-01	3.034E-01	4.822E-01	4.474E-02	-0.322
		1175.09		1.269E+00	2.361E+00	4.110E+00	3.346E-01	0.309
		1238.25		1.372E-01	1.005E-01	1.820E-01	1.538E-02	0.753
		1360.21		2.339E-01	1.008E+00	1.708E+00	1.406E-01	0.137
		1771.40		-1.351E+00	4.107E-01	3.378E-01	2.774E-02	-4.000
CO-57		122.06	*	1.741E-02	2.391E-02	3.967E-02	3.413E-03	0.439
		136.48		1.961E-01	2.078E-01	3.419E-01	3.079E-02	0.573
CO-58		810.76	*	-2.293E-02	3.823E-02	5.848E-02	5.373E-03	-0.392
FE-59		142.65		2.171E+00	2.761E+00	4.501E+00	3.712E-01	0.482
		192.34		-8.940E-02	9.336E-01	1.571E+00	2.063E-01	-0.057
		1099.22	*	3.159E-03	9.057E-02	1.519E-01	1.407E-02	0.021
		1291.56		1.304E-01	1.219E-01	2.240E-01	2.109E-02	0.582
CO-60		1173.22		-1.080E-02	4.589E-02	7.464E-02	6.074E-03	-0.145
		1332.49	*	-2.983E-02	4.237E-02	6.369E-02	5.218E-03	-0.468
ZN-65		1115.52	*	-9.577E-02	1.087E-01	1.370E-01	1.163E-02	-0.699
GE-68		1077.35	*	4.225E-02	1.255E+00	2.107E+00	1.826E-01	0.020
AS-73		53.44	*	3.116E-01	5.238E-01	8.682E-01	6.520E-02	0.359

----- 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	*	-7.968E-03	1.003E-01	1.666E-01	1.494E-02	-0.048
		634.78		-1.871E-01	3.872E-01	6.181E-01	5.510E-02	-0.303
SE-75		66.05		-1.918E-01	4.078E+00	6.006E+00	5.698E-01	-0.032
		96.73		-1.317E+00	8.207E-01	1.053E+00	1.459E-01	-1.250
		121.11		1.184E-02	1.290E-01	2.084E-01	2.334E-02	0.057
		136.00		2.856E-02	3.976E-02	6.489E-02	5.455E-03	0.440
		198.60		4.319E-01	1.820E+00	3.085E+00	2.835E-01	0.140
		264.65	*	7.203E-03	4.780E-02	7.069E-02	6.036E-03	0.102
		279.53		4.142E-02	1.104E-01	1.864E-01	1.644E-02	0.222
		303.91		-1.430E+00	2.582E+00	3.573E+00	4.085E-01	-0.400
		400.65		1.624E-01	2.573E-01	4.347E-01	4.752E-02	0.374
BR-77	+	87.88		9.070E+02	3.529E+02	5.158E+02	4.853E+01	1.758
		200.40		2.962E+01	2.686E+02	4.551E+02	3.742E+01	0.065
	+	239.00		4.612E+02	5.014E+01	6.675E+01	5.640E+00	6.910
		249.79		-5.839E+01	1.049E+02	1.696E+02	1.438E+01	-0.344
		281.68		-1.498E+02	1.521E+02	2.375E+02	2.018E+01	-0.631
		297.23		4.956E+02	1.437E+02	2.027E+02	1.732E+01	2.446
		303.76		-1.935E+02	3.631E+02	5.040E+02	4.315E+01	-0.384
		439.47		3.757E+01	2.398E+02	3.913E+02	3.370E+01	0.096
		484.57		-1.379E+02	3.773E+02	5.849E+02	5.151E+01	-0.236
		520.65	*	-5.115E+00	1.725E+01	2.843E+01	2.532E+00	-0.180
		574.64		-5.410E+01	3.626E+02	6.007E+02	5.387E+01	-0.090
		578.91		-6.979E+01	1.597E+02	2.210E+02	1.982E+01	-0.316
		585.48		2.253E+03	4.742E+02	8.408E+02	7.541E+01	2.679
		755.35		1.367E+02	2.837E+02	4.851E+02	4.414E+01	0.282
		817.79		2.622E+01	2.300E+02	3.644E+02	3.342E+01	0.072
SR-82		698.33		-3.961E+01	3.864E+01	5.838E+01	5.235E+00	-0.678
		776.49	*	-2.431E-01	4.034E-01	6.232E-01	5.691E-02	-0.390
		1395.20		7.314E-01	1.080E+01	1.789E+01	1.481E+00	0.041
RB-83		520.41	*	-2.847E-02	6.872E-02	1.122E-01	9.995E-03	-0.254
		529.64		-5.785E-02	1.063E-01	1.716E-01	1.531E-02	-0.337
		552.65		-8.077E-03	1.971E-01	3.299E-01	2.955E-02	-0.024
RB-84		881.50	*	3.017E-02	6.445E-02	1.102E-01	1.011E-02	0.274
KR-85		513.99	*	1.198E+01	8.168E+00	1.345E+01	1.196E+00	0.891
SR-85		513.99	*	6.258E-02	4.266E-02	7.027E-02	6.248E-03	0.891
RB-86		1076.63	*	-4.833E-01	8.501E-01	1.342E+00	1.163E-01	-0.360
Y-88		898.02		2.980E-02	4.104E-02	7.142E-02	6.568E-03	0.417
		1836.01	*	-1.905E-02	3.575E-02	5.328E-02	4.324E-03	-0.358
ZR-88		392.90	*	-3.494E-02	3.312E-02	4.965E-02	4.135E-03	-0.704
Y-91		1204.90	*	2.431E+00	1.962E+01	3.293E+01	2.690E+00	0.074
NB-94		702.63	*	1.225E-02	3.744E-02	6.329E-02	5.683E-03	0.194
		871.10		1.814E-02	3.220E-02	5.544E-02	5.087E-03	0.327
NB-95		765.79	*	5.983E-02	4.499E-02	7.421E-02	6.765E-03	0.806
NB-95M		235.69	*	6.381E-02	1.416E-01	2.141E-01	2.078E-02	0.298
ZR-95		724.18		5.675E-02	1.003E-01	1.533E-01	1.494E-02	0.370
		756.15	*	5.808E-02	7.349E-02	1.286E-01	1.277E-02	0.452
NB-97		657.90	*	1.968E-01	7.349E-02	Half-Life	too short	
		1024.50		1.401E+01	7.349E-02	Half-Life	too short	
ZR-97		254.15		5.020E+00	7.349E-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			1.650E+01	7.349E-02	Half-Life	too short	
	507.63	*		1.533E+01	7.349E-02	Half-Life	too short	
	602.52			4.209E+00	7.349E-02	Half-Life	too short	
	1021.30			3.554E+00	7.349E-02	Half-Life	too short	
	1147.95			-1.294E+01	7.349E-02	Half-Life	too short	
	1362.66			-3.588E+00	7.349E-02	Half-Life	too short	
	1750.46			2.580E+00	7.349E-02	Half-Life	too short	
MO-99	140.51			-4.787E+01	4.165E+01	5.940E+01	1.639E+01	-0.806
	181.06			-1.873E+01	2.858E+01	4.085E+01	7.364E+00	-0.458
	366.43			1.273E+02	1.329E+02	2.297E+02	1.945E+01	0.554
	739.58	*		-5.704E+00	1.893E+01	3.030E+01	4.680E+00	-0.188
	778.00			-3.085E+01	5.215E+01	8.048E+01	7.352E+00	-0.383
TC-99M	140.51	*		-5.692E+12	5.215E+01	Half-Life	too short	
RH-101	127.23			2.502E-02	3.218E-02	5.326E-02	4.523E-03	0.470
	198.01	*		-5.243E-04	3.309E-02	5.554E-02	4.556E-03	-0.009
	325.23			4.840E-02	2.595E-01	3.795E-01	3.254E-02	0.128
RH-102	418.52			-7.966E-02	3.032E-01	4.812E-01	4.088E-02	-0.166
	475.06	*		-5.277E-03	3.098E-02	4.902E-02	4.300E-03	-0.108
	631.29			5.564E-02	5.589E-02	9.975E-02	8.900E-03	0.558
	697.49			-4.193E-02	7.997E-02	1.264E-01	1.133E-02	-0.332
	766.84			1.749E-01	1.275E-01	2.074E-01	1.891E-02	0.843
	1046.59			-1.446E-01	1.114E-01	1.599E-01	1.406E-02	-0.904
	1112.84			8.713E-02	2.416E-01	3.786E-01	3.214E-02	0.230
RU-103	497.08	*		2.252E-02	4.086E-02	6.822E-02	9.757E-03	0.330
	610.33			1.576E+01	3.138E+00	3.332E+00	5.617E-01	4.730
RH-106	511.85	+		3.240E-01	3.635E-01	4.417E-01	3.925E-02	0.734
	621.84	*		-4.794E-02	3.119E-01	5.129E-01	6.957E-02	-0.093
	1050.47			7.696E-01	2.285E+00	3.953E+00	3.470E-01	0.195
RU-106	511.85	+		3.240E-01	3.635E-01	4.417E-01	3.925E-02	0.734
	621.84	*		-4.794E-02	3.118E-01	5.129E-01	4.584E-02	-0.093
	1050.47			7.696E-01	2.285E+00	3.953E+00	3.470E-01	0.195
AG-108M	433.93	*		-4.418E-03	3.312E-02	5.289E-02	4.722E-03	-0.084
	614.37			-2.396E-02	4.078E-02	5.471E-02	5.074E-03	-0.438
	722.95			1.336E-02	4.278E-02	6.362E-02	5.951E-03	0.210
AG-110M	657.75	*		1.084E-02	3.917E-02	5.828E-02	5.309E-03	0.186
	677.61			4.309E-02	3.012E-01	5.048E-01	4.614E-02	0.085
	706.67			-9.177E-02	2.331E-01	3.730E-01	3.438E-02	-0.246
	763.93			-8.993E-02	1.842E-01	2.444E-01	2.283E-02	-0.368
	884.67			-1.030E-02	4.670E-02	7.393E-02	6.970E-03	-0.139
	937.48			-1.924E-01	1.250E-01	1.676E-01	1.575E-02	-1.148
	1384.27			-5.179E-02	1.779E-01	2.344E-01	1.996E-02	-0.221
IN-111	171.28			3.103E-01	1.667E+00	2.659E+00	2.116E-01	0.117
	245.39	*		2.664E-01	1.691E+00	2.494E+00	2.113E-01	0.107
IN-113M	391.69	*		-3.483E-02	4.831E-02	7.451E-02	6.405E-03	-0.467
SN-113	391.69	*		-3.483E-02	4.831E-02	7.451E-02	6.405E-03	-0.467
IN-114M	190.27	*		1.045E-01	2.004E-01	3.080E-01	2.506E-02	0.339
CD-115	260.90			-3.473E+01	2.173E+02	3.585E+02	3.046E+01	-0.097
	492.35			-1.807E+01	6.521E+01	1.019E+02	9.001E+00	-0.177
	527.90	*		-2.926E+00	1.883E+01	3.135E+01	2.797E+00	-0.093

---- 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			-2.137E+00	2.505E+00	3.805E+00	3.065E-01	-0.562
	158.56	*		1.383E-02	5.875E-02	9.434E-02	7.564E-03	0.147
SB-122	563.90	*		-7.676E-01	3.229E+00	5.319E+00	4.768E-01	-0.144
	692.80			5.855E+01	7.012E+01	1.232E+02	1.103E+01	0.475
I-123	159.00	*		-1.951E+01	7.012E+01	Half-Life	too short	
	528.96			-1.700E+03	7.012E+01	Half-Life	too short	
TE-123M	159.00	*		-1.055E-02	2.867E-02	4.466E-02	3.603E-03	-0.236
I-124	602.71	*		-1.190E-01	1.031E+00	1.550E+00	1.389E-01	-0.077
	722.78			1.951E+00	5.983E+00	8.914E+00	8.050E-01	0.219
	1325.50			1.971E+01	4.409E+01	7.669E+01	6.284E+00	0.257
	1376.25			5.244E+01	4.590E+01	8.423E+01	6.952E+00	0.623
	1509.49			2.128E+01	2.136E+01	3.955E+01	3.307E+00	0.538
	1691.02			-1.314E+00	4.963E+00	7.550E+00	6.273E-01	-0.174
SB-124	602.71			-5.276E-03	4.572E-02	6.872E-02	6.158E-03	-0.077
	645.85			1.513E-01	5.279E-01	8.967E-01	8.423E-02	0.169
	709.31			-2.354E-01	3.113E+00	5.060E+00	4.553E-01	-0.047
	713.82			-7.026E-01	1.700E+00	2.701E+00	3.327E-01	-0.260
	722.78			1.254E-01	3.846E-01	5.729E-01	5.276E-02	0.219
+	968.20			1.160E+01	5.642E+00	7.846E+00	7.093E-01	1.478
	1045.16			-6.362E-02	2.287E+00	3.827E+00	3.368E-01	-0.017
	1325.50			1.353E+00	3.027E+00	5.265E+00	4.314E-01	0.257
	1368.21			1.245E-01	2.118E+00	3.021E+00	3.999E-01	0.041
	1436.60			1.039E+00	3.819E+00	6.495E+00	5.403E-01	0.160
	1691.02	*		-1.992E-02	7.524E-02	1.145E-01	9.915E-03	-0.174
SB-125	427.89	*		-3.420E-02	9.443E-02	1.483E-01	1.293E-02	-0.231
+	463.38			7.304E-01	5.028E-01	5.608E-01	5.268E-02	1.302
	600.56			7.785E-02	1.882E-01	3.230E-01	3.093E-02	0.241
	635.90			-8.070E-02	2.785E-01	4.523E-01	4.336E-02	-0.178
TE-125M	109.28	*		-5.034E-01	8.745E+00	1.410E+01	1.462E+00	-0.036
I-126	388.63			2.862E-01	2.345E-01	4.090E-01	3.412E-02	0.700
	666.33	*		5.362E-02	2.424E-01	3.571E-01	3.166E-02	0.150
	753.82			2.300E-02	1.610E+00	2.649E+00	2.410E-01	0.009
SB-126	223.80			4.190E-01	4.317E+00	7.155E+00	5.996E-01	0.059
	278.60			3.817E+00	2.753E+00	4.849E+00	4.116E-01	0.787
+	296.50			1.535E+01	3.152E+00	4.254E+00	3.636E-01	3.608
	414.70			-7.386E-02	9.167E-02	1.399E-01	1.185E-02	-0.528
	415.30			-4.249E+00	7.528E+00	1.170E+01	9.914E-01	-0.363
	555.20			1.548E+00	4.177E+00	7.206E+00	6.456E-01	0.215
	573.80			-2.813E-01	1.223E+00	2.014E+00	1.807E-01	-0.140
	593.00			-4.735E-01	1.018E+00	1.638E+00	1.468E-01	-0.289
	656.30			2.121E+00	4.115E+00	6.285E+00	5.571E-01	0.337
	666.33			2.250E-02	1.017E-01	1.498E-01	1.328E-02	0.150
	675.00			2.436E-01	2.153E+00	3.601E+00	3.203E-01	0.068
	695.00			-2.153E-02	8.986E-02	1.457E-01	1.305E-02	-0.148
	697.00			-1.656E-01	3.122E-01	4.936E-01	4.424E-02	-0.335
	720.50	*		5.159E-02	1.654E-01	2.564E-01	2.314E-02	0.201
	856.80			5.521E-01	6.115E-01	9.591E-01	8.804E-02	0.576
	989.30			-2.662E-01	1.304E+00	2.047E+00	1.839E-01	-0.130
	1034.80			6.615E+00	8.900E+00	1.603E+01	1.417E+00	0.413

Sample ID : G243517005

Acquisition date : 7-JAN-2010 08:53:48

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127	1213.00			-2.905E+00	5.203E+00	8.174E+00	6.681E-01	-0.355
	61.10			4.296E+00	6.028E+01	8.957E+01	9.599E+00	0.048
	252.40			-2.163E+00	5.771E+00	9.306E+00	3.923E+00	-0.232
	290.80			-1.600E+01	3.228E+01	4.494E+01	5.228E+00	-0.356
	411.60			3.908E+00	1.816E+01	2.980E+01	4.775E+00	0.131
	444.90			2.650E+00	1.358E+01	2.220E+01	2.892E+00	0.119
	473.00			-1.946E+00	2.602E+00	3.918E+00	5.261E-01	-0.497
	543.00			1.169E+01	2.212E+01	3.851E+01	5.779E+00	0.304
	603.60			-5.258E-01	1.858E+01	2.688E+01	3.553E+00	-0.020
	685.20	*		-1.125E+00	1.820E+00	2.836E+00	3.442E-01	-0.397
XE-127	698.50			-1.934E+01	2.237E+01	3.404E+01	5.580E+00	-0.568
	722.20			1.833E+01	4.130E+01	6.245E+01	7.496E+00	0.294
	783.80			3.758E+00	5.171E+00	8.955E+00	1.187E+00	0.420
	57.60			9.592E-01	4.030E+00	6.738E+00	4.884E-01	0.142
	145.22			-4.029E-02	7.269E-01	1.142E+00	9.377E-02	-0.035
	172.10			6.191E-02	1.338E-01	2.160E-01	1.721E-02	0.287
	202.84	*		-3.219E-02	4.916E-02	7.762E-02	6.396E-03	-0.415
I-131	374.96			-1.210E-01	2.054E-01	3.203E-01	2.699E-02	-0.378
	80.18			1.992E+00	4.596E+00	6.866E+00	5.917E-01	0.290
	284.30			1.866E-01	1.701E+00	2.834E+00	2.544E-01	0.066
	364.48	*		-4.695E-02	1.378E-01	2.196E-01	1.969E-02	-0.214
TE-132	636.97			5.463E-01	1.806E+00	3.076E+00	2.888E-01	0.178
	722.89			2.659E+00	8.383E+00	1.248E+01	1.135E+00	0.213
	49.72			-1.218E+01	1.723E+01	2.467E+01	2.671E+00	-0.494
	111.76			1.726E+00	4.150E+01	6.713E+01	7.619E+00	0.026
BA-133	116.30			1.315E+01	3.787E+01	6.194E+01	7.015E+00	0.212
	228.16	*		-2.019E-01	9.998E-01	1.659E+00	2.644E-01	-0.122
	53.15			2.011E+00	2.206E+00	3.696E+00	2.785E-01	0.544
	79.62			9.478E-01	1.106E+00	1.674E+00	2.537E-01	0.566
	81.00			-1.153E-01	9.170E-02	1.231E-01	1.956E-02	-0.937
I-133	276.40			3.202E-01	3.974E-01	6.377E-01	9.165E-02	0.502
	302.84			4.410E-02	1.721E-01	2.538E-01	3.363E-02	0.174
	356.01	*		-3.692E-04	5.351E-02	7.655E-02	1.005E-02	-0.005
	383.85			-2.584E-01	3.194E-01	4.884E-01	6.074E-02	-0.529
	510.53	+		2.675E+00	3.194E-01	Half-Life	too short	
	529.87	*		-9.807E-03	3.194E-01	Half-Life	too short	
	706.58			-6.697E-01	3.194E-01	Half-Life	too short	
	856.28			1.554E+00	3.194E-01	Half-Life	too short	
	875.33			-4.395E-01	3.194E-01	Half-Life	too short	
	1236.41			5.032E+00	3.194E-01	Half-Life	too short	
CS-134	1298.22			3.464E-02	3.194E-01	Half-Life	too short	
	475.35			-4.153E-01	2.056E+00	3.245E+00	2.847E-01	-0.128
	563.23			-8.854E-02	3.590E-01	5.908E-01	5.343E-02	-0.150
	569.32			1.910E-01	2.136E-01	3.696E-01	3.356E-02	0.517
	604.70			-6.717E-04	3.745E-02	5.423E-02	4.869E-03	-0.012
	795.84	*		1.100E-01	5.469E-02	1.011E-01	9.318E-03	1.087
	801.93			-2.457E-03	4.349E-01	7.011E-01	6.454E-02	-0.004
	1038.57			-1.431E+00	3.739E+00	6.031E+00	5.323E-01	-0.237
	1167.94			-3.736E-01	2.583E+00	4.240E+00	3.464E-01	-0.088

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135 I-135	1365.15			-5.038E-01	1.257E+00	1.950E+00	1.687E-01	-0.258
	268.24	*		1.111E-01	1.787E-01	2.718E-01	2.680E-02	0.409
	288.45			8.410E+11	1.787E-01	Half-Life	too short	
	417.63			-1.097E+11	1.787E-01	Half-Life	too short	
	546.56			2.854E+11	1.787E-01	Half-Life	too short	
	836.80			1.126E+12	1.787E-01	Half-Life	too short	
	1038.76			-5.151E+11	1.787E-01	Half-Life	too short	
	1124.00			3.272E+12	1.787E-01	Half-Life	too short	
	1131.51			3.722E+11	1.787E-01	Half-Life	too short	
	1260.41	*		-1.060E+11	1.787E-01	Half-Life	too short	
CS-136	1457.56			2.326E+13	1.787E-01	Half-Life	too short	
	1678.03			1.457E+11	1.787E-01	Half-Life	too short	
	1706.46			-2.464E+12	1.787E-01	Half-Life	too short	
	1791.20			5.387E+11	1.787E-01	Half-Life	too short	
	66.91			-4.400E-01	7.235E-01	1.033E+00	1.532E-01	-0.426
	86.29	+		3.541E+00	1.418E+00	2.021E+00	2.679E-01	1.752
	153.22			7.904E-01	7.138E-01	1.188E+00	1.090E-01	0.665
	163.89			5.608E-01	1.223E+00	1.978E+00	1.791E-01	0.284
	176.55			-2.859E-02	3.870E-01	6.547E-01	5.594E-02	-0.044
	273.65			-5.626E-01	5.641E-01	7.589E-01	6.885E-02	-0.741
CE-139 BA-140	340.57			3.706E-01	1.651E-01	2.715E-01	2.392E-02	1.365
	818.51			3.583E-02	8.231E-02	1.343E-01	1.233E-02	0.267
	1048.07	*		-1.107E-01	1.140E-01	1.711E-01	1.566E-02	-0.647
	1235.34			6.489E-01	6.864E-01	1.214E+00	1.401E-01	0.534
	165.85	*		-1.545E-02	3.191E-02	4.933E-02	3.902E-03	-0.313
	162.64			7.285E-01	8.486E-01	1.396E+00	1.187E-01	0.522
	304.84			4.123E-02	1.647E+00	2.389E+00	6.692E-01	0.017
	423.70			7.586E-01	2.170E+00	3.572E+00	1.157E+00	0.212
	537.32	*		-9.425E-03	2.777E-01	4.659E-01	1.548E-01	-0.020
	328.77	+		7.453E-01	5.707E-01	6.323E-01	5.728E-02	1.179
LA-140	432.53			-2.803E-01	2.265E+00	3.621E+00	3.258E-01	-0.077
	487.03			-2.296E-02	1.495E-01	2.362E-01	2.206E-02	-0.097
	751.79			-1.578E+00	1.894E+00	2.860E+00	2.851E-01	-0.552
	815.85			2.697E-01	3.330E-01	5.870E-01	5.934E-02	0.460
	867.82			-3.063E-01	1.677E+00	2.288E+00	2.198E-01	-0.134
	919.63			-8.003E-01	3.452E+00	4.895E+00	5.416E-01	-0.163
	925.24			-1.891E-01	1.250E+00	1.989E+00	1.917E-01	-0.095
	1596.49	*		9.407E-02	1.035E-01	1.739E-01	1.455E-02	0.541
	145.44	*		6.634E-03	6.551E-02	1.037E-01	8.678E-03	0.064
	57.37			5.643E-05	6.551E-02	Half-Life	too short	
CE-141 CE-143	231.56			2.138E-04	6.551E-02	Half-Life	too short	
	293.26	*		1.500E-03	6.551E-02	Half-Life	too short	
	350.59	+		8.940E-02	6.551E-02	Half-Life	too short	
	490.36			6.910E-03	6.551E-02	Half-Life	too short	
	664.57			-8.639E-04	6.551E-02	Half-Life	too short	
	721.93			2.046E-03	6.551E-02	Half-Life	too short	
	80.11			8.255E-01	1.827E+00	2.732E+00	2.334E-01	0.302
	133.54	*		3.747E-02	2.087E-01	3.367E-01	5.198E-02	0.111
	476.78			2.883E-02	7.063E-02	1.168E-01	1.118E-02	0.247

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		618.01		5.957E-03	3.089E-02	5.228E-02	4.795E-03	0.114
		696.49	*	-5.491E-03	3.598E-02	5.874E-02	5.266E-03	-0.093
		778.57		-1.370E+00	2.282E+00	3.520E+00	3.217E-01	-0.389
PR-144		696.49	*	-3.725E-01	2.440E+00	3.984E+00	3.570E-01	-0.093
		1489.15		-1.133E+00	1.062E+01	1.699E+01	1.419E+00	-0.067
PM-146		453.90	*	3.420E-02	4.468E-02	7.579E-02	8.166E-03	0.451
		633.02		-1.071E+00	1.491E+00	2.245E+00	8.404E-01	-0.477
		735.90		3.365E-02	1.509E-01	2.465E-01	7.085E-02	0.137
		747.13		-1.982E-02	9.114E-02	1.468E-01	2.104E-02	-0.135
ND-147	+	91.11		5.586E-01	3.080E-01	5.217E-01	5.163E-02	1.071
		319.41		-5.943E-01	3.753E+00	6.114E+00	5.245E-01	-0.097
		439.89		-4.654E+00	6.892E+00	1.053E+01	9.071E-01	-0.442
		531.02	*	9.453E-02	6.082E-01	1.035E+00	1.566E-01	0.091
PM-149		285.90	*	5.107E+01	1.558E+02	2.623E+02	4.063E+01	0.195
EU-152		121.78		2.611E-02	6.953E-02	1.137E-01	1.126E-02	0.230
		244.69		1.839E-01	3.288E-01	5.028E-01	4.258E-02	0.366
		344.27	*	-8.040E-03	1.028E-01	1.617E-01	1.466E-02	-0.050
		443.98		-9.440E-02	9.764E-01	1.561E+00	1.348E-01	-0.060
		778.89		-1.422E-01	2.640E-01	4.101E-01	3.746E-02	-0.347
		867.32		-5.648E-01	9.605E-01	1.225E+00	1.124E-01	-0.461
		964.01		4.134E-01	3.749E-01	5.867E-01	5.309E-02	0.705
		1085.78		-2.162E-01	4.004E-01	6.335E-01	5.465E-02	-0.341
		1112.02		2.430E-01	3.312E-01	5.674E-01	4.820E-02	0.428
		1407.95		1.350E-01	1.993E-01	3.531E-01	2.927E-02	0.382
GD-153		69.67		1.227E+00	1.419E+00	2.166E+00	1.660E-01	0.567
		83.37		-6.446E+00	1.436E+01	2.049E+01	1.820E+00	-0.315
		97.43	*	-9.743E-02	8.374E-02	1.129E-01	1.010E-02	-0.863
		103.18		-3.643E-02	9.802E-02	1.562E-01	1.371E-02	-0.233
EU-154		123.07		2.342E-02	4.916E-02	8.064E-02	9.137E-03	0.290
		247.94		2.924E-01	3.356E-01	5.828E-01	6.625E-02	0.502
		591.81		2.053E-01	6.101E-01	1.045E+00	1.247E-01	0.196
		723.30		2.884E-02	1.819E-01	2.653E-01	2.627E-02	0.109
		756.87		7.327E-01	7.854E-01	1.386E+00	1.708E-01	0.529
		873.19		1.173E-01	2.773E-01	4.711E-01	5.955E-02	0.249
		996.32		-2.208E-01	3.898E-01	5.856E-01	1.050E-01	-0.377
		1004.76		-1.848E-01	2.326E-01	3.407E-01	4.048E-02	-0.542
		1274.45	*	2.806E-02	1.211E-01	2.050E-01	2.254E-02	0.137
EU-155		48.70		1.796E-01	1.398E+00	2.103E+00	1.702E-01	0.085
		60.01		-3.859E-01	3.781E+00	5.575E+00	4.015E-01	-0.069
	+	86.54		2.982E-01	1.161E-01	1.708E-01	1.593E-02	1.746
		105.31	*	5.385E-02	9.857E-02	1.632E-01	1.441E-02	0.330
TB-160	+	86.79		8.094E-01	3.149E-01	4.639E-01	4.303E-02	1.745
		197.04		-3.216E-01	5.752E-01	9.431E-01	7.728E-02	-0.341
		215.65		-7.554E-03	7.961E-01	1.242E+00	1.035E-01	-0.006
		298.57		2.010E-01	1.641E-01	2.000E-01	1.710E-02	1.005
		879.36	*	-1.004E-02	1.297E-01	2.089E-01	1.916E-02	-0.048
		962.29		1.388E-01	6.713E-01	9.598E-01	8.690E-02	0.145
		966.15		7.147E-01	2.984E-01	5.037E-01	4.556E-02	1.419
		1177.93		1.413E-01	3.833E-01	6.578E-01	5.356E-02	0.215

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
HO-166M		1271.85	-3.674E-01	7.273E-01	1.134E+00	9.299E-02	-0.324
		80.57	-4.087E-02	2.378E-01	3.448E-01	2.962E-02	-0.119
	+	184.41	1.837E-01	5.640E-02	6.830E-02	5.521E-03	2.689
		280.46	-8.433E-02	8.733E-02	1.368E-01	1.162E-02	-0.617
		410.95	2.727E-01	2.674E-01	4.593E-01	3.881E-02	0.594
		711.68	* -1.441E-03	6.490E-02	1.058E-01	9.529E-03	-0.014
TM-171		752.31	-3.532E-01	2.810E-01	4.041E-01	3.675E-02	-0.874
		810.29	-5.517E-02	5.802E-02	8.509E-02	7.800E-03	-0.648
		51.35	-1.057E+01	1.845E+01	2.851E+01	2.201E+00	-0.371
		52.39	4.507E+00	9.621E+00	1.589E+01	1.209E+00	0.284
		59.40	-1.456E+01	2.005E+01	2.860E+01	2.057E+00	-0.509
		66.72	* -1.863E+01	2.417E+01	3.434E+01	2.568E+00	-0.542
LU-176	+	88.36	5.868E-01	2.283E-01	3.346E-01	3.145E-02	1.753
		201.83	-2.083E-02	2.847E-02	4.645E-02	3.824E-03	-0.448
		306.84	* 2.022E-02	2.625E-02	4.371E-02	3.744E-03	0.463
		401.10	3.513E-01	6.741E+00	1.097E+01	9.202E-01	0.032
LU-177		112.95	-6.937E-01	1.903E+00	3.021E+00	2.607E-01	-0.230
	+	208.36	* 4.332E+00	2.393E+00	2.494E+00	2.066E-01	1.737
LU-177M		52.97	7.990E-01	1.007E+00	1.682E+00	1.270E-01	0.475
		54.07	2.719E-01	5.405E-01	8.928E-01	6.658E-02	0.305
		61.30	2.315E-01	1.152E+00	1.721E+00	1.246E-01	0.135
		121.62	9.785E-02	3.573E-01	5.819E-01	5.001E-02	0.168
		147.16	-3.736E-01	6.464E-01	1.000E+00	8.185E-02	-0.373
		171.86	2.276E-01	5.249E-01	8.462E-01	6.740E-02	0.269
		218.09	4.654E-01	8.346E-01	1.435E+00	1.198E-01	0.324
		268.79	1.361E+00	8.602E-01	1.506E+00	1.280E-01	0.903
		319.02	-6.019E-02	2.628E-01	4.263E-01	3.656E-02	-0.141
		367.43	4.588E-01	9.261E-01	1.559E+00	1.319E-01	0.294
		413.65	* -1.444E-01	1.957E-01	3.003E-01	2.543E-02	-0.481
		56.28	-2.670E-01	6.219E-01	1.014E+00	7.411E-02	-0.263
		57.53	6.214E-02	3.365E-01	5.615E-01	4.071E-02	0.111
		65.20	1.079E+00	7.914E-01	1.235E+00	9.137E-02	0.874
		133.02	2.999E-02	6.796E-02	1.109E-01	9.307E-03	0.270
		136.25	3.432E-01	4.719E-01	7.703E-01	6.426E-02	0.446
HF-181		345.85	-4.391E-03	2.245E-01	3.215E-01	2.747E-02	-0.014
		482.03	* -4.710E-03	4.362E-02	6.924E-02	6.092E-03	-0.068
		56.28	-1.021E-01	2.390E-01	3.896E-01	2.848E-02	-0.262
		57.53	2.369E-02	1.294E-01	2.159E-01	1.565E-02	0.110
		65.20	* 4.116E-01	3.019E-01	4.710E-01	3.485E-02	0.874
		67.75	-8.326E-02	9.670E-02	1.366E-01	1.030E-02	-0.609
TA-182		100.10	1.741E-01	1.679E-01	2.827E-01	2.504E-02	0.616
		152.43	2.140E-01	3.313E-01	5.427E-01	4.399E-02	0.394
		222.10	-1.279E-01	3.482E-01	5.651E-01	4.731E-02	-0.226
		1001.68	8.568E-01	2.300E+00	3.860E+00	3.455E-01	0.222
	+	1121.28	8.543E-01	2.965E-01	4.001E-01	3.379E-02	2.135
		1189.05	1.652E-01	3.104E-01	5.404E-01	4.406E-02	0.306
RE-183		1221.42	* -6.571E-02	2.014E-01	3.240E-01	2.650E-02	-0.203
		1230.97	-2.302E-01	4.641E-01	7.323E-01	5.993E-02	-0.314
		57.98	2.601E-03	1.340E-01	2.222E-01	1.608E-02	0.012

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RE-184		59.32	-9.072E-03	8.101E-02	1.194E-01	8.589E-03	-0.076
		67.20	-8.541E-02	1.718E-01	2.474E-01	1.857E-02	-0.345
		162.32 *	7.700E-02	1.137E-01	1.858E-01	1.479E-02	0.414
	+	208.81	3.306E+00	1.827E+00	1.919E+00	1.590E-01	1.723
		291.72	-5.087E-01	1.051E+00	1.466E+00	1.251E-01	-0.347
		57.98	9.489E-03	4.889E-01	8.106E-01	5.864E-02	0.012
		59.32	-3.307E-02	2.952E-01	4.352E-01	3.130E-02	-0.076
		67.20	-3.114E-01	6.264E-01	9.020E-01	6.771E-02	-0.345
		161.27	-2.242E-01	3.654E-01	5.614E-01	4.479E-02	-0.399
		216.55	-5.521E-02	2.581E-01	4.294E-01	3.580E-02	-0.129
		252.85 *	-3.936E-02	2.261E-01	3.733E-01	3.168E-02	-0.105
		318.01	-2.572E-01	4.584E-01	7.277E-01	6.240E-02	-0.353
		792.07	-5.619E-01	1.130E+00	1.774E+00	1.623E-01	-0.317
		903.28	-5.393E-01	1.015E+00	1.499E+00	1.372E-01	-0.360
OS-185		920.93	-8.327E-02	4.537E-01	7.198E-01	6.571E-02	-0.116
		59.72	2.404E-02	2.211E-01	3.294E-01	2.370E-02	0.073
		61.14	1.234E-02	1.268E-01	1.887E-01	1.365E-02	0.065
		69.30	2.340E-02	2.608E-01	3.856E-01	2.945E-02	0.061
		592.07	8.337E-01	2.520E+00	4.318E+00	3.871E-01	0.193
		646.12 *	2.162E-02	4.361E-02	7.526E-02	6.691E-03	0.287
		717.42	-3.722E-01	8.821E-01	1.398E+00	1.261E-01	-0.266
		874.81	-7.132E-01	5.683E-01	7.806E-01	7.161E-02	-0.914
		880.27	4.430E-01	7.120E-01	1.235E+00	1.133E-01	0.359
		155.03 *	6.445E-02	1.728E-01	2.795E-01	2.255E-02	0.231
RE-188		477.96	8.967E-01	3.245E+00	5.313E+00	4.667E-01	0.169
		633.10	-2.357E+00	2.946E+00	4.570E+00	4.075E-01	-0.516
	+	63.58	3.655E+01	5.715E+01	7.123E+01	5.217E+00	0.513
W-188		227.08	1.304E-01	1.279E+01	2.145E+01	1.802E+00	0.006
	+	290.67 *	-4.550E+00	8.269E+00	1.146E+01	9.777E-01	-0.397
IR-192		295.96	1.084E+00	2.228E-01	3.099E-01	2.667E-02	3.497
		308.46	-1.145E-02	1.012E-01	1.658E-01	1.428E-02	-0.069
		316.51 *	-3.820E-03	3.506E-02	5.732E-02	4.926E-03	-0.067
		468.07	1.296E-02	8.353E-02	1.188E-01	1.112E-02	0.109
		604.41	-3.071E-03	5.143E-01	7.458E-01	9.878E-02	-0.004
AU-195		612.46	2.327E+00	8.703E-01	1.524E+00	1.553E-01	1.527
		65.12	2.042E-01	1.398E-01	2.189E-01	1.619E-02	0.933
		66.83	-6.359E-02	8.034E-02	1.140E-01	8.533E-03	-0.558
	+	75.70	1.227E+00	2.361E-01	4.242E-01	3.447E-02	2.892
		98.88 *	2.250E-01	2.317E-01	3.521E-01	3.131E-02	0.639
TL-200		129.76	9.838E-01	2.986E+00	4.852E+00	4.099E-01	0.203
		367.94 *	8.982E-05	2.986E+00	Half-Life	too short	
		579.30	-4.342E-03	2.986E+00	Half-Life	too short	
		828.27	2.376E-03	2.986E+00	Half-Life	too short	
TL-201		1205.75	1.748E-03	2.986E+00	Half-Life	too short	
		68.90	-2.924E+00	6.191E+00	8.919E+00	6.788E-01	-0.328
		70.82	3.396E+00	3.485E+00	5.337E+00	4.131E-01	0.636
		80.30	2.580E+00	6.415E+00	9.569E+00	8.192E-01	0.270
		135.34	-5.725E+00	3.919E+01	6.166E+01	5.152E+00	-0.093
		167.43 *	-4.591E+00	1.100E+01	1.704E+01	1.350E+00	-0.269

Sample ID : G243517005

Acquisition date : 7-JAN-2010 08:53:48

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-202		68.90		-1.948E-01	4.126E-01	5.943E-01	4.523E-02	-0.328
		70.82		2.257E-01	2.316E-01	3.547E-01	2.745E-02	0.636
		80.30		1.715E-01	4.264E-01	6.360E-01	5.445E-02	0.270
		439.56	*	1.006E-02	7.675E-02	1.250E-01	1.076E-02	0.081
HG-203		70.83		9.124E-01	9.377E-01	1.429E+00	1.867E-01	0.639
		72.87		1.255E+00	5.378E-01	9.070E-01	1.156E-01	1.384
		82.60		-4.997E-01	1.042E+00	1.483E+00	2.056E-01	-0.337
		279.20	*	3.720E-02	4.225E-02	7.297E-02	6.374E-03	0.510
BI-207		72.80		3.298E-01	1.482E-01	2.565E-01	2.023E-02	1.286
	+	74.97		6.760E-01	1.301E-01	2.013E-01	1.623E-02	3.358
		84.90		1.948E-01	1.815E-01	2.762E-01	2.502E-02	0.705
		569.67		2.889E-02	3.319E-02	5.736E-02	5.143E-03	0.504
		1063.62	*	-1.165E-02	5.401E-02	8.805E-02	7.683E-03	-0.132
		1770.23		-1.836E-02	4.510E-01	6.371E-01	5.234E-02	-0.029
TL-207		81.07		-2.580E-01	1.994E-01	2.713E-01	2.344E-02	-0.951
		83.78		-3.520E-02	1.220E-01	1.755E-01	1.567E-02	-0.201
		94.90		-1.303E-01	2.059E-01	3.260E-01	2.948E-02	-0.400
		122.32		8.674E-01	1.648E+00	2.712E+00	2.502E-01	0.320
		144.24		4.596E-01	6.894E-01	1.118E+00	1.038E-01	0.411
		154.21		3.496E-01	3.888E-01	6.426E-01	5.778E-02	0.544
	+	269.46		5.788E-01	3.592E-01	3.623E-01	3.144E-02	1.598
		323.87	*	2.487E-01	7.555E-01	1.117E+00	1.974E-01	0.223
	+	338.28		5.867E+00	1.823E+00	2.521E+00	3.094E-01	2.327
		445.03		5.584E-01	2.315E+00	3.797E+00	4.596E-01	0.147
PO-209		260.50		-2.135E+00	9.341E+00	1.535E+01	1.304E+00	-0.139
		262.80		-2.139E+01	2.677E+01	4.085E+01	3.471E+00	-0.524
		896.60	*	1.040E+00	7.417E+00	1.221E+01	1.118E+00	0.085
PB-211		404.84	*	-1.509E-02	9.339E-01	1.512E+00	9.470E-01	-0.010
		427.08		5.690E-02	2.091E+00	3.384E+00	2.102E+00	0.017
		831.96		-6.706E-01	1.270E+00	1.847E+00	1.159E+00	-0.363
BI-212	+	727.18	*	1.457E+00	4.680E-01	6.824E-01	7.078E-02	2.136
		785.46		1.222E+00	1.867E+00	3.220E+00	2.944E-01	0.379
		1620.62		6.182E-01	1.405E+00	2.427E+00	2.028E-01	0.255
PO-215		81.07		-2.580E-01	1.994E-01	2.713E-01	2.344E-02	-0.951
		83.78		-3.520E-02	1.220E-01	1.755E-01	1.567E-02	-0.201
		94.90		-1.303E-01	2.059E-01	3.260E-01	2.948E-02	-0.400
		122.32		8.674E-01	1.648E+00	2.712E+00	2.502E-01	0.320
		144.24		4.596E-01	6.894E-01	1.118E+00	1.038E-01	0.411
		154.21		3.496E-01	3.888E-01	6.426E-01	5.778E-02	0.544
	+	269.46		5.788E-01	3.592E-01	3.623E-01	3.144E-02	1.598
		323.87	*	2.487E-01	7.555E-01	1.117E+00	1.974E-01	0.223
	+	338.28		5.867E+00	1.823E+00	2.521E+00	3.094E-01	2.327
		445.03		5.584E-01	2.315E+00	3.797E+00	4.596E-01	0.147
RN-219	+	271.23		7.426E-01	4.626E-01	4.659E-01	4.756E-02	1.594
		401.81	*	-4.066E-01	4.214E-01	6.284E-01	9.360E-02	-0.647
RN-220		549.76	*	-1.068E+01	2.457E+01	3.981E+01	3.564E+00	-0.268
RA-223		81.07		-2.580E-01	1.994E-01	2.713E-01	2.344E-02	-0.951
		83.78		-3.520E-02	1.220E-01	1.755E-01	1.567E-02	-0.201
		94.90		-1.303E-01	2.059E-01	3.260E-01	2.948E-02	-0.400

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		122.32		8.674E-01	1.648E+00	2.712E+00	2.502E-01	0.320
		144.24		4.596E-01	6.894E-01	1.118E+00	1.038E-01	0.411
		154.21		3.496E-01	3.888E-01	6.426E-01	5.778E-02	0.544
	+	269.46		5.788E-01	3.592E-01	3.623E-01	3.144E-02	1.598
		323.87	*	2.487E-01	7.555E-01	1.117E+00	1.974E-01	0.223
	+	338.28		5.867E+00	1.823E+00	2.521E+00	3.094E-01	2.327
		445.03		5.584E-01	2.315E+00	3.797E+00	4.596E-01	0.147
		79.80		1.162E+00	1.412E+00	2.119E+00	4.548E-01	0.548
		236.00		3.404E-01	2.640E-01	4.132E-01	5.007E-02	0.824
		256.20	*	1.274E-01	3.791E-01	6.413E-01	9.797E-02	0.199
		286.10		1.767E-01	1.525E+00	2.541E+00	3.337E-01	0.070
	+	299.80		2.998E+00	2.177E+00	2.673E+00	4.665E-01	1.122
		304.40		-4.092E-01	2.225E+00	3.174E+00	5.843E-01	-0.129
		334.20		4.968E-01	3.143E+00	3.872E+00	7.506E-01	0.128
TH-227		79.80		1.162E+00	1.413E+00	2.119E+00	4.607E-01	0.548
	+	94.00		7.793E+00	3.014E+00	3.380E+00	7.425E-01	2.305
		236.00		3.404E-01	2.634E-01	4.132E-01	4.519E-02	0.824
		256.20	*	1.274E-01	3.793E-01	6.413E-01	1.155E-01	0.199
		286.10		1.767E-01	1.535E+00	2.541E+00	2.550E+00	0.070
	+	299.80		2.998E+00	2.177E+00	2.673E+00	4.665E-01	1.122
		304.40		-4.092E-01	2.225E+00	3.174E+00	5.843E-01	-0.129
		334.20		4.968E-01	3.143E+00	3.872E+00	7.506E-01	0.128
	+	85.43		3.214E-01	1.873E-01	2.899E-01	2.643E-02	1.109
		88.47		3.378E-01	1.314E-01	1.921E-01	1.803E-02	1.759
TH-229		100.00		1.836E-01	1.804E-01	2.907E-01	2.575E-02	0.631
		193.63	*	-1.332E-01	4.887E-01	8.160E-01	6.663E-02	-0.163
	+	210.97		2.545E+00	1.406E+00	1.416E+00	1.176E-01	1.797
		283.67	*	-6.220E-02	1.514E+00	2.502E+00	3.782E-01	-0.025
PA-231	+	301.29		1.199E+00	8.580E-01	1.115E+00	1.360E-01	1.076
TH-231		81.07		-2.580E-01	1.994E-01	2.713E-01	2.344E-02	-0.951
		83.78		-3.520E-02	1.220E-01	1.755E-01	1.567E-02	-0.201
		94.90		-1.303E-01	2.059E-01	3.260E-01	2.948E-02	-0.400
		122.32		8.674E-01	1.648E+00	2.712E+00	2.502E-01	0.320
U-231		144.24		4.596E-01	6.894E-01	1.118E+00	1.038E-01	0.411
		154.21		3.496E-01	3.888E-01	6.426E-01	5.778E-02	0.544
	+	269.46		5.788E-01	3.592E-01	3.623E-01	3.144E-02	1.598
		323.87	*	2.487E-01	7.555E-01	1.117E+00	1.974E-01	0.223
	+	338.28		5.867E+00	1.823E+00	2.521E+00	3.094E-01	2.327
		445.03		5.584E-01	2.315E+00	3.797E+00	4.596E-01	0.147
		84.21		1.709E+00	6.904E+00	1.018E+01	9.138E-01	0.168
	+	92.29		1.028E+01	3.402E+00	4.992E+00	4.575E-01	2.059
		95.87	*	-1.426E+00	1.401E+00	1.906E+00	1.716E-01	-0.748
		108.00		-2.136E+00	2.563E+00	3.981E+00	3.457E-01	-0.537
	+	75.28		1.972E+01	4.547E+00	6.255E+00	9.418E-01	3.153
		86.59		4.843E+00	2.250E+00	2.775E+00	7.500E-01	1.746
	+	300.12		8.359E-01	6.021E-01	7.559E-01	1.121E-01	1.106
		311.98	*	1.905E-03	6.345E-02	1.047E-01	9.233E-03	0.018
PA-233		340.50		1.814E+00	8.430E-01	1.228E+00	2.924E-01	1.477
		398.62		-5.543E-02	2.180E+00	3.531E+00	9.374E-01	-0.016

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	+	415.76		5.725E-01	1.751E+00	2.890E+00	6.212E-01	0.198
		63.00		1.042E+00	1.634E+00	2.049E+00	3.035E-01	0.508
		94.67		3.157E-02	1.513E-01	2.478E-01	3.149E-02	0.127
		98.44		6.115E-02	1.000E-01	1.410E-01	7.874E-02	0.434
		99.86		4.502E-01	4.558E-01	7.340E-01	6.505E-02	0.613
		111.00		9.959E-02	1.719E-01	2.840E-01	3.438E-02	0.351
		131.20		-4.360E-02	1.102E-01	1.736E-01	1.462E-02	-0.251
		152.70		1.695E-01	3.200E-01	5.199E-01	8.729E-02	0.326
		186.00		6.612E+00	2.838E+00	2.745E+00	8.530E-01	2.409
		226.40		-1.189E-01	3.919E-01	6.472E-01	8.450E-02	-0.184
		227.20		6.351E-02	4.239E-01	7.153E-01	6.008E-02	0.089
		248.90		-3.922E-01	7.768E-01	1.252E+00	2.800E-01	-0.313
		293.70		5.502E+00	1.326E+00	1.758E+00	3.035E-01	3.129
		369.80		-3.391E-02	8.504E-01	1.382E+00	3.002E-01	-0.025
		568.70		1.082E+00	1.065E+00	1.899E+00	1.702E-01	0.570
		569.50		2.600E-01	2.948E-01	5.097E-01	4.571E-02	0.510
		574.00		-1.594E-01	1.559E+00	2.592E+00	2.325E-01	-0.062
		699.00		-3.669E-01	7.602E-01	1.203E+00	2.314E-01	-0.305
		706.10		-6.832E-01	1.218E+00	1.862E+00	8.318E-01	-0.367
		733.00		7.186E-02	3.944E-01	5.764E-01	1.289E-01	0.125
		742.81		4.953E-01	1.452E+00	2.395E+00	1.611E+00	0.207
		796.30		2.102E+00	1.182E+00	1.947E+00	5.301E-01	1.080
		805.60		6.958E-01	1.070E+00	1.815E+00	5.592E-01	0.383
		819.60		-1.514E-01	1.181E+00	1.805E+00	6.887E-01	-0.084
		826.30		-1.254E-01	7.807E-01	1.250E+00	5.604E-01	-0.100
		831.60		-4.590E-01	6.420E-01	9.489E-01	2.847E-01	-0.484
		876.40		-2.320E-01	7.916E-01	1.182E+00	1.216E+00	-0.196
		880.51		2.292E-01	2.457E-01	4.401E-01	4.036E-02	0.521
		883.24		5.328E-02	2.670E-01	4.395E-01	2.957E-01	0.121
		899.00		4.641E-01	8.554E-01	1.425E+00	6.244E-01	0.326
		925.00		-4.569E-02	1.154E+00	1.859E+00	1.696E-01	-0.025
		926.50		4.818E-02	1.738E-01	2.889E-01	7.352E-02	0.167
		946.00	*	2.484E-02	3.320E-01	5.403E-01	1.026E-01	0.046
		949.00		2.633E-01	4.839E-01	8.218E-01	7.463E-02	0.320
		980.50		-1.111E-01	7.477E-01	1.185E+00	1.067E-01	-0.094
		1394.10		2.391E-01	1.145E+00	1.918E+00	1.247E+00	0.125
		766.42		1.709E+01	1.541E+01	2.090E+01	1.062E+01	0.818
		1001.03	*	7.818E-03	5.221E+00	8.472E+00	8.687E-01	0.001
U-235	+	89.95		1.992E+00	1.245E+00	1.697E+00	5.271E-01	1.173
		93.35		2.424E+00	1.030E+00	1.148E+00	3.236E-01	2.111
		105.00		3.777E-01	9.769E-01	1.597E+00	4.773E-01	0.236
		143.76	*	1.305E-01	2.131E-01	3.434E-01	5.947E-02	0.380
		163.35		3.542E-01	4.890E-01	7.945E-01	1.492E-01	0.446
NP-236	+	185.71		2.449E-01	7.520E-02	1.016E-01	8.229E-03	2.409
		205.31		1.909E-01	5.621E-01	8.505E-01	1.609E-01	0.224
		94.67		2.601E-02	1.148E-01	1.882E-01	1.704E-02	0.138
		98.44		4.620E-02	7.120E-02	1.066E-01	9.496E-03	0.433
		111.00		7.533E-02	1.299E-01	2.148E-01	1.858E-02	0.351
		160.31	*	-6.803E-02	8.157E-02	1.238E-01	9.896E-03	-0.549

---- 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		1.519E-01	1.542E-01	2.481E-01	2.201E-02	0.612
		117.00	*	-6.985E-02	1.781E-01	2.816E-01	2.423E-02	-0.248
	+	209.75		2.564E+00	1.416E+00	1.525E+00	1.265E-01	1.681
		228.18		-4.525E-02	2.251E-01	3.737E-01	3.141E-02	-0.121
		277.60		2.509E-01	1.800E-01	3.173E-01	2.694E-02	0.791
		334.30		2.200E-01	1.778E+00	2.182E+00	1.869E-01	0.101
AM-241		59.54	*	-1.293E-02	1.139E-01	1.679E-01	1.331E-02	-0.077
CM-243		99.55		1.564E-01	1.587E-01	2.553E-01	2.265E-02	0.612
		103.76	*	-2.908E-02	8.946E-02	1.428E-01	1.251E-02	-0.204
		117.00		-7.187E-02	1.833E-01	2.897E-01	2.493E-02	-0.248
	+	209.75		2.527E+00	1.396E+00	1.504E+00	1.247E-01	1.681
		228.18		-4.572E-02	2.275E-01	3.777E-01	3.174E-02	-0.121
		277.60		2.530E-01	1.815E-01	3.199E-01	2.716E-02	0.791
AM-246		798.80		-2.799E-01	1.693E-01	2.358E-01	2.160E-02	-1.187
		1036.00		-1.980E-03	2.859E-01	4.796E-01	4.238E-02	-0.004
		1062.04		1.015E-01	2.293E-01	3.999E-01	3.492E-02	0.254
		1078.86	*	6.286E-02	1.474E-01	2.562E-01	2.218E-02	0.245
CM-247		278.00		1.112E+00	7.518E-01	1.329E+00	1.128E-01	0.837
		287.40		5.170E-01	1.189E+00	2.015E+00	1.717E-01	0.257
		402.60	*	-4.737E-02	3.814E-02	5.595E-02	4.697E-03	-0.847
CF-249		252.85		-1.466E-01	8.422E-01	1.391E+00	1.180E-01	-0.105
		333.44		-2.174E-02	2.827E-01	2.897E-01	2.482E-02	-0.075
		387.95	*	4.718E-02	4.124E-02	7.172E-02	5.986E-03	0.658
CF-251		176.60	*	-1.011E-02	1.216E-01	2.057E-01	1.648E-02	-0.049
		227.00		-9.941E-03	3.765E-01	6.303E-01	5.293E-02	-0.016
		285.00		3.802E-01	1.720E+00	2.883E+00	2.453E-01	0.132

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]G243517005      *
* Acquisition date   : 7-JAN-2010 08:53:48 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 02:00:01.28  Half life ratio        : 8.000         *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library   : SOLID         *
* Sample ID          : G243517005    Analyst initials       : MXR1           *
* Batch Number       : 937069        Sample Quantity        : 1.2538E+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             :              *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.221E+01	2.389E+00	5.224E-01	0.000E+00
CD-109	2.524E+00	9.622E-01	1.123E+00	0.000E+00
SN-126	2.474E-01	9.433E-02	1.103E-01	0.000E+00
BA-137M	1.242E-01	6.624E-02	5.410E-02	0.000E+00
CS-137	1.313E-01	7.002E-02	5.719E-02	0.000E+00
TL-208	5.103E-01	8.443E-02	5.798E-02	0.000E+00
BI-210	1.090E+00	2.245E+00	3.027E+00	0.000E+00
PB-210	1.090E+00	2.245E+00	3.027E+00	0.000E+00
PO-210	1.090E+00	2.245E+00	3.027E+00	0.000E+00
BI-211	4.659E+00	6.340E-01	3.632E-01	0.000E+00
PB-212	1.722E+00	1.985E-01	8.887E-02	0.000E+00
PO-212	1.722E+00	1.985E-01	8.887E-02	0.000E+00
BI-214	1.415E+00	2.054E-01	9.891E-02	0.000E+00
PB-214	1.621E+00	2.356E-01	1.266E-01	0.000E+00
PO-214	1.621E+00	2.356E-01	1.266E-01	0.000E+00
PO-216	1.722E+00	1.985E-01	8.887E-02	0.000E+00
PO-218	1.621E+00	2.356E-01	1.266E-01	0.000E+00
RA-224	4.334E+00	9.903E-01	1.011E+00	0.000E+00
RA-226	1.415E+00	2.054E-01	9.891E-02	0.000E+00
AC-228	1.718E+00	3.543E-01	2.191E-01	0.000E+00
RA-228	1.718E+00	3.543E-01	2.191E-01	0.000E+00
TH-228	1.751E+00	2.018E-01	9.037E-02	0.000E+00
TH-230	1.415E+00	2.054E-01	9.890E-02	0.000E+00
TH-232	1.718E+00	3.543E-01	2.191E-01	0.000E+00
TH-234	8.935E-01	1.376E+00	1.630E+00	0.000E+00
U-234	1.415E+00	2.054E-01	9.890E-02	0.000E+00
NP-237	7.265E-01	3.135E-01	3.257E-01	0.000E+00
U-238	8.935E-01	1.376E+00	1.630E+00	0.000E+00
AM-243	3.765E-01	7.101E-02	7.424E-02	0.000E+00
ANH-511	6.466E-02	7.108E-02	4.642E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	1.216E-01	3.356E-01	5.726E-01	0.000E+00	NOT IDENT.
NA-22	8.271E-03	4.282E-02	7.374E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.048E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.531E-02	2.643E-02	3.885E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.513E-02	7.328E-02	0.000E+00	FAIL ABUN
SC-46	1.082E-02	3.598E-02	6.194E-02	0.000E+00	FAIL ABUN
V-48	3.483E-02	7.597E-02	1.314E-01	0.000E+00	NOT IDENT.
CR-51	5.100E-02	3.841E-01	6.633E-01	0.000E+00	NOT IDENT.
MN-52	2.036E-01	2.585E-01	4.823E-01	0.000E+00	NOT IDENT.
MN-54	6.872E-03	3.700E-02	6.307E-02	0.000E+00	NOT IDENT.
CO-56	-8.284E-03	4.057E-02	6.661E-02	0.000E+00	NOT IDENT.
CO-57	1.741E-02	2.343E-02	4.105E-02	0.000E+00	NOT IDENT.
CO-58	-2.293E-02	3.747E-02	5.894E-02	0.000E+00	NOT IDENT.
FE-59	3.159E-03	8.875E-02	1.524E-01	0.000E+00	NOT IDENT.
CO-60	-2.983E-02	4.153E-02	6.373E-02	0.000E+00	NOT IDENT.
ZN-65	-9.577E-02	1.065E-01	1.374E-01	0.000E+00	NOT IDENT.
GE-68	4.225E-02	1.230E+00	2.115E+00	0.000E+00	NOT IDENT.
AS-73	3.116E-01	5.133E-01	9.085E-01	0.000E+00	NOT IDENT.
AS-74	-7.968E-03	9.833E-02	1.687E-01	0.000E+00	NOT IDENT.
SE-75	7.203E-03	4.685E-02	7.237E-02	0.000E+00	NOT IDENT.
BR-77	-5.115E+00	1.690E+01	2.883E+01	0.000E+00	FAIL ABUN
SR-82	-2.431E-01	3.954E-01	6.284E-01	0.000E+00	NOT IDENT.
RB-83	-2.847E-02	6.735E-02	1.138E-01	0.000E+00	NOT IDENT.
RB-84	3.017E-02	6.316E-02	1.109E-01	0.000E+00	NOT IDENT.
KR-85	1.198E+01	8.004E+00	1.365E+01	0.000E+00	NOT IDENT.
SR-85	6.258E-02	4.180E-02	7.127E-02	0.000E+00	NOT IDENT.
RB-86	-4.833E-01	8.331E-01	1.347E+00	0.000E+00	NOT IDENT.
Y-88	-1.905E-02	3.504E-02	5.306E-02	0.000E+00	NOT IDENT.
ZR-88	-3.494E-02	3.245E-02	5.055E-02	0.000E+00	NOT IDENT.
Y-91	2.431E+00	1.923E+01	3.300E+01	0.000E+00	NOT IDENT.
NB-94	1.225E-02	3.669E-02	6.391E-02	0.000E+00	NOT IDENT.
NB-95	5.983E-02	4.409E-02	7.485E-02	0.000E+00	NOT IDENT.
NB-95M	6.381E-02	1.388E-01	2.196E-01	0.000E+00	NOT IDENT.
ZR-95	5.808E-02	7.202E-02	1.297E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.007E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.081E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-5.704E+00	1.855E+01	3.058E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.940E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.243E-04	3.243E-02	5.710E-02	0.000E+00	NOT IDENT.
RH-102	-5.277E-03	3.036E-02	4.978E-02	0.000E+00	NOT IDENT.
RU-103	2.252E-02	4.005E-02	6.923E-02	0.000E+00	FAIL ABUN
RH-106	-4.794E-02	3.056E-01	5.188E-01	0.000E+00	FAIL ABUN
RU-106	-4.794E-02	3.056E-01	5.188E-01	0.000E+00	FAIL ABUN
AG-108M	-4.418E-03	3.246E-02	5.378E-02	0.000E+00	NOT IDENT.
AG-110M	1.084E-02	3.839E-02	5.891E-02	0.000E+00	NOT IDENT.
IN-111	2.664E-01	1.657E+00	2.556E+00	0.000E+00	NOT IDENT.
IN-113M	-3.483E-02	4.734E-02	7.587E-02	0.000E+00	NOT IDENT.
SN-113	-3.483E-02	4.734E-02	7.587E-02	0.000E+00	NOT IDENT.
IN-114M	1.045E-01	1.963E-01	3.168E-01	0.000E+00	NOT IDENT.
CD-115	-2.926E+00	1.845E+01	3.179E+01	0.000E+00	NOT IDENT.
SN-117M	1.383E-02	5.757E-02	9.727E-02	0.000E+00	NOT IDENT.
SB-122	-7.676E-01	3.165E+00	5.388E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.195E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.055E-02	2.810E-02	4.605E-02	0.000E+00	NOT IDENT.
I-124	-1.190E-01	1.010E+00	1.569E+00	0.000E+00	NOT IDENT.
SB-124	-1.992E-02	7.374E-02	1.141E-01	0.000E+00	FAIL ABUN
SB-125	-3.420E-02	9.255E-02	1.508E-01	0.000E+00	FAIL ABUN
TE-125M	-5.034E-01	8.570E+00	1.461E+01	0.000E+00	NOT IDENT.
I-126	5.362E-02	2.375E-01	3.609E-01	0.000E+00	NOT IDENT.
SB-126	5.159E-02	1.620E-01	2.588E-01	0.000E+00	FAIL ABUN
SB-127	-1.125E+00	1.784E+00	2.865E+00	0.000E+00	NOT IDENT.
XE-127	-3.219E-02	4.818E-02	7.976E-02	0.000E+00	NOT IDENT.
I-131	-4.695E-02	1.350E-01	2.238E-01	0.000E+00	NOT IDENT.
TE-132	-2.019E-01	9.798E-01	1.702E+00	0.000E+00	NOT IDENT.
BA-133	-3.692E-04	5.244E-02	7.805E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.355E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.360E-02	1.019E-01	0.000E+00	NOT IDENT.
CS-135	1.111E-01	1.751E-01	2.782E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.458E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.107E-01	1.117E-01	1.718E-01	0.000E+00	FAIL ABUN
CE-139	-1.545E-02	3.127E-02	5.084E-02	0.000E+00	NOT IDENT.
BA-140	-9.425E-03	2.722E-01	4.723E-01	0.000E+00	NOT IDENT.
LA-140	9.407E-02	1.014E-01	1.735E-01	0.000E+00	FAIL ABUN
CE-141	6.634E-03	6.420E-02	1.070E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.230E+02	0.000E+00	0.000E+00	SHORT HLIF

CE-144	3.747E-02	2.045E-01	3.480E-01	0.000E+00	NOT IDENT.
PM-144	-5.491E-03	3.526E-02	5.933E-02	0.000E+00	NOT IDENT.
PR-144	-3.725E-01	2.392E+00	4.024E+00	0.000E+00	NOT IDENT.
PM-146	3.420E-02	4.379E-02	7.701E-02	0.000E+00	NOT IDENT.
ND-147	9.453E-02	5.960E-01	1.050E+00	0.000E+00	FAIL ABUN
PM-149	5.107E+01	1.527E+02	2.682E+02	0.000E+00	NOT IDENT.
EU-152	-8.040E-03	1.007E-01	1.649E-01	0.000E+00	NOT IDENT.
GD-153	-9.743E-02	8.206E-02	1.172E-01	0.000E+00	NOT IDENT.
EU-154	2.806E-02	1.187E-01	2.052E-01	0.000E+00	NOT IDENT.
EU-155	5.385E-02	9.660E-02	1.692E-01	0.000E+00	FAIL ABUN
TB-160	-1.004E-02	1.271E-01	2.103E-01	0.000E+00	FAIL ABUN
HO-166M	-1.441E-03	6.360E-02	1.069E-01	0.000E+00	FAIL ABUN
TM-171	-1.863E+01	2.369E+01	3.583E+01	0.000E+00	NOT IDENT.
LU-176	2.022E-02	2.572E-02	4.466E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.345E+00	2.562E+00	0.000E+00	FAIL ABUN
LU-177M	-1.444E-01	1.918E-01	3.056E-01	0.000E+00	NOT IDENT.
HF-181	-4.710E-03	4.274E-02	7.030E-02	0.000E+00	NOT IDENT.
W-181	4.116E-01	2.959E-01	4.916E-01	0.000E+00	NOT IDENT.
TA-182	-6.571E-02	1.974E-01	3.246E-01	0.000E+00	FAIL ABUN
RE-183	7.700E-02	1.114E-01	1.915E-01	0.000E+00	FAIL ABUN
RE-184	-3.936E-02	2.216E-01	3.824E-01	0.000E+00	NOT IDENT.
OS-185	2.162E-02	4.273E-02	7.610E-02	0.000E+00	NOT IDENT.
RE-188	6.445E-02	1.694E-01	2.883E-01	0.000E+00	NOT IDENT.
W-188	-4.550E+00	8.104E+00	1.172E+01	0.000E+00	FAIL ABUN
IR-192	-3.820E-03	3.436E-02	5.854E-02	0.000E+00	FAIL ABUN
AU-195	2.250E-01	2.271E-01	3.654E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.397E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-4.591E+00	1.078E+01	1.756E+01	0.000E+00	NOT IDENT.
TL-202	1.006E-02	7.521E-02	1.270E-01	0.000E+00	NOT IDENT.
HG-203	3.720E-02	4.140E-02	7.465E-02	0.000E+00	NOT IDENT.
BI-207	-1.165E-02	5.293E-02	8.839E-02	0.000E+00	FAIL ABUN
TL-207	2.487E-01	7.404E-01	1.140E+00	0.000E+00	FAIL ABUN
PO-209	1.040E+00	7.269E+00	1.229E+01	0.000E+00	NOT IDENT.
PB-211	-1.509E-02	9.153E-01	1.539E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.586E-01	6.887E-01	0.000E+00	FAIL ABUN
PO-215	2.487E-01	7.404E-01	1.140E+00	0.000E+00	FAIL ABUN
RN-219	-4.066E-01	4.130E-01	6.396E-01	0.000E+00	FAIL ABUN
RN-220	-1.068E+01	2.408E+01	4.034E+01	0.000E+00	NOT IDENT.
RA-223	2.487E-01	7.404E-01	1.140E+00	0.000E+00	FAIL ABUN
AC-227	1.274E-01	3.715E-01	6.569E-01	0.000E+00	FAIL ABUN
TH-227	1.274E-01	3.717E-01	6.569E-01	0.000E+00	FAIL ABUN
TH-229	-1.332E-01	4.790E-01	8.391E-01	0.000E+00	FAIL ABUN
PA-231	-6.220E-02	1.484E+00	2.559E+00	0.000E+00	FAIL ABUN
TH-231	2.487E-01	7.404E-01	1.140E+00	0.000E+00	FAIL ABUN
U-231	-1.426E+00	1.373E+00	1.979E+00	0.000E+00	FAIL ABUN
PA-233	1.905E-03	6.218E-02	1.069E-01	0.000E+00	FAIL ABUN
PA-234	2.484E-02	3.254E-01	5.433E-01	0.000E+00	FAIL ABUN
PA-234M	7.818E-03	5.117E+00	8.512E+00	0.000E+00	NOT IDENT.
U-235	1.305E-01	2.088E-01	3.546E-01	0.000E+00	FAIL ABUN
NP-236	-6.803E-02	7.994E-02	1.277E-01	0.000E+00	NOT IDENT.
NP-239	-6.985E-02	1.745E-01	2.915E-01	0.000E+00	FAIL ABUN
AM-241	-1.293E-02	1.116E-01	1.754E-01	0.000E+00	NOT IDENT.
CM-243	-2.908E-02	8.767E-02	1.481E-01	0.000E+00	FAIL ABUN
AM-246	6.286E-02	1.445E-01	2.572E-01	0.000E+00	NOT IDENT.
CM-247	-4.737E-02	3.738E-02	5.695E-02	0.000E+00	NOT IDENT.
CF-249	4.718E-02	4.041E-02	7.304E-02	0.000E+00	NOT IDENT.
CF-251	-1.011E-02	1.192E-01	2.118E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 7-JAN-2010 10:56:32.15

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*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                          *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517005.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:53:48.
Sample ID          : G243517005           Sample quantity  : 1.25380E+02 GRAM
Detector name      : GAM07                Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00        Elapsed real time: 0 02:00:01.28 0.0%
Energy tolerance   : 1.50000 keV          Analyst Initials : MXR1
Abundance limit    : 75.00000             Sensitivity       : 5.00000
Batch ID           : 937069               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	894	10.67*	1.129E+00	2.221E+01	2.221E+01	10.97
CD-109	88.03	209	3.72*	6.834E+00	2.461E+00	2.524E+00	38.91
SN-126	64.28	55	9.60	4.833E+00	3.537E-01	3.537E-01	156.88
	86.94	209	8.90	6.834E+00	1.029E+00	1.029E+00	56.12
	87.57	209	37.00*	6.834E+00	2.474E-01	2.474E-01	38.91
BA-137M	661.65	83	89.98*	2.231E+00	1.241E-01	1.242E-01	54.42
CS-137	661.65	83	85.12*	2.231E+00	1.311E-01	1.313E-01	54.43
TL-208	277.35	-----	6.80	4.401E+00	-----	Line Not Found	-----
	510.84	60	21.60	2.755E+00	2.993E-01	2.993E-01	112.48
	583.14	355	84.20*	2.476E+00	5.103E-01	5.103E-01	16.88
	860.37	52	12.46	1.781E+00	7.003E-01	7.003E-01	66.61
BI-210	46.50	31	4.05*	2.089E+00	1.088E+00	1.090E+00	210.21
PB-210	46.50	31	4.05*	2.089E+00	1.088E+00	1.090E+00	210.21
PO-210	46.50	31	4.05*	2.089E+00	1.088E+00	1.090E+00	210.17
BI-211	72.87	-----	1.27	5.899E+00	-----	Line Not Found	-----
	351.07	741	12.94*	3.682E+00	4.659E+00	4.659E+00	13.89
PB-212	74.81	504	10.70	6.070E+00	2.323E+00	2.323E+00	21.39
	77.11	887	18.00	6.255E+00	2.359E+00	2.359E+00	12.92
	87.30	209	8.00	6.834E+00	1.144E+00	1.144E+00	40.17
	238.63	1259	44.60*	4.909E+00	1.722E+00	1.722E+00	11.76
	300.09	76	3.41	4.147E+00	1.618E+00	1.618E+00	71.25
PO-212	74.81	504	10.70	6.070E+00	2.323E+00	2.323E+00	21.39
	77.11	887	18.00	6.255E+00	2.359E+00	2.359E+00	12.92
	87.30	209	8.00	6.834E+00	1.144E+00	1.144E+00	40.17
	115.19	-----	0.60	7.150E+00	-----	Line Not Found	-----
	238.63	1259	44.60*	4.909E+00	1.722E+00	1.722E+00	11.76
	300.09	76	3.41	4.147E+00	1.618E+00	1.618E+00	71.25
BI-214	609.31	523	46.30*	2.389E+00	1.415E+00	1.415E+00	14.81
	1120.29	127	15.10	1.413E+00	1.788E+00	1.788E+00	35.34
	1764.49	94	15.80	9.831E-01	1.803E+00	1.803E+00	23.41
PB-214	74.81	504	6.21	6.070E+00	4.002E+00	4.002E+00	20.62
	77.11	887	10.50	6.255E+00	4.045E+00	4.045E+00	15.00

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	209	4.67	6.834E+00	1.960E+00	1.960E+00	39.66
	241.98	278	7.49	4.864E+00	2.286E+00	2.286E+00	23.98
	295.21	377	19.20	4.200E+00	1.398E+00	1.398E+00	21.46
	351.92	741	37.20*	3.682E+00	1.620E+00	1.621E+00	14.84
PO-214	74.81	504	6.21	6.070E+00	4.002E+00	4.002E+00	20.62
	77.11	887	10.50	6.255E+00	4.045E+00	4.045E+00	15.00
	87.30	209	4.67	6.834E+00	1.960E+00	1.960E+00	39.66
	241.98	278	7.49	4.864E+00	2.286E+00	2.286E+00	23.98
	295.21	377	19.20	4.200E+00	1.398E+00	1.398E+00	21.46
	351.92	741	37.20*	3.682E+00	1.620E+00	1.621E+00	14.84
PO-216	74.81	504	10.70	6.070E+00	2.323E+00	2.323E+00	21.39
	77.11	887	18.00	6.255E+00	2.359E+00	2.359E+00	12.92
	87.30	209	8.00	6.834E+00	1.144E+00	1.144E+00	40.17
	238.63	1259	44.60*	4.909E+00	1.722E+00	1.722E+00	11.76
	300.09	76	3.41	4.147E+00	1.618E+00	1.618E+00	71.25
PO-218	74.81	504	6.21	6.070E+00	4.002E+00	4.002E+00	20.62
	77.11	887	10.50	6.255E+00	4.045E+00	4.045E+00	15.00
	87.30	209	4.67	6.834E+00	1.960E+00	1.960E+00	39.66
	241.98	278	7.49	4.864E+00	2.286E+00	2.286E+00	23.98
	295.21	377	19.20	4.200E+00	1.398E+00	1.398E+00	21.46
	351.92	741	37.20*	3.682E+00	1.620E+00	1.621E+00	14.84
RA-224	240.98	278	3.95*	4.864E+00	4.334E+00	4.334E+00	23.32
RA-226	609.31	523	46.30*	2.389E+00	1.415E+00	1.415E+00	14.81
	1120.29	127	15.10	1.413E+00	1.788E+00	1.788E+00	35.34
	1764.49	94	15.80	9.831E-01	1.803E+00	1.803E+00	23.41
AC-228	338.32	203	11.40	3.792E+00	1.405E+00	1.405E+00	50.16
	911.07	269	27.70*	1.696E+00	1.718E+00	1.718E+00	21.05
	969.11	98	16.60	1.606E+00	1.104E+00	1.104E+00	53.27
RA-228	338.32	203	11.40	3.792E+00	1.405E+00	1.405E+00	50.16
	911.07	269	27.70*	1.696E+00	1.718E+00	1.718E+00	21.05
	969.11	98	16.60	1.606E+00	1.104E+00	1.104E+00	53.27
TH-228	74.81	504	10.70	6.070E+00	2.323E+00	2.362E+00	19.28
	77.11	887	18.00	6.255E+00	2.359E+00	2.399E+00	12.92
	87.30	209	8.00	6.834E+00	1.144E+00	1.164E+00	38.91
	238.63	1259	44.60*	4.909E+00	1.722E+00	1.751E+00	11.76
	300.09	76	3.41	4.147E+00	1.618E+00	1.645E+00	92.10
TH-230	609.31	523	46.30*	2.389E+00	1.415E+00	1.415E+00	14.81
	1120.29	127	15.10	1.413E+00	1.788E+00	1.788E+00	35.34
	1764.49	94	15.80	9.831E-01	1.803E+00	1.803E+00	23.41
TH-232	338.32	203	11.40	3.792E+00	1.405E+00	1.405E+00	29.80
	911.07	269	27.70*	1.696E+00	1.718E+00	1.718E+00	21.05
	969.11	98	16.60	1.606E+00	1.104E+00	1.104E+00	53.27
TH-234	63.29	55	3.80*	4.833E+00	8.935E-01	8.935E-01	157.18
	92.38	256	5.41	7.017E+00	2.017E+00	2.017E+00	36.72
U-234	609.31	523	46.30*	2.389E+00	1.415E+00	1.415E+00	14.81
	1120.29	127	15.10	1.413E+00	1.788E+00	1.788E+00	35.34
	1764.49	94	15.80	9.831E-01	1.803E+00	1.803E+00	23.41
NP-237	86.50	209	12.60*	6.834E+00	7.265E-01	7.265E-01	44.04
	95.87	-----	2.60	7.087E+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	55	3.80*	4.833E+00	8.935E-01	8.935E-01	157.18
	92.38	256	5.41	7.017E+00	2.017E+00	2.017E+00	33.10
AM-243	74.67	504	66.00*	6.070E+00	3.765E-01	3.765E-01	19.24
	86.72	209	0.34	6.834E+00	2.724E+01	2.724E+01	38.91
	117.66	-----	0.55	7.126E+00	-----	Line Not Found	-----
	142.18	-----	0.13	6.723E+00	-----	Line Not Found	-----
ANH-511	511.00	60	100.00*	2.755E+00	6.466E-02	6.466E-02	112.17

Flag: "*" = Keyline

Total number of lines in spectrum 33
Number of unidentified lines 4
Number of lines tentatively identified by NID 29 87.88%

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	2.221E+01	2.221E+01	0.244E+01	10.97	
CD-109	464.00D	1.03	2.461E+00	2.524E+00	0.982E+00	38.91	
SN-126	1.00E+05Y	1.00	2.474E-01	2.474E-01	0.963E-01	38.91	
BA-137M	30.17Y	1.00	1.241E-01	1.242E-01	0.676E-01	54.42	
CS-137	30.17Y	1.00	1.311E-01	1.313E-01	0.715E-01	54.43	
TL-208	1.41E+10Y	1.00	5.103E-01	5.103E-01	0.862E-01	16.88	
BI-210	22.26Y	1.00	1.088E+00	1.090E+00	2.291E+00	210.21	
PB-210	22.26Y	1.00	1.088E+00	1.090E+00	2.291E+00	210.21	
PO-210	22.26Y	1.00	1.088E+00	1.090E+00	2.290E+00	210.17	
BI-211	7.04E+08Y	1.00	4.659E+00	4.659E+00	0.647E+00	13.89	
PB-212	1.41E+10Y	1.00	1.722E+00	1.722E+00	0.203E+00	11.76	
PO-212	1.41E+10Y	1.00	1.722E+00	1.722E+00	0.203E+00	11.76	
BI-214	1600.00Y	1.00	1.415E+00	1.415E+00	0.210E+00	14.81	
PB-214	1600.00Y	1.00	1.620E+00	1.621E+00	0.240E+00	14.84	
PO-214	1600.00Y	1.00	1.620E+00	1.621E+00	0.240E+00	14.84	
PO-216	1.41E+10Y	1.00	1.722E+00	1.722E+00	0.203E+00	11.76	
PO-218	1600.00Y	1.00	1.620E+00	1.621E+00	0.240E+00	14.84	
RA-224	1.41E+10Y	1.00	4.334E+00	4.334E+00	1.011E+00	23.32	
RA-226	1600.00Y	1.00	1.415E+00	1.415E+00	0.210E+00	14.81	
AC-228	1.41E+10Y	1.00	1.718E+00	1.718E+00	0.362E+00	21.05	
RA-228	1.41E+10Y	1.00	1.718E+00	1.718E+00	0.362E+00	21.05	
TH-228	1.91Y	1.02	1.722E+00	1.751E+00	0.206E+00	11.76	
TH-230	4.47E+09Y	1.00	1.415E+00	1.415E+00	0.210E+00	14.81	
TH-232	1.41E+10Y	1.00	1.718E+00	1.718E+00	0.362E+00	21.05	
TH-234	4.47E+09Y	1.00	8.935E-01	8.935E-01	14.04E-01	157.18	
U-234	4.47E+09Y	1.00	1.415E+00	1.415E+00	0.210E+00	14.81	
NP-237	2.14E+06Y	1.00	7.265E-01	7.265E-01	3.199E-01	44.04	
U-238	4.47E+09Y	1.00	8.935E-01	8.935E-01	14.04E-01	157.18	
AM-243	7380.00Y	1.00	3.765E-01	3.765E-01	0.725E-01	19.24	
ANH-511	1.00E+09Y	1.00	6.466E-02	6.466E-02	7.253E-02	112.17	
Total Activity :			6.346E+01	6.356E+01			

Grand Total Activity : 6.346E+01 6.356E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G243517005

Page : 5
Acquisition date : 7-JAN-2010 08:53:48

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	89.87	125	424	1.05	179.38	169	25	1.73E-02	54.2	6.93E+00	T
0	185.87	257	314	1.30	371.34	367	10	3.57E-02	29.6	5.82E+00	T
0	209.56	149	376	0.95	418.72	413	12	2.07E-02	54.6	5.38E+00	T
0	270.31	118	259	1.23	540.20	533	14	1.64E-02	61.5	4.49E+00	T
0	328.16	79	207	1.01	655.88	650	12	1.10E-02	76.0	3.88E+00	T
0	463.28	74	127	1.55	926.07	920	14	1.03E-02	68.2	2.98E+00	T
0	727.59	118	46	1.63	1454.63	1448	14	1.64E-02	30.4	2.06E+00	T
0	769.13	34	74	1.40	1537.69	1531	11	4.68E-03	****	1.96E+00	
0	1377.92	32	26	2.15	2755.16	2744	17	4.49E-03	79.8	1.18E+00	
0	1590.29	23	23	2.37	3179.85	3168	18	3.23E-03	****	1.06E+00	
0	1730.25	31	8	1.66	3459.76	3451	16	4.31E-03	54.4	9.96E-01	

Flags: "T" = Tentatively associated

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517005.CNF;1  *
* Acquisition date   : 7-JAN-2010 08:53:48.  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 02:00:01.28      Half life ratio     : 8.00000      *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 21-DEC-2009 12:00:00  Nuclide Library    : SOLID        *
* Sample ID          : G243517005          Analyst initials   : MXR1          *
* Batch Number       : 937069              Sample Quantity    : 1.25380E+02 GRAM  *
*****
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 20-JUL-2009 15:29:58.0MS Isotope       :              *
* MSD ID             :                      MSD Isotope        :              *
* LCS ID             : 1032-A              LCS Isotope         :              *
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.221E+01	2.438E+00	5.228E-01	4.489E-02	42.488
CD-109	2.524E+00	9.818E-01	1.080E+00	1.017E-01	2.336
SN-126	2.474E-01	9.625E-02	1.061E-01	9.943E-03	2.331
BA-137M	1.242E-01	6.759E-02	5.352E-02	4.737E-03	2.320
CS-137	1.313E-01	7.145E-02	5.658E-02	5.016E-03	2.320
TL-208	5.103E-01	8.615E-02	5.726E-02	5.477E-03	8.913
BI-210	1.090E+00	2.291E+00	2.888E+00	2.709E-01	0.377
PB-210	1.090E+00	2.291E+00	2.888E+00	2.709E-01	0.377
PO-210	1.090E+00	2.290E+00	2.888E+00	2.457E-01	0.377
BI-211	4.659E+00	6.470E-01	3.562E-01	3.195E-02	13.079
PB-212	1.722E+00	2.025E-01	8.667E-02	8.290E-03	19.871
PO-212	1.722E+00	2.025E-01	8.667E-02	8.290E-03	19.871
BI-214	1.415E+00	2.096E-01	9.774E-02	1.011E-02	14.477
PB-214	1.621E+00	2.404E-01	1.242E-01	1.288E-02	13.051
PO-214	1.621E+00	2.404E-01	1.242E-01	1.288E-02	13.051
PO-216	1.722E+00	2.025E-01	8.667E-02	8.290E-03	19.871
PO-218	1.621E+00	2.404E-01	1.242E-01	1.288E-02	13.051
RA-224	4.334E+00	1.011E+00	9.866E-01	8.343E-02	4.393

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	1.415E+00	2.096E-01	9.774E-02	1.011E-02	14.477
AC-228	1.718E+00	3.615E-01	2.178E-01	2.537E-02	7.888
RA-228	1.718E+00	3.615E-01	2.178E-01	2.537E-02	7.888
TH-228	1.751E+00	2.059E-01	8.814E-02	8.431E-03	19.870
TH-230	1.415E+00	2.096E-01	9.774E-02	1.011E-02	14.477
TH-232	1.718E+00	3.615E-01	2.178E-01	2.537E-02	7.888
TH-234	8.935E-01	1.404E+00	1.562E+00	2.717E-01	0.572
U-234	1.415E+00	2.096E-01	9.774E-02	1.011E-02	14.477
NP-237	7.265E-01	3.199E-01	3.133E-01	7.084E-02	2.319
U-238	8.935E-01	1.404E+00	1.562E+00	2.717E-01	0.572
AM-243	3.765E-01	7.246E-02	7.127E-02	5.729E-03	5.283
ANH-511	6.466E-02	7.253E-02	4.576E-02	4.066E-03	1.413

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.216E-01		3.424E-01	5.639E-01	5.322E-02	0.216
NA-22	8.271E-03		4.370E-02	7.365E-02	6.046E-03	0.112
NA-24	8.097E-01		3.086E+00	Half-Life too short		
AL-26	-1.531E-02		2.697E-02	3.900E-02	3.180E-03	-0.393
TI-44	4.354E-01	+	5.625E-02	7.040E-02	5.894E-03	6.185
SC-46	1.082E-02		3.671E-02	6.155E-02	5.640E-03	0.176
V-48	3.483E-02		7.752E-02	1.308E-01	1.177E-02	0.266
CR-51	5.100E-02		3.920E-01	6.496E-01	5.870E-02	0.079
MN-52	2.036E-01		2.638E-01	4.825E-01	4.012E-02	0.422
MN-54	6.872E-03		3.776E-02	6.261E-02	5.747E-03	0.110
CO-56	-8.284E-03		4.140E-02	6.613E-02	6.072E-03	-0.125
CO-57	1.741E-02		2.391E-02	3.967E-02	3.413E-03	0.439
CO-58	-2.293E-02		3.823E-02	5.848E-02	5.373E-03	-0.392
FE-59	3.159E-03		9.057E-02	1.519E-01	1.407E-02	0.021
CO-60	-2.983E-02		4.237E-02	6.369E-02	5.218E-03	-0.468
ZN-65	-9.577E-02		1.087E-01	1.370E-01	1.163E-02	-0.699
GE-68	4.225E-02		1.255E+00	2.107E+00	1.826E-01	0.020
AS-73	3.116E-01		5.238E-01	8.682E-01	6.520E-02	0.359
AS-74	-7.968E-03		1.003E-01	1.666E-01	1.494E-02	-0.048
SE-75	7.203E-03		4.780E-02	7.069E-02	6.036E-03	0.102
BR-77	-5.115E+00		1.725E+01	2.843E+01	2.532E+00	-0.180
SR-82	-2.431E-01		4.034E-01	6.232E-01	5.691E-02	-0.390
RB-83	-2.847E-02		6.872E-02	1.122E-01	9.995E-03	-0.254
RB-84	3.017E-02		6.445E-02	1.102E-01	1.011E-02	0.274
KR-85	1.198E+01		8.168E+00	1.345E+01	1.196E+00	0.891
SR-85	6.258E-02		4.266E-02	7.027E-02	6.248E-03	0.891
RB-86	-4.833E-01		8.501E-01	1.342E+00	1.163E-01	-0.360
Y-88	-1.905E-02		3.575E-02	5.328E-02	4.324E-03	-0.358
ZR-88	-3.494E-02		3.312E-02	4.965E-02	4.135E-03	-0.704
Y-91	2.431E+00		1.962E+01	3.293E+01	2.690E+00	0.074
NB-94	1.225E-02		3.744E-02	6.329E-02	5.683E-03	0.194

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95	5.983E-02		4.499E-02	7.421E-02	6.765E-03	0.806
NB-95M	6.381E-02		1.416E-01	2.141E-01	2.078E-02	0.298
ZR-95	5.808E-02		7.349E-02	1.286E-01	1.277E-02	0.452
NB-97	1.968E-01		3.065E-01	Half-Life	too short	
ZR-97	1.533E+01		5.515E+00	Half-Life	too short	
MO-99	-5.704E+00		1.893E+01	3.030E+01	4.680E+00	-0.188
TC-99M	-5.692E+12		2.520E+12	Half-Life	too short	
RH-101	-5.243E-04		3.309E-02	5.554E-02	4.556E-03	-0.009
RH-102	-5.277E-03		3.098E-02	4.902E-02	4.300E-03	-0.108
RU-103	2.252E-02		4.086E-02	6.822E-02	9.757E-03	0.330
RH-106	-4.794E-02		3.119E-01	5.129E-01	6.957E-02	-0.093
RU-106	-4.794E-02		3.118E-01	5.129E-01	4.584E-02	-0.093
AG-108M	-4.418E-03		3.312E-02	5.289E-02	4.722E-03	-0.084
AG-110M	1.084E-02		3.917E-02	5.828E-02	5.309E-03	0.186
IN-111	2.664E-01		1.691E+00	2.494E+00	2.113E-01	0.107
IN-113M	-3.483E-02		4.831E-02	7.451E-02	6.405E-03	-0.467
SN-113	-3.483E-02		4.831E-02	7.451E-02	6.405E-03	-0.467
IN-114M	1.045E-01		2.004E-01	3.080E-01	2.506E-02	0.339
CD-115	-2.926E+00		1.883E+01	3.135E+01	2.797E+00	-0.093
SN-117M	1.383E-02		5.875E-02	9.434E-02	7.564E-03	0.147
SB-122	-7.676E-01		3.229E+00	5.319E+00	4.768E-01	-0.144
I-123	-1.951E+01		2.650E+01	Half-Life	too short	
TE-123M	-1.055E-02		2.867E-02	4.466E-02	3.603E-03	-0.236
I-124	-1.190E-01		1.031E+00	1.550E+00	1.389E-01	-0.077
SB-124	-1.992E-02		7.524E-02	1.145E-01	9.915E-03	-0.174
SB-125	-3.420E-02		9.443E-02	1.483E-01	1.293E-02	-0.231
TE-125M	-5.034E-01		8.745E+00	1.410E+01	1.462E+00	-0.036
I-126	5.362E-02		2.424E-01	3.571E-01	3.166E-02	0.150
SB-126	5.159E-02		1.654E-01	2.564E-01	2.314E-02	0.201
SB-127	-1.125E+00		1.820E+00	2.836E+00	3.442E-01	-0.397
XE-127	-3.219E-02		4.916E-02	7.762E-02	6.396E-03	-0.415
I-131	-4.695E-02		1.378E-01	2.196E-01	1.969E-02	-0.214
TE-132	-2.019E-01		9.998E-01	1.659E+00	2.644E-01	-0.122
BA-133	-3.692E-04		5.351E-02	7.655E-02	1.005E-02	-0.005
I-133	-9.807E-03		1.201E-02	Half-Life	too short	
CS-134	1.100E-01		5.469E-02	1.011E-01	9.318E-03	1.087
CS-135	1.111E-01		1.787E-01	2.718E-01	2.680E-02	0.409
I-135	-1.060E+11		2.274E+11	Half-Life	too short	
CS-136	-1.107E-01		1.140E-01	1.711E-01	1.566E-02	-0.647
CE-139	-1.545E-02		3.191E-02	4.933E-02	3.902E-03	-0.313
BA-140	-9.425E-03		2.777E-01	4.659E-01	1.548E-01	-0.020
LA-140	9.407E-02		1.035E-01	1.739E-01	1.455E-02	0.541
CE-141	6.634E-03		6.551E-02	1.037E-01	8.678E-03	0.064
CE-143	1.500E-03		2.668E-04	Half-Life	too short	
CE-144	3.747E-02		2.087E-01	3.367E-01	5.198E-02	0.111
PM-144	-5.491E-03		3.598E-02	5.874E-02	5.266E-03	-0.093
PR-144	-3.725E-01		2.440E+00	3.984E+00	3.570E-01	-0.093
PM-146	3.420E-02		4.468E-02	7.579E-02	8.166E-03	0.451

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	9.453E-02		6.082E-01	1.035E+00	1.566E-01	0.091
PM-149	5.107E+01		1.558E+02	2.623E+02	4.063E+01	0.195
EU-152	-8.040E-03		1.028E-01	1.617E-01	1.466E-02	-0.050
GD-153	-9.743E-02		8.374E-02	1.129E-01	1.010E-02	-0.863
EU-154	2.806E-02		1.211E-01	2.050E-01	2.254E-02	0.137
EU-155	5.385E-02		9.857E-02	1.632E-01	1.441E-02	0.330
TB-160	-1.004E-02		1.297E-01	2.089E-01	1.916E-02	-0.048
HO-166M	-1.441E-03		6.490E-02	1.058E-01	9.529E-03	-0.014
TM-171	-1.863E+01		2.417E+01	3.434E+01	2.568E+00	-0.542
LU-176	2.022E-02		2.625E-02	4.371E-02	3.744E-03	0.463
LU-177	4.332E+00	+	2.393E+00	2.494E+00	2.066E-01	1.737
LU-177M	-1.444E-01		1.957E-01	3.003E-01	2.543E-02	-0.481
HF-181	-4.710E-03		4.362E-02	6.924E-02	6.092E-03	-0.068
W-181	4.116E-01		3.019E-01	4.710E-01	3.485E-02	0.874
TA-182	-6.571E-02		2.014E-01	3.240E-01	2.650E-02	-0.203
RE-183	7.700E-02		1.137E-01	1.858E-01	1.479E-02	0.414
RE-184	-3.936E-02		2.261E-01	3.733E-01	3.168E-02	-0.105
OS-185	2.162E-02		4.361E-02	7.526E-02	6.691E-03	0.287
RE-188	6.445E-02		1.728E-01	2.795E-01	2.255E-02	0.231
W-188	-4.550E+00		8.269E+00	1.146E+01	9.777E-01	-0.397
IR-192	-3.820E-03		3.506E-02	5.732E-02	4.926E-03	-0.067
AU-195	2.250E-01		2.317E-01	3.521E-01	3.131E-02	0.639
TL-200	8.982E-05		7.126E-04	Half-Life too short		
TL-201	-4.591E+00		1.100E+01	1.704E+01	1.350E+00	-0.269
TL-202	1.006E-02		7.675E-02	1.250E-01	1.076E-02	0.081
HG-203	3.720E-02		4.225E-02	7.297E-02	6.374E-03	0.510
BI-207	-1.165E-02		5.401E-02	8.805E-02	7.683E-03	-0.132
TL-207	2.487E-01		7.555E-01	1.117E+00	1.974E-01	0.223
PO-209	1.040E+00		7.417E+00	1.221E+01	1.118E+00	0.085
PB-211	-1.509E-02		9.339E-01	1.512E+00	9.470E-01	-0.010
BI-212	1.457E+00	+	4.680E-01	6.824E-01	7.078E-02	2.136
PO-215	2.487E-01		7.555E-01	1.117E+00	1.974E-01	0.223
RN-219	-4.066E-01		4.214E-01	6.284E-01	9.360E-02	-0.647
RN-220	-1.068E+01		2.457E+01	3.981E+01	3.564E+00	-0.268
RA-223	2.487E-01		7.555E-01	1.117E+00	1.974E-01	0.223
AC-227	1.274E-01		3.791E-01	6.413E-01	9.797E-02	0.199
TH-227	1.274E-01		3.793E-01	6.413E-01	1.155E-01	0.199
TH-229	-1.332E-01		4.887E-01	8.160E-01	6.663E-02	-0.163
PA-231	-6.220E-02		1.514E+00	2.502E+00	3.782E-01	-0.025
TH-231	2.487E-01		7.555E-01	1.117E+00	1.974E-01	0.223
U-231	-1.426E+00		1.401E+00	1.906E+00	1.716E-01	-0.748
PA-233	1.905E-03		6.345E-02	1.047E-01	9.233E-03	0.018
PA-234	2.484E-02		3.320E-01	5.403E-01	1.026E-01	0.046
PA-234M	7.818E-03		5.221E+00	8.472E+00	8.687E-01	0.001
U-235	1.305E-01		2.131E-01	3.434E-01	5.947E-02	0.380
NP-236	-6.803E-02		8.157E-02	1.238E-01	9.896E-03	-0.549
NP-239	-6.985E-02		1.781E-01	2.816E-01	2.423E-02	-0.248
AM-241	-1.293E-02		1.139E-01	1.679E-01	1.331E-02	-0.077

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-2.908E-02		8.946E-02	1.428E-01	1.251E-02	-0.204
AM-246	6.286E-02		1.474E-01	2.562E-01	2.218E-02	0.245
CM-247	-4.737E-02		3.814E-02	5.595E-02	4.697E-03	-0.847
CF-249	4.718E-02		4.124E-02	7.172E-02	5.986E-03	0.658
CF-251	-1.011E-02		1.216E-01	2.057E-01	1.648E-02	-0.049

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]G243517005          *
* Acquisition date   : 7-JAN-2010 08:53:48 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 02:00:01.28 Half life ratio : 8.000   *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date       : 21-DEC-2009 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G243517005 Analyst initials: MXR1          *
* Batch Number      : 937069 Sample Quantity : 1.2538E+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      :              *
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.221E+01	2.389E+00	2.614E-01	1.219E+00
CD-109	2.524E+00	9.622E-01	5.617E-01	4.909E-01
SN-126	2.474E-01	9.433E-02	5.519E-02	4.813E-02
BA-137M	1.242E-01	6.624E-02	2.706E-02	3.380E-02
CS-137	1.313E-01	7.002E-02	2.861E-02	3.573E-02
TL-208	5.103E-01	8.443E-02	2.900E-02	4.308E-02
BI-210	1.090E+00	2.245E+00	1.514E+00	1.145E+00
PB-210	1.090E+00	2.245E+00	1.514E+00	1.145E+00
PO-210	1.090E+00	2.245E+00	1.514E+00	1.145E+00
BI-211	4.659E+00	6.340E-01	1.817E-01	3.235E-01
PB-212	1.722E+00	1.985E-01	4.446E-02	1.013E-01
PO-212	1.722E+00	1.985E-01	4.446E-02	1.013E-01
BI-214	1.415E+00	2.054E-01	4.948E-02	1.048E-01
PB-214	1.621E+00	2.356E-01	6.335E-02	1.202E-01
PO-214	1.621E+00	2.356E-01	6.335E-02	1.202E-01
PO-216	1.722E+00	1.985E-01	4.446E-02	1.013E-01
PO-218	1.621E+00	2.356E-01	6.335E-02	1.202E-01
RA-224	4.334E+00	9.903E-01	5.060E-01	5.053E-01
RA-226	1.415E+00	2.054E-01	4.948E-02	1.048E-01
AC-228	1.718E+00	3.543E-01	1.096E-01	1.808E-01
RA-228	1.718E+00	3.543E-01	1.096E-01	1.808E-01
TH-228	1.751E+00	2.018E-01	4.521E-02	1.030E-01
TH-230	1.415E+00	2.054E-01	4.948E-02	1.048E-01
TH-232	1.718E+00	3.543E-01	1.096E-01	1.808E-01
TH-234	8.935E-01	1.376E+00	8.156E-01	7.022E-01
U-234	1.415E+00	2.054E-01	4.948E-02	1.048E-01
NP-237	7.265E-01	3.135E-01	1.630E-01	1.600E-01
U-238	8.935E-01	1.376E+00	8.156E-01	7.022E-01
AM-243	3.765E-01	7.101E-02	3.714E-02	3.623E-02
ANH-511	6.466E-02	7.108E-02	2.322E-02	3.626E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	1.216E-01	3.356E-01	2.865E-01	1.712E-01 NOT IDENT.
NA-22	8.271E-03	4.282E-02	3.689E-02	2.185E-02 NOT IDENT.
NA-24	8.097E+05	6.048E+06	0.000E+00	3.086E+06 SHORT HLIF
AL-26	-1.531E-02	2.643E-02	1.944E-02	1.348E-02 NOT IDENT.
TI-44	4.354E-01	5.513E-02	3.666E-02	2.813E-02 FAIL ABUN
SC-46	1.082E-02	3.598E-02	3.099E-02	1.836E-02 FAIL ABUN
V-48	3.483E-02	7.597E-02	6.576E-02	3.876E-02 NOT IDENT.
CR-51	5.100E-02	3.841E-01	3.318E-01	1.960E-01 NOT IDENT.
MN-52	2.036E-01	2.585E-01	2.413E-01	1.319E-01 NOT IDENT.
MN-54	6.872E-03	3.700E-02	3.156E-02	1.888E-02 NOT IDENT.
CO-56	-8.284E-03	4.057E-02	3.332E-02	2.070E-02 NOT IDENT.
CO-57	1.741E-02	2.343E-02	2.054E-02	1.195E-02 NOT IDENT.
CO-58	-2.293E-02	3.747E-02	2.949E-02	1.912E-02 NOT IDENT.
FE-59	3.159E-03	8.875E-02	7.625E-02	4.528E-02 NOT IDENT.
CO-60	-2.983E-02	4.153E-02	3.188E-02	2.119E-02 NOT IDENT.
ZN-65	-9.577E-02	1.065E-01	6.876E-02	5.435E-02 NOT IDENT.
GE-68	4.225E-02	1.230E+00	1.058E+00	6.273E-01 NOT IDENT.
AS-73	3.116E-01	5.133E-01	4.545E-01	2.619E-01 NOT IDENT.
AS-74	-7.968E-03	9.833E-02	8.439E-02	5.017E-02 NOT IDENT.
SE-75	7.203E-03	4.685E-02	3.621E-02	2.390E-02 NOT IDENT.
BR-77	-5.115E+00	1.690E+01	1.443E+01	8.623E+00 FAIL ABUN
SR-82	-2.431E-01	3.954E-01	3.144E-01	2.017E-01 NOT IDENT.
RB-83	-2.847E-02	6.735E-02	5.694E-02	3.436E-02 NOT IDENT.
RB-84	3.017E-02	6.316E-02	5.551E-02	3.223E-02 NOT IDENT.
KR-85	1.198E+01	8.004E+00	6.828E+00	4.084E+00 NOT IDENT.
SR-85	6.258E-02	4.180E-02	3.566E-02	2.133E-02 NOT IDENT.
RB-86	-4.833E-01	8.331E-01	6.739E-01	4.250E-01 NOT IDENT.
Y-88	-1.905E-02	3.504E-02	2.655E-02	1.788E-02 NOT IDENT.
ZR-88	-3.494E-02	3.245E-02	2.529E-02	1.656E-02 NOT IDENT.
Y-91	2.431E+00	1.923E+01	1.651E+01	9.812E+00 NOT IDENT.
NB-94	1.225E-02	3.669E-02	3.198E-02	1.872E-02 NOT IDENT.
NB-95	5.983E-02	4.409E-02	3.745E-02	2.249E-02 NOT IDENT.
NB-95M	6.381E-02	1.388E-01	1.098E-01	7.081E-02 NOT IDENT.
ZR-95	5.808E-02	7.202E-02	6.491E-02	3.674E-02 NOT IDENT.
NB-97	1.968E+05	6.007E+05	0.000E+00	3.065E+05 SHORT HLIF
ZR-97	1.533E+07	1.081E+07	0.000E+00	5.515E+06 SHORT HLIF
MO-99	-5.704E+00	1.855E+01	1.530E+01	9.464E+00 NOT IDENT.
TC-99M	-5.692E+18	4.940E+18	0.000E+00	0.000E+00 SHORT HLIF
RH-101	-5.243E-04	3.243E-02	2.857E-02	1.655E-02 NOT IDENT.
RH-102	-5.277E-03	3.036E-02	2.490E-02	1.549E-02 NOT IDENT.
RU-103	2.252E-02	4.005E-02	3.464E-02	2.043E-02 FAIL ABUN
RH-106	-4.794E-02	3.056E-01	2.596E-01	1.559E-01 FAIL ABUN
RU-106	-4.794E-02	3.056E-01	2.596E-01	1.559E-01 FAIL ABUN
AG-108M	-4.418E-03	3.246E-02	2.691E-02	1.656E-02 NOT IDENT.
AG-110M	1.084E-02	3.839E-02	2.947E-02	1.959E-02 NOT IDENT.
IN-111	2.664E-01	1.657E+00	1.279E+00	8.456E-01 NOT IDENT.
IN-113M	-3.483E-02	4.734E-02	3.796E-02	2.415E-02 NOT IDENT.
SN-113	-3.483E-02	4.734E-02	3.796E-02	2.415E-02 NOT IDENT.
IN-114M	1.045E-01	1.963E-01	1.585E-01	1.002E-01 NOT IDENT.
CD-115	-2.926E+00	1.845E+01	1.590E+01	9.415E+00 NOT IDENT.
SN-117M	1.383E-02	5.757E-02	4.867E-02	2.937E-02 NOT IDENT.
SB-122	-7.676E-01	3.165E+00	2.696E+00	1.615E+00 NOT IDENT.
I-123	-1.951E+07	5.195E+07	0.000E+00	2.650E+07 SHORT HLIF
TE-123M	-1.055E-02	2.810E-02	2.304E-02	1.434E-02 NOT IDENT.
I-124	-1.190E-01	1.010E+00	7.847E-01	5.156E-01 NOT IDENT.
SB-124	-1.992E-02	7.374E-02	5.710E-02	3.762E-02 FAIL ABUN
SB-125	-3.420E-02	9.255E-02	7.545E-02	4.722E-02 FAIL ABUN
TE-125M	-5.034E-01	8.570E+00	7.309E+00	4.372E+00 NOT IDENT.
I-126	5.362E-02	2.375E-01	1.806E-01	1.212E-01 NOT IDENT.
SB-126	5.159E-02	1.620E-01	1.295E-01	8.268E-02 FAIL ABUN
SB-127	-1.125E+00	1.784E+00	1.433E+00	9.100E-01 NOT IDENT.
XE-127	-3.219E-02	4.818E-02	3.990E-02	2.458E-02 NOT IDENT.
I-131	-4.695E-02	1.350E-01	1.120E-01	6.888E-02 NOT IDENT.
TE-132	-2.019E-01	9.798E-01	8.516E-01	4.999E-01 NOT IDENT.
BA-133	-3.692E-04	5.244E-02	3.905E-02	2.675E-02 NOT IDENT.
I-133	-9.807E+03	2.355E+04	0.000E+00	1.201E+04 SHORT HLIF
CS-134	1.100E-01	5.360E-02	5.100E-02	2.735E-02 NOT IDENT.
CS-135	1.111E-01	1.751E-01	1.392E-01	8.934E-02 NOT IDENT.
I-135	-1.060E+17	4.458E+17	0.000E+00	0.000E+00 SHORT HLIF
CS-136	-1.107E-01	1.117E-01	8.596E-02	5.701E-02 FAIL ABUN
CE-139	-1.545E-02	3.127E-02	2.543E-02	1.595E-02 NOT IDENT.
BA-140	-9.425E-03	2.722E-01	2.363E-01	1.389E-01 NOT IDENT.
LA-140	9.407E-02	1.014E-01	8.682E-02	5.175E-02 FAIL ABUN
CE-141	6.634E-03	6.420E-02	5.354E-02	3.275E-02 NOT IDENT.
CE-143	1.500E+03	5.230E+02	0.000E+00	2.668E+02 SHORT HLIF

CE-144	3.747E-02	2.045E-01	1.741E-01	1.043E-01	NOT IDENT.
PM-144	-5.491E-03	3.526E-02	2.968E-02	1.799E-02	NOT IDENT.
PR-144	-3.725E-01	2.392E+00	2.013E+00	1.220E+00	NOT IDENT.
PM-146	3.420E-02	4.379E-02	3.853E-02	2.234E-02	NOT IDENT.
ND-147	9.453E-02	5.960E-01	5.251E-01	3.041E-01	FAIL ABUN
PM-149	5.107E+01	1.527E+02	1.342E+02	7.789E+01	NOT IDENT.
EU-152	-8.040E-03	1.007E-01	8.251E-02	5.139E-02	NOT IDENT.
GD-153	-9.743E-02	8.206E-02	5.864E-02	4.187E-02	NOT IDENT.
EU-154	2.806E-02	1.187E-01	1.027E-01	6.054E-02	NOT IDENT.
EU-155	5.385E-02	9.660E-02	8.463E-02	4.929E-02	FAIL ABUN
TB-160	-1.004E-02	1.271E-01	1.052E-01	6.487E-02	FAIL ABUN
HO-166M	-1.441E-03	6.360E-02	5.347E-02	3.245E-02	FAIL ABUN
TM-171	-1.863E+01	2.369E+01	1.792E+01	1.209E+01	NOT IDENT.
LU-176	2.022E-02	2.572E-02	2.234E-02	1.312E-02	FAIL ABUN
LU-177	4.332E+00	2.345E+00	1.282E+00	1.197E+00	FAIL ABUN
LU-177M	-1.444E-01	1.918E-01	1.529E-01	9.784E-02	NOT IDENT.
HF-181	-4.710E-03	4.274E-02	3.517E-02	2.181E-02	NOT IDENT.
W-181	4.116E-01	2.959E-01	2.459E-01	1.510E-01	NOT IDENT.
TA-182	-6.571E-02	1.974E-01	1.624E-01	1.007E-01	FAIL ABUN
RE-183	7.700E-02	1.114E-01	9.583E-02	5.684E-02	FAIL ABUN
RE-184	-3.936E-02	2.216E-01	1.913E-01	1.130E-01	NOT IDENT.
OS-185	2.162E-02	4.273E-02	3.807E-02	2.180E-02	NOT IDENT.
RE-188	6.445E-02	1.694E-01	1.442E-01	8.642E-02	NOT IDENT.
W-188	-4.550E+00	8.104E+00	5.864E+00	4.135E+00	FAIL ABUN
IR-192	-3.820E-03	3.436E-02	2.929E-02	1.753E-02	FAIL ABUN
AU-195	2.250E-01	2.271E-01	1.828E-01	1.158E-01	FAIL ABUN
TL-200	8.982E+01	1.397E+03	0.000E+00	7.126E+02	SHORT HLIF
TL-201	-4.591E+00	1.078E+01	8.786E+00	5.498E+00	NOT IDENT.
TL-202	1.006E-02	7.521E-02	6.356E-02	3.837E-02	NOT IDENT.
HG-203	3.720E-02	4.140E-02	3.735E-02	2.112E-02	NOT IDENT.
BI-207	-1.165E-02	5.293E-02	4.422E-02	2.701E-02	FAIL ABUN
TL-207	2.487E-01	7.404E-01	5.703E-01	3.778E-01	FAIL ABUN
PO-209	1.040E+00	7.269E+00	6.146E+00	3.709E+00	NOT IDENT.
PB-211	-1.509E-02	9.153E-01	7.699E-01	4.670E-01	NOT IDENT.
BI-212	1.457E+00	4.586E-01	3.446E-01	2.340E-01	FAIL ABUN
PO-215	2.487E-01	7.404E-01	5.703E-01	3.778E-01	FAIL ABUN
RN-219	-4.066E-01	4.130E-01	3.200E-01	2.107E-01	FAIL ABUN
RN-220	-1.068E+01	2.408E+01	2.018E+01	1.229E+01	NOT IDENT.
RA-223	2.487E-01	7.404E-01	5.703E-01	3.778E-01	FAIL ABUN
AC-227	1.274E-01	3.715E-01	3.287E-01	1.896E-01	FAIL ABUN
TH-227	1.274E-01	3.717E-01	3.287E-01	1.897E-01	FAIL ABUN
TH-229	-1.332E-01	4.790E-01	4.198E-01	2.444E-01	FAIL ABUN
PA-231	-6.220E-02	1.484E+00	1.280E+00	7.570E-01	FAIL ABUN
TH-231	2.487E-01	7.404E-01	5.703E-01	3.778E-01	FAIL ABUN
U-231	-1.426E+00	1.373E+00	9.900E-01	7.006E-01	FAIL ABUN
PA-233	1.905E-03	6.218E-02	5.350E-02	3.172E-02	FAIL ABUN
PA-234	2.484E-02	3.254E-01	2.718E-01	1.660E-01	FAIL ABUN
PA-234M	7.818E-03	5.117E+00	4.258E+00	2.611E+00	NOT IDENT.
U-235	1.305E-01	2.088E-01	1.774E-01	1.065E-01	FAIL ABUN
NP-236	-6.803E-02	7.994E-02	6.386E-02	4.079E-02	NOT IDENT.
NP-239	-6.985E-02	1.745E-01	1.459E-01	8.905E-02	FAIL ABUN
AM-241	-1.293E-02	1.116E-01	8.778E-02	5.696E-02	NOT IDENT.
CM-243	-2.908E-02	8.767E-02	7.410E-02	4.473E-02	FAIL ABUN
AM-246	6.286E-02	1.445E-01	1.287E-01	7.372E-02	NOT IDENT.
CM-247	-4.737E-02	3.738E-02	2.849E-02	1.907E-02	NOT IDENT.
CF-249	4.718E-02	4.041E-02	3.654E-02	2.062E-02	NOT IDENT.
CF-251	-1.011E-02	1.192E-01	1.059E-01	6.081E-02	NOT IDENT.

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*                                     GEL Laboratories LLC                      *
*                                     2040 SAVAGE ROAD                        *
*                                     CHARLESTON , SC 29417                     *
*                                     GAMMA SPECTROSCOPY BACKGROUND REPORT      *
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ENERGY          MDA COUNTS

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46.50	301.2703
46.50	301.2703
46.50	301.2703
48.70	278.4438
49.72	316.2330
51.35	317.0064
52.39	291.6510
52.97	283.4619
53.15	276.8841
53.44	289.5503
54.07	292.8882
56.28	336.9684
56.28	336.9701
57.37	0.0000
57.53	317.6516
57.53	317.6533
57.60	317.7050
57.98	342.2309
57.98	342.2309
59.32	338.4569
59.32	338.4569
59.40	374.9982
59.54	345.9294
59.72	346.0758
60.01	371.1508
61.10	376.4864
61.14	376.5207
61.30	376.6599
63.00	417.8492
63.29	418.1233
63.29	418.1233
63.58	418.3969
64.28	435.2844
65.12	371.0533
65.20	371.1189
65.20	371.1189
66.05	426.6233
66.72	453.9503
66.83	454.0623
66.91	440.7846
67.20	438.0909
67.20	438.0909
67.75	460.9155
67.85	461.0148
68.90	451.6219
68.90	451.6219
69.30	434.1067
69.67	395.6339
70.82	402.5785
70.82	402.5785
70.83	402.5867
72.80	417.7635
72.87	417.8251
72.87	417.8251
74.67	419.3649
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74.81	419.4837
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74.81	419.4837
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77.11	421.4222

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77.11	421.4222
77.11	421.4222
77.11	421.4222
77.11	421.4222
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80.30	352.3688
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81.07	443.0248
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88.36	373.7304
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89.95	374.8039
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92.29	376.3671
92.38	376.4279
92.38	376.4279
93.35	377.0686
94.00	377.4976
94.67	377.9340
94.67	377.9377
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94.90	378.0886
94.90	378.0886
94.90	378.0886
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95.87	335.8281
96.73	372.4715
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98.44	299.4741
98.44	299.4741
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103.18	308.1988
103.76	302.1312
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111.00	270.2494
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112.95	319.4720
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116.30	268.1318
117.00	274.9096
117.00	274.9096
117.66	307.6840
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121.62	250.6477
121.78	250.7062
122.06	238.8139
122.32	244.3586
122.32	244.3586
122.32	244.3586
122.32	244.3586
123.07	250.0867
127.23	285.6439
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136.00	253.5591
136.25	252.5324
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140.51	0.0000
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142.65	242.3584
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144.24	254.1075
144.24	254.1075
144.24	254.1075
144.24	254.1075
145.22	270.1929
145.44	260.1335
147.16	281.0267
152.43	239.7403
152.70	247.7781
153.22	235.4292
154.21	235.7198
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154.21	235.7198
154.21	235.7198
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156.02	286.4679
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162.32	244.9725
162.64	245.0657
163.35	248.7283
163.89	261.5659
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171.28	270.8213
171.86	264.0251
172.10	264.0990
176.55	249.9512
176.60	249.9664
181.06	262.3277
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185.71	240.9966
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190.27	227.9453
192.34	240.0522
193.63	243.9571
197.04	258.2908
198.01	243.2905
198.60	236.2529
200.40	244.7963
201.83	266.7911
202.84	257.7885
205.31	228.6680

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208.81	235.1100
209.75	235.3313
209.75	235.3313
210.97	224.1572
215.65	220.5698
216.55	219.5453
218.09	203.3860
222.10	211.5364
223.80	188.8514
226.40	214.2556
227.00	211.6056
227.08	211.6230
227.20	207.9489
228.16	220.1634
228.18	220.1689
228.18	220.1689
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235.69	229.5450
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236.00	220.6649
238.63	185.8884
238.63	185.8884
238.63	185.8884
238.63	185.8884
239.00	185.9522
240.98	186.2877
241.98	151.4143
241.98	151.4143
241.98	151.4143
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245.39	154.8885
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249.79	174.5568
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252.85	171.2438
252.85	171.2438
254.15	0.0000
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256.20	170.7976
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260.90	165.7774
262.80	175.5884
264.65	151.3980
268.24	171.7980
268.79	161.1350
269.46	161.2273
269.46	161.2273
269.46	161.2273
269.46	161.2273
271.23	161.4657
273.65	201.8539
276.40	160.8734
277.35	147.9342
277.60	147.8265
277.60	147.8265
278.00	147.8756
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279.53	165.4788
280.46	194.6574
281.68	186.1260
283.67	156.3274
284.30	149.6058
285.00	148.7184
285.90	145.9076
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287.40	139.2666
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290.80	160.9325
291.72	162.6143
293.26	0.0000
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295.21	119.1601

295.21	119.1601
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297.23	125.6309
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299.80	125.8828
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300.09	152.6661
300.09	152.6661
300.09	152.6661
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308.46	154.4432
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323.87	136.1992
323.87	136.1992
323.87	136.1992
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334.30	142.6143
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338.28	153.8137
338.28	153.8137
338.28	153.8137
338.32	153.8184
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338.32	153.8184
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340.57	121.6278
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351.92	149.1590
351.92	149.1590
355.39	0.0000
356.01	132.7759
364.48	124.6779
366.43	100.0801
367.43	108.4062
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369.80	112.7139
374.96	121.3989
383.85	135.6712
387.95	99.4067
388.63	100.4971
391.69	136.3556
391.69	136.3556
392.90	137.5104
398.62	116.9382
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402.60	132.0152
404.84	108.9330
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413.65	138.2361
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427.89	106.1800
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443.98	96.3605
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445.03	91.0034
445.03	91.0034
445.03	91.0034
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475.35	101.3887
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477.96	87.1862
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511.85	82.0342
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513.99	84.0000
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602.71	95.3146
603.60	89.3107
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609.31	60.3234
609.31	60.3234
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661.65	59.4776
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666.33	78.9252
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696.49	79.2697
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722.78	52.7500
722.89	52.7526
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744.21	59.8462
747.13	62.9093
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753.82	61.0700
755.35	59.1023
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756.87	52.1206
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765.79	43.5820
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778.00	63.6537
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911.07	53.9995
911.07	53.9995
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969.11	48.5475
969.11	48.5475
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1099.22	45.7999
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1325.50	25.7916
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1368.53	0.0000
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1395.20	22.1898
1407.95	26.3026
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1436.60	21.3845
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1596.49	12.6538
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1764.49	8.4133
1764.49	8.4133
1764.49	8.4133
1770.23	9.8262
1771.40	69.2692
1791.20	0.0000
1808.65	12.2551

1836.01

16.1083

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243517005

Total Uranium Activity	2.7186E+00	ug/g
Total Uranium Counting Unc.	4.0957E+00	ug/g
Total Uranium Tpu	2.0896E-06	ug/g
Total Uranium Mda	2.4279E+00	ug/g

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*****
*
*                               GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                               *
*                               CHARLESTON ,SC 29417                           *
*                               GROSS GAMMA REPORT                             *
*
*****
*
*  BATCH ID      : 937069                SAMPLE ID   : G243517005                *
*  ANALYST       : MXR1                  DETECTOR    : GAM07                    *
*  SAMPLE DATE   : 21-DEC-2009 12:00:00.00  COUNT TIME : 0 02:00:00.00          *
*  ANALYSIS DATE: 7-JAN-2010 08:53:48.06  SAMPLE ALQT: 125.380 GRAM            *
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 8.858E+00
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.495E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 3.737E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 1.813E+00

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VAX/VMS Nuclide Identification Report Generated 7-JAN-2010 10:57:30.95

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517006.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:54:17.
Sample ID          : G243517006 Sample quantity : 1.09750E+02 GRAM
Detector name      : GAM14 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:01.31 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 937069 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	64.68	16	591	1.33	128.91	121	10	2.21E-03	287.0	
2	1	74.75*	450	456	1.54	149.03	140	19	6.25E-02	10.0	1.64E+00
3	1	77.17*	683	372	1.27	153.86	140	19	9.49E-02	6.6	
4	3	87.16*	328	449	1.88	173.82	165	29	4.55E-02	14.0	3.12E+00
5	3	89.92	214	359	1.43	179.34	165	29	2.98E-02	18.3	
6	3	92.75*	250	352	1.54	184.99	165	29	3.47E-02	16.4	
7	0	185.69*	150	352	1.53	370.70	364	13	2.09E-02	27.8	
8	0	209.41	119	224	1.30	418.10	414	9	1.65E-02	24.8	
9	3	238.43*	1151	191	1.35	476.09	467	24	1.60E-01	3.7	1.22E+00
10	3	241.38	309	241	2.06	481.98	467	24	4.30E-02	15.1	
11	0	270.01	103	179	1.59	539.19	535	10	1.43E-02	26.1	
12	1	294.98	339	149	1.63	589.09	584	25	4.71E-02	8.5	1.69E+00
13	1	299.78	64	140	1.75	598.68	584	25	8.91E-03	38.1	
14	0	327.89	91	156	2.50	654.86	650	12	1.26E-02	29.4	
15	0	337.97	182	208	1.24	675.01	669	13	2.53E-02	17.9	
16	0	351.61	559	144	1.48	702.27	697	11	7.77E-02	5.9	
17	0	462.91*	54	96	0.93	924.72	918	11	7.45E-03	38.7	
18	0	510.72*	59	176	1.43	1020.30	1012	16	8.14E-03	58.2	
19	0	567.57*	152	83	3.46	1133.94	1128	14	2.11E-02	15.4	
20	0	582.98*	335	108	1.61	1164.76	1158	14	4.65E-02	8.8	
21	0	608.98	400	86	1.46	1216.74	1209	15	5.55E-02	7.1	
22	0	727.83	123	81	2.02	1454.35	1448	18	1.71E-02	19.4	
23	0	795.55	72	79	0.92	1589.76	1583	17	1.00E-02	30.7	
24	0	859.66	79	44	1.59	1717.98	1709	16	1.10E-02	21.8	
25	0	911.11	220	45	2.03	1820.86	1815	12	3.06E-02	9.1	
26	1	964.49	58	54	2.08	1927.62	1921	21	8.08E-03	26.9	8.10E-01
27	1	968.84*	153	36	1.82	1936.33	1921	21	2.13E-02	11.5	
28	0	1120.38*	76	64	0.97	2239.46	2232	14	1.05E-02	25.7	
29	0	1378.04	36	17	1.55	2754.95	2750	12	5.05E-03	28.5	
30	0	1460.52*	1271	13	1.99	2920.02	2911	19	1.77E-01	2.9	
31	0	1764.13	73	14	1.02	3527.74	3520	17	1.02E-02	16.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 7-JAN-2010 10:57:34

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Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517006.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:54:17
Sample ID         : G243517006 Sample quantity : 109.75 GRAM
Sample type       : SOLID Sample geometry :
Detector name     : GAMMA14 Detector geometry: CAN
Elapsed live time : 0 02:00:00.00 Elapsed real time: 0 02:00:01.31 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

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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	*	3.364E+01	3.131E+00	6.706E-01	4.869E-02	50.163
CD-109	+	88.03	*	4.387E+00	1.289E+00	1.266E+00	1.107E-01	3.467
SN-126	+	64.28		1.172E-01	6.731E-01	7.369E-01	1.050E-01	0.159
	+	86.94		1.788E+00	8.939E-01	5.199E-01	2.151E-01	3.439
	+	87.57	*	4.301E-01	1.264E-01	1.245E-01	1.083E-02	3.455
TL-208		277.35		1.087E-01	4.031E-01	6.638E-01	7.020E-02	0.164
	+	510.84		3.005E-01	3.510E-01	2.155E-01	2.198E-02	1.394
	+	583.14	*	4.926E-01	9.275E-02	6.331E-02	4.329E-03	7.781
	+	860.37		1.118E+00	4.990E-01	4.604E-01	4.331E-02	2.429
BI-211		72.87		1.345E+01	3.379E+00	5.865E+00	4.322E-01	2.293
	+	351.07	*	3.537E+00	4.762E-01	3.544E-01	2.245E-02	9.982
PB-212	+	74.81		2.369E+00	5.539E-01	5.268E-01	6.318E-02	4.497
	+	77.11		2.056E+00	3.160E-01	3.024E-01	2.328E-02	6.801
	+	87.30		1.989E+00	6.174E-01	5.769E-01	7.636E-02	3.448
	+	238.63	*	1.585E+00	1.644E-01	9.712E-02	7.074E-03	16.319
	+	300.09		1.363E+00	1.046E+00	1.243E+00	1.028E-01	1.097
PO-212	+	74.81		2.369E+00	5.539E-01	5.268E-01	6.318E-02	4.497
	+	77.11		2.056E+00	3.160E-01	3.024E-01	2.328E-02	6.801
	+	87.30		1.989E+00	6.174E-01	5.769E-01	7.636E-02	3.448
		115.19		1.747E+00	3.907E+00	6.409E+00	4.663E-01	0.273
	+	238.63	*	1.585E+00	1.644E-01	9.712E-02	7.074E-03	16.319
	+	300.09		1.363E+00	1.046E+00	1.243E+00	1.028E-01	1.097
BI-214	+	609.31	*	1.112E+00	1.811E-01	1.193E-01	9.442E-03	9.320
	+	1120.29		1.123E+00	5.864E-01	5.188E-01	4.807E-02	2.165
	+	1764.49		1.501E+00	4.941E-01	3.399E-01	2.039E-02	4.415
PB-214	+	74.81		4.082E+00	9.256E-01	9.077E-01	9.579E-02	4.497
	+	77.11		3.525E+00	6.046E-01	5.184E-01	5.615E-02	6.801
	+	87.30		3.407E+00	1.035E+00	9.882E-01	1.147E-01	3.448
	+	241.98		2.557E+00	8.015E-01	5.844E-01	4.694E-02	4.376
	+	295.21		1.263E+00	2.409E-01	2.178E-01	1.862E-02	5.799
	+	351.92	*	1.231E+00	1.777E-01	1.179E-01	9.675E-03	10.436
PO-214	+	74.81		4.082E+00	9.256E-01	9.077E-01	9.579E-02	4.497
	+	77.11		3.525E+00	6.046E-01	5.184E-01	5.615E-02	6.801
	+	87.30		3.407E+00	1.035E+00	9.882E-01	1.147E-01	3.448

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.557E+00	8.015E-01	5.844E-01	4.694E-02	4.376
	+	295.21		1.263E+00	2.409E-01	2.178E-01	1.862E-02	5.799
	+	351.92	*	1.231E+00	1.777E-01	1.179E-01	9.675E-03	10.436
PO-216	+	74.81		2.369E+00	5.539E-01	5.268E-01	6.318E-02	4.497
	+	77.11		2.056E+00	3.160E-01	3.024E-01	2.328E-02	6.801
	+	87.30		1.989E+00	6.174E-01	5.769E-01	7.636E-02	3.448
	+	238.63	*	1.585E+00	1.644E-01	9.712E-02	7.074E-03	16.319
	+	300.09		1.363E+00	1.046E+00	1.243E+00	1.028E-01	1.097
PO-218	+	74.81		4.082E+00	9.256E-01	9.077E-01	9.579E-02	4.497
	+	77.11		3.525E+00	6.046E-01	5.184E-01	5.615E-02	6.801
	+	87.30		3.407E+00	1.035E+00	9.882E-01	1.147E-01	3.448
	+	241.98		2.557E+00	8.015E-01	5.844E-01	4.694E-02	4.376
	+	295.21		1.263E+00	2.409E-01	2.178E-01	1.862E-02	5.799
	+	351.92	*	1.231E+00	1.777E-01	1.179E-01	9.675E-03	10.436
RA-224	+	240.98	*	4.849E+00	1.495E+00	1.105E+00	6.350E-02	4.389
RA-226	+	609.31	*	1.112E+00	1.811E-01	1.193E-01	9.442E-03	9.320
	+	1120.29		1.123E+00	5.864E-01	5.188E-01	4.807E-02	2.165
	+	1764.49		1.501E+00	4.941E-01	3.399E-01	2.039E-02	4.415
AC-228	+	338.32		1.267E+00	6.879E-01	4.102E-01	1.672E-01	3.088
	+	911.07	*	1.474E+00	3.189E-01	2.501E-01	2.937E-02	5.895
	+	969.11		1.814E+00	5.940E-01	4.203E-01	9.814E-02	4.316
RA-228	+	338.32		1.267E+00	6.879E-01	4.102E-01	1.672E-01	3.088
	+	911.07	*	1.474E+00	3.189E-01	2.501E-01	2.937E-02	5.895
	+	969.11		1.814E+00	5.940E-01	4.203E-01	9.814E-02	4.316
TH-228	+	74.81		2.409E+00	5.170E-01	5.358E-01	4.071E-02	4.497
	+	77.11		2.091E+00	3.213E-01	3.075E-01	2.368E-02	6.801
	+	87.30		2.023E+00	5.944E-01	5.866E-01	5.087E-02	3.448
	+	238.63	*	1.612E+00	1.672E-01	9.877E-02	7.194E-03	16.319
	+	300.09		1.387E+00	1.337E+00	1.264E+00	7.448E-01	1.097
TH-230	+	609.31	*	1.112E+00	1.811E-01	1.193E-01	9.442E-03	9.320
	+	1120.29		1.123E+00	5.864E-01	5.188E-01	4.807E-02	2.165
	+	1764.49		1.501E+00	4.941E-01	3.399E-01	2.039E-02	4.415
TH-232	+	338.32		1.267E+00	4.604E-01	4.102E-01	2.357E-02	3.088
	+	911.07	*	1.474E+00	3.189E-01	2.501E-01	2.937E-02	5.895
	+	969.11		1.814E+00	5.940E-01	4.203E-01	9.814E-02	4.316
TH-234	+	63.29	*	2.962E-01	1.701E+00	1.917E+00	3.295E-01	0.155
	+	92.38		2.161E+00	8.079E-01	8.262E-01	1.484E-01	2.616
U-234	+	609.31	*	1.112E+00	1.811E-01	1.193E-01	9.442E-03	9.320
	+	1120.29		1.123E+00	5.864E-01	5.188E-01	4.807E-02	2.165
	+	1764.49		1.501E+00	4.941E-01	3.399E-01	2.039E-02	4.415
NP-237	+	86.50	*	1.263E+00	4.535E-01	3.685E-01	8.237E-02	3.427
	+	95.87		1.621E-02	1.167E+00	1.651E+00	4.038E-01	0.010
U-238	+	63.29	*	2.962E-01	1.701E+00	1.917E+00	3.295E-01	0.155
	+	92.38		2.161E+00	7.313E-01	8.262E-01	6.912E-02	2.616
AM-243	+	74.67	*	3.841E-01	8.231E-02	8.561E-02	6.424E-03	4.487
	+	86.72		4.736E+01	1.392E+01	1.380E+01	1.188E+00	3.433
	+	117.66		-4.799E+00	4.190E+00	6.397E+00	4.612E-01	-0.750
	+	142.18		7.739E+00	1.920E+01	3.076E+01	1.934E+00	0.252
ANH-511	+	511.00	*	6.490E-02	7.562E-02	4.657E-02	2.736E-03	1.394

---- 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	*	-2.472E-02	3.516E-01	5.735E-01	3.865E-02	-0.043
NA-22		1274.54	*	-2.205E-03	5.217E-02	8.550E-02	5.585E-03	-0.026
NA-24		1368.53	*	-2.791E+00	5.217E-02	Half-Life too short		
AL-26		1129.67		3.583E-01	1.877E+00	3.162E+00	1.997E-01	0.113
		1808.65	*	-6.096E-03	3.271E-02	5.068E-02	2.938E-03	-0.120
TI-44		67.85		-4.409E-04	6.801E-02	6.959E-02	4.898E-03	-0.006
	+	78.38	*	3.795E-01	5.831E-02	8.218E-02	6.416E-03	4.618
SC-46		889.25	*	-3.459E-02	4.617E-02	7.201E-02	6.654E-03	-0.480
	+	1120.51		1.951E-01	1.010E-01	1.363E-01	8.826E-03	1.431
V-48		944.10		-3.291E-01	1.065E+00	1.725E+00	1.542E-01	-0.191
		983.50	*	-4.388E-03	8.837E-02	1.466E-01	1.244E-02	-0.030
		1312.09		6.080E-03	9.656E-02	1.594E-01	1.102E-02	0.038
CR-51		320.08	*	4.616E-01	4.284E-01	7.494E-01	4.843E-02	0.616
MN-52		744.21		-9.104E-02	3.352E-01	5.264E-01	3.715E-02	-0.173
		848.13		-1.140E+00	8.895E+00	1.474E+01	1.267E+00	-0.077
		935.52		1.057E-01	3.607E-01	6.168E-01	5.567E-02	0.171
		1246.25		-3.853E+00	1.022E+01	1.623E+01	1.011E+00	-0.237
		1333.61		-2.134E+00	7.213E+00	1.142E+01	8.139E-01	-0.187
		1434.06	*	-4.683E-02	2.680E-01	4.250E-01	2.979E-02	-0.110
MN-54		834.83	*	1.510E-02	3.978E-02	6.876E-02	5.768E-03	0.220
CO-56		846.75	*	-2.507E-02	4.426E-02	7.050E-02	6.043E-03	-0.356
		977.42		9.626E-01	3.411E+00	5.824E+00	4.988E-01	0.165
		1037.82		-2.002E-01	3.513E-01	5.508E-01	4.564E-02	-0.363
		1175.09		1.151E+00	2.860E+00	4.877E+00	2.695E-01	0.236
		1238.25		5.454E-02	1.079E-01	1.846E-01	1.199E-02	0.295
		1360.21		-3.779E-01	1.132E+00	1.775E+00	1.261E-01	-0.213
		1771.40		8.208E-02	3.049E-01	4.532E-01	2.705E-02	0.181
CO-57		122.06	*	4.533E-03	2.730E-02	4.425E-02	3.149E-03	0.102
		136.48		-7.420E-02	2.232E-01	3.530E-01	2.591E-02	-0.210
CO-58		810.76	*	-2.657E-02	4.704E-02	7.134E-02	5.740E-03	-0.372
FE-59		142.65		2.084E+00	3.043E+00	4.930E+00	3.092E-01	0.423
		192.34		8.902E-01	1.087E+00	1.732E+00	2.022E-01	0.514
		1099.22	*	-8.929E-02	1.104E-01	1.688E-01	1.300E-02	-0.529
		1291.56		-1.225E-01	1.473E-01	2.197E-01	1.789E-02	-0.558
CO-60		1173.22		1.150E-02	5.625E-02	9.449E-02	5.205E-03	0.122
		1332.49	*	-8.680E-03	4.508E-02	7.233E-02	5.155E-03	-0.120
ZN-65		1115.52	*	5.199E-02	1.240E-01	1.855E-01	1.219E-02	0.280
GE-68		1077.35	*	-1.015E+00	1.454E+00	2.250E+00	1.617E-01	-0.451
AS-73		53.44	*	7.681E-01	7.237E-01	1.224E+00	7.982E-02	0.627
AS-74		595.88	*	8.101E-02	1.030E-01	1.778E-01	1.063E-02	0.456
		634.78		2.466E-01	4.248E-01	7.210E-01	4.306E-02	0.342
SE-75	+	66.05		1.217E+00	6.986E+00	7.219E+00	6.565E-01	0.169
		96.73		-7.417E-01	9.705E-01	1.309E+00	1.738E-01	-0.567
		121.11		5.211E-02	1.446E-01	2.363E-01	2.391E-02	0.220
		136.00		-6.983E-04	4.213E-02	6.761E-02	4.466E-03	-0.010
		198.60		2.752E-01	1.900E+00	3.215E+00	2.226E-01	0.086
		264.65	*	5.266E-02	5.168E-02	8.037E-02	4.719E-03	0.655
		279.53		1.410E-01	1.138E-01	2.006E-01	1.263E-02	0.703
		303.91		7.447E-01	2.443E+00	3.614E+00	3.454E-01	0.206

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	400.65		8.125E-02	2.725E-01	4.576E-01	4.076E-02	0.178
		87.88		1.577E+03	4.634E+02	6.201E+02	5.417E+01	2.543
		200.40		1.153E+02	2.833E+02	4.843E+02	2.693E+01	0.238
	+	239.00		4.245E+02	3.970E+01	6.735E+01	3.866E+00	6.304
		249.79		1.163E+02	1.190E+02	1.982E+02	1.145E+01	0.587
		281.68		-8.932E+01	1.605E+02	2.600E+02	1.516E+01	-0.344
		297.23		5.271E+02	1.145E+02	2.168E+02	1.265E+01	2.431
		303.76		1.367E+02	3.435E+02	5.116E+02	2.982E+01	0.267
		439.47		3.146E+01	2.657E+02	4.403E+02	2.489E+01	0.071
		484.57		2.299E+02	4.401E+02	7.458E+02	4.331E+01	0.308
		520.65	*	4.391E+00	1.796E+01	2.991E+01	1.763E+00	0.147
		574.64		-2.920E+02	4.730E+02	5.756E+02	3.436E+01	-0.507
		578.91		1.633E+02	1.745E+02	2.701E+02	1.613E+01	0.605
		585.48		1.830E+03	4.401E+02	7.968E+02	4.763E+01	2.296
		755.35		-2.755E+02	3.193E+02	4.721E+02	3.406E+01	-0.583
		817.79		7.125E+01	2.155E+02	3.729E+02	3.032E+01	0.191
		698.33		1.408E+01	4.286E+01	7.096E+01	4.561E+00	0.198
		776.49	*	-1.056E-02	4.463E-01	7.160E-01	5.383E-02	-0.015
		1395.20		-3.324E+00	1.171E+01	1.836E+01	1.297E+00	-0.181
RB-83	*	520.41		1.900E-02	7.231E-02	1.206E-01	7.108E-03	0.158
		529.64		5.504E-03	1.054E-01	1.729E-01	1.022E-02	0.032
		552.65		-1.778E-01	2.185E-01	3.323E-01	1.976E-02	-0.535
RB-84		881.50	*	4.181E-03	7.303E-02	1.229E-01	1.120E-02	0.034
KR-85		513.99	*	1.133E+01	8.832E+00	1.396E+01	8.208E-01	0.812
SR-85		513.99	*	5.919E-02	4.612E-02	7.288E-02	4.287E-03	0.812
RB-86		1076.63	*	-2.262E-01	9.553E-01	1.549E+00	1.115E-01	-0.146
Y-88		898.02		-7.725E-03	4.626E-02	7.622E-02	7.180E-03	-0.101
		1836.01	*	-1.819E-02	3.474E-02	4.884E-02	2.774E-03	-0.372
ZR-88		392.90	*	-1.825E-02	3.486E-02	5.567E-02	3.031E-03	-0.328
Y-91		1204.90	*	-4.444E+00	2.296E+01	3.726E+01	2.168E+00	-0.119
NB-94	*	702.63		-3.306E-02	3.952E-02	5.932E-02	3.847E-03	-0.557
		871.10		5.635E-03	3.648E-02	6.194E-02	5.545E-03	0.091
NB-95		765.79	*	-4.078E-02	6.220E-02	8.683E-02	6.394E-03	-0.470
NB-95M		235.69	*	8.120E-01	1.888E-01	3.148E-01	2.353E-02	2.580
ZR-95	*	724.18		4.057E-02	1.322E-01	1.900E-01	1.464E-02	0.214
		756.15		-9.773E-02	8.544E-02	1.225E-01	1.011E-02	-0.798
NB-97	*	657.90		-1.891E-01	8.544E-02	Half-Life	too short	
		1024.50		1.525E+01	8.544E-02	Half-Life	too short	
ZR-97		254.15		-4.247E+01	8.544E-02	Half-Life	too short	
		355.39		-1.831E+00	8.544E-02	Half-Life	too short	
		507.63	*	3.206E+01	8.544E-02	Half-Life	too short	
		602.52		5.727E-01	8.544E-02	Half-Life	too short	
		1021.30		2.152E+01	8.544E-02	Half-Life	too short	
		1147.95		1.954E+00	8.544E-02	Half-Life	too short	
MO-99		1362.66		2.300E+01	8.544E-02	Half-Life	too short	
		1750.46		-7.831E+00	8.544E-02	Half-Life	too short	
		140.51		-2.162E+01	4.401E+01	6.848E+01	1.854E+01	-0.316
		181.06		-7.129E+00	3.121E+01	4.524E+01	7.703E+00	-0.158
		366.43		1.322E+02	1.407E+02	2.453E+02	1.377E+01	0.539

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	739.58	*		1.948E+01	1.947E+01	3.390E+01	4.856E+00	0.575
	778.00			-2.214E+01	5.878E+01	9.104E+01	6.866E+00	-0.243
TC-99M	140.51	*		-2.573E+12	5.878E+01	Half-Life	too short	
RH-101	127.23			3.129E-02	3.549E-02	5.899E-02	4.059E-03	0.530
	198.01	*		3.533E-04	3.456E-02	5.819E-02	3.228E-03	0.006
	325.23			5.722E-02	2.721E-01	3.984E-01	2.306E-02	0.144
RH-102	418.52			1.121E-01	2.965E-01	5.004E-01	2.786E-02	0.224
	475.06	*		-2.920E-02	3.216E-02	4.919E-02	2.843E-03	-0.594
	631.29			-2.602E-02	5.656E-02	8.783E-02	5.248E-03	-0.296
	697.49			6.912E-02	9.092E-02	1.552E-01	9.960E-03	0.445
	766.84			5.919E-02	1.518E-01	2.304E-01	1.700E-02	0.257
	1046.59			3.331E-02	1.262E-01	2.147E-01	1.643E-02	0.155
	1112.84			9.078E-02	2.988E-01	4.423E-01	2.923E-02	0.205
RU-103	497.08	*		-7.971E-03	4.544E-02	7.339E-02	9.294E-03	-0.109
	610.33			1.238E+01	2.605E+00	3.005E+00	4.654E-01	4.121
RH-106	511.85	+		3.252E-01	3.790E-01	4.757E-01	2.795E-02	0.684
	621.84	*		-6.466E-02	3.296E-01	5.255E-01	6.215E-02	-0.123
	1050.47			-6.416E-01	2.576E+00	4.176E+00	3.172E-01	-0.154
RU-106	511.85	+		3.252E-01	3.790E-01	4.757E-01	2.795E-02	0.684
	621.84	*		-6.466E-02	3.296E-01	5.255E-01	3.142E-02	-0.123
	1050.47			-6.416E-01	2.576E+00	4.176E+00	3.172E-01	-0.154
AG-108M	433.93	*		-3.671E-03	3.649E-02	5.962E-02	3.662E-03	-0.062
	614.37			2.970E-02	4.608E-02	6.937E-02	4.481E-03	0.428
	722.95			-2.018E-02	5.365E-02	7.104E-02	5.106E-03	-0.284
AG-110M	657.75	*		-1.075E-02	4.020E-02	6.366E-02	4.021E-03	-0.169
	677.61			-1.938E-01	3.638E-01	5.618E-01	3.645E-02	-0.345
	706.67			-8.193E-02	2.291E-01	3.581E-01	2.453E-02	-0.229
	763.93			-3.780E-01	2.148E-01	2.928E-01	2.232E-02	-1.291
	884.67			-1.679E-02	4.960E-02	8.017E-02	7.559E-03	-0.209
	937.48			-4.186E-02	1.262E-01	2.044E-01	1.902E-02	-0.205
	1384.27			-2.412E-01	2.263E-01	2.489E-01	1.835E-02	-0.969
IN-111	171.28			-3.663E-01	1.788E+00	2.795E+00	1.507E-01	-0.131
	245.39	*		1.014E-01	1.899E+00	2.775E+00	1.599E-01	0.037
IN-113M	391.69	*		-3.096E-02	5.005E-02	7.944E-02	4.648E-03	-0.390
SN-113	391.69	*		-3.096E-02	5.005E-02	7.944E-02	4.648E-03	-0.390
IN-114M	190.27	*		-1.617E-01	2.246E-01	3.157E-01	1.737E-02	-0.512
CD-115	260.90			-1.030E+02	2.328E+02	3.803E+02	2.207E+01	-0.271
	492.35			2.904E+00	6.931E+01	1.138E+02	6.634E+00	0.026
	527.90	*		5.865E-01	1.879E+01	3.077E+01	1.818E+00	0.019
SN-117M	156.02			1.454E+00	2.792E+00	4.565E+00	2.627E-01	0.318
	158.56	*		-6.375E-02	6.771E-02	1.037E-01	5.863E-03	-0.615
SB-122	563.90	*		4.144E+00	4.219E+00	6.526E+00	3.890E-01	0.635
	692.80			6.970E+00	7.788E+01	1.267E+02	8.053E+00	0.055
I-123	159.00	*		-3.395E+01	7.788E+01	Half-Life	too short	
	528.96			-1.657E+03	7.788E+01	Half-Life	too short	
TE-123M	159.00	*		-1.836E-02	3.190E-02	4.970E-02	2.842E-03	-0.369
I-124	602.71	*		2.667E-02	1.051E+00	1.480E+00	8.851E-02	0.018
	722.78			-2.820E+00	7.496E+00	9.925E+00	6.709E-01	-0.284
	1325.50			-1.025E-01	5.009E+01	8.224E+01	5.800E+00	-0.001

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124		1376.25		7.849E+01	5.634E+01	9.575E+01	6.786E+00	0.820
		1509.49		2.421E+01	2.189E+01	4.129E+01	2.833E+00	0.586
		1691.02		4.277E+00	5.641E+00	1.039E+01	6.546E-01	0.412
		602.71		1.182E-03	4.662E-02	6.560E-02	3.926E-03	0.018
		645.85		2.622E-02	5.761E-01	9.300E-01	6.221E-02	0.028
		709.31		-9.846E-01	3.165E+00	4.969E+00	3.268E-01	-0.198
		713.82		-5.216E-02	1.903E+00	3.063E+00	3.280E-01	-0.017
		722.78		-1.812E-01	4.818E-01	6.379E-01	4.463E-02	-0.284
	+	968.20		1.905E+01	4.675E+00	8.157E+00	7.073E-01	2.336
		1045.16		-1.058E+00	2.948E+00	4.680E+00	3.591E-01	-0.226
		1325.50		-7.034E-03	3.438E+00	5.646E+00	3.982E-01	-0.001
		1368.21		-2.854E-01	1.916E+00	3.077E+00	3.863E-01	-0.093
		1436.60		1.095E+00	3.597E+00	6.177E+00	4.327E-01	0.177
		1691.02	*	6.484E-02	8.554E-02	1.575E-01	1.065E-02	0.412
SB-125		427.89	*	9.748E-02	1.016E-01	1.770E-01	1.038E-02	0.551
	+	463.38		5.345E-01	4.147E-01	5.812E-01	3.902E-02	0.920
		600.56		5.322E-02	1.954E-01	3.068E-01	2.106E-02	0.173
		635.90		3.060E-01	2.972E-01	5.212E-01	3.617E-02	0.587
TE-125M		109.28	*	-6.798E+00	1.035E+01	1.623E+01	1.524E+00	-0.419
I-126		388.63		1.515E-01	2.413E-01	4.132E-01	2.257E-02	0.367
		666.33	*	6.460E-02	2.226E-01	3.686E-01	2.214E-02	0.175
		753.82		9.616E-01	1.774E+00	2.994E+00	2.153E-01	0.321
SB-126		223.80		-2.069E+00	4.602E+00	7.565E+00	4.296E-01	-0.273
		278.60		2.935E+00	2.877E+00	5.021E+00	2.927E-01	0.585
		296.50		1.237E+01	2.152E+00	4.093E+00	2.387E-01	3.022
		414.70		2.079E-02	8.600E-02	1.439E-01	7.986E-03	0.144
		415.30		3.816E+00	7.092E+00	1.209E+01	6.714E-01	0.316
		555.20		-3.067E+00	4.873E+00	7.543E+00	4.489E-01	-0.407
		573.80		-8.935E-01	1.461E+00	1.908E+00	1.139E-01	-0.468
		593.00		-5.642E-02	1.118E+00	1.810E+00	1.082E-01	-0.031
		656.30		1.333E+00	4.300E+00	7.131E+00	4.245E-01	0.187
		666.33		2.710E-02	9.338E-02	1.546E-01	9.288E-03	0.175
		675.00		2.458E+00	2.482E+00	4.330E+00	2.650E-01	0.568
		695.00		-3.234E-02	1.041E-01	1.640E-01	1.047E-02	-0.197
		697.00		2.293E-01	3.502E-01	5.936E-01	3.805E-02	0.386
		720.50	*	1.529E-01	1.890E-01	3.002E-01	2.020E-02	0.509
SB-127		856.80		2.522E-01	6.434E-01	9.748E-01	8.507E-02	0.259
		989.30		6.164E-01	1.589E+00	2.737E+00	2.305E-01	0.225
		1034.80		-3.344E+00	1.057E+01	1.702E+01	1.331E+00	-0.197
		1213.00		-4.332E-01	6.549E+00	1.075E+01	6.339E-01	-0.040
		61.10		7.805E+01	7.896E+01	1.175E+02	1.218E+01	0.664
		252.40		-2.567E-01	6.018E+00	1.004E+01	4.186E+00	-0.026
		290.80		-1.279E+01	3.483E+01	4.899E+01	4.815E+00	-0.261
		411.60		-5.745E-01	1.765E+01	2.903E+01	4.266E+00	-0.020
		444.90		-3.935E+00	1.382E+01	2.224E+01	2.508E+00	-0.177
		473.00		2.536E+00	2.434E+00	4.254E+00	4.976E-01	0.596
		543.00		5.148E+00	2.275E+01	3.779E+01	5.076E+00	0.136
		603.60		9.789E+00	1.822E+01	2.713E+01	3.096E+00	0.361
		685.20	*	-5.307E-01	2.051E+00	3.238E+00	3.344E-01	-0.164

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
XE-127		698.50		6.968E+00	2.487E+01	4.099E+01	6.210E+00	0.170
		722.20		1.648E+01	5.094E+01	7.362E+01	7.656E+00	0.224
		783.80		5.564E+00	5.861E+00	1.010E+01	1.238E+00	0.551
		57.60		-6.641E+00	6.482E+00	8.764E+00	5.772E-01	-0.758
		145.22		-2.104E-01	7.805E-01	1.237E+00	7.633E-02	-0.170
		172.10		5.842E-02	1.417E-01	2.277E-01	1.229E-02	0.257
I-131		202.84	*	-4.668E-02	5.502E-02	8.386E-02	4.675E-03	-0.557
		374.96		2.253E-01	2.219E-01	3.880E-01	2.157E-02	0.581
		80.18		1.177E+01	7.354E+00	8.531E+00	6.860E-01	1.379
		284.30		-1.430E+00	1.824E+00	2.912E+00	1.892E-01	-0.491
		364.48	*	3.163E-02	1.430E-01	2.397E-01	1.518E-02	0.132
		636.97		1.651E+00	2.062E+00	3.550E+00	2.366E-01	0.465
TE-132		722.89		-3.953E+00	1.051E+01	1.392E+01	9.531E-01	-0.284
		49.72		-3.130E+01	2.259E+01	3.469E+01	3.394E+00	-0.902
		111.76		-6.697E+01	4.916E+01	7.320E+01	7.631E+00	-0.915
		116.30		2.333E+01	4.392E+01	7.220E+01	7.457E+00	0.323
BA-133		228.16	*	-3.075E-01	1.061E+00	1.755E+00	2.578E-01	-0.175
		53.15		3.063E+00	3.058E+00	5.166E+00	3.365E-01	0.593
		79.62		4.271E+00	2.053E+00	2.345E+00	3.479E-01	1.822
		81.00		5.219E-02	1.429E-01	1.501E-01	2.338E-02	0.348
		276.40		1.433E-01	4.316E-01	6.582E-01	8.541E-02	0.218
		302.84		1.274E-01	1.629E-01	2.488E-01	2.903E-02	0.512
I-133		356.01	*	-4.384E-03	4.839E-02	6.892E-02	7.922E-03	-0.064
		383.85		-1.271E-01	3.188E-01	5.127E-01	5.493E-02	-0.248
	+	510.53		2.685E+00	3.188E-01	Half-Life	too short	
		529.87	*	-4.241E-03	3.188E-01	Half-Life	too short	
		706.58		-3.624E-01	3.188E-01	Half-Life	too short	
		856.28		1.022E+00	3.188E-01	Half-Life	too short	
		875.33		-2.995E-01	3.188E-01	Half-Life	too short	
		1236.41		3.080E+00	3.188E-01	Half-Life	too short	
		1298.22		3.314E-01	3.188E-01	Half-Life	too short	
		475.35		-2.605E+00	2.139E+00	3.191E+00	1.844E-01	-0.816
CS-134		563.23		7.271E-02	4.613E-01	6.605E-01	4.015E-02	0.110
		569.32		8.611E-01	2.931E-01	5.088E-01	3.121E-02	1.692
		604.70		2.998E-02	3.948E-02	6.008E-02	3.613E-03	0.499
	+	795.84	*	1.564E-01	9.694E-02	1.084E-01	8.528E-03	1.444
		801.93		-6.902E-01	5.767E-01	6.897E-01	5.479E-02	-1.001
		1038.57		-6.647E-01	4.254E+00	6.961E+00	5.408E-01	-0.095
CS-135		1167.94		2.760E+00	3.108E+00	5.495E+00	3.082E-01	0.502
		1365.15		-2.290E-01	1.363E+00	2.186E+00	1.655E-01	-0.105
		268.24	*	3.151E-01	1.963E-01	3.120E-01	2.393E-02	1.010
		288.45		-5.148E+11	1.963E-01	Half-Life	too short	
		417.63		1.092E+12	1.963E-01	Half-Life	too short	
		546.56		-5.996E+10	1.963E-01	Half-Life	too short	
I-135		836.80		-2.308E+11	1.963E-01	Half-Life	too short	
		1038.76		-1.914E+11	1.963E-01	Half-Life	too short	
		1124.00		-1.793E+11	1.963E-01	Half-Life	too short	
		1131.51		1.863E+11	1.963E-01	Half-Life	too short	
		1260.41	*	-1.363E+11	1.963E-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-136		1457.56		6.876E+13	1.963E-01	Half-Life	too short	
		1678.03		2.877E+11	1.963E-01	Half-Life	too short	
		1706.46		3.535E+11	1.963E-01	Half-Life	too short	
		1791.20		-2.305E+11	1.963E-01	Half-Life	too short	
		66.91		-6.258E-01	1.311E+00	1.285E+00	1.875E-01	-0.487
	+	86.29		6.156E+00	1.902E+00	2.318E+00	2.971E-01	2.655
		153.22		2.711E-01	8.245E-01	1.338E+00	9.737E-02	0.203
		163.89		5.565E-01	1.332E+00	2.167E+00	1.511E-01	0.257
		176.55		-2.274E-01	4.536E-01	7.068E-01	4.373E-02	-0.322
		273.65		-6.095E-01	6.082E-01	8.185E-01	5.434E-02	-0.745
BA-137M		340.57		3.268E-01	1.771E-01	2.857E-01	1.745E-02	1.144
		818.51		-1.212E-02	7.806E-02	1.291E-01	1.052E-02	-0.094
		1048.07	*	2.969E-02	1.284E-01	2.179E-01	1.753E-02	0.136
		1235.34		1.194E+00	7.661E-01	1.394E+00	1.419E-01	0.856
		661.65	*	-1.684E-02	4.059E-02	6.345E-02	3.773E-03	-0.265
		661.65	*	-1.780E-02	4.291E-02	6.707E-02	4.004E-03	-0.265
		165.85	*	2.988E-02	3.371E-02	5.589E-02	3.001E-03	0.535
		162.64		2.859E-01	9.393E-01	1.501E+00	9.390E-02	0.190
		404.84		-7.966E-01	1.695E+00	2.338E+00	6.382E-01	-0.341
		423.70		-1.807E+00	2.339E+00	3.533E+00	1.122E+00	-0.511
LA-140		537.32	*	-5.376E-02	2.914E-01	4.676E-01	1.522E-01	-0.115
	+	328.77		8.606E-01	5.088E-01	6.422E-01	4.159E-02	1.340
		432.53		-1.925E+00	2.523E+00	3.934E+00	2.459E-01	-0.489
		487.03		8.575E-02	1.772E-01	2.994E-01	1.969E-02	0.286
		751.79		7.592E-01	2.056E+00	3.421E+00	2.823E-01	0.222
		815.85		-1.753E-01	3.490E-01	5.572E-01	5.098E-02	-0.315
		867.82		1.104E+00	1.640E+00	2.801E+00	2.617E-01	0.394
		919.63		-2.444E+00	3.649E+00	5.573E+00	6.191E-01	-0.438
		925.24		9.089E-01	1.417E+00	2.493E+00	2.404E-01	0.365
		1596.49	*	-7.668E-02	1.071E-01	1.536E-01	1.018E-02	-0.499
CE-141		145.44	*	-2.403E-02	7.106E-02	1.123E-01	7.163E-03	-0.214
		57.37		-2.280E-03	7.106E-02	Half-Life	too short	
		231.56		1.057E-02	7.106E-02	Half-Life	too short	
		293.26	*	2.346E-03	7.106E-02	Half-Life	too short	
	+	350.59		6.789E-02	7.106E-02	Half-Life	too short	
		490.36		-4.661E-03	7.106E-02	Half-Life	too short	
		664.57		-1.646E-03	7.106E-02	Half-Life	too short	
		721.93		2.537E-03	7.106E-02	Half-Life	too short	
		80.11		4.838E+00	2.927E+00	3.407E+00	2.713E-01	1.420
		133.54	*	-1.490E-01	2.300E-01	3.577E-01	5.207E-02	-0.417
PM-144		476.78		-3.292E-02	7.178E-02	1.136E-01	7.875E-03	-0.290
		618.01		1.901E-02	3.535E-02	5.980E-02	3.779E-03	0.318
		696.49	*	2.379E-02	4.070E-02	6.867E-02	4.400E-03	0.346
		778.57		-9.671E-01	2.531E+00	3.916E+00	2.958E-01	-0.247
		696.49	*	1.613E+00	2.760E+00	4.658E+00	2.982E-01	0.346
		1489.15		-4.886E+00	1.275E+01	1.949E+01	1.346E+00	-0.251
		453.90	*	3.188E-02	4.619E-02	7.931E-02	6.790E-03	0.402
		633.02		-6.667E-01	1.521E+00	2.339E+00	8.621E-01	-0.285
		735.90		-1.970E-01	2.043E-01	2.356E-01	6.630E-02	-0.836

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	+	747.13		1.786E-02	9.933E-02	1.626E-01	2.140E-02	0.110
		91.11		1.059E+00	3.995E-01	6.412E-01	5.894E-02	1.651
		319.41		3.922E+00	4.149E+00	7.213E+00	4.187E-01	0.544
		439.89		1.557E+00	7.171E+00	1.196E+01	6.766E-01	0.130
		531.02	*	1.639E-01	6.056E-01	1.011E+00	1.372E-01	0.162
PM-149		285.90	*	4.931E+01	1.648E+02	2.786E+02	3.955E+01	0.177
EU-152		121.78		3.076E-02	7.832E-02	1.282E-01	1.109E-02	0.240
		244.69		9.350E-02	3.804E-01	5.631E-01	3.244E-02	0.166
		344.27	*	4.192E-02	1.270E-01	1.774E-01	1.148E-02	0.236
		443.98		3.063E-01	9.723E-01	1.634E+00	9.266E-02	0.188
		778.89		-2.969E-01	3.031E-01	4.403E-01	3.326E-02	-0.674
		867.32		-2.499E-01	9.514E-01	1.435E+00	1.276E-01	-0.174
		964.01	+	7.914E-01	4.308E-01	6.544E-01	5.706E-02	1.209
		1085.78		3.514E-01	4.412E-01	7.844E-01	5.534E-02	0.448
		1112.02		-2.239E-01	4.229E-01	5.874E-01	3.889E-02	-0.381
		1407.95		7.228E-02	1.849E-01	3.194E-01	2.251E-02	0.226
		69.67		-1.452E-01	1.777E+00	2.521E+00	1.803E-01	-0.058
		83.37		8.644E+00	1.817E+01	2.454E+01	2.029E+00	0.352
		97.43	*	-2.129E-02	9.632E-02	1.344E-01	1.078E-02	-0.158
		103.18		-9.512E-02	1.157E-01	1.804E-01	1.392E-02	-0.527
EU-154		123.07		-2.463E-02	5.588E-02	8.813E-02	9.017E-03	-0.280
		247.94		1.633E-01	4.311E-01	6.433E-01	6.126E-02	0.254
		591.81		-8.591E-02	6.627E-01	1.066E+00	1.053E-01	-0.081
		723.30		-5.424E-02	2.264E-01	3.054E-01	2.410E-02	-0.178
		756.87		-5.378E-01	9.051E-01	1.376E+00	1.517E-01	-0.391
		873.19		7.231E-02	3.134E-01	5.355E-01	6.696E-02	0.135
		996.32		-1.322E-01	3.942E-01	6.399E-01	1.128E-01	-0.207
		1004.76		8.200E-02	2.343E-01	4.020E-01	4.563E-02	0.204
		1274.45	*	-1.000E-02	1.452E-01	2.374E-01	2.327E-02	-0.042
		48.70		-1.395E+00	1.857E+00	2.949E+00	1.890E-01	-0.473
EU-155		60.01		1.748E+00	4.905E+00	7.129E+00	4.739E-01	0.245
		86.54	+	5.183E-01	1.524E-01	1.947E-01	1.689E-02	2.663
		105.31	*	-6.603E-03	1.160E-01	1.869E-01	1.447E-02	-0.035
TB-160	+	86.79		1.407E+00	4.135E-01	5.287E-01	4.556E-02	2.661
		197.04		1.973E-02	5.963E-01	1.005E+00	5.570E-02	0.020
		215.65		2.018E-01	8.437E-01	1.355E+00	7.641E-02	0.149
		298.57	+	2.018E-01	1.544E-01	2.206E-01	1.286E-02	0.915
		879.36	*	1.579E-02	1.447E-01	2.446E-01	2.222E-02	0.065
		962.29		6.629E-01	7.511E-01	1.176E+00	1.028E-01	0.564
		966.15		1.305E+00	3.191E-01	6.146E-01	5.343E-02	2.123
HO-166M		1177.93		-4.233E-01	4.626E-01	7.040E-01	3.910E-02	-0.601
		1271.85		-2.542E-01	8.669E-01	1.385E+00	8.994E-02	-0.184
		80.57		1.656E-01	3.946E-01	4.171E-01	3.338E-02	0.397
		184.41	+	1.093E-01	6.106E-02	7.072E-02	3.868E-03	1.545
		280.46		-2.206E-02	8.930E-02	1.471E-01	8.575E-03	-0.150
		410.95		6.992E-02	2.661E-01	4.455E-01	2.464E-02	0.157
		711.68	*	1.413E-02	6.802E-02	1.117E-01	7.382E-03	0.127
		752.31		2.345E-01	2.952E-01	5.090E-01	3.650E-02	0.461
		810.29		-3.889E-02	7.186E-02	1.095E-01	8.775E-03	-0.355

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	(pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		1.107E+00	2.531E+01	4.144E+01	2.687E+00	0.027
		52.39		1.670E+01	1.322E+01	2.251E+01	1.464E+00	0.742
		59.40		2.010E+00	2.648E+01	3.798E+01	2.516E+00	0.053
		66.72	*	-1.516E+01	3.653E+01	4.253E+01	2.965E+00	-0.357
LU-176	+	88.36		1.020E+00	2.998E-01	4.085E-01	3.559E-02	2.497
		201.83		-1.723E-02	3.005E-02	4.934E-02	2.748E-03	-0.349
		306.84	*	-5.331E-03	2.936E-02	4.179E-02	2.434E-03	-0.128
		401.10		4.385E-01	7.111E+00	1.177E+01	6.458E-01	0.037
LU-177		112.95		1.971E+00	2.166E+00	3.569E+00	2.621E-01	0.552
	+	208.36	*	3.491E+00	1.743E+00	2.649E+00	1.484E-01	1.318
LU-177M		52.97		1.798E+00	1.375E+00	2.344E+00	1.526E-01	0.767
		54.07		6.643E-01	7.377E-01	1.242E+00	8.109E-02	0.535
		61.30		1.600E+00	1.500E+00	2.246E+00	1.505E-01	0.712
		121.62		6.864E-02	4.074E-01	6.607E-01	4.699E-02	0.104
		147.16		-4.715E-01	7.208E-01	1.122E+00	6.838E-02	-0.420
		171.86		2.506E-01	5.575E-01	8.970E-01	4.841E-02	0.279
		218.09		9.225E-01	9.113E-01	1.591E+00	8.993E-02	0.580
	+	268.79		2.189E+00	1.150E+00	1.600E+00	9.308E-02	1.369
		319.02		3.100E-01	2.921E-01	5.105E-01	2.962E-02	0.607
		367.43		1.153E+00	9.594E-01	1.697E+00	9.513E-02	0.679
		413.65	*	-1.749E-01	1.948E-01	3.021E-01	1.675E-02	-0.579
HF-181		56.28		-7.742E-01	8.593E-01	1.355E+00	8.889E-02	-0.572
		57.53		-5.591E-01	5.425E-01	7.332E-01	4.828E-02	-0.763
	+	65.20		2.355E-01	1.352E+00	1.518E+00	1.046E-01	0.155
		133.02		-3.921E-02	7.472E-02	1.173E-01	7.794E-03	-0.334
		136.25		1.200E-02	4.968E-01	7.987E-01	5.205E-02	0.015
		345.85		-5.097E-02	2.602E-01	3.466E-01	1.981E-02	-0.147
		482.03	*	-1.541E-02	4.929E-02	7.900E-02	4.582E-03	-0.195
W-181		56.28		-2.981E-01	3.301E-01	5.204E-01	3.415E-02	-0.573
		57.53		-2.150E-01	2.086E-01	2.819E-01	1.856E-02	-0.763
	+	65.20	*	8.985E-02	5.158E-01	5.789E-01	3.988E-02	0.155
TA-182		67.75		3.398E-03	1.641E-01	1.683E-01	1.183E-02	0.020
		100.10		2.102E-01	2.196E-01	3.254E-01	2.560E-02	0.646
		152.43		5.736E-02	3.938E-01	6.345E-01	3.741E-02	0.090
		222.10		-6.413E-02	3.611E-01	6.011E-01	3.410E-02	-0.107
		1001.68		4.916E-01	2.217E+00	3.764E+00	3.111E-01	0.131
	+	1121.28		5.367E-01	2.779E-01	3.648E-01	2.358E-02	1.471
		1189.05		1.279E-01	3.395E-01	5.799E-01	3.283E-02	0.221
		1221.42	*	1.876E-01	2.403E-01	4.204E-01	2.515E-02	0.446
		1230.97		5.502E-02	5.531E-01	9.193E-01	5.587E-02	0.060
RE-183		57.98		-1.951E-01	2.093E-01	2.846E-01	1.876E-02	-0.686
		59.32		8.128E-03	1.106E-01	1.585E-01	1.050E-02	0.051
		67.20		-1.462E-01	3.113E-01	3.060E-01	2.142E-02	-0.478
		162.32	*	-2.611E-03	1.274E-01	2.009E-01	1.106E-02	-0.013
	+	208.81		2.664E+00	1.331E+00	1.998E+00	1.120E-01	1.333
		291.72		-2.233E-01	1.157E+00	1.650E+00	9.629E-02	-0.135
RE-184		57.98		-7.116E-01	7.636E-01	1.038E+00	6.844E-02	-0.686
		59.32		2.962E-02	4.030E-01	5.778E-01	3.827E-02	0.051
		67.20		-5.333E-01	1.135E+00	1.116E+00	7.811E-02	-0.478

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
OS-185		161.27		-9.647E-02	4.011E-01	6.256E-01	3.472E-02	-0.154
		216.55		1.314E-02	2.837E-01	4.773E-01	2.695E-02	0.028
		252.85	*	-1.005E-02	2.390E-01	3.989E-01	2.307E-02	-0.025
		318.01		3.775E-01	5.030E-01	8.672E-01	5.034E-02	0.435
		792.07		7.547E-01	1.400E+00	2.057E+00	1.593E-01	0.367
		903.28		1.342E-01	1.063E+00	1.675E+00	1.563E-01	0.080
		920.93		-5.703E-02	5.243E-01	8.675E-01	7.955E-02	-0.066
		59.72		7.978E-02	2.944E-01	4.262E-01	2.829E-02	0.187
		61.14		1.666E-01	1.655E-01	2.473E-01	1.656E-02	0.674
		69.30		7.499E-03	3.424E-01	4.540E-01	3.235E-02	0.017
		592.07		-8.406E-01	2.792E+00	4.427E+00	2.647E-01	-0.190
		646.12	*	5.320E-03	4.891E-02	7.938E-02	4.734E-03	0.067
		717.42		-7.938E-02	1.051E+00	1.685E+00	1.127E-01	-0.047
		874.81		-3.131E-01	6.225E-01	9.915E-01	8.934E-02	-0.316
RE-188		880.27		-9.341E-02	8.001E-01	1.324E+00	1.205E-01	-0.071
		155.03	*	1.681E-01	1.984E-01	3.284E-01	1.903E-02	0.512
		477.96		3.668E-01	3.326E+00	5.495E+00	3.180E-01	0.067
W-188	+	633.10		-1.371E+00	3.086E+00	4.809E+00	2.873E-01	-0.285
		63.58		1.211E+01	6.954E+01	8.392E+01	5.713E+00	0.144
IR-192		227.08		-6.922E+00	1.351E+01	2.213E+01	1.260E+00	-0.313
		290.67	*	-3.837E+00	8.922E+00	1.249E+01	7.287E-01	-0.307
	+	295.96		9.790E-01	1.767E-01	2.922E-01	1.731E-02	3.351
		308.46		-7.320E-02	1.189E-01	1.721E-01	1.013E-02	-0.425
		316.51	*	-2.545E-02	4.025E-02	6.464E-02	3.773E-03	-0.394
AU-195		468.07		-4.468E-02	8.725E-02	1.175E-01	7.814E-03	-0.380
		604.41		4.489E-01	5.222E-01	8.027E-01	9.186E-02	0.559
		612.46		2.050E-01	9.851E-01	1.410E+00	1.087E-01	0.145
	+	65.12		4.137E-02	2.375E-01	2.675E-01	1.842E-02	0.155
		66.83		-4.848E-02	1.215E-01	1.416E-01	9.879E-03	-0.342
	+	75.70		1.251E+00	2.681E-01	4.850E-01	3.679E-02	2.580
		98.88	*	1.724E-01	2.789E-01	4.067E-01	3.227E-02	0.424
TL-200		129.76		3.420E+00	3.228E+00	5.392E+00	3.653E-01	0.634
		367.94	*	1.169E-03	3.228E+00	Half-Life	too short	
		579.30		1.832E-02	3.228E+00	Half-Life	too short	
		828.27		-6.779E-03	3.228E+00	Half-Life	too short	
TL-201		1205.75		-1.820E-04	3.228E+00	Half-Life	too short	
		68.90		-3.024E+00	9.208E+00	1.078E+01	7.653E-01	-0.281
		70.82		2.464E+00	4.240E+00	6.198E+00	4.479E-01	0.398
		80.30		1.547E+01	1.024E+01	1.181E+01	9.423E-01	1.310
TL-202		135.34		-8.983E+00	3.997E+01	6.355E+01	4.164E+00	-0.141
		167.43	*	6.413E-02	1.191E+01	1.903E+01	1.022E+00	0.003
		68.90		-2.015E-01	6.135E-01	7.180E-01	5.099E-02	-0.281
		70.82		1.637E-01	2.818E-01	4.118E-01	2.976E-02	0.398
		80.30		1.028E+00	6.805E-01	7.850E-01	6.263E-02	1.310
HG-203		439.56	*	9.579E-03	8.516E-02	1.410E-01	7.974E-03	0.068
		70.83		6.655E-01	1.137E+00	1.659E+00	2.118E-01	0.401
		72.87		2.746E+00	7.424E-01	1.197E+00	1.487E-01	2.293
		82.60		1.891E+00	1.719E+00	1.898E+00	2.558E-01	0.996
		279.20	*	4.404E-02	4.410E-02	7.692E-02	4.759E-03	0.573

---- 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		7.294E-01	1.946E-01	3.377E-01	2.487E-02	2.160
	+	74.97		6.896E-01	1.478E-01	2.460E-01	1.852E-02	2.803
		84.90		4.625E-01	1.999E-01	3.399E-01	2.862E-02	1.361
		569.67		1.186E-01	4.459E-02	7.655E-02	4.567E-03	1.549
		1063.62	*	3.266E-02	6.095E-02	1.059E-01	7.835E-03	0.309
		1770.23		2.691E-01	6.131E-01	9.467E-01	5.654E-02	0.284
TL-207		81.07		1.248E-01	3.151E-01	3.323E-01	2.675E-02	0.376
		83.78		6.373E-02	1.443E-01	2.081E-01	1.730E-02	0.306
		94.90		7.000E-01	2.898E-01	4.481E-01	3.666E-02	1.562
		122.32		5.195E-01	1.864E+00	3.036E+00	2.383E-01	0.171
		144.24		1.342E-01	7.564E-01	1.200E+00	9.081E-02	0.112
		154.21		4.299E-01	4.486E-01	7.452E-01	5.242E-02	0.577
	+	269.46		5.087E-01	2.675E-01	3.737E-01	2.272E-02	1.361
		323.87	*	-7.557E-01	8.367E-01	1.106E+00	1.826E-01	-0.683
	+	338.28		5.290E+00	1.978E+00	2.479E+00	2.604E-01	2.134
		445.03		-6.683E-01	2.348E+00	3.777E+00	3.853E-01	-0.177
PO-209		260.50		1.748E+00	9.850E+00	1.660E+01	9.634E-01	0.105
		262.80		-1.353E+01	2.827E+01	4.609E+01	2.677E+00	-0.294
		896.60	*	4.750E+00	8.416E+00	1.473E+01	1.378E+00	0.323
BI-210		46.50	*	-1.103E+00	2.603E+00	4.144E+00	3.073E-01	-0.266
PB-210		46.50	*	-1.103E+00	2.603E+00	4.144E+00	3.073E-01	-0.266
PO-210		46.50	*	-1.103E+00	2.602E+00	4.144E+00	2.600E-01	-0.266
PB-211		404.84	*	-1.140E+00	1.258E+00	1.594E+00	9.933E-01	-0.715
		427.08		2.864E+00	2.845E+00	3.963E+00	2.449E+00	0.723
		831.96		-2.295E-01	1.286E+00	2.111E+00	1.322E+00	-0.109
BI-212	+	727.18	*	1.573E+00	6.244E-01	7.462E-01	6.348E-02	2.108
		785.46		2.086E+00	2.086E+00	3.621E+00	2.769E-01	0.576
		1620.62		1.146E+00	1.253E+00	2.354E+00	1.542E-01	0.487
PO-215		81.07		1.248E-01	3.151E-01	3.323E-01	2.675E-02	0.376
		83.78		6.373E-02	1.443E-01	2.081E-01	1.730E-02	0.306
		94.90		7.000E-01	2.898E-01	4.481E-01	3.666E-02	1.562
		122.32		5.195E-01	1.864E+00	3.036E+00	2.383E-01	0.171
		144.24		1.342E-01	7.564E-01	1.200E+00	9.081E-02	0.112
		154.21		4.299E-01	4.486E-01	7.452E-01	5.242E-02	0.577
	+	269.46		5.087E-01	2.675E-01	3.737E-01	2.272E-02	1.361
		323.87	*	-7.557E-01	8.367E-01	1.106E+00	1.826E-01	-0.683
	+	338.28		5.290E+00	1.978E+00	2.479E+00	2.604E-01	2.134
		445.03		-6.683E-01	2.348E+00	3.777E+00	3.853E-01	-0.177
RN-219	+	271.23		6.527E-01	3.450E-01	4.858E-01	3.945E-02	1.343
		401.81	*	-2.210E-01	4.410E-01	7.023E-01	9.464E-02	-0.315
RN-220		549.76	*	2.599E+01	2.686E+01	4.709E+01	2.799E+00	0.552
RA-223		81.07		1.248E-01	3.151E-01	3.323E-01	2.675E-02	0.376
		83.78		6.373E-02	1.443E-01	2.081E-01	1.730E-02	0.306
		94.90		7.000E-01	2.898E-01	4.481E-01	3.666E-02	1.562
		122.32		5.195E-01	1.864E+00	3.036E+00	2.383E-01	0.171
		144.24		1.342E-01	7.564E-01	1.200E+00	9.081E-02	0.112
		154.21		4.299E-01	4.486E-01	7.452E-01	5.242E-02	0.577
	+	269.46		5.087E-01	2.675E-01	3.737E-01	2.272E-02	1.361
		323.87	*	-7.557E-01	8.367E-01	1.106E+00	1.826E-01	-0.683

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227	+	338.28		5.290E+00	1.978E+00	2.479E+00	2.604E-01	2.134
		445.03		-6.683E-01	2.348E+00	3.777E+00	3.853E-01	-0.177
		79.80		4.140E+00	2.602E+00	2.850E+00	6.052E-01	1.453
		236.00		2.749E+00	4.359E-01	6.743E-01	7.022E-02	4.077
		256.20	*	1.232E-01	3.888E-01	6.595E-01	9.204E-02	0.187
TH-227		286.10		5.529E-02	1.600E+00	2.671E+00	3.093E-01	0.021
	+	299.80		2.527E+00	1.971E+00	2.808E+00	4.575E-01	0.900
		304.40		-5.397E-01	2.210E+00	3.130E+00	5.416E-01	-0.172
		334.20		1.590E+00	3.904E+00	4.002E+00	7.332E-01	0.397
		79.80		4.140E+00	2.606E+00	2.850E+00	6.132E-01	1.453
TH-229	+	94.00		8.351E+00	3.282E+00	4.052E+00	8.766E-01	2.061
		236.00		2.749E+00	4.116E-01	6.743E-01	6.077E-02	4.077
		256.20	*	1.232E-01	3.890E-01	6.595E-01	1.114E-01	0.187
		286.10		5.529E-02	1.601E+00	2.671E+00	2.676E+00	0.021
	+	299.80		2.527E+00	1.971E+00	2.808E+00	4.575E-01	0.900
PA-231		304.40		-5.397E-01	2.210E+00	3.130E+00	5.416E-01	-0.172
		334.20		1.590E+00	3.904E+00	4.002E+00	7.332E-01	0.397
		85.43		6.981E-01	2.087E-01	3.567E-01	3.023E-02	1.957
	+	88.47		5.872E-01	1.726E-01	2.350E-01	2.045E-02	2.499
		100.00		2.196E-01	2.257E-01	3.346E-01	2.634E-02	0.656
TH-231		193.63	*	2.844E-01	5.327E-01	9.154E-01	5.055E-02	0.311
		210.97		1.681E+00	9.002E-01	1.448E+00	8.134E-02	1.161
		283.67	*	1.404E-02	1.608E+00	2.682E+00	3.700E-01	0.005
		301.29		9.818E-01	6.174E-01	1.091E+00	1.142E-01	0.900
		81.07		1.248E-01	3.151E-01	3.323E-01	2.675E-02	0.376
U-231		83.78		6.373E-02	1.443E-01	2.081E-01	1.730E-02	0.306
		94.90		7.000E-01	2.898E-01	4.481E-01	3.666E-02	1.562
		122.32		5.195E-01	1.864E+00	3.036E+00	2.383E-01	0.171
		144.24		1.342E-01	7.564E-01	1.200E+00	9.081E-02	0.112
		154.21		4.299E-01	4.486E-01	7.452E-01	5.242E-02	0.577
PA-233	+	269.46		5.087E-01	2.675E-01	3.737E-01	2.272E-02	1.361
		323.87	*	-7.557E-01	8.367E-01	1.106E+00	1.826E-01	-0.683
	+	338.28		5.290E+00	1.978E+00	2.479E+00	2.604E-01	2.134
		445.03		-6.683E-01	2.348E+00	3.777E+00	3.853E-01	-0.177
		84.21		2.431E+00	8.420E+00	1.206E+01	1.007E+00	0.202
PA-234	+	92.29		1.102E+01	3.727E+00	5.680E+00	4.756E-01	1.940
		95.87	*	2.454E-02	1.766E+00	2.498E+00	2.028E-01	0.010
		108.00		-2.130E-01	2.937E+00	4.727E+00	3.551E-01	-0.045
	+	75.28		2.012E+01	5.012E+00	7.530E+00	1.112E+00	2.672
	+	86.59		8.419E+00	3.270E+00	3.159E+00	8.471E-01	2.665
PA-234	+	300.12		7.044E-01	5.458E-01	7.865E-01	1.058E-01	0.896
		311.98	*	3.831E-02	6.934E-02	1.185E-01	7.320E-03	0.323
		340.50		1.599E+00	8.666E-01	1.286E+00	2.952E-01	1.243
		398.62		1.125E-01	2.305E+00	3.812E+00	9.830E-01	0.030
		415.76		5.780E-01	1.714E+00	2.879E+00	5.908E-01	0.201
PA-234		63.00		7.376E-01	1.459E+00	2.406E+00	3.503E-01	0.307
		94.67		5.001E-01	1.996E-01	3.335E-01	4.039E-02	1.500
		98.44		9.181E-02	1.209E-01	1.618E-01	9.012E-02	0.567
		99.86		5.992E-01	5.701E-01	8.484E-01	6.686E-02	0.706

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-1.352E-01	2.070E-01	3.203E-01	3.605E-02	-0.422
		131.20		1.191E-02	1.190E-01	1.920E-01	1.290E-02	0.062
		152.70		6.584E-02	3.758E-01	6.059E-01	9.598E-02	0.109
	+	186.00		3.933E+00	2.495E+00	2.568E+00	7.833E-01	1.531
		226.40		-2.433E-01	4.193E-01	6.836E-01	7.866E-02	-0.356
		227.20		-2.097E-01	4.493E-01	7.378E-01	4.201E-02	-0.284
		248.90		9.004E-01	9.686E-01	1.472E+00	3.161E-01	0.612
	+	293.70		6.062E+00	1.421E+00	1.772E+00	2.852E-01	3.421
		369.80		-1.185E+00	9.664E-01	1.424E+00	2.958E-01	-0.832
	+	568.70		6.127E+00	1.924E+00	2.674E+00	1.595E-01	2.291
		569.50		1.135E+00	4.010E-01	6.935E-01	4.138E-02	1.636
		574.00		-5.914E-01	1.844E+00	2.495E+00	1.489E-01	-0.237
		699.00		8.714E-02	8.626E-01	1.404E+00	2.554E-01	0.062
		706.10		-9.953E-03	1.129E+00	1.821E+00	8.055E-01	-0.005
		733.00		1.484E-01	4.378E-01	6.352E-01	1.371E-01	0.234
		742.81		3.158E-01	1.532E+00	2.491E+00	1.670E+00	0.127
	+	796.30		3.035E+00	2.035E+00	2.105E+00	5.643E-01	1.442
		805.60		1.100E+00	1.239E+00	2.025E+00	6.168E-01	0.544
		819.60		-5.219E-01	1.266E+00	2.018E+00	7.653E-01	-0.259
		826.30		-2.332E-01	8.554E-01	1.389E+00	6.207E-01	-0.168
		831.60		-1.179E-01	6.474E-01	1.067E+00	3.177E-01	-0.110
		876.40		-8.459E-02	8.778E-01	1.449E+00	1.490E+00	-0.058
		880.51		-3.333E-02	2.856E-01	4.726E-01	4.301E-02	-0.071
		883.24		-1.529E-01	3.113E-01	4.668E-01	3.141E-01	-0.328
		899.00		-7.264E-01	9.742E-01	1.428E+00	6.265E-01	-0.509
		925.00		7.110E-01	1.367E+00	2.380E+00	2.173E-01	0.299
		926.50		1.330E-02	2.071E-01	3.476E-01	8.848E-02	0.038
		946.00	*	-2.600E-01	3.446E-01	5.294E-01	1.001E-01	-0.491
		949.00		4.597E-01	4.865E-01	8.764E-01	7.786E-02	0.525
		980.50		-2.772E-01	8.513E-01	1.376E+00	1.174E-01	-0.201
		1394.10		-1.137E+00	1.468E+00	1.800E+00	1.168E+00	-0.631
PA-234M		766.42		1.698E+00	1.596E+01	2.367E+01	1.196E+01	0.072
		1001.03	*	-2.953E+00	5.200E+00	8.200E+00	7.928E-01	-0.360
U-235	+	89.95		3.775E+00	1.806E+00	2.126E+00	6.556E-01	1.776
	+	93.35		2.598E+00	1.119E+00	1.293E+00	3.610E-01	2.010
		105.00		-2.950E-01	1.154E+00	1.840E+00	5.441E-01	-0.160
		143.76	*	9.990E-02	2.327E-01	3.725E-01	6.132E-02	0.268
		163.35		2.811E-01	5.292E-01	8.504E-01	1.520E-01	0.331
	+	185.71		1.457E-01	8.142E-02	9.569E-02	5.241E-03	1.522
		205.31		2.627E-01	6.108E-01	9.143E-01	1.638E-01	0.287
NP-236		94.67		3.816E-01	1.477E-01	2.532E-01	2.076E-02	1.508
		98.44		6.938E-02	8.296E-02	1.223E-01	9.738E-03	0.567
		111.00		-1.022E-01	1.563E-01	2.423E-01	1.794E-02	-0.422
		160.31	*	-4.871E-02	8.844E-02	1.379E-01	7.706E-03	-0.353
NP-239		99.55		2.427E-01	1.882E-01	2.831E-01	2.236E-02	0.857
		117.00	*	-2.491E-02	2.075E-01	3.327E-01	2.404E-02	-0.075
	+	209.75		2.066E+00	1.032E+00	1.499E+00	8.409E-02	1.378
		228.18		-6.991E-02	2.387E-01	3.951E-01	2.252E-02	-0.177
		277.60		3.472E-02	1.899E-01	3.195E-01	1.863E-02	0.109

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		9.166E-01	2.207E+00	2.271E+00	1.308E-01	0.404
AM-241		59.54	*	3.385E-02	1.528E-01	2.207E-01	1.638E-02	0.153
CM-243		99.55		2.498E-01	1.936E-01	2.913E-01	2.301E-02	0.857
		103.76	*	-5.290E-02	1.060E-01	1.676E-01	1.289E-02	-0.316
		117.00		-2.563E-02	2.135E-01	3.423E-01	2.474E-02	-0.075
	+	209.75		2.036E+00	1.017E+00	1.477E+00	8.290E-02	1.378
		228.18		-7.065E-02	2.412E-01	3.993E-01	2.276E-02	-0.177
		277.60		3.500E-02	1.915E-01	3.222E-01	1.878E-02	0.109
AM-246		798.80		-3.339E-02	1.833E-01	2.472E-01	1.939E-02	-0.135
		1036.00		-7.801E-02	3.354E-01	5.451E-01	4.254E-02	-0.143
		1062.04		7.310E-02	2.595E-01	4.418E-01	3.280E-02	0.165
		1078.86	*	-9.689E-03	1.640E-01	2.706E-01	1.939E-02	-0.036
CM-247		278.00		4.070E-01	7.872E-01	1.345E+00	7.839E-02	0.303
		287.40		6.912E-01	1.281E+00	2.142E+00	1.250E-01	0.323
		402.60	*	-2.517E-02	3.915E-02	6.182E-02	3.396E-03	-0.407
CF-249		252.85		-3.746E-02	8.905E-01	1.486E+00	8.596E-02	-0.025
		333.44		1.088E-01	2.880E-01	2.947E-01	1.698E-02	0.369
		387.95	*	3.398E-02	4.319E-02	7.459E-02	4.078E-03	0.456
CF-251		176.60	*	-7.178E-02	1.426E-01	2.222E-01	1.205E-02	-0.323
		227.00		-2.165E-01	3.978E-01	6.507E-01	3.705E-02	-0.333
		285.00		-9.206E-01	1.845E+00	2.994E+00	1.747E-01	-0.307

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]G243517006
* Acquisition date   : 7-JAN-2010 08:54:17 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 02:00:01.31             Half life ratio  : 8.000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library : SOLID
* Sample ID          : G243517006             Analyst initials: MXR1
* Batch Number       : 937069                 Sample Quantity : 1.0975E+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  :
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.364E+01	3.069E+00	6.668E-01	0.000E+00
CD-109	4.387E+00	1.263E+00	1.284E+00	0.000E+00
SN-126	4.301E-01	1.239E-01	1.263E-01	0.000E+00
TL-208	4.926E-01	9.090E-02	6.337E-02	0.000E+00
BI-211	3.537E+00	4.667E-01	3.560E-01	0.000E+00
PB-212	1.585E+00	1.611E-01	9.784E-02	0.000E+00
PO-212	1.585E+00	1.611E-01	9.784E-02	0.000E+00
BI-214	1.112E+00	1.775E-01	1.194E-01	0.000E+00
PB-214	1.231E+00	1.741E-01	1.184E-01	0.000E+00
PO-214	1.231E+00	1.741E-01	1.184E-01	0.000E+00
PO-216	1.585E+00	1.611E-01	9.784E-02	0.000E+00
PO-218	1.231E+00	1.741E-01	1.184E-01	0.000E+00
RA-224	4.849E+00	1.465E+00	1.113E+00	0.000E+00
RA-226	1.112E+00	1.775E-01	1.194E-01	0.000E+00
AC-228	1.474E+00	3.126E-01	2.495E-01	0.000E+00
RA-228	1.474E+00	3.126E-01	2.495E-01	0.000E+00
TH-228	1.612E+00	1.638E-01	9.949E-02	0.000E+00
TH-230	1.112E+00	1.775E-01	1.194E-01	0.000E+00
TH-232	1.474E+00	3.126E-01	2.495E-01	0.000E+00
TH-234	2.962E-01	1.667E+00	1.949E+00	0.000E+00
U-234	1.112E+00	1.775E-01	1.194E-01	0.000E+00
NP-237	1.263E+00	4.444E-01	3.739E-01	0.000E+00
U-238	2.962E-01	1.667E+00	1.949E+00	0.000E+00
AM-243	3.841E-01	8.066E-02	8.694E-02	0.000E+00
ANH-511	6.490E-02	7.411E-02	4.666E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	-2.472E-02	3.446E-01	5.748E-01	0.000E+00 NOT IDENT.
NA-22	-2.205E-03	5.113E-02	8.511E-02	0.000E+00 NOT IDENT.

NA-24	0.000E+00	5.578E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-6.096E-03	3.206E-02	5.031E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.715E-02	8.343E-02	0.000E+00	FAIL ABUN
SC-46	-3.459E-02	4.524E-02	7.186E-02	0.000E+00	FAIL ABUN
V-48	-4.388E-03	8.660E-02	1.461E-01	0.000E+00	NOT IDENT.
CR-51	4.616E-01	4.198E-01	7.534E-01	0.000E+00	NOT IDENT.
MN-52	-4.683E-02	2.627E-01	4.227E-01	0.000E+00	NOT IDENT.
MN-54	1.510E-02	3.899E-02	6.865E-02	0.000E+00	NOT IDENT.
CO-56	-2.507E-02	4.338E-02	7.038E-02	0.000E+00	NOT IDENT.
CO-57	4.533E-03	2.675E-02	4.479E-02	0.000E+00	NOT IDENT.
CO-58	-2.657E-02	4.609E-02	7.124E-02	0.000E+00	NOT IDENT.
FE-59	-8.929E-02	1.082E-01	1.682E-01	0.000E+00	NOT IDENT.
CO-60	-8.680E-03	4.418E-02	7.197E-02	0.000E+00	NOT IDENT.
ZN-65	5.199E-02	1.215E-01	1.848E-01	0.000E+00	NOT IDENT.
GE-68	-1.015E+00	1.425E+00	2.242E+00	0.000E+00	NOT IDENT.
AS-73	7.681E-01	7.092E-01	1.246E+00	0.000E+00	NOT IDENT.
AS-74	8.101E-02	1.009E-01	1.779E-01	0.000E+00	NOT IDENT.
SE-75	5.266E-02	5.065E-02	8.090E-02	0.000E+00	FAIL ABUN
BR-77	4.391E+00	1.760E+01	2.997E+01	0.000E+00	FAIL ABUN
SR-82	-1.056E-02	4.374E-01	7.152E-01	0.000E+00	NOT IDENT.
RB-83	1.900E-02	7.086E-02	1.208E-01	0.000E+00	NOT IDENT.
RB-84	4.181E-03	7.156E-02	1.227E-01	0.000E+00	NOT IDENT.
KR-85	1.133E+01	8.655E+00	1.398E+01	0.000E+00	NOT IDENT.
SR-85	5.919E-02	4.520E-02	7.302E-02	0.000E+00	NOT IDENT.
RB-86	-2.262E-01	9.362E-01	1.544E+00	0.000E+00	NOT IDENT.
Y-88	-1.819E-02	3.405E-02	4.849E-02	0.000E+00	NOT IDENT.
ZR-88	-1.825E-02	3.416E-02	5.588E-02	0.000E+00	NOT IDENT.
Y-91	-4.444E+00	2.250E+01	3.710E+01	0.000E+00	NOT IDENT.
NB-94	-3.306E-02	3.873E-02	5.930E-02	0.000E+00	NOT IDENT.
NB-95	-4.078E-02	6.095E-02	8.674E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.850E-01	3.171E-01	0.000E+00	NOT IDENT.
ZR-95	-9.773E-02	8.373E-02	1.224E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.130E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.278E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.948E+01	1.908E+01	3.388E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.150E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.533E-04	3.387E-02	5.869E-02	0.000E+00	NOT IDENT.
RH-102	-2.920E-02	3.151E-02	4.931E-02	0.000E+00	NOT IDENT.
RU-103	-7.971E-03	4.453E-02	7.354E-02	0.000E+00	FAIL ABUN
RH-106	-6.466E-02	3.230E-01	5.257E-01	0.000E+00	FAIL ABUN
RU-106	-6.466E-02	3.230E-01	5.257E-01	0.000E+00	FAIL ABUN
AG-108M	-3.671E-03	3.576E-02	5.980E-02	0.000E+00	NOT IDENT.
AG-110M	-1.075E-02	3.940E-02	6.367E-02	0.000E+00	NOT IDENT.
IN-111	1.014E-01	1.861E+00	2.795E+00	0.000E+00	NOT IDENT.
IN-113M	-3.096E-02	4.905E-02	7.974E-02	0.000E+00	NOT IDENT.
SN-113	-3.096E-02	4.905E-02	7.974E-02	0.000E+00	NOT IDENT.
IN-114M	-1.617E-01	2.201E-01	3.185E-01	0.000E+00	NOT IDENT.
CD-115	5.865E-01	1.841E+01	3.082E+01	0.000E+00	NOT IDENT.
SN-117M	-6.375E-02	6.636E-02	1.047E-01	0.000E+00	NOT IDENT.
SB-122	4.144E+00	4.134E+00	6.534E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.782E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.836E-02	3.126E-02	5.021E-02	0.000E+00	NOT IDENT.
I-124	2.667E-02	1.030E+00	1.481E+00	0.000E+00	NOT IDENT.
SB-124	6.484E-02	8.383E-02	1.564E-01	0.000E+00	FAIL ABUN
SB-125	9.748E-02	9.958E-02	1.776E-01	0.000E+00	FAIL ABUN
TE-125M	-6.798E+00	1.015E+01	1.644E+01	0.000E+00	NOT IDENT.
I-126	6.460E-02	2.181E-01	3.686E-01	0.000E+00	NOT IDENT.
SB-126	1.529E-01	1.852E-01	3.000E-01	0.000E+00	NOT IDENT.
SB-127	-5.307E-01	2.010E+00	3.237E+00	0.000E+00	NOT IDENT.
XE-127	-4.668E-02	5.392E-02	8.458E-02	0.000E+00	NOT IDENT.
I-131	3.163E-02	1.401E-01	2.407E-01	0.000E+00	NOT IDENT.
TE-132	-3.075E-01	1.040E+00	1.768E+00	0.000E+00	NOT IDENT.
BA-133	-4.384E-03	4.743E-02	6.923E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.428E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.500E-02	1.082E-01	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.924E-01	3.140E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.063E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.969E-02	1.258E-01	2.172E-01	0.000E+00	FAIL ABUN
BA-137M	-1.684E-02	3.978E-02	6.345E-02	0.000E+00	NOT IDENT.
CS-137	-1.780E-02	4.205E-02	6.708E-02	0.000E+00	NOT IDENT.
CE-139	2.988E-02	3.303E-02	5.644E-02	0.000E+00	NOT IDENT.
BA-140	-5.376E-02	2.856E-01	4.683E-01	0.000E+00	NOT IDENT.
LA-140	-7.668E-02	1.050E-01	1.526E-01	0.000E+00	FAIL ABUN
CE-141	-2.403E-02	6.964E-02	1.135E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.752E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.490E-01	2.254E-01	3.618E-01	0.000E+00	NOT IDENT.
PM-144	2.379E-02	3.988E-02	6.865E-02	0.000E+00	NOT IDENT.
PR-144	1.613E+00	2.705E+00	4.656E+00	0.000E+00	NOT IDENT.

PM-146	3.188E-02	4.527E-02	7.953E-02	0.000E+00	NOT IDENT.
ND-147	1.639E-01	5.935E-01	1.013E+00	0.000E+00	FAIL ABUN
PM-149	4.931E+01	1.615E+02	2.803E+02	0.000E+00	NOT IDENT.
EU-152	4.192E-02	1.244E-01	1.783E-01	0.000E+00	FAIL ABUN
GD-153	-2.129E-02	9.439E-02	1.363E-01	0.000E+00	NOT IDENT.
EU-154	-1.000E-02	1.423E-01	2.363E-01	0.000E+00	NOT IDENT.
EU-155	-6.603E-03	1.137E-01	1.894E-01	0.000E+00	FAIL ABUN
TB-160	1.579E-02	1.418E-01	2.441E-01	0.000E+00	FAIL ABUN
HO-166M	1.413E-02	6.666E-02	1.117E-01	0.000E+00	FAIL ABUN
TM-171	-1.516E+01	3.580E+01	4.323E+01	0.000E+00	NOT IDENT.
LU-176	-5.331E-03	2.878E-02	4.203E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.709E+00	2.671E+00	0.000E+00	FAIL ABUN
LU-177M	-1.749E-01	1.909E-01	3.031E-01	0.000E+00	FAIL ABUN
HF-181	-1.541E-02	4.831E-02	7.918E-02	0.000E+00	FAIL ABUN
W-181	8.985E-02	5.055E-01	5.885E-01	0.000E+00	FAIL ABUN
TA-182	1.876E-01	2.355E-01	4.186E-01	0.000E+00	FAIL ABUN
RE-183	-2.611E-03	1.249E-01	2.029E-01	0.000E+00	FAIL ABUN
RE-184	-1.005E-02	2.342E-01	4.017E-01	0.000E+00	NOT IDENT.
OS-185	5.320E-03	4.793E-02	7.940E-02	0.000E+00	NOT IDENT.
RE-188	1.681E-01	1.944E-01	3.318E-01	0.000E+00	NOT IDENT.
W-188	-3.837E+00	8.744E+00	1.256E+01	0.000E+00	FAIL ABUN
IR-192	-2.545E-02	3.944E-02	6.499E-02	0.000E+00	FAIL ABUN
AU-195	1.724E-01	2.734E-01	4.122E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.450E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	6.413E-02	1.167E+01	1.922E+01	0.000E+00	NOT IDENT.
TL-202	9.579E-03	8.345E-02	1.414E-01	0.000E+00	NOT IDENT.
HG-203	4.404E-02	4.322E-02	7.740E-02	0.000E+00	NOT IDENT.
BI-207	3.266E-02	5.973E-02	1.055E-01	0.000E+00	FAIL ABUN
TL-207	-7.557E-01	8.199E-01	1.112E+00	0.000E+00	FAIL ABUN
PO-209	4.750E+00	8.247E+00	1.469E+01	0.000E+00	NOT IDENT.
BI-210	-1.103E+00	2.551E+00	4.222E+00	0.000E+00	NOT IDENT.
PB-210	-1.103E+00	2.551E+00	4.222E+00	0.000E+00	NOT IDENT.
PO-210	-1.103E+00	2.550E+00	4.222E+00	0.000E+00	NOT IDENT.
PB-211	-1.140E+00	1.233E+00	1.600E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.119E-01	7.457E-01	0.000E+00	FAIL ABUN
PO-215	-7.557E-01	8.199E-01	1.112E+00	0.000E+00	FAIL ABUN
RN-219	-2.210E-01	4.322E-01	7.049E-01	0.000E+00	FAIL ABUN
RN-220	2.599E+01	2.632E+01	4.716E+01	0.000E+00	NOT IDENT.
RA-223	-7.557E-01	8.199E-01	1.112E+00	0.000E+00	FAIL ABUN
AC-227	1.232E-01	3.811E-01	6.640E-01	0.000E+00	FAIL ABUN
TH-227	1.232E-01	3.812E-01	6.640E-01	0.000E+00	FAIL ABUN
TH-229	2.844E-01	5.220E-01	9.235E-01	0.000E+00	FAIL ABUN
PA-231	1.404E-02	1.576E+00	2.698E+00	0.000E+00	NOT IDENT.
TH-231	-7.557E-01	8.199E-01	1.112E+00	0.000E+00	FAIL ABUN
U-231	2.454E-02	1.731E+00	2.533E+00	0.000E+00	FAIL ABUN
PA-233	3.831E-02	6.796E-02	1.192E-01	0.000E+00	FAIL ABUN
PA-234	-2.600E-01	3.377E-01	5.280E-01	0.000E+00	FAIL ABUN
PA-234M	-2.953E+00	5.096E+00	8.176E+00	0.000E+00	NOT IDENT.
U-235	9.990E-02	2.281E-01	3.766E-01	0.000E+00	FAIL ABUN
NP-236	-4.871E-02	8.668E-02	1.393E-01	0.000E+00	NOT IDENT.
NP-239	-2.491E-02	2.034E-01	3.368E-01	0.000E+00	FAIL ABUN
AM-241	3.385E-02	1.497E-01	2.245E-01	0.000E+00	NOT IDENT.
CM-243	-5.290E-02	1.038E-01	1.698E-01	0.000E+00	FAIL ABUN
AM-246	-9.689E-03	1.608E-01	2.697E-01	0.000E+00	NOT IDENT.
CM-247	-2.517E-02	3.836E-02	6.205E-02	0.000E+00	NOT IDENT.
CF-249	3.398E-02	4.233E-02	7.488E-02	0.000E+00	NOT IDENT.
CF-251	-7.178E-02	1.397E-01	2.243E-01	0.000E+00	NOT IDENT.

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*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517006.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:54:17.
Sample ID          : G243517006 Sample quantity : 1.09750E+02 GRAM
Detector name      : GAM14 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:01.31 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 937069 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	1271	10.67*	1.211E+00	3.364E+01	3.364E+01	9.31
CD-109	88.03	328	3.72*	7.046E+00	4.278E+00	4.387E+00	29.39
SN-126	64.28	16	9.60	4.832E+00	1.172E-01	1.172E-01	574.20
	86.94	328	8.90	7.046E+00	1.788E+00	1.788E+00	50.00
	87.57	328	37.00*	7.046E+00	4.301E-01	4.301E-01	29.39
TL-208	277.35	-----	6.80	5.002E+00	-----	Line Not Found	-----
	510.84	59	21.60	3.089E+00	3.005E-01	3.005E-01	116.81
	583.14	335	84.20*	2.759E+00	4.926E-01	4.926E-01	18.83
	860.37	79	12.46	1.946E+00	1.118E+00	1.118E+00	44.63
BI-211	72.87	-----	1.27	5.875E+00	-----	Line Not Found	-----
	351.07	559	12.94*	4.180E+00	3.537E+00	3.537E+00	13.46
PB-212	74.81	450	10.70	6.075E+00	2.369E+00	2.369E+00	23.38
	77.11	683	18.00	6.310E+00	2.056E+00	2.056E+00	15.36
	87.30	328	8.00	7.046E+00	1.989E+00	1.989E+00	31.04
	238.63	1151	44.60*	5.570E+00	1.585E+00	1.585E+00	10.37
	300.09	64	3.41	4.722E+00	1.363E+00	1.363E+00	76.74
PO-212	74.81	450	10.70	6.075E+00	2.369E+00	2.369E+00	23.38
	77.11	683	18.00	6.310E+00	2.056E+00	2.056E+00	15.36
	87.30	328	8.00	7.046E+00	1.989E+00	1.989E+00	31.04
	115.19	-----	0.60	7.689E+00	-----	Line Not Found	-----
	238.63	1151	44.60*	5.570E+00	1.585E+00	1.585E+00	10.37
	300.09	64	3.41	4.722E+00	1.363E+00	1.363E+00	76.74
BI-214	609.31	400	46.30*	2.656E+00	1.112E+00	1.112E+00	16.29
	1120.29	76	15.10	1.524E+00	1.123E+00	1.123E+00	52.21
	1764.49	73	15.80	1.059E+00	1.501E+00	1.501E+00	32.92
PB-214	74.81	450	6.21	6.075E+00	4.082E+00	4.082E+00	22.67
	77.11	683	10.50	6.310E+00	3.525E+00	3.525E+00	17.15
	87.30	328	4.67	7.046E+00	3.407E+00	3.407E+00	30.38
	241.98	309	7.49	5.523E+00	2.557E+00	2.557E+00	31.34
	295.21	339	19.20	4.779E+00	1.263E+00	1.263E+00	19.08
	351.92	559	37.20*	4.180E+00	1.230E+00	1.231E+00	14.44
PO-214	74.81	450	6.21	6.075E+00	4.082E+00	4.082E+00	22.67

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	683	10.50	6.310E+00	3.525E+00	3.525E+00	17.15
	87.30	328	4.67	7.046E+00	3.407E+00	3.407E+00	30.38
	241.98	309	7.49	5.523E+00	2.557E+00	2.557E+00	31.34
	295.21	339	19.20	4.779E+00	1.263E+00	1.263E+00	19.08
	351.92	559	37.20*	4.180E+00	1.230E+00	1.231E+00	14.44
PO-216	74.81	450	10.70	6.075E+00	2.369E+00	2.369E+00	23.38
	77.11	683	18.00	6.310E+00	2.056E+00	2.056E+00	15.36
	87.30	328	8.00	7.046E+00	1.989E+00	1.989E+00	31.04
	238.63	1151	44.60*	5.570E+00	1.585E+00	1.585E+00	10.37
	300.09	64	3.41	4.722E+00	1.363E+00	1.363E+00	76.74
PO-218	74.81	450	6.21	6.075E+00	4.082E+00	4.082E+00	22.67
	77.11	683	10.50	6.310E+00	3.525E+00	3.525E+00	17.15
	87.30	328	4.67	7.046E+00	3.407E+00	3.407E+00	30.38
	241.98	309	7.49	5.523E+00	2.557E+00	2.557E+00	31.34
	295.21	339	19.20	4.779E+00	1.263E+00	1.263E+00	19.08
	351.92	559	37.20*	4.180E+00	1.230E+00	1.231E+00	14.44
RA-224	240.98	309	3.95*	5.523E+00	4.849E+00	4.849E+00	30.84
RA-226	609.31	400	46.30*	2.656E+00	1.112E+00	1.112E+00	16.29
	1120.29	76	15.10	1.524E+00	1.123E+00	1.123E+00	52.21
	1764.49	73	15.80	1.059E+00	1.501E+00	1.501E+00	32.92
AC-228	338.32	182	11.40	4.310E+00	1.267E+00	1.267E+00	54.30
	911.07	220	27.70*	1.844E+00	1.474E+00	1.474E+00	21.63
	969.11	153	16.60	1.742E+00	1.814E+00	1.814E+00	32.75
RA-228	338.32	182	11.40	4.310E+00	1.267E+00	1.267E+00	54.30
	911.07	220	27.70*	1.844E+00	1.474E+00	1.474E+00	21.63
	969.11	153	16.60	1.742E+00	1.814E+00	1.814E+00	32.75
TH-228	74.81	450	10.70	6.075E+00	2.369E+00	2.409E+00	21.46
	77.11	683	18.00	6.310E+00	2.056E+00	2.091E+00	15.36
	87.30	328	8.00	7.046E+00	1.989E+00	2.023E+00	29.39
	238.63	1151	44.60*	5.570E+00	1.585E+00	1.612E+00	10.37
	300.09	64	3.41	4.722E+00	1.363E+00	1.387E+00	96.41
TH-230	609.31	400	46.30*	2.656E+00	1.112E+00	1.112E+00	16.29
	1120.29	76	15.10	1.524E+00	1.123E+00	1.123E+00	52.21
	1764.49	73	15.80	1.059E+00	1.501E+00	1.501E+00	32.92
TH-232	338.32	182	11.40	4.310E+00	1.267E+00	1.267E+00	36.34
	911.07	220	27.70*	1.844E+00	1.474E+00	1.474E+00	21.63
	969.11	153	16.60	1.742E+00	1.814E+00	1.814E+00	32.75
TH-234	63.29	16	3.80*	4.832E+00	2.962E-01	2.962E-01	574.28
	92.38	250	5.41	7.313E+00	2.161E+00	2.161E+00	37.38
U-234	609.31	400	46.30*	2.656E+00	1.112E+00	1.112E+00	16.29
	1120.29	76	15.10	1.524E+00	1.123E+00	1.123E+00	52.21
	1764.49	73	15.80	1.059E+00	1.501E+00	1.501E+00	32.92
NP-237	86.50	328	12.60*	7.046E+00	1.263E+00	1.263E+00	35.91
	95.87	-----	2.60	7.425E+00	-----	Line Not Found	-----
U-238	63.29	16	3.80*	4.832E+00	2.962E-01	2.962E-01	574.28
	92.38	250	5.41	7.313E+00	2.161E+00	2.161E+00	33.84
AM-243	74.67	450	66.00*	6.075E+00	3.841E-01	3.841E-01	21.43
	86.72	328	0.34	7.046E+00	4.736E+01	4.736E+01	29.39
	117.66	-----	0.55	7.685E+00	-----	Line Not Found	-----

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	-----	0.13	7.399E+00	-----	Line Not Found	-----
ANH-511	511.00	59	100.00*	3.089E+00	6.490E-02	6.490E-02	116.52

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G243517006

Page : 4
Acquisition date : 7-JAN-2010 08:54:17

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	3.364E+01	3.364E+01	0.313E+01	9.31	
CD-109	464.00D	1.03	4.278E+00	4.387E+00	1.289E+00	29.39	
SN-126	1.00E+05Y	1.00	4.301E-01	4.301E-01	1.264E-01	29.39	
TL-208	1.41E+10Y	1.00	4.926E-01	4.926E-01	0.928E-01	18.83	
BI-211	7.04E+08Y	1.00	3.537E+00	3.537E+00	0.476E+00	13.46	
PB-212	1.41E+10Y	1.00	1.585E+00	1.585E+00	0.164E+00	10.37	
PO-212	1.41E+10Y	1.00	1.585E+00	1.585E+00	0.164E+00	10.37	
BI-214	1600.00Y	1.00	1.112E+00	1.112E+00	0.181E+00	16.29	
PB-214	1600.00Y	1.00	1.230E+00	1.231E+00	0.178E+00	14.44	
PO-214	1600.00Y	1.00	1.230E+00	1.231E+00	0.178E+00	14.44	
PO-216	1.41E+10Y	1.00	1.585E+00	1.585E+00	0.164E+00	10.37	
PO-218	1600.00Y	1.00	1.230E+00	1.231E+00	0.178E+00	14.44	
RA-224	1.41E+10Y	1.00	4.849E+00	4.849E+00	1.495E+00	30.84	
RA-226	1600.00Y	1.00	1.112E+00	1.112E+00	0.181E+00	16.29	
AC-228	1.41E+10Y	1.00	1.474E+00	1.474E+00	0.319E+00	21.63	
RA-228	1.41E+10Y	1.00	1.474E+00	1.474E+00	0.319E+00	21.63	
TH-228	1.91Y	1.02	1.585E+00	1.612E+00	0.167E+00	10.37	
TH-230	4.47E+09Y	1.00	1.112E+00	1.112E+00	0.181E+00	16.29	
TH-232	1.41E+10Y	1.00	1.474E+00	1.474E+00	0.319E+00	21.63	
TH-234	4.47E+09Y	1.00	2.962E-01	2.962E-01	17.01E-01	574.28	
U-234	4.47E+09Y	1.00	1.112E+00	1.112E+00	0.181E+00	16.29	
NP-237	2.14E+06Y	1.00	1.263E+00	1.263E+00	0.453E+00	35.91	
U-238	4.47E+09Y	1.00	2.962E-01	2.962E-01	17.01E-01	574.28	
AM-243	7380.00Y	1.00	3.841E-01	3.841E-01	0.823E-01	21.43	
ANH-511	1.00E+09Y	1.00	6.490E-02	6.490E-02	7.562E-02	116.52	

Total Activity : 6.843E+01 6.857E+01

Grand Total Activity : 6.843E+01 6.857E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G243517006

Page : 5
Acquisition date : 7-JAN-2010 08:54:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	89.92	214	359	1.43	179.34	165	29	2.98E-02	36.6	7.19E+00	T
0	185.69	150	352	1.53	370.70	364	13	2.09E-02	55.6	6.53E+00	T
0	209.41	119	224	1.30	418.10	414	9	1.65E-02	49.6	6.07E+00	T
0	270.01	103	179	1.59	539.19	535	10	1.43E-02	52.2	5.10E+00	T
0	327.89	91	156	2.50	654.86	650	12	1.26E-02	58.8	4.41E+00	T
0	462.91	54	96	0.93	924.72	918	11	7.45E-03	77.3	3.35E+00	T
0	567.57	152	83	3.46	1133.94	1128	14	2.11E-02	30.8	2.82E+00	T
0	727.83	123	81	2.02	1454.35	1448	18	1.71E-02	38.8	2.27E+00	T
0	795.55	72	79	0.92	1589.76	1583	17	1.00E-02	61.5	2.09E+00	T
1	964.49	58	54	2.08	1927.62	1921	21	8.08E-03	53.7	1.75E+00	T
0	1378.04	36	17	1.55	2754.95	2750	12	5.05E-03	56.9	1.27E+00	

Flags: "T" = Tentatively associated

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*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517006.CNF;1
* Acquisition date   : 7-JAN-2010 08:54:17.  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 02:00:01.31             Half life ratio  : 8.00000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 21-DEC-2009 12:00:00  Nuclide Library : SOLID
* Sample ID          : G243517006           Analyst initials: MXR1
* Batch Number       : 937069              Sample Quantity  : 1.09750E+02 GRAM
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 6-MAR-2009 11:43:06.61MS Isotope      :
* MSD ID             :                      MSD Isotope      :
* LCS ID             : 1032-A              LCS Isotope      :
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.364E+01	3.131E+00	6.706E-01	4.869E-02	50.163
CD-109	4.387E+00	1.289E+00	1.266E+00	1.107E-01	3.467
SN-126	4.301E-01	1.264E-01	1.245E-01	1.083E-02	3.455
TL-208	4.926E-01	9.275E-02	6.331E-02	4.329E-03	7.781
BI-211	3.537E+00	4.762E-01	3.544E-01	2.245E-02	9.982
PB-212	1.585E+00	1.644E-01	9.712E-02	7.074E-03	16.319
PO-212	1.585E+00	1.644E-01	9.712E-02	7.074E-03	16.319
BI-214	1.112E+00	1.811E-01	1.193E-01	9.442E-03	9.320
PB-214	1.231E+00	1.777E-01	1.179E-01	9.675E-03	10.436
PO-214	1.231E+00	1.777E-01	1.179E-01	9.675E-03	10.436
PO-216	1.585E+00	1.644E-01	9.712E-02	7.074E-03	16.319
PO-218	1.231E+00	1.777E-01	1.179E-01	9.675E-03	10.436
RA-224	4.849E+00	1.495E+00	1.105E+00	6.350E-02	4.389
RA-226	1.112E+00	1.811E-01	1.193E-01	9.442E-03	9.320
AC-228	1.474E+00	3.189E-01	2.501E-01	2.937E-02	5.895
RA-228	1.474E+00	3.189E-01	2.501E-01	2.937E-02	5.895
TH-228	1.612E+00	1.672E-01	9.877E-02	7.194E-03	16.319
TH-230	1.112E+00	1.811E-01	1.193E-01	9.442E-03	9.320

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.474E+00	3.189E-01	2.501E-01	2.937E-02	5.895
TH-234	2.962E-01	1.701E+00	1.917E+00	3.295E-01	0.155
U-234	1.112E+00	1.811E-01	1.193E-01	9.442E-03	9.320
NP-237	1.263E+00	4.535E-01	3.685E-01	8.237E-02	3.427
U-238	2.962E-01	1.701E+00	1.917E+00	3.295E-01	0.155
AM-243	3.841E-01	8.231E-02	8.561E-02	6.424E-03	4.487
ANH-511	6.490E-02	7.562E-02	4.657E-02	2.736E-03	1.394

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.472E-02		3.516E-01	5.735E-01	3.865E-02	-0.043
NA-22	-2.205E-03		5.217E-02	8.550E-02	5.585E-03	-0.026
NA-24	-2.791E+00		2.846E+00	Half-Life too short		
AL-26	-6.096E-03		3.271E-02	5.068E-02	2.938E-03	-0.120
TI-44	3.795E-01	+	5.831E-02	8.218E-02	6.416E-03	4.618
SC-46	-3.459E-02		4.617E-02	7.201E-02	6.654E-03	-0.480
V-48	-4.388E-03		8.837E-02	1.466E-01	1.244E-02	-0.030
CR-51	4.616E-01		4.284E-01	7.494E-01	4.843E-02	0.616
MN-52	-4.683E-02		2.680E-01	4.250E-01	2.979E-02	-0.110
MN-54	1.510E-02		3.978E-02	6.876E-02	5.768E-03	0.220
CO-56	-2.507E-02		4.426E-02	7.050E-02	6.043E-03	-0.356
CO-57	4.533E-03		2.730E-02	4.425E-02	3.149E-03	0.102
CO-58	-2.657E-02		4.704E-02	7.134E-02	5.740E-03	-0.372
FE-59	-8.929E-02		1.104E-01	1.688E-01	1.300E-02	-0.529
CO-60	-8.680E-03		4.508E-02	7.233E-02	5.155E-03	-0.120
ZN-65	5.199E-02		1.240E-01	1.855E-01	1.219E-02	0.280
GE-68	-1.015E+00		1.454E+00	2.250E+00	1.617E-01	-0.451
AS-73	7.681E-01		7.237E-01	1.224E+00	7.982E-02	0.627
AS-74	8.101E-02		1.030E-01	1.778E-01	1.063E-02	0.456
SE-75	5.266E-02		5.168E-02	8.037E-02	4.719E-03	0.655
BR-77	4.391E+00		1.796E+01	2.991E+01	1.763E+00	0.147
SR-82	-1.056E-02		4.463E-01	7.160E-01	5.383E-02	-0.015
RB-83	1.900E-02		7.231E-02	1.206E-01	7.108E-03	0.158
RB-84	4.181E-03		7.303E-02	1.229E-01	1.120E-02	0.034
KR-85	1.133E+01		8.832E+00	1.396E+01	8.208E-01	0.812
SR-85	5.919E-02		4.612E-02	7.288E-02	4.287E-03	0.812
RB-86	-2.262E-01		9.553E-01	1.549E+00	1.115E-01	-0.146
Y-88	-1.819E-02		3.474E-02	4.884E-02	2.774E-03	-0.372
ZR-88	-1.825E-02		3.486E-02	5.567E-02	3.031E-03	-0.328
Y-91	-4.444E+00		2.296E+01	3.726E+01	2.168E+00	-0.119
NB-94	-3.306E-02		3.952E-02	5.932E-02	3.847E-03	-0.557
NB-95	-4.078E-02		6.220E-02	8.683E-02	6.394E-03	-0.470
NB-95M	8.120E-01		1.888E-01	3.148E-01	2.353E-02	2.580
ZR-95	-9.773E-02		8.544E-02	1.225E-01	1.011E-02	-0.798
NB-97	-1.891E-01		3.128E-01	Half-Life too short		
ZR-97	3.206E+01		6.523E+00	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	1.948E+01		1.947E+01	3.390E+01	4.856E+00	0.575
TC-99M	-2.573E+12		2.628E+12	Half-Life too short		
RH-101	3.533E-04		3.456E-02	5.819E-02	3.228E-03	0.006
RH-102	-2.920E-02		3.216E-02	4.919E-02	2.843E-03	-0.594
RU-103	-7.971E-03		4.544E-02	7.339E-02	9.294E-03	-0.109
RH-106	-6.466E-02		3.296E-01	5.255E-01	6.215E-02	-0.123
RU-106	-6.466E-02		3.296E-01	5.255E-01	3.142E-02	-0.123
AG-108M	-3.671E-03		3.649E-02	5.962E-02	3.662E-03	-0.062
AG-110M	-1.075E-02		4.020E-02	6.366E-02	4.021E-03	-0.169
IN-111	1.014E-01		1.899E+00	2.775E+00	1.599E-01	0.037
IN-113M	-3.096E-02		5.005E-02	7.944E-02	4.648E-03	-0.390
SN-113	-3.096E-02		5.005E-02	7.944E-02	4.648E-03	-0.390
IN-114M	-1.617E-01		2.246E-01	3.157E-01	1.737E-02	-0.512
CD-115	5.865E-01		1.879E+01	3.077E+01	1.818E+00	0.019
SN-117M	-6.375E-02		6.771E-02	1.037E-01	5.863E-03	-0.615
SB-122	4.144E+00		4.219E+00	6.526E+00	3.890E-01	0.635
I-123	-3.395E+01		2.950E+01	Half-Life too short		
TE-123M	-1.836E-02		3.190E-02	4.970E-02	2.842E-03	-0.369
I-124	2.667E-02		1.051E+00	1.480E+00	8.851E-02	0.018
SB-124	6.484E-02		8.554E-02	1.575E-01	1.065E-02	0.412
SB-125	9.748E-02		1.016E-01	1.770E-01	1.038E-02	0.551
TE-125M	-6.798E+00		1.035E+01	1.623E+01	1.524E+00	-0.419
I-126	6.460E-02		2.226E-01	3.686E-01	2.214E-02	0.175
SB-126	1.529E-01		1.890E-01	3.002E-01	2.020E-02	0.509
SB-127	-5.307E-01		2.051E+00	3.238E+00	3.344E-01	-0.164
XE-127	-4.668E-02		5.502E-02	8.386E-02	4.675E-03	-0.557
I-131	3.163E-02		1.430E-01	2.397E-01	1.518E-02	0.132
TE-132	-3.075E-01		1.061E+00	1.755E+00	2.578E-01	-0.175
BA-133	-4.384E-03		4.839E-02	6.892E-02	7.922E-03	-0.064
I-133	-4.241E-03		1.239E-02	Half-Life too short		
CS-134	1.564E-01	+	9.694E-02	1.084E-01	8.528E-03	1.444
CS-135	3.151E-01		1.963E-01	3.120E-01	2.393E-02	1.010
I-135	-1.363E+11		2.583E+11	Half-Life too short		
CS-136	2.969E-02		1.284E-01	2.179E-01	1.753E-02	0.136
BA-137M	-1.684E-02		4.059E-02	6.345E-02	3.773E-03	-0.265
CS-137	-1.780E-02		4.291E-02	6.707E-02	4.004E-03	-0.265
CE-139	2.988E-02		3.371E-02	5.589E-02	3.001E-03	0.535
BA-140	-5.376E-02		2.914E-01	4.676E-01	1.522E-01	-0.115
LA-140	-7.668E-02		1.071E-01	1.536E-01	1.018E-02	-0.499
CE-141	-2.403E-02		7.106E-02	1.123E-01	7.163E-03	-0.214
CE-143	2.346E-03		3.445E-04	Half-Life too short		
CE-144	-1.490E-01		2.300E-01	3.577E-01	5.207E-02	-0.417
PM-144	2.379E-02		4.070E-02	6.867E-02	4.400E-03	0.346
PR-144	1.613E+00		2.760E+00	4.658E+00	2.982E-01	0.346
PM-146	3.188E-02		4.619E-02	7.931E-02	6.790E-03	0.402
ND-147	1.639E-01		6.056E-01	1.011E+00	1.372E-01	0.162
PM-149	4.931E+01		1.648E+02	2.786E+02	3.955E+01	0.177
EU-152	4.192E-02		1.270E-01	1.774E-01	1.148E-02	0.236

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-2.129E-02		9.632E-02	1.344E-01	1.078E-02	-0.158
EU-154	-1.000E-02		1.452E-01	2.374E-01	2.327E-02	-0.042
EU-155	-6.603E-03		1.160E-01	1.869E-01	1.447E-02	-0.035
TB-160	1.579E-02		1.447E-01	2.446E-01	2.222E-02	0.065
HO-166M	1.413E-02		6.802E-02	1.117E-01	7.382E-03	0.127
TM-171	-1.516E+01		3.653E+01	4.253E+01	2.965E+00	-0.357
LU-176	-5.331E-03		2.936E-02	4.179E-02	2.434E-03	-0.128
LU-177	3.491E+00	+	1.743E+00	2.649E+00	1.484E-01	1.318
LU-177M	-1.749E-01		1.948E-01	3.021E-01	1.675E-02	-0.579
HF-181	-1.541E-02		4.929E-02	7.900E-02	4.582E-03	-0.195
W-181	8.985E-02	+	5.158E-01	5.789E-01	3.988E-02	0.155
TA-182	1.876E-01		2.403E-01	4.204E-01	2.515E-02	0.446
RE-183	-2.611E-03		1.274E-01	2.009E-01	1.106E-02	-0.013
RE-184	-1.005E-02		2.390E-01	3.989E-01	2.307E-02	-0.025
OS-185	5.320E-03		4.891E-02	7.938E-02	4.734E-03	0.067
RE-188	1.681E-01		1.984E-01	3.284E-01	1.903E-02	0.512
W-188	-3.837E+00		8.922E+00	1.249E+01	7.287E-01	-0.307
IR-192	-2.545E-02		4.025E-02	6.464E-02	3.773E-03	-0.394
AU-195	1.724E-01		2.789E-01	4.067E-01	3.227E-02	0.424
TL-200	1.169E-03		7.396E-04	Half-Life	too short	
TL-201	6.413E-02		1.191E+01	1.903E+01	1.022E+00	0.003
TL-202	9.579E-03		8.516E-02	1.410E-01	7.974E-03	0.068
HG-203	4.404E-02		4.410E-02	7.692E-02	4.759E-03	0.573
BI-207	3.266E-02		6.095E-02	1.059E-01	7.835E-03	0.309
TL-207	-7.557E-01		8.367E-01	1.106E+00	1.826E-01	-0.683
PO-209	4.750E+00		8.416E+00	1.473E+01	1.378E+00	0.323
BI-210	-1.103E+00		2.603E+00	4.144E+00	3.073E-01	-0.266
PB-210	-1.103E+00		2.603E+00	4.144E+00	3.073E-01	-0.266
PO-210	-1.103E+00		2.602E+00	4.144E+00	2.600E-01	-0.266
PB-211	-1.140E+00		1.258E+00	1.594E+00	9.933E-01	-0.715
BI-212	1.573E+00	+	6.244E-01	7.462E-01	6.348E-02	2.108
PO-215	-7.557E-01		8.367E-01	1.106E+00	1.826E-01	-0.683
RN-219	-2.210E-01		4.410E-01	7.023E-01	9.464E-02	-0.315
RN-220	2.599E+01		2.686E+01	4.709E+01	2.799E+00	0.552
RA-223	-7.557E-01		8.367E-01	1.106E+00	1.826E-01	-0.683
AC-227	1.232E-01		3.888E-01	6.595E-01	9.204E-02	0.187
TH-227	1.232E-01		3.890E-01	6.595E-01	1.114E-01	0.187
TH-229	2.844E-01		5.327E-01	9.154E-01	5.055E-02	0.311
PA-231	1.404E-02		1.608E+00	2.682E+00	3.700E-01	0.005
TH-231	-7.557E-01		8.367E-01	1.106E+00	1.826E-01	-0.683
U-231	2.454E-02		1.766E+00	2.498E+00	2.028E-01	0.010
PA-233	3.831E-02		6.934E-02	1.185E-01	7.320E-03	0.323
PA-234	-2.600E-01		3.446E-01	5.294E-01	1.001E-01	-0.491
PA-234M	-2.953E+00		5.200E+00	8.200E+00	7.928E-01	-0.360
U-235	9.990E-02		2.327E-01	3.725E-01	6.132E-02	0.268
NP-236	-4.871E-02		8.844E-02	1.379E-01	7.706E-03	-0.353
NP-239	-2.491E-02		2.075E-01	3.327E-01	2.404E-02	-0.075
AM-241	3.385E-02		1.528E-01	2.207E-01	1.638E-02	0.153

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-5.290E-02		1.060E-01	1.676E-01	1.289E-02	-0.316
AM-246	-9.689E-03		1.640E-01	2.706E-01	1.939E-02	-0.036
CM-247	-2.517E-02		3.915E-02	6.182E-02	3.396E-03	-0.407
CF-249	3.398E-02		4.319E-02	7.459E-02	4.078E-03	0.456
CF-251	-7.178E-02		1.426E-01	2.222E-01	1.205E-02	-0.323

VAX/VMS Nuclide Identification Report Generated

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*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : SYSSYSROOT:[ALPHA.ARCHIVE.GAMMA]G243517006
* Acquisition date   : 7-JAN-2010 08:54:17 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 02:00:01.31 Half life ratio : 8.000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library : SOLID
* Sample ID          : G243517006 Analyst initials: MXR1
* Batch Number       : 937069 Sample Quantity : 1.0975E+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
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.364E+01	3.069E+00	3.336E-01	1.566E+00
CD-109	4.387E+00	1.263E+00	6.423E-01	6.446E-01
SN-126	4.301E-01	1.239E-01	6.318E-02	6.319E-02
TL-208	4.926E-01	9.090E-02	3.170E-02	4.638E-02
BI-211	3.537E+00	4.667E-01	1.781E-01	2.381E-01
PB-212	1.585E+00	1.611E-01	4.895E-02	8.219E-02
PO-212	1.585E+00	1.611E-01	4.895E-02	8.219E-02
BI-214	1.112E+00	1.775E-01	5.972E-02	9.054E-02
PB-214	1.231E+00	1.741E-01	5.926E-02	8.883E-02
PO-214	1.231E+00	1.741E-01	5.926E-02	8.883E-02
PO-216	1.585E+00	1.611E-01	4.895E-02	8.219E-02
PO-218	1.231E+00	1.741E-01	5.926E-02	8.883E-02
RA-224	4.849E+00	1.465E+00	5.567E-01	7.476E-01
RA-226	1.112E+00	1.775E-01	5.972E-02	9.054E-02
AC-228	1.474E+00	3.126E-01	1.248E-01	1.595E-01
RA-228	1.474E+00	3.126E-01	1.248E-01	1.595E-01
TH-228	1.612E+00	1.638E-01	4.978E-02	8.359E-02
TH-230	1.112E+00	1.775E-01	5.972E-02	9.054E-02
TH-232	1.474E+00	3.126E-01	1.248E-01	1.595E-01
TH-234	2.962E-01	1.667E+00	9.751E-01	8.504E-01
U-234	1.112E+00	1.775E-01	5.972E-02	9.054E-02
NP-237	1.263E+00	4.444E-01	1.871E-01	2.267E-01
U-238	2.962E-01	1.667E+00	9.751E-01	8.504E-01
AM-243	3.841E-01	8.066E-02	4.350E-02	4.116E-02
ANH-511	6.490E-02	7.411E-02	2.334E-02	3.781E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-2.472E-02	3.446E-01	2.876E-01	1.758E-01 NOT IDENT.
NA-22	-2.205E-03	5.113E-02	4.258E-02	2.609E-02 NOT IDENT.

NA-24	-2.791E+06	5.578E+06	0.000E+00	2.846E+06	SHORT HLIF
AL-26	-6.096E-03	3.206E-02	2.517E-02	1.636E-02	NOT IDENT.
TI-44	3.795E-01	5.715E-02	4.174E-02	2.916E-02	FAIL ABUN
SC-46	-3.459E-02	4.524E-02	3.595E-02	2.308E-02	FAIL ABUN
V-48	-4.388E-03	8.660E-02	7.312E-02	4.419E-02	NOT IDENT.
CR-51	4.616E-01	4.198E-01	3.769E-01	2.142E-01	NOT IDENT.
MN-52	-4.683E-02	2.627E-01	2.115E-01	1.340E-01	NOT IDENT.
MN-54	1.510E-02	3.899E-02	3.435E-02	1.989E-02	NOT IDENT.
CO-56	-2.507E-02	4.338E-02	3.521E-02	2.213E-02	NOT IDENT.
CO-57	4.533E-03	2.675E-02	2.241E-02	1.365E-02	NOT IDENT.
CO-58	-2.657E-02	4.609E-02	3.564E-02	2.352E-02	NOT IDENT.
FE-59	-8.929E-02	1.082E-01	8.416E-02	5.518E-02	NOT IDENT.
CO-60	-8.680E-03	4.418E-02	3.601E-02	2.254E-02	NOT IDENT.
ZN-65	5.199E-02	1.215E-01	9.245E-02	6.198E-02	NOT IDENT.
GE-68	-1.015E+00	1.425E+00	1.122E+00	7.268E-01	NOT IDENT.
AS-73	7.681E-01	7.092E-01	6.236E-01	3.618E-01	NOT IDENT.
AS-74	8.101E-02	1.009E-01	8.902E-02	5.149E-02	NOT IDENT.
SE-75	5.266E-02	5.065E-02	4.048E-02	2.584E-02	FAIL ABUN
BR-77	4.391E+00	1.760E+01	1.499E+01	8.981E+00	FAIL ABUN
SR-82	-1.056E-02	4.374E-01	3.578E-01	2.232E-01	NOT IDENT.
RB-83	1.900E-02	7.086E-02	6.043E-02	3.615E-02	NOT IDENT.
RB-84	4.181E-03	7.156E-02	6.136E-02	3.651E-02	NOT IDENT.
KR-85	1.133E+01	8.655E+00	6.995E+00	4.416E+00	NOT IDENT.
SR-85	5.919E-02	4.520E-02	3.653E-02	2.306E-02	NOT IDENT.
RB-86	-2.262E-01	9.362E-01	7.724E-01	4.776E-01	NOT IDENT.
Y-88	-1.819E-02	3.405E-02	2.426E-02	1.737E-02	NOT IDENT.
ZR-88	-1.825E-02	3.416E-02	2.796E-02	1.743E-02	NOT IDENT.
Y-91	-4.444E+00	2.250E+01	1.856E+01	1.148E+01	NOT IDENT.
NB-94	-3.306E-02	3.873E-02	2.967E-02	1.976E-02	NOT IDENT.
NB-95	-4.078E-02	6.095E-02	4.340E-02	3.110E-02	NOT IDENT.
NB-95M	8.120E-01	1.850E-01	1.587E-01	9.438E-02	NOT IDENT.
ZR-95	-9.773E-02	8.373E-02	6.124E-02	4.272E-02	NOT IDENT.
NB-97	-1.891E+05	6.130E+05	0.000E+00	3.128E+05	SHORT HLIF
ZR-97	3.206E+07	1.278E+07	0.000E+00	6.523E+06	SHORT HLIF
MO-99	1.948E+01	1.908E+01	1.695E+01	9.734E+00	NOT IDENT.
TC-99M	-2.573E+18	5.150E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.533E-04	3.387E-02	2.936E-02	1.728E-02	NOT IDENT.
RH-102	-2.920E-02	3.151E-02	2.467E-02	1.608E-02	NOT IDENT.
RU-103	-7.971E-03	4.453E-02	3.679E-02	2.272E-02	FAIL ABUN
RH-106	-6.466E-02	3.230E-01	2.630E-01	1.648E-01	FAIL ABUN
RU-106	-6.466E-02	3.230E-01	2.630E-01	1.648E-01	FAIL ABUN
AG-108M	-3.671E-03	3.576E-02	2.992E-02	1.824E-02	NOT IDENT.
AG-110M	-1.075E-02	3.940E-02	3.185E-02	2.010E-02	NOT IDENT.
IN-111	1.014E-01	1.861E+00	1.398E+00	9.495E-01	NOT IDENT.
IN-113M	-3.096E-02	4.905E-02	3.989E-02	2.503E-02	NOT IDENT.
SN-113	-3.096E-02	4.905E-02	3.989E-02	2.503E-02	NOT IDENT.
IN-114M	-1.617E-01	2.201E-01	1.594E-01	1.123E-01	NOT IDENT.
CD-115	5.865E-01	1.841E+01	1.542E+01	9.395E+00	NOT IDENT.
SN-117M	-6.375E-02	6.636E-02	5.239E-02	3.386E-02	NOT IDENT.
SB-122	4.144E+00	4.134E+00	3.269E+00	2.109E+00	NOT IDENT.
I-123	-3.395E+07	5.782E+07	0.000E+00	2.950E+07	SHORT HLIF
TE-123M	-1.836E-02	3.126E-02	2.512E-02	1.595E-02	NOT IDENT.
I-124	2.667E-02	1.030E+00	7.408E-01	5.257E-01	NOT IDENT.
SB-124	6.484E-02	8.383E-02	7.827E-02	4.277E-02	FAIL ABUN
SB-125	9.748E-02	9.958E-02	8.885E-02	5.081E-02	FAIL ABUN
TE-125M	-6.798E+00	1.015E+01	8.222E+00	5.176E+00	NOT IDENT.
I-126	6.460E-02	2.181E-01	1.844E-01	1.113E-01	NOT IDENT.
SB-126	1.529E-01	1.852E-01	1.501E-01	9.448E-02	NOT IDENT.
SB-127	-5.307E-01	2.010E+00	1.620E+00	1.025E+00	NOT IDENT.
XE-127	-4.668E-02	5.392E-02	4.231E-02	2.751E-02	NOT IDENT.
I-131	3.163E-02	1.401E-01	1.204E-01	7.149E-02	NOT IDENT.
TE-132	-3.075E-01	1.040E+00	8.847E-01	5.304E-01	NOT IDENT.
BA-133	-4.384E-03	4.743E-02	3.463E-02	2.420E-02	NOT IDENT.
I-133	-4.241E+03	2.428E+04	0.000E+00	1.239E+04	SHORT HLIF
CS-134	1.564E-01	9.500E-02	5.414E-02	4.847E-02	FAIL ABUN
CS-135	3.151E-01	1.924E-01	1.571E-01	9.817E-02	NOT IDENT.
I-135	-1.363E+17	5.063E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.969E-02	1.258E-01	1.087E-01	6.419E-02	FAIL ABUN
BA-137M	-1.684E-02	3.978E-02	3.175E-02	2.030E-02	NOT IDENT.
CS-137	-1.780E-02	4.205E-02	3.356E-02	2.146E-02	NOT IDENT.
CE-139	2.988E-02	3.303E-02	2.824E-02	1.685E-02	NOT IDENT.
BA-140	-5.376E-02	2.856E-01	2.343E-01	1.457E-01	NOT IDENT.
LA-140	-7.668E-02	1.050E-01	7.635E-02	5.355E-02	FAIL ABUN
CE-141	-2.403E-02	6.964E-02	5.677E-02	3.553E-02	NOT IDENT.
CE-143	2.346E+03	6.752E+02	0.000E+00	3.445E+02	SHORT HLIF
CE-144	-1.490E-01	2.254E-01	1.810E-01	1.150E-01	NOT IDENT.
PM-144	2.379E-02	3.988E-02	3.434E-02	2.035E-02	NOT IDENT.
PR-144	1.613E+00	2.705E+00	2.330E+00	1.380E+00	NOT IDENT.

PM-146	3.188E-02	4.527E-02	3.979E-02	2.310E-02	NOT IDENT.
ND-147	1.639E-01	5.935E-01	5.067E-01	3.028E-01	FAIL ABUN
PM-149	4.931E+01	1.615E+02	1.402E+02	8.239E+01	NOT IDENT.
EU-152	4.192E-02	1.244E-01	8.919E-02	6.348E-02	FAIL ABUN
GD-153	-2.129E-02	9.439E-02	6.819E-02	4.816E-02	NOT IDENT.
EU-154	-1.000E-02	1.423E-01	1.182E-01	7.261E-02	NOT IDENT.
EU-155	-6.603E-03	1.137E-01	9.475E-02	5.801E-02	FAIL ABUN
TB-160	1.579E-02	1.418E-01	1.221E-01	7.233E-02	FAIL ABUN
HO-166M	1.413E-02	6.666E-02	5.587E-02	3.401E-02	FAIL ABUN
TM-171	-1.516E+01	3.580E+01	2.163E+01	1.826E+01	NOT IDENT.
LU-176	-5.331E-03	2.878E-02	2.103E-02	1.468E-02	FAIL ABUN
LU-177	3.491E+00	1.709E+00	1.336E+00	8.717E-01	FAIL ABUN
LU-177M	-1.749E-01	1.909E-01	1.516E-01	9.740E-02	FAIL ABUN
HF-181	-1.541E-02	4.831E-02	3.961E-02	2.465E-02	FAIL ABUN
W-181	8.985E-02	5.055E-01	2.944E-01	2.579E-01	FAIL ABUN
TA-182	1.876E-01	2.355E-01	2.094E-01	1.202E-01	FAIL ABUN
RE-183	-2.611E-03	1.249E-01	1.015E-01	6.371E-02	FAIL ABUN
RE-184	-1.005E-02	2.342E-01	2.010E-01	1.195E-01	NOT IDENT.
OS-185	5.320E-03	4.793E-02	3.972E-02	2.446E-02	NOT IDENT.
RE-188	1.681E-01	1.944E-01	1.660E-01	9.921E-02	NOT IDENT.
W-188	-3.837E+00	8.744E+00	6.286E+00	4.461E+00	FAIL ABUN
IR-192	-2.545E-02	3.944E-02	3.251E-02	2.012E-02	FAIL ABUN
AU-195	1.724E-01	2.734E-01	2.062E-01	1.395E-01	FAIL ABUN
TL-200	1.169E+03	1.450E+03	0.000E+00	7.396E+02	SHORT HLIF
TL-201	6.413E-02	1.167E+01	9.613E+00	5.953E+00	NOT IDENT.
TL-202	9.579E-03	8.345E-02	7.076E-02	4.258E-02	NOT IDENT.
HG-203	4.404E-02	4.322E-02	3.872E-02	2.205E-02	NOT IDENT.
BI-207	3.266E-02	5.973E-02	5.279E-02	3.047E-02	FAIL ABUN
TL-207	-7.557E-01	8.199E-01	5.562E-01	4.183E-01	FAIL ABUN
PO-209	4.750E+00	8.247E+00	7.351E+00	4.208E+00	NOT IDENT.
BI-210	-1.103E+00	2.551E+00	2.112E+00	1.301E+00	NOT IDENT.
PB-210	-1.103E+00	2.551E+00	2.112E+00	1.301E+00	NOT IDENT.
PO-210	-1.103E+00	2.550E+00	2.112E+00	1.301E+00	NOT IDENT.
PB-211	-1.140E+00	1.233E+00	8.003E-01	6.289E-01	NOT IDENT.
BI-212	1.573E+00	6.119E-01	3.731E-01	3.122E-01	FAIL ABUN
PO-215	-7.557E-01	8.199E-01	5.562E-01	4.183E-01	FAIL ABUN
RN-219	-2.210E-01	4.322E-01	3.526E-01	2.205E-01	FAIL ABUN
RN-220	2.599E+01	2.632E+01	2.359E+01	1.343E+01	NOT IDENT.
RA-223	-7.557E-01	8.199E-01	5.562E-01	4.183E-01	FAIL ABUN
AC-227	1.232E-01	3.811E-01	3.322E-01	1.944E-01	FAIL ABUN
TH-227	1.232E-01	3.812E-01	3.322E-01	1.945E-01	FAIL ABUN
TH-229	2.844E-01	5.220E-01	4.620E-01	2.663E-01	FAIL ABUN
PA-231	1.404E-02	1.576E+00	1.350E+00	8.042E-01	NOT IDENT.
TH-231	-7.557E-01	8.199E-01	5.562E-01	4.183E-01	FAIL ABUN
U-231	2.454E-02	1.731E+00	1.267E+00	8.830E-01	FAIL ABUN
PA-233	3.831E-02	6.796E-02	5.963E-02	3.467E-02	FAIL ABUN
PA-234	-2.600E-01	3.377E-01	2.642E-01	1.723E-01	FAIL ABUN
PA-234M	-2.953E+00	5.096E+00	4.091E+00	2.600E+00	NOT IDENT.
U-235	9.990E-02	2.281E-01	1.884E-01	1.164E-01	FAIL ABUN
NP-236	-4.871E-02	8.668E-02	6.970E-02	4.422E-02	NOT IDENT.
NP-239	-2.491E-02	2.034E-01	1.685E-01	1.038E-01	FAIL ABUN
AM-241	3.385E-02	1.497E-01	1.123E-01	7.640E-02	NOT IDENT.
CM-243	-5.290E-02	1.038E-01	8.497E-02	5.298E-02	FAIL ABUN
AM-246	-9.689E-03	1.608E-01	1.349E-01	8.202E-02	NOT IDENT.
CM-247	-2.517E-02	3.836E-02	3.104E-02	1.957E-02	NOT IDENT.
CF-249	3.398E-02	4.233E-02	3.746E-02	2.160E-02	NOT IDENT.
CF-251	-7.178E-02	1.397E-01	1.122E-01	7.130E-02	NOT IDENT.

 * GEL Laboratories LLC *
 * 2040 SAVAGE ROAD *
 * CHARLESTON ,SC 29417 *
 * GAMMA SPECTROSCOPY BACKGROUND REPORT *

ENERGY	MDA COUNTS
46.50	363.7542
46.50	363.7542
46.50	363.7542
48.70	387.1102
49.72	421.2247
51.35	385.2226
52.39	348.8445
52.97	345.9992
53.15	364.4979
53.44	365.6389
54.07	364.8680
56.28	429.4401
56.28	429.4413
57.37	0.0000
57.53	447.7085
57.53	447.7093
57.60	447.7417
57.98	446.2750
57.98	446.2750
59.32	399.0792
59.32	399.0792
59.40	399.1124
59.54	390.9234
59.72	390.9965
60.01	391.1136
61.10	393.2055
61.14	393.2215
61.30	393.2861
63.00	449.0041
63.29	449.1353
63.29	449.1353
63.58	438.9139
64.28	450.8237
65.12	469.4464
65.20	469.4839
65.20	469.4839
66.05	487.7251
66.72	487.3516
66.83	487.4053
66.91	502.6755
67.20	502.8176
67.20	502.8176
67.75	449.0349
67.85	449.0777
68.90	482.8312
68.90	482.8312
69.30	451.7859
69.67	461.5269
70.82	432.0055
70.82	432.0055
70.83	432.0086
72.80	463.7209
72.87	463.7505
72.87	463.7505
74.67	464.5212
74.81	464.5805
74.81	464.5805
74.81	464.5805
74.81	464.5805
74.81	464.5805
74.81	464.5805
74.97	464.6482
75.28	464.7795
75.70	464.9565
77.11	465.5493
77.11	465.5493

77.11	465.5493
77.11	465.5493
77.11	465.5493
77.11	465.5493
77.11	465.5493
78.38	453.4810
79.62	390.9275
79.80	390.9900
79.80	390.9900
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80.18	323.8310
80.30	323.8651
80.30	323.8651
80.57	391.2539
81.00	391.4015
81.07	391.4256
81.07	391.4256
81.07	391.4256
81.07	391.4256
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83.78	448.8750
83.78	448.8750
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85.43	418.2439
86.29	418.5475
86.50	418.6216
86.54	418.6367
86.59	418.6533
86.72	418.7001
86.79	418.7227
86.94	418.7771
87.30	418.9025
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87.30	418.9025
87.30	418.9025
87.57	418.9977
87.88	419.1064
88.03	419.1578
88.36	419.2741
88.47	419.3119
89.95	419.8255
91.11	420.2243
92.29	420.6277
92.38	420.6594
92.38	420.6594
93.35	420.9887
94.00	421.2092
94.67	421.4328
94.67	421.4343
94.90	374.6768
94.90	374.6768
94.90	374.6768
94.90	374.6768
95.87	400.5327
95.87	400.5327
96.73	409.3345
97.43	368.6028
98.44	324.4902
98.44	324.4902
98.88	346.8111
99.55	309.3869
99.55	309.3869
99.86	323.1388
100.00	326.5944
100.10	326.6200
103.18	377.1005
103.76	366.5492
105.00	357.2372
105.31	343.3704
108.00	338.6841
109.28	362.6815

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111.00	359.9052
111.76	388.1360
112.95	311.8554
115.19	324.2455
116.30	315.8484
117.00	324.6632
117.00	324.6632
117.66	352.9648
121.11	280.0134
121.62	296.3985
121.78	286.6583
122.06	296.4880
122.32	288.9375
122.32	288.9375
122.32	288.9375
122.32	288.9375
123.07	315.1697
127.23	314.9715
129.76	324.2387
131.20	342.0333
133.02	336.9737
133.54	342.5587
135.34	296.9417
136.00	293.7793
136.25	288.3445
136.48	301.5471
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140.51	0.0000
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142.65	280.7175
143.76	293.0319
144.24	301.9348
144.24	301.9348
144.24	301.9348
144.24	301.9348
145.22	321.9659
145.44	323.1133
147.16	331.1852
152.43	338.8991
152.70	338.9551
153.22	325.7637
154.21	301.5674
154.21	301.5674
154.21	301.5674
154.21	301.5674
155.03	306.1538
156.02	306.3349
158.56	332.3624
159.00	0.0000
159.00	313.5473
160.31	312.6755
161.27	299.4932
162.32	305.2460
162.64	295.2743
163.35	278.6770
163.89	302.1789
165.85	279.0794
167.43	308.3838
171.28	296.7401
171.86	274.4343
172.10	274.4717
176.55	300.9868
176.60	300.9950
181.06	283.7192
184.41	261.6779
185.71	261.8620
186.00	261.9027
190.27	295.6888
192.34	238.1902
193.63	259.3376
197.04	274.3345
198.01	276.2895
198.60	271.8283
200.40	256.6107
201.83	284.1173
202.84	301.8026
205.31	253.9095

208.36	275.6188
208.81	265.0197
209.75	255.0864
209.75	255.0864
210.97	225.6615
215.65	245.2889
216.55	253.1943
218.09	227.6790
222.10	237.3225
223.80	242.1192
226.40	246.1080
227.00	243.4121
227.08	243.4217
227.20	243.4346
228.16	245.3909
228.18	245.3941
228.18	245.3941
231.56	0.0000
235.69	257.6792
236.00	229.6301
236.00	229.6301
238.63	229.9101
238.63	229.9101
238.63	229.9101
238.63	229.9101
239.00	229.9495
240.98	230.1599
241.98	230.2658
241.98	230.2658
241.98	230.2658
244.69	198.3229
245.39	199.9366
247.94	190.8575
248.90	169.2070
249.79	168.8864
252.40	183.7761
252.85	187.5456
252.85	187.5456
254.15	0.0000
256.20	179.4147
256.20	179.4147
260.50	179.7539
260.90	194.7689
262.80	202.4262
264.65	157.8824
268.24	183.1767
268.79	208.2779
269.46	208.3374
269.46	208.3374
269.46	208.3374
269.46	208.3374
271.23	169.3037
273.65	229.1112
276.40	184.4903
277.35	190.6991
277.60	193.3411
277.60	193.3411
278.00	185.8274
278.60	175.4944
279.20	170.8210
279.53	158.5726
280.46	190.7386
281.68	199.3399
283.67	175.8667
284.30	189.1528
285.00	185.4248
285.90	164.6734
286.10	171.3115
286.10	171.3115
287.40	152.5698
288.45	0.0000
290.67	181.7487
290.80	181.7581
291.72	188.1504
293.26	0.0000
293.70	158.2377
295.21	157.7020
295.21	157.7020

295.21	157.7020
295.96	157.7486
296.50	157.7831
297.23	157.8297
298.57	157.9168
299.80	157.9938
299.80	157.9938
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300.09	158.0121
300.09	158.0121
300.09	158.0121
300.12	158.0141
301.29	158.0891
302.84	138.1748
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303.91	149.3554
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304.40	163.6889
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306.84	155.8924
308.46	185.5533
311.98	153.9779
316.51	193.5299
318.01	156.2567
319.02	152.4805
319.41	154.4220
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323.87	182.5503
323.87	182.5503
323.87	182.5503
325.23	160.2152
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334.20	135.0388
334.30	135.0439
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338.28	160.3606
338.28	160.3606
338.28	160.3606
338.32	160.3647
338.32	160.3647
338.32	160.3647
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340.57	153.0858
344.27	143.2901
345.85	153.0606
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351.07	145.5890
351.92	132.6895
351.92	132.6895
351.92	132.6895
355.39	0.0000
356.01	118.2997
364.48	126.7865
366.43	115.1638
367.43	106.4174
367.94	0.0000
369.80	158.2941
374.96	116.4884
383.85	131.5758
387.95	117.9946
388.63	119.0060
391.69	146.6973
391.69	146.6973
392.90	145.7724
398.62	131.2514
400.65	116.5279
401.10	122.4712
401.81	132.3790
402.60	132.4150
404.84	154.2690
410.95	125.8450
411.60	121.9084
413.65	141.8252
414.70	108.1418
415.30	101.2168

415.76	105.2029
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427.08	95.6273
427.89	103.6242
432.53	129.7223
433.93	119.7964
439.47	115.0070
439.56	115.0112
439.89	111.0217
443.98	91.1355
444.90	102.1805
445.03	102.1855
445.03	102.1855
445.03	102.1855
445.03	102.1855
453.90	92.4211
463.38	112.5050
468.07	119.3922
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475.06	117.2857
475.35	125.3850
476.78	103.1829
477.59	99.1604
477.96	95.1245
482.03	111.4502
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487.03	106.5419
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492.35	99.5958
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511.00	81.7437
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511.85	83.4666
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513.99	92.0396
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527.90	75.9765
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546.56	0.0000
549.76	65.0749
552.65	96.1378
555.20	97.2404
563.23	89.8490
563.90	82.9512
568.70	93.4409
569.32	79.6109
569.50	79.6147
569.67	79.6184
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574.00	86.6414
574.64	95.6679
578.91	72.8745
579.30	0.0000
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592.07	85.6616
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595.88	67.9691
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602.71	78.5651
603.60	69.8519
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609.31	84.9946

609.31	84.9946
609.31	84.9946
609.31	84.9946
610.33	62.9751
612.46	106.7649
614.37	70.0439
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621.84	71.5810
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633.10	79.1711
634.78	70.7557
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661.65	89.2972
664.57	0.0000
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666.33	77.6908
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695.00	97.5095
696.49	80.3925
696.49	80.3925
697.00	80.4016
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699.00	92.2379
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722.78	80.8813
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722.95	80.8850
723.30	80.8923
724.18	88.1007
727.18	53.9758
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735.90	81.1230
739.58	50.8796
742.81	64.9995
744.21	72.6057
747.13	61.8094
751.79	60.7879
752.31	54.2810
753.82	59.7292
755.35	82.5628
756.15	89.0969
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766.84	86.0398
776.49	66.5758
778.00	68.7817
778.57	67.6975
778.89	79.7154
783.80	64.4952
785.46	64.5183
792.07	74.8313

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798.80	69.4564
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810.29	78.0549
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817.79	44.9615
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826.30	57.9102
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834.83	60.7753
836.80	0.0000
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889.25	71.6925
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903.28	46.0603
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911.07	64.5204
911.07	64.5204
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926.50	62.8384
935.52	59.1894
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968.20	55.7758
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969.11	58.3518
969.11	58.3518
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1001.68	52.3184
1004.76	50.4445
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1037.82	58.4062
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1038.76	0.0000
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1046.59	48.9082
1048.07	47.9614

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1050.47	55.6589
1062.04	51.9258
1063.62	51.9412
1076.63	56.8802
1077.35	64.6009
1078.86	56.9018
1085.78	43.4528
1099.22	68.7177
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1120.29	56.3362
1120.29	56.3362
1120.29	56.3362
1120.51	38.2991
1121.28	39.9693
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1173.22	69.5757
1175.09	67.6383
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1236.41	0.0000
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1260.41	0.0000
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1274.54	52.7843
1291.56	53.9209
1298.22	0.0000
1312.09	35.0584
1325.50	33.1222
1325.50	33.1222
1332.49	38.1809
1333.61	39.1936
1360.21	33.2954
1362.66	0.0000
1365.15	30.2905
1368.21	28.2837
1368.53	0.0000
1376.25	27.7400
1384.27	41.6585
1394.10	32.4479
1395.20	25.3540
1407.95	21.3367
1434.06	18.3574
1436.60	16.3236
1457.56	0.0000
1460.81	29.6879
1489.15	22.6114
1509.49	14.4295
1596.49	27.1140
1620.62	10.4618
1678.03	0.0000
1691.02	10.5570
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1706.46	0.0000
1750.46	0.0000
1764.49	12.7856
1764.49	12.7856
1764.49	12.7856
1764.49	12.7856
1770.23	12.7944
1771.40	12.7964
1791.20	0.0000
1808.65	12.8550

1836.01

12.8970

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243517006

Total Uranium Activity	9.2730E-01	ug/g
Total Uranium Counting Unc.	4.9598E+00	ug/g
Total Uranium Tpu	2.5305E-06	ug/g
Total Uranium Mda	2.9022E+00	ug/g

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*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON , SC 29417              *
*               GROSS GAMMA REPORT                 *
*
*****
*
*  BATCH ID      : 937069                      SAMPLE ID   : G243517006
*  ANALYST       : MXR1                        DETECTOR    : GAM14
*  SAMPLE DATE   : 21-DEC-2009 12:00:00.00    COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 7-JAN-2010 08:54:17.58    SAMPLE ALQT  : 109.750 GRAM
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 9.681E+00
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.828E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 3.572E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 1.736E+00

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VAX/VMS Nuclide Identification Report Generated 7-JAN-2010 10:59:10.14

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517007.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:58:43.
Sample ID          : G243517007      Sample quantity   : 1.27400E+02 GRAM
Detector name      : GAM22           Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00   Elapsed real time: 0 02:00:02.09  0.0%
Energy tolerance   : 1.50000 keV     Analyst Initials : MXR1
Abundance limit    : 75.00000         Sensitivity      : 5.00000
Batch ID           : 937069           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	63.14*	69	525	0.90	126.53	123	8	9.58E-03	61.0	
2	2	74.75*	461	522	1.22	149.72	143	19	6.41E-02	9.7	3.76E+00
3	2	77.23*	776	468	1.23	154.69	143	19	1.08E-01	6.1	
4	0	87.23*	282	426	1.31	174.66	172	6	3.91E-02	13.2	
5	2	89.90*	157	366	1.15	180.01	178	13	2.17E-02	20.0	6.14E-01
6	2	92.88*	215	483	1.16	185.94	178	13	2.98E-02	19.8	
7	0	128.73	70	398	0.86	257.59	255	7	9.79E-03	48.4	
8	0	186.10*	232	481	1.40	372.21	367	11	3.23E-02	20.5	
9	0	209.61	156	442	1.17	419.19	414	11	2.16E-02	27.4	
10	3	238.68*	1647	276	1.19	477.28	473	19	2.29E-01	3.1	8.36E-01
11	3	241.57	357	414	1.84	483.06	473	19	4.96E-02	14.4	
12	0	270.33	129	344	1.49	540.52	535	11	1.80E-02	29.1	
13	0	295.30*	445	275	1.33	590.43	585	11	6.18E-02	8.9	
14	0	328.14	108	271	1.01	656.04	650	12	1.49E-02	32.2	
15	0	338.27*	291	329	1.20	676.30	670	13	4.04E-02	14.4	
16	0	352.09*	785	263	1.41	703.91	698	12	1.09E-01	5.6	
17	0	463.25	92	210	1.74	926.06	921	13	1.28E-02	34.2	
18	0	510.89*	210	198	2.18	1021.28	1014	17	2.91E-02	19.2	
19	0	583.16*	538	141	1.46	1165.73	1158	14	7.47E-02	6.6	
20	0	609.23*	574	185	1.55	1217.85	1209	16	7.97E-02	6.9	
21	0	727.40*	177	102	2.28	1454.06	1447	14	2.45E-02	14.5	
22	0	794.58*	120	77	1.89	1588.37	1581	14	1.66E-02	18.6	
23	0	861.37	70	193	2.53	1721.89	1713	23	9.66E-03	52.9	
24	0	911.16*	405	145	1.93	1821.44	1812	20	5.62E-02	9.1	
25	0	968.99*	201	111	1.96	1937.06	1932	11	2.79E-02	12.9	
26	0	1119.89*	148	79	2.09	2238.80	2231	15	2.05E-02	15.9	
27	0	1460.56*	2225	91	2.69	2920.14	2909	23	3.09E-01	2.4	
28	0	1728.58	65	15	2.94	3456.32	3445	21	8.97E-03	19.8	
29	0	1764.36*	116	28	2.42	3527.91	3515	22	1.61E-02	16.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 7-JAN-2010 10:59:12

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Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517007.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:58:43
Sample ID         : G243517007 Sample quantity : 127.40 GRAM
Sample type       : SOLID Sample geometry :
Detector name     : GAMMA22 Detector geometry: CAN
Elapsed live time : 0 02:00:00.00 Elapsed real time: 0 02:00:02.09 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

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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	*	3.219E+01	3.336E+00	4.261E-01	3.903E-02	75.550
CD-109	+	88.03	*	3.060E+00	8.584E-01	1.094E+00	1.038E-01	2.797
SN-126	+	64.28		4.915E-01	6.042E-01	6.532E-01	9.486E-02	0.752
	+	86.94		1.247E+00	6.139E-01	4.929E-01	2.046E-01	2.530
	+	87.57	*	3.000E-01	8.415E-02	1.112E-01	1.050E-02	2.698
TL-208		277.35		8.744E-01	3.828E-01	6.260E-01	1.032E-01	1.397
	+	510.84		6.659E-01	2.700E-01	1.842E-01	2.400E-02	3.616
	+	583.14	*	4.788E-01	8.145E-02	4.676E-02	5.070E-03	10.240
	+	860.37		5.632E-01	5.995E-01	3.832E-01	4.466E-02	1.470
BI-211		72.87		7.743E+00	2.652E+00	4.608E+00	3.688E-01	1.680
	+	351.07	*	3.312E+00	5.356E-01	2.931E-01	3.420E-02	11.300
PB-212	+	74.81		2.063E+00	4.734E-01	4.359E-01	5.409E-02	4.732
	+	77.11		1.962E+00	2.901E-01	2.482E-01	2.076E-02	7.906
	+	87.30		1.387E+00	4.132E-01	5.154E-01	7.078E-02	2.691
	+	238.63	*	1.622E+00	2.361E-01	8.405E-02	1.111E-02	19.296
		300.09		1.545E+00	8.044E-01	1.255E+00	1.830E-01	1.232
PO-212	+	74.81		2.063E+00	4.734E-01	4.359E-01	5.409E-02	4.732
	+	77.11		1.962E+00	2.901E-01	2.482E-01	2.076E-02	7.906
	+	87.30		1.387E+00	4.132E-01	5.154E-01	7.078E-02	2.691
		115.19		3.030E+00	3.261E+00	5.366E+00	4.445E-01	0.565
	+	238.63	*	1.622E+00	2.361E-01	8.405E-02	1.111E-02	19.296
		300.09		1.545E+00	8.044E-01	1.255E+00	1.830E-01	1.232
BI-214	+	609.31	*	9.578E-01	1.731E-01	9.422E-02	1.095E-02	10.166
	+	1120.29		1.230E+00	4.138E-01	4.432E-01	4.897E-02	2.776
	+	1764.49		1.261E+00	4.161E-01	2.696E-01	2.246E-02	4.676
PB-214	+	74.81		3.554E+00	7.902E-01	7.511E-01	8.279E-02	4.732
	+	77.11		3.364E+00	5.595E-01	4.255E-01	4.814E-02	7.906
	+	87.30		2.377E+00	6.915E-01	8.830E-01	1.074E-01	2.691
	+	241.98		2.109E+00	6.711E-01	5.054E-01	6.950E-02	4.172
	+	295.21		1.143E+00	2.645E-01	2.039E-01	3.035E-02	5.609
	+	351.92	*	1.152E+00	1.958E-01	9.919E-02	1.264E-02	11.616
PO-214	+	74.81		3.554E+00	7.902E-01	7.511E-01	8.279E-02	4.732
	+	77.11		3.364E+00	5.595E-01	4.255E-01	4.814E-02	7.906
	+	87.30		2.377E+00	6.915E-01	8.830E-01	1.074E-01	2.691

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-216	+	241.98		2.109E+00	6.711E-01	5.054E-01	6.950E-02	4.172
	+	295.21		1.143E+00	2.645E-01	2.039E-01	3.035E-02	5.609
	+	351.92	*	1.152E+00	1.958E-01	9.919E-02	1.264E-02	11.616
	+	74.81		2.063E+00	4.734E-01	4.359E-01	5.409E-02	4.732
	+	77.11		1.962E+00	2.901E-01	2.482E-01	2.076E-02	7.906
	+	87.30		1.387E+00	4.132E-01	5.154E-01	7.078E-02	2.691
PO-218	+	238.63	*	1.622E+00	2.361E-01	8.405E-02	1.111E-02	19.296
		300.09		1.545E+00	8.044E-01	1.255E+00	1.830E-01	1.232
	+	74.81		3.554E+00	7.902E-01	7.511E-01	8.279E-02	4.732
	+	77.11		3.364E+00	5.595E-01	4.255E-01	4.814E-02	7.906
	+	87.30		2.377E+00	6.915E-01	8.830E-01	1.074E-01	2.691
	+	241.98		2.109E+00	6.711E-01	5.054E-01	6.950E-02	4.172
RA-224	+	295.21		1.143E+00	2.645E-01	2.039E-01	3.035E-02	5.609
	+	351.92	*	1.152E+00	1.958E-01	9.919E-02	1.264E-02	11.616
	+	240.98	*	3.998E+00	1.253E+00	9.555E-01	1.196E-01	4.184
RA-226	+	609.31	*	9.578E-01	1.731E-01	9.422E-02	1.095E-02	10.166
	+	1120.29		1.230E+00	4.138E-01	4.432E-01	4.897E-02	2.776
	+	1764.49		1.261E+00	4.161E-01	2.696E-01	2.246E-02	4.676
AC-228	+	338.32		1.361E+00	6.938E-01	3.296E-01	1.386E-01	4.130
	+	911.07	*	1.544E+00	3.480E-01	1.776E-01	2.354E-02	8.694
	+	969.11		1.344E+00	4.754E-01	3.774E-01	9.113E-02	3.562
RA-228	+	338.32		1.361E+00	6.938E-01	3.296E-01	1.386E-01	4.130
	+	911.07	*	1.544E+00	3.480E-01	1.776E-01	2.354E-02	8.694
	+	969.11		1.344E+00	4.754E-01	3.774E-01	9.113E-02	3.562
TH-228	+	74.81		2.098E+00	4.403E-01	4.433E-01	3.652E-02	4.732
	+	77.11		1.996E+00	2.950E-01	2.524E-01	2.111E-02	7.906
	+	87.30		1.411E+00	3.958E-01	5.242E-01	4.933E-02	2.691
	+	238.63	*	1.649E+00	2.401E-01	8.547E-02	1.129E-02	19.296
TH-230		300.09		1.571E+00	1.229E+00	1.276E+00	7.674E-01	1.232
	+	609.31	*	9.578E-01	1.731E-01	9.422E-02	1.095E-02	10.166
	+	1120.29		1.230E+00	4.138E-01	4.432E-01	4.897E-02	2.776
	+	1764.49		1.260E+00	4.161E-01	2.696E-01	2.246E-02	4.676
TH-232	+	338.32		1.361E+00	4.240E-01	3.296E-01	3.920E-02	4.130
	+	911.07	*	1.544E+00	3.480E-01	1.776E-01	2.354E-02	8.694
	+	969.11		1.344E+00	4.754E-01	3.774E-01	9.113E-02	3.562
TH-234	+	63.29	*	1.242E+00	1.531E+00	1.697E+00	2.954E-01	0.732
	+	92.38		1.485E+00	6.474E-01	6.409E-01	1.174E-01	2.317
U-234	+	609.31	*	9.578E-01	1.731E-01	9.422E-02	1.095E-02	10.166
	+	1120.29		1.230E+00	4.138E-01	4.432E-01	4.897E-02	2.776
	+	1764.49		1.260E+00	4.161E-01	2.696E-01	2.246E-02	4.676
NP-237	+	86.50	*	8.808E-01	3.068E-01	3.393E-01	7.682E-02	2.596
		95.87		-1.871E-01	9.237E-01	1.313E+00	3.246E-01	-0.143
U-238	+	63.29	*	1.242E+00	1.531E+00	1.697E+00	2.954E-01	0.732
	+	92.38		1.485E+00	6.028E-01	6.409E-01	5.839E-02	2.317
AM-243	+	74.67	*	3.344E-01	7.010E-02	7.087E-02	5.776E-03	4.719
	+	86.72		3.303E+01	9.267E+00	1.306E+01	1.221E+00	2.528
		117.66		-5.776E+00	3.554E+00	5.216E+00	4.308E-01	-1.107
ANH-511		142.18		8.249E+00	1.598E+01	2.735E+01	2.415E+00	0.302
	+	511.00	*	1.438E-01	5.707E-02	3.979E-02	3.987E-03	3.615

---- 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	*	-1.551E-01	2.846E-01	4.441E-01	4.635E-02	-0.349
NA-22		1274.54	*	-2.526E-02	3.995E-02	6.307E-02	5.436E-03	-0.400
NA-24		1368.53	*	-7.586E+00	3.995E-02	Half-Life too short		
AL-26		1129.67		9.498E-01	1.552E+00	2.525E+00	2.199E-01	0.376
		1808.65	*	3.522E-03	2.196E-02	3.702E-02	3.028E-03	0.095
TI-44		67.85		-2.117E-02	4.023E-02	6.155E-02	4.698E-03	-0.344
	+	78.38	*	3.621E-01	5.354E-02	6.736E-02	5.711E-03	5.376
SC-46		889.25	*	-2.147E-02	3.564E-02	5.662E-02	6.339E-03	-0.379
	+	1120.51		2.137E-01	7.046E-02	1.049E-01	9.270E-03	2.038
V-48		944.10		-7.573E-01	8.581E-01	1.322E+00	1.433E-01	-0.573
		983.50	*	-3.739E-02	6.603E-02	1.038E-01	1.088E-02	-0.360
		1312.09		-1.843E-02	7.813E-02	1.266E-01	1.115E-02	-0.146
CR-51		320.08	*	-1.256E-01	3.470E-01	5.551E-01	7.187E-02	-0.226
MN-52		744.21		1.007E-01	2.557E-01	4.254E-01	4.623E-02	0.237
		848.13		1.472E+00	7.517E+00	1.267E+01	1.411E+00	0.116
		935.52		4.573E-02	2.856E-01	4.761E-01	5.198E-02	0.096
		1246.25		-4.950E+00	8.109E+00	1.290E+01	1.091E+00	-0.384
		1333.61		-2.244E+00	5.265E+00	8.339E+00	7.437E-01	-0.269
		1434.06	*	7.784E-02	2.621E-01	4.407E-01	3.939E-02	0.177
MN-54		834.83	*	-1.258E-02	3.410E-02	5.566E-02	6.183E-03	-0.226
CO-56		846.75	*	-4.697E-02	3.733E-02	5.677E-02	6.319E-03	-0.827
		977.42		4.386E-01	2.694E+00	4.211E+00	4.441E-01	0.104
		1037.82		8.137E-02	2.838E-01	4.727E-01	4.874E-02	0.172
		1175.09		-1.901E-01	2.063E+00	3.422E+00	2.756E-01	-0.056
		1238.25		9.284E-02	8.370E-02	1.465E-01	1.269E-02	0.634
		1360.21		7.084E-01	8.920E-01	1.563E+00	1.396E-01	0.453
		1771.40		-9.263E-03	2.132E-01	2.945E-01	2.447E-02	-0.031
CO-57		122.06	*	2.452E-03	2.398E-02	3.816E-02	3.147E-03	0.064
		136.48		-3.321E-02	1.886E-01	3.170E-01	2.941E-02	-0.105
CO-58		810.76	*	-1.393E-02	3.328E-02	5.411E-02	5.992E-03	-0.257
FE-59		142.65		-9.902E-02	2.637E+00	4.349E+00	3.848E-01	-0.023
		192.34		-2.333E-01	9.300E-01	1.466E+00	2.177E-01	-0.159
		1099.22	*	-5.124E-02	8.382E-02	1.298E-01	1.273E-02	-0.395
		1291.56		-4.025E-02	1.146E-01	1.845E-01	1.818E-02	-0.218
CO-60		1173.22		2.725E-02	3.997E-02	6.935E-02	5.577E-03	0.393
		1332.49	*	-1.675E-03	3.224E-02	5.288E-02	4.716E-03	-0.032
ZN-65		1115.52	*	4.819E-02	9.757E-02	1.407E-01	1.255E-02	0.342
GE-68		1077.35	*	6.186E-01	1.143E+00	1.927E+00	1.817E-01	0.321
AS-73		53.44	*	-2.549E-01	6.817E-01	1.103E+00	8.332E-02	-0.231
AS-74		595.88	*	-6.323E-02	8.719E-02	1.383E-01	1.433E-02	-0.457
		634.78		-1.559E-01	3.386E-01	5.421E-01	5.682E-02	-0.288
SE-75		66.05		-1.926E+00	4.381E+00	6.326E+00	6.035E-01	-0.304
		96.73		-4.502E-01	7.760E-01	1.079E+00	1.485E-01	-0.417
		121.11		-5.911E-02	1.290E-01	2.006E-01	2.193E-02	-0.295
		136.00		4.089E-03	3.540E-02	6.008E-02	5.213E-03	0.068
		198.60		1.175E+00	1.826E+00	2.946E+00	3.443E-01	0.399
		264.65	*	-2.828E-02	4.884E-02	6.580E-02	8.856E-03	-0.430
		279.53		6.791E-02	1.063E-01	1.741E-01	2.471E-02	0.390
		303.91		-3.532E+00	2.020E+00	3.029E+00	4.615E-01	-1.166

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	400.65		1.538E-01	2.320E-01	3.921E-01	4.589E-02	0.392
		87.88		1.101E+03	3.088E+02	5.015E+02	4.754E+01	2.195
	+	200.40		-7.193E+01	2.597E+02	4.226E+02	4.647E+01	-0.170
		239.00		4.348E+02	6.023E+01	5.687E+01	7.076E+00	7.645
		249.79		-6.752E+01	1.079E+02	1.625E+02	2.090E+01	-0.415
		281.68		-2.011E+02	1.467E+02	2.153E+02	2.999E+01	-0.934
		297.23		3.973E+02	1.234E+02	1.875E+02	2.521E+01	2.119
		303.76		-4.831E+02	2.821E+02	4.285E+02	5.668E+01	-1.127
		439.47		5.330E+01	2.096E+02	3.459E+02	3.330E+01	0.154
		484.57		2.773E+01	3.315E+02	5.375E+02	5.314E+01	0.052
		520.65	*	-2.035E+00	1.524E+01	2.422E+01	2.438E+00	-0.084
		574.64		-4.659E+00	3.196E+02	4.924E+02	5.067E+01	-0.009
		578.91		7.120E+01	1.389E+02	2.067E+02	2.130E+01	0.344
		585.48		2.977E+03	4.812E+02	7.389E+02	7.632E+01	4.029
		755.35		2.183E+02	2.638E+02	4.469E+02	4.873E+01	0.488
		817.79		4.390E+01	1.962E+02	3.324E+02	3.681E+01	0.132
SR-82		698.33		-2.513E+01	3.160E+01	4.893E+01	5.235E+00	-0.514
	*	776.49		-2.720E-01	3.690E-01	5.658E-01	6.205E-02	-0.481
		1395.20		-1.360E+01	1.012E+01	1.422E+01	1.272E+00	-0.956
RB-83	*	520.41		-8.174E-03	6.121E-02	9.728E-02	9.791E-03	-0.084
		529.64		7.902E-04	9.276E-02	1.555E-01	1.571E-02	0.005
		552.65		1.297E-01	1.698E-01	2.944E-01	3.004E-02	0.441
RB-84	*	881.50		-2.577E-03	6.536E-02	1.082E-01	1.210E-02	-0.024
KR-85	*	513.99		2.422E+01	8.023E+00	1.286E+01	1.291E+00	1.883
SR-85	*	513.99		1.265E-01	4.190E-02	6.718E-02	6.741E-03	1.883
RB-86	*	1076.63		5.192E-01	7.701E-01	1.309E+00	1.235E-01	0.397
Y-88	*	898.02		5.280E-03	3.683E-02	6.159E-02	6.920E-03	0.086
		1836.01		-1.935E-02	2.842E-02	4.197E-02	3.393E-03	-0.461
ZR-88	*	392.90		2.081E-02	2.827E-02	4.801E-02	4.471E-03	0.433
Y-91	*	1204.90		2.822E+00	1.751E+01	2.941E+01	2.418E+00	0.096
NB-94	*	702.63		4.381E-02	2.946E-02	5.163E-02	5.533E-03	0.849
		871.10		-2.541E-02	3.704E-02	4.905E-02	5.480E-03	-0.518
NB-95	*	765.79		3.809E-02	4.280E-02	7.228E-02	7.904E-03	0.527
NB-95M	*	235.69		1.960E-01	1.349E-01	2.021E-01	2.672E-02	0.970
ZR-95	*	724.18		1.440E-01	1.011E-01	1.554E-01	1.772E-02	0.926
		756.15		4.561E-02	6.924E-02	1.163E-01	1.350E-02	0.392
NB-97	*	657.90		-3.103E-01	6.924E-02	Half-Life	too short	
		1024.50		4.124E+00	6.924E-02	Half-Life	too short	
ZR-97	*	254.15		-1.215E+01	6.924E-02	Half-Life	too short	
		355.39		2.452E+01	6.924E-02	Half-Life	too short	
		507.63		3.368E+01	6.924E-02	Half-Life	too short	
		602.52		9.868E+00	6.924E-02	Half-Life	too short	
		1021.30		-3.237E+01	6.924E-02	Half-Life	too short	
		1147.95		6.048E+00	6.924E-02	Half-Life	too short	
		1362.66		2.592E+01	6.924E-02	Half-Life	too short	
		1750.46		-1.168E+01	6.924E-02	Half-Life	too short	
MO-99		140.51		1.012E+01	3.705E+01	6.288E+01	1.744E+01	0.161
		181.06		-2.565E+01	2.773E+01	3.783E+01	7.241E+00	-0.678
		366.43		7.556E+00	1.154E+02	1.915E+02	2.031E+01	0.039

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	739.58	*		3.197E+00	1.604E+01	2.638E+01	4.367E+00	0.121
	778.00			-1.132E+01	4.687E+01	7.451E+01	8.175E+00	-0.152
TC-99M	140.51	*		1.214E+12	4.687E+01	Half-Life	too short	
RH-101	127.23			2.337E-02	3.457E-02	5.009E-02	4.186E-03	0.467
	198.01	*		2.218E-02	3.309E-02	5.345E-02	5.831E-03	0.415
	325.23			1.428E-01	2.206E-01	3.324E-01	4.131E-02	0.430
RH-102	418.52			-3.955E-02	2.637E-01	4.279E-01	4.061E-02	-0.092
	475.06	*		1.183E-02	2.475E-02	4.110E-02	4.042E-03	0.288
	631.29			5.649E-02	4.685E-02	8.211E-02	8.598E-03	0.688
	697.49			-6.873E-02	6.807E-02	1.037E-01	1.109E-02	-0.663
	766.84			1.042E-01	1.078E-01	1.824E-01	1.995E-02	0.571
	1046.59			-4.865E-02	1.077E-01	1.702E-01	1.669E-02	-0.286
	1112.84			6.239E-02	2.355E-01	3.334E-01	2.984E-02	0.187
RU-103	497.08	*		1.569E-02	3.712E-02	6.113E-02	9.174E-03	0.257
	610.33	+		1.067E+01	2.394E+00	2.335E+00	4.127E-01	4.569
RH-106	511.85	+		7.208E-01	2.860E-01	3.857E-01	3.866E-02	1.869
	621.84	*		2.752E-01	2.769E-01	4.786E-01	6.989E-02	0.575
	1050.47			1.008E+00	2.145E+00	3.607E+00	3.520E-01	0.279
RU-106	511.85	+		7.208E-01	2.860E-01	3.857E-01	3.866E-02	1.869
	621.84	*		2.752E-01	2.755E-01	4.786E-01	4.999E-02	0.575
	1050.47			1.008E+00	2.145E+00	3.607E+00	3.520E-01	0.279
AG-108M	433.93	*		1.547E-02	2.895E-02	4.847E-02	4.798E-03	0.319
	614.37			-1.616E-02	3.671E-02	5.008E-02	5.361E-03	-0.323
	722.95			4.462E-03	4.093E-02	5.762E-02	6.375E-03	0.077
AG-110M	657.75	*		-2.119E-02	2.935E-02	4.585E-02	4.927E-03	-0.462
	677.61			-7.723E-03	2.886E-01	4.719E-01	5.103E-02	-0.016
	706.67			-1.903E-01	1.875E-01	2.848E-01	3.111E-02	-0.668
	763.93			-5.152E-02	1.641E-01	2.609E-01	2.902E-02	-0.197
	884.67			2.116E-02	4.518E-02	7.707E-02	8.789E-03	0.275
	937.48			4.821E-02	1.015E-01	1.723E-01	1.921E-02	0.280
	1384.27			-1.742E-01	1.562E-01	2.300E-01	2.110E-02	-0.757
IN-111	171.28			-1.048E+00	1.404E+00	2.267E+00	2.263E-01	-0.462
	245.39	*		-1.028E-01	1.690E+00	2.379E+00	3.019E-01	-0.043
IN-113M	391.69	*		6.792E-03	4.156E-02	6.888E-02	6.578E-03	0.099
SN-113	391.69	*		6.792E-03	4.156E-02	6.888E-02	6.578E-03	0.099
IN-114M	190.27	*		6.606E-02	1.870E-01	2.758E-01	2.932E-02	0.240
CD-115	260.90			5.427E+00	2.158E+02	3.477E+02	4.620E+01	0.016
	492.35			1.328E+01	5.574E+01	9.104E+01	9.037E+00	0.146
	527.90	*		-8.003E+00	1.659E+01	2.645E+01	2.671E+00	-0.303
SN-117M	156.02			-6.680E-01	2.219E+00	3.677E+00	3.447E-01	-0.182
	158.56	*		2.456E-02	5.754E-02	9.317E-02	8.836E-03	0.264
SB-122	563.90	*		1.080E+00	2.678E+00	4.558E+00	4.672E-01	0.237
	692.80			2.965E+01	5.714E+01	9.628E+01	1.028E+01	0.308
I-123	159.00	*		3.790E+01	5.714E+01	Half-Life	too short	
	528.96			-7.810E+02	5.714E+01	Half-Life	too short	
TE-123M	159.00	*		2.041E-02	2.738E-02	4.471E-02	4.270E-03	0.457
I-124	602.71	*		1.908E-01	8.964E-01	1.298E+00	1.348E-01	0.147
	722.78			7.246E-01	5.726E+00	8.075E+00	8.714E-01	0.090
	1325.50			1.899E+01	3.834E+01	6.583E+01	5.846E+00	0.289

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124		1376.25		5.729E+01	3.912E+01	7.062E+01	6.311E+00	0.811
		1509.49		1.124E+01	1.696E+01	2.949E+01	2.621E+00	0.381
		1691.02		2.117E-01	4.204E+00	7.007E+00	5.992E-01	0.030
		602.71		8.454E-03	3.973E-02	5.752E-02	5.976E-03	0.147
		645.85		1.175E-02	4.397E-01	7.247E-01	7.926E-02	0.016
		709.31		-1.779E-01	2.405E+00	3.903E+00	4.193E-01	-0.046
		713.82		-1.407E+00	1.457E+00	2.204E+00	3.009E-01	-0.639
		722.78		4.655E-02	3.679E-01	5.187E-01	5.676E-02	0.090
	+	968.20		1.412E+01	3.945E+00	6.415E+00	6.821E-01	2.201
		1045.16		-3.856E-01	2.309E+00	3.725E+00	3.659E-01	-0.104
		1325.50		1.303E+00	2.631E+00	4.517E+00	4.011E-01	0.289
		1368.21		-2.145E+00	1.679E+00	2.392E+00	3.272E-01	-0.897
		1436.60		2.632E+00	3.242E+00	5.712E+00	5.104E-01	0.461
		1691.02	*	3.207E-03	6.371E-02	1.062E-01	9.444E-03	0.030
SB-125		427.89	*	-3.568E-02	8.225E-02	1.310E-01	1.271E-02	-0.272
	+	463.38		5.791E-01	4.002E-01	4.769E-01	4.945E-02	1.214
		600.56		5.491E-02	1.737E-01	2.635E-01	2.876E-02	0.208
		635.90		-7.606E-02	2.408E-01	3.891E-01	4.304E-02	-0.195
TE-125M		109.28	*	3.409E+00	8.918E+00	1.445E+01	1.464E+00	0.236
I-126		388.63		8.553E-02	2.034E-01	3.412E-01	3.231E-02	0.251
		666.33	*	-8.727E-02	1.765E-01	2.807E-01	2.966E-02	-0.311
SB-126		753.82		1.531E+00	1.539E+00	2.627E+00	2.863E-01	0.583
		223.80		-1.107E+00	4.224E+00	6.811E+00	8.082E-01	-0.163
		278.60		4.007E+00	2.683E+00	4.468E+00	6.246E-01	0.897
	+	296.50		1.256E+01	2.797E+00	3.423E+00	4.611E-01	3.669
		414.70		-7.083E-02	7.627E-02	1.184E-01	1.121E-02	-0.598
		415.30		-1.803E+00	6.259E+00	1.009E+01	9.552E-01	-0.179
		555.20		-8.952E-02	3.701E+00	6.166E+00	6.298E-01	-0.015
		573.80		6.062E-01	9.943E-01	1.637E+00	1.684E-01	0.370
		593.00		-2.528E-01	8.842E-01	1.442E+00	1.493E-01	-0.175
		656.30		-2.916E+00	3.147E+00	4.843E+00	5.102E-01	-0.602
		666.33		-3.662E-02	7.405E-02	1.178E-01	1.245E-02	-0.311
		675.00		-1.214E+00	2.050E+00	3.236E+00	3.431E-01	-0.375
		695.00		4.215E-03	7.084E-02	1.162E-01	1.242E-02	0.036
		697.00		-1.825E-01	2.576E-01	4.012E-01	4.290E-02	-0.455
SB-127		720.50	*	1.905E-01	1.484E-01	2.303E-01	2.483E-02	0.827
		856.80		-2.753E-01	5.671E-01	7.720E-01	8.607E-02	-0.357
		989.30		-2.251E-01	1.201E+00	1.945E+00	2.029E-01	-0.116
		1034.80		3.447E-01	9.033E+00	1.480E+01	1.472E+00	0.023
		1213.00		-1.146E+00	4.681E+00	7.670E+00	6.342E-01	-0.149
		61.10		8.120E+01	6.690E+01	1.043E+02	1.115E+01	0.778
		252.40		-7.805E-01	5.630E+00	9.013E+00	3.900E+00	-0.087
		290.80		-4.760E+00	2.798E+01	4.068E+01	6.419E+00	-0.117
		411.60		1.027E+01	1.543E+01	2.593E+01	4.295E+00	0.396
		444.90		-1.154E+01	1.237E+01	1.893E+01	2.598E+00	-0.610
		473.00		-4.385E-01	2.074E+00	3.123E+00	4.417E-01	-0.140
		543.00		-9.758E+00	1.949E+01	3.156E+01	4.976E+00	-0.309
		603.60		-8.334E+00	1.637E+01	2.231E+01	3.175E+00	-0.373
		685.20	*	2.495E-01	1.716E+00	2.832E+00	3.809E-01	0.088

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
XE-127		698.50		-1.516E+01	1.848E+01	2.837E+01	4.936E+00	-0.534
		722.20		4.601E+00	4.003E+01	5.640E+01	7.546E+00	0.082
		783.80		2.472E+00	4.628E+00	7.449E+00	1.087E+00	0.332
		57.60		-4.034E+00	4.901E+00	7.899E+00	5.673E-01	-0.511
		145.22		-7.990E-02	6.732E-01	1.105E+00	9.887E-02	-0.072
		172.10		-2.775E-03	1.120E-01	1.862E-01	1.863E-02	-0.015
I-131		202.84	*	-3.495E-02	4.672E-02	7.160E-02	7.937E-03	-0.488
		374.96		9.549E-02	1.775E-01	3.004E-01	3.059E-02	0.318
		80.18		-1.114E+00	4.708E+00	6.788E+00	5.919E-01	-0.164
		284.30		7.176E-02	1.578E+00	2.527E+00	3.574E-01	0.028
		364.48	*	1.333E-01	1.200E-01	2.075E-01	2.302E-02	0.643
		636.97		-2.815E-01	1.605E+00	2.617E+00	2.851E-01	-0.108
TE-132		722.89		9.245E-01	8.023E+00	1.130E+01	1.226E+00	0.082
		49.72		-2.980E+01	2.210E+01	3.477E+01	3.783E+00	-0.857
		111.76		6.051E+00	4.218E+01	6.578E+01	7.314E+00	0.092
		116.30		-8.657E-01	3.645E+01	5.793E+01	6.415E+00	-0.015
BA-133		228.16	*	7.106E-01	9.546E-01	1.584E+00	2.869E-01	0.449
		53.15		-1.269E-01	2.839E+00	4.732E+00	3.590E-01	-0.027
		79.62		4.884E-01	1.134E+00	1.684E+00	2.562E-01	0.290
		81.00		-8.171E-02	8.861E-02	1.221E-01	1.946E-02	-0.669
		276.40		6.996E-01	3.974E-01	6.100E-01	1.104E-01	1.147
		302.84		-1.011E-01	1.326E-01	2.142E-01	3.572E-02	-0.472
I-133		356.01	*	4.889E-03	4.092E-02	5.940E-02	8.876E-03	0.082
		383.85		-2.794E-01	2.653E-01	4.092E-01	5.475E-02	-0.683
	+	510.53		5.966E+00	2.653E-01	Half-Life	too short	
		529.87	*	-2.406E-03	2.653E-01	Half-Life	too short	
		706.58		-1.487E+00	2.653E-01	Half-Life	too short	
		856.28		-1.429E+00	2.653E-01	Half-Life	too short	
CS-134		875.33		2.679E-01	2.653E-01	Half-Life	too short	
		1236.41		4.312E+00	2.653E-01	Half-Life	too short	
		1298.22		4.566E-01	2.653E-01	Half-Life	too short	
		475.35		5.670E-01	1.612E+00	2.659E+00	2.615E-01	0.213
		563.23		2.901E-01	2.943E-01	5.149E-01	5.312E-02	0.563
		569.32		4.027E-02	1.775E-01	2.875E-01	2.981E-02	0.140
I-135		604.70		-1.453E-02	3.589E-02	4.949E-02	5.152E-03	-0.294
	+	795.84	*	1.493E-01	5.789E-02	8.167E-02	9.039E-03	1.828
		801.93		-1.622E-01	3.896E-01	5.369E-01	5.945E-02	-0.302
		1038.57		-1.274E-01	3.561E+00	5.804E+00	5.746E-01	-0.022
		1167.94		-7.581E-01	2.201E+00	3.593E+00	2.919E-01	-0.211
		1365.15		3.311E-01	1.123E+00	1.865E+00	1.737E-01	0.178
CS-135		268.24	*	2.379E-01	1.702E-01	2.531E-01	3.661E-02	0.940
I-135		288.45		-3.332E+11	1.702E-01	Half-Life	too short	
		417.63		3.017E+11	1.702E-01	Half-Life	too short	
		546.56		6.257E+11	1.702E-01	Half-Life	too short	
		836.80		3.068E+11	1.702E-01	Half-Life	too short	
		1038.76		1.440E+11	1.702E-01	Half-Life	too short	
		1124.00		7.359E+12	1.702E-01	Half-Life	too short	
		1131.51		-2.885E+11	1.702E-01	Half-Life	too short	
		1260.41	*	3.169E+11	1.702E-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-136		1457.56		1.037E+14	1.702E-01	Half-Life	too short	
		1678.03		-3.724E+11	1.702E-01	Half-Life	too short	
		1706.46		1.529E+11	1.702E-01	Half-Life	too short	
		1791.20		-1.884E+11	1.702E-01	Half-Life	too short	
		66.91		-3.394E-01	7.847E-01	1.132E+00	1.683E-01	-0.300
	+	86.29		4.294E+00	1.272E+00	1.904E+00	2.535E-01	2.255
		153.22		2.438E-01	6.421E-01	1.090E+00	1.113E-01	0.224
		163.89		7.945E-01	1.036E+00	1.770E+00	1.885E-01	0.449
		176.55		1.069E-01	3.726E-01	6.123E-01	6.480E-02	0.175
		273.65		-1.076E+00	5.937E-01	7.126E-01	1.008E-01	-1.511
		340.57		5.260E-01	1.660E-01	2.609E-01	3.126E-02	2.017
		818.51		6.390E-02	7.146E-02	1.253E-01	1.389E-02	0.510
		1048.07	*	5.564E-02	1.080E-01	1.823E-01	1.844E-02	0.305
		1235.34		1.335E+00	6.090E-01	1.092E+00	1.277E-01	1.222
BA-137M		661.65	*	3.160E-03	3.043E-02	5.028E-02	5.302E-03	0.063
CS-137		661.65	*	3.340E-03	3.217E-02	5.315E-02	5.612E-03	0.063
CE-139		165.85	*	-2.169E-02	2.650E-02	4.275E-02	4.192E-03	-0.507
BA-140		162.64		5.142E-01	7.326E-01	1.250E+00	1.264E-01	0.411
		304.84		-2.169E+00	1.433E+00	1.997E+00	5.942E-01	-1.086
		423.70		5.076E-01	1.905E+00	3.142E+00	1.026E+00	0.162
LA-140		537.32	*	-5.749E-02	2.461E-01	4.053E-01	1.361E-01	-0.142
	+	328.77		6.881E-01	4.510E-01	5.225E-01	6.600E-02	1.317
		432.53		7.665E-01	2.036E+00	3.384E+00	3.371E-01	0.227
		487.03		5.727E-02	1.318E-01	2.178E-01	2.258E-02	0.263
		751.79		-2.023E-01	1.754E+00	2.825E+00	3.286E-01	-0.072
		815.85		1.228E-03	3.098E-01	5.183E-01	6.146E-02	0.002
		867.82		1.925E-01	1.525E+00	2.195E+00	2.530E-01	0.088
		919.63		1.386E-02	3.034E+00	4.286E+00	5.439E-01	0.003
		925.24		-1.790E-01	1.075E+00	1.756E+00	2.007E-01	-0.102
		1596.49	*	-1.018E-01	8.031E-02	1.144E-01	1.003E-02	-0.890
CE-141		145.44	*	-3.578E-03	5.879E-02	9.877E-02	8.991E-03	-0.036
CE-143		57.37		-1.284E-03	5.879E-02	Half-Life	too short	
		231.56		-7.676E-03	5.879E-02	Half-Life	too short	
		293.26	*	1.690E-03	5.879E-02	Half-Life	too short	
	+	350.59		6.367E-02	5.879E-02	Half-Life	too short	
		490.36		-6.218E-03	5.879E-02	Half-Life	too short	
		664.57		1.516E-03	5.879E-02	Half-Life	too short	
		721.93		3.083E-04	5.879E-02	Half-Life	too short	
CE-144		80.11		-4.506E-01	1.871E+00	2.696E+00	2.331E-01	-0.167
		133.54	*	-1.216E-01	1.987E-01	3.037E-01	4.714E-02	-0.400
PM-144		476.78		-1.062E-02	5.779E-02	9.234E-02	9.749E-03	-0.115
		618.01		3.416E-03	2.795E-02	4.552E-02	4.840E-03	0.075
		696.49	*	-1.602E-02	2.983E-02	4.704E-02	5.031E-03	-0.340
		778.57		1.131E-01	2.010E+00	3.260E+00	3.578E-01	0.035
PR-144		696.49	*	-1.086E+00	2.024E+00	3.191E+00	3.411E-01	-0.340
		1489.15		2.862E+00	1.065E+01	1.783E+01	1.588E+00	0.160
PM-146		453.90	*	-2.378E-02	3.938E-02	6.164E-02	7.163E-03	-0.386
		633.02		1.934E-02	1.220E+00	2.013E+00	7.617E-01	0.010
		735.90		-1.622E-03	1.361E-01	2.106E-01	6.179E-02	-0.008

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	+	747.13		5.123E-03	8.275E-02	1.348E-01	2.093E-02	0.038
		91.11		6.241E-01	2.578E-01	4.888E-01	4.830E-02	1.277
		319.41		-1.723E+00	3.263E+00	5.320E+00	6.734E-01	-0.324
		439.89		1.233E+00	5.668E+00	9.336E+00	8.991E-01	0.132
PM-149	*	531.02		6.364E-01	5.517E-01	9.636E-01	1.528E-01	0.660
		285.90		-2.737E+01	1.437E+02	2.271E+02	4.297E+01	-0.121
EU-152		121.78		-1.004E-02	6.929E-02	1.092E-01	1.048E-02	-0.092
		244.69		3.012E-01	3.385E-01	5.006E-01	6.338E-02	0.602
	*	344.27		-1.059E-01	1.084E-01	1.359E-01	1.633E-02	-0.779
		443.98		-5.882E-01	8.621E-01	1.346E+00	1.300E-01	-0.437
		778.89		-1.223E-02	2.327E-01	3.748E-01	4.113E-02	-0.033
		867.32		8.933E-02	8.320E-01	1.196E+00	1.335E-01	0.075
		964.01		2.231E-01	3.392E-01	4.933E-01	5.264E-02	0.452
		1085.78		-2.731E-01	3.651E-01	5.597E-01	5.215E-02	-0.488
		1112.02		2.364E-01	3.196E-01	4.738E-01	4.246E-02	0.499
		1407.95		-6.441E-02	1.713E-01	2.712E-01	2.425E-02	-0.237
GD-153		69.67		3.356E-01	1.506E+00	2.241E+00	1.740E-01	0.150
		83.37		2.227E+01	1.463E+01	2.073E+01	1.860E+00	1.074
	*	97.43		-1.391E-02	7.928E-02	1.128E-01	9.919E-03	-0.123
		103.18		-1.074E-01	9.603E-02	1.466E-01	1.253E-02	-0.732
EU-154		123.07		1.178E-02	4.944E-02	7.904E-02	8.768E-03	0.149
		247.94		4.172E-02	3.742E-01	5.320E-01	7.906E-02	0.078
		591.81		-5.160E-02	5.463E-01	8.815E-01	1.146E-01	-0.059
		723.30		1.879E-02	1.780E-01	2.504E-01	2.888E-02	0.075
		756.87		2.977E-01	7.462E-01	1.236E+00	1.695E-01	0.241
		873.19		7.675E-02	2.820E-01	4.379E-01	6.200E-02	0.175
		996.32		-9.781E-02	3.357E-01	5.391E-01	1.007E-01	-0.181
		1004.76		-5.706E-02	2.033E-01	3.270E-01	4.222E-02	-0.174
	*	1274.45		-6.765E-02	1.118E-01	1.767E-01	1.997E-02	-0.383
		48.70		-1.355E+00	1.904E+00	3.108E+00	2.531E-01	-0.436
EU-155		60.01		3.396E+00	4.165E+00	6.439E+00	4.573E-01	0.527
		86.54		3.615E-01	1.015E-01	1.624E-01	1.528E-02	2.225
	*	105.31		8.658E-02	9.907E-02	1.635E-01	1.404E-02	0.529
		86.79		9.814E-01	2.753E-01	4.393E-01	4.109E-02	2.234
TB-160	+	197.04		3.290E-01	5.737E-01	9.249E-01	1.006E-01	0.356
		215.65		2.541E-01	7.426E-01	1.141E+00	1.318E-01	0.223
		298.57		1.644E-01	1.169E-01	1.815E-01	2.433E-02	0.906
		879.36		-2.762E-02	1.266E-01	2.071E-01	2.316E-02	-0.133
	*	962.29		5.908E-01	5.942E-01	8.976E-01	9.593E-02	0.658
		966.15		1.320E+00	3.036E-01	4.904E-01	5.223E-02	2.691
		1177.93		-1.627E-01	3.325E-01	5.374E-01	4.336E-02	-0.303
		1271.85		6.501E-02	6.300E-01	1.051E+00	9.029E-02	0.062
HO-166M		80.57		-7.827E-02	2.379E-01	3.412E-01	2.965E-02	-0.229
		184.41		7.373E-02	3.906E-02	6.163E-02	6.425E-03	1.196
		280.46		-6.746E-02	8.190E-02	1.252E-01	1.748E-02	-0.539
		410.95		2.802E-01	2.205E-01	3.807E-01	3.593E-02	0.736
	*	711.68		-2.342E-03	5.180E-02	8.422E-02	9.054E-03	-0.028
		752.31		4.885E-02	2.570E-01	4.216E-01	4.592E-02	0.116
		810.29		-2.436E-02	4.982E-02	8.063E-02	8.914E-03	-0.302

---- 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		-2.003E+00	2.394E+01	3.991E+01	3.113E+00	-0.050
		52.39		2.837E+00	1.248E+01	2.102E+01	1.613E+00	0.135
		59.40		9.211E+00	2.261E+01	3.436E+01	2.429E+00	0.268
		66.72	*	-1.260E+01	2.598E+01	3.743E+01	2.828E+00	-0.337
LU-176	+	88.36		7.114E-01	1.996E-01	3.277E-01	3.099E-02	2.171
		201.83		-1.613E-02	2.698E-02	4.328E-02	4.781E-03	-0.373
		306.84	*	1.288E-02	2.179E-02	3.739E-02	4.905E-03	0.345
		401.10		5.361E+00	5.956E+00	1.017E+01	9.532E-01	0.527
LU-177		112.95		-1.681E+00	1.956E+00	2.926E+00	2.433E-01	-0.574
	+	208.36	*	3.338E+00	1.868E+00	2.140E+00	2.416E-01	1.560
LU-177M		52.97		4.587E-01	1.283E+00	2.169E+00	1.650E-01	0.211
		54.07		-3.074E-01	6.998E-01	1.129E+00	8.455E-02	-0.272
		61.30		1.770E+00	1.272E+00	2.004E+00	1.442E-01	0.883
		121.62		-9.215E-02	3.566E-01	5.593E-01	4.607E-02	-0.165
		147.16		-3.533E-01	6.003E-01	9.889E-01	8.917E-02	-0.357
		171.86		-9.374E-02	4.369E-01	7.210E-01	7.210E-02	-0.130
		218.09		9.926E-02	8.029E-01	1.317E+00	1.535E-01	0.075
		268.79		1.908E+00	8.909E-01	1.347E+00	1.831E-01	1.417
		319.02		-1.145E-01	2.297E-01	3.751E-01	4.753E-02	-0.305
		367.43		-4.457E-01	8.099E-01	1.301E+00	1.374E-01	-0.343
		413.65	*	-1.890E-01	1.639E-01	2.511E-01	2.375E-02	-0.753
HF-181		56.28		1.371E-01	7.468E-01	1.254E+00	9.135E-02	0.109
		57.53		-2.768E-01	4.087E-01	6.628E-01	4.764E-02	-0.418
		65.20		-4.579E-01	8.791E-01	1.266E+00	9.437E-02	-0.362
		133.02		-3.792E-02	6.839E-02	9.959E-02	8.489E-03	-0.381
		136.25		4.081E-02	4.204E-01	7.130E-01	6.151E-02	0.057
		345.85		-6.126E-02	2.118E-01	2.821E-01	3.262E-02	-0.217
		482.03	*	-1.539E-02	3.748E-02	5.895E-02	5.819E-03	-0.261
W-181		56.28		5.290E-02	2.869E-01	4.818E-01	3.510E-02	0.110
		57.53		-1.064E-01	1.571E-01	2.548E-01	1.832E-02	-0.417
		65.20	*	-1.747E-01	3.353E-01	4.829E-01	3.600E-02	-0.362
TA-182		67.75		-5.566E-02	9.693E-02	1.480E-01	1.129E-02	-0.376
		100.10		1.450E-01	1.579E-01	2.621E-01	2.271E-02	0.553
		152.43		6.277E-02	3.028E-01	5.114E-01	4.719E-02	0.123
		222.10		8.143E-03	3.295E-01	5.379E-01	6.347E-02	0.015
		1001.68		1.155E+00	1.931E+00	3.277E+00	3.377E-01	0.352
	+	1121.28		5.880E-01	1.939E-01	2.873E-01	2.537E-02	2.046
		1189.05		-2.345E-02	2.886E-01	4.786E-01	3.892E-02	-0.049
		1221.42	*	4.492E-02	1.709E-01	2.886E-01	2.400E-02	0.156
		1230.97		-6.669E-01	4.595E-01	6.939E-01	5.807E-02	-0.961
RE-183		57.98		-1.545E-01	1.576E-01	2.521E-01	1.804E-02	-0.613
		59.32		3.875E-02	9.450E-02	1.436E-01	1.016E-02	0.270
		67.20		-9.048E-02	1.870E-01	2.694E-01	2.044E-02	-0.336
		162.32	*	5.052E-02	1.005E-01	1.705E-01	1.645E-02	0.296
	+	208.81		2.547E+00	1.425E+00	1.647E+00	1.862E-01	1.546
		291.72		-2.133E-01	9.230E-01	1.337E+00	1.821E-01	-0.160
RE-184		57.98		-5.635E-01	5.748E-01	9.196E-01	6.581E-02	-0.613
		59.32		1.412E-01	3.444E-01	5.235E-01	3.703E-02	0.270
		67.20		-3.299E-01	6.820E-01	9.823E-01	7.455E-02	-0.336

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
OS-185		161.27		-3.162E-01	3.249E-01	5.221E-01	5.013E-02	-0.606
		216.55		4.488E-02	2.474E-01	4.070E-01	4.718E-02	0.110
		252.85	*	-2.663E-02	2.207E-01	3.541E-01	4.595E-02	-0.075
		318.01		-5.721E-02	3.995E-01	6.645E-01	8.446E-02	-0.086
		792.07		8.063E-01	1.100E+00	1.609E+00	1.771E-01	0.501
		903.28		4.791E-01	1.030E+00	1.520E+00	1.697E-01	0.315
		920.93		5.572E-04	4.348E-01	6.367E-01	7.026E-02	0.001
		59.72		1.648E-01	2.498E-01	3.839E-01	2.718E-02	0.429
		61.14		1.731E-01	1.399E-01	2.194E-01	1.576E-02	0.789
		69.30		4.636E-02	2.706E-01	4.019E-01	3.109E-02	0.115
		592.07		4.960E-02	2.182E+00	3.624E+00	3.752E-01	0.014
		646.12	*	8.428E-03	3.747E-02	6.248E-02	6.566E-03	0.135
		717.42		-8.730E-02	7.852E-01	1.270E+00	1.368E-01	-0.069
		874.81		3.002E-01	5.294E-01	8.949E-01	1.000E-01	0.335
RE-188		880.27		-3.015E-01	7.260E-01	1.173E+00	1.311E-01	-0.257
		155.03	*	-1.551E-01	1.595E-01	2.574E-01	2.403E-02	-0.603
		477.96		-7.521E-01	2.677E+00	4.250E+00	4.186E-01	-0.177
		633.10		-2.020E-01	2.519E+00	4.134E+00	4.330E-01	-0.049
W-188	+	63.58		5.079E+01	6.211E+01	7.640E+01	5.613E+00	0.665
		227.08		4.256E+00	1.233E+01	2.033E+01	2.437E+00	0.209
IR-192		290.67	*	-1.224E+00	7.186E+00	1.045E+01	1.427E+00	-0.117
	+	295.96		8.863E-01	1.976E-01	2.429E-01	3.286E-02	3.649
		308.46		5.269E-03	8.581E-02	1.444E-01	1.890E-02	0.036
		316.51	*	1.005E-02	3.131E-02	5.311E-02	6.788E-03	0.189
		468.07		1.266E-02	6.659E-02	9.446E-02	9.772E-03	0.134
		604.41		-1.377E-01	4.820E-01	6.707E-01	9.560E-02	-0.205
AU-195		612.46		3.709E+00	9.247E-01	1.488E+00	1.712E-01	2.492
		65.12		-5.303E-02	1.541E-01	2.238E-01	1.667E-02	-0.237
		66.83		-3.927E-02	8.636E-02	1.246E-01	9.425E-03	-0.315
	+	75.70		1.089E+00	2.284E-01	3.822E-01	3.149E-02	2.850
		98.88	*	1.275E-01	2.019E-01	3.321E-01	2.897E-02	0.384
	+	129.76		3.203E+00	3.112E+00	4.614E+00	3.888E-01	0.694
TL-200		367.94	*	-9.474E-04	3.112E+00	Half-Life	too short	
		579.30		1.120E-02	3.112E+00	Half-Life	too short	
		828.27		-9.736E-04	3.112E+00	Half-Life	too short	
		1205.75		1.309E-03	3.112E+00	Half-Life	too short	
TL-201		68.90		3.970E-01	6.458E+00	9.550E+00	7.360E-01	0.042
		70.82		7.213E-01	3.624E+00	5.380E+00	4.221E-01	0.134
		80.30		-1.737E+00	6.573E+00	9.463E+00	8.197E-01	-0.184
		135.34		2.452E+01	3.344E+01	5.781E+01	4.969E+00	0.424
TL-202		167.43	*	3.022E+00	9.138E+00	1.540E+01	1.518E+00	0.196
		68.90		2.644E-02	4.300E-01	6.360E-01	4.901E-02	0.042
		70.82		4.790E-02	2.407E-01	3.573E-01	2.803E-02	0.134
		80.30		-1.154E-01	4.367E-01	6.286E-01	5.445E-02	-0.184
HG-203		439.56	*	1.787E-02	6.679E-02	1.103E-01	1.062E-02	0.162
		70.83		1.935E-01	9.693E-01	1.439E+00	1.889E-01	0.134
		72.87		1.581E+00	5.640E-01	9.408E-01	1.205E-01	1.680
		82.60		4.780E-01	1.114E+00	1.510E+00	2.102E-01	0.316
		279.20	*	3.675E-02	4.098E-02	6.755E-02	9.560E-03	0.544

---- 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		4.118E-01	1.529E-01	2.654E-01	2.123E-02	1.552
		74.97		6.003E-01	1.258E-01	1.904E-01	1.556E-02	3.154
		84.90		2.209E-01	1.745E-01	2.639E-01	2.412E-02	0.837
		569.67		8.050E-03	2.766E-02	4.495E-02	4.617E-03	0.179
		1063.62	*	-4.173E-03	4.932E-02	7.993E-02	7.674E-03	-0.052
TL-207		1770.23		3.884E-01	4.907E-01	7.754E-01	6.445E-02	0.501
		81.07		-1.838E-01	1.939E-01	2.690E-01	2.351E-02	-0.683
		83.78		1.341E-01	1.163E-01	1.753E-01	1.581E-02	0.765
		94.90		3.875E-01	2.224E-01	3.419E-01	3.057E-02	1.133
		122.32		1.991E-01	1.652E+00	2.631E+00	2.341E-01	0.076
		144.24		8.071E-03	6.380E-01	1.053E+00	1.042E-01	0.008
		154.21		-9.200E-02	3.525E-01	5.855E-01	5.914E-02	-0.157
		269.46		4.472E-01	2.674E-01	3.203E-01	4.399E-02	1.396
		323.87	*	2.588E-01	6.440E-01	9.573E-01	1.902E-01	0.270
		338.28		5.684E+00	1.840E+00	2.133E+00	3.155E-01	2.665
PO-209		445.03		-2.002E+00	2.097E+00	3.207E+00	4.121E-01	-0.624
		260.50		-1.508E+00	9.411E+00	1.504E+01	1.996E+00	-0.100
		262.80		7.119E+00	2.539E+01	4.130E+01	5.519E+00	0.172
		896.60	*	-3.707E+00	6.729E+00	1.073E+01	1.202E+00	-0.345
		46.50	*	2.488E+00	2.869E+00	4.883E+00	4.537E-01	0.509
PB-210		46.50	*	2.488E+00	2.869E+00	4.883E+00	4.537E-01	0.509
PO-210		46.50	*	2.488E+00	2.867E+00	4.883E+00	4.106E-01	0.509
PB-211		404.84	*	-1.193E+00	1.148E+00	1.330E+00	8.350E-01	-0.897
BI-212	+	427.08		-8.060E-01	1.906E+00	2.932E+00	1.826E+00	-0.275
		831.96		1.661E-02	1.090E+00	1.820E+00	1.148E+00	0.009
		727.18	*	1.319E+00	4.133E-01	5.730E-01	6.844E-02	2.302
		785.46		1.468E+00	1.686E+00	2.609E+00	2.867E-01	0.563
		1620.62		1.971E+00	1.057E+00	2.062E+00	1.798E-01	0.955
PO-215		81.07		-1.838E-01	1.939E-01	2.690E-01	2.351E-02	-0.683
		83.78		1.341E-01	1.163E-01	1.753E-01	1.581E-02	0.765
		94.90		3.875E-01	2.224E-01	3.419E-01	3.057E-02	1.133
		122.32		1.991E-01	1.652E+00	2.631E+00	2.341E-01	0.076
		144.24		8.071E-03	6.380E-01	1.053E+00	1.042E-01	0.008
		154.21		-9.200E-02	3.525E-01	5.855E-01	5.914E-02	-0.157
		269.46		4.472E-01	2.674E-01	3.203E-01	4.399E-02	1.396
		323.87	*	2.588E-01	6.440E-01	9.573E-01	1.902E-01	0.270
		338.28		5.684E+00	1.840E+00	2.133E+00	3.155E-01	2.665
		445.03		-2.002E+00	2.097E+00	3.207E+00	4.121E-01	-0.624
RN-219	+	271.23		5.738E-01	3.445E-01	4.146E-01	6.143E-02	1.384
		401.81	*	3.611E-01	3.706E-01	6.302E-01	9.750E-02	0.573
RN-220		549.76	*	-1.112E+01	2.269E+01	3.681E+01	3.752E+00	-0.302
RA-223		81.07		-1.838E-01	1.939E-01	2.690E-01	2.351E-02	-0.683
		83.78		1.341E-01	1.163E-01	1.753E-01	1.581E-02	0.765
		94.90		3.875E-01	2.224E-01	3.419E-01	3.057E-02	1.133
		122.32		1.991E-01	1.652E+00	2.631E+00	2.341E-01	0.076
		144.24		8.071E-03	6.380E-01	1.053E+00	1.042E-01	0.008
		154.21		-9.200E-02	3.525E-01	5.855E-01	5.914E-02	-0.157
		269.46		4.472E-01	2.674E-01	3.203E-01	4.399E-02	1.396
		323.87	*	2.588E-01	6.440E-01	9.573E-01	1.902E-01	0.270

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227	+	338.28	5.684E+00	1.840E+00	2.133E+00	3.155E-01	2.665
		445.03	-2.002E+00	2.097E+00	3.207E+00	4.121E-01	-0.624
		79.80	2.892E-01	1.426E+00	2.098E+00	4.511E-01	0.138
		236.00	9.926E-01	3.050E-01	4.396E-01	6.632E-02	2.258
		256.20 *	7.562E-02	3.630E-01	5.898E-01	1.076E-01	0.128
		286.10	1.234E-01	1.376E+00	2.206E+00	3.760E-01	0.056
		299.80	2.883E+00	1.527E+00	2.300E+00	4.658E-01	1.253
TH-227		304.40	-3.696E+00	1.890E+00	2.640E+00	5.537E-01	-1.400
		334.20	6.106E-01	3.268E+00	3.251E+00	6.882E-01	0.188
		79.80	2.892E-01	1.426E+00	2.098E+00	4.569E-01	0.138
	+	94.00	5.739E+00	2.597E+00	3.347E+00	7.340E-01	1.715
		236.00	9.926E-01	3.005E-01	4.396E-01	6.223E-02	2.258
		256.20 *	7.562E-02	3.630E-01	5.898E-01	1.214E-01	0.128
		286.10	1.234E-01	1.382E+00	2.206E+00	2.227E+00	0.056
TH-229		299.80	2.883E+00	1.527E+00	2.300E+00	4.658E-01	1.253
		304.40	-3.696E+00	1.890E+00	2.640E+00	5.537E-01	-1.400
		334.20	6.106E-01	3.268E+00	3.251E+00	6.882E-01	0.188
		85.43	3.008E-01	1.786E-01	2.726E-01	2.507E-02	1.104
	+	88.47	4.095E-01	1.149E-01	1.878E-01	1.774E-02	2.180
		100.00	1.533E-01	1.628E-01	2.704E-01	2.344E-02	0.567
		193.63 *	-3.704E-01	4.759E-01	7.594E-01	8.165E-02	-0.488
PA-231	+	210.97	1.960E+00	1.097E+00	1.229E+00	1.399E-01	1.595
		283.67 *	-6.681E-02	1.386E+00	2.210E+00	4.126E-01	-0.030
		301.29	9.121E-01	5.702E-01	9.136E-01	1.453E-01	0.998
TH-231		81.07	-1.838E-01	1.939E-01	2.690E-01	2.351E-02	-0.683
		83.78	1.341E-01	1.163E-01	1.753E-01	1.581E-02	0.765
		94.90	3.875E-01	2.224E-01	3.419E-01	3.057E-02	1.133
		122.32	1.991E-01	1.652E+00	2.631E+00	2.341E-01	0.076
		144.24	8.071E-03	6.380E-01	1.053E+00	1.042E-01	0.008
		154.21	-9.200E-02	3.525E-01	5.855E-01	5.914E-02	-0.157
	+	269.46	4.472E-01	2.674E-01	3.203E-01	4.399E-02	1.396
U-231		323.87 *	2.588E-01	6.440E-01	9.573E-01	1.902E-01	0.270
	+	338.28	5.684E+00	1.840E+00	2.133E+00	3.155E-01	2.665
		445.03	-2.002E+00	2.097E+00	3.207E+00	4.121E-01	-0.624
		84.21	7.660E+00	6.627E+00	9.992E+00	9.058E-01	0.767
	+	92.29	7.574E+00	3.074E+00	4.696E+00	4.282E-01	1.613
		95.87 *	-2.833E-01	1.397E+00	1.988E+00	1.765E-01	-0.143
		108.00	-4.212E+00	2.631E+00	3.913E+00	3.290E-01	-1.076
PA-233	+	75.28	1.752E+01	4.293E+00	5.729E+00	8.661E-01	3.058
	+	86.59	5.872E+00	2.222E+00	2.642E+00	7.148E-01	2.223
		300.12	7.980E-01	4.241E-01	6.482E-01	1.169E-01	1.231
		311.98 *	-2.626E-02	5.815E-02	9.546E-02	1.251E-02	-0.275
		340.50	2.515E+00	9.328E-01	1.174E+00	2.954E-01	2.142
		398.62	-4.405E-01	1.873E+00	3.035E+00	8.156E-01	-0.145
		415.76	-3.339E-02	1.483E+00	2.424E+00	5.311E-01	-0.014
PA-234	+	63.00	1.447E+00	1.780E+00	2.250E+00	3.333E-01	0.643
		94.67	4.180E-01	1.695E-01	2.585E-01	3.267E-02	1.617
		98.44	6.673E-02	8.934E-02	1.348E-01	7.522E-02	0.495
		99.86	4.166E-01	4.133E-01	6.878E-01	5.967E-02	0.606

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		3.098E-02	1.770E-01	2.843E-01	3.381E-02	0.109
		131.20		-2.049E-02	1.064E-01	1.580E-01	1.338E-02	-0.130
		152.70		1.245E-01	2.896E-01	4.914E-01	8.534E-02	0.253
	+	186.00		4.500E+00	2.333E+00	2.349E+00	7.463E-01	1.916
		226.40		5.095E-02	3.823E-01	6.256E-01	9.754E-02	0.081
		227.20		2.185E-01	4.085E-01	6.774E-01	8.124E-02	0.323
		248.90		-8.649E-01	9.206E-01	1.190E+00	2.898E-01	-0.727
		293.70		4.557E+00	1.216E+00	1.433E+00	2.898E-01	3.180
		369.80		-3.724E-01	7.315E-01	1.170E+00	2.639E-01	-0.318
		568.70		1.251E-01	8.983E-01	1.449E+00	1.487E-01	0.086
		569.50		6.685E-02	2.451E-01	3.980E-01	4.088E-02	0.168
		574.00		3.508E-01	1.319E+00	2.129E+00	2.190E-01	0.165
		699.00		-4.617E-01	6.405E-01	9.897E-01	1.990E-01	-0.467
		706.10		-5.966E-01	9.740E-01	1.469E+00	6.616E-01	-0.406
		733.00		-2.426E-01	3.923E-01	5.079E-01	1.176E-01	-0.478
		742.81		-4.016E-01	1.260E+00	1.955E+00	1.321E+00	-0.205
		796.30		2.407E+00	1.148E+00	1.570E+00	4.381E-01	1.533
		805.60		-1.679E-01	9.377E-01	1.412E+00	4.437E-01	-0.119
		819.60		6.532E-01	1.125E+00	1.898E+00	7.339E-01	0.344
		826.30		-6.421E-01	7.950E-01	1.169E+00	5.295E-01	-0.549
		831.60		1.093E-01	5.593E-01	9.426E-01	2.889E-01	0.116
		876.40		1.169E-02	7.536E-01	1.253E+00	1.291E+00	0.009
		880.51		-7.938E-02	2.577E-01	4.193E-01	4.690E-02	-0.189
		883.24		1.246E-01	2.714E-01	4.413E-01	2.983E-01	0.282
		899.00		5.264E-01	7.733E-01	1.277E+00	5.658E-01	0.412
		925.00		-4.015E-02	1.010E+00	1.665E+00	1.832E-01	-0.024
		926.50		-1.397E-01	1.596E-01	2.407E-01	6.301E-02	-0.581
		946.00	*	-1.981E-01	2.626E-01	4.049E-01	8.047E-02	-0.489
		949.00		1.102E-01	3.764E-01	6.329E-01	6.838E-02	0.174
		980.50		4.136E-01	6.094E-01	1.048E+00	1.102E-01	0.395
		1394.10		-7.715E-01	1.160E+00	1.593E+00	1.038E+00	-0.484
PA-234M		766.42		1.317E+01	1.297E+01	1.907E+01	9.762E+00	0.691
		1001.03	*	8.315E-01	4.373E+00	7.252E+00	8.310E-01	0.115
U-235	+	89.95		2.225E+00	1.128E+00	1.636E+00	5.082E-01	1.360
	+	93.35		1.785E+00	8.671E-01	1.100E+00	3.098E-01	1.623
		105.00		1.325E+00	1.033E+00	1.610E+00	4.799E-01	0.823
		143.76	*	-1.336E-02	1.972E-01	3.247E-01	5.728E-02	-0.041
		163.35		1.613E-01	4.176E-01	7.045E-01	1.380E-01	0.229
	+	185.71		1.667E-01	7.049E-02	8.661E-02	9.069E-03	1.924
		205.31		1.205E-01	5.444E-01	7.812E-01	1.591E-01	0.154
NP-236		94.67		3.201E-01	1.256E-01	1.964E-01	1.759E-02	1.630
		98.44		5.045E-02	6.155E-02	1.019E-01	8.907E-03	0.495
		111.00		2.343E-02	1.338E-01	2.150E-01	1.794E-02	0.109
		160.31	*	-6.511E-02	7.696E-02	1.187E-01	1.135E-02	-0.548
NP-239		99.55		1.800E-01	1.375E-01	2.309E-01	2.006E-02	0.780
		117.00	*	-2.233E-01	1.775E-01	2.662E-01	2.200E-02	-0.839
	+	209.75		1.974E+00	1.105E+00	1.270E+00	1.440E-01	1.554
		228.18		1.607E-01	2.138E-01	3.566E-01	4.290E-02	0.451
		277.60		4.236E-01	1.814E-01	3.027E-01	4.220E-02	1.399

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		1.743E-02	1.612E+00	1.842E+00	2.222E-01	0.009
AM-241		59.54	*	5.276E-02	1.310E-01	1.990E-01	1.556E-02	0.265
CM-243		99.55		1.852E-01	1.416E-01	2.376E-01	2.065E-02	0.780
		103.76	*	1.436E-02	8.614E-02	1.391E-01	1.186E-02	0.103
		117.00		-2.297E-01	1.827E-01	2.739E-01	2.264E-02	-0.839
	+	209.75		1.947E+00	1.089E+00	1.252E+00	1.420E-01	1.554
		228.18		1.624E-01	2.161E-01	3.603E-01	4.335E-02	0.451
		277.60		4.271E-01	1.829E-01	3.052E-01	4.255E-02	1.399
AM-246		798.80		9.793E-02	1.353E-01	1.994E-01	2.199E-02	0.491
		1036.00		1.418E-01	2.690E-01	4.551E-01	4.519E-02	0.312
		1062.04		3.940E-02	2.125E-01	3.507E-01	3.374E-02	0.112
		1078.86	*	-4.026E-02	1.335E-01	2.144E-01	2.017E-02	-0.188
CM-247		278.00		1.455E+00	7.326E-01	1.225E+00	1.710E-01	1.187
		287.40		6.970E-03	1.103E+00	1.761E+00	2.423E-01	0.004
		402.60	*	3.005E-02	3.303E-02	5.640E-02	5.291E-03	0.533
CF-249		252.85		-9.920E-02	8.220E-01	1.319E+00	1.712E-01	-0.075
		333.44		5.828E-03	2.459E-01	2.397E-01	2.900E-02	0.024
		387.95	*	-9.288E-03	3.655E-02	5.942E-02	5.648E-03	-0.156
CF-251		176.60	*	3.770E-02	1.173E-01	1.930E-01	1.960E-02	0.195
		227.00		1.121E-01	3.631E-01	5.978E-01	7.165E-02	0.188
		285.00		-6.910E-02	1.577E+00	2.512E+00	3.475E-01	-0.028

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]G243517007      *
* Acquisition date   : 7-JAN-2010 08:58:43 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 02:00:02.09 Half life ratio : 8.000                  *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date       : 21-DEC-2009 12:00:00 Nuclide Library : SOLID           *
* Sample ID         : G243517007 Analyst initials: MXR1                    *
* Batch Number      : 937069 Sample Quantity : 1.2740E+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 :                                  *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.219E+01	3.269E+00	4.260E-01	0.000E+00
CD-109	3.060E+00	8.412E-01	1.140E+00	0.000E+00
SN-126	3.000E-01	8.247E-02	1.159E-01	0.000E+00
TL-208	4.788E-01	7.982E-02	4.742E-02	0.000E+00
BI-211	3.312E+00	5.249E-01	2.995E-01	0.000E+00
PB-212	1.622E+00	2.314E-01	8.637E-02	0.000E+00
PO-212	1.622E+00	2.314E-01	8.637E-02	0.000E+00
BI-214	9.578E-01	1.696E-01	9.547E-02	0.000E+00
PB-214	1.152E+00	1.919E-01	1.013E-01	0.000E+00
PO-214	1.152E+00	1.919E-01	1.013E-01	0.000E+00
PO-216	1.622E+00	2.314E-01	8.637E-02	0.000E+00
PO-218	1.152E+00	1.919E-01	1.013E-01	0.000E+00
RA-224	3.998E+00	1.228E+00	9.818E-01	0.000E+00
RA-226	9.578E-01	1.696E-01	9.547E-02	0.000E+00
AC-228	1.544E+00	3.411E-01	1.789E-01	0.000E+00
RA-228	1.544E+00	3.411E-01	1.789E-01	0.000E+00
TH-228	1.649E+00	2.353E-01	8.783E-02	0.000E+00
TH-230	9.578E-01	1.696E-01	9.547E-02	0.000E+00
TH-232	1.544E+00	3.411E-01	1.789E-01	0.000E+00
TH-234	1.242E+00	1.500E+00	1.777E+00	0.000E+00
U-234	9.578E-01	1.696E-01	9.547E-02	0.000E+00
NP-237	8.808E-01	3.006E-01	3.538E-01	0.000E+00
U-238	1.242E+00	1.500E+00	1.777E+00	0.000E+00
AM-243	3.344E-01	6.870E-02	7.406E-02	0.000E+00
ANH-511	1.438E-01	5.593E-02	4.043E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	-1.551E-01	2.790E-01	4.517E-01	0.000E+00 NOT IDENT.
NA-22	-2.526E-02	3.915E-02	6.320E-02	0.000E+00 NOT IDENT.

NA-24	0.000E+00	4.895E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	3.522E-03	2.153E-02	3.690E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.247E-02	7.034E-02	0.000E+00	FAIL ABUN
SC-46	-2.147E-02	3.492E-02	5.705E-02	0.000E+00	FAIL ABUN
V-48	-3.739E-02	6.470E-02	1.044E-01	0.000E+00	NOT IDENT.
CR-51	-1.256E-01	3.400E-01	5.679E-01	0.000E+00	NOT IDENT.
MN-52	7.784E-02	2.569E-01	4.408E-01	0.000E+00	NOT IDENT.
MN-54	-1.258E-02	3.342E-02	5.613E-02	0.000E+00	NOT IDENT.
CO-56	-4.697E-02	3.658E-02	5.724E-02	0.000E+00	NOT IDENT.
CO-57	2.452E-03	2.350E-02	3.960E-02	0.000E+00	NOT IDENT.
CO-58	-1.393E-02	3.261E-02	5.459E-02	0.000E+00	NOT IDENT.
FE-59	-5.124E-02	8.215E-02	1.304E-01	0.000E+00	NOT IDENT.
CO-60	-1.675E-03	3.160E-02	5.295E-02	0.000E+00	NOT IDENT.
ZN-65	4.819E-02	9.562E-02	1.413E-01	0.000E+00	NOT IDENT.
GE-68	6.186E-01	1.120E+00	1.936E+00	0.000E+00	NOT IDENT.
AS-73	-2.549E-01	6.680E-01	1.158E+00	0.000E+00	NOT IDENT.
AS-74	-6.323E-02	8.545E-02	1.402E-01	0.000E+00	NOT IDENT.
SE-75	-2.828E-02	4.786E-02	6.751E-02	0.000E+00	NOT IDENT.
BR-77	-2.035E+00	1.494E+01	2.460E+01	0.000E+00	FAIL ABUN
SR-82	-2.720E-01	3.616E-01	5.712E-01	0.000E+00	NOT IDENT.
RB-83	-8.174E-03	5.999E-02	9.882E-02	0.000E+00	NOT IDENT.
RB-84	-2.577E-03	6.405E-02	1.091E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.862E+00	1.307E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.106E-02	6.825E-02	0.000E+00	NOT IDENT.
RB-86	5.192E-01	7.547E-01	1.315E+00	0.000E+00	NOT IDENT.
Y-88	-1.935E-02	2.785E-02	4.181E-02	0.000E+00	NOT IDENT.
ZR-88	2.081E-02	2.770E-02	4.897E-02	0.000E+00	NOT IDENT.
Y-91	2.822E+00	1.716E+01	2.949E+01	0.000E+00	NOT IDENT.
NB-94	4.381E-02	2.887E-02	5.221E-02	0.000E+00	NOT IDENT.
NB-95	3.809E-02	4.195E-02	7.299E-02	0.000E+00	NOT IDENT.
NB-95M	1.960E-01	1.322E-01	2.078E-01	0.000E+00	NOT IDENT.
ZR-95	4.561E-02	6.785E-02	1.175E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	4.511E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.079E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	3.197E+00	1.572E+01	2.665E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.360E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.218E-02	3.242E-02	5.508E-02	0.000E+00	NOT IDENT.
RH-102	1.183E-02	2.426E-02	4.181E-02	0.000E+00	NOT IDENT.
RU-103	1.569E-02	3.638E-02	6.213E-02	0.000E+00	FAIL ABUN
RH-106	2.752E-01	2.714E-01	4.848E-01	0.000E+00	FAIL ABUN
RU-106	2.752E-01	2.700E-01	4.848E-01	0.000E+00	FAIL ABUN
AG-108M	1.547E-02	2.837E-02	4.937E-02	0.000E+00	NOT IDENT.
AG-110M	-2.119E-02	2.876E-02	4.641E-02	0.000E+00	NOT IDENT.
IN-111	-1.028E-01	1.656E+00	2.444E+00	0.000E+00	NOT IDENT.
IN-113M	6.792E-03	4.073E-02	7.027E-02	0.000E+00	NOT IDENT.
SN-113	6.792E-03	4.073E-02	7.027E-02	0.000E+00	NOT IDENT.
IN-114M	6.606E-02	1.833E-01	2.843E-01	0.000E+00	NOT IDENT.
CD-115	-8.003E+00	1.626E+01	2.686E+01	0.000E+00	NOT IDENT.
SN-117M	2.456E-02	5.639E-02	9.632E-02	0.000E+00	NOT IDENT.
SB-122	1.080E+00	2.624E+00	4.624E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.982E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.041E-02	2.684E-02	4.622E-02	0.000E+00	NOT IDENT.
I-124	1.908E-01	8.785E-01	1.316E+00	0.000E+00	NOT IDENT.
SB-124	3.207E-03	6.243E-02	1.059E-01	0.000E+00	FAIL ABUN
SB-125	-3.568E-02	8.061E-02	1.335E-01	0.000E+00	FAIL ABUN
TE-125M	3.409E+00	8.739E+00	1.501E+01	0.000E+00	NOT IDENT.
I-126	-8.727E-02	1.730E-01	2.841E-01	0.000E+00	NOT IDENT.
SB-126	1.905E-01	1.454E-01	2.328E-01	0.000E+00	FAIL ABUN
SB-127	2.495E-01	1.682E+00	2.864E+00	0.000E+00	NOT IDENT.
XE-127	-3.495E-02	4.578E-02	7.375E-02	0.000E+00	NOT IDENT.
I-131	1.333E-01	1.176E-01	2.119E-01	0.000E+00	NOT IDENT.
TE-132	7.106E-01	9.355E-01	1.629E+00	0.000E+00	NOT IDENT.
BA-133	4.889E-03	4.011E-02	6.068E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.115E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.673E-02	8.242E-02	0.000E+00	FAIL ABUN
CS-135	2.379E-01	1.668E-01	2.597E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.159E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.564E-02	1.059E-01	1.832E-01	0.000E+00	FAIL ABUN
BA-137M	3.160E-03	2.983E-02	5.088E-02	0.000E+00	NOT IDENT.
CS-137	3.340E-03	3.153E-02	5.379E-02	0.000E+00	NOT IDENT.
CE-139	-2.169E-02	2.597E-02	4.416E-02	0.000E+00	NOT IDENT.
BA-140	-5.749E-02	2.412E-01	4.115E-01	0.000E+00	NOT IDENT.
LA-140	-1.018E-01	7.870E-02	1.142E-01	0.000E+00	FAIL ABUN
CE-141	-3.578E-03	5.762E-02	1.022E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.458E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.216E-01	1.947E-01	3.147E-01	0.000E+00	NOT IDENT.
PM-144	-1.602E-02	2.924E-02	4.757E-02	0.000E+00	NOT IDENT.
PR-144	-1.086E+00	1.983E+00	3.227E+00	0.000E+00	NOT IDENT.

PM-146	-2.378E-02	3.860E-02	6.274E-02	0.000E+00	NOT IDENT.
ND-147	6.364E-01	5.407E-01	9.785E-01	0.000E+00	FAIL ABUN
PM-149	-2.737E+01	1.408E+02	2.327E+02	0.000E+00	NOT IDENT.
EU-152	-1.059E-01	1.062E-01	1.389E-01	0.000E+00	NOT IDENT.
GD-153	-1.391E-02	7.770E-02	1.174E-01	0.000E+00	NOT IDENT.
EU-154	-6.765E-02	1.095E-01	1.771E-01	0.000E+00	NOT IDENT.
EU-155	8.658E-02	9.709E-02	1.701E-01	0.000E+00	FAIL ABUN
TB-160	-2.762E-02	1.240E-01	2.087E-01	0.000E+00	FAIL ABUN
HO-166M	-2.342E-03	5.077E-02	8.514E-02	0.000E+00	NOT IDENT.
TM-171	-1.260E+01	2.546E+01	3.918E+01	0.000E+00	NOT IDENT.
LU-176	1.288E-02	2.136E-02	3.828E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.830E+00	2.204E+00	0.000E+00	FAIL ABUN
LU-177M	-1.890E-01	1.607E-01	2.559E-01	0.000E+00	NOT IDENT.
HF-181	-1.539E-02	3.674E-02	5.995E-02	0.000E+00	NOT IDENT.
W-181	-1.747E-01	3.286E-01	5.056E-01	0.000E+00	NOT IDENT.
TA-182	4.492E-02	1.675E-01	2.893E-01	0.000E+00	FAIL ABUN
RE-183	5.052E-02	9.845E-02	1.762E-01	0.000E+00	FAIL ABUN
RE-184	-2.663E-02	2.162E-01	3.636E-01	0.000E+00	NOT IDENT.
OS-185	8.428E-03	3.672E-02	6.326E-02	0.000E+00	NOT IDENT.
RE-188	-1.551E-01	1.563E-01	2.662E-01	0.000E+00	NOT IDENT.
W-188	-1.224E+00	7.042E+00	1.071E+01	0.000E+00	FAIL ABUN
IR-192	1.005E-02	3.069E-02	5.435E-02	0.000E+00	FAIL ABUN
AU-195	1.275E-01	1.978E-01	3.457E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.231E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.022E+00	8.955E+00	1.591E+01	0.000E+00	NOT IDENT.
TL-202	1.787E-02	6.546E-02	1.123E-01	0.000E+00	NOT IDENT.
HG-203	3.675E-02	4.016E-02	6.925E-02	0.000E+00	NOT IDENT.
BI-207	-4.173E-03	4.834E-02	8.031E-02	0.000E+00	FAIL ABUN
TL-207	2.588E-01	6.311E-01	9.792E-01	0.000E+00	FAIL ABUN
PO-209	-3.707E+00	6.594E+00	1.081E+01	0.000E+00	NOT IDENT.
BI-210	2.488E+00	2.812E+00	5.137E+00	0.000E+00	NOT IDENT.
PB-210	2.488E+00	2.812E+00	5.137E+00	0.000E+00	NOT IDENT.
PO-210	2.488E+00	2.810E+00	5.137E+00	0.000E+00	NOT IDENT.
PB-211	-1.193E+00	1.125E+00	1.356E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.050E-01	5.791E-01	0.000E+00	FAIL ABUN
PO-215	2.588E-01	6.311E-01	9.792E-01	0.000E+00	FAIL ABUN
RN-219	3.611E-01	3.632E-01	6.426E-01	0.000E+00	FAIL ABUN
RN-220	-1.112E+01	2.223E+01	3.736E+01	0.000E+00	NOT IDENT.
RA-223	2.588E-01	6.311E-01	9.792E-01	0.000E+00	FAIL ABUN
AC-227	7.562E-02	3.557E-01	6.054E-01	0.000E+00	NOT IDENT.
TH-227	7.562E-02	3.558E-01	6.054E-01	0.000E+00	FAIL ABUN
TH-229	-3.704E-01	4.663E-01	7.828E-01	0.000E+00	FAIL ABUN
PA-231	-6.681E-02	1.359E+00	2.265E+00	0.000E+00	NOT IDENT.
TH-231	2.588E-01	6.311E-01	9.792E-01	0.000E+00	FAIL ABUN
U-231	-2.833E-01	1.369E+00	2.070E+00	0.000E+00	FAIL ABUN
PA-233	-2.626E-02	5.699E-02	9.771E-02	0.000E+00	FAIL ABUN
PA-234	-1.981E-01	2.573E-01	4.075E-01	0.000E+00	FAIL ABUN
PA-234M	8.315E-01	4.286E+00	7.293E+00	0.000E+00	NOT IDENT.
U-235	-1.336E-02	1.933E-01	3.361E-01	0.000E+00	FAIL ABUN
NP-236	-6.511E-02	7.542E-02	1.227E-01	0.000E+00	NOT IDENT.
NP-239	-2.233E-01	1.740E-01	2.764E-01	0.000E+00	FAIL ABUN
AM-241	5.276E-02	1.284E-01	2.087E-01	0.000E+00	NOT IDENT.
CM-243	1.436E-02	8.442E-02	1.447E-01	0.000E+00	FAIL ABUN
AM-246	-4.026E-02	1.309E-01	2.154E-01	0.000E+00	NOT IDENT.
CM-247	3.005E-02	3.237E-02	5.751E-02	0.000E+00	NOT IDENT.
CF-249	-9.288E-03	3.582E-02	6.063E-02	0.000E+00	NOT IDENT.
CF-251	3.770E-02	1.150E-01	1.992E-01	0.000E+00	NOT IDENT.

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*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517007.CNF;1
Sample date   : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 08:58:43.
Sample ID     : G243517007 Sample quantity : 1.27400E+02 GRAM
Detector name : GAM22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.09 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID       : 937069 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	2225	10.67*	1.909E+00	3.219E+01	3.219E+01	10.36
CD-109	88.03	282	3.72*	7.481E+00	2.983E+00	3.060E+00	28.05
SN-126	64.28	69	9.60	4.307E+00	4.915E-01	4.915E-01	122.93
	86.94	282	8.90	7.481E+00	1.247E+00	1.247E+00	49.23
	87.57	282	37.00*	7.481E+00	3.000E-01	3.000E-01	28.05
TL-208	277.35	-----	6.80	6.182E+00	-----	Line Not Found	-----
	510.84	210	21.60	4.298E+00	6.659E-01	6.659E-01	40.54
	583.14	538	84.20*	3.931E+00	4.788E-01	4.788E-01	17.01
	860.37	70	12.46	2.921E+00	5.632E-01	5.632E-01	106.43
BI-211	72.87	-----	1.27	5.897E+00	-----	Line Not Found	-----
	351.07	785	12.94*	5.400E+00	3.312E+00	3.312E+00	16.17
PB-212	74.81	461	10.70	6.157E+00	2.063E+00	2.063E+00	22.95
	77.11	776	18.00	6.476E+00	1.962E+00	1.962E+00	14.78
	87.30	282	8.00	7.481E+00	1.387E+00	1.387E+00	29.78
	238.63	1647	44.60*	6.709E+00	1.622E+00	1.622E+00	14.56
	300.09	-----	3.41	5.916E+00	-----	Line Not Found	-----
PO-212	74.81	461	10.70	6.157E+00	2.063E+00	2.063E+00	22.95
	77.11	776	18.00	6.476E+00	1.962E+00	1.962E+00	14.78
	87.30	282	8.00	7.481E+00	1.387E+00	1.387E+00	29.78
	115.19	-----	0.60	8.535E+00	-----	Line Not Found	-----
	238.63	1647	44.60*	6.709E+00	1.622E+00	1.622E+00	14.56
	300.09	-----	3.41	5.916E+00	-----	Line Not Found	-----
BI-214	609.31	574	46.30*	3.811E+00	9.578E-01	9.578E-01	18.07
	1120.29	148	15.10	2.346E+00	1.230E+00	1.230E+00	33.63
	1764.49	116	15.80	1.716E+00	1.260E+00	1.261E+00	33.01
PB-214	74.81	461	6.21	6.157E+00	3.554E+00	3.554E+00	22.23
	77.11	776	10.50	6.476E+00	3.364E+00	3.364E+00	16.63
	87.30	282	4.67	7.481E+00	2.377E+00	2.377E+00	29.09
	241.98	357	7.49	6.666E+00	2.109E+00	2.109E+00	31.83
	295.21	445	19.20	5.969E+00	1.143E+00	1.143E+00	23.13
	351.92	785	37.20*	5.400E+00	1.152E+00	1.152E+00	16.99
PO-214	74.81	461	6.21	6.157E+00	3.554E+00	3.554E+00	22.23

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	776	10.50	6.476E+00	3.364E+00	3.364E+00	16.63
	87.30	282	4.67	7.481E+00	2.377E+00	2.377E+00	29.09
	241.98	357	7.49	6.666E+00	2.109E+00	2.109E+00	31.83
	295.21	445	19.20	5.969E+00	1.143E+00	1.143E+00	23.13
	351.92	785	37.20*	5.400E+00	1.152E+00	1.152E+00	16.99
PO-216	74.81	461	10.70	6.157E+00	2.063E+00	2.063E+00	22.95
	77.11	776	18.00	6.476E+00	1.962E+00	1.962E+00	14.78
	87.30	282	8.00	7.481E+00	1.387E+00	1.387E+00	29.78
	238.63	1647	44.60*	6.709E+00	1.622E+00	1.622E+00	14.56
	300.09	-----	3.41	5.916E+00	-----	Line Not Found	-----
PO-218	74.81	461	6.21	6.157E+00	3.554E+00	3.554E+00	22.23
	77.11	776	10.50	6.476E+00	3.364E+00	3.364E+00	16.63
	87.30	282	4.67	7.481E+00	2.377E+00	2.377E+00	29.09
	241.98	357	7.49	6.666E+00	2.109E+00	2.109E+00	31.83
	295.21	445	19.20	5.969E+00	1.143E+00	1.143E+00	23.13
	351.92	785	37.20*	5.400E+00	1.152E+00	1.152E+00	16.99
RA-224	240.98	357	3.95*	6.666E+00	3.998E+00	3.998E+00	31.33
RA-226	609.31	574	46.30*	3.811E+00	9.578E-01	9.578E-01	18.07
	1120.29	148	15.10	2.346E+00	1.230E+00	1.230E+00	33.63
	1764.49	116	15.80	1.716E+00	1.260E+00	1.261E+00	33.01
AC-228	338.32	291	11.40	5.526E+00	1.361E+00	1.361E+00	50.98
	911.07	405	27.70*	2.788E+00	1.544E+00	1.544E+00	22.53
	969.11	201	16.60	2.649E+00	1.344E+00	1.344E+00	35.37
RA-228	338.32	291	11.40	5.526E+00	1.361E+00	1.361E+00	50.98
	911.07	405	27.70*	2.788E+00	1.544E+00	1.544E+00	22.53
	969.11	201	16.60	2.649E+00	1.344E+00	1.344E+00	35.37
TH-228	74.81	461	10.70	6.157E+00	2.063E+00	2.098E+00	20.99
	77.11	776	18.00	6.476E+00	1.962E+00	1.996E+00	14.78
	87.30	282	8.00	7.481E+00	1.387E+00	1.411E+00	28.05
	238.63	1647	44.60*	6.709E+00	1.622E+00	1.649E+00	14.56
	300.09	-----	3.41	5.916E+00	-----	Line Not Found	-----
TH-230	609.31	574	46.30*	3.811E+00	9.578E-01	9.578E-01	18.07
	1120.29	148	15.10	2.346E+00	1.230E+00	1.230E+00	33.63
	1764.49	116	15.80	1.716E+00	1.260E+00	1.260E+00	33.01
TH-232	338.32	291	11.40	5.526E+00	1.361E+00	1.361E+00	31.15
	911.07	405	27.70*	2.788E+00	1.544E+00	1.544E+00	22.53
	969.11	201	16.60	2.649E+00	1.344E+00	1.344E+00	35.37
TH-234	63.29	69	3.80*	4.307E+00	1.242E+00	1.242E+00	123.31
	92.38	215	5.41	7.870E+00	1.485E+00	1.485E+00	43.59
U-234	609.31	574	46.30*	3.811E+00	9.578E-01	9.578E-01	18.07
	1120.29	148	15.10	2.346E+00	1.230E+00	1.230E+00	33.63
	1764.49	116	15.80	1.716E+00	1.260E+00	1.260E+00	33.01
NP-237	86.50	282	12.60*	7.481E+00	8.808E-01	8.808E-01	34.83
	95.87	-----	2.60	8.032E+00	-----	Line Not Found	-----
U-238	63.29	69	3.80*	4.307E+00	1.242E+00	1.242E+00	123.31
	92.38	215	5.41	7.870E+00	1.485E+00	1.485E+00	40.59
AM-243	74.67	461	66.00*	6.157E+00	3.344E-01	3.344E-01	20.96
	86.72	282	0.34	7.481E+00	3.303E+01	3.303E+01	28.05
	117.66	-----	0.55	8.550E+00	-----	Line Not Found	-----

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	210	100.00*	4.298E+00	1.438E-01	1.438E-01	39.68

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G243517007

Page : 4
Acquisition date : 7-JAN-2010 08:58:43

Total number of lines in spectrum 29
Number of unidentified lines 1
Number of lines tentatively identified by NID 28 96.55%

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	3.219E+01	3.219E+01	0.334E+01	10.36	
CD-109	464.00D	1.03	2.983E+00	3.060E+00	0.858E+00	28.05	
SN-126	1.00E+05Y	1.00	3.000E-01	3.000E-01	0.842E-01	28.05	
TL-208	1.41E+10Y	1.00	4.788E-01	4.788E-01	0.814E-01	17.01	
BI-211	7.04E+08Y	1.00	3.312E+00	3.312E+00	0.536E+00	16.17	
PB-212	1.41E+10Y	1.00	1.622E+00	1.622E+00	0.236E+00	14.56	
PO-212	1.41E+10Y	1.00	1.622E+00	1.622E+00	0.236E+00	14.56	
BI-214	1600.00Y	1.00	9.578E-01	9.578E-01	1.731E-01	18.07	
PB-214	1600.00Y	1.00	1.152E+00	1.152E+00	0.196E+00	16.99	
PO-214	1600.00Y	1.00	1.152E+00	1.152E+00	0.196E+00	16.99	
PO-216	1.41E+10Y	1.00	1.622E+00	1.622E+00	0.236E+00	14.56	
PO-218	1600.00Y	1.00	1.152E+00	1.152E+00	0.196E+00	16.99	
RA-224	1.41E+10Y	1.00	3.998E+00	3.998E+00	1.253E+00	31.33	
RA-226	1600.00Y	1.00	9.578E-01	9.578E-01	1.731E-01	18.07	
AC-228	1.41E+10Y	1.00	1.544E+00	1.544E+00	0.348E+00	22.53	
RA-228	1.41E+10Y	1.00	1.544E+00	1.544E+00	0.348E+00	22.53	
TH-228	1.91Y	1.02	1.622E+00	1.649E+00	0.240E+00	14.56	
TH-230	4.47E+09Y	1.00	9.578E-01	9.578E-01	1.731E-01	18.07	
TH-232	1.41E+10Y	1.00	1.544E+00	1.544E+00	0.348E+00	22.53	
TH-234	4.47E+09Y	1.00	1.242E+00	1.242E+00	1.531E+00	123.31	
U-234	4.47E+09Y	1.00	9.578E-01	9.578E-01	1.731E-01	18.07	
NP-237	2.14E+06Y	1.00	8.808E-01	8.808E-01	3.068E-01	34.83	
U-238	4.47E+09Y	1.00	1.242E+00	1.242E+00	1.531E+00	123.31	
AM-243	7380.00Y	1.00	3.344E-01	3.344E-01	0.701E-01	20.96	
ANH-511	1.00E+09Y	1.00	1.438E-01	1.438E-01	0.571E-01	39.68	

Total Activity : 6.551E+01 6.562E+01

Grand Total Activity : 6.551E+01 6.562E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	89.90	157	366	1.15	180.01	178	13	2.17E-02	40.1	7.68E+00	T
0	128.73	70	398	0.86	257.59	255	7	9.79E-03	96.8	8.53E+00	T
0	186.10	232	481	1.40	372.21	367	11	3.23E-02	41.0	7.60E+00	T
0	209.61	156	442	1.17	419.19	414	11	2.16E-02	54.8	7.18E+00	T
0	270.33	129	344	1.49	540.52	535	11	1.80E-02	58.2	6.27E+00	T
0	328.14	108	271	1.01	656.04	650	12	1.49E-02	64.3	5.62E+00	T
0	463.25	92	210	1.74	926.06	921	13	1.28E-02	68.3	4.58E+00	T
0	727.40	177	102	2.28	1454.06	1447	14	2.45E-02	29.0	3.34E+00	T
0	794.58	120	77	1.89	1588.37	1581	14	1.66E-02	37.2	3.12E+00	T
0	1728.58	65	15	2.94	3456.32	3445	21	8.97E-03	39.5	1.73E+00	

Flags: "T" = Tentatively associated

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*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517007.CNF;1
* Acquisition date   : 7-JAN-2010 08:58:43.   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 02:00:02.09           Half life ratio   : 8.00000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 21-DEC-2009 12:00:00   Nuclide Library   : SOLID
* Sample ID          : G243517007             Analyst initials  : MXR1
* Batch Number       : 937069                 Sample Quantity   : 1.27400E+02 GRAM
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 2-DEC-2009 16:47:28.08MS Isotope      :
* MSD ID              :                          MSD Isotope   :
* LCS ID              : 1032-A                   LCS Isotope        :
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.219E+01	3.336E+00	4.261E-01	3.903E-02	75.550
CD-109	3.060E+00	8.584E-01	1.094E+00	1.038E-01	2.797
SN-126	3.000E-01	8.415E-02	1.112E-01	1.050E-02	2.698
TL-208	4.788E-01	8.145E-02	4.676E-02	5.070E-03	10.240
BI-211	3.312E+00	5.356E-01	2.931E-01	3.420E-02	11.300
PB-212	1.622E+00	2.361E-01	8.405E-02	1.111E-02	19.296
PO-212	1.622E+00	2.361E-01	8.405E-02	1.111E-02	19.296
BI-214	9.578E-01	1.731E-01	9.422E-02	1.095E-02	10.166
PB-214	1.152E+00	1.958E-01	9.919E-02	1.264E-02	11.616
PO-214	1.152E+00	1.958E-01	9.919E-02	1.264E-02	11.616
PO-216	1.622E+00	2.361E-01	8.405E-02	1.111E-02	19.296
PO-218	1.152E+00	1.958E-01	9.919E-02	1.264E-02	11.616
RA-224	3.998E+00	1.253E+00	9.555E-01	1.196E-01	4.184
RA-226	9.578E-01	1.731E-01	9.422E-02	1.095E-02	10.166
AC-228	1.544E+00	3.480E-01	1.776E-01	2.354E-02	8.694
RA-228	1.544E+00	3.480E-01	1.776E-01	2.354E-02	8.694
TH-228	1.649E+00	2.401E-01	8.547E-02	1.129E-02	19.296
TH-230	9.578E-01	1.731E-01	9.422E-02	1.095E-02	10.166

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.544E+00	3.480E-01	1.776E-01	2.354E-02	8.694
TH-234	1.242E+00	1.531E+00	1.697E+00	2.954E-01	0.732
U-234	9.578E-01	1.731E-01	9.422E-02	1.095E-02	10.166
NP-237	8.808E-01	3.068E-01	3.393E-01	7.682E-02	2.596
U-238	1.242E+00	1.531E+00	1.697E+00	2.954E-01	0.732
AM-243	3.344E-01	7.010E-02	7.087E-02	5.776E-03	4.719
ANH-511	1.438E-01	5.707E-02	3.979E-02	3.987E-03	3.615

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.551E-01		2.846E-01	4.441E-01	4.635E-02	-0.349
NA-22	-2.526E-02		3.995E-02	6.307E-02	5.436E-03	-0.400
NA-24	-7.586E+00		2.497E+00	Half-Life too short		
AL-26	3.522E-03		2.196E-02	3.702E-02	3.028E-03	0.095
TI-44	3.621E-01	+	5.354E-02	6.736E-02	5.711E-03	5.376
SC-46	-2.147E-02		3.564E-02	5.662E-02	6.339E-03	-0.379
V-48	-3.739E-02		6.603E-02	1.038E-01	1.088E-02	-0.360
CR-51	-1.256E-01		3.470E-01	5.551E-01	7.187E-02	-0.226
MN-52	7.784E-02		2.621E-01	4.407E-01	3.939E-02	0.177
MN-54	-1.258E-02		3.410E-02	5.566E-02	6.183E-03	-0.226
CO-56	-4.697E-02		3.733E-02	5.677E-02	6.319E-03	-0.827
CO-57	2.452E-03		2.398E-02	3.816E-02	3.147E-03	0.064
CO-58	-1.393E-02		3.328E-02	5.411E-02	5.992E-03	-0.257
FE-59	-5.124E-02		8.382E-02	1.298E-01	1.273E-02	-0.395
CO-60	-1.675E-03		3.224E-02	5.288E-02	4.716E-03	-0.032
ZN-65	4.819E-02		9.757E-02	1.407E-01	1.255E-02	0.342
GE-68	6.186E-01		1.143E+00	1.927E+00	1.817E-01	0.321
AS-73	-2.549E-01		6.817E-01	1.103E+00	8.332E-02	-0.231
AS-74	-6.323E-02		8.719E-02	1.383E-01	1.433E-02	-0.457
SE-75	-2.828E-02		4.884E-02	6.580E-02	8.856E-03	-0.430
BR-77	-2.035E+00		1.524E+01	2.422E+01	2.438E+00	-0.084
SR-82	-2.720E-01		3.690E-01	5.658E-01	6.205E-02	-0.481
RB-83	-8.174E-03		6.121E-02	9.728E-02	9.791E-03	-0.084
RB-84	-2.577E-03		6.536E-02	1.082E-01	1.210E-02	-0.024
KR-85	2.422E+01		8.023E+00	1.286E+01	1.291E+00	1.883
SR-85	1.265E-01		4.190E-02	6.718E-02	6.741E-03	1.883
RB-86	5.192E-01		7.701E-01	1.309E+00	1.235E-01	0.397
Y-88	-1.935E-02		2.842E-02	4.197E-02	3.393E-03	-0.461
ZR-88	2.081E-02		2.827E-02	4.801E-02	4.471E-03	0.433
Y-91	2.822E+00		1.751E+01	2.941E+01	2.418E+00	0.096
NB-94	4.381E-02		2.946E-02	5.163E-02	5.533E-03	0.849
NB-95	3.809E-02		4.280E-02	7.228E-02	7.904E-03	0.527
NB-95M	1.960E-01		1.349E-01	2.021E-01	2.672E-02	0.970
ZR-95	4.561E-02		6.924E-02	1.163E-01	1.350E-02	0.392
NB-97	-3.103E-01		2.301E-01	Half-Life too short		
ZR-97	3.368E+01		5.506E+00	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	3.197E+00		1.604E+01	2.638E+01	4.367E+00	0.121
TC-99M	1.214E+12		2.224E+12	Half-Life too short		
RH-101	2.218E-02		3.309E-02	5.345E-02	5.831E-03	0.415
RH-102	1.183E-02		2.475E-02	4.110E-02	4.042E-03	0.288
RU-103	1.569E-02		3.712E-02	6.113E-02	9.174E-03	0.257
RH-106	2.752E-01		2.769E-01	4.786E-01	6.989E-02	0.575
RU-106	2.752E-01		2.755E-01	4.786E-01	4.999E-02	0.575
AG-108M	1.547E-02		2.895E-02	4.847E-02	4.798E-03	0.319
AG-110M	-2.119E-02		2.935E-02	4.585E-02	4.927E-03	-0.462
IN-111	-1.028E-01		1.690E+00	2.379E+00	3.019E-01	-0.043
IN-113M	6.792E-03		4.156E-02	6.888E-02	6.578E-03	0.099
SN-113	6.792E-03		4.156E-02	6.888E-02	6.578E-03	0.099
IN-114M	6.606E-02		1.870E-01	2.758E-01	2.932E-02	0.240
CD-115	-8.003E+00		1.659E+01	2.645E+01	2.671E+00	-0.303
SN-117M	2.456E-02		5.754E-02	9.317E-02	8.836E-03	0.264
SB-122	1.080E+00		2.678E+00	4.558E+00	4.672E-01	0.237
I-123	3.790E+01		2.542E+01	Half-Life too short		
TE-123M	2.041E-02		2.738E-02	4.471E-02	4.270E-03	0.457
I-124	1.908E-01		8.964E-01	1.298E+00	1.348E-01	0.147
SB-124	3.207E-03		6.371E-02	1.062E-01	9.444E-03	0.030
SB-125	-3.568E-02		8.225E-02	1.310E-01	1.271E-02	-0.272
TE-125M	3.409E+00		8.918E+00	1.445E+01	1.464E+00	0.236
I-126	-8.727E-02		1.765E-01	2.807E-01	2.966E-02	-0.311
SB-126	1.905E-01		1.484E-01	2.303E-01	2.483E-02	0.827
SB-127	2.495E-01		1.716E+00	2.832E+00	3.809E-01	0.088
XE-127	-3.495E-02		4.672E-02	7.160E-02	7.937E-03	-0.488
I-131	1.333E-01		1.200E-01	2.075E-01	2.302E-02	0.643
TE-132	7.106E-01		9.546E-01	1.584E+00	2.869E-01	0.449
BA-133	4.889E-03		4.092E-02	5.940E-02	8.876E-03	0.082
I-133	-2.406E-03		1.079E-02	Half-Life too short		
CS-134	1.493E-01	+	5.789E-02	8.167E-02	9.039E-03	1.828
CS-135	2.379E-01		1.702E-01	2.531E-01	3.661E-02	0.940
I-135	3.169E+11		2.122E+11	Half-Life too short		
CS-136	5.564E-02		1.080E-01	1.823E-01	1.844E-02	0.305
BA-137M	3.160E-03		3.043E-02	5.028E-02	5.302E-03	0.063
CS-137	3.340E-03		3.217E-02	5.315E-02	5.612E-03	0.063
CE-139	-2.169E-02		2.650E-02	4.275E-02	4.192E-03	-0.507
BA-140	-5.749E-02		2.461E-01	4.053E-01	1.361E-01	-0.142
LA-140	-1.018E-01		8.031E-02	1.144E-01	1.003E-02	-0.890
CE-141	-3.578E-03		5.879E-02	9.877E-02	8.991E-03	-0.036
CE-143	1.690E-03		2.785E-04	Half-Life too short		
CE-144	-1.216E-01		1.987E-01	3.037E-01	4.714E-02	-0.400
PM-144	-1.602E-02		2.983E-02	4.704E-02	5.031E-03	-0.340
PR-144	-1.086E+00		2.024E+00	3.191E+00	3.411E-01	-0.340
PM-146	-2.378E-02		3.938E-02	6.164E-02	7.163E-03	-0.386
ND-147	6.364E-01		5.517E-01	9.636E-01	1.528E-01	0.660
PM-149	-2.737E+01		1.437E+02	2.271E+02	4.297E+01	-0.121
EU-152	-1.059E-01		1.084E-01	1.359E-01	1.633E-02	-0.779

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-1.391E-02		7.928E-02	1.128E-01	9.919E-03	-0.123
EU-154	-6.765E-02		1.118E-01	1.767E-01	1.997E-02	-0.383
EU-155	8.658E-02		9.907E-02	1.635E-01	1.404E-02	0.529
TB-160	-2.762E-02		1.266E-01	2.071E-01	2.316E-02	-0.133
HO-166M	-2.342E-03		5.180E-02	8.422E-02	9.054E-03	-0.028
TM-171	-1.260E+01		2.598E+01	3.743E+01	2.828E+00	-0.337
LU-176	1.288E-02		2.179E-02	3.739E-02	4.905E-03	0.345
LU-177	3.338E+00	+	1.868E+00	2.140E+00	2.416E-01	1.560
LU-177M	-1.890E-01		1.639E-01	2.511E-01	2.375E-02	-0.753
HF-181	-1.539E-02		3.748E-02	5.895E-02	5.819E-03	-0.261
W-181	-1.747E-01		3.353E-01	4.829E-01	3.600E-02	-0.362
TA-182	4.492E-02		1.709E-01	2.886E-01	2.400E-02	0.156
RE-183	5.052E-02		1.005E-01	1.705E-01	1.645E-02	0.296
RE-184	-2.663E-02		2.207E-01	3.541E-01	4.595E-02	-0.075
OS-185	8.428E-03		3.747E-02	6.248E-02	6.566E-03	0.135
RE-188	-1.551E-01		1.595E-01	2.574E-01	2.403E-02	-0.603
W-188	-1.224E+00		7.186E+00	1.045E+01	1.427E+00	-0.117
IR-192	1.005E-02		3.131E-02	5.311E-02	6.788E-03	0.189
AU-195	1.275E-01		2.019E-01	3.321E-01	2.897E-02	0.384
TL-200	-9.474E-04		6.279E-04	Half-Life too short		
TL-201	3.022E+00		9.138E+00	1.540E+01	1.518E+00	0.196
TL-202	1.787E-02		6.679E-02	1.103E-01	1.062E-02	0.162
HG-203	3.675E-02		4.098E-02	6.755E-02	9.560E-03	0.544
BI-207	-4.173E-03		4.932E-02	7.993E-02	7.674E-03	-0.052
TL-207	2.588E-01		6.440E-01	9.573E-01	1.902E-01	0.270
PO-209	-3.707E+00		6.729E+00	1.073E+01	1.202E+00	-0.345
BI-210	2.488E+00		2.869E+00	4.883E+00	4.537E-01	0.509
PB-210	2.488E+00		2.869E+00	4.883E+00	4.537E-01	0.509
PO-210	2.488E+00		2.867E+00	4.883E+00	4.106E-01	0.509
PB-211	-1.193E+00		1.148E+00	1.330E+00	8.350E-01	-0.897
BI-212	1.319E+00	+	4.133E-01	5.730E-01	6.844E-02	2.302
PO-215	2.588E-01		6.440E-01	9.573E-01	1.902E-01	0.270
RN-219	3.611E-01		3.706E-01	6.302E-01	9.750E-02	0.573
RN-220	-1.112E+01		2.269E+01	3.681E+01	3.752E+00	-0.302
RA-223	2.588E-01		6.440E-01	9.573E-01	1.902E-01	0.270
AC-227	7.562E-02		3.630E-01	5.898E-01	1.076E-01	0.128
TH-227	7.562E-02		3.630E-01	5.898E-01	1.214E-01	0.128
TH-229	-3.704E-01		4.759E-01	7.594E-01	8.165E-02	-0.488
PA-231	-6.681E-02		1.386E+00	2.210E+00	4.126E-01	-0.030
TH-231	2.588E-01		6.440E-01	9.573E-01	1.902E-01	0.270
U-231	-2.833E-01		1.397E+00	1.988E+00	1.765E-01	-0.143
PA-233	-2.626E-02		5.815E-02	9.546E-02	1.251E-02	-0.275
PA-234	-1.981E-01		2.626E-01	4.049E-01	8.047E-02	-0.489
PA-234M	8.315E-01		4.373E+00	7.252E+00	8.310E-01	0.115
U-235	-1.336E-02		1.972E-01	3.247E-01	5.728E-02	-0.041
NP-236	-6.511E-02		7.696E-02	1.187E-01	1.135E-02	-0.548
NP-239	-2.233E-01		1.775E-01	2.662E-01	2.200E-02	-0.839
AM-241	5.276E-02		1.310E-01	1.990E-01	1.556E-02	0.265

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.436E-02		8.614E-02	1.391E-01	1.186E-02	0.103
AM-246	-4.026E-02		1.335E-01	2.144E-01	2.017E-02	-0.188
CM-247	3.005E-02		3.303E-02	5.640E-02	5.291E-03	0.533
CF-249	-9.288E-03		3.655E-02	5.942E-02	5.648E-03	-0.156
CF-251	3.770E-02		1.173E-01	1.930E-01	1.960E-02	0.195

VAX/VMS Nuclide Identification Report Generated

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*
*                                     DETECTOR DATA                          *
*
* Configuration      : SYSSYSROOT:[ALPHA.ARCHIVE.GAMMA]G243517007            *
* Acquisition date   : 7-JAN-2010 08:58:43 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 02:00:02.09              Half life ratio : 8.000         *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library : SOLID            *
* Sample ID          : G243517007              Analyst initials: MXR1          *
* Batch Number       : 937069                  Sample Quantity : 1.2740E+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 :                    *
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.219E+01	3.269E+00	2.131E-01	1.668E+00
CD-109	3.060E+00	8.412E-01	5.705E-01	4.292E-01
SN-126	3.000E-01	8.247E-02	5.799E-02	4.208E-02
TL-208	4.788E-01	7.982E-02	2.372E-02	4.072E-02
BI-211	3.312E+00	5.249E-01	1.498E-01	2.678E-01
PB-212	1.622E+00	2.314E-01	4.321E-02	1.181E-01
PO-212	1.622E+00	2.314E-01	4.321E-02	1.181E-01
BI-214	9.578E-01	1.696E-01	4.777E-02	8.654E-02
PB-214	1.152E+00	1.919E-01	5.070E-02	9.789E-02
PO-214	1.152E+00	1.919E-01	5.070E-02	9.789E-02
PO-216	1.622E+00	2.314E-01	4.321E-02	1.181E-01
PO-218	1.152E+00	1.919E-01	5.070E-02	9.789E-02
RA-224	3.998E+00	1.228E+00	4.912E-01	6.263E-01
RA-226	9.578E-01	1.696E-01	4.777E-02	8.654E-02
AC-228	1.544E+00	3.411E-01	8.951E-02	1.740E-01
RA-228	1.544E+00	3.411E-01	8.951E-02	1.740E-01
TH-228	1.649E+00	2.353E-01	4.394E-02	1.201E-01
TH-230	9.578E-01	1.696E-01	4.776E-02	8.653E-02
TH-232	1.544E+00	3.411E-01	8.951E-02	1.740E-01
TH-234	1.242E+00	1.500E+00	8.892E-01	7.655E-01
U-234	9.578E-01	1.696E-01	4.776E-02	8.653E-02
NP-237	8.808E-01	3.006E-01	1.770E-01	1.534E-01
U-238	1.242E+00	1.500E+00	8.892E-01	7.655E-01
AM-243	3.344E-01	6.870E-02	3.705E-02	3.505E-02
ANH-511	1.438E-01	5.593E-02	2.022E-02	2.853E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-1.551E-01	2.790E-01	2.260E-01	1.423E-01 NOT IDENT.
NA-22	-2.526E-02	3.915E-02	3.162E-02	1.997E-02 NOT IDENT.

NA-24	-7.586E+06	4.895E+06	0.000E+00	2.497E+06	SHORT HLIF
AL-26	3.522E-03	2.153E-02	1.846E-02	1.098E-02	NOT IDENT.
TI-44	3.621E-01	5.247E-02	3.519E-02	2.677E-02	FAIL ABUN
SC-46	-2.147E-02	3.492E-02	2.854E-02	1.782E-02	FAIL ABUN
V-48	-3.739E-02	6.470E-02	5.223E-02	3.301E-02	NOT IDENT.
CR-51	-1.256E-01	3.400E-01	2.841E-01	1.735E-01	NOT IDENT.
MN-52	7.784E-02	2.569E-01	2.205E-01	1.311E-01	NOT IDENT.
MN-54	-1.258E-02	3.342E-02	2.808E-02	1.705E-02	NOT IDENT.
CO-56	-4.697E-02	3.658E-02	2.864E-02	1.866E-02	NOT IDENT.
CO-57	2.452E-03	2.350E-02	1.981E-02	1.199E-02	NOT IDENT.
CO-58	-1.393E-02	3.261E-02	2.731E-02	1.664E-02	NOT IDENT.
FE-59	-5.124E-02	8.215E-02	6.524E-02	4.191E-02	NOT IDENT.
CO-60	-1.675E-03	3.160E-02	2.649E-02	1.612E-02	NOT IDENT.
ZN-65	4.819E-02	9.562E-02	7.068E-02	4.878E-02	NOT IDENT.
GE-68	6.186E-01	1.120E+00	9.685E-01	5.714E-01	NOT IDENT.
AS-73	-2.549E-01	6.680E-01	5.792E-01	3.408E-01	NOT IDENT.
AS-74	-6.323E-02	8.545E-02	7.013E-02	4.359E-02	NOT IDENT.
SE-75	-2.828E-02	4.786E-02	3.378E-02	2.442E-02	NOT IDENT.
BR-77	-2.035E+00	1.494E+01	1.231E+01	7.621E+00	FAIL ABUN
SR-82	-2.720E-01	3.616E-01	2.858E-01	1.845E-01	NOT IDENT.
RB-83	-8.174E-03	5.999E-02	4.944E-02	3.061E-02	NOT IDENT.
RB-84	-2.577E-03	6.405E-02	5.456E-02	3.268E-02	NOT IDENT.
KR-85	2.422E+01	7.862E+00	6.538E+00	4.011E+00	NOT IDENT.
SR-85	1.265E-01	4.106E-02	3.415E-02	2.095E-02	NOT IDENT.
RB-86	5.192E-01	7.547E-01	6.580E-01	3.851E-01	NOT IDENT.
Y-88	-1.935E-02	2.785E-02	2.092E-02	1.421E-02	NOT IDENT.
ZR-88	2.081E-02	2.770E-02	2.450E-02	1.413E-02	NOT IDENT.
Y-91	2.822E+00	1.716E+01	1.476E+01	8.754E+00	NOT IDENT.
NB-94	4.381E-02	2.887E-02	2.612E-02	1.473E-02	NOT IDENT.
NB-95	3.809E-02	4.195E-02	3.652E-02	2.140E-02	NOT IDENT.
NB-95M	1.960E-01	1.322E-01	1.039E-01	6.744E-02	NOT IDENT.
ZR-95	4.561E-02	6.785E-02	5.876E-02	3.462E-02	NOT IDENT.
NB-97	-3.103E+05	4.511E+05	0.000E+00	2.301E+05	SHORT HLIF
ZR-97	3.368E+07	1.079E+07	0.000E+00	5.506E+06	SHORT HLIF
MO-99	3.197E+00	1.572E+01	1.334E+01	8.022E+00	NOT IDENT.
TC-99M	1.214E+18	4.360E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.218E-02	3.242E-02	2.756E-02	1.654E-02	NOT IDENT.
RH-102	1.183E-02	2.426E-02	2.092E-02	1.238E-02	NOT IDENT.
RU-103	1.569E-02	3.638E-02	3.108E-02	1.856E-02	FAIL ABUN
RH-106	2.752E-01	2.714E-01	2.426E-01	1.385E-01	FAIL ABUN
RU-106	2.752E-01	2.700E-01	2.426E-01	1.377E-01	FAIL ABUN
AG-108M	1.547E-02	2.837E-02	2.470E-02	1.447E-02	NOT IDENT.
AG-110M	-2.119E-02	2.876E-02	2.322E-02	1.467E-02	NOT IDENT.
IN-111	-1.028E-01	1.656E+00	1.223E+00	8.448E-01	NOT IDENT.
IN-113M	6.792E-03	4.073E-02	3.515E-02	2.078E-02	NOT IDENT.
SN-113	6.792E-03	4.073E-02	3.515E-02	2.078E-02	NOT IDENT.
IN-114M	6.606E-02	1.833E-01	1.423E-01	9.350E-02	NOT IDENT.
CD-115	-8.003E+00	1.626E+01	1.344E+01	8.296E+00	NOT IDENT.
SN-117M	2.456E-02	5.639E-02	4.819E-02	2.877E-02	NOT IDENT.
SB-122	1.080E+00	2.624E+00	2.313E+00	1.339E+00	NOT IDENT.
I-123	3.790E+07	4.982E+07	0.000E+00	2.542E+07	SHORT HLIF
TE-123M	2.041E-02	2.684E-02	2.312E-02	1.369E-02	NOT IDENT.
I-124	1.908E-01	8.785E-01	6.581E-01	4.482E-01	NOT IDENT.
SB-124	3.207E-03	6.243E-02	5.299E-02	3.185E-02	FAIL ABUN
SB-125	-3.568E-02	8.061E-02	6.677E-02	4.113E-02	FAIL ABUN
TE-125M	3.409E+00	8.739E+00	7.512E+00	4.459E+00	NOT IDENT.
I-126	-8.727E-02	1.730E-01	1.421E-01	8.825E-02	NOT IDENT.
SB-126	1.905E-01	1.454E-01	1.165E-01	7.418E-02	FAIL ABUN
SB-127	2.495E-01	1.682E+00	1.433E+00	8.581E-01	NOT IDENT.
XE-127	-3.495E-02	4.578E-02	3.690E-02	2.336E-02	NOT IDENT.
I-131	1.333E-01	1.176E-01	1.060E-01	6.002E-02	NOT IDENT.
TE-132	7.106E-01	9.355E-01	8.148E-01	4.773E-01	NOT IDENT.
BA-133	4.889E-03	4.011E-02	3.036E-02	2.046E-02	NOT IDENT.
I-133	-2.406E+03	2.115E+04	0.000E+00	1.079E+04	SHORT HLIF
CS-134	1.493E-01	5.673E-02	4.124E-02	2.894E-02	FAIL ABUN
CS-135	2.379E-01	1.668E-01	1.299E-01	8.509E-02	NOT IDENT.
I-135	3.169E+17	4.159E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.564E-02	1.059E-01	9.166E-02	5.402E-02	FAIL ABUN
BA-137M	3.160E-03	2.983E-02	2.546E-02	1.522E-02	NOT IDENT.
CS-137	3.340E-03	3.153E-02	2.691E-02	1.609E-02	NOT IDENT.
CE-139	-2.169E-02	2.597E-02	2.209E-02	1.325E-02	NOT IDENT.
BA-140	-5.749E-02	2.412E-01	2.059E-01	1.231E-01	NOT IDENT.
LA-140	-1.018E-01	7.870E-02	5.715E-02	4.015E-02	FAIL ABUN
CE-141	-3.578E-03	5.762E-02	5.115E-02	2.940E-02	NOT IDENT.
CE-143	1.690E+03	5.458E+02	0.000E+00	2.785E+02	SHORT HLIF
CE-144	-1.216E-01	1.947E-01	1.574E-01	9.934E-02	NOT IDENT.
PM-144	-1.602E-02	2.924E-02	2.380E-02	1.492E-02	NOT IDENT.
PR-144	-1.086E+00	1.983E+00	1.614E+00	1.012E+00	NOT IDENT.

PM-146	-2.378E-02	3.860E-02	3.139E-02	1.969E-02	NOT IDENT.
ND-147	6.364E-01	5.407E-01	4.896E-01	2.758E-01	FAIL ABUN
PM-149	-2.737E+01	1.408E+02	1.164E+02	7.184E+01	NOT IDENT.
EU-152	-1.059E-01	1.062E-01	6.948E-02	5.419E-02	NOT IDENT.
GD-153	-1.391E-02	7.770E-02	5.875E-02	3.964E-02	NOT IDENT.
EU-154	-6.765E-02	1.095E-01	8.858E-02	5.589E-02	NOT IDENT.
EU-155	8.658E-02	9.709E-02	8.508E-02	4.953E-02	FAIL ABUN
TB-160	-2.762E-02	1.240E-01	1.044E-01	6.328E-02	FAIL ABUN
HO-166M	-2.342E-03	5.077E-02	4.260E-02	2.590E-02	NOT IDENT.
TM-171	-1.260E+01	2.546E+01	1.960E+01	1.299E+01	NOT IDENT.
LU-176	1.288E-02	2.136E-02	1.915E-02	1.090E-02	FAIL ABUN
LU-177	3.338E+00	1.830E+00	1.102E+00	9.338E-01	FAIL ABUN
LU-177M	-1.890E-01	1.607E-01	1.280E-01	8.197E-02	NOT IDENT.
HF-181	-1.539E-02	3.674E-02	2.999E-02	1.874E-02	NOT IDENT.
W-181	-1.747E-01	3.286E-01	2.530E-01	1.677E-01	NOT IDENT.
TA-182	4.492E-02	1.675E-01	1.448E-01	8.546E-02	FAIL ABUN
RE-183	5.052E-02	9.845E-02	8.814E-02	5.023E-02	FAIL ABUN
RE-184	-2.663E-02	2.162E-01	1.819E-01	1.103E-01	NOT IDENT.
OS-185	8.428E-03	3.672E-02	3.165E-02	1.874E-02	NOT IDENT.
RE-188	-1.551E-01	1.563E-01	1.332E-01	7.975E-02	NOT IDENT.
W-188	-1.224E+00	7.042E+00	5.356E+00	3.593E+00	FAIL ABUN
IR-192	1.005E-02	3.069E-02	2.719E-02	1.566E-02	FAIL ABUN
AU-195	1.275E-01	1.978E-01	1.730E-01	1.009E-01	FAIL ABUN
TL-200	-9.474E+02	1.231E+03	0.000E+00	6.279E+02	SHORT HLIF
TL-201	3.022E+00	8.955E+00	7.959E+00	4.569E+00	NOT IDENT.
TL-202	1.787E-02	6.546E-02	5.620E-02	3.340E-02	NOT IDENT.
HG-203	3.675E-02	4.016E-02	3.465E-02	2.049E-02	NOT IDENT.
BI-207	-4.173E-03	4.834E-02	4.018E-02	2.466E-02	FAIL ABUN
TL-207	2.588E-01	6.311E-01	4.899E-01	3.220E-01	FAIL ABUN
PO-209	-3.707E+00	6.594E+00	5.408E+00	3.364E+00	NOT IDENT.
BI-210	2.488E+00	2.812E+00	2.570E+00	1.435E+00	NOT IDENT.
PB-210	2.488E+00	2.812E+00	2.570E+00	1.435E+00	NOT IDENT.
PO-210	2.488E+00	2.810E+00	2.570E+00	1.434E+00	NOT IDENT.
PB-211	-1.193E+00	1.125E+00	6.785E-01	5.739E-01	NOT IDENT.
BI-212	1.319E+00	4.050E-01	2.897E-01	2.067E-01	FAIL ABUN
PO-215	2.588E-01	6.311E-01	4.899E-01	3.220E-01	FAIL ABUN
RN-219	3.611E-01	3.632E-01	3.215E-01	1.853E-01	FAIL ABUN
RN-220	-1.112E+01	2.223E+01	1.869E+01	1.134E+01	NOT IDENT.
RA-223	2.588E-01	6.311E-01	4.899E-01	3.220E-01	FAIL ABUN
AC-227	7.562E-02	3.557E-01	3.029E-01	1.815E-01	NOT IDENT.
TH-227	7.562E-02	3.558E-01	3.029E-01	1.815E-01	FAIL ABUN
TH-229	-3.704E-01	4.663E-01	3.916E-01	2.379E-01	FAIL ABUN
PA-231	-6.681E-02	1.359E+00	1.133E+00	6.932E-01	NOT IDENT.
TH-231	2.588E-01	6.311E-01	4.899E-01	3.220E-01	FAIL ABUN
U-231	-2.833E-01	1.369E+00	1.036E+00	6.987E-01	FAIL ABUN
PA-233	-2.626E-02	5.699E-02	4.888E-02	2.908E-02	FAIL ABUN
PA-234	-1.981E-01	2.573E-01	2.039E-01	1.313E-01	FAIL ABUN
PA-234M	8.315E-01	4.286E+00	3.649E+00	2.187E+00	NOT IDENT.
U-235	-1.336E-02	1.933E-01	1.682E-01	9.862E-02	FAIL ABUN
NP-236	-6.511E-02	7.542E-02	6.139E-02	3.848E-02	NOT IDENT.
NP-239	-2.233E-01	1.740E-01	1.383E-01	8.877E-02	FAIL ABUN
AM-241	5.276E-02	1.284E-01	1.044E-01	6.552E-02	NOT IDENT.
CM-243	1.436E-02	8.442E-02	7.237E-02	4.307E-02	FAIL ABUN
AM-246	-4.026E-02	1.309E-01	1.078E-01	6.677E-02	NOT IDENT.
CM-247	3.005E-02	3.237E-02	2.877E-02	1.651E-02	NOT IDENT.
CF-249	-9.288E-03	3.582E-02	3.033E-02	1.828E-02	NOT IDENT.
CF-251	3.770E-02	1.150E-01	9.965E-02	5.865E-02	NOT IDENT.

 * GEL Laboratories LLC *
 * 2040 SAVAGE ROAD *
 * CHARLESTON, SC 29417 *
 * GAMMA SPECTROSCOPY BACKGROUND REPORT *

ENERGY	MDA COUNTS
46.50	285.4026
46.50	285.4026
46.50	285.4026
48.70	326.6808
49.72	340.1248
51.35	301.9837
52.39	304.2944
52.97	298.5522
53.15	315.5391
53.44	321.5248
54.07	329.8692
56.28	315.9658
56.28	315.9691
57.37	0.0000
57.53	356.4655
57.53	356.4683
57.60	363.2060
57.98	367.5662
57.98	367.5662
59.32	336.6059
59.32	336.6059
59.40	336.7126
59.54	336.8999
59.72	325.6639
60.01	326.0380
61.10	336.0903
61.14	336.1423
61.30	336.3516
63.00	415.5714
63.29	416.0307
63.29	416.0307
63.58	416.4878
64.28	426.3487
65.12	426.2246
65.20	435.1424
65.20	435.1424
66.05	427.6927
66.72	446.4229
66.83	446.6032
66.91	446.7350
67.20	453.1103
67.20	453.1103
67.75	455.4909
67.85	455.6566
68.90	457.3755
68.90	457.3755
69.30	450.5909
69.67	455.6522
70.82	457.4942
70.82	457.4942
70.83	457.5105
72.80	437.5545
72.87	437.6610
72.87	437.6610
74.67	440.3376
74.81	440.5439
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74.81	440.5439
74.81	440.5439
74.81	440.5439
74.81	440.5439
74.81	440.5439
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77.11	443.9146
77.11	443.9146

77.11	443.9146
77.11	443.9146
77.11	443.9146
77.11	443.9146
77.11	443.9146
78.38	445.7552
79.62	417.2575
79.80	417.4974
79.80	417.4974
80.11	439.5004
80.18	439.5982
80.30	439.7657
80.30	439.7657
80.57	440.1418
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81.07	473.3228
81.07	473.3228
81.07	473.3228
81.07	473.3228
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83.37	386.3685
83.78	421.1787
83.78	421.1787
83.78	421.1787
83.78	421.1787
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84.90	419.4963
85.43	442.1224
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86.50	536.3507
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86.94	570.1351
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87.30	507.6821
87.30	507.6821
87.30	507.6821
87.30	507.6821
87.30	507.6821
87.57	508.0899
87.88	476.9716
88.03	477.1836
88.36	477.6490
88.47	477.8057
89.95	654.6761
91.11	392.2183
92.29	393.5508
92.38	393.6522
92.38	393.6522
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94.00	395.4652
94.67	380.1006
94.67	380.1060
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94.90	380.3509
94.90	380.3509
94.90	380.3509
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98.44	367.8087
98.44	367.8104
98.88	373.6815
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99.55	338.4479
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100.10	348.7614
103.18	418.6489
103.76	368.6639
105.00	347.7740
105.31	372.3613
108.00	471.7271
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111.00	421.4815
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116.30	369.0484
117.00	411.7499
117.00	411.7499
117.66	418.0923
121.11	385.8853
121.62	381.7422
121.78	381.8824
122.06	375.2230
122.32	375.4468
122.32	375.4468
122.32	375.4468
122.32	375.4468
123.07	383.0172
127.23	396.5321
129.76	383.6530
131.20	413.0577
133.02	416.1040
133.54	416.8067
135.34	365.3696
136.00	390.8069
136.25	391.0145
136.48	404.5724
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142.65	415.1974
143.76	406.1834
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144.24	401.1443
144.24	401.1443
144.24	401.1443
145.22	403.7532
145.44	414.8257
147.16	436.2901
152.43	383.7633
152.70	378.4391
153.22	378.8185
154.21	396.1619
154.21	396.1619
154.21	396.1619
154.21	396.1619
155.03	433.7799
156.02	397.5333
158.56	368.7182
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159.00	352.2467
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161.27	411.7581
162.32	365.6726
162.64	349.0026
163.35	356.0325
163.89	343.2179
165.85	381.2466
167.43	343.5334
171.28	388.7723
171.86	367.2292
172.10	367.3849
176.55	350.0423
176.60	350.0728
181.06	403.1301
184.41	364.8566
185.71	366.2281
186.00	366.4055
190.27	340.0418
192.34	381.3434
193.63	403.6141
197.04	365.0232
198.01	359.6009
198.60	361.9254
200.40	404.9382
201.83	403.8332
202.84	396.8616
205.31	346.5536

208.36	380.5439
208.81	347.3807
209.75	347.8700
209.75	347.8700
210.97	320.2573
215.65	326.0236
216.55	343.1838
218.09	349.0868
222.10	351.1075
223.80	361.2749
226.40	350.1358
227.00	342.1126
227.08	342.1503
227.20	334.9270
228.16	326.0027
228.18	326.0122
228.18	326.0122
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236.00	358.8135
236.00	358.8135
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238.63	337.0562
238.63	337.0562
238.63	337.0562
239.00	337.2241
240.98	338.1198
241.98	338.5724
241.98	338.5724
241.98	338.5724
244.69	276.0922
245.39	296.8174
247.94	275.5612
248.90	329.0297
249.79	310.0468
252.40	299.1058
252.85	298.2010
252.85	298.2010
254.15	0.0000
256.20	296.2372
256.20	296.2372
260.50	316.3275
260.90	297.9984
262.80	284.5329
264.65	305.9467
268.24	265.1532
268.79	253.0336
269.46	246.2065
269.46	246.2065
269.46	246.2065
269.46	246.2065
271.23	292.5588
273.65	401.2347
276.40	258.6192
277.35	244.1162
277.60	245.2966
277.60	245.2966
278.00	248.7461
278.60	273.3717
279.20	286.9116
279.53	287.0219
280.46	312.9521
281.68	321.2095
283.67	250.4106
284.30	248.3578
285.00	246.3217
285.90	251.0635
286.10	241.0319
286.10	241.0319
287.40	242.5155
288.45	0.0000
290.67	247.9364
290.80	247.9733
291.72	258.7664
293.26	0.0000
293.70	236.7298
295.21	290.9063
295.21	290.9063

295.21	290.9063
295.96	353.7374
296.50	370.5904
297.23	354.2421
298.57	251.6782
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299.80	227.7313
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300.09	235.4012
300.09	235.4012
300.09	235.4012
300.12	235.4075
301.29	243.7515
302.84	302.5385
303.76	325.7191
303.91	325.7713
304.40	332.3586
304.40	332.3586
304.84	314.1975
306.84	228.5925
308.46	239.1130
311.98	262.1800
316.51	233.7706
318.01	239.7208
319.02	245.5567
319.41	245.6599
320.08	236.9328
323.87	216.5851
323.87	216.5851
323.87	216.5851
323.87	216.5851
325.23	224.6924
328.77	220.8203
333.44	226.6025
334.20	217.3292
334.20	217.3292
334.30	229.9518
338.28	229.6135
338.28	229.6135
338.28	229.6135
338.28	229.6135
338.32	229.6253
338.32	229.6253
338.32	229.6253
340.50	239.3199
340.57	239.3352
344.27	257.7195
345.85	229.4443
350.59	0.0000
351.07	224.2188
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351.92	211.5808
351.92	211.5808
355.39	0.0000
356.01	188.2826
364.48	183.9728
366.43	199.9150
367.43	216.6966
367.94	0.0000
369.80	200.5457
374.96	185.7839
383.85	219.0118
387.95	223.7997
388.63	205.0268
391.69	216.5656
391.69	216.5656
392.90	194.8191
398.62	208.8582
400.65	192.1285
401.10	184.1549
401.81	183.2619
402.60	185.4038
404.84	254.4148
410.95	182.6829
411.60	203.0933
413.65	235.9988
414.70	226.0297
415.30	207.8076

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418.52	206.3300
423.70	190.8135
427.08	196.4931
427.89	194.5648
432.53	177.7403
433.93	168.6330
439.47	170.4323
439.56	168.3657
439.89	168.4112
443.98	193.9967
444.90	205.6212
445.03	205.6428
445.03	205.6428
445.03	205.6428
445.03	205.6428
453.90	192.3734
463.38	178.9725
468.07	157.6530
473.00	156.8227
475.06	144.2450
475.35	145.3467
476.78	158.3412
477.59	168.0716
477.96	159.5529
482.03	160.0386
484.57	154.9617
487.03	148.7745
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511.85	155.8594
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513.99	150.2332
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529.87	0.0000
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555.20	145.0956
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569.32	142.6331
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569.67	141.7155
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574.00	143.0634
574.64	150.1216
578.91	141.0547
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592.07	142.7788
593.00	151.5507
595.88	172.1297
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602.71	159.8170
603.60	181.5577
604.41	184.9819
604.70	195.0136
609.31	147.2305

609.31	147.2305
609.31	147.2305
609.31	147.2305
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612.46	135.6507
614.37	145.8658
618.01	139.0079
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621.84	121.8228
631.29	112.6270
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634.78	151.4685
635.90	148.5962
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661.65	136.7415
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666.33	158.2745
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685.20	145.6824
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696.49	148.6315
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698.50	161.1077
699.00	162.1757
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713.82	145.8796
717.42	130.6091
720.50	94.3342
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722.78	130.0873
722.89	130.0949
722.95	130.0975
723.30	140.8179
724.18	131.9648
727.18	130.2363
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735.90	124.3397
739.58	124.7839
742.81	137.5964
744.21	114.5684
747.13	131.5816
751.79	143.5011
752.31	140.3736
753.82	129.9167
755.35	133.1880
756.15	137.4717
756.87	144.9270
763.93	181.5379
765.79	163.6407
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766.84	167.9779
776.49	147.4182
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778.57	119.7656
778.89	122.9923
783.80	116.8570
785.46	100.1427
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867.82	105.3608
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873.19	103.2657
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884.67	109.7596
889.25	122.5219
896.60	124.8495
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911.07	100.3075
911.07	100.3075
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925.00	101.8817
925.24	104.8318
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935.52	116.1089
937.48	110.2949
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946.00	113.6503
949.00	94.9905
962.29	137.5436
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969.11	146.6539
969.11	146.6539
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980.50	82.1816
983.50	106.3623
989.30	100.5737
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1037.82	100.4370
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1038.76	0.0000
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1046.59	121.3377
1048.07	100.8301

1050.47	105.0381
1050.47	105.0381
1062.04	109.6304
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1076.63	97.7473
1077.35	99.8538
1078.86	112.3996
1085.78	115.8121
1099.22	114.2842
1112.02	92.1631
1112.84	106.9410
1115.52	118.1172
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1120.29	131.2573
1120.29	131.2573
1120.29	131.2573
1120.51	131.2703
1121.28	129.4556
1124.00	0.0000
1129.67	96.4526
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1147.95	0.0000
1167.94	121.2406
1173.22	108.2758
1175.09	125.3044
1177.93	132.0276
1189.05	134.4164
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1235.34	115.3455
1236.41	0.0000
1238.25	138.5464
1246.25	128.2917
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1274.54	109.9895
1291.56	96.8791
1298.22	0.0000
1312.09	85.6805
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1325.50	58.3446
1332.49	62.4328
1333.61	69.3933
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1362.66	0.0000
1365.15	56.0427
1368.21	82.1376
1368.53	0.0000
1376.25	50.2029
1384.27	86.5538
1394.10	66.6163
1395.20	71.6847
1407.95	72.9646
1434.06	52.0708
1436.60	40.8704
1457.56	0.0000
1460.81	40.1212
1489.15	44.5839
1509.49	37.5337
1596.49	56.8994
1620.62	21.9468
1678.03	0.0000
1691.02	29.1333
1691.02	29.1333
1706.46	0.0000
1750.46	0.0000
1764.49	28.4648
1764.49	28.4648
1764.49	28.4648
1764.49	28.4648
1770.23	28.5031
1771.40	24.9471
1791.20	0.0000
1808.65	18.9727

1836.01

31.1497

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243517007

Total Uranium Activity	3.6876E+00	ug/g
Total Uranium Counting Unc.	4.4645E+00	ug/g
Total Uranium Tpu	2.2778E-06	ug/g
Total Uranium Mda	2.6465E+00	ug/g

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*****
*
*               GEL Laboratories LLC
*               2040 SAVAGE ROAD
*               CHARLESTON , SC 29417
*               GROSS GAMMA REPORT
*
*****
*
*  BATCH ID      : 937069          SAMPLE ID   : G243517007
*  ANALYST       : MXR1            DETECTOR    : GAM22
*  SAMPLE DATE   : 21-DEC-2009 12:00:00.00 COUNT TIME : 0 02:00:00.00
*  ANALYSIS DATE: 7-JAN-2010 08:58:43.46 SAMPLE ALQT: 127.400 GRAM
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 8.821E+00
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.187E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 1.844E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 8.936E-01

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VAX/VMS Nuclide Identification Report Generated 7-JAN-2010 11:13:10.64

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*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517008.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 09:12:45.
Sample ID          : G243517008 Sample quantity : 1.35630E+02 GRAM
Detector name      : GAM10 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:00.98 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 937069 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	63.05*	29	356	1.28	126.26	123	7	4.06E-03	111.8	
2	2	74.60*	309	378	1.18	149.35	143	17	4.29E-02	12.5	2.28E+00
3	2	76.94	476	282	0.92	154.02	143	17	6.61E-02	7.1	
4	0	86.98	214	463	1.23	174.08	170	8	2.97E-02	18.8	
5	0	92.86*	293	463	1.60	185.83	182	10	4.07E-02	15.5	
6	0	129.00	78	291	1.19	258.05	254	8	1.09E-02	39.4	
7	0	185.64*	277	429	1.51	371.23	365	13	3.84E-02	16.9	
8	0	209.51	101	238	1.45	418.94	415	8	1.40E-02	28.5	
9	5	238.60*	1201	153	1.13	477.06	472	16	1.67E-01	3.4	1.31E+00
10	5	241.63	310	154	1.96	483.13	472	16	4.31E-02	12.0	
11	0	270.20	77	226	1.07	540.21	536	10	1.07E-02	38.2	
12	0	277.53	41	192	0.90	554.86	550	9	5.67E-03	63.1	
13	0	295.20*	436	206	1.20	590.17	583	13	6.06E-02	8.4	
14	0	299.70	96	179	1.35	599.17	596	11	1.33E-02	28.5	
15	0	338.43*	217	164	1.18	676.58	672	11	3.01E-02	13.6	
16	0	351.83*	625	215	1.22	703.36	696	14	8.69E-02	6.5	
17	0	463.46	46	86	1.80	926.49	921	9	6.43E-03	38.9	
18	0	511.10*	147	106	1.51	1021.72	1013	18	2.03E-02	20.8	
19	0	583.28*	318	131	1.36	1166.01	1161	13	4.41E-02	9.5	
20	0	609.54*	509	63	1.45	1218.50	1213	11	7.07E-02	5.5	
21	0	661.73	111	69	1.33	1322.85	1317	11	1.55E-02	17.2	
22	0	727.74*	110	76	1.17	1454.81	1448	14	1.52E-02	19.6	
23	0	798.71	89	238	10.70	1596.71	1563	46	1.24E-02	62.3	
24	0	911.68*	233	79	1.65	1822.60	1814	18	3.23E-02	11.3	
25	0	969.75*	127	92	1.50	1938.72	1931	13	1.77E-02	18.2	
26	0	1120.59*	108	46	1.81	2240.39	2234	13	1.50E-02	16.4	
27	0	1408.77	18	17	1.55	2816.82	2811	11	2.49E-03	50.0	
28	0	1461.43*	911	23	2.07	2922.17	2914	19	1.27E-01	3.6	
29	0	1765.46*	83	6	2.69	3530.50	3525	12	1.15E-02	13.2	
30	0	1848.68	26	6	3.31	3697.03	3690	12	3.59E-03	27.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 7-JAN-2010 11:13:13

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Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517008.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 09:12:45
Sample ID         : G243517008 Sample quantity : 135.63 GRAM
Sample type       : SOLID Sample geometry :
Detector name     : GAMMA10 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.98 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

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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	*	2.136E+01	2.393E+00	4.484E-01	3.862E-02	47.629
CD-109	+	88.03	*	3.110E+00	1.221E+00	1.358E+00	1.540E-01	2.290
SN-126	+	64.28		3.753E-01	8.419E-01	1.014E+00	1.735E-01	0.370
	+	86.94		1.268E+00	7.146E-01	6.055E-01	2.542E-01	2.094
	+	87.57	*	3.049E-01	1.197E-01	1.426E-01	1.614E-02	2.138
BA-137M	+	661.65	*	1.457E-01	5.076E-02	5.134E-02	2.533E-03	2.839
CS-137	+	661.65	*	1.541E-01	5.366E-02	5.427E-02	2.693E-03	2.839
TL-208	+	277.35		3.605E-01	4.567E-01	5.307E-01	5.788E-02	0.679
	+	510.84		6.411E-01	2.752E-01	1.913E-01	2.011E-02	3.351
	+	583.14	*	3.977E-01	7.979E-02	5.252E-02	3.529E-03	7.572
		860.37		6.195E-01	2.888E-01	5.436E-01	5.308E-02	1.140
BI-211		72.87		7.394E+00	3.533E+00	6.093E+00	6.701E-01	1.213
	+	351.07	*	3.441E+00	5.117E-01	2.717E-01	1.981E-02	12.665
PB-212	+	74.81		2.068E+00	5.952E-01	5.828E-01	8.389E-02	3.548
	+	77.11		1.757E+00	3.147E-01	3.229E-01	3.531E-02	5.440
	+	87.30		1.410E+00	5.714E-01	6.623E-01	9.993E-02	2.129
	+	238.63	*	1.457E+00	1.492E-01	8.241E-02	6.251E-03	17.683
	+	300.09		1.787E+00	1.032E+00	9.986E-01	8.776E-02	1.789
PO-212	+	74.81		2.068E+00	5.952E-01	5.828E-01	8.389E-02	3.548
	+	77.11		1.757E+00	3.147E-01	3.229E-01	3.531E-02	5.440
	+	87.30		1.410E+00	5.714E-01	6.623E-01	9.993E-02	2.129
		115.19		3.183E-01	3.162E+00	5.160E+00	3.692E-01	0.062
	+	238.63	*	1.457E+00	1.492E-01	8.241E-02	6.251E-03	17.683
	+	300.09		1.787E+00	1.032E+00	9.986E-01	8.776E-02	1.789
BI-214	+	609.31	*	1.203E+00	1.609E-01	9.864E-02	7.506E-03	12.201
	+	1120.29		1.403E+00	4.793E-01	4.090E-01	3.997E-02	3.432
	+	1764.49		1.482E+00	4.043E-01	2.516E-01	1.680E-02	5.891
PB-214	+	74.81		3.563E+00	1.005E+00	1.004E+00	1.327E-01	3.548
	+	77.11		3.011E+00	5.862E-01	5.536E-01	7.377E-02	5.440
	+	87.30		2.416E+00	9.668E-01	1.135E+00	1.552E-01	2.129
	+	241.98		2.263E+00	5.745E-01	4.961E-01	4.128E-02	4.561
	+	295.21		1.426E+00	2.717E-01	1.922E-01	1.736E-02	7.419
	+	351.92	*	1.197E+00	1.886E-01	9.470E-02	8.492E-03	12.639
PO-214	+	74.81		3.563E+00	1.005E+00	1.004E+00	1.327E-01	3.548

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-216	+	77.11		3.011E+00	5.862E-01	5.536E-01	7.377E-02	5.440
	+	87.30		2.416E+00	9.668E-01	1.135E+00	1.552E-01	2.129
	+	241.98		2.263E+00	5.745E-01	4.961E-01	4.128E-02	4.561
	+	295.21		1.426E+00	2.717E-01	1.922E-01	1.736E-02	7.419
	+	351.92	*	1.197E+00	1.886E-01	9.470E-02	8.492E-03	12.639
	+	74.81		2.068E+00	5.952E-01	5.828E-01	8.389E-02	3.548
	+	77.11		1.757E+00	3.147E-01	3.229E-01	3.531E-02	5.440
	+	87.30		1.410E+00	5.714E-01	6.623E-01	9.993E-02	2.129
PO-218	+	238.63	*	1.457E+00	1.492E-01	8.241E-02	6.251E-03	17.683
	+	300.09		1.787E+00	1.032E+00	9.986E-01	8.776E-02	1.789
	+	74.81		3.563E+00	1.005E+00	1.004E+00	1.327E-01	3.548
	+	77.11		3.011E+00	5.862E-01	5.536E-01	7.377E-02	5.440
	+	87.30		2.416E+00	9.668E-01	1.135E+00	1.552E-01	2.129
	+	241.98		2.263E+00	5.745E-01	4.961E-01	4.128E-02	4.561
	+	295.21		1.426E+00	2.717E-01	1.922E-01	1.736E-02	7.419
	+	351.92	*	1.197E+00	1.886E-01	9.470E-02	8.492E-03	12.639
RA-224	+	240.98	*	4.290E+00	1.063E+00	9.376E-01	5.755E-02	4.576
RA-226	+	609.31	*	1.203E+00	1.609E-01	9.864E-02	7.506E-03	12.201
AC-228	+	1120.29		1.403E+00	4.793E-01	4.090E-01	3.997E-02	3.432
	+	1764.49		1.482E+00	4.043E-01	2.516E-01	1.680E-02	5.891
	+	338.32		1.317E+00	6.469E-01	3.216E-01	1.315E-01	4.097
	+	911.07	*	1.338E+00	3.452E-01	2.082E-01	2.569E-02	6.430
	+	969.11		1.296E+00	5.621E-01	3.792E-01	8.964E-02	3.418
	+	338.32		1.317E+00	6.469E-01	3.216E-01	1.315E-01	4.097
	+	911.07	*	1.338E+00	3.452E-01	2.082E-01	2.569E-02	6.430
	+	969.11		1.296E+00	5.621E-01	3.792E-01	8.964E-02	3.418
TH-228	+	74.81		2.103E+00	5.730E-01	5.926E-01	6.523E-02	3.548
TH-230	+	77.11		1.786E+00	3.200E-01	3.284E-01	3.590E-02	5.440
	+	87.30		1.434E+00	5.632E-01	6.735E-01	7.610E-02	2.129
	+	238.63	*	1.482E+00	1.517E-01	8.380E-02	6.357E-03	17.683
	+	300.09		1.817E+00	1.492E+00	1.016E+00	5.993E-01	1.789
	+	609.31	*	1.203E+00	1.609E-01	9.863E-02	7.506E-03	12.201
	+	1120.29		1.403E+00	4.793E-01	4.089E-01	3.996E-02	3.432
	+	1764.49		1.482E+00	4.043E-01	2.516E-01	1.680E-02	5.891
	+	338.32		1.317E+00	3.687E-01	3.216E-01	2.156E-02	4.097
TH-232	+	911.07	*	1.338E+00	3.452E-01	2.082E-01	2.569E-02	6.430
TH-234	+	969.11		1.296E+00	5.621E-01	3.792E-01	8.964E-02	3.418
	+	63.29	*	9.482E-01	2.129E+00	2.526E+00	4.980E-01	0.375
	+	92.38		2.615E+00	9.478E-01	8.244E-01	1.560E-01	3.172
U-234	+	609.31	*	1.203E+00	1.609E-01	9.863E-02	7.506E-03	12.201
NP-237	+	1120.29		1.403E+00	4.793E-01	4.089E-01	3.996E-02	3.432
	+	1764.49		1.482E+00	4.043E-01	2.516E-01	1.680E-02	5.891
	+	86.50	*	8.953E-01	3.972E-01	4.308E-01	1.013E-01	2.078
	+	95.87		-7.242E-01	9.853E-01	1.356E+00	3.389E-01	-0.534
U-238	+	63.29	*	9.482E-01	2.129E+00	2.526E+00	4.980E-01	0.375
AM-243	+	92.38		2.615E+00	8.517E-01	8.244E-01	8.470E-02	3.172
	+	74.67	*	3.352E-01	9.126E-02	9.491E-02	1.039E-02	3.532
	+	86.72		3.357E+01	1.319E+01	1.610E+01	1.813E+00	2.086
	+	117.66		2.676E+00	3.462E+00	5.806E+00	4.028E-01	0.461

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	142.18	*	4.329E-01	1.627E+01	2.605E+01	1.555E+00	0.017
		511.00	*	1.385E-01	5.831E-02	4.133E-02	2.648E-03	3.350

---- 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	*	2.801E-03	2.963E-01	4.789E-01	3.561E-02	0.006
NA-22		1274.54	*	-6.850E-03	3.592E-02	5.837E-02	4.522E-03	-0.117
NA-24		1368.53	*	1.442E+00	3.592E-02	Half-Life too short		
AL-26		1129.67		-1.115E+00	1.567E+00	2.449E+00	1.718E-01	-0.455
		1808.65	*	6.798E-03	2.715E-02	4.628E-02	2.934E-03	0.147
TI-44		67.85		2.165E-03	5.185E-02	8.620E-02	9.731E-03	0.025
	+	78.38	*	3.242E-01	5.807E-02	7.551E-02	8.263E-03	4.293
SC-46		889.25	*	2.092E-02	3.735E-02	6.423E-02	6.356E-03	0.326
	+	1120.51		2.438E-01	8.167E-02	1.292E-01	9.282E-03	1.886
V-48		944.10		-1.096E-01	9.472E-01	1.524E+00	1.477E-01	-0.072
		983.50	*	-2.516E-03	7.274E-02	1.176E-01	1.087E-02	-0.021
		1312.09		-3.142E-02	8.421E-02	1.338E-01	1.117E-02	-0.235
CR-51		320.08	*	-4.822E-01	3.512E-01	5.310E-01	3.835E-02	-0.908
MN-52		744.21		7.363E-02	2.346E-01	4.004E-01	2.612E-02	0.184
		848.13		-2.531E+00	7.370E+00	1.166E+01	1.034E+00	-0.217
		935.52		3.907E-01	3.148E-01	5.653E-01	5.527E-02	0.691
		1246.25		-1.295E+00	8.329E+00	1.367E+01	9.959E-01	-0.095
		1333.61		-2.303E+00	5.103E+00	7.897E+00	6.861E-01	-0.292
		1434.06	*	-3.410E-02	2.466E-01	3.972E-01	3.357E-02	-0.086
MN-54		834.83	*	2.058E-02	3.328E-02	5.760E-02	4.921E-03	0.357
CO-56		846.75	*	-3.307E-03	3.424E-02	5.563E-02	4.912E-03	-0.059
		977.42		-1.627E+00	2.861E+00	4.358E+00	4.061E-01	-0.373
		1037.82		2.675E-02	2.957E-01	4.823E-01	4.336E-02	0.055
		1175.09		-6.772E-01	1.983E+00	3.206E+00	1.986E-01	-0.211
		1238.25		1.559E-01	9.001E-02	1.681E-01	1.254E-02	0.927
		1360.21		2.469E-02	8.856E-01	1.471E+00	1.271E-01	0.017
		1771.40		-5.729E-02	2.893E-01	3.860E-01	2.558E-02	-0.148
CO-57		122.06	*	2.397E-03	2.324E-02	3.784E-02	2.496E-03	0.063
		136.48		-1.539E-02	1.931E-01	3.101E-01	2.169E-02	-0.050
CO-58		810.76	*	-4.211E-02	3.109E-02	4.271E-02	3.418E-03	-0.986
FE-59		142.65		2.086E+00	2.554E+00	4.227E+00	2.519E-01	0.493
		192.34		-3.879E-01	8.937E-01	1.382E+00	1.625E-01	-0.281
		1099.22	*	-3.456E-04	9.806E-02	1.576E-01	1.315E-02	-0.002
		1291.56		-5.891E-02	1.274E-01	2.013E-01	1.863E-02	-0.293
CO-60		1173.22		-9.872E-03	3.831E-02	6.246E-02	3.852E-03	-0.158
		1332.49	*	2.768E-04	3.334E-02	5.533E-02	4.808E-03	0.005
ZN-65		1115.52	*	2.780E-02	8.843E-02	1.285E-01	9.358E-03	0.216
GE-68		1077.35	*	-1.593E-01	1.225E+00	1.946E+00	1.542E-01	-0.082
AS-73		53.44	*	1.343E-02	1.497E+00	2.449E+00	3.240E-01	0.005
AS-74		595.88	*	-5.290E-02	8.350E-02	1.334E-01	7.623E-03	-0.396
		634.78		-3.584E-01	3.256E-01	4.932E-01	2.603E-02	-0.727
SE-75		66.05		-7.022E-01	6.134E+00	9.079E+00	1.170E+00	-0.077

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	96.73		-9.331E-01	8.296E-01	1.110E+00	1.571E-01	-0.841
		121.11		-3.771E-02	1.264E-01	2.019E-01	1.978E-02	-0.187
		136.00		-3.868E-03	3.615E-02	5.799E-02	3.601E-03	-0.067
		198.60		4.534E-01	1.793E+00	2.802E+00	1.985E-01	0.162
		264.65	*	1.282E-03	4.091E-02	6.370E-02	4.063E-03	0.020
		279.53		8.218E-02	1.093E-01	1.689E-01	1.158E-02	0.486
		303.91		1.669E-01	1.989E+00	2.925E+00	2.932E-01	0.057
		400.65		-1.921E-01	2.276E-01	3.483E-01	3.402E-02	-0.551
		87.88		1.122E+03	4.406E+02	5.501E+02	6.236E+01	2.040
		200.40		-1.141E+02	2.599E+02	4.015E+02	2.315E+01	-0.284
		239.00	+	3.918E+02	3.605E+01	5.769E+01	3.532E+00	6.790
		249.79		3.915E+01	9.773E+01	1.673E+02	1.039E+01	0.234
		281.68		-1.080E+01	1.486E+02	2.170E+02	1.397E+01	-0.050
		297.23		4.422E+02	1.129E+02	1.714E+02	1.119E+01	2.580
		303.76		3.193E+01	2.812E+02	4.146E+02	2.721E+01	0.077
		439.47		1.531E+02	2.163E+02	3.686E+02	2.478E+01	0.415
		484.57		-2.381E+02	3.305E+02	5.000E+02	3.276E+01	-0.476
		520.65	*	8.213E-01	1.604E+01	2.586E+01	1.641E+00	0.032
		574.64		8.552E+01	2.890E+02	4.980E+02	2.947E+01	0.172
		578.91		-5.501E+01	1.446E+02	2.038E+02	1.198E+01	-0.270
		585.48		2.065E+03	3.931E+02	7.440E+02	4.327E+01	2.776
		755.35		7.951E+00	2.646E+02	4.390E+02	2.966E+01	0.018
		817.79		-1.915E+00	1.891E+02	3.108E+02	2.530E+01	-0.006
SR-82		698.33		5.026E+00	3.087E+01	5.203E+01	2.919E+00	0.097
		776.49	*	-4.510E-01	3.548E-01	5.124E-01	3.694E-02	-0.880
RB-83		1395.20		-8.278E+00	1.082E+01	1.585E+01	1.357E+00	-0.522
		520.41	*	4.446E-03	6.435E-02	1.039E-01	6.592E-03	0.043
		529.64		-6.301E-02	9.421E-02	1.420E-01	8.919E-03	-0.444
RB-84		552.65		-3.371E-02	1.782E-01	2.801E-01	1.711E-02	-0.120
		881.50	*	-1.463E-02	6.313E-02	1.007E-01	9.766E-03	-0.145
KR-85		513.99	*	9.744E+00	6.715E+00	1.083E+01	6.918E-01	0.900
SR-85		513.99	*	5.090E-02	3.507E-02	5.657E-02	3.613E-03	0.900
RB-86		1076.63	*	1.034E-01	8.110E-01	1.324E+00	1.050E-01	0.078
Y-88		898.02		-1.570E-02	4.009E-02	6.292E-02	6.393E-03	-0.250
ZR-88		1836.01	*	-7.114E-03	3.065E-02	4.676E-02	2.869E-03	-0.152
		392.90	*	-8.965E-03	2.704E-02	4.319E-02	2.935E-03	-0.208
Y-91		1204.90	*	5.715E+00	1.720E+01	2.960E+01	1.966E+00	0.193
NB-94		702.63	*	1.952E-02	3.060E-02	5.331E-02	3.035E-03	0.366
		871.10		-5.859E-03	3.235E-02	5.203E-02	4.908E-03	-0.113
NB-95		765.79	*	-1.404E-04	3.790E-02	6.264E-02	4.371E-03	-0.002
NB-95M		235.69	*	4.324E-02	1.228E-01	1.862E-01	1.445E-02	0.232
ZR-95		724.18		-3.580E-02	9.570E-02	1.316E-01	9.383E-03	-0.272
NB-97		756.15	*	3.974E-02	6.758E-02	1.170E-01	9.194E-03	0.340
		657.90	*	-3.066E-01	6.758E-02	Half-Life too short		
ZR-97		1024.50		1.255E+01	6.758E-02	Half-Life too short		
		254.15		1.193E+01	6.758E-02	Half-Life too short		
		355.39		-1.490E-02	6.758E-02	Half-Life too short		
		507.63	*	-1.667E+00	6.758E-02	Half-Life too short		
		602.52		8.697E+00	6.758E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	(pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1021.30		2.533E+01	6.758E-02	Half-Life	too short	
		1147.95		6.439E+00	6.758E-02	Half-Life	too short	
		1362.66		-2.775E+01	6.758E-02	Half-Life	too short	
		1750.46		2.399E+00	6.758E-02	Half-Life	too short	
MO-99		140.51		1.095E+01	3.728E+01	5.979E+01	1.614E+01	0.183
		181.06		1.493E+01	2.608E+01	3.806E+01	6.497E+00	0.392
		366.43		2.953E+01	1.192E+02	1.989E+02	1.347E+01	0.149
		739.58	*	-8.297E+00	1.615E+01	2.480E+01	3.487E+00	-0.334
		778.00		-3.713E+01	5.076E+01	6.903E+01	5.001E+00	-0.538
TC-99M		140.51	*	1.346E+12	5.076E+01	Half-Life	too short	
RH-101		127.23		3.399E-03	3.142E-02	4.561E-02	2.915E-03	0.075
		198.01	*	-3.921E-03	3.224E-02	4.945E-02	2.841E-03	-0.079
		325.23		-8.622E-04	2.182E-01	3.611E-01	2.404E-02	-0.002
RH-102		418.52		-1.565E-02	2.520E-01	4.087E-01	2.767E-02	-0.038
		475.06	*	-5.502E-03	2.675E-02	4.252E-02	2.805E-03	-0.129
		631.29		4.055E-02	4.624E-02	8.274E-02	4.402E-03	0.490
		697.49		2.488E-02	6.404E-02	1.100E-01	6.152E-03	0.226
		766.84		5.314E-02	9.960E-02	1.713E-01	1.199E-02	0.310
		1046.59		7.586E-02	1.106E-01	1.907E-01	1.602E-02	0.398
		1112.84		-1.275E-01	2.243E-01	3.132E-01	2.293E-02	-0.407
RU-103		497.08	*	5.064E-03	3.800E-02	6.110E-02	7.927E-03	0.083
+		610.33		1.341E+01	2.530E+00	2.932E+00	4.494E-01	4.573
RH-106	+	511.85		6.940E-01	2.922E-01	3.619E-01	2.316E-02	1.918
		621.84	*	5.128E-02	2.694E-01	4.585E-01	5.300E-02	0.112
		1050.47		3.078E-01	2.273E+00	3.718E+00	3.102E-01	0.083
RU-106	+	511.85		6.940E-01	2.922E-01	3.619E-01	2.316E-02	1.918
		621.84	*	5.128E-02	2.693E-01	4.585E-01	2.490E-02	0.112
		1050.47		3.078E-01	2.273E+00	3.718E+00	3.102E-01	0.083
AG-108M		433.93	*	2.636E-03	2.805E-02	4.592E-02	3.292E-03	0.057
		614.37		1.075E-02	3.591E-02	5.424E-02	3.271E-03	0.198
		722.95		2.047E-03	4.027E-02	5.839E-02	3.831E-03	0.035
AG-110M		657.75	*	-1.902E-02	3.572E-02	4.864E-02	2.635E-03	-0.391
		677.61		-1.309E-01	2.633E-01	4.200E-01	2.358E-02	-0.312
		706.67		3.085E-02	1.894E-01	3.189E-01	1.952E-02	0.097
		763.93		-1.806E-01	1.486E-01	2.184E-01	1.581E-02	-0.827
		884.67		-5.096E-02	4.556E-02	6.513E-02	6.528E-03	-0.782
		937.48		1.490E-02	1.153E-01	1.900E-01	1.906E-02	0.078
		1384.27		-3.759E-02	1.797E-01	2.899E-01	2.560E-02	-0.130
IN-111		171.28		6.876E-01	1.397E+00	2.279E+00	1.254E-01	0.302
		245.39	*	3.092E-01	1.554E+00	2.335E+00	1.442E-01	0.132
IN-113M		391.69	*	2.538E-03	3.955E-02	6.499E-02	4.634E-03	0.039
SN-113		391.69	*	2.538E-03	3.955E-02	6.499E-02	4.634E-03	0.039
IN-114M		190.27	*	1.398E-01	1.854E-01	2.741E-01	1.554E-02	0.510
CD-115		260.90		-9.867E+01	1.906E+02	3.104E+02	1.954E+01	-0.318
		492.35		-3.726E+00	5.515E+01	8.838E+01	5.756E+00	-0.042
		527.90	*	-9.781E+00	1.604E+01	2.427E+01	1.528E+00	-0.403
SN-117M		156.02		-1.667E+00	2.371E+00	3.672E+00	2.079E-01	-0.454
		158.56	*	4.403E-02	5.554E-02	9.204E-02	5.162E-03	0.478
SB-122		563.90	*	-1.638E+00	2.987E+00	4.540E+00	2.731E-01	-0.361

Sample ID : G243517008

Acquisition date : 7-JAN-2010 09:12:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-123	692.80			-1.560E+00	5.794E+01	9.414E+01	5.183E+00	-0.017
	159.00	*		2.652E+01	5.794E+01	Half-Life	too short	
	528.96			-3.168E+03	5.794E+01	Half-Life	too short	
TE-123M	159.00	*		1.411E-02	2.629E-02	4.310E-02	2.448E-03	0.327
I-124	602.71	*		1.742E-01	8.471E-01	1.368E+00	7.719E-02	0.127
	722.78			-3.046E-01	5.592E+00	8.004E+00	4.872E-01	-0.038
	1325.50			1.248E+01	4.198E+01	7.213E+01	6.184E+00	0.173
SB-124	1376.25			5.412E+01	4.324E+01	8.035E+01	6.915E+00	0.674
	1509.49			7.028E+00	1.920E+01	3.322E+01	2.716E+00	0.212
	1691.02			4.203E-02	4.213E+00	6.862E+00	4.935E-01	0.006
	602.71			7.708E-03	3.749E-02	6.054E-02	3.417E-03	0.127
	645.85			-5.478E-02	4.366E-01	7.228E-01	4.313E-02	-0.076
	709.31			-1.317E+00	2.547E+00	4.051E+00	2.358E-01	-0.325
	713.82			8.816E-01	1.458E+00	2.539E+00	2.609E-01	0.347
	722.78			-1.954E-02	3.587E-01	5.134E-01	3.259E-02	-0.038
	968.20			1.432E+01	4.169E+00	7.173E+00	6.762E-01	1.997
	1045.16			-7.995E-01	2.517E+00	3.929E+00	3.308E-01	-0.203
	1325.50			8.547E-01	2.876E+00	4.942E+00	4.237E-01	0.173
	1368.21			4.919E-01	1.629E+00	2.802E+00	3.776E-01	0.176
	1436.60			-7.848E-01	3.175E+00	5.014E+00	4.233E-01	-0.157
	1691.02	*		6.359E-04	6.374E-02	1.038E-01	7.888E-03	0.006
	427.89	*		-5.785E-02	8.273E-02	1.275E-01	8.879E-03	-0.454
SB-125	463.38			3.961E-01	3.095E-01	4.619E-01	3.464E-02	0.858
	600.56			8.001E-02	1.627E-01	2.825E-01	1.862E-02	0.283
	635.90			-2.733E-01	2.416E-01	3.660E-01	2.321E-02	-0.747
TE-125M	109.28	*		3.084E+00	8.629E+00	1.426E+01	1.370E+00	0.216
I-126	388.63			5.405E-02	1.969E-01	3.282E-01	2.230E-02	0.165
	666.33	*		4.464E-02	1.951E-01	2.906E-01	1.458E-02	0.154
	753.82			4.380E-01	1.530E+00	2.590E+00	1.742E-01	0.169
SB-126	223.80			-1.487E+00	4.067E+00	6.760E+00	4.047E-01	-0.220
	278.60			2.631E+00	3.325E+00	4.421E+00	2.837E-01	0.595
	296.50			1.567E+01	2.821E+00	3.680E+00	2.401E-01	4.259
	414.70			-1.216E-02	7.518E-02	1.212E-01	8.211E-03	-0.100
	415.30			1.896E+00	6.205E+00	1.032E+01	6.993E-01	0.184
	555.20			1.085E+00	3.907E+00	6.394E+00	3.893E-01	0.170
	573.80			-6.165E-02	9.362E-01	1.571E+00	9.308E-02	-0.039
	593.00			-3.314E-01	8.536E-01	1.369E+00	7.863E-02	-0.242
	656.30			4.873E-01	3.715E+00	5.480E+00	2.743E-01	0.089
	666.33			1.873E-02	8.184E-02	1.219E-01	6.115E-03	0.154
	675.00			1.257E+00	1.864E+00	3.279E+00	1.697E-01	0.383
	695.00			-6.667E-02	7.630E-02	1.150E-01	6.382E-03	-0.579
	697.00			-3.572E-02	2.482E-01	4.080E-01	2.279E-02	-0.088
	720.50	*		2.741E-02	1.511E-01	2.325E-01	1.405E-02	0.118
	856.80			-8.681E-01	5.119E-01	6.935E-01	6.295E-02	-1.252
SB-127	989.30			2.221E-02	1.267E+00	2.058E+00	1.888E-01	0.011
	1034.80			3.549E+00	9.034E+00	1.521E+01	1.303E+00	0.233
	1213.00			-3.839E+00	4.757E+00	7.266E+00	4.916E-01	-0.528
	61.10			1.354E+02	1.098E+02	1.721E+02	2.493E+01	0.787
	252.40			-1.137E+00	5.327E+00	8.812E+00	3.680E+00	-0.129

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		290.80		-5.358E+00	2.934E+01	4.239E+01	4.340E+00	-0.126
		411.60		3.920E+00	1.557E+01	2.579E+01	3.923E+00	0.152
		444.90		-1.372E+01	1.155E+01	1.672E+01	1.980E+00	-0.820
		473.00		5.125E-01	2.081E+00	3.425E+00	4.155E-01	0.150
		543.00		1.722E+01	2.116E+01	3.589E+01	4.862E+00	0.480
		603.60		-2.720E+00	1.682E+01	2.423E+01	2.722E+00	-0.112
		685.20	*	2.072E-01	1.525E+00	2.571E+00	2.524E-01	0.081
		698.50		2.743E-01	1.813E+01	3.020E+01	4.478E+00	0.009
		722.20		1.606E+01	3.731E+01	5.668E+01	5.656E+00	0.283
		783.80		4.240E+00	5.271E+00	8.218E+00	9.950E-01	0.516
XE-127		57.60		-4.249E+00	9.101E+00	1.488E+01	1.891E+00	-0.286
		145.22		2.537E-01	6.532E-01	1.068E+00	6.297E-02	0.238
		172.10		4.871E-02	1.113E-01	1.811E-01	9.973E-03	0.269
		202.84	*	1.940E-03	4.315E-02	7.336E-02	4.248E-03	0.026
		374.96		1.901E-02	1.755E-01	2.900E-01	1.967E-02	0.066
I-131		80.18		4.011E+00	5.719E+00	8.720E+00	9.617E-01	0.460
		284.30		2.892E-01	1.497E+00	2.522E+00	1.780E-01	0.115
		364.48	*	-2.286E-03	1.184E-01	1.943E-01	1.432E-02	-0.012
		636.97		-8.174E-01	1.563E+00	2.505E+00	1.510E-01	-0.326
		722.89		1.094E-01	7.875E+00	1.137E+01	7.033E-01	0.010
TE-132		49.72		-2.512E+01	5.556E+01	9.125E+01	1.337E+01	-0.275
		111.76		-2.586E+00	3.924E+01	6.365E+01	6.682E+00	-0.041
		116.30		1.631E+01	3.639E+01	6.022E+01	6.143E+00	0.271
		228.16	*	-1.152E-01	9.028E-01	1.515E+00	2.245E-01	-0.076
BA-133		53.15		-1.412E+00	6.500E+00	1.053E+01	1.395E+00	-0.134
		79.62		1.561E+00	1.398E+00	2.146E+00	3.576E-01	0.728
		81.00		-1.745E-01	1.150E-01	1.508E-01	2.606E-02	-1.157
	+	276.40		3.564E-01	4.523E-01	5.661E-01	7.498E-02	0.630
		302.84		1.904E-02	1.356E-01	2.004E-01	2.415E-02	0.095
		356.01	*	2.036E-02	4.005E-02	6.047E-02	7.295E-03	0.337
		383.85		-7.383E-02	2.706E-01	4.350E-01	4.973E-02	-0.170
I-133	+	510.53		5.789E+00	2.706E-01	Half-Life	too short	
		529.87	*	-1.561E-02	2.706E-01	Half-Life	too short	
		706.58		2.492E-01	2.706E-01	Half-Life	too short	
		856.28		-4.755E+00	2.706E-01	Half-Life	too short	
		875.33		4.252E-01	2.706E-01	Half-Life	too short	
		1236.41		2.696E+00	2.706E-01	Half-Life	too short	
		1298.22		-1.761E-01	2.706E-01	Half-Life	too short	
CS-134		475.35		-4.992E-01	1.759E+00	2.779E+00	1.833E-01	-0.180
		563.23		-1.377E-01	3.327E-01	5.079E-01	3.117E-02	-0.271
		569.32		4.009E-02	1.833E-01	2.932E-01	1.799E-02	0.137
		604.70		-1.846E-02	3.459E-02	4.783E-02	2.704E-03	-0.386
		795.84	*	5.277E-02	4.482E-02	8.036E-02	6.195E-03	0.657
		801.93		9.743E-02	3.646E-01	6.147E-01	4.813E-02	0.159
		1038.57		-7.780E-01	3.646E+00	5.751E+00	4.898E-01	-0.135
		1167.94		1.569E-01	2.295E+00	3.869E+00	2.427E-01	0.041
		1365.15		-8.946E-02	1.103E+00	1.804E+00	1.627E-01	-0.050
CS-135		268.24	*	1.387E-01	1.527E-01	2.385E-01	1.928E-02	0.581
I-135		288.45		9.086E+11	1.527E-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
		417.63		3.000E+11	1.527E-01	Half-Life	too short	
		546.56		-9.470E+11	1.527E-01	Half-Life	too short	
		836.80		1.555E+12	1.527E-01	Half-Life	too short	
		1038.76		-2.783E+11	1.527E-01	Half-Life	too short	
		1124.00		3.289E+12	1.527E-01	Half-Life	too short	
		1131.51		-1.088E+11	1.527E-01	Half-Life	too short	
		1260.41	*	5.096E+11	1.527E-01	Half-Life	too short	
		1457.56		1.259E+13	1.527E-01	Half-Life	too short	
		1678.03		1.035E+11	1.527E-01	Half-Life	too short	
		1706.46		-6.939E+11	1.527E-01	Half-Life	too short	
		1791.20		6.204E+11	1.527E-01	Half-Life	too short	
CS-136		66.91		8.750E-02	1.077E+00	1.609E+00	2.756E-01	0.054
	+	86.29		4.367E+00	1.765E+00	2.251E+00	3.317E-01	1.940
		153.22		5.258E-01	6.770E-01	1.121E+00	8.027E-02	0.469
		163.89		-3.212E-01	1.046E+00	1.646E+00	1.155E-01	-0.195
		176.55		1.717E-01	3.612E-01	5.882E-01	3.702E-02	0.292
		273.65		-7.864E-03	6.402E-01	6.823E-01	4.869E-02	-0.012
		340.57		2.371E-01	1.485E-01	2.380E-01	1.674E-02	0.996
		818.51		1.827E-02	7.176E-02	1.209E-01	9.876E-03	0.151
		1048.07	*	3.802E-02	1.185E-01	1.974E-01	1.728E-02	0.193
		1235.34		3.129E-01	6.148E-01	1.066E+00	1.151E-01	0.294
CE-139		165.85	*	1.670E-04	2.649E-02	4.230E-02	2.311E-03	0.004
BA-140		162.64		-2.545E-01	7.410E-01	1.164E+00	7.308E-02	-0.219
		304.84		-6.713E-02	1.362E+00	1.981E+00	5.441E-01	-0.034
		423.70		1.426E+00	1.912E+00	3.184E+00	1.018E+00	0.448
		537.32	*	-7.641E-02	2.612E-01	4.061E-01	1.324E-01	-0.188
LA-140		328.77		3.082E-01	3.035E-01	5.271E-01	3.840E-02	0.585
		432.53		3.425E-01	2.038E+00	3.352E+00	2.437E-01	0.102
		487.03		3.456E-02	1.289E-01	2.125E-01	1.536E-02	0.163
		751.79		4.716E-02	1.721E+00	2.855E+00	2.237E-01	0.017
		815.85		-4.582E-02	2.861E-01	4.626E-01	4.231E-02	-0.099
		867.82		7.841E-01	1.428E+00	2.455E+00	2.399E-01	0.319
		919.63		1.342E+00	2.966E+00	4.471E+00	5.246E-01	0.300
		925.24		-3.698E-01	1.085E+00	1.700E+00	1.760E-01	-0.218
		1596.49	*	-1.477E-01	1.033E-01	1.297E-01	1.006E-02	-1.139
CE-141		145.44	*	1.957E-02	5.925E-02	9.661E-02	5.913E-03	0.203
CE-143		57.37		-1.910E-03	5.925E-02	Half-Life	too short	
		231.56		1.156E-03	5.925E-02	Half-Life	too short	
		293.26	*	1.349E-03	5.925E-02	Half-Life	too short	
	+	350.59		6.647E-02	5.925E-02	Half-Life	too short	
		490.36		5.839E-04	5.925E-02	Half-Life	too short	
		664.57		4.866E-03	5.925E-02	Half-Life	too short	
		721.93		1.615E-03	5.925E-02	Half-Life	too short	
CE-144		80.11		1.666E+00	2.275E+00	3.473E+00	3.811E-01	0.480
		133.54	*	-1.677E-01	1.950E-01	2.833E-01	4.070E-02	-0.592
PM-144		476.78		1.555E-02	6.090E-02	1.003E-01	7.635E-03	0.155
		618.01		-8.134E-03	2.758E-02	4.520E-02	2.642E-03	-0.180
		696.49	*	-1.047E-02	2.885E-02	4.652E-02	2.596E-03	-0.225
		778.57		-1.618E+00	2.300E+00	2.963E+00	2.151E-01	-0.546

----- 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	*	-7.098E-01	1.957E+00	3.155E+00	1.759E-01	-0.225
		1489.15		-5.644E+00	1.114E+01	1.674E+01	1.382E+00	-0.337
PM-146		453.90	*	-7.023E-03	4.113E-02	6.582E-02	6.080E-03	-0.107
		633.02		6.210E-01	1.215E+00	2.081E+00	7.648E-01	0.298
		735.90		7.092E-02	1.294E-01	2.176E-01	6.093E-02	0.326
		747.13		-7.872E-02	7.827E-02	1.160E-01	1.495E-02	-0.679
ND-147		91.11		6.825E-01	4.163E-01	5.514E-01	6.147E-02	1.238
		319.41		-3.657E+00	3.253E+00	5.003E+00	3.321E-01	-0.731
		439.89		4.022E+00	5.874E+00	9.994E+00	6.721E-01	0.403
		531.02	*	-2.628E-01	5.718E-01	8.789E-01	1.207E-01	-0.299
PM-149		285.90	*	-3.168E+01	1.403E+02	2.310E+02	3.341E+01	-0.137
EU-152		121.78		4.649E-03	6.625E-02	1.077E-01	8.876E-03	0.043
		244.69		1.586E-01	2.996E-01	4.605E-01	2.841E-02	0.344
		344.27	*	7.310E-02	1.027E-01	1.480E-01	1.090E-02	0.494
		443.98		-5.213E-01	8.336E-01	1.285E+00	8.626E-02	-0.406
		778.89		-8.095E-02	2.616E-01	3.584E-01	2.603E-02	-0.226
		867.32		3.742E-01	7.682E-01	1.315E+00	1.228E-01	0.285
		964.01		3.776E-01	2.725E-01	4.522E-01	4.284E-02	0.835
		1085.78		3.551E-02	3.790E-01	6.161E-01	4.796E-02	0.058
		1112.02		-2.302E-01	3.013E-01	4.250E-01	3.118E-02	-0.542
	+	1407.95		2.107E-01	2.113E-01	3.296E-01	2.810E-02	0.639
GD-153		69.67		1.754E-01	2.017E+00	3.010E+00	3.357E-01	0.058
		83.37		8.636E+00	1.648E+01	2.480E+01	2.749E+00	0.348
		97.43	*	-5.187E-02	8.423E-02	1.177E-01	1.096E-02	-0.441
		103.18		-8.011E-02	1.026E-01	1.616E-01	1.367E-02	-0.496
EU-154		123.07		4.023E-02	4.714E-02	7.902E-02	7.809E-03	0.509
		247.94		7.387E-02	3.180E-01	5.401E-01	5.285E-02	0.137
		591.81		-1.235E-01	5.252E-01	8.545E-01	8.329E-02	-0.145
		723.30		-8.232E-03	1.671E-01	2.394E-01	1.754E-02	-0.034
		756.87		7.073E-01	6.983E-01	1.246E+00	1.337E-01	0.568
		873.19		-8.501E-02	2.878E-01	4.575E-01	5.888E-02	-0.186
		996.32		5.895E-02	3.229E-01	5.334E-01	9.601E-02	0.111
		1004.76		-1.405E-01	1.858E-01	2.728E-01	3.249E-02	-0.515
		1274.45	*	-4.914E-03	9.908E-02	1.638E-01	1.745E-02	-0.030
EU-155		48.70		-4.136E+00	5.106E+00	8.244E+00	9.903E-01	-0.502
		60.01		7.850E-01	7.225E+00	1.087E+01	1.338E+00	0.072
	+	86.54		3.675E-01	1.444E-01	1.888E-01	2.137E-02	1.946
		105.31	*	1.702E-01	1.043E-01	1.798E-01	1.491E-02	0.946
TB-160	+	86.79		9.976E-01	3.918E-01	5.093E-01	5.738E-02	1.959
		197.04		1.524E-01	5.617E-01	8.791E-01	5.042E-02	0.173
		215.65		-6.987E-01	6.663E-01	1.073E+00	6.346E-02	-0.651
	+	298.57		2.644E-01	1.519E-01	1.796E-01	1.174E-02	1.472
		879.36	*	4.012E-02	1.261E-01	2.129E-01	2.053E-02	0.188
		962.29		-2.469E-01	5.150E-01	6.683E-01	6.344E-02	-0.369
		966.15		5.112E-01	2.350E-01	4.021E-01	3.800E-02	1.271
		1177.93		3.046E-01	3.124E-01	5.707E-01	3.559E-02	0.534
		1271.85		7.968E-02	5.658E-01	9.579E-01	7.368E-02	0.083
HO-166M		80.57		-1.306E-01	2.967E-01	4.277E-01	4.698E-02	-0.305
	+	184.41		1.778E-01	6.102E-02	6.336E-02	3.558E-03	2.806

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		280.46		7.278E-05	8.283E-02	1.217E-01	7.824E-03	0.001
		410.95		9.811E-02	2.277E-01	3.815E-01	2.587E-02	0.257
		711.68	*	-3.113E-02	5.427E-02	8.578E-02	5.034E-03	-0.363
		752.31		1.565E-01	2.507E-01	4.360E-01	2.918E-02	0.359
		810.29		-4.389E-02	4.571E-02	6.670E-02	5.314E-03	-0.658
TM-171		51.35		1.768E+01	5.661E+01	9.597E+01	1.262E+01	0.184
		52.39		-5.694E+00	2.884E+01	4.673E+01	6.190E+00	-0.122
		59.40		1.394E+01	3.932E+01	5.989E+01	7.440E+00	0.233
		66.72	*	9.599E+00	3.522E+01	5.315E+01	6.055E+00	0.181
LU-176	+	88.36		7.232E-01	2.840E-01	3.487E-01	3.922E-02	2.074
		201.83		-2.591E-02	2.558E-02	4.156E-02	2.402E-03	-0.623
		306.84	*	-6.593E-03	2.221E-02	3.496E-02	2.299E-03	-0.189
		401.10		-5.095E+00	5.841E+00	8.933E+00	6.067E-01	-0.570
LU-177		112.95		-2.399E-01	1.753E+00	2.833E+00	2.086E-01	-0.085
	+	208.36	*	2.616E+00	1.498E+00	2.125E+00	1.242E-01	1.231
LU-177M		52.97		-1.061E+00	2.993E+00	4.820E+00	6.386E-01	-0.220
		54.07		3.401E-01	1.481E+00	2.441E+00	3.220E-01	0.139
		61.30		2.695E+00	2.066E+00	3.261E+00	3.945E-01	0.827
		121.62		-1.089E-01	3.473E-01	5.546E-01	3.669E-02	-0.196
		147.16		-6.263E-01	6.088E-01	9.294E-01	5.440E-02	-0.674
		171.86		2.192E-01	4.361E-01	7.120E-01	3.919E-02	0.308
		218.09		9.734E-02	7.505E-01	1.276E+00	7.574E-02	0.076
	+	268.79		1.436E+00	1.102E+00	1.309E+00	8.318E-02	1.097
		319.02		-2.907E-01	2.250E-01	3.413E-01	2.264E-02	-0.852
		367.43		3.463E-01	8.072E-01	1.362E+00	9.225E-02	0.254
		413.65	*	-7.867E-02	1.672E-01	2.640E-01	1.789E-02	-0.298
HF-181		56.28		2.324E-01	1.455E+00	2.447E+00	3.161E-01	0.095
		57.53		-4.010E-01	7.661E-01	1.249E+00	1.589E-01	-0.321
		65.20		-1.083E+00	1.266E+00	1.792E+00	2.071E-01	-0.604
		133.02		-2.525E-02	6.687E-02	9.384E-02	5.828E-03	-0.269
		136.25		-9.279E-02	4.354E-01	6.951E-01	4.254E-02	-0.134
		345.85		-2.408E-02	1.984E-01	2.841E-01	1.911E-02	-0.085
		482.03	*	-2.118E-03	3.776E-02	6.066E-02	3.982E-03	-0.035
W-181		56.28		8.911E-02	5.590E-01	9.398E-01	1.214E-01	0.095
		57.53		-1.541E-01	2.946E-01	4.802E-01	6.110E-02	-0.321
		65.20	*	-4.130E-01	4.830E-01	6.837E-01	7.899E-02	-0.604
TA-182		67.75		8.751E-03	1.255E-01	2.088E-01	2.359E-02	0.042
		100.10		1.530E-01	1.671E-01	2.829E-01	2.514E-02	0.541
		152.43		3.602E-02	3.168E-01	5.104E-01	2.929E-02	0.071
		222.10		-5.105E-02	3.191E-01	5.355E-01	3.198E-02	-0.095
		1001.68		3.568E-01	1.845E+00	2.980E+00	2.688E-01	0.120
	+	1121.28		6.706E-01	2.247E-01	3.522E-01	2.524E-02	1.904
		1189.05		1.409E-01	2.920E-01	5.090E-01	3.259E-02	0.277
		1221.42	*	8.606E-02	1.902E-01	3.294E-01	2.272E-02	0.261
		1230.97		-1.337E-01	4.489E-01	7.291E-01	5.136E-02	-0.183
RE-183		57.98		-2.737E-01	2.941E-01	4.688E-01	5.931E-02	-0.584
		59.32		5.941E-02	1.647E-01	2.510E-01	3.121E-02	0.237
		67.20		1.285E-01	2.370E-01	3.837E-01	4.354E-02	0.335
		162.32	*	1.296E-03	9.781E-02	1.564E-01	8.650E-03	0.008

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RE-184	+	208.81		1.994E+00	1.142E+00	1.636E+00	9.566E-02	1.219
		291.72		-1.072E-01	9.430E-01	1.369E+00	8.899E-02	-0.078
		57.98		-9.983E-01	1.073E+00	1.710E+00	2.163E-01	-0.584
		59.32		2.165E-01	6.003E-01	9.146E-01	1.137E-01	0.237
		67.20		4.687E-01	8.641E-01	1.399E+00	1.588E-01	0.335
		161.27		-2.523E-01	3.241E-01	4.977E-01	2.763E-02	-0.507
		216.55		-2.335E-01	2.379E-01	3.846E-01	2.277E-02	-0.607
		252.85	*	-4.598E-03	2.072E-01	3.474E-01	2.166E-02	-0.013
		318.01		-1.943E-01	3.897E-01	6.258E-01	4.148E-02	-0.310
		792.07		1.426E-01	8.697E-01	1.455E+00	1.099E-01	0.098
OS-185		903.28		3.246E-01	1.092E+00	1.672E+00	1.685E-01	0.194
		920.93		1.592E-01	4.081E-01	6.759E-01	6.703E-02	0.236
		59.72		4.290E-02	4.393E-01	6.603E-01	8.167E-02	0.065
		61.14		2.860E-01	2.289E-01	3.608E-01	4.374E-02	0.793
		69.30		3.972E-02	3.673E-01	5.488E-01	6.134E-02	0.072
		592.07		-4.630E-01	2.175E+00	3.546E+00	2.040E-01	-0.131
		646.12	*	-2.846E-03	3.600E-02	5.981E-02	3.073E-03	-0.048
		717.42		-9.853E-02	8.151E-01	1.340E+00	8.015E-02	-0.074
		874.81		1.731E-01	5.640E-01	9.496E-01	9.046E-02	0.182
		880.27		1.975E-01	6.759E-01	1.139E+00	1.101E-01	0.173
RE-188		155.03	*	-2.322E-02	1.647E-01	2.622E-01	1.490E-02	-0.089
		477.96		8.565E-01	2.836E+00	4.685E+00	3.084E-01	0.183
W-188	+	633.10		1.260E+00	2.453E+00	4.274E+00	2.265E-01	0.295
		63.58		3.879E+01	8.687E+01	1.129E+02	1.327E+01	0.344
IR-192	+	227.08		1.824E+00	1.135E+01	1.928E+01	1.160E+00	0.095
		290.67	*	1.149E+00	7.333E+00	1.087E+01	7.058E-01	0.106
AU-195	+	295.96		1.105E+00	1.993E-01	2.723E-01	1.798E-02	4.060
		308.46		1.653E-02	8.383E-02	1.407E-01	9.351E-03	0.117
		316.51	*	1.523E-02	3.054E-02	5.206E-02	3.461E-03	0.292
		468.07		-4.555E-02	7.068E-02	9.283E-02	6.883E-03	-0.491
		604.41		-1.632E-01	4.807E-01	6.790E-01	7.647E-02	-0.240
		612.46		1.754E+00	7.971E-01	1.369E+00	1.010E-01	1.281
TL-200		65.12		-1.942E-01	2.233E-01	3.158E-01	3.651E-02	-0.615
		66.83		4.908E-03	1.187E-01	1.771E-01	2.015E-02	0.028
	+	75.70		1.092E+00	2.973E-01	4.899E-01	5.359E-02	2.229
		98.88	*	2.245E-01	2.156E-01	3.619E-01	3.284E-02	0.620
TL-201	+	129.76		4.213E+00	3.333E+00	4.468E+00	2.819E-01	0.943
		367.94	*	-4.500E-04	3.333E+00	Half-Life too short		
		579.30		8.125E-04	3.333E+00	Half-Life too short		
		828.27		-2.149E-03	3.333E+00	Half-Life too short		
TL-202		1205.75		7.023E-03	3.333E+00	Half-Life too short		
		68.90		3.082E+00	8.649E+00	1.308E+01	1.466E+00	0.236
		70.82		3.815E+00	4.802E+00	7.384E+00	8.185E-01	0.517
		80.30		-1.816E+00	8.279E+00	1.208E+01	1.326E+00	-0.150
TL-202		135.34		3.262E+01	3.293E+01	5.547E+01	3.408E+00	0.588
		167.43	*	4.843E+00	9.093E+00	1.489E+01	8.144E-01	0.325
		68.90		2.049E-01	5.750E-01	8.697E-01	9.745E-02	0.236
		70.82		2.529E-01	3.184E-01	4.895E-01	5.427E-02	0.517
		80.30		-1.204E-01	5.491E-01	8.014E-01	8.797E-02	-0.150

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HG-203		439.56	*	5.101E-02	6.893E-02	1.177E-01	7.913E-03	0.433
		70.83		1.029E+00	1.286E+00	1.971E+00	3.014E-01	0.522
		72.87		1.510E+00	7.371E-01	1.244E+00	1.849E-01	1.213
		82.60		6.478E-01	1.336E+00	1.847E+00	2.842E-01	0.351
BI-207		279.20	*	4.517E-02	4.224E-02	6.649E-02	4.487E-03	0.679
		72.80		3.664E-01	2.027E-01	3.491E-01	3.840E-02	1.049
	+	74.97		6.018E-01	1.638E-01	2.421E-01	2.650E-02	2.486
		84.90		3.175E-01	2.114E-01	3.279E-01	3.659E-02	0.968
		569.67		-4.208E-04	2.805E-02	4.395E-02	2.621E-03	-0.010
		1063.62	*	1.299E-02	4.842E-02	8.032E-02	6.538E-03	0.162
TL-207		1770.23		2.665E-01	5.413E-01	8.457E-01	5.611E-02	0.315
		81.07		-3.925E-01	2.482E-01	3.314E-01	3.645E-02	-1.184
		83.78		1.342E-01	1.402E-01	2.142E-01	2.378E-02	0.627
		94.90		3.612E-01	2.290E-01	3.600E-01	3.515E-02	1.003
		122.32		6.479E-01	1.592E+00	2.626E+00	1.938E-01	0.247
		144.24		1.408E-01	6.349E-01	1.025E+00	7.510E-02	0.137
		154.21		1.194E-01	3.714E-01	6.035E-01	4.182E-02	0.198
	+	269.46		3.337E-01	2.560E-01	3.139E-01	2.071E-02	1.063
		323.87	*	2.668E-01	6.280E-01	1.060E+00	1.785E-01	0.252
	+	338.28		5.501E+00	1.614E+00	2.198E+00	2.430E-01	2.502
		445.03		-2.381E+00	1.951E+00	2.819E+00	3.047E-01	-0.845
		260.50		-3.173E+00	8.199E+00	1.345E+01	8.467E-01	-0.236
PO-209		262.80		5.800E+00	2.228E+01	3.782E+01	2.386E+00	0.153
		896.60	*	-1.558E-01	7.171E+00	1.169E+01	1.179E+00	-0.013
BI-210		46.50	*	2.131E+00	8.581E+00	1.432E+01	1.404E+00	0.149
PB-210		46.50	*	2.131E+00	8.581E+00	1.432E+01	1.404E+00	0.149
PO-210		46.50	*	2.131E+00	8.581E+00	1.432E+01	1.285E+00	0.149
PB-211		404.84	*	-1.330E-01	8.086E-01	1.298E+00	8.104E-01	-0.102
		427.08		-1.818E+00	2.157E+00	2.774E+00	1.717E+00	-0.656
		831.96		-1.293E+00	1.368E+00	1.606E+00	1.006E+00	-0.805
BI-212	+	727.18	*	1.190E+00	4.768E-01	6.307E-01	5.046E-02	1.886
		785.46		1.587E+00	1.659E+00	2.940E+00	2.177E-01	0.540
		1620.62		1.580E-01	1.055E+00	1.769E+00	1.349E-01	0.089
PO-215		81.07		-3.925E-01	2.482E-01	3.314E-01	3.645E-02	-1.184
		83.78		1.342E-01	1.402E-01	2.142E-01	2.378E-02	0.627
		94.90		3.612E-01	2.290E-01	3.600E-01	3.515E-02	1.003
		122.32		6.479E-01	1.592E+00	2.626E+00	1.938E-01	0.247
		144.24		1.408E-01	6.349E-01	1.025E+00	7.510E-02	0.137
		154.21		1.194E-01	3.714E-01	6.035E-01	4.182E-02	0.198
	+	269.46		3.337E-01	2.560E-01	3.139E-01	2.071E-02	1.063
		323.87	*	2.668E-01	6.280E-01	1.060E+00	1.785E-01	0.252
	+	338.28		5.501E+00	1.614E+00	2.198E+00	2.430E-01	2.502
		445.03		-2.381E+00	1.951E+00	2.819E+00	3.047E-01	-0.845
	+	271.23		4.281E-01	3.293E-01	4.055E-01	3.455E-02	1.056
		401.81	*	-3.134E-01	3.554E-01	5.389E-01	7.575E-02	-0.582
RN-220		549.76	*	-6.312E+00	2.308E+01	3.601E+01	2.208E+00	-0.175
RA-223		81.07		-3.925E-01	2.482E-01	3.314E-01	3.645E-02	-1.184
		83.78		1.342E-01	1.402E-01	2.142E-01	2.378E-02	0.627
		94.90		3.612E-01	2.290E-01	3.600E-01	3.515E-02	1.003

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		122.32		6.479E-01	1.592E+00	2.626E+00	1.938E-01	0.247
		144.24		1.408E-01	6.349E-01	1.025E+00	7.510E-02	0.137
		154.21		1.194E-01	3.714E-01	6.035E-01	4.182E-02	0.198
	+	269.46		3.337E-01	2.560E-01	3.139E-01	2.071E-02	1.063
		323.87	*	2.668E-01	6.280E-01	1.060E+00	1.785E-01	0.252
	+	338.28		5.501E+00	1.614E+00	2.198E+00	2.430E-01	2.502
		445.03		-2.381E+00	1.951E+00	2.819E+00	3.047E-01	-0.845
		79.80		1.479E+00	1.792E+00	2.710E+00	6.111E-01	0.546
		236.00		1.944E-01	2.281E-01	3.544E-01	3.763E-02	0.548
		256.20	*	1.109E-02	3.289E-01	5.525E-01	7.823E-02	0.020
		286.10		-2.991E-01	1.356E+00	2.233E+00	2.659E-01	-0.134
	+	299.80		3.311E+00	1.968E+00	2.369E+00	3.924E-01	1.398
TH-227		304.40		-3.488E-01	1.790E+00	2.570E+00	4.516E-01	-0.136
		334.20		-3.216E-01	2.165E+00	3.098E+00	5.774E-01	-0.104
		79.80		1.479E+00	1.793E+00	2.710E+00	6.182E-01	0.546
	+	94.00		1.011E+01	3.862E+00	3.518E+00	7.856E-01	2.873
		236.00		1.944E-01	2.279E-01	3.544E-01	3.278E-02	0.548
		256.20	*	1.109E-02	3.289E-01	5.525E-01	9.428E-02	0.020
		286.10		-2.991E-01	1.388E+00	2.233E+00	2.237E+00	-0.134
	+	299.80		3.311E+00	1.968E+00	2.369E+00	3.924E-01	1.398
		304.40		-3.488E-01	1.790E+00	2.570E+00	4.516E-01	-0.136
		334.20		-3.216E-01	2.165E+00	3.098E+00	5.774E-01	-0.104
		85.43		2.688E-01	2.169E-01	3.331E-01	3.726E-02	0.807
	+	88.47		4.163E-01	1.635E-01	1.987E-01	2.229E-02	2.095
TH-229		100.00		1.678E-01	1.722E-01	2.921E-01	2.600E-02	0.574
		193.63	*	-4.871E-01	4.704E-01	7.029E-01	4.009E-02	-0.693
	+	210.97		1.535E+00	8.784E-01	1.184E+00	6.946E-02	1.296
		283.67	*	-3.884E-01	1.337E+00	2.193E+00	3.085E-01	-0.177
		301.29		1.097E+00	5.773E-01	9.380E-01	1.021E-01	1.169
		81.07		-3.925E-01	2.482E-01	3.314E-01	3.645E-02	-1.184
		83.78		1.342E-01	1.402E-01	2.142E-01	2.378E-02	0.627
		94.90		3.612E-01	2.290E-01	3.600E-01	3.515E-02	1.003
		122.32		6.479E-01	1.592E+00	2.626E+00	1.938E-01	0.247
		144.24		1.408E-01	6.349E-01	1.025E+00	7.510E-02	0.137
		154.21		1.194E-01	3.714E-01	6.035E-01	4.182E-02	0.198
	+	269.46		3.337E-01	2.560E-01	3.139E-01	2.071E-02	1.063
U-231		323.87	*	2.668E-01	6.280E-01	1.060E+00	1.785E-01	0.252
	+	338.28		5.501E+00	1.614E+00	2.198E+00	2.430E-01	2.502
		445.03		-2.381E+00	1.951E+00	2.819E+00	3.047E-01	-0.845
		84.21		1.247E+01	7.995E+00	1.244E+01	1.383E+00	1.003
	+	92.29		1.336E+01	4.351E+00	5.296E+00	5.452E-01	2.523
		95.87	*	-1.098E+00	1.473E+00	2.057E+00	1.972E-01	-0.534
		108.00		-3.997E+00	2.639E+00	3.985E+00	3.137E-01	-1.003
	+	75.28		1.756E+01	5.275E+00	7.269E+00	1.219E+00	2.416
	+	86.59		5.969E+00	2.791E+00	3.065E+00	8.514E-01	1.947
	+	300.12		9.232E-01	5.420E-01	6.647E-01	9.156E-02	1.389
		311.98	*	-6.316E-03	5.722E-02	9.431E-02	6.526E-03	-0.067
		340.50		1.207E+00	7.167E-01	1.077E+00	2.500E-01	1.121
PA-233		398.62		1.711E+00	1.888E+00	3.183E+00	8.307E-01	0.537

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	+	415.76		6.950E-01	1.497E+00	2.506E+00	5.233E-01	0.277
		63.00		1.105E+00	2.479E+00	3.291E+00	5.759E-01	0.336
		94.67		4.003E-01	1.708E-01	2.688E-01	3.563E-02	1.489
		98.44		5.914E-02	9.629E-02	1.440E-01	8.044E-02	0.411
		99.86		4.610E-01	4.380E-01	7.446E-01	6.645E-02	0.619
		111.00		7.468E-02	1.693E-01	2.804E-01	3.183E-02	0.266
		131.20		-3.589E-02	1.044E-01	1.470E-01	9.210E-03	-0.244
		152.70		1.856E-01	3.011E-01	4.938E-01	7.794E-02	0.376
		186.00		6.399E+00	2.917E+00	2.465E+00	7.526E-01	2.595
		226.40		5.452E-02	3.620E-01	6.149E-01	7.175E-02	0.089
		227.20		3.373E-02	3.800E-01	6.438E-01	3.874E-02	0.052
		248.90		-5.095E-01	7.401E-01	1.188E+00	2.565E-01	-0.429
		293.70		6.845E+00	1.604E+00	1.554E+00	2.540E-01	4.406
		369.80		-1.619E-01	7.843E-01	1.270E+00	2.681E-01	-0.128
		568.70		9.234E-01	8.731E-01	1.515E+00	9.048E-02	0.609
		569.50		2.497E-02	2.510E-01	3.973E-01	2.370E-02	0.063
		574.00		6.523E-02	1.230E+00	2.083E+00	1.234E-01	0.031
		699.00		-9.535E-02	6.170E-01	1.013E+00	1.816E-01	-0.094
		706.10		2.170E-02	9.422E-01	1.569E+00	6.925E-01	0.014
		733.00		9.001E-02	3.533E-01	5.248E-01	1.123E-01	0.172
		742.81		1.228E-01	1.120E+00	1.870E+00	1.253E+00	0.066
		796.30		9.378E-01	8.952E-01	1.539E+00	4.117E-01	0.610
		805.60		1.197E+00	9.519E-01	1.498E+00	4.560E-01	0.799
		819.60		8.954E-01	1.108E+00	1.877E+00	7.120E-01	0.477
		826.30		-2.116E-01	7.115E-01	1.124E+00	5.023E-01	-0.188
		831.60		-4.679E-01	5.728E-01	8.378E-01	2.497E-01	-0.559
		876.40		3.812E-01	8.656E-01	1.323E+00	1.361E+00	0.288
		880.51		4.636E-02	2.386E-01	3.984E-01	3.854E-02	0.116
		883.24		-1.366E-01	2.689E-01	3.894E-01	2.624E-01	-0.351
		899.00		-5.580E-01	8.622E-01	1.263E+00	5.560E-01	-0.442
		925.00		2.183E-02	1.003E+00	1.638E+00	1.618E-01	0.013
		926.50		-9.991E-02	1.547E-01	2.303E-01	5.925E-02	-0.434
		946.00	*	-2.454E-01	2.895E-01	4.227E-01	8.145E-02	-0.580
		949.00		-4.916E-02	4.100E-01	6.586E-01	6.348E-02	-0.075
		980.50		3.786E-01	6.846E-01	1.172E+00	1.088E-01	0.323
		1394.10		-3.232E-01	1.098E+00	1.704E+00	1.109E+00	-0.190
PA-234M		766.42		6.773E+00	1.052E+01	1.734E+01	8.756E+00	0.391
		1001.03	*	1.845E+00	4.067E+00	6.742E+00	6.959E-01	0.274
U-235	+	89.95		1.738E+00	1.514E+00	1.791E+00	5.649E-01	0.971
		93.35		3.144E+00	1.323E+00	1.211E+00	3.452E-01	2.596
		105.00		2.010E+00	1.170E+00	1.774E+00	5.275E-01	1.133
		143.76	*	4.465E-02	1.955E-01	3.154E-01	5.158E-02	0.142
NP-236	+	163.35		-2.958E-01	4.227E-01	6.462E-01	1.156E-01	-0.458
		185.71		2.370E-01	8.136E-02	9.158E-02	5.154E-03	2.588
		205.31		4.765E-01	5.132E-01	7.988E-01	1.437E-01	0.596
		94.67		3.056E-01	1.268E-01	2.041E-01	2.002E-02	1.497
		98.44		4.469E-02	6.849E-02	1.088E-01	9.953E-03	0.411
		111.00		5.649E-02	1.279E-01	2.121E-01	1.602E-02	0.266
		160.31	*	-3.618E-02	7.288E-02	1.137E-01	6.335E-03	-0.318

---- 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		2.315E-01	1.462E-01	2.524E-01	2.264E-02	0.917
		117.00	*	4.907E-02	1.749E-01	2.875E-01	2.011E-02	0.171
	+	209.75		1.546E+00	8.849E-01	1.263E+00	7.395E-02	1.224
		228.18		-2.686E-02	2.027E-01	3.400E-01	2.049E-02	-0.079
	+	277.60		1.739E-01	2.197E-01	2.835E-01	1.818E-02	0.613
AM-241		334.30		-2.565E-01	1.222E+00	1.740E+00	1.164E-01	-0.147
		59.54	*	7.805E-02	2.269E-01	3.454E-01	4.436E-02	0.226
		99.55		2.382E-01	1.504E-01	2.598E-01	2.330E-02	0.917
		103.76	*	2.686E-02	9.194E-02	1.519E-01	1.272E-02	0.177
		117.00		5.049E-02	1.800E-01	2.958E-01	2.069E-02	0.171
CM-243	+	209.75		1.524E+00	8.725E-01	1.245E+00	7.291E-02	1.224
		228.18		-2.714E-02	2.048E-01	3.436E-01	2.071E-02	-0.079
	+	277.60		1.753E-01	2.215E-01	2.859E-01	1.833E-02	0.613
	+	798.80		5.046E-01	6.298E-01	1.986E-01	1.530E-02	2.541
		1036.00		1.112E-01	2.833E-01	4.763E-01	4.075E-02	0.233
AM-246		1062.04		4.401E-02	2.076E-01	3.426E-01	2.797E-02	0.128
		1078.86	*	2.172E-02	1.374E-01	2.249E-01	1.776E-02	0.097
	+	278.00		7.211E-01	9.112E-01	1.193E+00	7.655E-02	0.604
		287.40		2.351E-02	1.081E+00	1.804E+00	1.168E-01	0.013
		402.60	*	-2.011E-02	3.097E-02	4.811E-02	3.267E-03	-0.418
CF-249		252.85		-1.713E-02	7.720E-01	1.294E+00	8.069E-02	-0.013
		333.44		7.673E-03	1.580E-01	2.302E-01	1.540E-02	0.033
		387.95	*	-4.629E-04	3.415E-02	5.586E-02	3.795E-03	-0.008
CF-251		176.60	*	6.307E-02	1.131E-01	1.849E-01	1.025E-02	0.341
		227.00		9.625E-04	3.375E-01	5.696E-01	3.427E-02	0.002
		285.00		-9.230E-01	1.521E+00	2.449E+00	1.582E-01	-0.377

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]G243517008        *
* Acquisition date   : 7-JAN-2010 09:12:45 Detector SN# :                   *
* Detector ID        : GAM10 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 02:00:00.98 Half life ratio : 8.000                *
*****
*                                     SAMPLE DATA                            *
*                                     *                                       *
* Sample date       : 21-DEC-2009 12:00:00 Nuclide Library : SOLID            *
* Sample ID         : G243517008 Analyst initials: MXR1                    *
* Batch Number      : 937069 Sample Quantity : 1.3563E+02 GRAM             *
* Recovery          : 1.00000 Carrier Weight : 0.00000                     *
*****
*                                     QC DATA                               *
*                                     *                                       *
* Standard Weight   : 0.00000                                                *
* CALIB. DATE/TIME  : 16-MAR-2009 13:18:08 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	2.136E+01	2.345E+00	4.495E-01	0.000E+00
CD-109	3.110E+00	1.197E+00	1.433E+00	0.000E+00
SN-126	3.049E-01	1.173E-01	1.505E-01	0.000E+00
BA-137M	1.457E-01	4.974E-02	5.224E-02	0.000E+00
CS-137	1.541E-01	5.259E-02	5.522E-02	0.000E+00
TL-208	3.977E-01	7.820E-02	5.357E-02	0.000E+00
BI-211	3.441E+00	5.015E-01	2.797E-01	0.000E+00
PB-212	1.457E+00	1.462E-01	8.545E-02	0.000E+00
PO-212	1.457E+00	1.462E-01	8.545E-02	0.000E+00
BI-214	1.203E+00	1.577E-01	1.005E-01	0.000E+00
PB-214	1.197E+00	1.849E-01	9.750E-02	0.000E+00
PO-214	1.197E+00	1.849E-01	9.750E-02	0.000E+00
PO-216	1.457E+00	1.462E-01	8.545E-02	0.000E+00
PO-218	1.197E+00	1.849E-01	9.750E-02	0.000E+00
RA-224	4.290E+00	1.041E+00	9.721E-01	0.000E+00
RA-226	1.203E+00	1.577E-01	1.005E-01	0.000E+00
AC-228	1.338E+00	3.383E-01	2.106E-01	0.000E+00
RA-228	1.338E+00	3.383E-01	2.106E-01	0.000E+00
TH-228	1.482E+00	1.487E-01	8.690E-02	0.000E+00
TH-230	1.203E+00	1.577E-01	1.005E-01	0.000E+00
TH-232	1.338E+00	3.383E-01	2.106E-01	0.000E+00
TH-234	9.482E-01	2.086E+00	2.682E+00	0.000E+00
U-234	1.203E+00	1.577E-01	1.005E-01	0.000E+00
NP-237	8.953E-01	3.892E-01	4.548E-01	0.000E+00
U-238	9.482E-01	2.086E+00	2.682E+00	0.000E+00
AM-243	3.352E-01	8.944E-02	1.005E-01	0.000E+00
ANH-511	1.385E-01	5.715E-02	4.226E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)
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BE-7	2.801E-03	2.904E-01	4.903E-01	0.000E+00	NOT IDENT.
NA-22	-6.850E-03	3.520E-02	5.867E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	4.680E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	6.798E-03	2.660E-02	4.620E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.691E-02	7.986E-02	0.000E+00	FAIL ABUN
SC-46	2.092E-02	3.660E-02	6.499E-02	0.000E+00	FAIL ABUN
V-48	-2.516E-03	7.128E-02	1.187E-01	0.000E+00	NOT IDENT.
CR-51	-4.822E-01	3.441E-01	5.476E-01	0.000E+00	NOT IDENT.
MN-52	-3.410E-02	2.417E-01	3.983E-01	0.000E+00	NOT IDENT.
MN-54	2.058E-02	3.261E-02	5.836E-02	0.000E+00	NOT IDENT.
CO-56	-3.307E-03	3.355E-02	5.635E-02	0.000E+00	NOT IDENT.
CO-57	2.397E-03	2.278E-02	3.971E-02	0.000E+00	NOT IDENT.
CO-58	-4.211E-02	3.047E-02	4.330E-02	0.000E+00	NOT IDENT.
FE-59	-3.456E-04	9.610E-02	1.588E-01	0.000E+00	NOT IDENT.
CO-60	2.768E-04	3.267E-02	5.556E-02	0.000E+00	NOT IDENT.
ZN-65	2.780E-02	8.666E-02	1.295E-01	0.000E+00	NOT IDENT.
GE-68	-1.593E-01	1.201E+00	1.962E+00	0.000E+00	NOT IDENT.
AS-73	1.343E-02	1.467E+00	2.607E+00	0.000E+00	NOT IDENT.
AS-74	-5.290E-02	8.183E-02	1.361E-01	0.000E+00	NOT IDENT.
SE-75	1.282E-03	4.009E-02	6.593E-02	0.000E+00	NOT IDENT.
BR-77	8.213E-01	1.572E+01	2.644E+01	0.000E+00	FAIL ABUN
SR-82	-4.510E-01	3.477E-01	5.198E-01	0.000E+00	NOT IDENT.
RB-83	4.446E-03	6.306E-02	1.062E-01	0.000E+00	NOT IDENT.
RB-84	-1.463E-02	6.187E-02	1.019E-01	0.000E+00	NOT IDENT.
KR-85	9.744E+00	6.581E+00	1.107E+01	0.000E+00	NOT IDENT.
SR-85	5.090E-02	3.437E-02	5.784E-02	0.000E+00	NOT IDENT.
RB-86	1.034E-01	7.948E-01	1.335E+00	0.000E+00	NOT IDENT.
Y-88	-7.114E-03	3.003E-02	4.667E-02	0.000E+00	NOT IDENT.
ZR-88	-8.965E-03	2.649E-02	4.438E-02	0.000E+00	NOT IDENT.
Y-91	5.715E+00	1.685E+01	2.979E+01	0.000E+00	NOT IDENT.
NB-94	1.952E-02	2.999E-02	5.419E-02	0.000E+00	NOT IDENT.
NB-95	-1.404E-04	3.714E-02	6.357E-02	0.000E+00	NOT IDENT.
NB-95M	4.324E-02	1.203E-01	1.932E-01	0.000E+00	NOT IDENT.
ZR-95	3.974E-02	6.623E-02	1.188E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	5.525E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.070E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-8.297E+00	1.583E+01	2.519E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.495E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.921E-03	3.159E-02	5.145E-02	0.000E+00	NOT IDENT.
RH-102	-5.502E-03	2.621E-02	4.354E-02	0.000E+00	NOT IDENT.
RU-103	5.064E-03	3.724E-02	6.251E-02	0.000E+00	FAIL ABUN
RH-106	5.128E-02	2.640E-01	4.672E-01	0.000E+00	FAIL ABUN
RU-106	5.128E-02	2.639E-01	4.672E-01	0.000E+00	FAIL ABUN
AG-108M	2.636E-03	2.749E-02	4.709E-02	0.000E+00	NOT IDENT.
AG-110M	-1.902E-02	3.501E-02	4.950E-02	0.000E+00	NOT IDENT.
IN-111	3.092E-01	1.523E+00	2.420E+00	0.000E+00	NOT IDENT.
IN-113M	2.538E-03	3.876E-02	6.678E-02	0.000E+00	NOT IDENT.
SN-113	2.538E-03	3.876E-02	6.678E-02	0.000E+00	NOT IDENT.
IN-114M	1.398E-01	1.817E-01	2.853E-01	0.000E+00	NOT IDENT.
CD-115	-9.781E+00	1.572E+01	2.481E+01	0.000E+00	NOT IDENT.
SN-117M	4.403E-02	5.443E-02	9.613E-02	0.000E+00	NOT IDENT.
SB-122	-1.638E+00	2.927E+00	4.634E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.843E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.411E-02	2.576E-02	4.502E-02	0.000E+00	NOT IDENT.
I-124	1.742E-01	8.302E-01	1.395E+00	0.000E+00	NOT IDENT.
SB-124	6.359E-04	6.246E-02	1.038E-01	0.000E+00	NOT IDENT.
SB-125	-5.785E-02	8.107E-02	1.308E-01	0.000E+00	FAIL ABUN
TE-125M	3.084E+00	8.456E+00	1.500E+01	0.000E+00	NOT IDENT.
I-126	4.464E-02	1.912E-01	2.956E-01	0.000E+00	NOT IDENT.
SB-126	2.741E-02	1.480E-01	2.362E-01	0.000E+00	FAIL ABUN
SB-127	2.072E-01	1.494E+00	2.614E+00	0.000E+00	NOT IDENT.
XE-127	1.940E-03	4.228E-02	7.629E-02	0.000E+00	NOT IDENT.
I-131	-2.286E-03	1.160E-01	2.000E-01	0.000E+00	NOT IDENT.
TE-132	-1.152E-01	8.848E-01	1.572E+00	0.000E+00	NOT IDENT.
BA-133	2.036E-02	3.925E-02	6.224E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.174E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.277E-02	4.392E-02	8.150E-02	0.000E+00	NOT IDENT.
CS-135	1.387E-01	1.496E-01	2.468E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.363E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.802E-02	1.161E-01	1.991E-01	0.000E+00	FAIL ABUN
CE-139	1.670E-04	2.596E-02	4.415E-02	0.000E+00	NOT IDENT.
BA-140	-7.641E-02	2.560E-01	4.149E-01	0.000E+00	NOT IDENT.
LA-140	-1.477E-01	1.013E-01	1.297E-01	0.000E+00	NOT IDENT.
CE-141	1.957E-02	5.806E-02	1.011E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.656E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.677E-01	1.911E-01	2.968E-01	0.000E+00	NOT IDENT.
PM-144	-1.047E-02	2.828E-02	4.729E-02	0.000E+00	NOT IDENT.
PR-144	-7.098E-01	1.918E+00	3.208E+00	0.000E+00	NOT IDENT.

PM-146	-7.023E-03	4.030E-02	6.745E-02	0.000E+00	NOT IDENT.
ND-147	-2.628E-01	5.604E-01	8.981E-01	0.000E+00	NOT IDENT.
PM-149	-3.168E+01	1.375E+02	2.387E+02	0.000E+00	NOT IDENT.
EU-152	7.310E-02	1.007E-01	1.524E-01	0.000E+00	FAIL ABUN
GD-153	-5.187E-02	8.255E-02	1.240E-01	0.000E+00	NOT IDENT.
EU-154	-4.914E-03	9.710E-02	1.647E-01	0.000E+00	NOT IDENT.
EU-155	1.702E-01	1.022E-01	1.892E-01	0.000E+00	FAIL ABUN
TB-160	4.012E-02	1.236E-01	2.155E-01	0.000E+00	FAIL ABUN
HO-166M	-3.113E-02	5.318E-02	8.717E-02	0.000E+00	FAIL ABUN
TM-171	9.599E+00	3.452E+01	5.636E+01	0.000E+00	NOT IDENT.
LU-176	-6.593E-03	2.176E-02	3.608E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.468E+00	2.209E+00	0.000E+00	FAIL ABUN
LU-177M	-7.867E-02	1.639E-01	2.710E-01	0.000E+00	FAIL ABUN
HF-181	-2.118E-03	3.701E-02	6.210E-02	0.000E+00	NOT IDENT.
W-181	-4.130E-01	4.734E-01	7.253E-01	0.000E+00	NOT IDENT.
TA-182	8.606E-02	1.864E-01	3.313E-01	0.000E+00	FAIL ABUN
RE-183	1.296E-03	9.585E-02	1.633E-01	0.000E+00	FAIL ABUN
RE-184	-4.598E-03	2.031E-01	3.598E-01	0.000E+00	NOT IDENT.
OS-185	-2.846E-03	3.528E-02	6.089E-02	0.000E+00	NOT IDENT.
RE-188	-2.322E-02	1.614E-01	2.740E-01	0.000E+00	NOT IDENT.
W-188	1.149E+00	7.186E+00	1.123E+01	0.000E+00	FAIL ABUN
IR-192	1.523E-02	2.993E-02	5.371E-02	0.000E+00	FAIL ABUN
AU-195	2.245E-01	2.113E-01	3.812E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.276E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	4.843E+00	8.912E+00	1.554E+01	0.000E+00	NOT IDENT.
TL-202	5.101E-02	6.755E-02	1.207E-01	0.000E+00	NOT IDENT.
HG-203	4.517E-02	4.140E-02	6.875E-02	0.000E+00	NOT IDENT.
BI-207	1.299E-02	4.745E-02	8.100E-02	0.000E+00	FAIL ABUN
TL-207	2.668E-01	6.154E-01	1.093E+00	0.000E+00	FAIL ABUN
PO-209	-1.558E-01	7.027E+00	1.183E+01	0.000E+00	NOT IDENT.
BI-210	2.131E+00	8.410E+00	1.528E+01	0.000E+00	NOT IDENT.
PB-210	2.131E+00	8.410E+00	1.528E+01	0.000E+00	NOT IDENT.
PO-210	2.131E+00	8.409E+00	1.528E+01	0.000E+00	NOT IDENT.
PB-211	-1.330E-01	7.924E-01	1.333E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.672E-01	6.407E-01	0.000E+00	FAIL ABUN
PO-215	2.668E-01	6.154E-01	1.093E+00	0.000E+00	FAIL ABUN
RN-219	-3.134E-01	3.483E-01	5.535E-01	0.000E+00	FAIL ABUN
RN-220	-6.312E+00	2.262E+01	3.677E+01	0.000E+00	NOT IDENT.
RA-223	2.668E-01	6.154E-01	1.093E+00	0.000E+00	FAIL ABUN
AC-227	1.109E-02	3.223E-01	5.722E-01	0.000E+00	FAIL ABUN
TH-227	1.109E-02	3.223E-01	5.722E-01	0.000E+00	FAIL ABUN
TH-229	-4.871E-01	4.610E-01	7.316E-01	0.000E+00	FAIL ABUN
PA-231	-3.884E-01	1.311E+00	2.267E+00	0.000E+00	NOT IDENT.
TH-231	2.668E-01	6.154E-01	1.093E+00	0.000E+00	FAIL ABUN
U-231	-1.098E+00	1.443E+00	2.168E+00	0.000E+00	FAIL ABUN
PA-233	-6.316E-03	5.607E-02	9.732E-02	0.000E+00	FAIL ABUN
PA-234	-2.454E-01	2.837E-01	4.273E-01	0.000E+00	FAIL ABUN
PA-234M	1.845E+00	3.986E+00	6.808E+00	0.000E+00	NOT IDENT.
U-235	4.465E-02	1.916E-01	3.301E-01	0.000E+00	FAIL ABUN
NP-236	-3.618E-02	7.142E-02	1.187E-01	0.000E+00	NOT IDENT.
NP-239	4.907E-02	1.714E-01	3.019E-01	0.000E+00	FAIL ABUN
AM-241	7.805E-02	2.224E-01	3.670E-01	0.000E+00	NOT IDENT.
CM-243	2.686E-02	9.010E-02	1.598E-01	0.000E+00	FAIL ABUN
AM-246	2.172E-02	1.346E-01	2.267E-01	0.000E+00	FAIL ABUN
CM-247	-2.011E-02	3.035E-02	4.942E-02	0.000E+00	FAIL ABUN
CF-249	-4.629E-04	3.347E-02	5.741E-02	0.000E+00	NOT IDENT.
CF-251	6.307E-02	1.108E-01	1.927E-01	0.000E+00	NOT IDENT.

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*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517008.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 09:12:45.
Sample ID          : G243517008 Sample quantity : 1.35630E+02 GRAM
Detector name      : GAM10 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:00.98 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 937069 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	911	10.67*	1.107E+00	2.136E+01	2.136E+01	11.20
CD-109	88.03	214	3.72*	5.252E+00	3.033E+00	3.110E+00	39.27
SN-126	64.28	29	9.60	2.243E+00	3.753E-01	3.753E-01	224.31
	86.94	214	8.90	5.252E+00	1.268E+00	1.268E+00	56.38
	87.57	214	37.00*	5.252E+00	3.049E-01	3.049E-01	39.27
BA-137M	661.65	111	89.98*	2.355E+00	1.456E-01	1.457E-01	34.83
CS-137	661.65	111	85.12*	2.355E+00	1.539E-01	1.541E-01	34.83
TL-208	277.35	41	6.80	4.607E+00	3.605E-01	3.605E-01	126.68
	510.84	147	21.60	2.928E+00	6.411E-01	6.411E-01	42.93
	583.14	318	84.20*	2.627E+00	3.977E-01	3.977E-01	20.07
	860.37	-----	12.46	1.841E+00	-----	Line Not Found	-----
BI-211	72.87	-----	1.27	3.633E+00	-----	Line Not Found	-----
	351.07	625	12.94*	3.888E+00	3.441E+00	3.441E+00	14.87
PB-212	74.81	309	10.70	3.864E+00	2.068E+00	2.068E+00	28.78
	77.11	476	18.00	4.163E+00	1.757E+00	1.757E+00	17.91
	87.30	214	8.00	5.252E+00	1.410E+00	1.410E+00	40.52
	238.63	1201	44.60*	5.114E+00	1.457E+00	1.457E+00	10.24
	300.09	96	3.41	4.364E+00	1.787E+00	1.787E+00	57.74
PO-212	74.81	309	10.70	3.864E+00	2.068E+00	2.068E+00	28.78
	77.11	476	18.00	4.163E+00	1.757E+00	1.757E+00	17.91
	87.30	214	8.00	5.252E+00	1.410E+00	1.410E+00	40.52
	115.19	-----	0.60	6.657E+00	-----	Line Not Found	-----
	238.63	1201	44.60*	5.114E+00	1.457E+00	1.457E+00	10.24
	300.09	96	3.41	4.364E+00	1.787E+00	1.787E+00	57.74
BI-214	609.31	509	46.30*	2.530E+00	1.203E+00	1.203E+00	13.37
	1120.29	108	15.10	1.415E+00	1.403E+00	1.403E+00	34.15
	1764.49	83	15.80	9.762E-01	1.482E+00	1.482E+00	27.28
PB-214	74.81	309	6.21	3.864E+00	3.563E+00	3.563E+00	28.21
	77.11	476	10.50	4.163E+00	3.011E+00	3.011E+00	19.47
	87.30	214	4.67	5.252E+00	2.416E+00	2.416E+00	40.02
	241.98	310	7.49	5.071E+00	2.263E+00	2.263E+00	25.39
	295.21	436	19.20	4.411E+00	1.426E+00	1.426E+00	19.05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	351.92	625	37.20*	3.888E+00	1.197E+00	1.197E+00	15.76
	74.81	309	6.21	3.864E+00	3.563E+00	3.563E+00	28.21
	77.11	476	10.50	4.163E+00	3.011E+00	3.011E+00	19.47
	87.30	214	4.67	5.252E+00	2.416E+00	2.416E+00	40.02
	241.98	310	7.49	5.071E+00	2.263E+00	2.263E+00	25.39
PO-216	295.21	436	19.20	4.411E+00	1.426E+00	1.426E+00	19.05
	351.92	625	37.20*	3.888E+00	1.197E+00	1.197E+00	15.76
	74.81	309	10.70	3.864E+00	2.068E+00	2.068E+00	28.78
	77.11	476	18.00	4.163E+00	1.757E+00	1.757E+00	17.91
	87.30	214	8.00	5.252E+00	1.410E+00	1.410E+00	40.52
PO-218	238.63	1201	44.60*	5.114E+00	1.457E+00	1.457E+00	10.24
	300.09	96	3.41	4.364E+00	1.787E+00	1.787E+00	57.74
	74.81	309	6.21	3.864E+00	3.563E+00	3.563E+00	28.21
	77.11	476	10.50	4.163E+00	3.011E+00	3.011E+00	19.47
	87.30	214	4.67	5.252E+00	2.416E+00	2.416E+00	40.02
RA-224	241.98	310	7.49	5.071E+00	2.263E+00	2.263E+00	25.39
	295.21	436	19.20	4.411E+00	1.426E+00	1.426E+00	19.05
	351.92	625	37.20*	3.888E+00	1.197E+00	1.197E+00	15.76
	240.98	310	3.95*	5.071E+00	4.290E+00	4.290E+00	24.77
	609.31	509	46.30*	2.530E+00	1.203E+00	1.203E+00	13.37
AC-228	1120.29	108	15.10	1.415E+00	1.403E+00	1.403E+00	34.15
	1764.49	83	15.80	9.762E-01	1.482E+00	1.482E+00	27.28
	338.32	217	11.40	3.999E+00	1.317E+00	1.317E+00	49.11
	911.07	233	27.70*	1.739E+00	1.338E+00	1.338E+00	25.79
	969.11	127	16.60	1.635E+00	1.296E+00	1.296E+00	43.37
RA-228	338.32	217	11.40	3.999E+00	1.317E+00	1.317E+00	49.11
	911.07	233	27.70*	1.739E+00	1.338E+00	1.338E+00	25.79
	969.11	127	16.60	1.635E+00	1.296E+00	1.296E+00	43.37
	74.81	309	10.70	3.864E+00	2.068E+00	2.103E+00	27.25
	77.11	476	18.00	4.163E+00	1.757E+00	1.786E+00	17.91
TH-228	87.30	214	8.00	5.252E+00	1.410E+00	1.434E+00	39.27
	238.63	1201	44.60*	5.114E+00	1.457E+00	1.482E+00	10.24
	300.09	96	3.41	4.364E+00	1.787E+00	1.817E+00	82.10
	609.31	509	46.30*	2.530E+00	1.203E+00	1.203E+00	13.37
	1120.29	108	15.10	1.415E+00	1.403E+00	1.403E+00	34.15
TH-230	1764.49	83	15.80	9.762E-01	1.482E+00	1.482E+00	27.28
	338.32	217	11.40	3.999E+00	1.317E+00	1.317E+00	27.99
	911.07	233	27.70*	1.739E+00	1.338E+00	1.338E+00	25.79
	969.11	127	16.60	1.635E+00	1.296E+00	1.296E+00	43.37
	63.29	29	3.80*	2.243E+00	9.482E-01	9.482E-01	224.52
U-234	92.38	293	5.41	5.731E+00	2.615E+00	2.615E+00	36.24
	609.31	509	46.30*	2.530E+00	1.203E+00	1.203E+00	13.37
	1120.29	108	15.10	1.415E+00	1.403E+00	1.403E+00	34.15
	1764.49	83	15.80	9.762E-01	1.482E+00	1.482E+00	27.28
	86.50	214	12.60*	5.252E+00	8.953E-01	8.953E-01	44.36
NP-237	95.87	-----	2.60	5.933E+00	-----	Line Not Found	-----
	63.29	29	3.80*	2.243E+00	9.482E-01	9.482E-01	224.52
	92.38	293	5.41	5.731E+00	2.615E+00	2.615E+00	32.57
	74.67	309	66.00*	3.864E+00	3.352E-01	3.352E-01	27.22

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	86.72	214	0.34	5.252E+00	3.357E+01	3.357E+01	39.27
	117.66	-----	0.55	6.694E+00	-----	Line Not Found	-----
	142.18	-----	0.13	6.676E+00	-----	Line Not Found	-----
ANH-511	511.00	147	100.00*	2.928E+00	1.385E-01	1.385E-01	42.11

Flag: "*" = Keyline

Total number of lines in spectrum 30
Number of unidentified lines 1
Number of lines tentatively identified by NID 29 96.67%

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	2.136E+01	2.136E+01	0.239E+01	11.20	
CD-109	464.00D	1.03	3.033E+00	3.110E+00	1.221E+00	39.27	
SN-126	1.00E+05Y	1.00	3.049E-01	3.049E-01	1.197E-01	39.27	
BA-137M	30.17Y	1.00	1.456E-01	1.457E-01	0.508E-01	34.83	
CS-137	30.17Y	1.00	1.539E-01	1.541E-01	0.537E-01	34.83	
TL-208	1.41E+10Y	1.00	3.977E-01	3.977E-01	0.798E-01	20.07	
BI-211	7.04E+08Y	1.00	3.441E+00	3.441E+00	0.512E+00	14.87	
PB-212	1.41E+10Y	1.00	1.457E+00	1.457E+00	0.149E+00	10.24	
PO-212	1.41E+10Y	1.00	1.457E+00	1.457E+00	0.149E+00	10.24	
BI-214	1600.00Y	1.00	1.203E+00	1.203E+00	0.161E+00	13.37	
PB-214	1600.00Y	1.00	1.197E+00	1.197E+00	0.189E+00	15.76	
PO-214	1600.00Y	1.00	1.197E+00	1.197E+00	0.189E+00	15.76	
PO-216	1.41E+10Y	1.00	1.457E+00	1.457E+00	0.149E+00	10.24	
PO-218	1600.00Y	1.00	1.197E+00	1.197E+00	0.189E+00	15.76	
RA-224	1.41E+10Y	1.00	4.290E+00	4.290E+00	1.063E+00	24.77	
RA-226	1600.00Y	1.00	1.203E+00	1.203E+00	0.161E+00	13.37	
AC-228	1.41E+10Y	1.00	1.338E+00	1.338E+00	0.345E+00	25.79	
RA-228	1.41E+10Y	1.00	1.338E+00	1.338E+00	0.345E+00	25.79	
TH-228	1.91Y	1.02	1.457E+00	1.482E+00	0.152E+00	10.24	
TH-230	4.47E+09Y	1.00	1.203E+00	1.203E+00	0.161E+00	13.37	
TH-232	1.41E+10Y	1.00	1.338E+00	1.338E+00	0.345E+00	25.79	
TH-234	4.47E+09Y	1.00	9.482E-01	9.482E-01	21.29E-01	224.52	
U-234	4.47E+09Y	1.00	1.203E+00	1.203E+00	0.161E+00	13.37	
NP-237	2.14E+06Y	1.00	8.953E-01	8.953E-01	3.972E-01	44.36	
U-238	4.47E+09Y	1.00	9.482E-01	9.482E-01	21.29E-01	224.52	
AM-243	7380.00Y	1.00	3.352E-01	3.352E-01	0.913E-01	27.22	
ANH-511	1.00E+09Y	1.00	1.385E-01	1.385E-01	0.583E-01	42.11	
Total Activity :			5.464E+01	5.474E+01			

Grand Total Activity : 5.464E+01 5.474E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G243517008

Page : 5
Acquisition date : 7-JAN-2010 09:12:45

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.00	78	291	1.19	258.05	254	8	1.09E-02	78.8	6.76E+00	T
0	185.64	277	429	1.51	371.23	365	13	3.84E-02	33.9	5.98E+00	T
0	209.51	101	238	1.45	418.94	415	8	1.40E-02	56.9	5.57E+00	T
0	270.20	77	226	1.07	540.21	536	10	1.07E-02	76.4	4.69E+00	T
0	463.46	46	86	1.80	926.49	921	9	6.43E-03	77.8	3.16E+00	T
0	727.74	110	76	1.17	1454.81	1448	14	1.52E-02	39.3	2.16E+00	T
0	798.71	89	238	10.70	1596.71	1563	46	1.24E-02	****	1.98E+00	T
0	1408.77	18	17	1.55	2816.82	2811	11	2.49E-03	99.9	1.14E+00	T
0	1848.68	26	6	3.31	3697.03	3690	12	3.59E-03	54.7	9.57E-01	

Flags: "T" = Tentatively associated

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517008.CNF;1
* Acquisition date   : 7-JAN-2010 09:12:45. Detector SN#      :
* Detector ID        : GAM10          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 02:00:00.98 Half life ratio :       : 8.00000
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library : SOLID
* Sample ID          : G243517008       Analyst initials: MXR1
* Batch Number       : 937069          Sample Quantity : 1.35630E+02 GRAM
*****
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 16-MAR-2009 13:18:08.8MS Isotope      :
* MSD ID              :                  MSD Isotope          :
* LCS ID              : 1032-A         LCS Isotope            :
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.136E+01	2.393E+00	4.484E-01	3.862E-02	47.629
CD-109	3.110E+00	1.221E+00	1.358E+00	1.540E-01	2.290
SN-126	3.049E-01	1.197E-01	1.426E-01	1.614E-02	2.138
BA-137M	1.457E-01	5.076E-02	5.134E-02	2.533E-03	2.839
CS-137	1.541E-01	5.366E-02	5.427E-02	2.693E-03	2.839
TL-208	3.977E-01	7.979E-02	5.252E-02	3.529E-03	7.572
BI-211	3.441E+00	5.117E-01	2.717E-01	1.981E-02	12.665
PB-212	1.457E+00	1.492E-01	8.241E-02	6.251E-03	17.683
PO-212	1.457E+00	1.492E-01	8.241E-02	6.251E-03	17.683
BI-214	1.203E+00	1.609E-01	9.864E-02	7.506E-03	12.201
PB-214	1.197E+00	1.886E-01	9.470E-02	8.492E-03	12.639
PO-214	1.197E+00	1.886E-01	9.470E-02	8.492E-03	12.639
PO-216	1.457E+00	1.492E-01	8.241E-02	6.251E-03	17.683
PO-218	1.197E+00	1.886E-01	9.470E-02	8.492E-03	12.639
RA-224	4.290E+00	1.063E+00	9.376E-01	5.755E-02	4.576
RA-226	1.203E+00	1.609E-01	9.864E-02	7.506E-03	12.201
AC-228	1.338E+00	3.452E-01	2.082E-01	2.569E-02	6.430
RA-228	1.338E+00	3.452E-01	2.082E-01	2.569E-02	6.430

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.482E+00	1.517E-01	8.380E-02	6.357E-03	17.683
TH-230	1.203E+00	1.609E-01	9.863E-02	7.506E-03	12.201
TH-232	1.338E+00	3.452E-01	2.082E-01	2.569E-02	6.430
TH-234	9.482E-01	2.129E+00	2.526E+00	4.980E-01	0.375
U-234	1.203E+00	1.609E-01	9.863E-02	7.506E-03	12.201
NP-237	8.953E-01	3.972E-01	4.308E-01	1.013E-01	2.078
U-238	9.482E-01	2.129E+00	2.526E+00	4.980E-01	0.375
AM-243	3.352E-01	9.126E-02	9.491E-02	1.039E-02	3.532
ANH-511	1.385E-01	5.831E-02	4.133E-02	2.648E-03	3.350

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.801E-03		2.963E-01	4.789E-01	3.561E-02	0.006
NA-22	-6.850E-03		3.592E-02	5.837E-02	4.522E-03	-0.117
NA-24	1.442E+00		2.388E+00	Half-Life too short		
AL-26	6.798E-03		2.715E-02	4.628E-02	2.934E-03	0.147
TI-44	3.242E-01	+	5.807E-02	7.551E-02	8.263E-03	4.293
SC-46	2.092E-02		3.735E-02	6.423E-02	6.356E-03	0.326
V-48	-2.516E-03		7.274E-02	1.176E-01	1.087E-02	-0.021
CR-51	-4.822E-01		3.512E-01	5.310E-01	3.835E-02	-0.908
MN-52	-3.410E-02		2.466E-01	3.972E-01	3.357E-02	-0.086
MN-54	2.058E-02		3.328E-02	5.760E-02	4.921E-03	0.357
CO-56	-3.307E-03		3.424E-02	5.563E-02	4.912E-03	-0.059
CO-57	2.397E-03		2.324E-02	3.784E-02	2.496E-03	0.063
CO-58	-4.211E-02		3.109E-02	4.271E-02	3.418E-03	-0.986
FE-59	-3.456E-04		9.806E-02	1.576E-01	1.315E-02	-0.002
CO-60	2.768E-04		3.334E-02	5.533E-02	4.808E-03	0.005
ZN-65	2.780E-02		8.843E-02	1.285E-01	9.358E-03	0.216
GE-68	-1.593E-01		1.225E+00	1.946E+00	1.542E-01	-0.082
AS-73	1.343E-02		1.497E+00	2.449E+00	3.240E-01	0.005
AS-74	-5.290E-02		8.350E-02	1.334E-01	7.623E-03	-0.396
SE-75	1.282E-03		4.091E-02	6.370E-02	4.063E-03	0.020
BR-77	8.213E-01		1.604E+01	2.586E+01	1.641E+00	0.032
SR-82	-4.510E-01		3.548E-01	5.124E-01	3.694E-02	-0.880
RB-83	4.446E-03		6.435E-02	1.039E-01	6.592E-03	0.043
RB-84	-1.463E-02		6.313E-02	1.007E-01	9.766E-03	-0.145
KR-85	9.744E+00		6.715E+00	1.083E+01	6.918E-01	0.900
SR-85	5.090E-02		3.507E-02	5.657E-02	3.613E-03	0.900
RB-86	1.034E-01		8.110E-01	1.324E+00	1.050E-01	0.078
Y-88	-7.114E-03		3.065E-02	4.676E-02	2.869E-03	-0.152
ZR-88	-8.965E-03		2.704E-02	4.319E-02	2.935E-03	-0.208
Y-91	5.715E+00		1.720E+01	2.960E+01	1.966E+00	0.193
NB-94	1.952E-02		3.060E-02	5.331E-02	3.035E-03	0.366
NB-95	-1.404E-04		3.790E-02	6.264E-02	4.371E-03	-0.002
NB-95M	4.324E-02		1.228E-01	1.862E-01	1.445E-02	0.232
ZR-95	3.974E-02		6.758E-02	1.170E-01	9.194E-03	0.340

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	-3.066E-01		2.819E-01	Half-Life too short		
ZR-97	-1.667E+00		5.458E+00	Half-Life too short		
MO-99	-8.297E+00		1.615E+01	2.480E+01	3.487E+00	-0.334
TC-99M	1.346E+12		2.293E+12	Half-Life too short		
RH-101	-3.921E-03		3.224E-02	4.945E-02	2.841E-03	-0.079
RH-102	-5.502E-03		2.675E-02	4.252E-02	2.805E-03	-0.129
RU-103	5.064E-03		3.800E-02	6.110E-02	7.927E-03	0.083
RH-106	5.128E-02		2.694E-01	4.585E-01	5.300E-02	0.112
RU-106	5.128E-02		2.693E-01	4.585E-01	2.490E-02	0.112
AG-108M	2.636E-03		2.805E-02	4.592E-02	3.292E-03	0.057
AG-110M	-1.902E-02		3.572E-02	4.864E-02	2.635E-03	-0.391
IN-111	3.092E-01		1.554E+00	2.335E+00	1.442E-01	0.132
IN-113M	2.538E-03		3.955E-02	6.499E-02	4.634E-03	0.039
SN-113	2.538E-03		3.955E-02	6.499E-02	4.634E-03	0.039
IN-114M	1.398E-01		1.854E-01	2.741E-01	1.554E-02	0.510
CD-115	-9.781E+00		1.604E+01	2.427E+01	1.528E+00	-0.403
SN-117M	4.403E-02		5.554E-02	9.204E-02	5.162E-03	0.478
SB-122	-1.638E+00		2.987E+00	4.540E+00	2.731E-01	-0.361
I-123	2.652E+01		2.471E+01	Half-Life too short		
TE-123M	1.411E-02		2.629E-02	4.310E-02	2.448E-03	0.327
I-124	1.742E-01		8.471E-01	1.368E+00	7.719E-02	0.127
SB-124	6.359E-04		6.374E-02	1.038E-01	7.888E-03	0.006
SB-125	-5.785E-02		8.273E-02	1.275E-01	8.879E-03	-0.454
TE-125M	3.084E+00		8.629E+00	1.426E+01	1.370E+00	0.216
I-126	4.464E-02		1.951E-01	2.906E-01	1.458E-02	0.154
SB-126	2.741E-02		1.511E-01	2.325E-01	1.405E-02	0.118
SB-127	2.072E-01		1.525E+00	2.571E+00	2.524E-01	0.081
XE-127	1.940E-03		4.315E-02	7.336E-02	4.248E-03	0.026
I-131	-2.286E-03		1.184E-01	1.943E-01	1.432E-02	-0.012
TE-132	-1.152E-01		9.028E-01	1.515E+00	2.245E-01	-0.076
BA-133	2.036E-02		4.005E-02	6.047E-02	7.295E-03	0.337
I-133	-1.561E-02		1.109E-02	Half-Life too short		
CS-134	5.277E-02		4.482E-02	8.036E-02	6.195E-03	0.657
CS-135	1.387E-01		1.527E-01	2.385E-01	1.928E-02	0.581
I-135	5.096E+11		2.226E+11	Half-Life too short		
CS-136	3.802E-02		1.185E-01	1.974E-01	1.728E-02	0.193
CE-139	1.670E-04		2.649E-02	4.230E-02	2.311E-03	0.004
BA-140	-7.641E-02		2.612E-01	4.061E-01	1.324E-01	-0.188
LA-140	-1.477E-01		1.033E-01	1.297E-01	1.006E-02	-1.139
CE-141	1.957E-02		5.925E-02	9.661E-02	5.913E-03	0.203
CE-143	1.349E-03		2.376E-04	Half-Life too short		
CE-144	-1.677E-01		1.950E-01	2.833E-01	4.070E-02	-0.592
PM-144	-1.047E-02		2.885E-02	4.652E-02	2.596E-03	-0.225
PR-144	-7.098E-01		1.957E+00	3.155E+00	1.759E-01	-0.225
PM-146	-7.023E-03		4.113E-02	6.582E-02	6.080E-03	-0.107
ND-147	-2.628E-01		5.718E-01	8.789E-01	1.207E-01	-0.299
PM-149	-3.168E+01		1.403E+02	2.310E+02	3.341E+01	-0.137
EU-152	7.310E-02		1.027E-01	1.480E-01	1.090E-02	0.494

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-5.187E-02		8.423E-02	1.177E-01	1.096E-02	-0.441
EU-154	-4.914E-03		9.908E-02	1.638E-01	1.745E-02	-0.030
EU-155	1.702E-01		1.043E-01	1.798E-01	1.491E-02	0.946
TB-160	4.012E-02		1.261E-01	2.129E-01	2.053E-02	0.188
HO-166M	-3.113E-02		5.427E-02	8.578E-02	5.034E-03	-0.363
TM-171	9.599E+00		3.522E+01	5.315E+01	6.055E+00	0.181
LU-176	-6.593E-03		2.221E-02	3.496E-02	2.299E-03	-0.189
LU-177	2.616E+00	+	1.498E+00	2.125E+00	1.242E-01	1.231
LU-177M	-7.867E-02		1.672E-01	2.640E-01	1.789E-02	-0.298
HF-181	-2.118E-03		3.776E-02	6.066E-02	3.982E-03	-0.035
W-181	-4.130E-01		4.830E-01	6.837E-01	7.899E-02	-0.604
TA-182	8.606E-02		1.902E-01	3.294E-01	2.272E-02	0.261
RE-183	1.296E-03		9.781E-02	1.564E-01	8.650E-03	0.008
RE-184	-4.598E-03		2.072E-01	3.474E-01	2.166E-02	-0.013
OS-185	-2.846E-03		3.600E-02	5.981E-02	3.073E-03	-0.048
RE-188	-2.322E-02		1.647E-01	2.622E-01	1.490E-02	-0.089
W-188	1.149E+00		7.333E+00	1.087E+01	7.058E-01	0.106
IR-192	1.523E-02		3.054E-02	5.206E-02	3.461E-03	0.292
AU-195	2.245E-01		2.156E-01	3.619E-01	3.284E-02	0.620
TL-200	-4.500E-04		6.511E-04	Half-Life	too short	
TL-201	4.843E+00		9.093E+00	1.489E+01	8.144E-01	0.325
TL-202	5.101E-02		6.893E-02	1.177E-01	7.913E-03	0.433
HG-203	4.517E-02		4.224E-02	6.649E-02	4.487E-03	0.679
BI-207	1.299E-02		4.842E-02	8.032E-02	6.538E-03	0.162
TL-207	2.668E-01		6.280E-01	1.060E+00	1.785E-01	0.252
PO-209	-1.558E-01		7.171E+00	1.169E+01	1.179E+00	-0.013
BI-210	2.131E+00		8.581E+00	1.432E+01	1.404E+00	0.149
PB-210	2.131E+00		8.581E+00	1.432E+01	1.404E+00	0.149
PO-210	2.131E+00		8.581E+00	1.432E+01	1.285E+00	0.149
PB-211	-1.330E-01		8.086E-01	1.298E+00	8.104E-01	-0.102
BI-212	1.190E+00	+	4.768E-01	6.307E-01	5.046E-02	1.886
PO-215	2.668E-01		6.280E-01	1.060E+00	1.785E-01	0.252
RN-219	-3.134E-01		3.554E-01	5.389E-01	7.575E-02	-0.582
RN-220	-6.312E+00		2.308E+01	3.601E+01	2.208E+00	-0.175
RA-223	2.668E-01		6.280E-01	1.060E+00	1.785E-01	0.252
AC-227	1.109E-02		3.289E-01	5.525E-01	7.823E-02	0.020
TH-227	1.109E-02		3.289E-01	5.525E-01	9.428E-02	0.020
TH-229	-4.871E-01		4.704E-01	7.029E-01	4.009E-02	-0.693
PA-231	-3.884E-01		1.337E+00	2.193E+00	3.085E-01	-0.177
TH-231	2.668E-01		6.280E-01	1.060E+00	1.785E-01	0.252
U-231	-1.098E+00		1.473E+00	2.057E+00	1.972E-01	-0.534
PA-233	-6.316E-03		5.722E-02	9.431E-02	6.526E-03	-0.067
PA-234	-2.454E-01		2.895E-01	4.227E-01	8.145E-02	-0.580
PA-234M	1.845E+00		4.067E+00	6.742E+00	6.959E-01	0.274
U-235	4.465E-02		1.955E-01	3.154E-01	5.158E-02	0.142
NP-236	-3.618E-02		7.288E-02	1.137E-01	6.335E-03	-0.318
NP-239	4.907E-02		1.749E-01	2.875E-01	2.011E-02	0.171
AM-241	7.805E-02		2.269E-01	3.454E-01	4.436E-02	0.226

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	2.686E-02		9.194E-02	1.519E-01	1.272E-02	0.177
AM-246	2.172E-02		1.374E-01	2.249E-01	1.776E-02	0.097
CM-247	-2.011E-02		3.097E-02	4.811E-02	3.267E-03	-0.418
CF-249	-4.629E-04		3.415E-02	5.586E-02	3.795E-03	-0.008
CF-251	6.307E-02		1.131E-01	1.849E-01	1.025E-02	0.341

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]G243517008          *
* Acquisition date   : 7-JAN-2010 09:12:45 Detector SN# :                  *
* Detector ID       : GAM10 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 02:00:00.98 Half life ratio : 8.000              *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date       : 21-DEC-2009 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G243517008 Analyst initials: MXR1                  *
* Batch Number     : 937069 Sample Quantity : 1.3563E+02 GRAM           *
* Recovery         : 1.00000 Carrier Weight : 0.00000                   *
*****
*
*                                     QC DATA                               *
*
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 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	2.136E+01	2.345E+00	2.249E-01	1.196E+00
CD-109	3.110E+00	1.197E+00	7.171E-01	6.107E-01
SN-126	3.049E-01	1.173E-01	7.529E-02	5.987E-02
BA-137M	1.457E-01	4.974E-02	2.614E-02	2.538E-02
CS-137	1.541E-01	5.259E-02	2.763E-02	2.683E-02
TL-208	3.977E-01	7.820E-02	2.680E-02	3.990E-02
BI-211	3.441E+00	5.015E-01	1.399E-01	2.559E-01
PB-212	1.457E+00	1.462E-01	4.275E-02	7.459E-02
PO-212	1.457E+00	1.462E-01	4.275E-02	7.459E-02
BI-214	1.203E+00	1.577E-01	5.029E-02	8.047E-02
PB-214	1.197E+00	1.849E-01	4.878E-02	9.432E-02
PO-214	1.197E+00	1.849E-01	4.878E-02	9.432E-02
PO-216	1.457E+00	1.462E-01	4.275E-02	7.459E-02
PO-218	1.197E+00	1.849E-01	4.878E-02	9.432E-02
RA-224	4.290E+00	1.041E+00	4.863E-01	5.313E-01
RA-226	1.203E+00	1.577E-01	5.029E-02	8.047E-02
AC-228	1.338E+00	3.383E-01	1.053E-01	1.726E-01
RA-228	1.338E+00	3.383E-01	1.053E-01	1.726E-01
TH-228	1.482E+00	1.487E-01	4.347E-02	7.585E-02
TH-230	1.203E+00	1.577E-01	5.029E-02	8.047E-02
TH-232	1.338E+00	3.383E-01	1.053E-01	1.726E-01
TH-234	9.482E-01	2.086E+00	1.342E+00	1.064E+00
U-234	1.203E+00	1.577E-01	5.029E-02	8.047E-02
NP-237	8.953E-01	3.892E-01	2.276E-01	1.986E-01
U-238	9.482E-01	2.086E+00	1.342E+00	1.064E+00
AM-243	3.352E-01	8.944E-02	5.026E-02	4.563E-02
ANH-511	1.385E-01	5.715E-02	2.114E-02	2.916E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
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BE-7	2.801E-03	2.904E-01	2.453E-01	1.482E-01	NOT IDENT.
NA-22	-6.850E-03	3.520E-02	2.935E-02	1.796E-02	NOT IDENT.
NA-24	1.442E+06	4.680E+06	0.000E+00	2.388E+06	SHORT HLIF
AL-26	6.798E-03	2.660E-02	2.311E-02	1.357E-02	NOT IDENT.
TI-44	3.242E-01	5.691E-02	3.995E-02	2.903E-02	FAIL ABUN
SC-46	2.092E-02	3.660E-02	3.252E-02	1.867E-02	FAIL ABUN
V-48	-2.516E-03	7.128E-02	5.941E-02	3.637E-02	NOT IDENT.
CR-51	-4.822E-01	3.441E-01	2.740E-01	1.756E-01	NOT IDENT.
MN-52	-3.410E-02	2.417E-01	1.993E-01	1.233E-01	NOT IDENT.
MN-54	2.058E-02	3.261E-02	2.920E-02	1.664E-02	NOT IDENT.
CO-56	-3.307E-03	3.355E-02	2.819E-02	1.712E-02	NOT IDENT.
CO-57	2.397E-03	2.278E-02	1.987E-02	1.162E-02	NOT IDENT.
CO-58	-4.211E-02	3.047E-02	2.166E-02	1.555E-02	NOT IDENT.
FE-59	-3.456E-04	9.610E-02	7.947E-02	4.903E-02	NOT IDENT.
CO-60	2.768E-04	3.267E-02	2.780E-02	1.667E-02	NOT IDENT.
ZN-65	2.780E-02	8.666E-02	6.477E-02	4.422E-02	NOT IDENT.
GE-68	-1.593E-01	1.201E+00	9.816E-01	6.126E-01	NOT IDENT.
AS-73	1.343E-02	1.467E+00	1.304E+00	7.487E-01	NOT IDENT.
AS-74	-5.290E-02	8.183E-02	6.807E-02	4.175E-02	NOT IDENT.
SE-75	1.282E-03	4.009E-02	3.298E-02	2.045E-02	NOT IDENT.
BR-77	8.213E-01	1.572E+01	1.323E+01	8.022E+00	FAIL ABUN
SR-82	-4.510E-01	3.477E-01	2.601E-01	1.774E-01	NOT IDENT.
RB-83	4.446E-03	6.306E-02	5.312E-02	3.217E-02	NOT IDENT.
RB-84	-1.463E-02	6.187E-02	5.100E-02	3.157E-02	NOT IDENT.
KR-85	9.744E+00	6.581E+00	5.540E+00	3.357E+00	NOT IDENT.
SR-85	5.090E-02	3.437E-02	2.894E-02	1.754E-02	NOT IDENT.
RB-86	1.034E-01	7.948E-01	6.678E-01	4.055E-01	NOT IDENT.
Y-88	-7.114E-03	3.003E-02	2.335E-02	1.532E-02	NOT IDENT.
ZR-88	-8.965E-03	2.649E-02	2.220E-02	1.352E-02	NOT IDENT.
Y-91	5.715E+00	1.685E+01	1.490E+01	8.599E+00	NOT IDENT.
NB-94	1.952E-02	2.999E-02	2.711E-02	1.530E-02	NOT IDENT.
NB-95	-1.404E-04	3.714E-02	3.180E-02	1.895E-02	NOT IDENT.
NB-95M	4.324E-02	1.203E-01	9.663E-02	6.139E-02	NOT IDENT.
ZR-95	3.974E-02	6.623E-02	5.944E-02	3.379E-02	NOT IDENT.
NB-97	-3.066E+05	5.525E+05	0.000E+00	2.819E+05	SHORT HLIF
ZR-97	-1.667E+06	1.070E+07	0.000E+00	5.458E+06	SHORT HLIF
MO-99	-8.297E+00	1.583E+01	1.260E+01	8.075E+00	NOT IDENT.
TC-99M	1.346E+18	4.495E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.921E-03	3.159E-02	2.574E-02	1.612E-02	NOT IDENT.
RH-102	-5.502E-03	2.621E-02	2.178E-02	1.337E-02	NOT IDENT.
RU-103	5.064E-03	3.724E-02	3.127E-02	1.900E-02	FAIL ABUN
RH-106	5.128E-02	2.640E-01	2.337E-01	1.347E-01	FAIL ABUN
RU-106	5.128E-02	2.639E-01	2.337E-01	1.347E-01	FAIL ABUN
AG-108M	2.636E-03	2.749E-02	2.356E-02	1.403E-02	NOT IDENT.
AG-110M	-1.902E-02	3.501E-02	2.477E-02	1.786E-02	NOT IDENT.
IN-111	3.092E-01	1.523E+00	1.211E+00	7.772E-01	NOT IDENT.
IN-113M	2.538E-03	3.876E-02	3.341E-02	1.977E-02	NOT IDENT.
SN-113	2.538E-03	3.876E-02	3.341E-02	1.977E-02	NOT IDENT.
IN-114M	1.398E-01	1.817E-01	1.427E-01	9.270E-02	NOT IDENT.
CD-115	-9.781E+00	1.572E+01	1.241E+01	8.020E+00	NOT IDENT.
SN-117M	4.403E-02	5.443E-02	4.810E-02	2.777E-02	NOT IDENT.
SB-122	-1.638E+00	2.927E+00	2.318E+00	1.493E+00	NOT IDENT.
I-123	2.652E+07	4.843E+07	0.000E+00	2.471E+07	SHORT HLIF
TE-123M	1.411E-02	2.576E-02	2.252E-02	1.315E-02	NOT IDENT.
I-124	1.742E-01	8.302E-01	6.977E-01	4.236E-01	NOT IDENT.
SB-124	6.359E-04	6.246E-02	5.192E-02	3.187E-02	NOT IDENT.
SB-125	-5.785E-02	8.107E-02	6.544E-02	4.136E-02	FAIL ABUN
TE-125M	3.084E+00	8.456E+00	7.503E+00	4.314E+00	NOT IDENT.
I-126	4.464E-02	1.912E-01	1.479E-01	9.753E-02	NOT IDENT.
SB-126	2.741E-02	1.480E-01	1.182E-01	7.553E-02	FAIL ABUN
SB-127	2.072E-01	1.494E+00	1.308E+00	7.624E-01	NOT IDENT.
XE-127	1.940E-03	4.228E-02	3.817E-02	2.157E-02	NOT IDENT.
I-131	-2.286E-03	1.160E-01	1.000E-01	5.920E-02	NOT IDENT.
TE-132	-1.152E-01	8.848E-01	7.864E-01	4.514E-01	NOT IDENT.
BA-133	2.036E-02	3.925E-02	3.114E-02	2.003E-02	FAIL ABUN
I-133	-1.561E+04	2.174E+04	0.000E+00	1.109E+04	SHORT HLIF
CS-134	5.277E-02	4.392E-02	4.077E-02	2.241E-02	NOT IDENT.
CS-135	1.387E-01	1.496E-01	1.235E-01	7.633E-02	NOT IDENT.
I-135	5.096E+17	4.363E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.802E-02	1.161E-01	9.961E-02	5.926E-02	FAIL ABUN
CE-139	1.670E-04	2.596E-02	2.209E-02	1.325E-02	NOT IDENT.
BA-140	-7.641E-02	2.560E-01	2.076E-01	1.306E-01	NOT IDENT.
LA-140	-1.477E-01	1.013E-01	6.491E-02	5.167E-02	NOT IDENT.
CE-141	1.957E-02	5.806E-02	5.056E-02	2.962E-02	NOT IDENT.
CE-143	1.349E+03	4.656E+02	0.000E+00	2.376E+02	SHORT HLIF
CE-144	-1.677E-01	1.911E-01	1.485E-01	9.751E-02	NOT IDENT.
PM-144	-1.047E-02	2.828E-02	2.366E-02	1.443E-02	NOT IDENT.
PR-144	-7.098E-01	1.918E+00	1.605E+00	9.785E-01	NOT IDENT.

PM-146	-7.023E-03	4.030E-02	3.375E-02	2.056E-02	NOT IDENT.
ND-147	-2.628E-01	5.604E-01	4.493E-01	2.859E-01	NOT IDENT.
PM-149	-3.168E+01	1.375E+02	1.194E+02	7.016E+01	NOT IDENT.
EU-152	7.310E-02	1.007E-01	7.625E-02	5.135E-02	FAIL ABUN
GD-153	-5.187E-02	8.255E-02	6.205E-02	4.212E-02	NOT IDENT.
EU-154	-4.914E-03	9.710E-02	8.238E-02	4.954E-02	NOT IDENT.
EU-155	1.702E-01	1.022E-01	9.464E-02	5.214E-02	FAIL ABUN
TB-160	4.012E-02	1.236E-01	1.078E-01	6.307E-02	FAIL ABUN
HO-166M	-3.113E-02	5.318E-02	4.361E-02	2.713E-02	FAIL ABUN
TM-171	9.599E+00	3.452E+01	2.820E+01	1.761E+01	NOT IDENT.
LU-176	-6.593E-03	2.176E-02	1.805E-02	1.110E-02	FAIL ABUN
LU-177	2.616E+00	1.468E+00	1.105E+00	7.488E-01	FAIL ABUN
LU-177M	-7.867E-02	1.639E-01	1.356E-01	8.362E-02	FAIL ABUN
HF-181	-2.118E-03	3.701E-02	3.107E-02	1.888E-02	NOT IDENT.
W-181	-4.130E-01	4.734E-01	3.629E-01	2.415E-01	NOT IDENT.
TA-182	8.606E-02	1.864E-01	1.658E-01	9.509E-02	FAIL ABUN
RE-183	1.296E-03	9.585E-02	8.170E-02	4.891E-02	FAIL ABUN
RE-184	-4.598E-03	2.031E-01	1.800E-01	1.036E-01	NOT IDENT.
OS-185	-2.846E-03	3.528E-02	3.047E-02	1.800E-02	NOT IDENT.
RE-188	-2.322E-02	1.614E-01	1.371E-01	8.237E-02	NOT IDENT.
W-188	1.149E+00	7.186E+00	5.619E+00	3.666E+00	FAIL ABUN
IR-192	1.523E-02	2.993E-02	2.687E-02	1.527E-02	FAIL ABUN
AU-195	2.245E-01	2.113E-01	1.907E-01	1.078E-01	FAIL ABUN
TL-200	-4.500E+02	1.276E+03	0.000E+00	6.511E+02	SHORT HLIF
TL-201	4.843E+00	8.912E+00	7.774E+00	4.547E+00	NOT IDENT.
TL-202	5.101E-02	6.755E-02	6.038E-02	3.447E-02	NOT IDENT.
HG-203	4.517E-02	4.140E-02	3.440E-02	2.112E-02	NOT IDENT.
BI-207	1.299E-02	4.745E-02	4.053E-02	2.421E-02	FAIL ABUN
TL-207	2.668E-01	6.154E-01	5.469E-01	3.140E-01	FAIL ABUN
PO-209	-1.558E-01	7.027E+00	5.918E+00	3.585E+00	NOT IDENT.
BI-210	2.131E+00	8.410E+00	7.644E+00	4.291E+00	NOT IDENT.
PB-210	2.131E+00	8.410E+00	7.644E+00	4.291E+00	NOT IDENT.
PO-210	2.131E+00	8.409E+00	7.644E+00	4.290E+00	NOT IDENT.
PB-211	-1.330E-01	7.924E-01	6.669E-01	4.043E-01	NOT IDENT.
BI-212	1.190E+00	4.672E-01	3.205E-01	2.384E-01	FAIL ABUN
PO-215	2.668E-01	6.154E-01	5.469E-01	3.140E-01	FAIL ABUN
RN-219	-3.134E-01	3.483E-01	2.769E-01	1.777E-01	FAIL ABUN
RN-220	-6.312E+00	2.262E+01	1.840E+01	1.154E+01	NOT IDENT.
RA-223	2.668E-01	6.154E-01	5.469E-01	3.140E-01	FAIL ABUN
AC-227	1.109E-02	3.223E-01	2.863E-01	1.645E-01	FAIL ABUN
TH-227	1.109E-02	3.223E-01	2.863E-01	1.645E-01	FAIL ABUN
TH-229	-4.871E-01	4.610E-01	3.660E-01	2.352E-01	FAIL ABUN
PA-231	-3.884E-01	1.311E+00	1.134E+00	6.686E-01	NOT IDENT.
TH-231	2.668E-01	6.154E-01	5.469E-01	3.140E-01	FAIL ABUN
U-231	-1.098E+00	1.443E+00	1.085E+00	7.364E-01	FAIL ABUN
PA-233	-6.316E-03	5.607E-02	4.869E-02	2.861E-02	FAIL ABUN
PA-234	-2.454E-01	2.837E-01	2.138E-01	1.447E-01	FAIL ABUN
PA-234M	1.845E+00	3.986E+00	3.406E+00	2.034E+00	NOT IDENT.
U-235	4.465E-02	1.916E-01	1.651E-01	9.774E-02	FAIL ABUN
NP-236	-3.618E-02	7.142E-02	5.940E-02	3.644E-02	NOT IDENT.
NP-239	4.907E-02	1.714E-01	1.511E-01	8.747E-02	FAIL ABUN
AM-241	7.805E-02	2.224E-01	1.836E-01	1.135E-01	NOT IDENT.
CM-243	2.686E-02	9.010E-02	7.996E-02	4.597E-02	FAIL ABUN
AM-246	2.172E-02	1.346E-01	1.134E-01	6.868E-02	FAIL ABUN
CM-247	-2.011E-02	3.035E-02	2.472E-02	1.549E-02	FAIL ABUN
CF-249	-4.629E-04	3.347E-02	2.872E-02	1.708E-02	NOT IDENT.
CF-251	6.307E-02	1.108E-01	9.642E-02	5.654E-02	NOT IDENT.

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*****
*                               GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                               *
*                               CHARLESTON , SC 29417                          *
*                               GAMMA SPECTROSCOPY BACKGROUND REPORT            *
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ENERGY	MDA COUNTS
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46.50	271.3006
46.50	271.3006
46.50	271.3006
48.70	291.3073
49.72	275.5136
51.35	260.9599
52.39	263.5156
52.97	283.4197
53.15	278.9009
53.44	268.8715
54.07	259.9803
56.28	264.2158
56.28	264.2180
57.37	0.0000
57.53	294.1547
57.53	294.1559
57.60	291.3842
57.98	309.5260
57.98	309.5260
59.32	267.5714
59.32	267.5714
59.40	267.6219
59.54	267.7106
59.72	280.5781
60.01	280.7691
61.10	250.2084
61.14	250.2312
61.30	250.3239
63.00	305.5609
63.29	288.6166
63.29	288.6166
63.58	288.8061
64.28	335.0860
65.12	335.7162
65.20	335.7756
65.20	335.7756
66.05	310.5313
66.72	300.9095
66.83	316.8240
66.91	316.8794
67.20	299.7855
67.20	299.7855
67.75	323.2322
67.85	323.3022
68.90	311.0161
68.90	311.0161
69.30	328.6575
69.67	328.9190
70.82	313.7415
70.82	313.7415
70.83	313.7481
72.80	353.9377
72.87	353.9895
72.87	353.9895
74.67	355.3003
74.81	355.4021
74.81	355.4021
74.81	355.4021
74.81	355.4021
74.81	355.4021
74.81	355.4021
74.81	355.4021
74.97	355.5169
75.28	355.7409
75.70	356.0427
77.11	357.0517
77.11	357.0517

77.11	357.0517
77.11	357.0517
77.11	357.0517
77.11	357.0517
77.11	357.0517
78.38	325.9932
79.62	297.2138
79.80	312.1101
79.80	312.1101
80.11	312.3000
80.18	312.3419
80.30	359.7947
80.30	359.7947
80.57	359.9838
81.00	416.6249
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81.07	416.6806
81.07	416.6806
81.07	416.6806
82.60	333.1340
83.37	336.5999
83.78	330.9015
83.78	330.9015
83.78	330.9015
83.78	330.9015
84.21	307.3011
84.90	322.6371
85.43	370.8023
86.29	482.2139
86.50	482.4030
86.54	482.4374
86.59	482.4817
86.72	482.5996
86.79	482.6585
86.94	482.7936
87.30	472.6129
87.30	472.6129
87.30	472.6129
87.30	472.6129
87.30	472.6129
87.30	472.6129
87.57	472.8461
87.88	418.5443
88.03	418.6591
88.36	333.7266
88.47	333.7927
89.95	334.6903
91.11	335.3882
92.29	389.5850
92.38	389.6478
92.38	389.6478
93.35	390.3153
94.00	390.7610
94.67	235.6409
94.67	235.6432
94.90	252.4676
94.90	252.4676
94.90	252.4676
94.90	252.4676
95.87	304.6890
95.87	304.6890
96.73	309.7194
97.43	296.3417
98.44	258.2921
98.44	258.2921
98.88	250.1141
99.55	238.1327
99.55	238.1327
99.86	254.6181
100.00	254.6789
100.10	254.7232
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103.76	280.9731
105.00	244.4159
105.31	256.9218
108.00	334.7218
109.28	262.7155

111.00	264.4684
111.00	264.4684
111.76	274.1657
112.95	269.4507
115.19	253.6133
116.30	252.9919
117.00	261.6673
117.00	261.6673
117.66	244.0456
121.11	269.6237
121.62	267.7110
121.78	251.8981
122.06	258.3540
122.32	248.9189
122.32	248.9189
122.32	248.9189
122.32	248.9189
123.07	239.6503
127.23	254.4295
129.76	221.6200
131.20	265.5167
133.02	261.3491
133.54	278.9727
135.34	221.1846
136.00	269.9814
136.25	279.7956
136.48	274.4819
140.51	254.2451
140.51	0.0000
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142.65	250.6102
143.76	271.7105
144.24	272.9721
144.24	272.9721
144.24	272.9721
144.24	272.9721
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145.44	266.8403
147.16	305.7977
152.43	276.9671
152.70	261.6079
153.22	265.0928
154.21	275.3732
154.21	275.3732
154.21	275.3732
154.21	275.3732
155.03	288.9415
156.02	307.0320
158.56	245.7294
159.00	0.0000
159.00	245.8620
160.31	268.5410
161.27	268.8549
162.32	235.6879
162.64	254.7744
163.35	258.3476
163.89	250.6806
165.85	235.5643
167.43	215.7773
171.28	226.9142
171.86	223.6785
172.10	226.0010
176.55	222.6154
176.60	219.2198
181.06	215.7608
184.41	242.9210
185.71	243.2682
186.00	243.3458
190.27	211.0371
192.34	246.1816
193.63	261.5677
197.04	242.7682
198.01	247.6658
198.60	244.3292
200.40	261.1077
201.83	279.3002
202.84	253.2983
205.31	224.9453

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208.81	259.6103
209.75	257.0328
209.75	257.0328
210.97	227.6542
215.65	250.3817
216.55	254.1602
218.09	219.8336
222.10	241.2453
223.80	244.3258
226.40	224.3004
227.00	217.2465
227.08	210.0808
227.20	215.4932
228.16	227.3723
228.18	227.3761
228.18	227.3761
231.56	0.0000
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236.00	224.5248
236.00	224.5248
238.63	213.2718
238.63	213.2718
238.63	213.2718
238.63	213.2718
239.00	213.3435
240.98	213.7307
241.98	213.9262
241.98	213.9262
241.98	213.9262
244.69	159.1517
245.39	175.3228
247.94	180.3003
248.90	203.3555
249.79	175.0989
252.40	188.3681
252.85	182.9278
252.85	182.9278
254.15	0.0000
256.20	172.4020
256.20	172.4020
260.50	172.1215
260.90	170.3297
262.80	151.1361
264.65	162.2122
268.24	157.9855
268.79	143.1492
269.46	143.2289
269.46	143.2289
269.46	143.2289
269.46	143.2289
271.23	158.7576
273.65	164.6938
276.40	159.4424
277.35	167.0760
277.60	165.2336
277.60	165.2336
278.00	147.2560
278.60	163.8672
279.20	157.9307
279.53	157.9742
280.46	161.1060
281.68	162.7726
283.67	163.2249
284.30	149.1496
285.00	166.2354
285.90	163.5206
286.10	164.4923
286.10	164.4923
287.40	158.0379
288.45	0.0000
290.67	154.8477
290.80	168.5271
291.72	165.6129
293.26	0.0000
293.70	159.7866
295.21	159.9763
295.21	159.9763

295.21	159.9763
295.96	95.2805
296.50	95.3201
297.23	95.3751
298.57	95.4758
299.80	133.0297
299.80	133.0297
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300.09	133.0594
300.09	133.0594
300.09	133.0594
300.12	133.0616
301.29	133.1826
302.84	137.9421
303.76	134.9713
303.91	134.9885
304.40	142.7105
304.40	142.7105
304.84	144.2955
306.84	146.0532
308.46	133.7273
311.98	147.5907
316.51	127.7682
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319.02	154.1914
319.41	156.1751
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323.87	158.6375
323.87	158.6375
323.87	158.6375
325.23	182.1778
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334.20	130.2225
334.20	130.2225
334.30	130.2306
338.28	129.8146
338.28	129.8146
338.28	129.8146
338.28	129.8146
338.32	129.8187
338.32	129.8187
338.32	129.8187
340.50	146.5681
340.57	146.5749
344.27	116.5398
345.85	132.8845
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351.07	113.1250
351.92	113.1929
351.92	113.1929
351.92	113.1929
355.39	0.0000
356.01	100.3678
364.48	117.1714
366.43	118.3295
367.43	110.3810
367.94	0.0000
369.80	129.6515
374.96	107.9094
383.85	122.7392
387.95	107.8099
388.63	108.8743
391.69	111.1272
391.69	111.1272
392.90	113.2527
398.62	96.2562
400.65	123.0377
401.10	122.0469
401.81	117.9971
402.60	109.8425
404.84	109.9960
410.95	118.6692
411.60	119.7489
413.65	131.2691
414.70	114.8058
415.30	105.5361

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417.63	0.0000
418.52	103.6697
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427.08	117.7520
427.89	113.6404
432.53	99.3183
433.93	91.0290
439.47	91.3264
439.56	90.2819
439.89	91.3489
443.98	101.0405
444.90	104.2524
445.03	104.2615
445.03	104.2615
445.03	104.2615
445.03	104.2615
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468.07	107.5583
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475.06	98.5502
475.35	100.7083
476.78	88.9930
477.59	92.2503
477.96	89.0512
482.03	83.8736
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487.03	76.5545
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492.35	84.3437
497.08	78.0524
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511.00	88.4572
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511.85	88.4955
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513.99	68.2505
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520.65	85.6077
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552.65	78.0728
555.20	72.5874
563.23	81.8421
563.90	90.8407
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569.32	74.2117
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569.67	74.2238
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574.00	73.0246
574.64	70.3428
578.91	90.3662
579.30	0.0000
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591.81	70.9141
592.07	70.9236
593.00	70.0444
595.88	83.8018
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602.71	87.9480
603.60	99.0314
604.41	99.0684
604.70	99.0816
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609.31	80.6545
609.31	80.6545
609.31	80.6545
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614.37	67.3661
618.01	77.2919
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621.84	66.3644
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636.97	76.0922
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661.65	71.2834
664.57	0.0000
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666.33	67.3520
675.00	56.5957
677.61	69.8773
685.20	56.8374
692.80	56.0658
695.00	74.1895
696.49	69.4748
696.49	69.4748
697.00	67.5869
697.49	60.9344
698.33	68.5758
698.50	71.4386
699.00	72.4060
702.63	69.6512
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717.42	70.0682
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722.78	64.1260
722.89	64.1292
722.95	64.1309
723.30	64.1406
724.18	75.3901
727.18	52.0330
733.00	53.1188
735.90	50.4947
739.58	61.9719
742.81	52.3547
744.21	46.5633
747.13	67.9817
751.79	66.1589
752.31	59.3603
753.82	68.1577
755.35	72.0940
756.15	62.3719
756.87	52.6408
763.93	84.0621
765.79	69.4486
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766.84	71.4334
776.49	74.6418
778.00	64.5768
778.57	63.8892
778.89	58.9805
783.80	59.0903
785.46	59.1270
792.07	59.2720

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805.60	31.4386
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828.27	0.0000
831.60	66.1434
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834.83	53.1760
836.80	0.0000
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860.37	42.5199
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867.82	49.7345
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873.19	61.0122
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881.50	48.9480
883.24	53.0588
884.67	62.2718
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896.60	57.3986
898.02	60.5024
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911.07	60.7660
911.07	60.7660
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925.24	47.5992
926.50	50.7239
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937.48	63.3724
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968.20	71.6933
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969.11	64.0172
969.11	64.0172
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1001.68	41.3461
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1038.76	0.0000
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1046.59	42.9863
1048.07	50.5296

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1050.47	50.5663
1062.04	42.1021
1063.62	43.2012
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1078.86	47.7340
1085.78	46.7415
1099.22	58.9254
1112.02	54.7583
1112.84	54.7705
1115.52	40.1955
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1120.29	46.1036
1120.29	46.1036
1120.29	46.1036
1120.51	46.1077
1121.28	42.0918
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1147.95	0.0000
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1173.22	47.3394
1175.09	50.1482
1177.93	35.3173
1189.05	50.3372
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1235.34	62.2778
1236.41	0.0000
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1260.41	0.0000
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1274.54	34.3110
1291.56	49.7741
1298.22	0.0000
1312.09	41.3693
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1325.50	27.9923
1332.49	26.1057
1333.61	27.0806
1360.21	24.3347
1362.66	0.0000
1365.15	25.3377
1368.21	23.4063
1368.53	0.0000
1376.25	28.3357
1384.27	40.1375
1394.10	26.4935
1395.20	31.4076
1407.95	28.5481
1434.06	19.8071
1436.60	19.8185
1457.56	0.0000
1460.81	16.9391
1489.15	23.0627
1509.49	19.1376
1596.49	36.9448
1620.62	13.4084
1678.03	0.0000
1691.02	10.4626
1691.02	10.4626
1706.46	0.0000
1750.46	0.0000
1764.49	9.0981
1764.49	9.0981
1764.49	9.0981
1764.49	9.0981
1770.23	12.7515
1771.40	16.3985
1791.20	0.0000
1808.65	9.6339

1836.01

11.8352

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243517008

Total Uranium Activity	2.8415E+00	ug/g
Total Uranium Counting Unc.	6.2075E+00	ug/g
Total Uranium Tpu	3.1671E-06	ug/g
Total Uranium Mda	3.9921E+00	ug/g

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*****
*
*                               GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                               *
*                               CHARLESTON ,SC 29417                          *
*                               GROSS GAMMA REPORT                            *
*
*****
*
*  BATCH ID      : 937069                SAMPLE ID   : G243517008                *
*  ANALYST       : MXR1                  DETECTOR    : GAM10                  *
*  SAMPLE DATE   : 21-DEC-2009 12:00:00.00  COUNT TIME : 0 02:00:00.00          *
*  ANALYSIS DATE: 7-JAN-2010 09:12:45.67  SAMPLE ALQT: 135.630 GRAM          *
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 7.754E+00
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.307E+00
GROSS GAMMA MDA      (pCi/GRAM ) : 2.638E+00
GROSS GAMMA DLC      (pCi/GRAM ) : 1.274E+00

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VAX/VMS Nuclide Identification Report Generated 7-JAN-2010 11:14:06.54

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*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517009.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 09:13:15.
Sample ID          : G243517009          Sample quantity  : 1.31440E+02 GRAM
Detector name      : GAM11              Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00      Elapsed real time: 0 02:00:01.61  0.0%
Energy tolerance   : 1.50000 keV        Analyst Initials  : MXR1
Abundance limit    : 75.00000           Sensitivity       : 5.00000
Batch ID           : 937069             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	46.35*	7	333	1.19	91.55	89	7	9.51E-04	456.1	
2	0	63.25*	130	452	1.00	125.39	122	8	1.81E-02	30.3	
3	2	74.70	375	407	0.82	148.29	145	18	5.21E-02	9.3	1.50E+00
4	2	76.99	706	341	0.81	152.88	145	18	9.81E-02	5.5	
5	0	83.83	83	366	0.94	166.57	165	6	1.15E-02	38.1	
6	4	86.99	277	278	1.14	172.91	170	23	3.85E-02	10.4	2.30E+00
7	4	89.89	210	348	1.20	178.71	170	23	2.92E-02	16.2	
8	4	92.53*	270	305	1.12	183.99	170	23	3.76E-02	13.7	
9	0	128.99	66	329	1.09	256.95	253	8	9.20E-03	49.0	
10	0	185.68*	208	369	1.12	370.43	364	12	2.88E-02	20.4	
11	0	209.31*	120	272	0.85	417.71	413	9	1.67E-02	26.8	
12	7	238.31*	1163	156	0.98	475.75	470	16	1.62E-01	3.4	1.93E+00
13	7	241.30	261	217	1.51	481.74	470	16	3.62E-02	13.4	
14	0	269.97	124	222	0.93	539.13	533	12	1.72E-02	25.7	
15	0	294.88*	328	212	0.79	588.98	584	9	4.55E-02	9.8	
16	0	299.69	58	159	1.42	598.60	595	8	8.06E-03	39.8	
17	0	327.46	81	106	1.03	654.19	650	8	1.12E-02	24.7	
18	0	337.84*	210	211	1.07	674.95	670	11	2.92E-02	15.2	
19	0	351.50*	621	116	1.12	702.29	698	9	8.62E-02	5.2	
20	0	408.79	60	105	1.53	816.96	813	10	8.38E-03	34.0	
21	0	463.28	48	87	0.89	925.99	921	10	6.71E-03	39.3	
22	0	510.15*	73	172	1.43	1019.80	1012	16	1.01E-02	46.8	
23	0	582.52*	377	116	1.22	1164.63	1158	14	5.23E-02	8.1	
24	0	608.60*	462	129	1.29	1216.82	1210	14	6.41E-02	7.1	
25	0	661.23	102	50	1.23	1322.13	1319	9	1.41E-02	15.8	
26	0	726.55	85	67	1.12	1452.84	1448	12	1.18E-02	22.4	
27	0	769.00	17	89	1.26	1537.78	1531	10	2.38E-03	106.0	
28	0	794.58	86	46	3.55	1588.97	1583	15	1.19E-02	20.2	
29	0	859.98	56	38	1.34	1719.82	1715	11	7.84E-03	25.0	
30	0	910.35*	264	49	1.58	1820.60	1814	13	3.67E-02	8.4	
31	2	963.34	54	51	1.91	1926.64	1921	35	7.52E-03	26.1	1.50E+00
32	2	968.07*	156	37	1.76	1936.10	1921	35	2.16E-02	11.5	
33	0	1119.25*	102	53	1.93	2238.58	2231	17	1.41E-02	19.4	
34	0	1237.16	57	49	1.00	2474.48	2466	14	7.86E-03	29.4	
35	0	1376.61	37	10	1.98	2753.46	2748	13	5.17E-03	25.4	
36	0	1406.81	20	14	1.65	2813.89	2807	12	2.77E-03	44.6	
37	0	1459.49*	976	20	1.72	2919.27	2913	13	1.36E-01	3.4	
38	0	1556.61	11	2	1.19	3113.55	3110	7	1.56E-03	35.7	

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1587.56	28	31	0.69	3175.46	3169	17	3.82E-03	49.4	
40	0	1660.01	11	8	1.07	3320.37	3315	10	1.59E-03	53.8	
41	0	1763.03*	101	6	1.65	3526.44	3520	12	1.40E-02	11.5	
42	0	1845.13	35	0	0.84	3690.66	3681	18	4.86E-03	16.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 7-JAN-2010 11:14:10

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Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517009.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 09:13:15
Sample ID        : G243517009 Sample quantity : 131.44 GRAM
Sample type      : SOLID Sample geometry :
Detector name    : GAMMA11 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.61 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	*	2.130E+01	2.332E+00	4.344E-01	3.756E-02	49.038
CD-109	+	88.03	*	3.217E+00	7.350E-01	8.514E-01	8.074E-02	3.779
SN-126	+	64.28		9.064E-01	5.641E-01	5.271E-01	7.646E-02	1.720
	+	86.94		1.311E+00	6.091E-01	3.575E-01	1.484E-01	3.667
	+	87.57	*	3.154E-01	7.205E-02	8.373E-02	7.898E-03	3.767
BA-137M	+	661.65	*	1.346E-01	4.434E-02	4.696E-02	4.444E-03	2.866
CS-137	+	661.65	*	1.423E-01	4.688E-02	4.964E-02	4.705E-03	2.866
TL-208		277.35		4.629E-01	3.150E-01	5.365E-01	9.513E-02	0.863
	+	510.84		3.251E-01	3.076E-01	1.754E-01	2.378E-02	1.853
	+	583.14	*	4.796E-01	9.361E-02	4.514E-02	4.875E-03	10.624
	+	860.37		6.711E-01	3.434E-01	3.578E-01	3.727E-02	1.876
BI-210	+	46.50	*	3.253E-01	2.968E+00	3.094E+00	2.880E-01	0.105
PB-210	+	46.50	*	3.253E-01	2.968E+00	3.094E+00	2.880E-01	0.105
PO-210	+	46.50	*	3.253E-01	2.968E+00	3.094E+00	2.608E-01	0.105
BI-211		72.87		2.599E+00	2.545E+00	3.862E+00	3.068E-01	0.673
	+	351.07	*	3.490E+00	5.848E-01	2.665E-01	3.516E-02	13.094
PB-212	+	74.81		1.733E+00	3.867E-01	4.060E-01	5.023E-02	4.269
	+	77.11		1.865E+00	2.564E-01	2.327E-01	1.934E-02	8.013
	+	87.30		1.459E+00	3.638E-01	3.880E-01	5.325E-02	3.759
	+	238.63	*	1.428E+00	2.227E-01	7.688E-02	1.077E-02	18.570
	+	300.09		1.099E+00	8.929E-01	9.592E-01	1.537E-01	1.146
PO-212	+	74.81		1.733E+00	3.867E-01	4.060E-01	5.023E-02	4.269
	+	77.11		1.865E+00	2.564E-01	2.327E-01	1.934E-02	8.013
	+	87.30		1.459E+00	3.638E-01	3.880E-01	5.325E-02	3.759
	+	115.19		3.950E-01	2.726E+00	4.671E+00	3.957E-01	0.085
	+	238.63	*	1.428E+00	2.227E-01	7.688E-02	1.077E-02	18.570
	+	300.09		1.099E+00	8.929E-01	9.592E-01	1.537E-01	1.146
BI-214	+	609.31	*	1.107E+00	2.007E-01	1.049E-01	1.186E-02	10.556
	+	1120.29		1.254E+00	5.039E-01	3.345E-01	3.612E-02	3.749
	+	1764.49		1.697E+00	4.144E-01	3.054E-01	2.516E-02	5.556
PB-214	+	74.81		2.986E+00	6.443E-01	6.996E-01	7.681E-02	4.269
	+	77.11		3.197E+00	5.026E-01	3.990E-01	4.498E-02	8.013
	+	87.30		2.499E+00	6.025E-01	6.647E-01	8.081E-02	3.759
	+	241.98		1.923E+00	5.859E-01	4.546E-01	6.622E-02	4.231

----- Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	295.21		1.091E+00	2.787E-01	1.878E-01	3.062E-02	5.810
	+	351.92	*	1.214E+00	2.131E-01	9.240E-02	1.308E-02	13.139
	+	74.81		2.986E+00	6.443E-01	6.996E-01	7.681E-02	4.269
	+	77.11		3.197E+00	5.026E-01	3.990E-01	4.498E-02	8.013
	+	87.30		2.499E+00	6.025E-01	6.647E-01	8.081E-02	3.759
PO-216	+	241.98		1.923E+00	5.859E-01	4.546E-01	6.622E-02	4.231
	+	295.21		1.091E+00	2.787E-01	1.878E-01	3.062E-02	5.810
	+	351.92	*	1.214E+00	2.131E-01	9.240E-02	1.308E-02	13.139
	+	74.81		1.733E+00	3.867E-01	4.060E-01	5.023E-02	4.269
	+	77.11		1.865E+00	2.564E-01	2.327E-01	1.934E-02	8.013
PO-218	+	87.30		1.459E+00	3.638E-01	3.880E-01	5.325E-02	3.759
	+	238.63	*	1.428E+00	2.227E-01	7.688E-02	1.077E-02	18.570
	+	300.09		1.099E+00	8.929E-01	9.592E-01	1.537E-01	1.146
	+	74.81		2.986E+00	6.443E-01	6.996E-01	7.681E-02	4.269
	+	77.11		3.197E+00	5.026E-01	3.990E-01	4.498E-02	8.013
RA-224	+	87.30		2.499E+00	6.025E-01	6.647E-01	8.081E-02	3.759
	+	241.98		1.923E+00	5.859E-01	4.546E-01	6.622E-02	4.231
	+	295.21		1.091E+00	2.787E-01	1.878E-01	3.062E-02	5.810
	+	351.92	*	1.214E+00	2.131E-01	9.240E-02	1.308E-02	13.139
	+	240.98	*	3.647E+00	1.092E+00	8.753E-01	1.172E-01	4.166
RA-226	+	609.31	*	1.107E+00	2.007E-01	1.049E-01	1.186E-02	10.556
	+	1120.29		1.254E+00	5.039E-01	3.345E-01	3.612E-02	3.749
	+	1764.49		1.697E+00	4.144E-01	3.054E-01	2.516E-02	5.556
	+	338.32		1.304E+00	6.826E-01	3.204E-01	1.363E-01	4.071
	+	911.07	*	1.486E+00	3.080E-01	1.490E-01	1.814E-02	9.972
AC-228	+	969.11		1.540E+00	5.085E-01	3.354E-01	7.948E-02	4.591
	+	338.32		1.304E+00	6.826E-01	3.204E-01	1.363E-01	4.071
	+	911.07	*	1.486E+00	3.080E-01	1.490E-01	1.814E-02	9.972
	+	969.11		1.540E+00	5.085E-01	3.354E-01	7.948E-02	4.591
	+	74.81		1.763E+00	3.577E-01	4.129E-01	3.378E-02	4.269
TH-228	+	77.11		1.896E+00	2.608E-01	2.367E-01	1.967E-02	8.013
	+	87.30		1.483E+00	3.389E-01	3.946E-01	3.709E-02	3.759
	+	238.63	*	1.452E+00	2.264E-01	7.819E-02	1.095E-02	18.570
	+	300.09		1.118E+00	1.118E+00	9.755E-01	5.904E-01	1.146
	+	609.31	*	1.107E+00	2.007E-01	1.049E-01	1.186E-02	10.556
TH-230	+	1120.29		1.254E+00	5.039E-01	3.345E-01	3.612E-02	3.749
	+	1764.49		1.697E+00	4.144E-01	3.054E-01	2.516E-02	5.556
	+	338.32		1.304E+00	4.347E-01	3.204E-01	4.321E-02	4.071
	+	911.07	*	1.486E+00	3.080E-01	1.490E-01	1.814E-02	9.972
	+	969.11		1.540E+00	5.085E-01	3.354E-01	7.948E-02	4.591
TH-232	+	63.29	*	2.290E+00	1.442E+00	1.351E+00	2.351E-01	1.695
	+	92.38		2.025E+00	6.692E-01	5.568E-01	1.021E-01	3.637
	+	609.31	*	1.107E+00	2.007E-01	1.049E-01	1.186E-02	10.556
	+	1120.29		1.254E+00	5.039E-01	3.345E-01	3.612E-02	3.749
	+	1764.49		1.697E+00	4.144E-01	3.054E-01	2.516E-02	5.556
NP-237	+	86.50	*	9.261E-01	2.851E-01	2.510E-01	5.682E-02	3.690
	+	95.87		-4.008E-01	7.378E-01	1.002E+00	2.480E-01	-0.400
	+	63.29	*	2.290E+00	1.442E+00	1.351E+00	2.351E-01	1.695
	+	92.38		2.025E+00	5.867E-01	5.568E-01	5.098E-02	3.637
	+	92.38		2.025E+00	5.867E-01	5.568E-01	5.098E-02	3.637

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	+	74.67	*	2.810E-01	5.694E-02	6.598E-02	5.340E-03	4.258
	+	86.72		3.473E+01	7.934E+00	9.485E+00	8.850E-01	3.661
		117.66		-3.576E-01	2.852E+00	4.827E+00	4.083E-01	-0.074
		142.18		1.100E+01	1.364E+01	2.370E+01	2.113E+00	0.464
ANH-511	+	511.00	*	7.021E-02	6.619E-02	3.790E-02	4.053E-03	1.853

---- 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	*	1.993E-01	2.756E-01	4.829E-01	5.465E-02	0.413
NA-22		1274.54	*	-2.622E-02	3.613E-02	5.319E-02	4.368E-03	-0.493
NA-24		1368.53	*	-9.283E-01	3.613E-02	Half-Life too short		
AL-26		1129.67		4.458E-01	1.310E+00	2.236E+00	1.889E-01	0.199
		1808.65	*	1.188E-02	2.666E-02	4.769E-02	3.892E-03	0.249
TI-44		67.85		-1.960E-03	3.105E-02	4.896E-02	3.709E-03	-0.040
	+	78.38	*	3.442E-01	4.733E-02	4.947E-02	4.171E-03	6.956
SC-46		889.25	*	3.018E-02	3.587E-02	6.438E-02	6.341E-03	0.469
	+	1120.51		2.178E-01	8.633E-02	1.131E-01	9.642E-03	1.926
V-48		944.10		-6.550E-01	7.897E-01	1.196E+00	1.157E-01	-0.548
		983.50	*	-3.484E-02	6.331E-02	9.894E-02	9.385E-03	-0.352
		1312.09		-5.023E-02	6.728E-02	9.651E-02	7.957E-03	-0.520
CR-51		320.08	*	-9.565E-02	3.385E-01	5.300E-01	7.692E-02	-0.180
MN-52		744.21		7.690E-03	2.373E-01	3.835E-01	3.727E-02	0.020
		848.13		4.256E+00	7.196E+00	1.273E+01	1.255E+00	0.334
		935.52		1.071E-01	2.755E-01	4.765E-01	4.626E-02	0.225
		1246.25		-2.658E+00	7.169E+00	1.117E+01	9.118E-01	-0.238
		1333.61		-2.788E+00	5.350E+00	8.112E+00	6.705E-01	-0.344
		1434.06	*	2.557E-01	2.271E-01	4.315E-01	3.615E-02	0.593
MN-54		834.83	*	-2.433E-02	3.374E-02	5.335E-02	5.254E-03	-0.456
CO-56		846.75	*	3.720E-02	3.257E-02	6.017E-02	5.928E-03	0.618
		977.42		-8.009E-01	3.028E+00	4.211E+00	4.008E-01	-0.190
		1037.82		1.144E-01	2.532E-01	4.395E-01	4.217E-02	0.260
		1175.09		1.209E+00	1.836E+00	3.212E+00	2.582E-01	0.376
	+	1238.25		1.993E-01	1.185E-01	1.480E-01	1.246E-02	1.346
		1360.21		4.712E-01	8.606E-01	1.493E+00	1.239E-01	0.316
		1771.40		-1.056E-01	1.852E-01	2.562E-01	2.108E-02	-0.412
CO-57		122.06	*	-1.453E-02	1.943E-02	3.187E-02	2.696E-03	-0.456
		136.48		1.298E-02	1.524E-01	2.584E-01	2.427E-02	0.050
CO-58		810.76	*	5.271E-04	3.253E-02	5.211E-02	5.131E-03	0.010
FE-59		142.65		1.720E+00	2.218E+00	3.782E+00	3.378E-01	0.455
		192.34		4.724E-01	7.651E-01	1.300E+00	1.950E-01	0.363
		1099.22	*	-4.191E-02	7.784E-02	1.205E-01	1.132E-02	-0.348
		1291.56		4.424E-02	1.041E-01	1.779E-01	1.679E-02	0.249
CO-60		1173.22		2.404E-02	3.624E-02	6.345E-02	5.098E-03	0.379
		1332.49	*	-2.730E-02	3.282E-02	4.707E-02	3.890E-03	-0.580
ZN-65		1115.52	*	5.043E-02	7.227E-02	1.149E-01	9.855E-03	0.439
GE-68		1077.35	*	-4.623E-01	8.720E-01	1.336E+00	1.186E-01	-0.346
AS-73		53.44	*	-2.831E-01	5.592E-01	8.534E-01	6.409E-02	-0.332

---- 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	*		-2.456E-02	8.431E-02	1.348E-01	1.371E-02	-0.182
	634.78			6.170E-02	3.285E-01	5.452E-01	5.334E-02	0.113
SE-75	66.05			-8.367E-01	3.601E+00	5.173E+00	4.916E-01	-0.162
	96.73			-5.798E-01	6.389E-01	8.459E-01	1.169E-01	-0.685
	121.11			-8.226E-02	1.022E-01	1.667E-01	1.848E-02	-0.494
	136.00			-1.049E-03	2.866E-02	4.832E-02	4.254E-03	-0.022
	198.60			-8.492E-01	1.500E+00	2.355E+00	2.816E-01	-0.361
	264.65	*		1.966E-03	3.955E-02	5.742E-02	8.440E-03	0.034
	279.53			-1.993E-01	9.978E-02	1.320E-01	2.067E-02	-1.509
	303.91			-6.625E-01	1.926E+00	2.658E+00	4.419E-01	-0.249
	400.65			-9.142E-03	2.099E-01	3.539E-01	4.527E-02	-0.026
BR-77	87.88	+		1.161E+03	2.652E+02	4.209E+02	3.986E+01	2.758
	200.40			6.603E+01	2.202E+02	3.687E+02	4.170E+01	0.179
	239.00	+		3.839E+02	5.734E+01	5.683E+01	7.551E+00	6.755
	249.79			-4.379E+01	8.990E+01	1.415E+02	1.962E+01	-0.309
	281.68			1.141E+02	1.235E+02	2.091E+02	3.225E+01	0.546
	297.23			-2.624E+01	1.070E+02	1.163E+02	1.744E+01	-0.226
	303.76			8.975E+01	2.551E+02	3.766E+02	5.574E+01	0.238
	439.47			2.921E+00	1.978E+02	3.325E+02	3.587E+01	0.009
	484.57			-2.063E+02	3.110E+02	4.819E+02	5.188E+01	-0.428
	520.65	*		3.387E+00	1.355E+01	2.294E+01	2.445E+00	0.148
	574.64			2.275E+02	2.963E+02	5.165E+02	5.340E+01	0.440
	578.91			-8.592E+01	1.475E+02	1.985E+02	2.046E+01	-0.433
	585.48			3.231E+02	2.523E+02	4.135E+02	4.241E+01	0.781
	755.35			3.993E+01	2.152E+02	3.532E+02	3.440E+01	0.113
	817.79			-8.068E+01	1.766E+02	2.659E+02	2.615E+01	-0.303
SR-82	698.33			-2.140E+01	3.273E+01	4.984E+01	4.780E+00	-0.429
	776.49	*		6.820E-02	3.271E-01	5.365E-01	5.247E-02	0.127
	1395.20			-5.871E+00	9.278E+00	1.330E+01	1.109E+00	-0.442
RB-83	520.41	*		-1.010E-02	5.626E-02	9.186E-02	9.789E-03	-0.110
	529.64			-4.559E-02	9.002E-02	1.426E-01	1.514E-02	-0.320
	552.65			6.807E-02	1.580E-01	2.705E-01	2.837E-02	0.252
RB-84	881.50	*		1.790E-02	5.439E-02	9.446E-02	9.307E-03	0.189
KR-85	513.99	*		7.789E-01	6.753E+00	9.968E+00	1.065E+00	0.078
SR-85	513.99	*		4.068E-03	3.527E-02	5.207E-02	5.562E-03	0.078
RB-86	1076.63	*		-4.705E-01	5.776E-01	8.428E-01	7.490E-02	-0.558
Y-88	898.02			-1.791E-02	3.378E-02	5.206E-02	5.145E-03	-0.344
	1836.01	*		2.004E-02	3.082E-02	5.338E-02	4.334E-03	0.375
ZR-88	392.90	*		1.002E-02	2.463E-02	4.278E-02	4.563E-03	0.234
Y-91	1204.90	*		1.383E+01	1.553E+01	2.763E+01	2.237E+00	0.500
NB-94	702.63	*		1.078E-02	3.116E-02	5.188E-02	4.983E-03	0.208
	871.10			1.408E-02	2.613E-02	4.627E-02	4.560E-03	0.304
NB-95	765.79	*		4.558E-02	4.713E-02	7.308E-02	7.133E-03	0.624
NB-95M	235.69	*		-2.705E-03	1.170E-01	1.705E-01	2.381E-02	-0.016
ZR-95	724.18			1.315E-01	9.594E-02	1.558E-01	1.610E-02	0.844
	756.15	*		-1.625E-02	5.871E-02	9.157E-02	9.636E-03	-0.178
NB-97	657.90	*		-2.432E-01	5.871E-02	Half-Life too short		
	1024.50			-1.334E+01	5.871E-02	Half-Life too short		
ZR-97	254.15			-2.929E+00	5.871E-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			2.051E+01	5.871E-02	Half-Life	too short	
	507.63	*		2.555E+01	5.871E-02	Half-Life	too short	
	602.52			-2.378E+00	5.871E-02	Half-Life	too short	
	1021.30			2.013E+01	5.871E-02	Half-Life	too short	
	1147.95			-1.459E+01	5.871E-02	Half-Life	too short	
	1362.66			-1.757E+00	5.871E-02	Half-Life	too short	
	1750.46			1.728E+01	5.871E-02	Half-Life	too short	
MO-99	140.51			-2.156E+00	3.245E+01	5.322E+01	1.478E+01	-0.041
	181.06			-1.275E+01	2.326E+01	3.319E+01	6.368E+00	-0.384
	366.43			6.768E-01	1.068E+02	1.691E+02	2.049E+01	0.004
	739.58	*		-1.132E+01	1.453E+01	2.117E+01	3.351E+00	-0.535
	778.00			5.964E+00	4.393E+01	7.151E+01	6.997E+00	0.083
TC-99M	140.51	*		-2.652E+11	4.393E+01	Half-Life	too short	
RH-101	127.23			-3.322E-04	2.735E-02	4.170E-02	3.562E-03	-0.008
	198.01	*		-7.139E-03	2.635E-02	4.202E-02	4.703E-03	-0.170
	325.23			5.014E-02	1.946E-01	2.834E-01	3.977E-02	0.177
RH-102	418.52			-7.249E-02	2.310E-01	3.804E-01	4.089E-02	-0.191
	475.06	*		-2.691E-02	2.391E-02	3.601E-02	3.882E-03	-0.747
	631.29			4.655E-03	4.806E-02	7.915E-02	7.773E-03	0.059
	697.49			-1.080E-02	6.653E-02	1.062E-01	1.018E-02	-0.102
	766.84			2.088E-01	1.166E-01	1.933E-01	1.887E-02	1.080
	1046.59			7.184E-02	9.759E-02	1.731E-01	1.576E-02	0.415
	1112.84			-1.299E-02	1.839E-01	2.590E-01	2.226E-02	-0.050
RU-103	497.08	*		7.069E-04	3.478E-02	5.797E-02	9.009E-03	0.012
	610.33			8.524E+00	1.965E+00	2.539E+00	4.433E-01	3.357
RH-106	511.85			1.997E-02	1.866E-01	3.518E-01	3.761E-02	0.057
	621.84	*		-1.249E-01	2.447E-01	3.782E-01	5.383E-02	-0.330
	1050.47			4.732E-01	1.761E+00	3.002E+00	2.725E-01	0.158
RU-106	511.85			1.997E-02	1.866E-01	3.518E-01	3.761E-02	0.057
	621.84	*		-1.249E-01	2.444E-01	3.782E-01	3.752E-02	-0.330
	1050.47			4.732E-01	1.761E+00	3.002E+00	2.725E-01	0.158
AG-108M	433.93	*		-8.155E-03	2.765E-02	4.521E-02	4.998E-03	-0.180
	614.37			4.172E-02	3.691E-02	5.939E-02	6.110E-03	0.703
	722.95			-2.294E-02	4.146E-02	5.405E-02	5.386E-03	-0.424
AG-110M	657.75	*		-1.577E-02	3.380E-02	4.510E-02	4.394E-03	-0.350
	677.61			1.551E-01	2.523E-01	4.331E-01	4.219E-02	0.358
	706.67			-9.748E-02	1.849E-01	2.840E-01	2.792E-02	-0.343
	763.93			-7.193E-02	1.804E-01	2.402E-01	2.396E-02	-0.299
	884.67			-2.191E-02	4.051E-02	6.413E-02	6.474E-03	-0.342
	937.48			-5.426E-02	9.511E-02	1.496E-01	1.493E-02	-0.363
	1384.27			4.469E-02	1.275E-01	2.006E-01	1.721E-02	0.223
IN-111	171.28			-4.809E-02	1.211E+00	2.015E+00	2.005E-01	-0.024
	245.39	*		8.737E-02	1.471E+00	2.150E+00	2.930E-01	0.041
IN-113M	391.69	*		-2.185E-02	3.663E-02	5.942E-02	6.463E-03	-0.368
SN-113	391.69	*		-2.185E-02	3.663E-02	5.942E-02	6.463E-03	-0.368
IN-114M	190.27	*		-1.078E-01	1.646E-01	2.327E-01	2.518E-02	-0.463
CD-115	260.90			-3.858E+01	1.777E+02	2.841E+02	4.111E+01	-0.136
	492.35			1.062E+01	4.760E+01	8.074E+01	8.679E+00	0.132
	527.90	*		6.068E-01	1.511E+01	2.512E+01	2.669E+00	0.024

---- 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			-8.735E-01	1.958E+00	3.212E+00	3.007E-01	-0.272
	158.56	*		-3.459E-02	4.601E-02	7.407E-02	7.000E-03	-0.467
SB-122	563.90	*		1.958E+00	2.776E+00	4.820E+00	5.021E-01	0.406
	692.80			-1.169E+01	5.574E+01	8.845E+01	8.467E+00	-0.132
I-123	159.00	*		-3.350E+01	5.574E+01	Half-Life too short		
	528.96			-2.232E+03	5.574E+01	Half-Life too short		
TE-123M	159.00	*		-1.782E-02	2.229E-02	3.580E-02	3.406E-03	-0.498
I-124	602.71	*		-3.050E-02	8.795E-01	1.259E+00	1.272E-01	-0.024
	722.78			-3.138E+00	5.810E+00	7.592E+00	7.335E-01	-0.413
	1325.50			-2.580E+01	3.941E+01	5.774E+01	4.767E+00	-0.447
+	1376.25			8.460E+01	4.348E+01	7.071E+01	5.885E+00	1.196
	1509.49			2.277E+01	1.611E+01	3.225E+01	2.714E+00	0.706
	1691.02			1.722E+00	4.084E+00	7.321E+00	6.104E-01	0.235
SB-124	602.71			-1.349E-03	3.892E-02	5.570E-02	5.630E-03	-0.024
	645.85			2.902E-02	4.184E-01	6.866E-01	6.948E-02	0.042
	709.31			4.541E-01	2.412E+00	3.970E+00	3.821E-01	0.114
	713.82			-6.684E-01	1.365E+00	2.090E+00	2.672E-01	-0.320
	722.78			-2.013E-01	3.727E-01	4.869E-01	4.786E-02	-0.413
+	968.20			1.618E+01	4.029E+00	6.829E+00	6.530E-01	2.369
	1045.16			1.571E+00	2.187E+00	3.869E+00	3.526E-01	0.406
	1325.50			-1.768E+00	2.700E+00	3.955E+00	3.266E-01	-0.447
	1368.21			-3.248E-01	1.377E+00	2.135E+00	2.835E-01	-0.152
	1436.60			1.220E+00	3.159E+00	5.399E+00	4.525E-01	0.226
	1691.02	*		2.605E-02	6.179E-02	1.108E-01	9.625E-03	0.235
SB-125	427.89	*		-4.784E-02	7.475E-02	1.196E-01	1.304E-02	-0.400
+	463.38			4.235E-01	3.360E-01	4.352E-01	4.934E-02	0.973
	600.56			-3.126E-02	1.557E-01	2.511E-01	2.680E-02	-0.124
	635.90			-7.853E-02	2.384E-01	3.774E-01	3.921E-02	-0.208
TE-125M	109.28	*		2.748E+00	6.869E+00	1.192E+01	1.223E+00	0.231
I-126	388.63			2.382E-01	1.797E-01	3.269E-01	3.546E-02	0.729
	666.33	*		2.193E-01	1.591E-01	2.687E-01	2.547E-02	0.816
	753.82			-4.188E-01	1.274E+00	1.974E+00	1.922E-01	-0.212
SB-126	223.80			-9.640E-01	3.678E+00	5.942E+00	7.421E-01	-0.162
	278.60			-1.497E+00	2.262E+00	3.480E+00	5.375E-01	-0.430
	296.50			5.247E+00	2.215E+00	2.950E+00	4.432E-01	1.779
	414.70			4.112E-02	7.289E-02	1.193E-01	1.281E-02	0.345
	415.30			8.381E-01	6.017E+00	9.917E+00	1.065E+00	0.085
	555.20			7.980E-01	3.509E+00	5.905E+00	6.185E-01	0.135
	573.80			5.736E-02	9.722E-01	1.608E+00	1.664E-01	0.036
	593.00			-4.433E-01	8.640E-01	1.352E+00	1.378E-01	-0.328
	656.30			-4.241E-01	3.352E+00	4.972E+00	4.738E-01	-0.085
	666.33			9.202E-02	6.675E-02	1.127E-01	1.069E-02	0.816
	675.00			4.324E-01	1.785E+00	2.967E+00	2.822E-01	0.146
	695.00			-2.476E-02	7.167E-02	1.122E-01	1.075E-02	-0.221
	697.00			-4.295E-02	2.630E-01	4.197E-01	4.023E-02	-0.102
	720.50	*		8.494E-03	1.463E-01	2.198E-01	2.123E-02	0.039
	856.80			-4.706E-02	4.729E-01	6.837E-01	6.738E-02	-0.069
	989.30			-9.645E-02	9.513E-01	1.561E+00	1.476E-01	-0.062
	1034.80			-5.243E+00	8.127E+00	1.248E+01	1.146E+00	-0.420

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127	1213.00			-1.241E+00	4.176E+00	6.602E+00	5.354E-01	-0.188
	61.10			9.830E+00	5.366E+01	7.945E+01	8.495E+00	0.124
	252.40			1.231E+00	4.726E+00	7.763E+00	3.385E+00	0.159
	290.80			-1.584E+01	2.850E+01	3.874E+01	6.634E+00	-0.409
	411.60			-5.845E+00	1.642E+01	2.362E+01	4.095E+00	-0.247
	444.90			9.888E+00	1.087E+01	1.927E+01	2.803E+00	0.513
	473.00			-1.339E+00	1.795E+00	2.793E+00	4.142E-01	-0.479
	543.00			-4.355E+00	1.887E+01	3.057E+01	4.896E+00	-0.142
	603.60			-6.840E-01	1.538E+01	2.198E+01	3.082E+00	-0.031
	685.20	*		2.282E-01	1.463E+00	2.411E+00	3.038E-01	0.095
XE-127	698.50			-1.221E+01	1.917E+01	2.913E+01	4.876E+00	-0.419
	722.20			-2.635E+01	4.068E+01	5.214E+01	6.512E+00	-0.505
	783.80			3.386E+00	4.385E+00	7.544E+00	1.035E+00	0.449
	57.60			1.753E+00	4.064E+00	6.612E+00	4.759E-01	0.265
	145.22			-4.451E-01	5.414E-01	8.556E-01	7.707E-02	-0.520
	172.10			1.316E-02	9.459E-02	1.587E-01	1.585E-02	0.083
	202.84	*		-4.705E-03	3.940E-02	6.462E-02	7.385E-03	-0.073
	374.96			-1.556E-02	1.711E-01	2.683E-01	3.125E-02	-0.058
	80.18			-5.476E+00	4.042E+00	5.898E+00	5.117E-01	-0.929
	284.30			-7.277E-01	1.518E+00	2.366E+00	3.696E-01	-0.308
I-131	364.48	*		-1.735E-02	1.114E-01	1.741E-01	2.187E-02	-0.100
	636.97			-2.233E-01	1.534E+00	2.470E+00	2.519E-01	-0.090
	722.89			-4.463E+00	8.134E+00	1.061E+01	1.032E+00	-0.421
	49.72			-4.319E+00	1.759E+01	2.561E+01	2.775E+00	-0.169
	111.76			-1.219E+01	3.241E+01	5.441E+01	6.122E+00	-0.224
	116.30			-8.667E+00	3.054E+01	5.137E+01	5.764E+00	-0.169
	228.16	*		2.453E-01	8.336E-01	1.367E+00	2.540E-01	0.179
	53.15			1.309E-01	2.348E+00	3.690E+00	2.781E-01	0.035
	79.62			-1.077E+00	9.904E-01	1.455E+00	2.210E-01	-0.740
	81.00			-2.045E-02	8.347E-02	1.030E-01	1.640E-02	-0.199
TE-132	276.40			4.521E-01	3.151E-01	5.332E-01	1.025E-01	0.848
	302.84			-5.979E-02	1.342E-01	1.833E-01	3.291E-02	-0.326
	356.01	*		2.238E-02	4.029E-02	5.977E-02	9.639E-03	0.375
	383.85			-2.634E-01	2.440E-01	3.783E-01	5.464E-02	-0.696
	510.53	+		2.936E+00	2.440E-01	Half-Life	too short	
	529.87	*		-8.570E-03	2.440E-01	Half-Life	too short	
	706.58			-8.223E-01	2.440E-01	Half-Life	too short	
	856.28			-1.358E+00	2.440E-01	Half-Life	too short	
	875.33			-1.525E-01	2.440E-01	Half-Life	too short	
	1236.41	+		5.842E+00	2.440E-01	Half-Life	too short	
CS-134	1298.22			1.937E-02	2.440E-01	Half-Life	too short	
	475.35			-8.252E-01	1.527E+00	2.435E+00	2.625E-01	-0.339
	563.23			2.189E-01	3.140E-01	5.443E-01	5.709E-02	0.402
	569.32			1.344E-03	1.650E-01	2.714E-01	2.843E-02	0.005
	604.70			1.271E-02	3.338E-02	4.991E-02	5.045E-03	0.255
	795.84	*		1.571E-01	6.532E-02	8.019E-02	7.911E-03	1.958
	801.93			-2.201E-01	4.415E-01	5.846E-01	5.764E-02	-0.377
	1038.57			-7.289E-01	3.175E+00	5.124E+00	4.692E-01	-0.142
	1167.94			-6.144E-01	2.048E+00	3.246E+00	2.625E-01	-0.189

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CS-135 I-135	1365.15			-3.611E-01	1.002E+00	1.523E+00	1.327E-01	-0.237
	268.24	*		1.246E-01	1.496E-01	2.282E-01	3.581E-02	0.546
	288.45			4.448E+11	1.496E-01	Half-Life	too short	
	417.63			-1.725E+12	1.496E-01	Half-Life	too short	
	546.56			-6.732E+10	1.496E-01	Half-Life	too short	
	836.80			-6.328E+11	1.496E-01	Half-Life	too short	
	1038.76			-2.742E+11	1.496E-01	Half-Life	too short	
	1124.00			1.362E+11	1.496E-01	Half-Life	too short	
	1131.51			3.866E+07	1.496E-01	Half-Life	too short	
	1260.41	*		9.030E+10	1.496E-01	Half-Life	too short	
	1457.56			7.181E+13	1.496E-01	Half-Life	too short	
	1678.03			3.718E+11	1.496E-01	Half-Life	too short	
	1706.46			-6.106E+11	1.496E-01	Half-Life	too short	
	1791.20			-9.408E+10	1.496E-01	Half-Life	too short	
	66.91			-1.123E-01	6.325E-01	9.108E-01	1.352E-01	-0.123
	86.29	+		4.517E+00	1.118E+00	1.707E+00	2.270E-01	2.647
	153.22			6.042E-01	5.631E-01	9.835E-01	1.005E-01	0.614
CS-136 + CE-139 BA-140	163.89			-1.204E-01	9.896E-01	1.620E+00	1.715E-01	-0.074
	176.55			-3.135E-02	3.120E-01	5.165E-01	5.480E-02	-0.061
	273.65			-7.826E-01	4.879E-01	5.856E-01	9.079E-02	-1.336
	340.57			1.013E-02	1.323E-01	1.885E-01	2.554E-02	0.054
	818.51			-3.228E-02	6.518E-02	9.765E-02	9.612E-03	-0.331
	1048.07	*		-6.689E-02	1.054E-01	1.628E-01	1.537E-02	-0.411
	1235.34			1.119E+00	5.840E-01	1.082E+00	1.246E-01	1.034
	165.85	*		-3.137E-03	2.413E-02	4.005E-02	3.892E-03	-0.078
	162.64			-5.120E-02	6.790E-01	1.114E+00	1.119E-01	-0.046
	304.84			-1.830E-02	1.127E+00	1.806E+00	5.504E-01	-0.010
LA-140 + CE-141 CE-143	423.70			2.583E-01	1.735E+00	2.948E+00	9.743E-01	0.088
	537.32	*		1.233E-01	2.297E-01	3.911E-01	1.318E-01	0.315
	328.77			6.805E-01	3.503E-01	5.114E-01	7.259E-02	1.331
	432.53			-5.948E-01	1.891E+00	3.087E+00	3.431E-01	-0.193
	487.03			4.598E-02	1.180E-01	2.027E-01	2.268E-02	0.227
	751.79			-1.699E-01	1.467E+00	2.330E+00	2.460E-01	-0.073
	815.85			-6.615E-02	2.827E-01	4.389E-01	4.702E-02	-0.151
	867.82			-3.700E-02	1.198E+00	2.008E+00	2.059E-01	-0.018
	919.63			-4.819E-01	2.455E+00	4.023E+00	4.666E-01	-0.120
	925.24			2.328E-02	1.039E+00	1.741E+00	1.782E-01	0.013
CE-144 PM-144	1596.49	*		7.176E-02	7.362E-02	1.341E-01	1.128E-02	0.535
	145.44	*		-3.400E-02	4.755E-02	7.715E-02	7.071E-03	-0.441
	57.37			-4.060E-05	4.755E-02	Half-Life	too short	
	231.56			-5.401E-03	4.755E-02	Half-Life	too short	
	293.26	*		1.625E-03	4.755E-02	Half-Life	too short	
	350.59	+		6.743E-02	4.755E-02	Half-Life	too short	
	490.36			-1.738E-03	4.755E-02	Half-Life	too short	
	664.57			6.814E-04	4.755E-02	Half-Life	too short	
	721.93			-1.262E-03	4.755E-02	Half-Life	too short	
	80.11			-2.115E+00	1.606E+00	2.349E+00	2.020E-01	-0.901
CE-144 PM-144	133.54	*		-5.035E-02	1.613E-01	2.562E-01	3.998E-02	-0.197
	476.78			6.938E-02	5.696E-02	1.025E-01	1.172E-02	0.677

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		618.01		-1.929E-03	2.665E-02	4.332E-02	4.404E-03	-0.045
		696.49	*	-4.504E-03	2.931E-02	4.679E-02	4.486E-03	-0.096
		778.57		-1.047E+00	1.945E+00	2.933E+00	2.871E-01	-0.357
PR-144		696.49	*	-3.055E-01	1.988E+00	3.174E+00	3.042E-01	-0.096
		1489.15		-8.120E-01	9.884E+00	1.637E+01	1.377E+00	-0.050
PM-146		453.90	*	-1.138E-02	3.374E-02	5.497E-02	6.892E-03	-0.207
		633.02		6.992E-01	1.233E+00	2.066E+00	7.782E-01	0.338
		735.90		-8.522E-02	1.173E-01	1.688E-01	4.886E-02	-0.505
		747.13		-2.274E-02	7.166E-02	1.111E-01	1.638E-02	-0.205
ND-147	+	91.11		9.015E-01	3.050E-01	4.218E-01	4.180E-02	2.137
		319.41		-3.765E+00	3.284E+00	4.747E+00	6.768E-01	-0.793
		439.89		-1.035E-01	5.423E+00	9.094E+00	9.811E-01	-0.011
		531.02	*	4.570E-01	5.026E-01	8.862E-01	1.434E-01	0.516
PM-149		285.90	*	-3.688E+01	1.376E+02	2.178E+02	4.367E+01	-0.169
EU-152		121.78		-4.738E-02	5.517E-02	8.982E-02	8.786E-03	-0.527
		244.69		3.257E-02	2.975E-01	4.366E-01	5.933E-02	0.075
		344.27	*	-4.742E-02	8.383E-02	1.272E-01	1.725E-02	-0.373
		443.98		2.946E-01	7.783E-01	1.341E+00	1.447E-01	0.220
		778.89		-3.504E-02	2.198E-01	3.465E-01	3.391E-02	-0.101
		867.32		-2.093E-02	6.716E-01	1.097E+00	1.081E-01	-0.019
	+	964.01		6.160E-01	3.263E-01	4.948E-01	4.742E-02	1.245
		1085.78		-2.780E-02	3.159E-01	4.982E-01	4.391E-02	-0.056
		1112.02		3.268E-02	2.657E-01	3.869E-01	3.328E-02	0.084
	+	1407.95		2.182E-01	1.955E-01	3.103E-01	2.593E-02	0.703
GD-153		69.67		-9.150E-01	1.167E+00	1.773E+00	1.366E-01	-0.516
	+	83.37		1.717E+01	1.317E+01	1.868E+01	1.671E+00	0.919
		97.43	*	-7.640E-02	6.879E-02	8.934E-02	7.937E-03	-0.855
		103.18		-8.217E-02	7.543E-02	1.227E-01	1.064E-02	-0.670
EU-154		123.07		1.162E-02	3.879E-02	6.668E-02	7.500E-03	0.174
		247.94		-3.435E-02	2.930E-01	4.736E-01	7.442E-02	-0.073
		591.81		3.837E-02	5.079E-01	8.395E-01	1.082E-01	0.046
		723.30		-9.719E-02	1.779E-01	2.326E-01	2.438E-02	-0.418
		756.87		-5.599E-01	6.611E-01	9.607E-01	1.231E-01	-0.583
		873.19		9.607E-02	2.308E-01	4.037E-01	5.305E-02	0.238
		996.32		3.259E-02	2.913E-01	4.898E-01	8.897E-02	0.067
		1004.76		5.911E-02	1.906E-01	3.256E-01	3.973E-02	0.182
		1274.45	*	-7.105E-02	1.012E-01	1.493E-01	1.642E-02	-0.476
EU-155		48.70		-1.365E+00	1.552E+00	2.162E+00	1.749E-01	-0.631
		60.01		-7.902E-01	3.607E+00	5.220E+00	3.725E-01	-0.151
	+	86.54		3.801E-01	8.696E-02	1.462E-01	1.373E-02	2.599
		105.31	*	1.111E-01	7.925E-02	1.421E-01	1.240E-02	0.782
TB-160	+	86.79		1.032E+00	2.358E-01	3.998E-01	3.734E-02	2.581
		197.04		-1.579E-01	4.584E-01	7.283E-01	8.116E-02	-0.217
		215.65		6.002E-02	6.031E-01	9.964E-01	1.203E-01	0.060
	+	298.57		1.627E-01	1.318E-01	1.770E-01	2.648E-02	0.919
		879.36	*	7.356E-02	1.057E-01	1.900E-01	1.872E-02	0.387
	+	962.29		1.157E+00	6.127E-01	9.250E-01	8.872E-02	1.250
		966.15		9.084E-01	2.504E-01	4.788E-01	4.583E-02	1.897
		1177.93		7.723E-03	3.095E-01	5.083E-01	4.088E-02	0.015

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
HO-166M		1271.85	-4.336E-01	6.318E-01	9.409E-01	7.715E-02	-0.461
		80.57	-3.270E-01	2.035E-01	2.918E-01	2.524E-02	-1.120
	+	184.41	1.337E-01	5.634E-02	5.590E-02	5.894E-03	2.392
		280.46	-2.550E-02	6.969E-02	1.096E-01	1.694E-02	-0.233
		410.95	1.537E-01	2.375E-01	3.725E-01	3.997E-02	0.413
	*	711.68	-1.529E-02	5.049E-02	7.913E-02	7.621E-03	-0.193
		752.31	1.619E-02	2.073E-01	3.365E-01	3.276E-02	0.048
TM-171		810.29	1.093E-03	4.875E-02	7.814E-02	7.679E-03	0.014
		51.35	1.722E+01	1.842E+01	3.085E+01	2.386E+00	0.558
		52.39	1.466E+00	1.040E+01	1.643E+01	1.251E+00	0.089
		59.40	1.621E+01	1.860E+01	2.864E+01	2.037E+00	0.566
	*	66.72	-1.804E+00	2.104E+01	3.047E+01	2.287E+00	-0.059
LU-176	+	88.36	7.480E-01	1.709E-01	2.524E-01	2.387E-02	2.963
		201.83	-8.698E-04	2.316E-02	3.815E-02	4.341E-03	-0.023
	*	306.84	5.248E-03	1.915E-02	3.132E-02	4.604E-03	0.168
		401.10	-7.575E-01	5.493E+00	9.200E+00	9.841E-01	-0.082
LU-177		112.95	-1.261E-02	1.478E+00	2.520E+00	2.140E-01	-0.005
	+	208.36	3.149E+00	1.728E+00	2.098E+00	2.455E-01	1.501
LU-177M		52.97	2.367E-01	1.077E+00	1.707E+00	1.290E-01	0.139
		54.07	-1.380E-01	5.700E-01	8.818E-01	6.570E-02	-0.157
		61.30	2.216E-01	1.018E+00	1.510E+00	1.087E-01	0.147
		121.62	-2.854E-01	2.830E-01	4.572E-01	3.863E-02	-0.624
		147.16	-1.314E-01	4.688E-01	7.774E-01	7.050E-02	-0.169
		171.86	8.889E-02	3.734E-01	6.293E-01	6.278E-02	0.141
		218.09	-5.768E-01	7.076E-01	1.105E+00	1.348E-01	-0.522
	+	268.79	2.350E+00	1.256E+00	1.276E+00	1.902E-01	1.842
		319.02	-2.528E-02	2.186E-01	3.466E-01	4.946E-02	-0.073
		367.43	-7.357E-02	7.339E-01	1.151E+00	1.388E-01	-0.064
	*	413.65	1.866E-01	1.604E-01	2.625E-01	2.819E-02	0.711
		56.28	-8.854E-01	6.250E-01	9.178E-01	6.680E-02	-0.965
		57.53	1.203E-01	3.390E-01	5.497E-01	3.959E-02	0.219
		65.20	-2.196E-01	7.313E-01	1.048E+00	7.765E-02	-0.210
		133.02	-1.072E-03	5.565E-02	8.455E-02	7.331E-03	-0.013
W-181		136.25	4.023E-02	3.404E-01	5.779E-01	5.057E-02	0.070
		345.85	-7.227E-02	1.708E-01	2.602E-01	3.420E-02	-0.278
	*	482.03	5.426E-03	3.452E-02	5.829E-02	6.278E-03	0.093
		56.28	-3.399E-01	2.401E-01	3.526E-01	2.566E-02	-0.964
		57.53	4.595E-02	1.303E-01	2.113E-01	1.522E-02	0.217
TA-182		65.20	-8.377E-02	2.789E-01	3.996E-01	2.962E-02	-0.210
	*	67.75	-6.880E-03	7.480E-02	1.178E-01	8.916E-03	-0.058
		100.10	8.820E-02	1.250E-01	2.202E-01	1.932E-02	0.401
		152.43	2.632E-01	2.620E-01	4.575E-01	4.227E-02	0.575
		222.10	1.471E-01	2.930E-01	4.921E-01	6.103E-02	0.299
		1001.68	-1.406E-01	1.904E+00	3.119E+00	2.928E-01	-0.045
		1121.28	3.882E-01	1.604E-01	2.845E-01	2.424E-02	1.364
RE-183		1189.05	4.574E-02	2.587E-01	4.311E-01	3.477E-02	0.106
	*	1221.42	-2.581E-02	1.686E-01	2.710E-01	2.202E-02	-0.095
		1230.97	-1.590E-01	4.753E-01	6.351E-01	5.170E-02	-0.250
		57.98	1.507E-01	1.318E-01	2.209E-01	1.586E-02	0.682

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RE-184		59.32		6.721E-02	7.768E-02	1.196E-01	8.509E-03	0.562
		67.20		-6.567E-02	1.513E-01	2.146E-01	1.617E-02	-0.306
		162.32	*	1.542E-02	8.878E-02	1.496E-01	1.434E-02	0.103
	+	208.81		2.400E+00	1.317E+00	1.604E+00	1.881E-01	1.496
		291.72		-5.056E-01	9.052E-01	1.230E+00	1.865E-01	-0.411
		57.98		5.495E-01	4.809E-01	8.058E-01	5.784E-02	0.682
		59.32		2.450E-01	2.831E-01	4.358E-01	3.101E-02	0.562
		67.20		-2.394E-01	5.518E-01	7.824E-01	5.896E-02	-0.306
		161.27		-7.818E-02	2.784E-01	4.594E-01	4.387E-02	-0.170
		216.55		-4.356E-02	2.153E-01	3.498E-01	4.238E-02	-0.125
		252.85	*	-2.023E-02	1.867E-01	3.015E-01	4.229E-02	-0.067
		318.01		-1.077E-01	3.825E-01	5.990E-01	8.571E-02	-0.180
		792.07		7.327E-01	1.013E+00	1.546E+00	1.516E-01	0.474
		903.28		1.136E+00	8.470E-01	1.499E+00	1.473E-01	0.757
OS-185		920.93		2.869E-01	3.777E-01	6.767E-01	6.608E-02	0.424
		59.72		-1.042E-02	2.193E-01	3.207E-01	2.284E-02	-0.032
		61.14		1.953E-02	1.125E-01	1.664E-01	1.197E-02	0.117
		69.30		-1.414E-01	2.072E-01	3.164E-01	2.428E-02	-0.447
		592.07		3.948E-01	2.071E+00	3.458E+00	3.527E-01	0.114
		646.12	*	1.253E-03	3.555E-02	5.815E-02	5.613E-03	0.022
		717.42		4.194E-01	7.468E-01	1.272E+00	1.227E-01	0.330
		874.81		-3.847E-01	4.805E-01	7.288E-01	7.182E-02	-0.528
		880.27		6.423E-02	5.882E-01	9.992E-01	9.845E-02	0.064
		155.03	*	3.759E-02	1.343E-01	2.280E-01	2.127E-02	0.165
RE-188		477.96		2.497E+00	2.650E+00	4.700E+00	5.066E-01	0.531
		633.10		1.420E+00	2.479E+00	4.243E+00	4.159E-01	0.335
	+	63.58		9.368E+01	5.711E+01	6.858E+01	5.020E+00	1.366
W-188		227.08		1.877E+00	1.102E+01	1.800E+01	2.278E+00	0.104
		290.67	*	-9.070E-01	7.019E+00	9.953E+00	1.512E+00	-0.091
	+	295.96		8.457E-01	2.097E-01	2.556E-01	3.853E-02	3.309
IR-192		308.46		-5.176E-02	7.588E-02	1.146E-01	1.681E-02	-0.452
		316.51	*	1.213E-02	2.912E-02	4.791E-02	6.887E-03	0.253
		468.07		4.498E-02	6.062E-02	9.586E-02	1.082E-02	0.469
		604.41		3.798E-02	4.622E-01	6.700E-01	9.404E-02	0.057
		612.46		2.985E-01	7.297E-01	1.092E+00	1.216E-01	0.273
		65.12		-8.692E-03	1.272E-01	1.847E-01	1.368E-02	-0.047
AU-195		66.83		-9.715E-03	6.978E-02	1.007E-01	7.567E-03	-0.096
	+	75.70		9.154E-01	1.855E-01	3.281E-01	2.684E-02	2.790
		98.88	*	7.065E-02	1.784E-01	2.783E-01	2.455E-02	0.254
	+	129.76		3.416E+00	3.358E+00	4.015E+00	3.451E-01	0.851
TL-200		367.94	*	1.266E-05	3.358E+00	Half-Life	too short	
		579.30		-2.381E-03	3.358E+00	Half-Life	too short	
		828.27		2.072E-03	3.358E+00	Half-Life	too short	
		1205.75		-9.814E-04	3.358E+00	Half-Life	too short	
TL-201		68.90		-1.563E+00	4.786E+00	7.442E+00	5.692E-01	-0.210
		70.82		-2.163E+00	3.201E+00	4.473E+00	3.482E-01	-0.483
		80.30		-8.017E+00	5.648E+00	8.206E+00	7.073E-01	-0.977
		135.34		-6.313E+00	2.785E+01	4.656E+01	4.064E+00	-0.136
		167.43	*	2.365E+00	8.316E+00	1.406E+01	1.375E+00	0.168

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-202		68.90		-1.039E-01	3.182E-01	4.948E-01	3.784E-02	-0.210
		70.82		-1.434E-01	2.122E-01	2.965E-01	2.308E-02	-0.483
		80.30		-5.316E-01	3.745E-01	5.442E-01	4.691E-02	-0.977
HG-203		439.56	*	2.260E-03	6.331E-02	1.066E-01	1.150E-02	0.021
		70.83		-5.692E-01	8.565E-01	1.195E+00	1.564E-01	-0.477
		72.87		5.307E-01	5.224E-01	7.887E-01	1.007E-01	0.673
	+	82.60		1.304E+00	1.010E+00	1.289E+00	1.791E-01	1.012
BI-207		279.20	*	-7.133E-02	3.803E-02	5.132E-02	8.016E-03	-1.390
		72.80		1.336E-01	1.479E-01	2.235E-01	1.774E-02	0.598
	+	74.97		5.044E-01	1.022E-01	1.716E-01	1.393E-02	2.940
	+	84.90		2.210E-01	1.695E-01	2.344E-01	2.137E-02	0.943
TL-207		569.67		-6.978E-03	2.617E-02	4.205E-02	4.363E-03	-0.166
		1063.62	*	8.072E-03	4.232E-02	6.954E-02	6.247E-03	0.116
		1770.23		2.891E-01	3.461E-01	6.463E-01	5.319E-02	0.447
		81.07		-4.470E-02	1.841E-01	2.274E-01	1.978E-02	-0.197
	+	83.78		1.457E-01	1.117E-01	1.601E-01	1.440E-02	0.910
		94.90		-2.279E-02	1.856E-01	2.628E-01	2.367E-02	-0.087
		122.32		-4.847E-01	1.328E+00	2.218E+00	2.017E-01	-0.219
		144.24		-3.485E-01	5.354E-01	8.572E-01	8.541E-02	-0.407
		154.21		1.888E-01	3.133E-01	5.383E-01	5.437E-02	0.351
	+	269.46		5.460E-01	2.920E-01	3.026E-01	4.552E-02	1.805
PO-209		323.87	*	-1.675E-01	6.170E-01	8.522E-01	1.783E-01	-0.197
	+	338.28		5.447E+00	1.877E+00	2.286E+00	3.681E-01	2.382
		445.03		1.753E+00	1.847E+00	3.284E+00	4.506E-01	0.534
		260.50		-1.997E+00	7.527E+00	1.199E+01	1.732E+00	-0.167
PB-211		262.80		-4.398E+00	2.132E+01	3.410E+01	4.970E+00	-0.129
		896.60	*	-2.056E+00	6.065E+00	9.815E+00	9.663E-01	-0.209
		404.84	*	1.949E-01	8.089E-01	1.221E+00	7.690E-01	0.160
		427.08		-3.337E-01	1.746E+00	2.798E+00	1.748E+00	-0.119
BI-212		831.96		7.002E-01	1.219E+00	1.921E+00	1.207E+00	0.365
	+	727.18	*	9.217E-01	4.244E-01	5.746E-01	6.280E-02	1.604
		785.46		-1.591E-02	1.626E+00	2.616E+00	2.563E-01	-0.006
		1620.62		1.933E+00	1.165E+00	2.357E+00	1.979E-01	0.820
PO-215		81.07		-4.470E-02	1.841E-01	2.274E-01	1.978E-02	-0.197
	+	83.78		1.457E-01	1.117E-01	1.601E-01	1.440E-02	0.910
		94.90		-2.279E-02	1.856E-01	2.628E-01	2.367E-02	-0.087
		122.32		-4.847E-01	1.328E+00	2.218E+00	2.017E-01	-0.219
		144.24		-3.485E-01	5.354E-01	8.572E-01	8.541E-02	-0.407
		154.21		1.888E-01	3.133E-01	5.383E-01	5.437E-02	0.351
	+	269.46		5.460E-01	2.920E-01	3.026E-01	4.552E-02	1.805
		323.87	*	-1.675E-01	6.170E-01	8.522E-01	1.783E-01	-0.197
	+	338.28		5.447E+00	1.877E+00	2.286E+00	3.681E-01	2.382
		445.03		1.753E+00	1.847E+00	3.284E+00	4.506E-01	0.534
RN-219	+	271.23		7.006E-01	3.765E-01	3.757E-01	6.037E-02	1.865
		401.81	*	-8.524E-02	3.345E-01	5.552E-01	9.055E-02	-0.154
RN-220		549.76	*	-1.690E+00	1.997E+01	3.272E+01	3.438E+00	-0.052
RA-223		81.07		-4.470E-02	1.841E-01	2.274E-01	1.978E-02	-0.197
	+	83.78		1.457E-01	1.117E-01	1.601E-01	1.440E-02	0.910
		94.90		-2.279E-02	1.856E-01	2.628E-01	2.367E-02	-0.087

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		122.32		-4.847E-01	1.328E+00	2.218E+00	2.017E-01	-0.219
		144.24		-3.485E-01	5.354E-01	8.572E-01	8.541E-02	-0.407
		154.21		1.888E-01	3.133E-01	5.383E-01	5.437E-02	0.351
	+	269.46		5.460E-01	2.920E-01	3.026E-01	4.552E-02	1.805
		323.87	*	-1.675E-01	6.170E-01	8.522E-01	1.783E-01	-0.197
	+	338.28		5.447E+00	1.877E+00	2.286E+00	3.681E-01	2.382
		445.03		1.753E+00	1.847E+00	3.284E+00	4.506E-01	0.534
		79.80		-1.482E+00	1.275E+00	1.830E+00	3.932E-01	-0.810
		236.00		6.880E-02	2.212E-01	3.289E-01	5.180E-02	0.209
		256.20	*	1.776E-01	3.112E-01	5.201E-01	9.913E-02	0.342
		286.10		-1.508E-01	1.321E+00	2.113E+00	3.865E-01	-0.071
	+	299.80		2.038E+00	1.679E+00	2.287E+00	4.875E-01	0.891
TH-227		304.40		-4.247E-01	1.584E+00	2.361E+00	5.194E-01	-0.180
		334.20		-1.297E+00	2.261E+00	3.004E+00	6.643E-01	-0.432
		79.80		-1.482E+00	1.276E+00	1.830E+00	3.982E-01	-0.810
	+	94.00		7.824E+00	2.755E+00	2.649E+00	5.817E-01	2.953
		236.00		6.880E-02	2.211E-01	3.289E-01	4.887E-02	0.209
		256.20	*	1.776E-01	3.116E-01	5.201E-01	1.108E-01	0.342
		286.10		-1.508E-01	1.329E+00	2.113E+00	2.138E+00	-0.071
	+	299.80		2.038E+00	1.679E+00	2.287E+00	4.875E-01	0.891
		304.40		-4.247E-01	1.584E+00	2.361E+00	5.194E-01	-0.180
		334.20		-1.297E+00	2.261E+00	3.004E+00	6.643E-01	-0.432
		85.43		3.016E-01	1.662E-01	2.329E-01	2.138E-02	1.295
	+	88.47		3.200E-01	1.077E-01	1.430E-01	1.351E-02	2.237
TH-229		100.00		8.674E-02	1.293E-01	2.275E-01	1.997E-02	0.381
		193.63	*	2.253E-01	3.976E-01	6.753E-01	7.415E-02	0.334
		210.97		4.497E-01	6.623E-01	1.008E+00	1.192E-01	0.446
		283.67	*	4.693E-02	1.301E+00	2.103E+00	4.168E-01	0.022
PA-231		301.29		5.051E-01	5.623E-01	8.526E-01	1.469E-01	0.592
		81.07		-4.470E-02	1.841E-01	2.274E-01	1.978E-02	-0.197
TH-231	+	83.78		1.457E-01	1.117E-01	1.601E-01	1.440E-02	0.910
		94.90		-2.279E-02	1.856E-01	2.628E-01	2.367E-02	-0.087
U-231		122.32		-4.847E-01	1.328E+00	2.218E+00	2.017E-01	-0.219
		144.24		-3.485E-01	5.354E-01	8.572E-01	8.541E-02	-0.407
		154.21		1.888E-01	3.133E-01	5.383E-01	5.437E-02	0.351
	+	269.46		5.460E-01	2.920E-01	3.026E-01	4.552E-02	1.805
		323.87	*	-1.675E-01	6.170E-01	8.522E-01	1.783E-01	-0.197
	+	338.28		5.447E+00	1.877E+00	2.286E+00	3.681E-01	2.382
		445.03		1.753E+00	1.847E+00	3.284E+00	4.506E-01	0.534
	+	84.21		8.398E+00	6.441E+00	9.206E+00	8.321E-01	0.912
	+	92.29		1.034E+01	2.997E+00	4.342E+00	3.979E-01	2.382
		95.87	*	-6.079E-01	1.110E+00	1.520E+00	1.361E-01	-0.400
		108.00		-2.871E+00	2.027E+00	3.234E+00	2.769E-01	-0.888
	+	75.28		1.472E+01	3.520E+00	5.071E+00	7.651E-01	2.902
PA-233	+	86.59		6.174E+00	2.109E+00	2.383E+00	6.447E-01	2.590
	+	300.12		5.681E-01	4.652E-01	6.449E-01	1.239E-01	0.881
		311.98	*	1.476E-02	5.020E-02	8.212E-02	1.205E-02	0.180
		340.50		7.350E-02	5.866E-01	8.389E-01	2.176E-01	0.088
		398.62		5.419E-01	1.713E+00	2.945E+00	8.062E-01	0.184

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	+	415.76		-2.375E-01	1.396E+00	2.326E+00	5.229E-01	-0.102
		63.00		2.669E+00	1.663E+00	1.956E+00	2.896E-01	1.364
		94.67		5.058E-02	1.352E-01	1.972E-01	2.501E-02	0.256
		98.44		5.734E-02	7.769E-02	1.130E-01	6.306E-02	0.508
		99.86		2.286E-01	3.278E-01	5.772E-01	5.071E-02	0.396
		111.00		1.967E-02	1.378E-01	2.365E-01	2.841E-02	0.083
		131.20		4.818E-02	8.749E-02	1.373E-01	1.185E-02	0.351
		152.70		2.624E-01	2.528E-01	4.368E-01	7.589E-02	0.601
		186.00		4.814E+00	2.490E+00	2.231E+00	7.101E-01	2.158
		226.40		-6.436E-02	3.341E-01	5.345E-01	8.608E-02	-0.120
		227.20		8.840E-02	3.673E-01	6.017E-01	7.622E-02	0.147
		248.90		1.424E-01	6.364E-01	1.049E+00	2.610E-01	0.136
		293.70		5.236E+00	1.516E+00	1.594E+00	3.394E-01	3.284
		369.80		-2.154E-01	7.050E-01	1.083E+00	2.523E-01	-0.199
		568.70		-1.753E-01	8.311E-01	1.341E+00	1.393E-01	-0.131
		569.50		-5.864E-02	2.324E-01	3.740E-01	3.881E-02	-0.157
		574.00		3.895E-01	1.248E+00	2.106E+00	2.179E-01	0.185
		699.00		-7.680E-02	6.532E-01	1.047E+00	2.045E-01	-0.073
		706.10		-7.900E-01	1.000E+00	1.395E+00	6.248E-01	-0.566
		733.00		1.130E-01	3.298E-01	4.871E-01	1.103E-01	0.232
		742.81		5.853E-01	1.117E+00	1.787E+00	1.204E+00	0.328
		796.30		1.264E+00	8.723E-01	1.467E+00	4.029E-01	0.861
		805.60		-4.315E-02	9.500E-01	1.513E+00	4.691E-01	-0.029
		819.60		-8.403E-02	9.911E-01	1.566E+00	6.001E-01	-0.054
		826.30		-3.476E-01	7.764E-01	1.155E+00	5.197E-01	-0.301
		831.60		3.809E-01	6.014E-01	9.993E-01	3.020E-01	0.381
		876.40		-6.133E-01	9.084E-01	9.727E-01	1.001E+00	-0.630
		880.51		3.478E-02	2.113E-01	3.610E-01	3.557E-02	0.096
		883.24		-7.455E-02	2.320E-01	3.673E-01	2.475E-01	-0.203
		899.00		-6.348E-01	7.332E-01	9.961E-01	4.380E-01	-0.637
		925.00		3.822E-01	9.796E-01	1.700E+00	1.657E-01	0.225
		926.50		-8.233E-02	1.489E-01	2.324E-01	5.968E-02	-0.354
		946.00	*	3.298E-02	2.358E-01	3.992E-01	7.692E-02	0.083
		949.00		2.791E-01	3.624E-01	6.493E-01	6.267E-02	0.430
		980.50		9.176E-01	6.611E-01	1.141E+00	1.084E-01	0.804
		1394.10		-8.051E-01	1.060E+00	1.246E+00	8.107E-01	-0.646
PA-234M	+	766.42		1.866E+01	1.572E+01	2.039E+01	1.039E+01	0.915
		1001.03	*	-4.589E-01	4.260E+00	6.957E+00	7.401E-01	-0.066
U-235	+	89.95		3.212E+00	1.440E+00	1.490E+00	4.630E-01	2.155
		93.35		2.434E+00	9.586E-01	9.927E-01	2.797E-01	2.452
		105.00		1.245E+00	8.459E-01	1.385E+00	4.134E-01	0.899
		143.76	*	-3.832E-02	1.657E-01	2.710E-01	4.791E-02	-0.141
		163.35		9.075E-02	3.893E-01	6.467E-01	1.264E-01	0.140
NP-236	+	185.71		1.783E-01	7.512E-02	8.291E-02	8.792E-03	2.151
		205.31		6.794E-02	4.707E-01	7.007E-01	1.441E-01	0.097
		94.67		3.947E-02	1.025E-01	1.497E-01	1.351E-02	0.264
		98.44		4.333E-02	5.365E-02	8.540E-02	7.550E-03	0.507
		111.00		1.488E-02	1.042E-01	1.789E-01	1.523E-02	0.083
		160.31	*	5.248E-04	6.064E-02	1.015E-01	9.657E-03	0.005

----- 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		5.872E-02	1.129E-01	1.935E-01	1.702E-02	0.303
		117.00	*	-3.086E-02	1.464E-01	2.470E-01	2.090E-02	-0.125
	+	209.75		1.860E+00	1.021E+00	1.244E+00	1.465E-01	1.495
		228.18		1.162E-01	1.843E-01	3.072E-01	3.907E-02	0.378
		277.60		2.220E-01	1.501E-01	2.578E-01	3.969E-02	0.861
		334.30		-7.556E-01	1.274E+00	1.698E+00	2.319E-01	-0.445
AM-241		59.54	*	2.254E-02	1.123E-01	1.666E-01	1.309E-02	0.135
CM-243		99.55		6.043E-02	1.162E-01	1.992E-01	1.752E-02	0.303
		103.76	*	-2.310E-02	6.913E-02	1.167E-01	1.010E-02	-0.198
		117.00		-3.175E-02	1.506E-01	2.542E-01	2.151E-02	-0.125
	+	209.75		1.834E+00	1.007E+00	1.227E+00	1.444E-01	1.495
		228.18		1.174E-01	1.862E-01	3.104E-01	3.948E-02	0.378
		277.60		2.238E-01	1.513E-01	2.600E-01	4.002E-02	0.861
AM-246		798.80		-1.417E-01	1.412E-01	1.657E-01	1.626E-02	-0.855
		1036.00		1.317E-01	2.372E-01	4.162E-01	3.819E-02	0.316
		1062.04		-5.974E-02	1.901E-01	2.949E-01	2.653E-02	-0.203
		1078.86	*	-1.740E-02	9.709E-02	1.564E-01	1.387E-02	-0.111
		278.00		5.455E-01	6.092E-01	1.029E+00	1.587E-01	0.530
CM-247		287.40		7.936E-01	1.025E+00	1.724E+00	2.634E-01	0.460
		402.60	*	-1.196E-03	2.934E-02	4.944E-02	5.292E-03	-0.024
		252.85		-7.536E-02	6.954E-01	1.123E+00	1.576E-01	-0.067
CF-249		333.44		-4.042E-02	1.635E-01	2.262E-01	3.098E-02	-0.179
		387.95	*	3.607E-02	3.196E-02	5.763E-02	6.276E-03	0.626
CF-251		176.60	*	-1.188E-02	9.792E-02	1.619E-01	1.650E-02	-0.073
		227.00		3.882E-02	3.241E-01	5.277E-01	6.679E-02	0.074
		285.00		-7.689E-01	1.520E+00	2.364E+00	3.627E-01	-0.325

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]G243517009      *
* Acquisition date   : 7-JAN-2010 09:13:15 Detector SN#      :              *
* Detector ID        : GAM11 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 02:00:01.61 Half life ratio : 8.000   *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date       : 21-DEC-2009 12:00:00 Nuclide Library : SOLID      *
* Sample ID         : G243517009 Analyst initials: MXR1          *
* Batch Number      : 937069 Sample Quantity : 1.3144E+02 GRAM   *
* Recovery          : 1.00000 Carrier Weight  : 0.00000         *
*****
*
*                                     QC DATA                               *
*
* Standard Weight   : 0.00000                                             *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 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	2.130E+01	2.285E+00	4.349E-01	0.000E+00
CD-109	3.217E+00	7.203E-01	8.930E-01	0.000E+00
SN-126	3.154E-01	7.061E-02	8.783E-02	0.000E+00
BA-137M	1.346E-01	4.346E-02	4.766E-02	0.000E+00
CS-137	1.423E-01	4.594E-02	5.038E-02	0.000E+00
TL-208	4.796E-01	9.174E-02	4.591E-02	0.000E+00
BI-210	3.253E-01	2.908E+00	3.277E+00	0.000E+00
PB-210	3.253E-01	2.908E+00	3.277E+00	0.000E+00
PO-210	3.253E-01	2.908E+00	3.277E+00	0.000E+00
BI-211	3.490E+00	5.731E-01	2.734E-01	0.000E+00
PB-212	1.428E+00	2.182E-01	7.936E-02	0.000E+00
PO-212	1.428E+00	2.182E-01	7.936E-02	0.000E+00
BI-214	1.107E+00	1.966E-01	1.066E-01	0.000E+00
PB-214	1.214E+00	2.088E-01	9.477E-02	0.000E+00
PO-214	1.214E+00	2.088E-01	9.477E-02	0.000E+00
PO-216	1.428E+00	2.182E-01	7.936E-02	0.000E+00
PO-218	1.214E+00	2.088E-01	9.477E-02	0.000E+00
RA-224	3.647E+00	1.070E+00	9.033E-01	0.000E+00
RA-226	1.107E+00	1.966E-01	1.066E-01	0.000E+00
AC-228	1.486E+00	3.018E-01	1.504E-01	0.000E+00
RA-228	1.486E+00	3.018E-01	1.504E-01	0.000E+00
TH-228	1.452E+00	2.219E-01	8.070E-02	0.000E+00
TH-230	1.107E+00	1.966E-01	1.066E-01	0.000E+00
TH-232	1.486E+00	3.018E-01	1.504E-01	0.000E+00
TH-234	2.290E+00	1.413E+00	1.425E+00	0.000E+00
U-234	1.107E+00	1.966E-01	1.066E-01	0.000E+00
NP-237	9.261E-01	2.794E-01	2.634E-01	0.000E+00
U-238	2.290E+00	1.413E+00	1.425E+00	0.000E+00
AM-243	2.810E-01	5.580E-02	6.939E-02	0.000E+00
ANH-511	7.021E-02	6.487E-02	3.863E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	1.993E-01	2.701E-01	4.927E-01	0.000E+00	NOT IDENT.
NA-22	-2.622E-02	3.541E-02	5.337E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	4.083E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.188E-02	2.612E-02	4.756E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.638E-02	5.199E-02	0.000E+00	FAIL ABUN
SC-46	3.018E-02	3.515E-02	6.501E-02	0.000E+00	FAIL ABUN
V-48	-3.484E-02	6.204E-02	9.973E-02	0.000E+00	NOT IDENT.
CR-51	-9.565E-02	3.317E-01	5.444E-01	0.000E+00	NOT IDENT.
MN-52	2.557E-01	2.225E-01	4.321E-01	0.000E+00	NOT IDENT.
MN-54	-2.433E-02	3.306E-02	5.393E-02	0.000E+00	NOT IDENT.
CO-56	3.720E-02	3.192E-02	6.080E-02	0.000E+00	FAIL ABUN
CO-57	-1.453E-02	1.905E-02	3.326E-02	0.000E+00	NOT IDENT.
CO-58	5.271E-04	3.188E-02	5.270E-02	0.000E+00	NOT IDENT.
FE-59	-4.191E-02	7.629E-02	1.212E-01	0.000E+00	NOT IDENT.
CO-60	-2.730E-02	3.216E-02	4.720E-02	0.000E+00	NOT IDENT.
ZN-65	5.043E-02	7.082E-02	1.155E-01	0.000E+00	NOT IDENT.
GE-68	-4.623E-01	8.545E-01	1.344E+00	0.000E+00	NOT IDENT.
AS-73	-2.831E-01	5.481E-01	9.022E-01	0.000E+00	NOT IDENT.
AS-74	-2.456E-02	8.262E-02	1.371E-01	0.000E+00	NOT IDENT.
SE-75	1.966E-03	3.875E-02	5.917E-02	0.000E+00	NOT IDENT.
BR-77	3.387E+00	1.328E+01	2.338E+01	0.000E+00	FAIL ABUN
SR-82	6.820E-02	3.205E-01	5.430E-01	0.000E+00	NOT IDENT.
RB-83	-1.010E-02	5.513E-02	9.360E-02	0.000E+00	NOT IDENT.
RB-84	1.790E-02	5.330E-02	9.539E-02	0.000E+00	NOT IDENT.
KR-85	7.789E-01	6.618E+00	1.016E+01	0.000E+00	NOT IDENT.
SR-85	4.068E-03	3.457E-02	5.306E-02	0.000E+00	NOT IDENT.
RB-86	-4.705E-01	5.660E-01	8.482E-01	0.000E+00	NOT IDENT.
Y-88	2.004E-02	3.020E-02	5.323E-02	0.000E+00	NOT IDENT.
ZR-88	1.002E-02	2.414E-02	4.380E-02	0.000E+00	NOT IDENT.
Y-91	1.383E+01	1.522E+01	2.776E+01	0.000E+00	NOT IDENT.
NB-94	1.078E-02	3.054E-02	5.260E-02	0.000E+00	NOT IDENT.
NB-95	4.558E-02	4.619E-02	7.398E-02	0.000E+00	NOT IDENT.
NB-95M	-2.705E-03	1.147E-01	1.760E-01	0.000E+00	NOT IDENT.
ZR-95	-1.625E-02	5.754E-02	9.271E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	5.239E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	9.027E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.132E+01	1.424E+01	2.145E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.912E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-7.139E-03	2.583E-02	4.350E-02	0.000E+00	NOT IDENT.
RH-102	-2.691E-02	2.343E-02	3.675E-02	0.000E+00	NOT IDENT.
RU-103	7.069E-04	3.408E-02	5.911E-02	0.000E+00	NOT IDENT.
RH-106	-1.249E-01	2.398E-01	3.842E-01	0.000E+00	NOT IDENT.
RU-106	-1.249E-01	2.395E-01	3.842E-01	0.000E+00	NOT IDENT.
AG-108M	-8.155E-03	2.710E-02	4.621E-02	0.000E+00	NOT IDENT.
AG-110M	-1.577E-02	3.313E-02	4.577E-02	0.000E+00	NOT IDENT.
IN-111	8.737E-02	1.442E+00	2.218E+00	0.000E+00	NOT IDENT.
IN-113M	-2.185E-02	3.589E-02	6.083E-02	0.000E+00	NOT IDENT.
SN-113	-2.185E-02	3.589E-02	6.083E-02	0.000E+00	NOT IDENT.
IN-114M	-1.078E-01	1.613E-01	2.411E-01	0.000E+00	NOT IDENT.
CD-115	6.068E-01	1.481E+01	2.559E+01	0.000E+00	NOT IDENT.
SN-117M	-3.459E-02	4.509E-02	7.696E-02	0.000E+00	NOT IDENT.
SB-122	1.958E+00	2.721E+00	4.904E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.108E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.782E-02	2.185E-02	3.719E-02	0.000E+00	NOT IDENT.
I-124	-3.050E-02	8.619E-01	1.279E+00	0.000E+00	FAIL ABUN
SB-124	2.605E-02	6.055E-02	1.106E-01	0.000E+00	FAIL ABUN
SB-125	-4.784E-02	7.326E-02	1.223E-01	0.000E+00	FAIL ABUN
TE-125M	2.748E+00	6.731E+00	1.246E+01	0.000E+00	NOT IDENT.
I-126	2.193E-01	1.559E-01	2.726E-01	0.000E+00	NOT IDENT.
SB-126	8.494E-03	1.434E-01	2.228E-01	0.000E+00	NOT IDENT.
SB-127	2.282E-01	1.434E+00	2.445E+00	0.000E+00	NOT IDENT.
XE-127	-4.705E-03	3.862E-02	6.687E-02	0.000E+00	NOT IDENT.
I-131	-1.735E-02	1.092E-01	1.784E-01	0.000E+00	NOT IDENT.
TE-132	2.453E-01	8.169E-01	1.412E+00	0.000E+00	NOT IDENT.
BA-133	2.238E-02	3.948E-02	6.129E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.065E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.401E-02	8.112E-02	0.000E+00	FAIL ABUN
CS-135	1.246E-01	1.466E-01	2.351E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.732E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.689E-02	1.033E-01	1.639E-01	0.000E+00	FAIL ABUN
CE-139	-3.137E-03	2.365E-02	4.159E-02	0.000E+00	NOT IDENT.
BA-140	1.233E-01	2.251E-01	3.982E-01	0.000E+00	NOT IDENT.
LA-140	7.176E-02	7.215E-02	1.340E-01	0.000E+00	FAIL ABUN
CE-141	-3.400E-02	4.660E-02	8.027E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.531E+02	0.000E+00	0.000E+00	SHORT HLIF

CE-144	-5.035E-02	1.581E-01	2.670E-01	0.000E+00	NOT IDENT.
PM-144	-4.504E-03	2.872E-02	4.744E-02	0.000E+00	NOT IDENT.
PR-144	-3.055E-01	1.948E+00	3.218E+00	0.000E+00	NOT IDENT.
PM-146	-1.138E-02	3.306E-02	5.614E-02	0.000E+00	NOT IDENT.
ND-147	4.570E-01	4.925E-01	9.027E-01	0.000E+00	FAIL ABUN
PM-149	-3.688E+01	1.349E+02	2.241E+02	0.000E+00	NOT IDENT.
EU-152	-4.742E-02	8.215E-02	1.305E-01	0.000E+00	FAIL ABUN
GD-153	-7.640E-02	6.742E-02	9.356E-02	0.000E+00	FAIL ABUN
EU-154	-7.105E-02	9.919E-02	1.499E-01	0.000E+00	NOT IDENT.
EU-155	1.111E-01	7.766E-02	1.486E-01	0.000E+00	FAIL ABUN
TB-160	7.356E-02	1.036E-01	1.919E-01	0.000E+00	FAIL ABUN
HO-166M	-1.529E-02	4.948E-02	8.020E-02	0.000E+00	FAIL ABUN
TM-171	-1.804E+00	2.062E+01	3.210E+01	0.000E+00	NOT IDENT.
LU-176	5.248E-03	1.877E-02	3.220E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.694E+00	2.170E+00	0.000E+00	FAIL ABUN
LU-177M	1.866E-01	1.571E-01	2.685E-01	0.000E+00	FAIL ABUN
HF-181	5.426E-03	3.383E-02	5.947E-02	0.000E+00	NOT IDENT.
W-181	-8.377E-02	2.733E-01	4.211E-01	0.000E+00	NOT IDENT.
TA-182	-2.581E-02	1.653E-01	2.722E-01	0.000E+00	NOT IDENT.
RE-183	1.542E-02	8.700E-02	1.554E-01	0.000E+00	FAIL ABUN
RE-184	-2.023E-02	1.829E-01	3.109E-01	0.000E+00	NOT IDENT.
OS-185	1.253E-03	3.484E-02	5.904E-02	0.000E+00	NOT IDENT.
RE-188	3.759E-02	1.316E-01	2.370E-01	0.000E+00	NOT IDENT.
W-188	-9.070E-01	6.879E+00	1.024E+01	0.000E+00	FAIL ABUN
IR-192	1.213E-02	2.854E-02	4.922E-02	0.000E+00	FAIL ABUN
AU-195	7.065E-02	1.748E-01	2.914E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.123E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.365E+00	8.150E+00	1.459E+01	0.000E+00	NOT IDENT.
TL-202	2.260E-03	6.205E-02	1.089E-01	0.000E+00	NOT IDENT.
HG-203	-7.133E-02	3.727E-02	5.284E-02	0.000E+00	FAIL ABUN
BI-207	8.072E-03	4.147E-02	7.000E-02	0.000E+00	FAIL ABUN
TL-207	-1.675E-01	6.047E-01	8.753E-01	0.000E+00	FAIL ABUN
PO-209	-2.056E+00	5.944E+00	9.909E+00	0.000E+00	NOT IDENT.
PB-211	1.949E-01	7.927E-01	1.249E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.159E-01	5.822E-01	0.000E+00	FAIL ABUN
PO-215	-1.675E-01	6.047E-01	8.753E-01	0.000E+00	FAIL ABUN
RN-219	-8.524E-02	3.278E-01	5.682E-01	0.000E+00	FAIL ABUN
RN-220	-1.690E+00	1.957E+01	3.330E+01	0.000E+00	NOT IDENT.
RA-223	-1.675E-01	6.047E-01	8.753E-01	0.000E+00	FAIL ABUN
AC-227	1.776E-01	3.050E-01	5.363E-01	0.000E+00	FAIL ABUN
TH-227	1.776E-01	3.054E-01	5.363E-01	0.000E+00	FAIL ABUN
TH-229	2.253E-01	3.896E-01	6.994E-01	0.000E+00	FAIL ABUN
PA-231	4.693E-02	1.275E+00	2.165E+00	0.000E+00	NOT IDENT.
TH-231	-1.675E-01	6.047E-01	8.753E-01	0.000E+00	FAIL ABUN
U-231	-6.079E-01	1.088E+00	1.592E+00	0.000E+00	FAIL ABUN
PA-233	1.476E-02	4.919E-02	8.439E-02	0.000E+00	FAIL ABUN
PA-234	3.298E-02	2.310E-01	4.027E-01	0.000E+00	FAIL ABUN
PA-234M	-4.589E-01	4.174E+00	7.011E+00	0.000E+00	NOT IDENT.
U-235	-3.832E-02	1.624E-01	2.820E-01	0.000E+00	FAIL ABUN
NP-236	5.248E-04	5.942E-02	1.055E-01	0.000E+00	NOT IDENT.
NP-239	-3.086E-02	1.435E-01	2.579E-01	0.000E+00	FAIL ABUN
AM-241	2.254E-02	1.101E-01	1.758E-01	0.000E+00	NOT IDENT.
CM-243	-2.310E-02	6.774E-02	1.221E-01	0.000E+00	FAIL ABUN
AM-246	-1.740E-02	9.514E-02	1.574E-01	0.000E+00	NOT IDENT.
CM-247	-1.196E-03	2.875E-02	5.059E-02	0.000E+00	NOT IDENT.
CF-249	3.607E-02	3.132E-02	5.901E-02	0.000E+00	NOT IDENT.
CF-251	-1.188E-02	9.596E-02	1.680E-01	0.000E+00	NOT IDENT.

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*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
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Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517009.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 09:13:15.
Sample ID          : G243517009 Sample quantity : 1.31440E+02 GRAM
Detector name      : GAM11 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:01.61 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 937069 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	976	10.67*	1.226E+00	2.130E+01	2.130E+01	10.95
CD-109	88.03	277	3.72*	6.777E+00	3.137E+00	3.217E+00	22.85
SN-126	64.28	130	9.60	4.277E+00	9.064E-01	9.064E-01	62.23
	86.94	277	8.90	6.777E+00	1.311E+00	1.311E+00	46.46
	87.57	277	37.00*	6.777E+00	3.154E-01	3.154E-01	22.85
BA-137M	661.65	102	89.98*	2.405E+00	1.344E-01	1.346E-01	32.95
CS-137	661.65	102	85.12*	2.405E+00	1.421E-01	1.423E-01	32.95
TL-208	277.35	-----	6.80	4.676E+00	-----	Line Not Found	-----
	510.84	73	21.60	2.957E+00	3.251E-01	3.251E-01	94.64
	583.14	377	84.20*	2.664E+00	4.796E-01	4.796E-01	19.52
	860.37	56	12.46	1.928E+00	6.711E-01	6.711E-01	51.16
BI-210	46.50	7	4.05*	1.487E+00	3.248E-01	3.253E-01	912.31
PB-210	46.50	7	4.05*	1.487E+00	3.248E-01	3.253E-01	912.31
PO-210	46.50	7	4.05*	1.487E+00	3.248E-01	3.253E-01	912.30
BI-211	72.87	-----	1.27	5.576E+00	-----	Line Not Found	-----
	351.07	621	12.94*	3.925E+00	3.490E+00	3.490E+00	16.75
PB-212	74.81	375	10.70	5.777E+00	1.733E+00	1.733E+00	22.31
	77.11	706	18.00	6.011E+00	1.865E+00	1.865E+00	13.75
	87.30	277	8.00	6.777E+00	1.459E+00	1.459E+00	24.94
	238.63	1163	44.60*	5.215E+00	1.428E+00	1.428E+00	15.60
	300.09	58	3.41	4.418E+00	1.099E+00	1.099E+00	81.21
PO-212	74.81	375	10.70	5.777E+00	1.733E+00	1.733E+00	22.31
	77.11	706	18.00	6.011E+00	1.865E+00	1.865E+00	13.75
	87.30	277	8.00	6.777E+00	1.459E+00	1.459E+00	24.94
	115.19	-----	0.60	7.407E+00	-----	Line Not Found	-----
	238.63	1163	44.60*	5.215E+00	1.428E+00	1.428E+00	15.60
	300.09	58	3.41	4.418E+00	1.099E+00	1.099E+00	81.21
BI-214	609.31	462	46.30*	2.572E+00	1.107E+00	1.107E+00	18.12
	1120.29	102	15.10	1.532E+00	1.254E+00	1.254E+00	40.19
	1764.49	101	15.80	1.071E+00	1.697E+00	1.697E+00	24.42
PB-214	74.81	375	6.21	5.777E+00	2.986E+00	2.986E+00	21.57
	77.11	706	10.50	6.011E+00	3.197E+00	3.197E+00	15.72

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	87.30	277	4.67	6.777E+00	2.499E+00	2.499E+00	24.11
	241.98	261	7.49	5.169E+00	1.923E+00	1.923E+00	30.47
	295.21	328	19.20	4.471E+00	1.091E+00	1.091E+00	25.55
	351.92	621	37.20*	3.925E+00	1.214E+00	1.214E+00	17.55
	74.81	375	6.21	5.777E+00	2.986E+00	2.986E+00	21.57
	77.11	706	10.50	6.011E+00	3.197E+00	3.197E+00	15.72
	87.30	277	4.67	6.777E+00	2.499E+00	2.499E+00	24.11
	241.98	261	7.49	5.169E+00	1.923E+00	1.923E+00	30.47
	295.21	328	19.20	4.471E+00	1.091E+00	1.091E+00	25.55
	351.92	621	37.20*	3.925E+00	1.214E+00	1.214E+00	17.55
PO-216	74.81	375	10.70	5.777E+00	1.733E+00	1.733E+00	22.31
	77.11	706	18.00	6.011E+00	1.865E+00	1.865E+00	13.75
	87.30	277	8.00	6.777E+00	1.459E+00	1.459E+00	24.94
	238.63	1163	44.60*	5.215E+00	1.428E+00	1.428E+00	15.60
	300.09	58	3.41	4.418E+00	1.099E+00	1.099E+00	81.21
PO-218	74.81	375	6.21	5.777E+00	2.986E+00	2.986E+00	21.57
	77.11	706	10.50	6.011E+00	3.197E+00	3.197E+00	15.72
	87.30	277	4.67	6.777E+00	2.499E+00	2.499E+00	24.11
	241.98	261	7.49	5.169E+00	1.923E+00	1.923E+00	30.47
	295.21	328	19.20	4.471E+00	1.091E+00	1.091E+00	25.55
RA-224	351.92	621	37.20*	3.925E+00	1.214E+00	1.214E+00	17.55
	240.98	261	3.95*	5.169E+00	3.647E+00	3.647E+00	29.95
	609.31	462	46.30*	2.572E+00	1.107E+00	1.107E+00	18.12
RA-226	1120.29	102	15.10	1.532E+00	1.254E+00	1.254E+00	40.19
	1764.49	101	15.80	1.071E+00	1.697E+00	1.697E+00	24.42
	338.32	210	11.40	4.043E+00	1.304E+00	1.304E+00	52.34
AC-228	911.07	264	27.70*	1.835E+00	1.486E+00	1.486E+00	20.73
	969.11	156	16.60	1.739E+00	1.540E+00	1.540E+00	33.02
	338.32	210	11.40	4.043E+00	1.304E+00	1.304E+00	52.34
RA-228	911.07	264	27.70*	1.835E+00	1.486E+00	1.486E+00	20.73
	969.11	156	16.60	1.739E+00	1.540E+00	1.540E+00	33.02
	74.81	375	10.70	5.777E+00	1.733E+00	1.763E+00	20.29
TH-228	77.11	706	18.00	6.011E+00	1.865E+00	1.896E+00	13.75
	87.30	277	8.00	6.777E+00	1.459E+00	1.483E+00	22.85
	238.63	1163	44.60*	5.215E+00	1.428E+00	1.452E+00	15.60
TH-230	300.09	58	3.41	4.418E+00	1.099E+00	1.118E+00	100.00
	609.31	462	46.30*	2.572E+00	1.107E+00	1.107E+00	18.12
	1120.29	102	15.10	1.532E+00	1.254E+00	1.254E+00	40.19
TH-232	1764.49	101	15.80	1.071E+00	1.697E+00	1.697E+00	24.42
	338.32	210	11.40	4.043E+00	1.304E+00	1.304E+00	33.33
	911.07	264	27.70*	1.835E+00	1.486E+00	1.486E+00	20.73
TH-234	969.11	156	16.60	1.739E+00	1.540E+00	1.540E+00	33.02
	63.29	130	3.80*	4.277E+00	2.290E+00	2.290E+00	62.98
	92.38	270	5.41	7.049E+00	2.025E+00	2.025E+00	33.05
U-234	609.31	462	46.30*	2.572E+00	1.107E+00	1.107E+00	18.12
	1120.29	102	15.10	1.532E+00	1.254E+00	1.254E+00	40.19
	1764.49	101	15.80	1.071E+00	1.697E+00	1.697E+00	24.42
NP-237	86.50	277	12.60*	6.777E+00	9.261E-01	9.261E-01	30.79
	95.87	-----	2.60	7.169E+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	130	3.80*	4.277E+00	2.290E+00	2.290E+00	62.98
	92.38	270	5.41	7.049E+00	2.025E+00	2.025E+00	28.97
AM-243	74.67	375	66.00*	5.777E+00	2.810E-01	2.810E-01	20.26
	86.72	277	0.34	6.777E+00	3.473E+01	3.473E+01	22.85
	117.66	-----	0.55	7.397E+00	-----	Line Not Found	-----
	142.18	-----	0.13	7.065E+00	-----	Line Not Found	-----
ANH-511	511.00	73	100.00*	2.957E+00	7.021E-02	7.021E-02	94.27

Flag: "*" = Keyline

Total number of lines in spectrum 42
Number of unidentified lines 6
Number of lines tentatively identified by NID 36 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	2.130E+01	2.130E+01	0.233E+01	10.95	
CD-109	464.00D	1.03	3.137E+00	3.217E+00	0.735E+00	22.85	
SN-126	1.00E+05Y	1.00	3.154E-01	3.154E-01	0.721E-01	22.85	
BA-137M	30.17Y	1.00	1.344E-01	1.346E-01	0.443E-01	32.95	
CS-137	30.17Y	1.00	1.421E-01	1.423E-01	0.469E-01	32.95	
TL-208	1.41E+10Y	1.00	4.796E-01	4.796E-01	0.936E-01	19.52	
BI-210	22.26Y	1.00	3.248E-01	3.253E-01	29.68E-01	912.31	
PB-210	22.26Y	1.00	3.248E-01	3.253E-01	29.68E-01	912.31	
PO-210	22.26Y	1.00	3.248E-01	3.253E-01	29.68E-01	912.30	
BI-211	7.04E+08Y	1.00	3.490E+00	3.490E+00	0.585E+00	16.75	
PB-212	1.41E+10Y	1.00	1.428E+00	1.428E+00	0.223E+00	15.60	
PO-212	1.41E+10Y	1.00	1.428E+00	1.428E+00	0.223E+00	15.60	
BI-214	1600.00Y	1.00	1.107E+00	1.107E+00	0.201E+00	18.12	
PB-214	1600.00Y	1.00	1.214E+00	1.214E+00	0.213E+00	17.55	
PO-214	1600.00Y	1.00	1.214E+00	1.214E+00	0.213E+00	17.55	
PO-216	1.41E+10Y	1.00	1.428E+00	1.428E+00	0.223E+00	15.60	
PO-218	1600.00Y	1.00	1.214E+00	1.214E+00	0.213E+00	17.55	
RA-224	1.41E+10Y	1.00	3.647E+00	3.647E+00	1.092E+00	29.95	
RA-226	1600.00Y	1.00	1.107E+00	1.107E+00	0.201E+00	18.12	
AC-228	1.41E+10Y	1.00	1.486E+00	1.486E+00	0.308E+00	20.73	
RA-228	1.41E+10Y	1.00	1.486E+00	1.486E+00	0.308E+00	20.73	
TH-228	1.91Y	1.02	1.428E+00	1.452E+00	0.226E+00	15.60	
TH-230	4.47E+09Y	1.00	1.107E+00	1.107E+00	0.201E+00	18.12	
TH-232	1.41E+10Y	1.00	1.486E+00	1.486E+00	0.308E+00	20.73	
TH-234	4.47E+09Y	1.00	2.290E+00	2.290E+00	1.442E+00	62.98	
U-234	4.47E+09Y	1.00	1.107E+00	1.107E+00	0.201E+00	18.12	
NP-237	2.14E+06Y	1.00	9.261E-01	9.261E-01	2.851E-01	30.79	
U-238	4.47E+09Y	1.00	2.290E+00	2.290E+00	1.442E+00	62.98	
AM-243	7380.00Y	1.00	2.810E-01	2.810E-01	0.569E-01	20.26	
ANH-511	1.00E+09Y	1.00	7.021E-02	7.021E-02	6.619E-02	94.27	
Total Activity :			5.772E+01	5.782E+01			

Grand Total Activity : 5.772E+01 5.782E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.83	83	366	0.94	166.57	165	6	1.15E-02	76.2	6.58E+00	T
4	89.89	210	348	1.20	178.71	170	23	2.92E-02	32.3	6.93E+00	T
0	128.99	66	329	1.09	256.95	253	8	9.20E-03	97.9	7.29E+00	T
0	185.68	208	369	1.12	370.43	364	12	2.88E-02	40.8	6.16E+00	T
0	209.31	120	272	0.85	417.71	413	9	1.67E-02	53.6	5.70E+00	T
0	269.97	124	222	0.93	539.13	533	12	1.72E-02	51.3	4.77E+00	T
0	327.46	81	106	1.03	654.19	650	8	1.12E-02	49.5	4.14E+00	T
0	408.79	60	105	1.53	816.96	813	10	8.38E-03	68.0	3.50E+00	
0	463.28	48	87	0.89	925.99	921	10	6.71E-03	78.5	3.19E+00	T
0	726.55	85	67	1.12	1452.84	1448	12	1.18E-02	44.7	2.22E+00	T
0	769.00	17	89	1.26	1537.78	1531	10	2.38E-03	****	2.12E+00	
0	794.58	86	46	3.55	1588.97	1583	15	1.19E-02	40.4	2.06E+00	T
2	963.34	54	51	1.91	1926.64	1921	35	7.52E-03	52.1	1.75E+00	T
0	1237.16	57	49	1.00	2474.48	2466	14	7.86E-03	58.9	1.41E+00	T
0	1376.61	37	10	1.98	2753.46	2748	13	5.17E-03	50.7	1.29E+00	T
0	1406.81	20	14	1.65	2813.89	2807	12	2.77E-03	89.2	1.26E+00	T
0	1556.61	11	2	1.19	3113.55	3110	7	1.56E-03	71.4	1.17E+00	
0	1587.56	28	31	0.69	3175.46	3169	17	3.82E-03	98.8	1.15E+00	
0	1660.01	11	8	1.07	3320.37	3315	10	1.59E-03	****	1.11E+00	
0	1845.13	35	0	0.84	3690.66	3681	18	4.86E-03	33.8	1.04E+00	

Flags: "T" = Tentatively associated

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*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243517009.CNF;1
* Acquisition date   : 7-JAN-2010 09:13:15.   Detector SN#      :
* Detector ID        : GAM11                   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 02:00:01.61           Half life ratio   : 8.00000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 21-DEC-2009 12:00:00   Nuclide Library   : SOLID
* Sample ID          : G243517009             Analyst initials  : MXR1
* Batch Number       : 937069                 Sample Quantity   : 1.31440E+02 GRAM
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 18-NOV-2009 15:33:22.2MS Isotope      :
* MSD ID              :                      MSD Isotope      :
* LCS ID              : 1032-A               LCS Isotope        :
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.130E+01	2.332E+00	4.344E-01	3.756E-02	49.038
CD-109	3.217E+00	7.350E-01	8.514E-01	8.074E-02	3.779
SN-126	3.154E-01	7.205E-02	8.373E-02	7.898E-03	3.767
BA-137M	1.346E-01	4.434E-02	4.696E-02	4.444E-03	2.866
CS-137	1.423E-01	4.688E-02	4.964E-02	4.705E-03	2.866
TL-208	4.796E-01	9.361E-02	4.514E-02	4.875E-03	10.624
BI-210	3.253E-01	2.968E+00	3.094E+00	2.880E-01	0.105
PB-210	3.253E-01	2.968E+00	3.094E+00	2.880E-01	0.105
PO-210	3.253E-01	2.968E+00	3.094E+00	2.608E-01	0.105
BI-211	3.490E+00	5.848E-01	2.665E-01	3.516E-02	13.094
PB-212	1.428E+00	2.227E-01	7.688E-02	1.077E-02	18.570
PO-212	1.428E+00	2.227E-01	7.688E-02	1.077E-02	18.570
BI-214	1.107E+00	2.007E-01	1.049E-01	1.186E-02	10.556
PB-214	1.214E+00	2.131E-01	9.240E-02	1.308E-02	13.139
PO-214	1.214E+00	2.131E-01	9.240E-02	1.308E-02	13.139
PO-216	1.428E+00	2.227E-01	7.688E-02	1.077E-02	18.570
PO-218	1.214E+00	2.131E-01	9.240E-02	1.308E-02	13.139
RA-224	3.647E+00	1.092E+00	8.753E-01	1.172E-01	4.166

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	1.107E+00	2.007E-01	1.049E-01	1.186E-02	10.556
AC-228	1.486E+00	3.080E-01	1.490E-01	1.814E-02	9.972
RA-228	1.486E+00	3.080E-01	1.490E-01	1.814E-02	9.972
TH-228	1.452E+00	2.264E-01	7.819E-02	1.095E-02	18.570
TH-230	1.107E+00	2.007E-01	1.049E-01	1.186E-02	10.556
TH-232	1.486E+00	3.080E-01	1.490E-01	1.814E-02	9.972
TH-234	2.290E+00	1.442E+00	1.351E+00	2.351E-01	1.695
U-234	1.107E+00	2.007E-01	1.049E-01	1.186E-02	10.556
NP-237	9.261E-01	2.851E-01	2.510E-01	5.682E-02	3.690
U-238	2.290E+00	1.442E+00	1.351E+00	2.351E-01	1.695
AM-243	2.810E-01	5.694E-02	6.598E-02	5.340E-03	4.258
ANH-511	7.021E-02	6.619E-02	3.790E-02	4.053E-03	1.853

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.993E-01		2.756E-01	4.829E-01	5.465E-02	0.413
NA-22	-2.622E-02		3.613E-02	5.319E-02	4.368E-03	-0.493
NA-24	-9.283E-01		2.083E+00	Half-Life too short		
AL-26	1.188E-02		2.666E-02	4.769E-02	3.892E-03	0.249
TI-44	3.442E-01	+	4.733E-02	4.947E-02	4.171E-03	6.956
SC-46	3.018E-02		3.587E-02	6.438E-02	6.341E-03	0.469
V-48	-3.484E-02		6.331E-02	9.894E-02	9.385E-03	-0.352
CR-51	-9.565E-02		3.385E-01	5.300E-01	7.692E-02	-0.180
MN-52	2.557E-01		2.271E-01	4.315E-01	3.615E-02	0.593
MN-54	-2.433E-02		3.374E-02	5.335E-02	5.254E-03	-0.456
CO-56	3.720E-02		3.257E-02	6.017E-02	5.928E-03	0.618
CO-57	-1.453E-02		1.943E-02	3.187E-02	2.696E-03	-0.456
CO-58	5.271E-04		3.253E-02	5.211E-02	5.131E-03	0.010
FE-59	-4.191E-02		7.784E-02	1.205E-01	1.132E-02	-0.348
CO-60	-2.730E-02		3.282E-02	4.707E-02	3.890E-03	-0.580
ZN-65	5.043E-02		7.227E-02	1.149E-01	9.855E-03	0.439
GE-68	-4.623E-01		8.720E-01	1.336E+00	1.186E-01	-0.346
AS-73	-2.831E-01		5.592E-01	8.534E-01	6.409E-02	-0.332
AS-74	-2.456E-02		8.431E-02	1.348E-01	1.371E-02	-0.182
SE-75	1.966E-03		3.955E-02	5.742E-02	8.440E-03	0.034
BR-77	3.387E+00		1.355E+01	2.294E+01	2.445E+00	0.148
SR-82	6.820E-02		3.271E-01	5.365E-01	5.247E-02	0.127
RB-83	-1.010E-02		5.626E-02	9.186E-02	9.789E-03	-0.110
RB-84	1.790E-02		5.439E-02	9.446E-02	9.307E-03	0.189
KR-85	7.789E-01		6.753E+00	9.968E+00	1.065E+00	0.078
SR-85	4.068E-03		3.527E-02	5.207E-02	5.562E-03	0.078
RB-86	-4.705E-01		5.776E-01	8.428E-01	7.490E-02	-0.558
Y-88	2.004E-02		3.082E-02	5.338E-02	4.334E-03	0.375
ZR-88	1.002E-02		2.463E-02	4.278E-02	4.563E-03	0.234
Y-91	1.383E+01		1.553E+01	2.763E+01	2.237E+00	0.500
NB-94	1.078E-02		3.116E-02	5.188E-02	4.983E-03	0.208

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95	4.558E-02		4.713E-02	7.308E-02	7.133E-03	0.624
NB-95M	-2.705E-03		1.170E-01	1.705E-01	2.381E-02	-0.016
ZR-95	-1.625E-02		5.871E-02	9.157E-02	9.636E-03	-0.178
NB-97	-2.432E-01		2.673E-01	Half-Life	too short	
ZR-97	2.555E+01		4.606E+00	Half-Life	too short	
MO-99	-1.132E+01		1.453E+01	2.117E+01	3.351E+00	-0.535
TC-99M	-2.652E+11		1.996E+12	Half-Life	too short	
RH-101	-7.139E-03		2.635E-02	4.202E-02	4.703E-03	-0.170
RH-102	-2.691E-02		2.391E-02	3.601E-02	3.882E-03	-0.747
RU-103	7.069E-04		3.478E-02	5.797E-02	9.009E-03	0.012
RH-106	-1.249E-01		2.447E-01	3.782E-01	5.383E-02	-0.330
RU-106	-1.249E-01		2.444E-01	3.782E-01	3.752E-02	-0.330
AG-108M	-8.155E-03		2.765E-02	4.521E-02	4.998E-03	-0.180
AG-110M	-1.577E-02		3.380E-02	4.510E-02	4.394E-03	-0.350
IN-111	8.737E-02		1.471E+00	2.150E+00	2.930E-01	0.041
IN-113M	-2.185E-02		3.663E-02	5.942E-02	6.463E-03	-0.368
SN-113	-2.185E-02		3.663E-02	5.942E-02	6.463E-03	-0.368
IN-114M	-1.078E-01		1.646E-01	2.327E-01	2.518E-02	-0.463
CD-115	6.068E-01		1.511E+01	2.512E+01	2.669E+00	0.024
SN-117M	-3.459E-02		4.601E-02	7.407E-02	7.000E-03	-0.467
SB-122	1.958E+00		2.776E+00	4.820E+00	5.021E-01	0.406
I-123	-3.350E+01		2.096E+01	Half-Life	too short	
TE-123M	-1.782E-02		2.229E-02	3.580E-02	3.406E-03	-0.498
I-124	-3.050E-02		8.795E-01	1.259E+00	1.272E-01	-0.024
SB-124	2.605E-02		6.179E-02	1.108E-01	9.625E-03	0.235
SB-125	-4.784E-02		7.475E-02	1.196E-01	1.304E-02	-0.400
TE-125M	2.748E+00		6.869E+00	1.192E+01	1.223E+00	0.231
I-126	2.193E-01		1.591E-01	2.687E-01	2.547E-02	0.816
SB-126	8.494E-03		1.463E-01	2.198E-01	2.123E-02	0.039
SB-127	2.282E-01		1.463E+00	2.411E+00	3.038E-01	0.095
XE-127	-4.705E-03		3.940E-02	6.462E-02	7.385E-03	-0.073
I-131	-1.735E-02		1.114E-01	1.741E-01	2.187E-02	-0.100
TE-132	2.453E-01		8.336E-01	1.367E+00	2.540E-01	0.179
BA-133	2.238E-02		4.029E-02	5.977E-02	9.639E-03	0.375
I-133	-8.570E-03		1.054E-02	Half-Life	too short	
CS-134	1.571E-01	+	6.532E-02	8.019E-02	7.911E-03	1.958
CS-135	1.246E-01		1.496E-01	2.282E-01	3.581E-02	0.546
I-135	9.030E+10		1.904E+11	Half-Life	too short	
CS-136	-6.689E-02		1.054E-01	1.628E-01	1.537E-02	-0.411
CE-139	-3.137E-03		2.413E-02	4.005E-02	3.892E-03	-0.078
BA-140	1.233E-01		2.297E-01	3.911E-01	1.318E-01	0.315
LA-140	7.176E-02		7.362E-02	1.341E-01	1.128E-02	0.535
CE-141	-3.400E-02		4.755E-02	7.715E-02	7.071E-03	-0.441
CE-143	1.625E-03		2.822E-04	Half-Life	too short	
CE-144	-5.035E-02		1.613E-01	2.562E-01	3.998E-02	-0.197
PM-144	-4.504E-03		2.931E-02	4.679E-02	4.486E-03	-0.096
PR-144	-3.055E-01		1.988E+00	3.174E+00	3.042E-01	-0.096
PM-146	-1.138E-02		3.374E-02	5.497E-02	6.892E-03	-0.207

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	4.570E-01		5.026E-01	8.862E-01	1.434E-01	0.516
PM-149	-3.688E+01		1.376E+02	2.178E+02	4.367E+01	-0.169
EU-152	-4.742E-02		8.383E-02	1.272E-01	1.725E-02	-0.373
GD-153	-7.640E-02		6.879E-02	8.934E-02	7.937E-03	-0.855
EU-154	-7.105E-02		1.012E-01	1.493E-01	1.642E-02	-0.476
EU-155	1.111E-01		7.925E-02	1.421E-01	1.240E-02	0.782
TB-160	7.356E-02		1.057E-01	1.900E-01	1.872E-02	0.387
HO-166M	-1.529E-02		5.049E-02	7.913E-02	7.621E-03	-0.193
TM-171	-1.804E+00		2.104E+01	3.047E+01	2.287E+00	-0.059
LU-176	5.248E-03		1.915E-02	3.132E-02	4.604E-03	0.168
LU-177	3.149E+00	+	1.728E+00	2.098E+00	2.455E-01	1.501
LU-177M	1.866E-01		1.604E-01	2.625E-01	2.819E-02	0.711
HF-181	5.426E-03		3.452E-02	5.829E-02	6.278E-03	0.093
W-181	-8.377E-02		2.789E-01	3.996E-01	2.962E-02	-0.210
TA-182	-2.581E-02		1.686E-01	2.710E-01	2.202E-02	-0.095
RE-183	1.542E-02		8.878E-02	1.496E-01	1.434E-02	0.103
RE-184	-2.023E-02		1.867E-01	3.015E-01	4.229E-02	-0.067
OS-185	1.253E-03		3.555E-02	5.815E-02	5.613E-03	0.022
RE-188	3.759E-02		1.343E-01	2.280E-01	2.127E-02	0.165
W-188	-9.070E-01		7.019E+00	9.953E+00	1.512E+00	-0.091
IR-192	1.213E-02		2.912E-02	4.791E-02	6.887E-03	0.253
AU-195	7.065E-02		1.784E-01	2.783E-01	2.455E-02	0.254
TL-200	1.266E-05		5.730E-04	Half-Life	too short	
TL-201	2.365E+00		8.316E+00	1.406E+01	1.375E+00	0.168
TL-202	2.260E-03		6.331E-02	1.066E-01	1.150E-02	0.021
HG-203	-7.133E-02		3.803E-02	5.132E-02	8.016E-03	-1.390
BI-207	8.072E-03		4.232E-02	6.954E-02	6.247E-03	0.116
TL-207	-1.675E-01		6.170E-01	8.522E-01	1.783E-01	-0.197
PO-209	-2.056E+00		6.065E+00	9.815E+00	9.663E-01	-0.209
PB-211	1.949E-01		8.089E-01	1.221E+00	7.690E-01	0.160
BI-212	9.217E-01	+	4.244E-01	5.746E-01	6.280E-02	1.604
PO-215	-1.675E-01		6.170E-01	8.522E-01	1.783E-01	-0.197
RN-219	-8.524E-02		3.345E-01	5.552E-01	9.055E-02	-0.154
RN-220	-1.690E+00		1.997E+01	3.272E+01	3.438E+00	-0.052
RA-223	-1.675E-01		6.170E-01	8.522E-01	1.783E-01	-0.197
AC-227	1.776E-01		3.112E-01	5.201E-01	9.913E-02	0.342
TH-227	1.776E-01		3.116E-01	5.201E-01	1.108E-01	0.342
TH-229	2.253E-01		3.976E-01	6.753E-01	7.415E-02	0.334
PA-231	4.693E-02		1.301E+00	2.103E+00	4.168E-01	0.022
TH-231	-1.675E-01		6.170E-01	8.522E-01	1.783E-01	-0.197
U-231	-6.079E-01		1.110E+00	1.520E+00	1.361E-01	-0.400
PA-233	1.476E-02		5.020E-02	8.212E-02	1.205E-02	0.180
PA-234	3.298E-02		2.358E-01	3.992E-01	7.692E-02	0.083
PA-234M	-4.589E-01		4.260E+00	6.957E+00	7.401E-01	-0.066
U-235	-3.832E-02		1.657E-01	2.710E-01	4.791E-02	-0.141
NP-236	5.248E-04		6.064E-02	1.015E-01	9.657E-03	0.005
NP-239	-3.086E-02		1.464E-01	2.470E-01	2.090E-02	-0.125
AM-241	2.254E-02		1.123E-01	1.666E-01	1.309E-02	0.135

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-2.310E-02		6.913E-02	1.167E-01	1.010E-02	-0.198
AM-246	-1.740E-02		9.709E-02	1.564E-01	1.387E-02	-0.111
CM-247	-1.196E-03		2.934E-02	4.944E-02	5.292E-03	-0.024
CF-249	3.607E-02		3.196E-02	5.763E-02	6.276E-03	0.626
CF-251	-1.188E-02		9.792E-02	1.619E-01	1.650E-02	-0.073

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]G243517009          *
* Acquisition date   : 7-JAN-2010 09:13:15 Detector SN#      :              *
* Detector ID        : GAM11 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 02:00:01.61 Half life ratio : 8.000   *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G243517009 Analyst initials: MXR1          *
* Batch Number       : 937069 Sample Quantity : 1.3144E+02 GRAM   *
* Recovery           : 1.00000 Carrier Weight : 0.00000          *
*****
*                                     QC DATA                               *
*
* CALIB. DATE/TIME  : 18-NOV-2009 15:33:22 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	2.130E+01	2.285E+00	2.176E-01	1.166E+00
CD-109	3.217E+00	7.203E-01	4.468E-01	3.675E-01
SN-126	3.154E-01	7.061E-02	4.394E-02	3.603E-02
BA-137M	1.346E-01	4.346E-02	2.384E-02	2.217E-02
CS-137	1.423E-01	4.594E-02	2.520E-02	2.344E-02
TL-208	4.796E-01	9.174E-02	2.297E-02	4.680E-02
BI-210	3.253E-01	2.908E+00	1.640E+00	1.484E+00
PB-210	3.253E-01	2.908E+00	1.640E+00	1.484E+00
PO-210	3.253E-01	2.908E+00	1.640E+00	1.484E+00
BI-211	3.490E+00	5.731E-01	1.368E-01	2.924E-01
PB-212	1.428E+00	2.182E-01	3.970E-02	1.113E-01
PO-212	1.428E+00	2.182E-01	3.970E-02	1.113E-01
BI-214	1.107E+00	1.966E-01	5.332E-02	1.003E-01
PB-214	1.214E+00	2.088E-01	4.741E-02	1.065E-01
PO-214	1.214E+00	2.088E-01	4.741E-02	1.065E-01
PO-216	1.428E+00	2.182E-01	3.970E-02	1.113E-01
PO-218	1.214E+00	2.088E-01	4.741E-02	1.065E-01
RA-224	3.647E+00	1.070E+00	4.519E-01	5.460E-01
RA-226	1.107E+00	1.966E-01	5.332E-02	1.003E-01
AC-228	1.486E+00	3.018E-01	7.523E-02	1.540E-01
RA-228	1.486E+00	3.018E-01	7.523E-02	1.540E-01
TH-228	1.452E+00	2.219E-01	4.038E-02	1.132E-01
TH-230	1.107E+00	1.966E-01	5.332E-02	1.003E-01
TH-232	1.486E+00	3.018E-01	7.523E-02	1.540E-01
TH-234	2.290E+00	1.413E+00	7.128E-01	7.210E-01
U-234	1.107E+00	1.966E-01	5.332E-02	1.003E-01
NP-237	9.261E-01	2.794E-01	1.318E-01	1.426E-01
U-238	2.290E+00	1.413E+00	7.128E-01	7.210E-01
AM-243	2.810E-01	5.580E-02	3.472E-02	2.847E-02
ANH-511	7.021E-02	6.487E-02	1.933E-02	3.310E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	1.993E-01	2.701E-01	2.465E-01	1.378E-01 NOT IDENT.
NA-22	-2.622E-02	3.541E-02	2.670E-02	1.807E-02 NOT IDENT.
NA-24	-9.283E+05	4.083E+06	0.000E+00	2.083E+06 SHORT HLIF
AL-26	1.188E-02	2.612E-02	2.380E-02	1.333E-02 NOT IDENT.
TI-44	3.442E-01	4.638E-02	2.601E-02	2.366E-02 FAIL ABUN
SC-46	3.018E-02	3.515E-02	3.252E-02	1.793E-02 FAIL ABUN
V-48	-3.484E-02	6.204E-02	4.990E-02	3.165E-02 NOT IDENT.
CR-51	-9.565E-02	3.317E-01	2.724E-01	1.692E-01 NOT IDENT.
MN-52	2.557E-01	2.225E-01	2.162E-01	1.135E-01 NOT IDENT.
MN-54	-2.433E-02	3.306E-02	2.698E-02	1.687E-02 NOT IDENT.
CO-56	3.720E-02	3.192E-02	3.042E-02	1.628E-02 FAIL ABUN
CO-57	-1.453E-02	1.905E-02	1.664E-02	9.717E-03 NOT IDENT.
CO-58	5.271E-04	3.188E-02	2.637E-02	1.627E-02 NOT IDENT.
FE-59	-4.191E-02	7.629E-02	6.063E-02	3.892E-02 NOT IDENT.
CO-60	-2.730E-02	3.216E-02	2.361E-02	1.641E-02 NOT IDENT.
ZN-65	5.043E-02	7.082E-02	5.780E-02	3.614E-02 NOT IDENT.
GE-68	-4.623E-01	8.545E-01	6.726E-01	4.360E-01 NOT IDENT.
AS-73	-2.831E-01	5.481E-01	4.514E-01	2.796E-01 NOT IDENT.
AS-74	-2.456E-02	8.262E-02	6.858E-02	4.216E-02 NOT IDENT.
SE-75	1.966E-03	3.875E-02	2.960E-02	1.977E-02 NOT IDENT.
BR-77	3.387E+00	1.328E+01	1.170E+01	6.774E+00 FAIL ABUN
SR-82	6.820E-02	3.205E-01	2.716E-01	1.635E-01 NOT IDENT.
RB-83	-1.010E-02	5.513E-02	4.683E-02	2.813E-02 NOT IDENT.
RB-84	1.790E-02	5.330E-02	4.772E-02	2.720E-02 NOT IDENT.
KR-85	7.789E-01	6.618E+00	5.083E+00	3.376E+00 NOT IDENT.
SR-85	4.068E-03	3.457E-02	2.655E-02	1.764E-02 NOT IDENT.
RB-86	-4.705E-01	5.660E-01	4.244E-01	2.888E-01 NOT IDENT.
Y-88	2.004E-02	3.020E-02	2.663E-02	1.541E-02 NOT IDENT.
ZR-88	1.002E-02	2.414E-02	2.191E-02	1.232E-02 NOT IDENT.
Y-91	1.383E+01	1.522E+01	1.389E+01	7.767E+00 NOT IDENT.
NB-94	1.078E-02	3.054E-02	2.631E-02	1.558E-02 NOT IDENT.
NB-95	4.558E-02	4.619E-02	3.701E-02	2.357E-02 NOT IDENT.
NB-95M	-2.705E-03	1.147E-01	8.807E-02	5.851E-02 NOT IDENT.
ZR-95	-1.625E-02	5.754E-02	4.638E-02	2.936E-02 NOT IDENT.
NB-97	-2.432E+05	5.239E+05	0.000E+00	2.673E+05 SHORT HLIF
ZR-97	2.555E+07	9.027E+06	0.000E+00	4.606E+06 SHORT HLIF
MO-99	-1.132E+01	1.424E+01	1.073E+01	7.267E+00 NOT IDENT.
TC-99M	-2.652E+17	3.912E+18	0.000E+00	0.000E+00 SHORT HLIF
RH-101	-7.139E-03	2.583E-02	2.176E-02	1.318E-02 NOT IDENT.
RH-102	-2.691E-02	2.343E-02	1.839E-02	1.196E-02 NOT IDENT.
RU-103	7.069E-04	3.408E-02	2.957E-02	1.739E-02 NOT IDENT.
RH-106	-1.249E-01	2.398E-01	1.922E-01	1.224E-01 NOT IDENT.
RU-106	-1.249E-01	2.395E-01	1.922E-01	1.222E-01 NOT IDENT.
AG-108M	-8.155E-03	2.710E-02	2.312E-02	1.382E-02 NOT IDENT.
AG-110M	-1.577E-02	3.313E-02	2.290E-02	1.690E-02 NOT IDENT.
IN-111	8.737E-02	1.442E+00	1.110E+00	7.355E-01 NOT IDENT.
IN-113M	-2.185E-02	3.589E-02	3.043E-02	1.831E-02 NOT IDENT.
SN-113	-2.185E-02	3.589E-02	3.043E-02	1.831E-02 NOT IDENT.
IN-114M	-1.078E-01	1.613E-01	1.206E-01	8.229E-02 NOT IDENT.
CD-115	6.068E-01	1.481E+01	1.280E+01	7.556E+00 NOT IDENT.
SN-117M	-3.459E-02	4.509E-02	3.850E-02	2.300E-02 NOT IDENT.
SB-122	1.958E+00	2.721E+00	2.454E+00	1.388E+00 NOT IDENT.
I-123	-3.350E+07	4.108E+07	0.000E+00	2.096E+07 SHORT HLIF
TE-123M	-1.782E-02	2.185E-02	1.861E-02	1.115E-02 NOT IDENT.
I-124	-3.050E-02	8.619E-01	6.401E-01	4.398E-01 FAIL ABUN
SB-124	2.605E-02	6.055E-02	5.533E-02	3.090E-02 FAIL ABUN
SB-125	-4.784E-02	7.326E-02	6.118E-02	3.738E-02 FAIL ABUN
TE-125M	2.748E+00	6.731E+00	6.231E+00	3.434E+00 NOT IDENT.
I-126	2.193E-01	1.559E-01	1.364E-01	7.954E-02 NOT IDENT.
SB-126	8.494E-03	1.434E-01	1.114E-01	7.317E-02 NOT IDENT.
SB-127	2.282E-01	1.434E+00	1.223E+00	7.314E-01 NOT IDENT.
XE-127	-4.705E-03	3.862E-02	3.346E-02	1.970E-02 NOT IDENT.
I-131	-1.735E-02	1.092E-01	8.926E-02	5.570E-02 NOT IDENT.
TE-132	2.453E-01	8.169E-01	7.066E-01	4.168E-01 NOT IDENT.
BA-133	2.238E-02	3.948E-02	3.066E-02	2.014E-02 NOT IDENT.
I-133	-8.570E+03	2.065E+04	0.000E+00	1.054E+04 SHORT HLIF
CS-134	1.571E-01	6.401E-02	4.059E-02	3.266E-02 FAIL ABUN
CS-135	1.246E-01	1.466E-01	1.176E-01	7.482E-02 NOT IDENT.
I-135	9.030E+16	3.732E+17	0.000E+00	0.000E+00 SHORT HLIF
CS-136	-6.689E-02	1.033E-01	8.199E-02	5.272E-02 FAIL ABUN
CE-139	-3.137E-03	2.365E-02	2.081E-02	1.206E-02 NOT IDENT.
BA-140	1.233E-01	2.251E-01	1.992E-01	1.149E-01 NOT IDENT.
LA-140	7.176E-02	7.215E-02	6.706E-02	3.681E-02 FAIL ABUN
CE-141	-3.400E-02	4.660E-02	4.016E-02	2.378E-02 NOT IDENT.
CE-143	1.625E+03	5.531E+02	0.000E+00	2.822E+02 SHORT HLIF

CE-144	-5.035E-02	1.581E-01	1.336E-01	8.066E-02	NOT IDENT.
PM-144	-4.504E-03	2.872E-02	2.374E-02	1.465E-02	NOT IDENT.
PR-144	-3.055E-01	1.948E+00	1.610E+00	9.940E-01	NOT IDENT.
PM-146	-1.138E-02	3.306E-02	2.809E-02	1.687E-02	NOT IDENT.
ND-147	4.570E-01	4.925E-01	4.516E-01	2.513E-01	FAIL ABUN
PM-149	-3.688E+01	1.349E+02	1.121E+02	6.882E+01	NOT IDENT.
EU-152	-4.742E-02	8.215E-02	6.531E-02	4.191E-02	FAIL ABUN
GD-153	-7.640E-02	6.742E-02	4.681E-02	3.440E-02	FAIL ABUN
EU-154	-7.105E-02	9.919E-02	7.497E-02	5.061E-02	NOT IDENT.
EU-155	1.111E-01	7.766E-02	7.435E-02	3.962E-02	FAIL ABUN
TB-160	7.356E-02	1.036E-01	9.599E-02	5.284E-02	FAIL ABUN
HO-166M	-1.529E-02	4.948E-02	4.012E-02	2.524E-02	FAIL ABUN
TM-171	-1.804E+00	2.062E+01	1.606E+01	1.052E+01	NOT IDENT.
LU-176	5.248E-03	1.877E-02	1.611E-02	9.575E-03	FAIL ABUN
LU-177	3.149E+00	1.694E+00	1.086E+00	8.641E-01	FAIL ABUN
LU-177M	1.866E-01	1.571E-01	1.343E-01	8.018E-02	FAIL ABUN
HF-181	5.426E-03	3.383E-02	2.975E-02	1.726E-02	NOT IDENT.
W-181	-8.377E-02	2.733E-01	2.107E-01	1.395E-01	NOT IDENT.
TA-182	-2.581E-02	1.653E-01	1.362E-01	8.432E-02	NOT IDENT.
RE-183	1.542E-02	8.700E-02	7.774E-02	4.439E-02	FAIL ABUN
RE-184	-2.023E-02	1.829E-01	1.555E-01	9.334E-02	NOT IDENT.
OS-185	1.253E-03	3.484E-02	2.954E-02	1.778E-02	NOT IDENT.
RE-188	3.759E-02	1.316E-01	1.186E-01	6.716E-02	NOT IDENT.
W-188	-9.070E-01	6.879E+00	5.123E+00	3.510E+00	FAIL ABUN
IR-192	1.213E-02	2.854E-02	2.463E-02	1.456E-02	FAIL ABUN
AU-195	7.065E-02	1.748E-01	1.458E-01	8.919E-02	FAIL ABUN
TL-200	1.266E+01	1.123E+03	0.000E+00	5.730E+02	SHORT HLIF
TL-201	2.365E+00	8.150E+00	7.302E+00	4.158E+00	NOT IDENT.
TL-202	2.260E-03	6.205E-02	5.449E-02	3.166E-02	NOT IDENT.
HG-203	-7.133E-02	3.727E-02	2.643E-02	1.902E-02	FAIL ABUN
BI-207	8.072E-03	4.147E-02	3.502E-02	2.116E-02	FAIL ABUN
TL-207	-1.675E-01	6.047E-01	4.379E-01	3.085E-01	FAIL ABUN
PO-209	-2.056E+00	5.944E+00	4.957E+00	3.033E+00	NOT IDENT.
PB-211	1.949E-01	7.927E-01	6.250E-01	4.044E-01	NOT IDENT.
BI-212	9.217E-01	4.159E-01	2.913E-01	2.122E-01	FAIL ABUN
PO-215	-1.675E-01	6.047E-01	4.379E-01	3.085E-01	FAIL ABUN
RN-219	-8.524E-02	3.278E-01	2.843E-01	1.672E-01	FAIL ABUN
RN-220	-1.690E+00	1.957E+01	1.666E+01	9.983E+00	NOT IDENT.
RA-223	-1.675E-01	6.047E-01	4.379E-01	3.085E-01	FAIL ABUN
AC-227	1.776E-01	3.050E-01	2.683E-01	1.556E-01	FAIL ABUN
TH-227	1.776E-01	3.054E-01	2.683E-01	1.558E-01	FAIL ABUN
TH-229	2.253E-01	3.896E-01	3.499E-01	1.988E-01	FAIL ABUN
PA-231	4.693E-02	1.275E+00	1.083E+00	6.505E-01	NOT IDENT.
TH-231	-1.675E-01	6.047E-01	4.379E-01	3.085E-01	FAIL ABUN
U-231	-6.079E-01	1.088E+00	7.965E-01	5.552E-01	FAIL ABUN
PA-233	1.476E-02	4.919E-02	4.222E-02	2.510E-02	FAIL ABUN
PA-234	3.298E-02	2.310E-01	2.015E-01	1.179E-01	FAIL ABUN
PA-234M	-4.589E-01	4.174E+00	3.508E+00	2.130E+00	NOT IDENT.
U-235	-3.832E-02	1.624E-01	1.411E-01	8.287E-02	FAIL ABUN
NP-236	5.248E-04	5.942E-02	5.276E-02	3.032E-02	NOT IDENT.
NP-239	-3.086E-02	1.435E-01	1.290E-01	7.320E-02	FAIL ABUN
AM-241	2.254E-02	1.101E-01	8.797E-02	5.616E-02	NOT IDENT.
CM-243	-2.310E-02	6.774E-02	6.107E-02	3.456E-02	FAIL ABUN
AM-246	-1.740E-02	9.514E-02	7.875E-02	4.854E-02	NOT IDENT.
CM-247	-1.196E-03	2.875E-02	2.531E-02	1.467E-02	NOT IDENT.
CF-249	3.607E-02	3.132E-02	2.952E-02	1.598E-02	NOT IDENT.
CF-251	-1.188E-02	9.596E-02	8.404E-02	4.896E-02	NOT IDENT.

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                               *
*                               CHARLESTON ,SC 29417                          *
*                               GAMMA SPECTROSCOPY BACKGROUND REPORT            *
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ENERGY	MDA COUNTS
--------	------------

46.50	202.2717
46.50	202.2717
46.50	202.2717
48.70	230.8675
49.72	205.2818
51.35	191.2982
52.39	228.5729
52.97	225.6724
53.15	225.8048
53.44	243.8311
54.07	236.5178
56.28	262.8956
56.28	262.8983
57.37	0.0000
57.53	232.3402
57.53	232.3417
57.60	232.3905
57.98	219.1092
57.98	219.1092
59.32	229.8323
59.32	229.8323
59.40	229.8879
59.54	264.7849
59.72	278.5530
60.01	277.2807
61.10	243.2194
61.14	243.2479
61.30	243.3626
63.00	274.0016
63.29	274.2313
63.29	274.2313
63.58	274.4611
64.28	285.3693
65.12	289.1277
65.20	301.4992
65.20	301.4992
66.05	286.8030
66.72	284.2488
66.83	284.3386
66.91	284.4004
67.20	293.9120
67.20	293.9120
67.75	283.5137
67.85	283.5919
68.90	290.2372
68.90	290.2372
69.30	315.0570
69.67	328.2249
70.82	353.0629
70.82	353.0629
70.83	353.0721
72.80	359.6319
72.87	359.6971
72.87	359.6971
74.67	358.6220
74.81	358.7514
74.81	358.7514
74.81	358.7514
74.81	358.7514
74.81	358.7514
74.81	358.7514
74.81	358.7514
74.97	358.8994
75.28	359.1860
75.70	359.5721
77.11	360.8597
77.11	360.8597

77.11	360.8597
77.11	360.8597
77.11	360.8597
77.11	360.8597
77.11	360.8597
78.38	362.0109
79.62	363.1252
79.80	363.2870
79.80	363.2870
80.11	363.5644
80.18	363.6268
80.30	363.7332
80.30	363.7332
80.57	363.9736
81.00	278.9799
81.07	279.0276
81.07	279.0276
81.07	279.0276
81.07	279.0276
82.60	280.0613
83.37	246.7137
83.78	280.8525
83.78	280.8525
83.78	280.8525
83.78	280.8525
84.21	302.1439
84.90	257.3237
85.43	257.6439
86.29	258.1631
86.50	258.2893
86.54	263.1874
86.59	263.2187
86.72	263.2978
86.79	263.3390
86.94	263.4313
87.30	252.2597
87.30	252.2597
87.30	252.2597
87.30	252.2597
87.30	252.2597
87.30	252.2597
87.57	252.4158
87.88	252.5972
88.03	252.6839
88.36	252.8762
88.47	252.9393
89.95	253.7939
91.11	254.4577
92.29	255.1294
92.38	255.1799
92.38	255.1799
93.35	255.7286
94.00	256.0944
94.67	256.4680
94.67	256.4712
94.90	256.5989
94.90	256.5989
94.90	256.5989
94.90	256.5989
95.87	223.9618
95.87	223.9618
96.73	245.9862
97.43	258.0054
98.44	198.9247
98.44	198.9259
98.88	214.1388
99.55	211.5154
99.55	211.5154
99.86	211.6543
100.00	211.7161
100.10	207.5774
103.18	250.1829
103.76	233.6145
105.00	192.7751
105.31	203.8954
108.00	267.9442
109.28	219.1627

111.00	236.1613
111.00	236.1613
111.76	251.0786
112.95	245.6445
115.19	239.7971
116.30	242.0306
117.00	242.3497
117.00	242.3497
117.66	227.0512
121.11	228.5051
121.62	233.9561
121.78	234.0243
122.06	240.2599
122.32	229.0101
122.32	229.0101
122.32	229.0101
122.32	229.0101
123.07	210.0659
127.23	239.4116
129.76	237.8197
131.20	209.1121
133.02	212.4408
133.54	221.4561
135.34	209.2560
136.00	197.8510
136.25	194.3517
136.48	197.1147
140.51	221.8915
140.51	0.0000
142.18	214.3569
142.65	201.8510
143.76	219.4430
144.24	225.9653
144.24	225.9653
144.24	225.9653
144.24	225.9653
145.22	208.1439
145.44	216.3993
147.16	196.9365
152.43	193.0554
152.70	192.2169
153.22	196.0539
154.21	212.9437
154.21	212.9437
154.21	212.9437
154.21	212.9437
155.03	207.6748
156.02	232.0238
158.56	217.1422
159.00	0.0000
159.00	222.8564
160.31	199.1033
161.27	213.3643
162.32	212.7643
162.64	205.3951
163.35	200.0024
163.89	217.9326
165.85	219.4964
167.43	204.0159
171.28	197.5831
171.86	184.4986
172.10	184.5621
176.55	192.3833
176.60	192.3977
181.06	209.8728
184.41	189.6474
185.71	189.9800
186.00	190.0522
190.27	206.6536
192.34	175.1111
193.63	174.4296
197.04	181.0706
198.01	177.3746
198.60	196.1405
200.40	188.7266
201.83	196.9442
202.84	200.1523
205.31	198.7917

208.36	194.5764
208.81	194.6841
209.75	167.0635
209.75	167.0635
210.97	161.3375
215.65	171.2627
216.55	180.4706
218.09	196.8733
222.10	174.5927
223.80	183.0290
226.40	166.3373
227.00	166.4524
227.08	166.4674
227.20	166.4908
228.16	154.4786
228.18	142.2858
228.18	142.2858
231.56	0.0000
235.69	198.3363
236.00	209.1714
236.00	209.1714
238.63	180.9897
238.63	180.9897
238.63	180.9897
238.63	180.9897
239.00	181.0632
240.98	181.4588
241.98	174.9503
241.98	174.9503
241.98	174.9503
244.69	153.7283
245.39	149.1826
247.94	145.4388
248.90	126.8699
249.79	148.8492
252.40	127.3440
252.85	136.8035
252.85	136.8035
254.15	0.0000
256.20	129.9512
256.20	129.9512
260.50	130.5340
260.90	130.5870
262.80	132.9547
264.65	126.8628
268.24	140.0593
268.79	131.6440
269.46	131.7349
269.46	131.7349
269.46	131.7349
269.46	131.7349
271.23	119.7304
273.65	184.0288
276.40	116.6042
277.35	113.5006
277.60	112.4576
277.60	112.4576
278.00	121.0741
278.60	152.2357
279.20	186.6521
279.53	185.6392
280.46	138.5506
281.68	112.9083
283.67	134.6741
284.30	148.7700
285.00	147.7923
285.90	142.5220
286.10	139.3091
286.10	139.3091
287.40	114.6155
288.45	0.0000
290.67	135.0396
290.80	151.3293
291.72	146.5741
293.26	0.0000
293.70	127.2689
295.21	147.0575
295.21	147.0575

295.21	147.0575
295.96	124.2700
296.50	147.2360
297.23	147.3376
298.57	140.9651
299.80	132.5921
299.80	132.5921
300.09	118.1843
300.09	118.1843
300.09	118.1843
300.09	118.1843
300.12	118.1865
301.29	133.1032
302.84	131.6479
303.76	98.8202
303.91	121.8940
304.40	118.6545
304.40	118.6545
304.84	114.3065
306.84	96.8963
308.46	109.1695
311.98	96.2430
316.51	104.4094
318.01	119.0057
319.02	114.6596
319.41	140.3119
320.08	125.9088
323.87	117.3859
323.87	117.3859
323.87	117.3859
323.87	117.3859
325.23	99.0565
328.77	134.7266
333.44	125.1234
334.20	133.6645
334.20	133.6645
334.30	133.6765
338.28	123.3745
338.28	123.3745
338.28	123.3745
338.28	123.3745
338.32	123.3790
338.32	123.3790
338.32	123.3790
340.50	125.8732
340.57	125.8822
344.27	119.4473
345.85	108.2125
350.59	0.0000
351.07	104.1042
351.92	103.0316
351.92	103.0316
351.92	103.0316
355.39	0.0000
356.01	91.3153
364.48	93.6727
366.43	86.8683
367.43	86.9370
367.94	0.0000
369.80	94.0682
374.96	93.2829
383.85	111.8304
387.95	78.6138
388.63	75.1195
391.69	106.2964
391.69	106.2964
392.90	85.9999
398.62	92.6012
400.65	97.1979
401.10	100.7993
401.81	99.9602
402.60	92.8741
404.84	81.5771
410.95	99.1909
411.60	113.6204
413.65	74.8985
414.70	85.2861
415.30	96.8244

415.76	100.9788
417.63	0.0000
418.52	92.1449
423.70	89.7641
427.08	89.9771
427.89	94.5753
432.53	87.5830
433.93	89.4944
439.47	86.1714
439.56	86.1758
439.89	88.0298
443.98	77.2414
444.90	68.0889
445.03	68.0945
445.03	68.0945
445.03	68.0945
453.90	77.7605
463.38	79.1817
468.07	67.2781
473.00	78.7423
475.06	91.0500
475.35	80.7392
476.78	64.8391
477.59	71.4541
477.96	69.5907
482.03	68.8285
484.57	72.7174
487.03	63.3717
490.36	0.0000
492.35	60.7373
497.08	75.1944
507.63	0.0000
510.53	0.0000
510.84	71.0332
511.00	71.0399
511.85	71.0772
511.85	71.0772
513.99	87.7106
513.99	87.7106
520.41	69.5127
520.65	59.8676
527.90	65.9456
528.96	0.0000
529.64	78.6319
529.87	0.0000
531.02	53.4357
537.32	57.5344
543.00	71.4227
546.56	0.0000
549.76	58.9325
552.65	56.0781
555.20	60.1009
563.23	68.2904
563.90	65.3454
568.70	63.5371
569.32	61.5724
569.50	67.5372
569.67	67.5435
573.80	70.6858
574.00	65.7140
574.64	61.7540
578.91	89.4551
579.30	0.0000
583.14	58.0407
585.48	52.9031
591.81	62.3349
592.07	59.3277
593.00	72.4351
595.88	74.5623
600.56	79.8004
602.52	0.0000
602.71	77.6672
602.71	77.6672
603.60	76.0835
604.41	80.9766
604.70	76.1294
609.31	88.2903

609.31	88.2903
609.31	88.2903
609.31	88.2903
610.33	97.4736
612.46	79.6944
614.37	56.9810
618.01	64.2247
621.84	57.2031
621.84	57.2031
631.29	65.6934
633.02	58.5603
633.10	58.5621
634.78	61.6974
635.90	69.9631
636.97	63.8240
645.85	55.8391
646.12	56.8799
656.30	62.3676
657.75	66.5723
657.90	0.0000
661.65	58.3635
661.65	58.3635
664.57	0.0000
666.33	31.7554
666.33	31.7554
675.00	52.4506
677.61	48.3149
685.20	48.4918
692.80	59.2471
695.00	64.6040
696.49	64.6487
696.49	64.6487
697.00	71.0260
697.49	67.8613
698.33	81.6786
698.50	81.6833
699.00	75.3357
702.63	71.2141
706.10	78.7808
706.58	0.0000
706.67	72.4119
709.31	58.6406
711.68	59.7734
713.82	58.7631
717.42	48.1599
720.50	58.5872
721.93	0.0000
722.20	70.3606
722.78	70.3787
722.78	70.3787
722.89	70.3827
722.95	70.3847
723.30	73.8286
724.18	53.2464
727.18	56.9740
733.00	43.1128
735.90	51.8042
739.58	55.1322
742.81	38.9740
744.21	47.6644
747.13	48.8109
751.79	46.7373
752.31	42.4004
753.82	50.0430
755.35	43.5449
756.15	52.2729
756.87	63.1826
763.93	78.6775
765.79	66.4926
766.42	64.7608
766.84	56.0187
776.49	47.2438
778.00	48.3748
778.57	57.1844
778.89	51.6931
783.80	46.2913
785.46	60.6615
792.07	53.0903

795.84	43.2049
796.30	43.2133
798.80	65.6642
801.93	65.7509
805.60	63.4048
810.29	45.6958
810.76	44.5898
815.85	43.5667
817.79	44.7192
818.51	45.8510
819.60	42.5157
826.30	60.5836
828.27	0.0000
831.60	55.0921
831.96	55.1011
834.83	74.7547
836.80	0.0000
846.75	36.1992
848.13	46.1801
856.28	0.0000
856.80	48.4596
860.37	41.8560
867.32	43.5926
867.82	42.8909
871.10	34.7223
873.19	36.5801
874.81	48.4984
875.33	0.0000
876.40	46.6981
879.36	31.1678
880.27	36.6807
880.51	36.6841
881.50	34.8633
883.24	44.9853
884.67	49.6033
889.25	45.0893
896.60	47.9857
898.02	44.3180
899.00	48.9525
903.28	29.0760
911.07	32.4758
911.07	32.4758
911.07	32.4758
919.63	43.7504
920.93	37.2520
925.00	41.0395
925.24	44.7750
926.50	51.3289
935.52	47.7540
937.48	54.3481
944.10	50.7226
946.00	38.5386
949.00	35.7577
962.29	48.8525
964.01	52.9826
966.15	53.0223
968.20	53.0619
969.11	53.0797
969.11	53.0797
969.11	53.0797
977.42	50.7018
980.50	26.9644
983.50	47.6355
989.30	29.5938
996.32	39.2373
1001.03	50.8042
1001.68	50.8158
1004.76	47.9907
1021.30	0.0000
1024.50	0.0000
1034.80	47.5166
1036.00	32.9840
1037.82	34.9453
1038.57	42.7217
1038.76	0.0000
1045.16	38.9258
1046.59	36.9962
1048.07	54.5480

1050.47	33.1450
1050.47	33.1450
1062.04	38.1659
1063.62	31.3313
1076.63	34.4155
1077.35	33.4405
1078.86	29.5210
1085.78	32.5456
1099.22	47.5453
1112.02	33.1527
1112.84	33.1624
1115.52	28.2116
1120.29	33.9054
1120.29	33.9054
1120.29	33.9054
1120.29	33.9054
1120.51	33.9070
1121.28	41.5629
1124.00	0.0000
1129.67	35.0051
1131.51	0.0000
1147.95	0.0000
1167.94	46.5548
1173.22	36.4922
1175.09	36.5133
1177.93	46.6963
1189.05	44.8164
1204.90	36.8420
1205.75	0.0000
1213.00	49.2398
1221.42	53.4752
1230.97	53.2813
1235.34	41.3027
1236.41	0.0000
1238.25	44.7827
1246.25	43.5053
1260.41	0.0000
1271.85	45.9121
1274.45	41.7695
1274.54	41.7695
1291.56	29.3795
1298.22	0.0000
1312.09	31.6582
1325.50	33.8937
1325.50	33.8937
1332.49	26.5295
1333.61	25.4766
1360.21	19.2445
1362.66	0.0000
1365.15	24.6228
1368.21	21.4287
1368.53	0.0000
1376.25	23.2642
1384.27	15.3711
1394.10	24.8115
1395.20	24.8193
1407.95	18.0444
1434.06	10.8999
1436.60	17.4508
1457.56	0.0000
1460.81	18.2902
1489.15	19.3406
1509.49	9.2562
1596.49	8.5052
1620.62	9.5032
1678.03	0.0000
1691.02	9.6549
1691.02	9.6549
1706.46	0.0000
1750.46	0.0000
1764.49	15.1360
1764.49	15.1360
1764.49	15.1360
1764.49	15.1360
1770.23	5.2387
1771.40	12.8619
1791.20	0.0000
1808.65	9.9023

1836.01

7.4689

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243517009

Total Uranium Activity	6.7947E+00	ug/g
Total Uranium Counting Unc.	4.2051E+00	ug/g
Total Uranium Tpu	2.1454E-06	ug/g
Total Uranium Mda	2.1215E+00	ug/g

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*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417               *
*               GROSS GAMMA REPORT                 *
*
*****
*
*  BATCH ID      : 937069          SAMPLE ID   : G243517009
*  ANALYST       : MXR1            DETECTOR    : GAM11
*  SAMPLE DATE   : 21-DEC-2009 12:00:00.00  COUNT TIME : 0 02:00:00.00
*  ANALYSIS DATE: 7-JAN-2010 09:13:15.30  SAMPLE ALQT: 131.440 GRAM
*
*****

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.  GROSS GAMMA ACTIVITY (pCi/GRAM ) : 8.395E+00
   GROSS GAMMA ERROR  (pCi/GRAM )  : 1.732E+00
   GROSS GAMMA MDA    (pCi/GRAM )  : 4.005E+00
   GROSS GAMMA DLC    (pCi/GRAM )  : 1.934E+00

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VAX/VMS Nuclide Identification Report Generated 7-JAN-2010 11:19:52.92

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                          *
*                               Charleston, SC 29414                     *
*****
Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243546001.CNF;1
Sample date   : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 09:19:03.
Sample ID     : G243546001 Sample quantity : 1.10300E+02 GRAM
Detector name : GAM18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.35 0.0%
Energy tolerance: 1.50000 keV Analyst Initials : MXR1
Abundance limit : 75.00000 Sensitivity : 5.00000
Batch ID       : 937069 Detector SN# :
Matrix Spike ID : LCS ID : 1032-A
*****

```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	75.18*	289	337	1.00	149.48	145	20	4.02E-02	11.6	2.07E+00
2	3	77.50	503	300	1.02	154.11	145	20	6.99E-02	7.1	
3	0	84.66*	97	258	0.98	168.44	166	6	1.35E-02	29.0	
4	0	87.48	113	394	1.12	174.07	172	7	1.57E-02	30.4	
5	0	93.24*	122	378	1.13	185.58	182	8	1.69E-02	31.0	
6	0	186.15*	168	297	1.38	371.33	366	11	2.34E-02	22.4	
7	0	209.49	131	219	1.65	418.01	414	9	1.81E-02	22.3	
8	3	238.94*	1078	202	1.12	476.88	472	19	1.50E-01	3.9	8.76E-01
9	3	241.91	258	266	1.77	482.83	472	19	3.59E-02	15.8	
10	0	271.81	60	265	2.90	542.60	534	13	8.37E-03	57.3	
11	0	276.87*	56	306	4.36	552.72	547	16	7.80E-03	74.3	
12	0	295.76*	258	255	1.40	590.48	584	12	3.58E-02	14.2	
13	0	300.33	59	179	0.82	599.63	596	9	8.14E-03	43.3	
14	0	338.55*	233	230	1.40	676.03	669	13	3.23E-02	15.2	
15	0	352.21*	549	178	1.31	703.34	698	12	7.63E-02	6.6	
16	0	463.24	70	115	1.09	925.34	919	11	9.69E-03	32.1	
17	0	511.27*	135	193	2.63	1021.37	1013	22	1.87E-02	30.7	
18	0	583.60*	322	162	1.90	1166.00	1159	18	4.48E-02	11.0	
19	0	609.41*	471	152	1.59	1217.61	1211	16	6.54E-02	7.6	
20	0	661.83	209	92	1.32	1322.41	1316	14	2.90E-02	11.9	
21	0	727.34	119	71	1.93	1453.40	1448	14	1.65E-02	17.5	
22	0	794.87	58	77	1.56	1588.43	1581	14	8.03E-03	34.8	
23	0	911.44*	321	80	2.02	1821.53	1811	22	4.46E-02	9.3	
24	0	968.28*	194	94	2.04	1935.17	1924	21	2.70E-02	14.7	
25	0	1120.80	104	69	1.68	2240.17	2233	14	1.45E-02	19.6	
26	0	1460.74*	1373	46	2.13	2919.96	2908	20	1.91E-01	3.0	
27	0	1590.93	78	11	5.48	3180.32	3169	28	1.09E-02	17.5	
28	0	1764.33*	78	13	1.49	3527.10	3518	17	1.08E-02	16.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 7-JAN-2010 11:19:55

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Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243546001.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 09:19:03
Sample ID        : G243546001 Sample quantity : 110.30 GRAM
Sample type      : SOLID Sample geometry :
Detector name    : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.35 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	*	2.313E+01	2.230E+00	3.696E-01	2.804E-02	62.580
CD-109	+	88.03	*	1.637E+00	1.006E+00	1.342E+00	1.241E-01	1.220
SN-126		64.28		4.803E-01	5.576E-01	9.316E-01	1.377E-01	0.516
	+	86.94		6.671E-01	4.909E-01	4.377E-01	1.815E-01	1.524
	+	87.57	*	1.605E-01	9.863E-02	1.129E-01	1.040E-02	1.421
BA-137M	+	661.65	*	2.202E-01	5.517E-02	4.825E-02	3.678E-03	4.564
CS-137	+	661.65	*	2.327E-01	5.833E-02	5.100E-02	3.897E-03	4.564
TL-208	+	277.35		4.484E-01	6.678E-01	4.519E-01	4.745E-02	0.992
	+	510.84		4.936E-01	3.076E-01	1.792E-01	1.905E-02	2.755
	+	583.14	*	3.313E-01	7.709E-02	4.634E-02	3.632E-03	7.150
		860.37		5.236E-01	2.677E-01	4.865E-01	5.441E-02	1.076
BI-211		72.87		1.637E+00	3.238E+00	4.921E+00	4.063E-01	0.333
	+	351.07	*	2.651E+00	3.897E-01	2.540E-01	1.630E-02	10.436
PB-212	+	74.81		1.854E+00	4.874E-01	5.339E-01	6.692E-02	3.472
	+	77.11		1.800E+00	2.990E-01	2.987E-01	2.532E-02	6.025
	+	87.30		7.422E-01	4.621E-01	4.845E-01	6.580E-02	1.532
	+	238.63	*	1.212E+00	1.275E-01	7.299E-02	5.214E-03	16.603
	+	300.09		9.781E-01	8.500E-01	1.024E+00	8.405E-02	0.956
PO-212	+	74.81		1.854E+00	4.874E-01	5.339E-01	6.692E-02	3.472
	+	77.11		1.800E+00	2.990E-01	2.987E-01	2.532E-02	6.025
	+	87.30		7.422E-01	4.621E-01	4.845E-01	6.580E-02	1.532
		115.19		-2.865E+00	3.139E+00	4.818E+00	3.035E-01	-0.595
	+	238.63	*	1.212E+00	1.275E-01	7.299E-02	5.214E-03	16.603
	+	300.09		9.781E-01	8.500E-01	1.024E+00	8.405E-02	0.956
BI-214	+	609.31	*	9.085E-01	1.599E-01	8.811E-02	7.871E-03	10.310
	+	1120.29		1.007E+00	4.066E-01	4.049E-01	3.877E-02	2.486
	+	1764.49		9.918E-01	3.364E-01	2.363E-01	1.437E-02	4.198
PB-214	+	74.81		3.194E+00	8.199E-01	9.200E-01	1.027E-01	3.472
	+	77.11		3.085E+00	5.639E-01	5.121E-01	5.836E-02	6.025
	+	87.30		1.271E+00	7.876E-01	8.299E-01	9.956E-02	1.532
	+	241.98		1.740E+00	5.670E-01	4.387E-01	3.469E-02	3.966
	+	295.21		7.574E-01	2.239E-01	1.626E-01	1.380E-02	4.658
	+	351.92	*	9.221E-01	1.438E-01	9.184E-02	7.597E-03	10.041
PO-214	+	74.81		3.194E+00	8.199E-01	9.200E-01	1.027E-01	3.472

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.085E+00	5.639E-01	5.121E-01	5.836E-02	6.025
	+	87.30		1.271E+00	7.876E-01	8.299E-01	9.956E-02	1.532
	+	241.98		1.740E+00	5.670E-01	4.387E-01	3.469E-02	3.966
	+	295.21		7.574E-01	2.239E-01	1.626E-01	1.380E-02	4.658
	+	351.92	*	9.221E-01	1.438E-01	9.184E-02	7.597E-03	10.041
PO-216	+	74.81		1.854E+00	4.874E-01	5.339E-01	6.692E-02	3.472
	+	77.11		1.800E+00	2.990E-01	2.987E-01	2.532E-02	6.025
	+	87.30		7.422E-01	4.621E-01	4.845E-01	6.580E-02	1.532
	+	238.63	*	1.212E+00	1.275E-01	7.299E-02	5.214E-03	16.603
	+	300.09		9.781E-01	8.500E-01	1.024E+00	8.405E-02	0.956
PO-218	+	74.81		3.194E+00	8.199E-01	9.200E-01	1.027E-01	3.472
	+	77.11		3.085E+00	5.639E-01	5.121E-01	5.836E-02	6.025
	+	87.30		1.271E+00	7.876E-01	8.299E-01	9.956E-02	1.532
	+	241.98		1.740E+00	5.670E-01	4.387E-01	3.469E-02	3.966
	+	295.21		7.574E-01	2.239E-01	1.626E-01	1.380E-02	4.658
	+	351.92	*	9.221E-01	1.438E-01	9.184E-02	7.597E-03	10.041
RA-224	+	240.98	*	3.300E+00	1.059E+00	8.296E-01	4.621E-02	3.978
RA-226	+	609.31	*	9.085E-01	1.599E-01	8.811E-02	7.871E-03	10.310
	+	1120.29		1.007E+00	4.066E-01	4.049E-01	3.877E-02	2.486
	+	1764.49		9.918E-01	3.364E-01	2.363E-01	1.437E-02	4.198
AC-228	+	338.32		1.246E+00	6.329E-01	3.058E-01	1.246E-01	4.073
	+	911.07	*	1.420E+00	3.236E-01	1.748E-01	2.316E-02	8.127
	+	969.11		1.509E+00	5.723E-01	3.130E-01	7.494E-02	4.823
RA-228	+	338.32		1.246E+00	6.329E-01	3.058E-01	1.246E-01	4.073
	+	911.07	*	1.420E+00	3.236E-01	1.748E-01	2.316E-02	8.127
	+	969.11		1.509E+00	5.723E-01	3.130E-01	7.494E-02	4.823
TH-228	+	74.81		1.885E+00	4.638E-01	5.430E-01	4.576E-02	3.472
	+	77.11		1.830E+00	3.041E-01	3.038E-01	2.575E-02	6.025
	+	87.30		7.548E-01	4.639E-01	4.927E-01	4.528E-02	1.532
	+	238.63	*	1.232E+00	1.297E-01	7.423E-02	5.303E-03	16.603
	+	300.09		9.947E-01	1.041E+00	1.041E+00	6.134E-01	0.956
TH-230	+	609.31	*	9.085E-01	1.599E-01	8.811E-02	7.871E-03	10.310
	+	1120.29		1.007E+00	4.066E-01	4.049E-01	3.876E-02	2.486
	+	1764.49		9.918E-01	3.363E-01	2.363E-01	1.437E-02	4.198
TH-232	+	338.32		1.246E+00	3.847E-01	3.058E-01	1.769E-02	4.073
	+	911.07	*	1.420E+00	3.236E-01	1.748E-01	2.316E-02	8.127
	+	969.11		1.509E+00	5.723E-01	3.130E-01	7.494E-02	4.823
U-234	+	609.31	*	9.085E-01	1.599E-01	8.811E-02	7.871E-03	10.310
	+	1120.29		1.007E+00	4.066E-01	4.049E-01	3.876E-02	2.486
	+	1764.49		9.918E-01	3.363E-01	2.363E-01	1.437E-02	4.198
NP-237	+	86.50	*	4.712E-01	3.055E-01	3.112E-01	7.022E-02	1.514
		95.87		-2.748E-02	9.763E-01	1.418E+00	3.464E-01	-0.019
AM-243	+	74.67	*	3.006E-01	7.386E-02	8.691E-02	7.252E-03	3.458
	+	86.72		1.767E+01	1.086E+01	1.163E+01	1.064E+00	1.519
		117.66		6.189E-01	3.300E+00	5.358E+00	3.295E-01	0.116
		142.18		3.180E-01	1.573E+01	2.444E+01	1.346E+00	0.013
ANH-511	+	511.00	*	1.066E-01	6.585E-02	3.871E-02	2.556E-03	2.754

---- 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	*	-7.686E-02	2.685E-01	4.342E-01	3.146E-02	-0.177

---- 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	*		1.318E-02	3.874E-02	6.542E-02	4.451E-03	0.202
NA-24	1368.53	*		-3.277E+00	3.874E-02	Half-Life too short		
AL-26	1129.67			1.010E-01	1.519E+00	2.384E+00	1.592E-01	0.042
	1808.65	*		-7.320E-03	2.604E-02	4.078E-02	2.381E-03	-0.179
TI-44	67.85			-4.415E-02	4.611E-02	7.141E-02	5.742E-03	-0.618
	78.38	*		3.321E-01	5.518E-02	8.137E-02	6.958E-03	4.082
SC-46	889.25	*		-2.247E-03	3.185E-02	5.172E-02	5.769E-03	-0.043
	1120.51	+		1.748E-01	6.967E-02	1.017E-01	7.028E-03	1.719
V-48	944.10			-7.275E-01	7.787E-01	1.146E+00	1.213E-01	-0.635
	983.50	*		8.797E-03	6.113E-02	1.003E-01	9.920E-03	0.088
	1312.09			-2.272E-02	7.176E-02	1.137E-01	8.280E-03	-0.200
CR-51	320.08	*		-1.624E-01	3.147E-01	4.898E-01	3.154E-02	-0.332
MN-52	744.21			-1.164E-01	2.303E-01	3.666E-01	3.233E-02	-0.318
	848.13			1.463E-01	6.988E+00	1.149E+01	1.202E+00	0.013
	935.52			1.602E-01	2.701E-01	4.597E-01	4.930E-02	0.348
	1246.25			-1.008E+00	7.704E+00	1.254E+01	8.066E-01	-0.080
	1333.61			2.200E+00	5.714E+00	9.679E+00	7.312E-01	0.227
	1434.06	*		6.859E-02	2.487E-01	4.171E-01	3.073E-02	0.164
MN-54	834.83	*		1.389E-03	3.078E-02	5.077E-02	5.200E-03	0.027
CO-56	846.75	*		-5.469E-03	3.462E-02	5.612E-02	5.859E-03	-0.097
	977.42			-1.981E-02	2.759E+00	3.981E+00	3.983E-01	-0.005
	1037.82			-1.303E-01	2.342E-01	3.547E-01	3.286E-02	-0.367
	1175.09			1.428E+00	1.840E+00	3.229E+00	1.792E-01	0.442
	1238.25			3.430E-02	7.742E-02	1.288E-01	8.586E-03	0.266
	1360.21			3.176E-01	7.936E-01	1.355E+00	1.018E-01	0.234
	1771.40			-3.382E-02	1.956E-01	2.597E-01	1.569E-02	-0.130
CO-57	122.06	*		2.704E-03	2.275E-02	3.671E-02	2.175E-03	0.074
	136.48			6.498E-03	1.760E-01	2.808E-01	1.838E-02	0.023
CO-58	810.76	*		-4.132E-03	3.219E-02	5.249E-02	5.182E-03	-0.079
FE-59	142.65			1.736E-01	2.507E+00	3.904E+00	2.148E-01	0.044
	192.34			-4.552E-01	8.070E-01	1.266E+00	1.468E-01	-0.360
	1099.22	*		-9.580E-02	8.047E-02	1.202E-01	9.894E-03	-0.797
	1291.56			-4.581E-02	1.009E-01	1.578E-01	1.326E-02	-0.290
CO-60	1173.22			-2.792E-02	3.699E-02	5.734E-02	3.169E-03	-0.487
	1332.49	*		2.094E-02	3.607E-02	6.211E-02	4.693E-03	0.337
ZN-65	1115.52	*		-1.459E-02	8.315E-02	1.157E-01	8.153E-03	-0.126
GE-68	1077.35	*		1.167E+00	1.032E+00	1.867E+00	1.483E-01	0.625
AS-73	53.44	*		1.102E+00	1.118E+00	1.896E+00	1.503E-01	0.581
AS-74	595.88	*		-6.095E-02	8.849E-02	1.361E-01	9.779E-03	-0.448
	634.78			2.127E-01	3.313E-01	5.578E-01	4.153E-02	0.381
SE-75	66.05			-4.282E+00	5.138E+00	8.037E+00	7.960E-01	-0.533
	96.73			-5.669E-02	8.006E-01	1.159E+00	1.529E-01	-0.049
	121.11			-8.949E-03	1.237E-01	1.978E-01	1.847E-02	-0.045
	136.00			2.018E-02	3.321E-02	5.453E-02	3.105E-03	0.370
	198.60			-6.538E-01	1.630E+00	2.604E+00	1.767E-01	-0.251
	264.65	*		2.359E-02	4.072E-02	6.088E-02	3.482E-03	0.387
	279.53			1.545E-01	1.029E-01	1.621E-01	1.001E-02	0.953
	303.91			7.588E-01	1.914E+00	2.793E+00	2.657E-01	0.272
	400.65			-6.644E-02	2.283E-01	3.647E-01	3.323E-02	-0.182

---- 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		5.913E+02	3.634E+02	5.185E+02	4.791E+01	1.140
		200.40		3.002E+02	2.307E+02	4.051E+02	2.182E+01	0.741
	+	239.00		3.262E+02	3.105E+01	5.233E+01	2.911E+00	6.234
		249.79		-3.509E+01	8.672E+01	1.391E+02	7.798E+00	-0.252
		281.68		-2.449E+01	1.375E+02	1.929E+02	1.101E+01	-0.127
	+	297.23		4.874E+02	1.408E+02	1.785E+02	1.025E+01	2.730
		303.76		1.191E+02	2.710E+02	3.970E+02	2.284E+01	0.300
		439.47		7.795E+01	2.010E+02	3.351E+02	2.043E+01	0.233
		484.57		1.016E+02	3.147E+02	5.294E+02	3.398E+01	0.192
		520.65	*	8.994E+00	1.592E+01	2.385E+01	1.591E+00	0.377
		574.64		2.799E+02	2.996E+02	5.164E+02	3.636E+01	0.542
		578.91		-1.216E+02	1.383E+02	1.748E+02	1.236E+01	-0.696
		585.48		2.005E+03	3.753E+02	6.879E+02	4.894E+01	2.915
		755.35		3.155E+01	2.290E+02	3.837E+02	3.449E+01	0.082
		817.79		-3.163E+01	1.815E+02	2.946E+02	2.936E+01	-0.107
SR-82		698.33		1.503E+01	2.994E+01	5.159E+01	4.200E+00	0.291
		776.49	*	-1.214E-01	3.313E-01	5.327E-01	4.960E-02	-0.228
RB-83		1395.20		-1.192E+01	9.927E+00	1.369E+01	1.020E+00	-0.871
		520.41	*	4.267E-02	6.413E-02	9.691E-02	6.464E-03	0.440
		529.64		1.290E-02	8.669E-02	1.432E-01	9.645E-03	0.090
		552.65		-4.273E-03	1.620E-01	2.634E-01	1.815E-02	-0.016
RB-84		881.50	*	-1.734E-03	5.805E-02	9.470E-02	1.044E-02	-0.018
KR-85		513.99	*	2.701E+01	7.286E+00	1.371E+01	9.080E-01	1.971
SR-85		513.99	*	1.411E-01	3.806E-02	7.160E-02	4.743E-03	1.971
RB-86		1076.63	*	4.103E-01	7.225E-01	1.257E+00	1.000E-01	0.326
Y-88		898.02		-1.462E-02	3.414E-02	5.119E-02	5.802E-03	-0.286
		1836.01	*	1.824E-02	3.138E-02	5.563E-02	3.169E-03	0.328
ZR-88		392.90	*	-1.062E-02	2.551E-02	4.170E-02	2.399E-03	-0.255
Y-91		1204.90	*	-5.279E+00	1.472E+01	2.355E+01	1.393E+00	-0.224
NB-94		702.63	*	-1.471E-02	2.788E-02	4.483E-02	3.677E-03	-0.328
		871.10		-3.196E-03	2.736E-02	4.434E-02	4.809E-03	-0.072
NB-95		765.79	*	8.533E-03	3.543E-02	5.966E-02	5.457E-03	0.143
NB-95M		235.69	*	4.760E-02	1.122E-01	1.669E-01	1.225E-02	0.285
ZR-95		724.18		1.183E-01	8.715E-02	1.407E-01	1.305E-02	0.841
		756.15	*	3.381E-02	5.871E-02	1.013E-01	9.972E-03	0.334
NB-97		657.90	*	3.571E-01	5.871E-02	Half-Life	too short	
		1024.50		6.484E+01	5.871E-02	Half-Life	too short	
ZR-97		254.15		-1.068E+00	5.871E-02	Half-Life	too short	
		355.39		1.289E+01	5.871E-02	Half-Life	too short	
		507.63	*	1.068E+01	5.871E-02	Half-Life	too short	
		602.52		-3.727E+01	5.871E-02	Half-Life	too short	
		1021.30		4.153E+00	5.871E-02	Half-Life	too short	
		1147.95		4.065E+00	5.871E-02	Half-Life	too short	
		1362.66		-1.754E+01	5.871E-02	Half-Life	too short	
		1750.46		2.763E+00	5.871E-02	Half-Life	too short	
MO-99		140.51		-2.111E+01	3.746E+01	5.592E+01	1.504E+01	-0.377
		181.06		2.175E+01	2.280E+01	3.538E+01	6.006E+00	0.615
		366.43		5.149E+01	1.063E+02	1.838E+02	1.062E+01	0.280
		739.58	*	4.080E+00	1.534E+01	2.596E+01	3.960E+00	0.157

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	778.00			-5.773E+01	4.575E+01	6.781E+01	6.332E+00	-0.851
TC-99M	140.51	*		-2.623E+12	4.575E+01	Half-Life	too short	
RH-101	127.23			-9.650E-03	2.835E-02	4.460E-02	2.576E-03	-0.216
	198.01	*		-4.329E-03	2.881E-02	4.648E-02	2.498E-03	-0.093
	325.23			-1.852E-01	1.979E-01	3.007E-01	1.738E-02	-0.616
RH-102	418.52			6.443E-02	2.375E-01	4.023E-01	2.391E-02	0.160
	475.06	*		-8.830E-03	2.449E-02	3.945E-02	2.505E-03	-0.224
	631.29			-2.126E-02	4.789E-02	7.442E-02	5.524E-03	-0.286
	697.49			3.580E-02	6.500E-02	1.123E-01	9.130E-03	0.319
	766.84			8.377E-02	9.196E-02	1.608E-01	1.474E-02	0.521
	1046.59			-7.741E-03	9.126E-02	1.515E-01	1.308E-02	-0.051
	1112.84			-1.808E-01	2.207E-01	2.819E-01	2.001E-02	-0.642
RU-103	497.08	*		-2.949E-03	3.351E-02	5.474E-02	7.107E-03	-0.054
	610.33	+		1.012E+01	2.233E+00	2.444E+00	3.919E-01	4.141
RH-106	511.85	+		5.344E-01	3.300E-01	3.919E-01	2.590E-02	1.364
	621.84	*		1.600E-01	2.575E-01	4.341E-01	5.461E-02	0.369
	1050.47			-3.585E-01	1.874E+00	3.083E+00	2.634E-01	-0.116
RU-106	511.85	+		5.344E-01	3.300E-01	3.919E-01	2.590E-02	1.364
	621.84	*		1.600E-01	2.570E-01	4.341E-01	3.194E-02	0.369
	1050.47			-3.585E-01	1.874E+00	3.083E+00	2.634E-01	-0.116
AG-108M	433.93	*		-6.024E-03	2.468E-02	4.034E-02	2.636E-03	-0.149
	614.37			2.939E-02	3.488E-02	5.284E-02	4.071E-03	0.556
	722.95			1.690E-02	3.556E-02	5.363E-02	4.743E-03	0.315
AG-110M	657.75	*		1.967E-02	2.979E-02	4.616E-02	3.641E-03	0.426
	677.61			-5.630E-02	2.429E-01	3.997E-01	3.242E-02	-0.141
	706.67			-4.542E-02	1.600E-01	2.612E-01	2.223E-02	-0.174
	763.93			-1.888E-01	1.423E-01	2.116E-01	1.978E-02	-0.892
	884.67			-1.593E-02	3.956E-02	6.225E-02	7.030E-03	-0.256
	937.48			-1.770E-02	9.319E-02	1.490E-01	1.631E-02	-0.119
	1384.27			-1.835E-01	1.486E-01	2.073E-01	1.607E-02	-0.885
IN-111	171.28			-2.007E-01	1.293E+00	2.165E+00	1.139E-01	-0.093
	245.39	*		1.040E+00	1.398E+00	2.128E+00	1.189E-01	0.488
IN-113M	391.69	*		4.044E-04	3.616E-02	6.064E-02	3.720E-03	0.007
SN-113	391.69	*		4.044E-04	3.616E-02	6.064E-02	3.720E-03	0.007
IN-114M	190.27	*		2.341E-02	1.622E-01	2.414E-01	1.289E-02	0.097
CD-115	260.90			-1.113E+02	1.957E+02	3.048E+02	1.721E+01	-0.365
	492.35			-1.574E+01	4.854E+01	7.794E+01	5.045E+00	-0.202
	527.90	*		-5.859E+00	1.498E+01	2.378E+01	1.598E+00	-0.246
SN-117M	156.02			2.628E-01	1.995E+00	3.401E+00	1.817E-01	0.077
	158.56	*		3.218E-03	4.752E-02	8.075E-02	4.292E-03	0.040
SB-122	563.90	*		6.933E-01	2.800E+00	4.629E+00	3.226E-01	0.150
	692.80			-1.850E+01	5.626E+01	9.186E+01	7.406E+00	-0.201
I-123	159.00	*		1.760E+01	5.626E+01	Half-Life	too short	
	528.96			-3.077E+02	5.626E+01	Half-Life	too short	
TE-123M	159.00	*		9.311E-03	2.260E-02	3.894E-02	2.101E-03	0.239
I-124	602.71	*		-1.122E+00	9.681E-01	1.192E+00	8.622E-02	-0.941
	722.78			2.014E+00	4.956E+00	7.426E+00	6.311E-01	0.271
	1325.50			-5.058E+01	4.216E+01	6.021E+01	4.493E+00	-0.840
	1376.25			5.437E+01	3.731E+01	6.860E+01	5.137E+00	0.793

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124		1509.49		1.801E+01	1.733E+01	3.210E+01	2.300E+00	0.561
		1691.02		-1.302E+00	4.021E+00	6.291E+00	4.058E-01	-0.207
		602.71		-4.963E-02	4.281E-02	5.273E-02	3.814E-03	-0.941
		645.85		1.551E-01	4.048E-01	6.706E-01	5.436E-02	0.231
		709.31		-4.280E-01	2.203E+00	3.620E+00	3.005E-01	-0.118
		713.82		3.282E-01	1.325E+00	2.247E+00	2.665E-01	0.146
		722.78		1.291E-01	3.177E-01	4.760E-01	4.135E-02	0.271
	+	968.20		1.586E+01	4.933E+00	5.829E+00	5.927E-01	2.721
		1045.16		6.734E-01	1.947E+00	3.351E+00	2.901E-01	0.201
		1325.50		-3.463E+00	2.886E+00	4.122E+00	3.076E-01	-0.840
SB-125		1368.21		-8.316E-01	1.510E+00	2.296E+00	2.937E-01	-0.362
		1436.60		1.475E+00	3.082E+00	5.299E+00	3.902E-01	0.278
		1691.02	*	-1.968E-02	6.080E-02	9.512E-02	6.563E-03	-0.207
		427.89	*	5.097E-02	6.830E-02	1.191E-01	7.445E-03	0.428
	+	463.38		5.047E-01	3.265E-01	4.379E-01	3.139E-02	1.153
		600.56		2.010E-01	1.560E-01	2.724E-01	2.170E-02	0.738
TE-125M		635.90		6.579E-02	2.324E-01	3.818E-01	3.149E-02	0.172
		109.28	*	-8.072E-01	8.411E+00	1.353E+01	1.190E+00	-0.060
		388.63		-2.206E-02	1.859E-01	3.096E-01	1.779E-02	-0.071
I-126		666.33	*	6.173E-02	1.850E-01	2.764E-01	2.125E-02	0.223
		753.82		7.321E-01	1.307E+00	2.255E+00	2.022E-01	0.325
SB-126		223.80		3.171E+00	3.765E+00	6.465E+00	3.554E-01	0.490
		278.60		4.561E+00	2.555E+00	4.089E+00	2.330E-01	1.115
	+	296.50		8.326E+00	2.406E+00	3.248E+00	1.864E-01	2.564
		414.70		-1.590E-02	7.094E-02	1.168E-01	6.909E-03	-0.136
		415.30		-4.955E-01	5.848E+00	9.708E+00	5.746E-01	-0.051
		555.20		-2.218E+00	3.708E+00	5.769E+00	3.986E-01	-0.384
		573.80		1.124E+00	9.730E-01	1.699E+00	1.196E-01	0.661
		593.00		-9.663E-01	9.907E-01	1.311E+00	9.391E-02	-0.737
		656.30		1.832E+00	3.000E+00	4.643E+00	3.523E-01	0.395
		666.33		2.590E-02	7.762E-02	1.160E-01	8.917E-03	0.223
SB-127		675.00		-3.348E-01	1.731E+00	2.858E+00	2.232E-01	-0.117
		695.00		2.409E-02	7.073E-02	1.208E-01	9.778E-03	0.199
		697.00		1.039E-01	2.508E-01	4.299E-01	3.492E-02	0.242
		720.50	*	-3.447E-02	1.417E-01	2.066E-01	1.749E-02	-0.167
		856.80		-8.541E-01	4.749E-01	6.531E-01	6.927E-02	-1.308
		989.30		-7.460E-01	1.127E+00	1.703E+00	1.666E-01	-0.438
		1034.80		1.865E-01	7.018E+00	1.134E+01	1.007E+00	0.016
		1213.00		2.274E-01	4.142E+00	6.864E+00	4.127E-01	0.033
		61.10		-4.031E+01	8.582E+01	1.404E+02	1.552E+01	-0.287
		252.40		-5.968E-01	4.798E+00	7.809E+00	3.254E+00	-0.076
		290.80		-1.446E+01	2.670E+01	3.612E+01	3.530E+00	-0.400
		411.60		1.393E+01	1.439E+01	2.503E+01	3.713E+00	0.557
		444.90		-3.398E+00	1.099E+01	1.785E+01	2.057E+00	-0.190
		473.00		-2.221E-01	1.954E+00	3.202E+00	3.840E-01	-0.069
		543.00		-1.259E+01	1.740E+01	2.658E+01	3.682E+00	-0.474
		603.60		-2.307E+01	1.667E+01	1.960E+01	2.376E+00	-1.177
		685.20	*	-5.119E-01	1.457E+00	2.372E+00	2.714E-01	-0.216
		698.50		9.394E+00	1.756E+01	3.023E+01	4.824E+00	0.311

---- Non-Identified Nuclides ----

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XE-127		722.20		5.428E+00	3.610E+01	5.262E+01	6.108E+00	0.103
		783.80		5.205E+00	4.504E+00	7.921E+00	1.066E+00	0.657
		57.60		-9.214E+00	6.980E+00	1.093E+01	8.423E-01	-0.843
		145.22		1.716E-01	6.354E-01	1.021E+00	5.579E-02	0.168
		172.10		-7.683E-03	1.010E-01	1.696E-01	8.929E-03	-0.045
I-131		202.84	*	-2.002E-02	4.172E-02	6.808E-02	3.675E-03	-0.294
		374.96		-3.007E-02	1.657E-01	2.757E-01	1.590E-02	-0.109
		80.18		-2.721E+00	5.497E+00	7.872E+00	6.873E-01	-0.346
		284.30		-3.607E-01	1.573E+00	2.194E+00	1.401E-01	-0.164
		364.48	*	-2.952E-02	1.071E-01	1.776E-01	1.150E-02	-0.166
TE-132		636.97		6.316E-01	1.523E+00	2.526E+00	2.028E-01	0.250
		722.89		3.140E+00	6.964E+00	1.048E+01	8.980E-01	0.300
		49.72		1.858E+00	3.682E+01	6.229E+01	6.676E+00	0.030
		111.76		1.570E+01	3.741E+01	6.154E+01	6.057E+00	0.255
		116.30		-1.270E+01	3.456E+01	5.456E+01	5.265E+00	-0.233
BA-133		228.16	*	-8.653E-02	8.636E-01	1.421E+00	2.078E-01	-0.061
		53.15		1.729E+00	4.769E+00	7.905E+00	6.273E-01	0.219
		79.62		-6.013E-03	1.354E+00	1.995E+00	3.037E-01	-0.003
		81.00		-2.995E-02	1.008E-01	1.459E-01	2.324E-02	-0.205
	+	276.40		4.433E-01	6.610E-01	5.560E-01	7.181E-02	0.797
I-133		302.84		3.525E-02	1.373E-01	1.979E-01	2.303E-02	0.178
		356.01	*	-1.203E-02	4.123E-02	5.577E-02	6.442E-03	-0.216
	+	383.85		6.629E-02	2.564E-01	4.363E-01	4.732E-02	0.152
		510.53		4.473E+00	2.564E-01	Half-Life	too short	
		529.87	*	8.358E-03	2.564E-01	Half-Life	too short	
CS-134		706.58		-3.319E-01	2.564E-01	Half-Life	too short	
		856.28		-4.734E+00	2.564E-01	Half-Life	too short	
		875.33		6.828E-02	2.564E-01	Half-Life	too short	
		1236.41		1.431E+00	2.564E-01	Half-Life	too short	
		1298.22		-4.125E-01	2.564E-01	Half-Life	too short	
I-135		475.35		-2.900E-01	1.573E+00	2.563E+00	1.629E-01	-0.113
		563.23		8.332E-02	3.076E-01	5.095E-01	3.600E-02	0.164
		569.32		-2.876E-01	1.824E-01	2.539E-01	1.815E-02	-1.133
		604.70		-2.870E-02	3.294E-02	4.161E-02	3.025E-03	-0.690
	+	795.84	*	8.360E-02	5.873E-02	7.442E-02	7.198E-03	1.123
CS-135		801.93		-9.615E-02	3.707E-01	5.325E-01	5.195E-02	-0.181
		1038.57		-1.208E+00	2.937E+00	4.534E+00	3.990E-01	-0.266
		1167.94		-4.253E-01	1.979E+00	3.217E+00	1.824E-01	-0.132
		1365.15		-1.015E-01	9.532E-01	1.534E+00	1.220E-01	-0.066
		268.24	*	-7.068E-02	1.479E-01	2.038E-01	1.540E-02	-0.347
I-135		288.45		-2.205E+11	1.479E-01	Half-Life	too short	
		417.63		-5.887E+11	1.479E-01	Half-Life	too short	
		546.56		6.687E+10	1.479E-01	Half-Life	too short	
		836.80		9.132E+11	1.479E-01	Half-Life	too short	
		1038.76		-3.338E+11	1.479E-01	Half-Life	too short	
I-135		1124.00		7.493E+12	1.479E-01	Half-Life	too short	
		1131.51		-9.830E+10	1.479E-01	Half-Life	too short	
		1260.41	*	2.607E+11	1.479E-01	Half-Life	too short	
		1457.56		6.095E+13	1.479E-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
CS-136		1678.03		7.180E+10	1.479E-01	Half-Life	too short	
		1706.46		1.357E+12	1.479E-01	Half-Life	too short	
		1791.20		-3.070E+11	1.479E-01	Half-Life	too short	
		66.91		-8.452E-01	8.734E-01	1.343E+00	2.028E-01	-0.629
	+	86.29		2.299E+00	1.430E+00	1.915E+00	2.525E-01	1.200
		153.22		2.992E-01	5.955E-01	1.031E+00	7.097E-02	0.290
		163.89		-3.326E-01	9.767E-01	1.604E+00	1.096E-01	-0.207
		176.55		-1.397E-01	3.156E-01	5.201E-01	3.153E-02	-0.269
		273.65		5.379E-01	5.869E-01	6.775E-01	4.415E-02	0.794
		340.57		5.833E-01	1.527E-01	2.605E-01	1.603E-02	2.240
CE-139		818.51		5.924E-03	6.597E-02	1.094E-01	1.093E-02	0.054
		1048.07	*	8.149E-02	9.361E-02	1.672E-01	1.499E-02	0.487
		1235.34		2.834E-01	5.442E-01	9.277E-01	9.539E-02	0.305
		165.85	*	6.562E-03	2.451E-02	4.187E-02	2.198E-03	0.157
BA-140		162.64		-4.537E-01	6.884E-01	1.115E+00	6.759E-02	-0.407
		304.84		1.295E+00	1.254E+00	1.858E+00	5.069E-01	0.697
LA-140		423.70		-1.709E+00	1.712E+00	2.516E+00	8.004E-01	-0.679
		537.32	*	-5.313E-02	2.270E-01	3.631E-01	1.188E-01	-0.146
		328.77		3.658E-01	2.930E-01	5.005E-01	3.243E-02	0.731
		432.53		-1.267E+00	1.690E+00	2.658E+00	1.762E-01	-0.477
		487.03		4.759E-02	1.207E-01	2.040E-01	1.455E-02	0.233
		751.79		2.161E-02	1.439E+00	2.390E+00	2.349E-01	0.009
		815.85		9.109E-03	2.848E-01	4.704E-01	5.084E-02	0.019
		867.82		-1.133E+00	1.330E+00	2.014E+00	2.247E-01	-0.563
		919.63		1.874E+00	2.675E+00	3.952E+00	4.993E-01	0.474
		925.24		-7.637E-01	9.809E-01	1.471E+00	1.665E-01	-0.519
CE-141		1596.49	*	1.150E-01	7.159E-02	1.340E-01	9.190E-03	0.859
CE-143		145.44	*	1.346E-02	5.780E-02	9.267E-02	5.290E-03	0.145
		57.37		-4.129E-03	5.780E-02	Half-Life	too short	
		231.56		-1.463E-03	5.780E-02	Half-Life	too short	
		293.26	*	8.394E-04	5.780E-02	Half-Life	too short	
		350.59		4.684E-02	5.780E-02	Half-Life	too short	
		490.36		-7.301E-04	5.780E-02	Half-Life	too short	
		664.57		1.038E-02	5.780E-02	Half-Life	too short	
		721.93		5.040E-04	5.780E-02	Half-Life	too short	
		80.11		-1.021E+00	2.185E+00	3.134E+00	2.713E-01	-0.326
		133.54	*	-2.489E-02	1.711E-01	2.707E-01	3.828E-02	-0.092
PM-144		476.78		-2.973E-02	5.522E-02	8.770E-02	6.508E-03	-0.339
		618.01		-1.040E-02	2.925E-02	4.112E-02	3.130E-03	-0.253
PR-144		696.49	*	1.391E-02	2.903E-02	4.996E-02	4.057E-03	0.278
		778.57		-1.992E+00	1.969E+00	2.991E+00	2.796E-01	-0.666
PM-146		696.49	*	9.434E-01	1.969E+00	3.389E+00	2.750E-01	0.278
		1489.15		-1.960E+00	1.074E+01	1.696E+01	1.225E+00	-0.116
ND-147		453.90	*	1.664E-02	3.605E-02	6.137E-02	5.460E-03	0.271
		633.02		1.609E-01	1.206E+00	1.958E+00	7.266E-01	0.082
		735.90		-2.062E-03	1.339E-01	2.062E-01	5.902E-02	-0.010
		747.13		-4.919E-02	6.936E-02	1.078E-01	1.529E-02	-0.456
		91.11		2.375E-02	4.200E-01	4.860E-01	4.572E-02	0.049
		319.41		4.513E-01	2.945E+00	4.791E+00	2.768E-01	0.094

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.89		2.350E+00	5.497E+00	9.186E+00	5.605E-01	0.256
		531.02	*	4.196E-01	5.094E-01	8.757E-01	1.222E-01	0.479
PM-149		285.90	*	4.308E+01	1.267E+02	2.098E+02	2.969E+01	0.205
EU-152		121.78		-1.079E-03	6.550E-02	1.050E-01	8.093E-03	-0.010
		244.69		3.821E-01	2.919E-01	4.592E-01	2.565E-02	0.832
		344.27	*	5.842E-03	9.338E-02	1.311E-01	8.553E-03	0.045
		443.98		-2.972E-01	7.902E-01	1.280E+00	7.842E-02	-0.232
		778.89		-1.696E-01	2.207E-01	3.424E-01	3.202E-02	-0.495
		867.32		-7.648E-01	7.413E-01	1.105E+00	1.191E-01	-0.692
		964.01		5.094E-01	2.874E-01	4.660E-01	4.773E-02	1.093
		1085.78		-2.614E-01	3.167E-01	4.883E-01	3.784E-02	-0.535
		1112.02		-2.711E-02	2.814E-01	4.238E-01	3.017E-02	-0.064
		1407.95		-7.920E-02	1.656E-01	2.550E-01	1.894E-02	-0.311
GD-153		69.67		-1.053E+00	1.587E+00	2.557E+00	2.075E-01	-0.412
	+	83.37		2.563E+01	1.503E+01	2.328E+01	2.068E+00	1.101
		97.43	*	6.521E-03	8.067E-02	1.178E-01	9.210E-03	0.055
		103.18		-1.138E-01	9.445E-02	1.436E-01	1.036E-02	-0.792
EU-154		123.07		2.329E-02	4.552E-02	7.475E-02	7.069E-03	0.312
		247.94		-1.024E-01	3.224E-01	4.528E-01	4.265E-02	-0.226
		591.81		-1.092E-01	5.901E-01	8.074E-01	8.588E-02	-0.135
		723.30		1.080E-01	1.485E-01	2.294E-01	2.162E-02	0.471
		756.87		4.798E-01	6.380E-01	1.111E+00	1.362E-01	0.432
		873.19		-8.491E-02	2.421E-01	3.836E-01	5.343E-02	-0.221
		996.32		-1.194E-01	3.292E-01	5.147E-01	9.412E-02	-0.232
		1004.76		-1.985E-01	1.939E-01	2.829E-01	3.478E-02	-0.701
		1274.45	*	3.522E-02	1.080E-01	1.821E-01	1.819E-02	0.193
EU-155		48.70		9.235E-01	3.293E+00	5.630E+00	4.271E-01	0.164
		60.01		2.687E-01	5.218E+00	8.745E+00	6.674E-01	0.031
	+	86.54		1.934E-01	1.189E-01	1.639E-01	1.509E-02	1.180
		105.31	*	2.151E-02	9.469E-02	1.550E-01	1.108E-02	0.139
TB-160	+	86.79		5.251E-01	3.227E-01	4.486E-01	4.104E-02	1.171
		197.04		1.076E-01	4.782E-01	8.063E-01	4.330E-02	0.133
		215.65		3.502E-01	6.172E-01	1.020E+00	5.565E-02	0.343
		298.57		1.522E-01	1.538E-01	1.757E-01	1.009E-02	0.866
		879.36	*	2.523E-02	1.183E-01	1.969E-01	2.163E-02	0.128
		962.29		7.688E-01	5.302E-01	8.450E-01	8.681E-02	0.910
		966.15		7.402E-01	2.272E-01	4.113E-01	4.198E-02	1.800
		1177.93		3.182E-01	3.055E-01	5.448E-01	3.042E-02	0.584
		1271.85		-4.438E-02	6.279E-01	1.025E+00	6.926E-02	-0.043
HO-166M		80.57		-7.052E-02	2.796E-01	4.061E-01	3.528E-02	-0.174
		184.41		6.122E-02	3.200E-02	5.197E-02	2.761E-03	1.178
		280.46		6.408E-02	7.691E-02	1.166E-01	6.648E-03	0.550
		410.95		1.626E-01	2.078E-01	3.613E-01	2.127E-02	0.450
		711.68	*	-3.524E-02	4.897E-02	7.717E-02	6.433E-03	-0.457
		752.31		3.621E-02	2.119E-01	3.563E-01	3.186E-02	0.102
		810.29		4.645E-04	4.656E-02	7.680E-02	7.562E-03	0.006
TM-171		51.35		-7.449E+01	4.034E+01	6.150E+01	4.875E+00	-1.211
		52.39		-1.489E+01	2.099E+01	3.308E+01	2.628E+00	-0.450
		59.40		5.636E+00	2.796E+01	4.719E+01	3.583E+00	0.119

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LU-176	+	66.72	*	-2.208E+01	2.885E+01	4.520E+01	3.614E+00	-0.489
		88.36		3.806E-01	2.339E-01	3.376E-01	3.099E-02	1.127
		201.83		2.316E-03	2.493E-02	4.173E-02	2.251E-03	0.055
		306.84	*	-1.514E-02	2.119E-02	3.141E-02	1.808E-03	-0.482
LU-177	+	401.10		-2.409E+00	5.899E+00	9.360E+00	5.441E-01	-0.257
		112.95		6.970E-01	1.682E+00	2.767E+00	1.783E-01	0.252
		208.36	*	3.201E+00	1.437E+00	2.013E+00	1.092E-01	1.590
		52.97		2.106E-01	2.171E+00	3.559E+00	2.826E-01	0.059
LU-177M		54.07		1.951E+00	1.128E+00	1.957E+00	1.547E-01	0.997
		61.30		-6.977E-01	1.603E+00	2.629E+00	2.031E-01	-0.265
		121.62		-2.013E-02	3.378E-01	5.405E-01	3.206E-02	-0.037
		147.16		-5.832E-01	5.895E-01	8.863E-01	4.823E-02	-0.658
HF-181		171.86		-1.660E-01	4.033E-01	6.676E-01	3.514E-02	-0.249
		218.09		-6.314E-01	6.854E-01	1.083E+00	5.926E-02	-0.583
		268.79		1.607E-01	7.665E-01	1.112E+00	6.308E-02	0.144
		319.02		2.681E-02	2.066E-01	3.357E-01	1.938E-02	0.080
HF-181		367.43		5.293E-01	7.337E-01	1.284E+00	7.416E-02	0.412
		413.65	*	-3.372E-02	1.546E-01	2.548E-01	1.505E-02	-0.132
		56.28		-1.209E+00	1.147E+00	1.828E+00	1.424E-01	-0.662
		57.53		-8.779E-01	5.919E-01	9.183E-01	7.082E-02	-0.956
W-181		65.20		-2.675E-01	1.034E+00	1.665E+00	1.320E-01	-0.161
		133.02		-4.339E-02	5.788E-02	8.868E-02	5.016E-03	-0.489
		136.25		1.497E-01	3.934E-01	6.388E-01	3.577E-02	0.234
		345.85		4.518E-02	1.785E-01	2.687E-01	1.554E-02	0.168
TA-182		482.03	*	-1.527E-02	3.639E-02	5.827E-02	3.730E-03	-0.262
		56.28		-4.652E-01	4.406E-01	7.020E-01	5.469E-02	-0.663
		57.53		-3.373E-01	2.276E-01	3.531E-01	2.723E-02	-0.955
		65.20	*	-1.020E-01	3.945E-01	6.348E-01	5.035E-02	-0.161
RE-183		67.75		-1.080E-01	1.113E-01	1.723E-01	1.385E-02	-0.627
		100.10		6.958E-02	1.604E-01	2.657E-01	1.998E-02	0.262
		152.43		-1.212E-01	3.047E-01	4.717E-01	2.538E-02	-0.257
		222.10		1.822E-01	2.912E-01	4.959E-01	2.722E-02	0.367
RE-183		1001.68		1.907E+00	1.869E+00	3.233E+00	3.087E-01	0.590
		1121.28	+	4.810E-01	1.917E-01	2.841E-01	1.957E-02	1.693
		1189.05		-3.743E-02	2.495E-01	4.074E-01	2.329E-02	-0.092
		1221.42	*	-3.757E-02	1.656E-01	2.682E-01	1.641E-02	-0.140
RE-183		1230.97		-9.438E-02	4.222E-01	6.844E-01	4.269E-02	-0.138
		57.98		-2.985E-01	2.238E-01	3.500E-01	2.689E-02	-0.853
		59.32		2.536E-02	1.171E-01	1.978E-01	1.502E-02	0.128
		67.20		-1.756E-01	2.013E-01	3.130E-01	2.508E-02	-0.561
RE-184		162.32	*	-4.933E-02	9.272E-02	1.511E-01	7.974E-03	-0.327
		208.81	+	2.439E+00	1.095E+00	1.556E+00	8.441E-02	1.568
		291.72		-3.753E-01	8.567E-01	1.171E+00	6.708E-02	-0.321
		57.98		-1.089E+00	8.161E-01	1.277E+00	9.807E-02	-0.853
RE-184		59.32		9.243E-02	4.267E-01	7.206E-01	5.475E-02	0.128
		67.20		-6.403E-01	7.338E-01	1.141E+00	9.146E-02	-0.561
		161.27		-4.615E-02	2.827E-01	4.750E-01	2.512E-02	-0.097
		216.55		5.486E-03	2.135E-01	3.547E-01	1.938E-02	0.015
		252.85	*	-9.819E-02	1.917E-01	3.056E-01	1.716E-02	-0.321

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OS-185		318.01		-6.774E-03	3.638E-01	5.855E-01	3.380E-02	-0.012
		792.07		-4.494E-01	1.037E+00	1.405E+00	1.343E-01	-0.320
		903.28		5.881E-01	8.490E-01	1.295E+00	1.454E-01	0.454
		920.93		1.970E-01	3.792E-01	5.678E-01	6.222E-02	0.347
		59.72		-1.773E-04	3.124E-01	5.226E-01	3.975E-02	0.000
		61.14		-8.783E-02	1.794E-01	2.935E-01	2.265E-02	-0.299
		69.30		-2.378E-01	2.877E-01	4.600E-01	3.727E-02	-0.517
		592.07		3.102E-01	2.349E+00	3.329E+00	2.384E-01	0.093
		646.12	*	1.732E-02	3.429E-02	5.734E-02	4.312E-03	0.302
		717.42		6.608E-02	7.275E-01	1.220E+00	1.027E-01	0.054
RE-188		874.81		1.234E-02	4.715E-01	7.735E-01	8.437E-02	0.016
		880.27		9.653E-02	6.390E-01	1.059E+00	1.165E-01	0.091
		155.03	*	1.365E-02	1.429E-01	2.434E-01	1.303E-02	0.056
		477.96		-4.786E-01	2.564E+00	4.176E+00	2.661E-01	-0.115
W-188		633.10		5.350E-01	2.463E+00	4.029E+00	2.995E-01	0.133
		63.58		3.918E+01	5.837E+01	9.748E+01	7.659E+00	0.402
IR-192		227.08		-4.377E+00	1.126E+01	1.828E+01	1.007E+00	-0.240
		290.67	*	-3.357E+00	6.851E+00	9.324E+00	5.340E-01	-0.360
	+	295.96		5.872E-01	1.698E-01	2.292E-01	1.336E-02	2.562
		308.46		-3.103E-02	7.895E-02	1.244E-01	7.246E-03	-0.250
		316.51	*	9.456E-03	2.815E-02	4.632E-02	2.687E-03	0.204
AU-195		468.07		3.297E-03	6.630E-02	9.540E-02	6.798E-03	0.035
		604.41		-7.195E-01	4.893E-01	5.690E-01	6.914E-02	-1.264
		612.46		3.534E+00	8.985E-01	1.530E+00	1.342E-01	2.309
		65.12		-3.300E-02	1.829E-01	2.954E-01	2.342E-02	-0.112
		66.83		-8.782E-02	9.580E-02	1.489E-01	1.192E-02	-0.590
	+	75.70		9.792E-01	2.406E-01	4.161E-01	3.494E-02	2.353
TL-200		98.88	*	3.445E-03	2.064E-01	3.359E-01	2.570E-02	0.010
		129.76		2.763E+00	2.468E+00	4.148E+00	2.373E-01	0.666
		367.94	*	6.810E-04	2.468E+00	Half-Life	too short	
		579.30		-6.499E-03	2.468E+00	Half-Life	too short	
		828.27		2.348E-03	2.468E+00	Half-Life	too short	
TL-201		1205.75		-1.033E-03	2.468E+00	Half-Life	too short	
		68.90		-4.143E+00	6.679E+00	1.078E+01	8.716E-01	-0.384
		70.82		2.956E+00	4.181E+00	6.440E+00	5.258E-01	0.459
		80.30		-3.226E+00	7.709E+00	1.109E+01	9.615E-01	-0.291
TL-202		135.34		5.352E+00	3.165E+01	5.087E+01	2.856E+00	0.105
		167.43	*	1.986E+00	8.648E+00	1.474E+01	7.737E-01	0.135
		68.90		-2.752E-01	4.437E-01	7.163E-01	5.791E-02	-0.384
		70.82		1.959E-01	2.770E-01	4.266E-01	3.483E-02	0.459
HG-203		80.30		-2.138E-01	5.109E-01	7.349E-01	6.372E-02	-0.291
		439.56	*	2.635E-02	6.426E-02	1.073E-01	6.540E-03	0.246
		70.83		7.941E-01	1.118E+00	1.717E+00	2.288E-01	0.462
		72.87		3.343E-01	6.620E-01	1.005E+00	1.303E-01	0.333
BI-207		82.60		1.112E+00	1.379E+00	1.706E+00	2.367E-01	0.652
		279.20	*	6.659E-02	3.948E-02	6.283E-02	3.810E-03	1.060
		72.80		7.472E-02	1.884E-01	2.849E-01	2.352E-02	0.262
	+	74.97		5.396E-01	1.326E-01	2.167E-01	1.812E-02	2.490
	+	84.90		3.298E-01	1.935E-01	2.991E-01	2.691E-02	1.103

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TL-207		569.67		-2.986E-02	2.795E-02	4.068E-02	2.851E-03	-0.734
		1063.62	*	-2.325E-02	4.534E-02	7.260E-02	5.993E-03	-0.320
		1770.23		1.098E-01	3.643E-01	5.504E-01	3.330E-02	0.199
		81.07		-7.217E-02	2.219E-01	3.208E-01	2.798E-02	-0.225
	+	83.78		2.175E-01	1.275E-01	1.997E-01	1.780E-02	1.089
		94.90		4.075E-01	2.415E-01	3.797E-01	3.091E-02	1.073
		122.32		2.394E-01	1.568E+00	2.534E+00	1.721E-01	0.095
		144.24		4.704E-01	6.112E-01	9.822E-01	6.854E-02	0.479
		154.21		-5.593E-03	3.226E-01	5.471E-01	3.640E-02	-0.010
		269.46		2.655E-01	1.685E-01	2.675E-01	1.589E-02	0.992
		323.87	*	4.443E-02	5.411E-01	8.749E-01	1.444E-01	0.051
	+	338.28		5.201E+00	1.670E+00	2.089E+00	2.198E-01	2.490
		445.03		-6.054E-01	1.858E+00	3.016E+00	3.156E-01	-0.201
	PO-209	260.50		-4.062E+00	8.268E+00	1.294E+01	7.302E-01	-0.314
BI-210		262.80		-5.437E-01	2.274E+01	3.648E+01	2.062E+00	-0.015
		896.60	*	-3.217E+00	5.806E+00	8.971E+00	1.012E+00	-0.359
		46.50	*	-2.007E+00	5.118E+00	8.513E+00	6.586E-01	-0.236
		46.50	*	-2.007E+00	5.118E+00	8.513E+00	6.586E-01	-0.236
PB-210		46.50	*	-2.007E+00	5.117E+00	8.513E+00	5.662E-01	-0.236
PO-210		46.50	*	-2.007E+00	5.117E+00	8.513E+00	5.662E-01	-0.236
PB-211		404.84	*	-3.472E-01	7.990E-01	1.252E+00	7.806E-01	-0.277
BI-212		427.08		1.349E+00	1.734E+00	2.678E+00	1.656E+00	0.504
		831.96		-1.547E+00	1.367E+00	1.356E+00	8.526E-01	-1.141
	+	727.18	*	1.028E+00	3.748E-01	5.290E-01	5.269E-02	1.943
		785.46		2.793E+00	1.695E+00	2.906E+00	2.747E-01	0.961
PO-215		1620.62		-6.601E-01	1.234E+00	1.922E+00	1.300E-01	-0.343
		81.07		-7.217E-02	2.219E-01	3.208E-01	2.798E-02	-0.225
	+	83.78		2.175E-01	1.275E-01	1.997E-01	1.780E-02	1.089
		94.90		4.075E-01	2.415E-01	3.797E-01	3.091E-02	1.073
		122.32		2.394E-01	1.568E+00	2.534E+00	1.721E-01	0.095
		144.24		4.704E-01	6.112E-01	9.822E-01	6.854E-02	0.479
		154.21		-5.593E-03	3.226E-01	5.471E-01	3.640E-02	-0.010
		269.46		2.655E-01	1.685E-01	2.675E-01	1.589E-02	0.992
		323.87	*	4.443E-02	5.411E-01	8.749E-01	1.444E-01	0.051
	+	338.28		5.201E+00	1.670E+00	2.089E+00	2.198E-01	2.490
		445.03		-6.054E-01	1.858E+00	3.016E+00	3.156E-01	-0.201
	+	271.23		3.058E-01	3.510E-01	3.620E-01	2.902E-02	0.845
		401.81	*	-3.247E-01	3.657E-01	5.592E-01	7.612E-02	-0.581
		549.76	*	5.133E+00	2.093E+01	3.473E+01	2.386E+00	0.148
RN-219		81.07		-7.217E-02	2.219E-01	3.208E-01	2.798E-02	-0.225
	+	83.78		2.175E-01	1.275E-01	1.997E-01	1.780E-02	1.089
		94.90		4.075E-01	2.415E-01	3.797E-01	3.091E-02	1.073
		122.32		2.394E-01	1.568E+00	2.534E+00	1.721E-01	0.095
		144.24		4.704E-01	6.112E-01	9.822E-01	6.854E-02	0.479
		154.21		-5.593E-03	3.226E-01	5.471E-01	3.640E-02	-0.010
		269.46		2.655E-01	1.685E-01	2.675E-01	1.589E-02	0.992
		323.87	*	4.443E-02	5.411E-01	8.749E-01	1.444E-01	0.051
	+	338.28		5.201E+00	1.670E+00	2.089E+00	2.198E-01	2.490
		445.03		-6.054E-01	1.858E+00	3.016E+00	3.156E-01	-0.201
	+	79.80		-5.848E-01	1.698E+00	2.449E+00	5.268E-01	-0.239
AC-227		79.80		-5.848E-01	1.698E+00	2.449E+00	5.268E-01	-0.239

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-227		236.00		2.917E-01	2.096E-01	3.268E-01	3.372E-02	0.892
		256.20	*	-1.129E-01	3.205E-01	5.149E-01	7.152E-02	-0.219
		286.10		4.145E-01	1.219E+00	2.018E+00	2.325E-01	0.205
	+	299.80		1.813E+00	1.596E+00	2.189E+00	3.560E-01	0.828
		304.40		8.078E-01	1.681E+00	2.463E+00	4.257E-01	0.328
		334.20		-7.650E-01	2.264E+00	3.075E+00	5.635E-01	-0.249
		79.80		-5.848E-01	1.698E+00	2.449E+00	5.336E-01	-0.239
	+	94.00		4.245E+00	2.788E+00	3.541E+00	7.663E-01	1.199
		236.00		2.917E-01	2.090E-01	3.268E-01	2.909E-02	0.892
		256.20	*	-1.129E-01	3.207E-01	5.149E-01	8.672E-02	-0.219
		286.10		4.145E-01	1.286E+00	2.018E+00	2.022E+00	0.205
	+	299.80		1.813E+00	1.596E+00	2.189E+00	3.560E-01	0.828
TH-229		304.40		8.078E-01	1.681E+00	2.463E+00	4.257E-01	0.328
		334.20		-7.650E-01	2.264E+00	3.075E+00	5.635E-01	-0.249
	+	85.43		3.255E-01	1.909E-01	2.942E-01	2.660E-02	1.106
	+	88.47		2.191E-01	1.347E-01	1.943E-01	1.780E-02	1.127
		100.00		7.914E-02	1.651E-01	2.741E-01	2.064E-02	0.289
PA-231		193.63	*	-1.456E-02	3.993E-01	6.665E-01	3.569E-02	-0.022
	+	210.97		1.877E+00	8.424E-01	1.134E+00	6.167E-02	1.655
		283.67	*	-5.657E-01	1.422E+00	1.953E+00	2.685E-01	-0.290
TH-231	+	301.29		7.251E-01	6.318E-01	8.643E-01	9.010E-02	0.839
		81.07		-7.217E-02	2.219E-01	3.208E-01	2.798E-02	-0.225
	+	83.78		2.175E-01	1.275E-01	1.997E-01	1.780E-02	1.089
U-231		94.90		4.075E-01	2.415E-01	3.797E-01	3.091E-02	1.073
		122.32		2.394E-01	1.568E+00	2.534E+00	1.721E-01	0.095
		144.24		4.704E-01	6.112E-01	9.822E-01	6.854E-02	0.479
		154.21		-5.593E-03	3.226E-01	5.471E-01	3.640E-02	-0.010
		269.46		2.655E-01	1.685E-01	2.675E-01	1.589E-02	0.992
		323.87	*	4.443E-02	5.411E-01	8.749E-01	1.444E-01	0.051
	+	338.28		5.201E+00	1.670E+00	2.089E+00	2.198E-01	2.490
		445.03		-6.054E-01	1.858E+00	3.016E+00	3.156E-01	-0.201
	+	84.21		1.254E+01	7.356E+00	1.159E+01	1.037E+00	1.082
	+	92.29		5.615E+00	3.513E+00	4.771E+00	4.062E-01	1.177
		95.87	*	-4.172E-02	1.482E+00	2.152E+00	1.724E-01	-0.019
		108.00		-9.730E-01	2.462E+00	3.905E+00	2.656E-01	-0.249
PA-233	+	75.28		1.574E+01	4.355E+00	6.346E+00	9.654E-01	2.481
	+	86.59		3.141E+00	2.089E+00	2.671E+00	7.208E-01	1.176
	+	300.12		5.053E-01	4.424E-01	6.072E-01	8.145E-02	0.832
		311.98	*	4.567E-02	5.132E-02	8.723E-02	5.344E-03	0.523
PA-234		340.50		2.727E+00	9.113E-01	1.170E+00	2.686E-01	2.331
		398.62		-1.401E-01	1.749E+00	2.913E+00	7.532E-01	-0.048
		415.76		-2.299E-03	1.391E+00	2.319E+00	4.783E-01	-0.001
		63.00		7.508E-01	1.729E+00	2.862E+00	4.315E-01	0.262
	+	94.67		3.785E-01	2.392E-01	2.858E-01	3.457E-02	1.324
		98.44		-5.343E-03	8.408E-02	1.363E-01	7.586E-02	-0.039
		99.86		2.266E-01	4.194E-01	6.981E-01	5.266E-02	0.325
		111.00		3.748E-02	1.614E-01	2.634E-01	2.826E-02	0.142
		131.20		-1.921E-02	9.198E-02	1.453E-01	8.273E-03	-0.132
		152.70		5.715E-02	2.871E-01	4.578E-01	7.168E-02	0.125

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234M	+	186.00		3.747E+00	2.028E+00	2.173E+00	6.620E-01	1.724
		226.40		-1.288E-01	3.454E-01	5.608E-01	6.403E-02	-0.230
		227.20		-8.122E-02	3.702E-01	6.059E-01	3.339E-02	-0.134
		248.90		-8.593E-01	7.452E-01	1.009E+00	2.162E-01	-0.852
		293.70		3.041E+00	8.405E-01	1.233E+00	1.980E-01	2.466
		369.80		7.603E-02	7.028E-01	1.190E+00	2.477E-01	0.064
		568.70		-9.239E-01	8.641E-01	1.293E+00	9.049E-02	-0.715
		569.50		-2.781E-01	2.472E-01	3.579E-01	2.507E-02	-0.777
		574.00		1.407E+00	1.262E+00	2.199E+00	1.547E-01	0.640
		699.00		2.193E-01	6.120E-01	1.043E+00	1.969E-01	0.210
		706.10		7.270E-02	8.315E-01	1.395E+00	6.210E-01	0.052
		733.00		6.635E-02	3.405E-01	4.976E-01	1.105E-01	0.133
		742.81		3.141E-02	1.082E+00	1.801E+00	1.211E+00	0.017
	+	796.30		1.622E+00	1.213E+00	1.451E+00	3.974E-01	1.118
		805.60		2.624E-01	9.284E-01	1.444E+00	4.474E-01	0.182
		819.60		-7.849E-02	1.014E+00	1.658E+00	6.360E-01	-0.047
		826.30		4.975E-01	6.968E-01	1.152E+00	5.189E-01	0.432
		831.60		-9.248E-01	5.762E-01	6.945E-01	2.107E-01	-1.331
		876.40		1.645E-01	7.032E-01	1.140E+00	1.174E+00	0.144
		880.51		-4.261E-02	2.300E-01	3.701E-01	4.073E-02	-0.115
		883.24		5.651E-02	2.348E-01	3.869E-01	2.614E-01	0.146
		899.00		-3.531E-01	7.125E-01	1.038E+00	4.600E-01	-0.340
		925.00		-6.771E-01	9.292E-01	1.402E+00	1.528E-01	-0.483
		926.50		-9.105E-02	1.441E-01	2.176E-01	5.686E-02	-0.418
		946.00	*	-1.952E-01	2.542E-01	3.794E-01	7.484E-02	-0.515
		949.00		4.359E-01	3.439E-01	6.176E-01	6.487E-02	0.706
		980.50		-5.452E-02	6.022E-01	9.670E-01	9.618E-02	-0.056
		1394.10		-7.920E-01	1.099E+00	1.418E+00	9.207E-01	-0.559
		766.42		9.854E+00	1.072E+01	1.677E+01	8.526E+00	0.588
		1001.03	*	3.896E+00	4.247E+00	7.287E+00	7.861E-01	0.535
	TH-234	63.29	*	9.210E-01	1.453E+00	2.413E+00	4.253E-01	0.382
	+	92.38		1.099E+00	7.091E-01	9.361E-01	1.687E-01	1.173
	U-235	89.95		2.322E-01	1.520E+00	1.772E+00	5.482E-01	0.131
	+	93.35		1.321E+00	8.982E-01	1.131E+00	3.162E-01	1.167
		105.00		2.507E-01	9.331E-01	1.526E+00	4.492E-01	0.164
		143.76	*	9.839E-02	1.905E-01	3.020E-01	4.891E-02	0.326
		163.35		-4.118E-01	3.986E-01	6.236E-01	1.111E-01	-0.660
	+	185.71		1.388E-01	6.252E-02	8.051E-02	4.282E-03	1.724
		205.31		-1.018E-04	4.845E-01	7.098E-01	1.268E-01	0.000
	NP-236	94.67		2.871E-01	1.796E-01	2.171E-01	1.774E-02	1.322
	+	98.44		-4.039E-03	6.352E-02	1.030E-01	7.935E-03	-0.039
		111.00		2.835E-02	1.221E-01	1.993E-01	1.311E-02	0.142
		160.31	*	7.508E-03	6.399E-02	1.089E-01	5.768E-03	0.069
	U-238	63.29	*	9.210E-01	1.453E+00	2.413E+00	4.253E-01	0.382
	+	92.38		1.099E+00	6.873E-01	9.361E-01	7.957E-02	1.173
	NP-239	99.55		1.231E-01	1.388E-01	2.344E-01	1.776E-02	0.525
		117.00	*	-8.019E-03	1.650E-01	2.648E-01	1.639E-02	-0.030
	+	209.75		1.891E+00	8.486E-01	1.202E+00	6.530E-02	1.573
		228.18		-1.850E-02	1.938E-01	3.190E-01	1.759E-02	-0.058

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	277.60		2.163E-01	3.215E-01	2.652E-01	1.511E-02	0.815
		334.30		-4.455E-01	1.280E+00	1.740E+00	1.006E-01	-0.256
AM-241		59.54	*	2.829E-02	1.615E-01	2.722E-01	2.258E-02	0.104
CM-243		99.55		1.267E-01	1.429E-01	2.412E-01	1.828E-02	0.525
		103.76	*	-4.485E-02	8.514E-02	1.344E-01	9.622E-03	-0.334
		117.00		-8.251E-03	1.698E-01	2.725E-01	1.687E-02	-0.030
	+	209.75		1.864E+00	8.367E-01	1.185E+00	6.438E-02	1.573
		228.18		-1.870E-02	1.959E-01	3.223E-01	1.778E-02	-0.058
	+	277.60		2.180E-01	3.241E-01	2.674E-01	1.523E-02	0.815
AM-246		798.80		-4.093E-02	1.348E-01	1.845E-01	1.783E-02	-0.222
		1036.00		-4.863E-02	2.064E-01	3.376E-01	2.988E-02	-0.144
		1062.04		-1.338E-01	1.943E-01	3.059E-01	2.536E-02	-0.437
		1078.86	*	9.729E-02	1.173E-01	2.082E-01	1.646E-02	0.467
CM-247	+	278.00		8.968E-01	1.333E+00	1.103E+00	6.286E-02	0.813
		287.40		4.130E-01	9.586E-01	1.597E+00	9.135E-02	0.259
		402.60	*	-2.083E-02	3.247E-02	5.075E-02	2.956E-03	-0.410
CF-249		252.85		-3.658E-01	7.140E-01	1.138E+00	6.393E-02	-0.321
		333.44		-1.618E-01	1.757E-01	2.273E-01	1.315E-02	-0.712
		387.95	*	6.983E-03	3.303E-02	5.605E-02	3.222E-03	0.125
CF-251		176.60	*	-4.657E-02	9.900E-02	1.629E-01	8.604E-03	-0.286
		227.00		-1.265E-01	3.320E-01	5.392E-01	2.972E-02	-0.235
		285.00		-7.641E-01	1.520E+00	2.199E+00	1.257E-01	-0.347

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]G243546001
* Acquisition date   : 7-JAN-2010 09:19:03 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 02:00:01.35 Half life ratio : 8.000
*****
*                               SAMPLE DATA                            *
*
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library : SOLID
* Sample ID          : G243546001 Analyst initials: MXR1
* Batch Number       : 937069 Sample Quantity : 1.1030E+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     :
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.313E+01	2.185E+00	3.675E-01	0.000E+00
CD-109	1.637E+00	9.860E-01	1.363E+00	0.000E+00
SN-126	1.605E-01	9.665E-02	1.146E-01	0.000E+00
BA-137M	2.202E-01	5.407E-02	4.827E-02	0.000E+00
CS-137	2.327E-01	5.716E-02	5.102E-02	0.000E+00
TL-208	3.313E-01	7.554E-02	4.640E-02	0.000E+00
BI-211	2.651E+00	3.819E-01	2.553E-01	0.000E+00
PB-212	1.212E+00	1.250E-01	7.357E-02	0.000E+00
PO-212	1.212E+00	1.250E-01	7.357E-02	0.000E+00
BI-214	9.085E-01	1.567E-01	8.821E-02	0.000E+00
PB-214	9.221E-01	1.410E-01	9.231E-02	0.000E+00
PO-214	9.221E-01	1.410E-01	9.231E-02	0.000E+00
PO-216	1.212E+00	1.250E-01	7.357E-02	0.000E+00
PO-218	9.221E-01	1.410E-01	9.231E-02	0.000E+00
RA-224	3.300E+00	1.038E+00	8.362E-01	0.000E+00
RA-226	9.085E-01	1.567E-01	8.821E-02	0.000E+00
AC-228	1.420E+00	3.171E-01	1.744E-01	0.000E+00
RA-228	1.420E+00	3.171E-01	1.744E-01	0.000E+00
TH-228	1.232E+00	1.271E-01	7.482E-02	0.000E+00
TH-230	9.085E-01	1.567E-01	8.821E-02	0.000E+00
TH-232	1.420E+00	3.171E-01	1.744E-01	0.000E+00
U-234	9.085E-01	1.567E-01	8.821E-02	0.000E+00
NP-237	4.712E-01	2.994E-01	3.160E-01	0.000E+00
AM-243	3.006E-01	7.238E-02	8.834E-02	0.000E+00
ANH-511	1.066E-01	6.453E-02	3.880E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	-7.686E-02	2.631E-01	4.354E-01	0.000E+00 NOT IDENT.
NA-22	1.318E-02	3.797E-02	6.513E-02	0.000E+00 NOT IDENT.

NA-24	0.000E+00	4.496E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-7.320E-03	2.552E-02	4.049E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.408E-02	8.269E-02	0.000E+00	FAIL ABUN
SC-46	-2.247E-03	3.121E-02	5.163E-02	0.000E+00	FAIL ABUN
V-48	8.797E-03	5.991E-02	1.000E-01	0.000E+00	NOT IDENT.
CR-51	-1.624E-01	3.084E-01	4.927E-01	0.000E+00	NOT IDENT.
MN-52	6.859E-02	2.437E-01	4.148E-01	0.000E+00	NOT IDENT.
MN-54	1.389E-03	3.016E-02	5.070E-02	0.000E+00	NOT IDENT.
CO-56	-5.469E-03	3.393E-02	5.605E-02	0.000E+00	NOT IDENT.
CO-57	2.704E-03	2.229E-02	3.719E-02	0.000E+00	NOT IDENT.
CO-58	-4.132E-03	3.154E-02	5.244E-02	0.000E+00	NOT IDENT.
FE-59	-9.580E-02	7.886E-02	1.198E-01	0.000E+00	NOT IDENT.
CO-60	2.094E-02	3.535E-02	6.181E-02	0.000E+00	NOT IDENT.
ZN-65	-1.459E-02	8.149E-02	1.153E-01	0.000E+00	NOT IDENT.
GE-68	1.167E+00	1.011E+00	1.861E+00	0.000E+00	NOT IDENT.
AS-73	1.102E+00	1.096E+00	1.932E+00	0.000E+00	NOT IDENT.
AS-74	-6.095E-02	8.672E-02	1.363E-01	0.000E+00	NOT IDENT.
SE-75	2.359E-02	3.991E-02	6.132E-02	0.000E+00	NOT IDENT.
BR-77	8.994E+00	1.560E+01	2.390E+01	0.000E+00	FAIL ABUN
SR-82	-1.214E-01	3.247E-01	5.323E-01	0.000E+00	NOT IDENT.
RB-83	4.267E-02	6.284E-02	9.713E-02	0.000E+00	NOT IDENT.
RB-84	-1.734E-03	5.689E-02	9.454E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.140E+00	1.374E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.730E-02	7.176E-02	0.000E+00	NOT IDENT.
RB-86	4.103E-01	7.081E-01	1.253E+00	0.000E+00	NOT IDENT.
Y-88	1.824E-02	3.075E-02	5.524E-02	0.000E+00	NOT IDENT.
ZR-88	-1.062E-02	2.500E-02	4.188E-02	0.000E+00	NOT IDENT.
Y-91	-5.279E+00	1.443E+01	2.346E+01	0.000E+00	NOT IDENT.
NB-94	-1.471E-02	2.733E-02	4.483E-02	0.000E+00	NOT IDENT.
NB-95	8.533E-03	3.472E-02	5.962E-02	0.000E+00	NOT IDENT.
NB-95M	4.760E-02	1.100E-01	1.683E-01	0.000E+00	NOT IDENT.
ZR-95	3.381E-02	5.754E-02	1.013E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	4.663E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	9.747E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	4.080E+00	1.504E+01	2.595E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.581E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-4.329E-03	2.823E-02	4.691E-02	0.000E+00	NOT IDENT.
RH-102	-8.830E-03	2.400E-02	3.956E-02	0.000E+00	NOT IDENT.
RU-103	-2.949E-03	3.284E-02	5.488E-02	0.000E+00	FAIL ABUN
RH-106	1.600E-01	2.524E-01	4.345E-01	0.000E+00	FAIL ABUN
RU-106	1.600E-01	2.519E-01	4.345E-01	0.000E+00	FAIL ABUN
AG-108M	-6.024E-03	2.419E-02	4.049E-02	0.000E+00	NOT IDENT.
AG-110M	1.967E-02	2.919E-02	4.618E-02	0.000E+00	NOT IDENT.
IN-111	1.040E+00	1.370E+00	2.145E+00	0.000E+00	NOT IDENT.
IN-113M	4.044E-04	3.544E-02	6.090E-02	0.000E+00	NOT IDENT.
SN-113	4.044E-04	3.544E-02	6.090E-02	0.000E+00	NOT IDENT.
IN-114M	2.341E-02	1.589E-01	2.437E-01	0.000E+00	NOT IDENT.
CD-115	-5.859E+00	1.468E+01	2.383E+01	0.000E+00	NOT IDENT.
SN-117M	3.218E-03	4.657E-02	8.164E-02	0.000E+00	NOT IDENT.
SB-122	6.933E-01	2.744E+00	4.637E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.185E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	9.311E-03	2.214E-02	3.937E-02	0.000E+00	NOT IDENT.
I-124	-1.122E+00	9.487E-01	1.194E+00	0.000E+00	NOT IDENT.
SB-124	-1.968E-02	5.958E-02	9.450E-02	0.000E+00	FAIL ABUN
SB-125	5.097E-02	6.693E-02	1.196E-01	0.000E+00	FAIL ABUN
TE-125M	-8.072E-01	8.243E+00	1.372E+01	0.000E+00	NOT IDENT.
I-126	6.173E-02	1.813E-01	2.765E-01	0.000E+00	NOT IDENT.
SB-126	-3.447E-02	1.389E-01	2.065E-01	0.000E+00	FAIL ABUN
SB-127	-5.119E-01	1.428E+00	2.372E+00	0.000E+00	NOT IDENT.
XE-127	-2.002E-02	4.088E-02	6.871E-02	0.000E+00	NOT IDENT.
I-131	-2.952E-02	1.049E-01	1.784E-01	0.000E+00	NOT IDENT.
TE-132	-8.653E-02	8.464E-01	1.433E+00	0.000E+00	NOT IDENT.
BA-133	-1.203E-02	4.040E-02	5.605E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.977E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.756E-02	7.435E-02	0.000E+00	FAIL ABUN
CS-135	-7.068E-02	1.450E-01	2.053E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.001E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.149E-02	9.174E-02	1.667E-01	0.000E+00	FAIL ABUN
CE-139	6.562E-03	2.402E-02	4.232E-02	0.000E+00	NOT IDENT.
BA-140	-5.313E-02	2.225E-01	3.639E-01	0.000E+00	NOT IDENT.
LA-140	1.150E-01	7.016E-02	1.331E-01	0.000E+00	NOT IDENT.
CE-141	1.346E-02	5.665E-02	9.375E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.515E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.489E-02	1.677E-01	2.740E-01	0.000E+00	NOT IDENT.
PM-144	1.391E-02	2.845E-02	4.997E-02	0.000E+00	NOT IDENT.
PR-144	9.434E-01	1.929E+00	3.389E+00	0.000E+00	NOT IDENT.
PM-146	1.664E-02	3.533E-02	6.157E-02	0.000E+00	NOT IDENT.
ND-147	4.196E-01	4.992E-01	8.775E-01	0.000E+00	NOT IDENT.

PM-149	4.308E+01	1.242E+02	2.112E+02	0.000E+00	NOT IDENT.
EU-152	5.842E-03	9.151E-02	1.318E-01	0.000E+00	NOT IDENT.
GD-153	6.521E-03	7.906E-02	1.195E-01	0.000E+00	FAIL ABUN
EU-154	3.522E-02	1.058E-01	1.813E-01	0.000E+00	NOT IDENT.
EU-155	2.151E-02	9.280E-02	1.572E-01	0.000E+00	FAIL ABUN
TB-160	2.523E-02	1.159E-01	1.966E-01	0.000E+00	FAIL ABUN
HO-166M	-3.524E-02	4.799E-02	7.717E-02	0.000E+00	NOT IDENT.
TM-171	-2.208E+01	2.827E+01	4.599E+01	0.000E+00	NOT IDENT.
LU-176	-1.514E-02	2.077E-02	3.160E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.408E+00	2.031E+00	0.000E+00	FAIL ABUN
LU-177M	-3.372E-02	1.515E-01	2.558E-01	0.000E+00	NOT IDENT.
HF-181	-1.527E-02	3.566E-02	5.843E-02	0.000E+00	NOT IDENT.
W-181	-1.020E-01	3.866E-01	6.460E-01	0.000E+00	NOT IDENT.
TA-182	-3.757E-02	1.623E-01	2.671E-01	0.000E+00	FAIL ABUN
RE-183	-4.933E-02	9.086E-02	1.527E-01	0.000E+00	FAIL ABUN
RE-184	-9.819E-02	1.878E-01	3.079E-01	0.000E+00	NOT IDENT.
OS-185	1.732E-02	3.361E-02	5.738E-02	0.000E+00	NOT IDENT.
RE-188	1.365E-02	1.401E-01	2.462E-01	0.000E+00	NOT IDENT.
W-188	-3.357E+00	6.714E+00	9.385E+00	0.000E+00	NOT IDENT.
IR-192	9.456E-03	2.758E-02	4.660E-02	0.000E+00	FAIL ABUN
AU-195	3.445E-03	2.023E-01	3.408E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.104E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	1.986E+00	8.475E+00	1.490E+01	0.000E+00	NOT IDENT.
TL-202	2.635E-02	6.298E-02	1.077E-01	0.000E+00	NOT IDENT.
HG-203	0.000E+00	3.869E-02	6.326E-02	0.000E+00	NOT IDENT.
BI-207	-2.325E-02	4.444E-02	7.237E-02	0.000E+00	FAIL ABUN
TL-207	4.443E-02	5.302E-01	8.799E-01	0.000E+00	FAIL ABUN
PO-209	-3.217E+00	5.690E+00	8.955E+00	0.000E+00	NOT IDENT.
BI-210	-2.007E+00	5.015E+00	8.683E+00	0.000E+00	NOT IDENT.
PB-210	-2.007E+00	5.015E+00	8.683E+00	0.000E+00	NOT IDENT.
PO-210	-2.007E+00	5.015E+00	8.683E+00	0.000E+00	NOT IDENT.
PB-211	-3.472E-01	7.830E-01	1.257E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.673E-01	5.289E-01	0.000E+00	FAIL ABUN
PO-215	4.443E-02	5.302E-01	8.799E-01	0.000E+00	FAIL ABUN
RN-219	-3.247E-01	3.584E-01	5.615E-01	0.000E+00	FAIL ABUN
RN-220	5.133E+00	2.051E+01	3.479E+01	0.000E+00	NOT IDENT.
RA-223	4.443E-02	5.302E-01	8.799E-01	0.000E+00	FAIL ABUN
AC-227	-1.129E-01	3.141E-01	5.188E-01	0.000E+00	FAIL ABUN
TH-227	-1.129E-01	3.143E-01	5.188E-01	0.000E+00	FAIL ABUN
TH-229	-1.456E-02	3.913E-01	6.729E-01	0.000E+00	FAIL ABUN
PA-231	-5.657E-01	1.393E+00	1.967E+00	0.000E+00	FAIL ABUN
TH-231	4.443E-02	5.302E-01	8.799E-01	0.000E+00	FAIL ABUN
U-231	-4.172E-02	1.452E+00	2.184E+00	0.000E+00	FAIL ABUN
PA-233	4.567E-02	5.029E-02	8.776E-02	0.000E+00	FAIL ABUN
PA-234	-1.952E-01	2.491E-01	3.786E-01	0.000E+00	FAIL ABUN
PA-234M	3.896E+00	4.162E+00	7.268E+00	0.000E+00	NOT IDENT.
TH-234	9.210E-01	1.424E+00	2.455E+00	0.000E+00	FAIL ABUN
U-235	9.839E-02	1.867E-01	3.056E-01	0.000E+00	FAIL ABUN
NP-236	7.508E-03	6.271E-02	1.101E-01	0.000E+00	FAIL ABUN
U-238	9.210E-01	1.424E+00	2.455E+00	0.000E+00	FAIL ABUN
NP-239	-8.019E-03	1.617E-01	2.683E-01	0.000E+00	FAIL ABUN
AM-241	2.829E-02	1.582E-01	2.772E-01	0.000E+00	NOT IDENT.
CM-243	-4.485E-02	8.344E-02	1.363E-01	0.000E+00	FAIL ABUN
AM-246	9.729E-02	1.150E-01	2.075E-01	0.000E+00	NOT IDENT.
CM-247	-2.083E-02	3.182E-02	5.096E-02	0.000E+00	FAIL ABUN
CF-249	6.983E-03	3.237E-02	5.630E-02	0.000E+00	NOT IDENT.
CF-251	-4.657E-02	9.702E-02	1.646E-01	0.000E+00	NOT IDENT.

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*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243546001.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 09:19:03.
Sample ID          : G243546001          Sample quantity  : 1.10300E+02 GRAM
Detector name      : GAM18              Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00      Elapsed real time: 0 02:00:01.35  0.0%
Energy tolerance   : 1.50000 keV        Analyst Initials : MXR1
Abundance limit    : 75.00000           Sensitivity       : 5.00000
Batch ID           : 937069             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	1373	10.67*	1.893E+00	2.313E+01	2.313E+01	9.64
CD-109	88.03	113	3.72*	6.465E+00	1.596E+00	1.637E+00	61.46
SN-126	64.28	-----	9.60	3.245E+00	-----	Line Not Found	-----
	86.94	113	8.90	6.465E+00	6.671E-01	6.671E-01	73.58
	87.57	113	37.00*	6.465E+00	1.605E-01	1.605E-01	61.46
BA-137M	661.65	209	89.98*	3.586E+00	2.199E-01	2.202E-01	25.06
CS-137	661.65	209	85.12*	3.586E+00	2.325E-01	2.327E-01	25.06
TL-208	277.35	56	6.80	6.265E+00	4.484E-01	4.484E-01	148.93
	510.84	135	21.60	4.307E+00	4.936E-01	4.936E-01	62.32
	583.14	322	84.20*	3.931E+00	3.313E-01	3.313E-01	23.27
	860.37	-----	12.46	2.915E+00	-----	Line Not Found	-----
BI-211	72.87	-----	1.27	4.622E+00	-----	Line Not Found	-----
	351.07	549	12.94*	5.448E+00	2.651E+00	2.651E+00	14.70
PB-212	74.81	289	10.70	4.962E+00	1.854E+00	1.854E+00	26.29
	77.11	503	18.00	5.287E+00	1.800E+00	1.800E+00	16.61
	87.30	113	8.00	6.465E+00	7.422E-01	7.422E-01	62.27
	238.63	1078	44.60*	6.789E+00	1.212E+00	1.212E+00	10.52
	300.09	59	3.41	5.982E+00	9.781E-01	9.781E-01	86.90
PO-212	74.81	289	10.70	4.962E+00	1.854E+00	1.854E+00	26.29
	77.11	503	18.00	5.287E+00	1.800E+00	1.800E+00	16.61
	87.30	113	8.00	6.465E+00	7.422E-01	7.422E-01	62.27
	115.19	-----	0.60	8.058E+00	-----	Line Not Found	-----
	238.63	1078	44.60*	6.789E+00	1.212E+00	1.212E+00	10.52
	300.09	59	3.41	5.982E+00	9.781E-01	9.781E-01	86.90
BI-214	609.31	471	46.30*	3.811E+00	9.085E-01	9.085E-01	17.60
	1120.29	104	15.10	2.333E+00	1.007E+00	1.007E+00	40.39
	1764.49	78	15.80	1.694E+00	9.918E-01	9.918E-01	33.91
PB-214	74.81	289	6.21	4.962E+00	3.194E+00	3.194E+00	25.67
	77.11	503	10.50	5.287E+00	3.085E+00	3.085E+00	18.28
	87.30	113	4.67	6.465E+00	1.271E+00	1.271E+00	61.94
	241.98	258	7.49	6.745E+00	1.740E+00	1.740E+00	32.58
	295.21	258	19.20	6.035E+00	7.574E-01	7.574E-01	29.56

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	351.92	549	37.20*	5.448E+00	9.221E-01	9.221E-01	15.60
	74.81	289	6.21	4.962E+00	3.194E+00	3.194E+00	25.67
	77.11	503	10.50	5.287E+00	3.085E+00	3.085E+00	18.28
	87.30	113	4.67	6.465E+00	1.271E+00	1.271E+00	61.94
	241.98	258	7.49	6.745E+00	1.740E+00	1.740E+00	32.58
PO-216	295.21	258	19.20	6.035E+00	7.574E-01	7.574E-01	29.56
	351.92	549	37.20*	5.448E+00	9.221E-01	9.221E-01	15.60
	74.81	289	10.70	4.962E+00	1.854E+00	1.854E+00	26.29
	77.11	503	18.00	5.287E+00	1.800E+00	1.800E+00	16.61
	87.30	113	8.00	6.465E+00	7.422E-01	7.422E-01	62.27
PO-218	238.63	1078	44.60*	6.789E+00	1.212E+00	1.212E+00	10.52
	300.09	59	3.41	5.982E+00	9.781E-01	9.781E-01	86.90
	74.81	289	6.21	4.962E+00	3.194E+00	3.194E+00	25.67
	77.11	503	10.50	5.287E+00	3.085E+00	3.085E+00	18.28
	87.30	113	4.67	6.465E+00	1.271E+00	1.271E+00	61.94
RA-224	241.98	258	7.49	6.745E+00	1.740E+00	1.740E+00	32.58
	295.21	258	19.20	6.035E+00	7.574E-01	7.574E-01	29.56
	351.92	549	37.20*	5.448E+00	9.221E-01	9.221E-01	15.60
	240.98	258	3.95*	6.745E+00	3.300E+00	3.300E+00	32.10
	609.31	471	46.30*	3.811E+00	9.085E-01	9.085E-01	17.60
AC-228	1120.29	104	15.10	2.333E+00	1.007E+00	1.007E+00	40.39
	1764.49	78	15.80	1.694E+00	9.918E-01	9.918E-01	33.91
	338.32	233	11.40	5.578E+00	1.246E+00	1.246E+00	50.82
	911.07	321	27.70*	2.778E+00	1.420E+00	1.420E+00	22.78
	969.11	194	16.60	2.640E+00	1.509E+00	1.509E+00	37.92
TH-228	338.32	233	11.40	5.578E+00	1.246E+00	1.246E+00	50.82
	911.07	321	27.70*	2.778E+00	1.420E+00	1.420E+00	22.78
	969.11	194	16.60	2.640E+00	1.509E+00	1.509E+00	37.92
	74.81	289	10.70	4.962E+00	1.854E+00	1.854E+00	24.60
	77.11	503	18.00	5.287E+00	1.800E+00	1.830E+00	16.61
TH-230	87.30	113	8.00	6.465E+00	7.422E-01	7.548E-01	61.46
	238.63	1078	44.60*	6.789E+00	1.212E+00	1.232E+00	10.52
	300.09	59	3.41	5.982E+00	9.781E-01	9.947E-01	104.68
	609.31	471	46.30*	3.811E+00	9.085E-01	9.085E-01	17.60
	1120.29	104	15.10	2.333E+00	1.007E+00	1.007E+00	40.39
TH-232	1764.49	78	15.80	1.694E+00	9.918E-01	9.918E-01	33.91
	338.32	233	11.40	5.578E+00	1.246E+00	1.246E+00	30.89
	911.07	321	27.70*	2.778E+00	1.420E+00	1.420E+00	22.78
	969.11	194	16.60	2.640E+00	1.509E+00	1.509E+00	37.92
	609.31	471	46.30*	3.811E+00	9.085E-01	9.085E-01	17.60
U-234	1120.29	104	15.10	2.333E+00	1.007E+00	1.007E+00	40.39
	1764.49	78	15.80	1.694E+00	9.918E-01	9.918E-01	33.91
	86.50	113	12.60*	6.465E+00	4.712E-01	4.712E-01	64.83
	95.87	-----	2.60	7.180E+00	-----	Line Not Found	-----
	74.67	289	66.00*	4.962E+00	3.006E-01	3.006E-01	24.57
AM-243	86.72	113	0.34	6.465E+00	1.767E+01	1.767E+01	61.46
	117.66	-----	0.55	8.112E+00	-----	Line Not Found	-----
	142.18	-----	0.13	8.232E+00	-----	Line Not Found	-----
	511.00	135	100.00*	4.307E+00	1.066E-01	1.066E-01	61.76

Flag: "*" = Keyline

Total number of lines in spectrum 28
Number of unidentified lines 1
Number of lines tentatively identified by NID 27 96.43%

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	2.313E+01	2.313E+01	0.223E+01	9.64	
CD-109	464.00D	1.03	1.596E+00	1.637E+00	1.006E+00	61.46	
SN-126	1.00E+05Y	1.00	1.605E-01	1.605E-01	0.986E-01	61.46	
BA-137M	30.17Y	1.00	2.199E-01	2.202E-01	0.552E-01	25.06	
CS-137	30.17Y	1.00	2.325E-01	2.327E-01	0.583E-01	25.06	
TL-208	1.41E+10Y	1.00	3.313E-01	3.313E-01	0.771E-01	23.27	
BI-211	7.04E+08Y	1.00	2.651E+00	2.651E+00	0.390E+00	14.70	
PB-212	1.41E+10Y	1.00	1.212E+00	1.212E+00	0.128E+00	10.52	
PO-212	1.41E+10Y	1.00	1.212E+00	1.212E+00	0.128E+00	10.52	
BI-214	1600.00Y	1.00	9.085E-01	9.085E-01	1.599E-01	17.60	
PB-214	1600.00Y	1.00	9.221E-01	9.221E-01	1.438E-01	15.60	
PO-214	1600.00Y	1.00	9.221E-01	9.221E-01	1.438E-01	15.60	
PO-216	1.41E+10Y	1.00	1.212E+00	1.212E+00	0.128E+00	10.52	
PO-218	1600.00Y	1.00	9.221E-01	9.221E-01	1.438E-01	15.60	
RA-224	1.41E+10Y	1.00	3.300E+00	3.300E+00	1.059E+00	32.10	
RA-226	1600.00Y	1.00	9.085E-01	9.085E-01	1.599E-01	17.60	
AC-228	1.41E+10Y	1.00	1.420E+00	1.420E+00	0.324E+00	22.78	
RA-228	1.41E+10Y	1.00	1.420E+00	1.420E+00	0.324E+00	22.78	
TH-228	1.91Y	1.02	1.212E+00	1.232E+00	0.130E+00	10.52	
TH-230	4.47E+09Y	1.00	9.085E-01	9.085E-01	1.599E-01	17.60	
TH-232	1.41E+10Y	1.00	1.420E+00	1.420E+00	0.324E+00	22.78	
U-234	4.47E+09Y	1.00	9.085E-01	9.085E-01	1.599E-01	17.60	
NP-237	2.14E+06Y	1.00	4.712E-01	4.712E-01	3.055E-01	64.83	
AM-243	7380.00Y	1.00	3.006E-01	3.006E-01	0.739E-01	24.57	
ANH-511	1.00E+09Y	1.00	1.066E-01	1.066E-01	0.658E-01	61.76	
Total Activity :			4.801E+01	4.807E+01			

Grand Total Activity : 4.801E+01 4.807E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G243546001

Page : 5
Acquisition date : 7-JAN-2010 09:19:03

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.66	97	258	0.98	168.44	166	6	1.35E-02	58.0	6.17E+00	T
0	93.24	122	378	1.13	185.58	182	8	1.69E-02	62.0	6.98E+00	T
0	186.15	168	297	1.38	371.33	366	11	2.34E-02	44.7	7.64E+00	T
0	209.49	131	219	1.65	418.01	414	9	1.81E-02	44.6	7.25E+00	T
0	271.81	60	265	2.90	542.60	534	13	8.37E-03	***	6.33E+00	T
0	463.24	70	115	1.09	925.34	919	11	9.69E-03	64.3	4.60E+00	T
0	727.34	119	71	1.93	1453.40	1448	14	1.65E-02	35.1	3.34E+00	T
0	794.87	58	77	1.56	1588.43	1581	14	8.03E-03	69.6	3.11E+00	T
0	1590.93	78	11	5.48	3180.32	3169	28	1.09E-02	35.0	1.79E+00	

Flags: "T" = Tentatively associated

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*****
*                               GEL Laboratories LLC
*                               2040 Savage Road
*                               Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243546001.CNF;1
* Acquisition date   : 7-JAN-2010 09:19:03.   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 02:00:01.35           Half life ratio     : 8.00000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 21-DEC-2009 12:00:00   Nuclide Library     : SOLID
* Sample ID          : G243546001             Analyst initials    : MXR1
* Batch Number       : 937069                 Sample Quantity     : 1.10300E+02 GRAM
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 23-APR-2009 11:59:23.2MS Isotope      :
* MSD ID             :                          MSD Isotope    :
* LCS ID             : 1032-A                   LCS Isotope         :
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.313E+01	2.230E+00	3.696E-01	2.804E-02	62.580
CD-109	1.637E+00	1.006E+00	1.342E+00	1.241E-01	1.220
SN-126	1.605E-01	9.863E-02	1.129E-01	1.040E-02	1.421
BA-137M	2.202E-01	5.517E-02	4.825E-02	3.678E-03	4.564
CS-137	2.327E-01	5.833E-02	5.100E-02	3.897E-03	4.564
TL-208	3.313E-01	7.709E-02	4.634E-02	3.632E-03	7.150
BI-211	2.651E+00	3.897E-01	2.540E-01	1.630E-02	10.436
PB-212	1.212E+00	1.275E-01	7.299E-02	5.214E-03	16.603
PO-212	1.212E+00	1.275E-01	7.299E-02	5.214E-03	16.603
BI-214	9.085E-01	1.599E-01	8.811E-02	7.871E-03	10.310
PB-214	9.221E-01	1.438E-01	9.184E-02	7.597E-03	10.041
PO-214	9.221E-01	1.438E-01	9.184E-02	7.597E-03	10.041
PO-216	1.212E+00	1.275E-01	7.299E-02	5.214E-03	16.603
PO-218	9.221E-01	1.438E-01	9.184E-02	7.597E-03	10.041
RA-224	3.300E+00	1.059E+00	8.296E-01	4.621E-02	3.978
RA-226	9.085E-01	1.599E-01	8.811E-02	7.871E-03	10.310
AC-228	1.420E+00	3.236E-01	1.748E-01	2.316E-02	8.127
RA-228	1.420E+00	3.236E-01	1.748E-01	2.316E-02	8.127

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.232E+00	1.297E-01	7.423E-02	5.303E-03	16.603
TH-230	9.085E-01	1.599E-01	8.811E-02	7.871E-03	10.310
TH-232	1.420E+00	3.236E-01	1.748E-01	2.316E-02	8.127
U-234	9.085E-01	1.599E-01	8.811E-02	7.871E-03	10.310
NP-237	4.712E-01	3.055E-01	3.112E-01	7.022E-02	1.514
AM-243	3.006E-01	7.386E-02	8.691E-02	7.252E-03	3.458
ANH-511	1.066E-01	6.585E-02	3.871E-02	2.556E-03	2.754

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-7.686E-02		2.685E-01	4.342E-01	3.146E-02	-0.177
NA-22	1.318E-02		3.874E-02	6.542E-02	4.451E-03	0.202
NA-24	-3.277E+00		2.294E+00	Half-Life too short		
AL-26	-7.320E-03		2.604E-02	4.078E-02	2.381E-03	-0.179
TI-44	3.321E-01	+	5.518E-02	8.137E-02	6.958E-03	4.082
SC-46	-2.247E-03		3.185E-02	5.172E-02	5.769E-03	-0.043
V-48	8.797E-03		6.113E-02	1.003E-01	9.920E-03	0.088
CR-51	-1.624E-01		3.147E-01	4.898E-01	3.154E-02	-0.332
MN-52	6.859E-02		2.487E-01	4.171E-01	3.073E-02	0.164
MN-54	1.389E-03		3.078E-02	5.077E-02	5.200E-03	0.027
CO-56	-5.469E-03		3.462E-02	5.612E-02	5.859E-03	-0.097
CO-57	2.704E-03		2.275E-02	3.671E-02	2.175E-03	0.074
CO-58	-4.132E-03		3.219E-02	5.249E-02	5.182E-03	-0.079
FE-59	-9.580E-02		8.047E-02	1.202E-01	9.894E-03	-0.797
CO-60	2.094E-02		3.607E-02	6.211E-02	4.693E-03	0.337
ZN-65	-1.459E-02		8.315E-02	1.157E-01	8.153E-03	-0.126
GE-68	1.167E+00		1.032E+00	1.867E+00	1.483E-01	0.625
AS-73	1.102E+00		1.118E+00	1.896E+00	1.503E-01	0.581
AS-74	-6.095E-02		8.849E-02	1.361E-01	9.779E-03	-0.448
SE-75	2.359E-02		4.072E-02	6.088E-02	3.482E-03	0.387
BR-77	8.994E+00		1.592E+01	2.385E+01	1.591E+00	0.377
SR-82	-1.214E-01		3.313E-01	5.327E-01	4.960E-02	-0.228
RB-83	4.267E-02		6.413E-02	9.691E-02	6.464E-03	0.440
RB-84	-1.734E-03		5.805E-02	9.470E-02	1.044E-02	-0.018
KR-85	2.701E+01		7.286E+00	1.371E+01	9.080E-01	1.971
SR-85	1.411E-01		3.806E-02	7.160E-02	4.743E-03	1.971
RB-86	4.103E-01		7.225E-01	1.257E+00	1.000E-01	0.326
Y-88	1.824E-02		3.138E-02	5.563E-02	3.169E-03	0.328
ZR-88	-1.062E-02		2.551E-02	4.170E-02	2.399E-03	-0.255
Y-91	-5.279E+00		1.472E+01	2.355E+01	1.393E+00	-0.224
NB-94	-1.471E-02		2.788E-02	4.483E-02	3.677E-03	-0.328
NB-95	8.533E-03		3.543E-02	5.966E-02	5.457E-03	0.143
NB-95M	4.760E-02		1.122E-01	1.669E-01	1.225E-02	0.285
ZR-95	3.381E-02		5.871E-02	1.013E-01	9.972E-03	0.334
NB-97	3.571E-01		2.379E-01	Half-Life too short		
ZR-97	1.068E+01		4.973E+00	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	4.080E+00		1.534E+01	2.596E+01	3.960E+00	0.157
TC-99M	-2.623E+12		2.337E+12	Half-Life too short		
RH-101	-4.329E-03		2.881E-02	4.648E-02	2.498E-03	-0.093
RH-102	-8.830E-03		2.449E-02	3.945E-02	2.505E-03	-0.224
RU-103	-2.949E-03		3.351E-02	5.474E-02	7.107E-03	-0.054
RH-106	1.600E-01		2.575E-01	4.341E-01	5.461E-02	0.369
RU-106	1.600E-01		2.570E-01	4.341E-01	3.194E-02	0.369
AG-108M	-6.024E-03		2.468E-02	4.034E-02	2.636E-03	-0.149
AG-110M	1.967E-02		2.979E-02	4.616E-02	3.641E-03	0.426
IN-111	1.040E+00		1.398E+00	2.128E+00	1.189E-01	0.488
IN-113M	4.044E-04		3.616E-02	6.064E-02	3.720E-03	0.007
SN-113	4.044E-04		3.616E-02	6.064E-02	3.720E-03	0.007
IN-114M	2.341E-02		1.622E-01	2.414E-01	1.289E-02	0.097
CD-115	-5.859E+00		1.498E+01	2.378E+01	1.598E+00	-0.246
SN-117M	3.218E-03		4.752E-02	8.075E-02	4.292E-03	0.040
SB-122	6.933E-01		2.800E+00	4.629E+00	3.226E-01	0.150
I-123	1.760E+01		2.135E+01	Half-Life too short		
TE-123M	9.311E-03		2.260E-02	3.894E-02	2.101E-03	0.239
I-124	-1.122E+00		9.681E-01	1.192E+00	8.622E-02	-0.941
SB-124	-1.968E-02		6.080E-02	9.512E-02	6.563E-03	-0.207
SB-125	5.097E-02		6.830E-02	1.191E-01	7.445E-03	0.428
TE-125M	-8.072E-01		8.411E+00	1.353E+01	1.190E+00	-0.060
I-126	6.173E-02		1.850E-01	2.764E-01	2.125E-02	0.223
SB-126	-3.447E-02		1.417E-01	2.066E-01	1.749E-02	-0.167
SB-127	-5.119E-01		1.457E+00	2.372E+00	2.714E-01	-0.216
XE-127	-2.002E-02		4.172E-02	6.808E-02	3.675E-03	-0.294
I-131	-2.952E-02		1.071E-01	1.776E-01	1.150E-02	-0.166
TE-132	-8.653E-02		8.636E-01	1.421E+00	2.078E-01	-0.061
BA-133	-1.203E-02		4.123E-02	5.577E-02	6.442E-03	-0.216
I-133	8.358E-03		1.009E-02	Half-Life too short		
CS-134	8.360E-02	+	5.873E-02	7.442E-02	7.198E-03	1.123
CS-135	-7.068E-02		1.479E-01	2.038E-01	1.540E-02	-0.347
I-135	2.607E+11		2.041E+11	Half-Life too short		
CS-136	8.149E-02		9.361E-02	1.672E-01	1.499E-02	0.487
CE-139	6.562E-03		2.451E-02	4.187E-02	2.198E-03	0.157
BA-140	-5.313E-02		2.270E-01	3.631E-01	1.188E-01	-0.146
LA-140	1.150E-01		7.159E-02	1.340E-01	9.190E-03	0.859
CE-141	1.346E-02		5.780E-02	9.267E-02	5.290E-03	0.145
CE-143	8.394E-04		1.793E-04	Half-Life too short		
CE-144	-2.489E-02		1.711E-01	2.707E-01	3.828E-02	-0.092
PM-144	1.391E-02		2.903E-02	4.996E-02	4.057E-03	0.278
PR-144	9.434E-01		1.969E+00	3.389E+00	2.750E-01	0.278
PM-146	1.664E-02		3.605E-02	6.137E-02	5.460E-03	0.271
ND-147	4.196E-01		5.094E-01	8.757E-01	1.222E-01	0.479
PM-149	4.308E+01		1.267E+02	2.098E+02	2.969E+01	0.205
EU-152	5.842E-03		9.338E-02	1.311E-01	8.553E-03	0.045
GD-153	6.521E-03		8.067E-02	1.178E-01	9.210E-03	0.055
EU-154	3.522E-02		1.080E-01	1.821E-01	1.819E-02	0.193

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	2.151E-02		9.469E-02	1.550E-01	1.108E-02	0.139
TB-160	2.523E-02		1.183E-01	1.969E-01	2.163E-02	0.128
HO-166M	-3.524E-02		4.897E-02	7.717E-02	6.433E-03	-0.457
TM-171	-2.208E+01		2.885E+01	4.520E+01	3.614E+00	-0.489
LU-176	-1.514E-02		2.119E-02	3.141E-02	1.808E-03	-0.482
LU-177	3.201E+00	+	1.437E+00	2.013E+00	1.092E-01	1.590
LU-177M	-3.372E-02		1.546E-01	2.548E-01	1.505E-02	-0.132
HF-181	-1.527E-02		3.639E-02	5.827E-02	3.730E-03	-0.262
W-181	-1.020E-01		3.945E-01	6.348E-01	5.035E-02	-0.161
TA-182	-3.757E-02		1.656E-01	2.682E-01	1.641E-02	-0.140
RE-183	-4.933E-02		9.272E-02	1.511E-01	7.974E-03	-0.327
RE-184	-9.819E-02		1.917E-01	3.056E-01	1.716E-02	-0.321
OS-185	1.732E-02		3.429E-02	5.734E-02	4.312E-03	0.302
RE-188	1.365E-02		1.429E-01	2.434E-01	1.303E-02	0.056
W-188	-3.357E+00		6.851E+00	9.324E+00	5.340E-01	-0.360
IR-192	9.456E-03		2.815E-02	4.632E-02	2.687E-03	0.204
AU-195	3.445E-03		2.064E-01	3.359E-01	2.570E-02	0.010
TL-200	6.810E-04		5.630E-04	Half-Life too short		
TL-201	1.986E+00		8.648E+00	1.474E+01	7.737E-01	0.135
TL-202	2.635E-02		6.426E-02	1.073E-01	6.540E-03	0.246
HG-203	6.659E-02		3.948E-02	6.283E-02	3.810E-03	1.060
BI-207	-2.325E-02		4.534E-02	7.260E-02	5.993E-03	-0.320
TL-207	4.443E-02		5.411E-01	8.749E-01	1.444E-01	0.051
PO-209	-3.217E+00		5.806E+00	8.971E+00	1.012E+00	-0.359
BI-210	-2.007E+00		5.118E+00	8.513E+00	6.586E-01	-0.236
PB-210	-2.007E+00		5.118E+00	8.513E+00	6.586E-01	-0.236
PO-210	-2.007E+00		5.117E+00	8.513E+00	5.662E-01	-0.236
PB-211	-3.472E-01		7.990E-01	1.252E+00	7.806E-01	-0.277
BI-212	1.028E+00	+	3.748E-01	5.290E-01	5.269E-02	1.943
PO-215	4.443E-02		5.411E-01	8.749E-01	1.444E-01	0.051
RN-219	-3.247E-01		3.657E-01	5.592E-01	7.612E-02	-0.581
RN-220	5.133E+00		2.093E+01	3.473E+01	2.386E+00	0.148
RA-223	4.443E-02		5.411E-01	8.749E-01	1.444E-01	0.051
AC-227	-1.129E-01		3.205E-01	5.149E-01	7.152E-02	-0.219
TH-227	-1.129E-01		3.207E-01	5.149E-01	8.672E-02	-0.219
TH-229	-1.456E-02		3.993E-01	6.665E-01	3.569E-02	-0.022
PA-231	-5.657E-01		1.422E+00	1.953E+00	2.685E-01	-0.290
TH-231	4.443E-02		5.411E-01	8.749E-01	1.444E-01	0.051
U-231	-4.172E-02		1.482E+00	2.152E+00	1.724E-01	-0.019
PA-233	4.567E-02		5.132E-02	8.723E-02	5.344E-03	0.523
PA-234	-1.952E-01		2.542E-01	3.794E-01	7.484E-02	-0.515
PA-234M	3.896E+00		4.247E+00	7.287E+00	7.861E-01	0.535
TH-234	9.210E-01		1.453E+00	2.413E+00	4.253E-01	0.382
U-235	9.839E-02		1.905E-01	3.020E-01	4.891E-02	0.326
NP-236	7.508E-03		6.399E-02	1.089E-01	5.768E-03	0.069
U-238	9.210E-01		1.453E+00	2.413E+00	4.253E-01	0.382
NP-239	-8.019E-03		1.650E-01	2.648E-01	1.639E-02	-0.030
AM-241	2.829E-02		1.615E-01	2.722E-01	2.258E-02	0.104

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-4.485E-02		8.514E-02	1.344E-01	9.622E-03	-0.334
AM-246	9.729E-02		1.173E-01	2.082E-01	1.646E-02	0.467
CM-247	-2.083E-02		3.247E-02	5.075E-02	2.956E-03	-0.410
CF-249	6.983E-03		3.303E-02	5.605E-02	3.222E-03	0.125
CF-251	-4.657E-02		9.900E-02	1.629E-01	8.604E-03	-0.286

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]G243546001          *
* Acquisition date   : 7-JAN-2010 09:19:03 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 02:00:01.35 Half life ratio : 8.000              *
*****
*                                     SAMPLE DATA                            *
*                                     *                                       *
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G243546001 Analyst initials: MXR1                 *
* Batch Number       : 937069 Sample Quantity : 1.1030E+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 :                               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.313E+01	2.185E+00	1.839E-01	1.115E+00
CD-109	1.637E+00	9.860E-01	6.817E-01	5.030E-01
SN-126	1.605E-01	9.665E-02	5.736E-02	4.931E-02
BA-137M	2.202E-01	5.407E-02	2.415E-02	2.758E-02
CS-137	2.327E-01	5.716E-02	2.553E-02	2.917E-02
TL-208	3.313E-01	7.554E-02	2.321E-02	3.854E-02
BI-211	2.651E+00	3.819E-01	1.277E-01	1.948E-01
PB-212	1.212E+00	1.250E-01	3.681E-02	6.376E-02
PO-212	1.212E+00	1.250E-01	3.681E-02	6.376E-02
BI-214	9.085E-01	1.567E-01	4.413E-02	7.995E-02
PB-214	9.221E-01	1.410E-01	4.618E-02	7.192E-02
PO-214	9.221E-01	1.410E-01	4.618E-02	7.192E-02
PO-216	1.212E+00	1.250E-01	3.681E-02	6.376E-02
PO-218	9.221E-01	1.410E-01	4.618E-02	7.192E-02
RA-224	3.300E+00	1.038E+00	4.183E-01	5.295E-01
RA-226	9.085E-01	1.567E-01	4.413E-02	7.995E-02
AC-228	1.420E+00	3.171E-01	8.728E-02	1.618E-01
RA-228	1.420E+00	3.171E-01	8.728E-02	1.618E-01
TH-228	1.232E+00	1.271E-01	3.743E-02	6.484E-02
TH-230	9.085E-01	1.567E-01	4.413E-02	7.995E-02
TH-232	1.420E+00	3.171E-01	8.728E-02	1.618E-01
U-234	9.085E-01	1.567E-01	4.413E-02	7.995E-02
NP-237	4.712E-01	2.994E-01	1.581E-01	1.528E-01
AM-243	3.006E-01	7.238E-02	4.420E-02	3.693E-02
ANH-511	1.066E-01	6.453E-02	1.941E-02	3.292E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-7.686E-02	2.631E-01	2.178E-01	1.342E-01 NOT IDENT.
NA-22	1.318E-02	3.797E-02	3.258E-02	1.937E-02 NOT IDENT.

NA-24	-3.277E+06	4.496E+06	0.000E+00	2.294E+06	SHORT HLIF
AL-26	-7.320E-03	2.552E-02	2.026E-02	1.302E-02	NOT IDENT.
TI-44	3.321E-01	5.408E-02	4.137E-02	2.759E-02	FAIL ABUN
SC-46	-2.247E-03	3.121E-02	2.583E-02	1.592E-02	FAIL ABUN
V-48	8.797E-03	5.991E-02	5.005E-02	3.057E-02	NOT IDENT.
CR-51	-1.624E-01	3.084E-01	2.465E-01	1.574E-01	NOT IDENT.
MN-52	6.859E-02	2.437E-01	2.075E-01	1.244E-01	NOT IDENT.
MN-54	1.389E-03	3.016E-02	2.537E-02	1.539E-02	NOT IDENT.
CO-56	-5.469E-03	3.393E-02	2.804E-02	1.731E-02	NOT IDENT.
CO-57	2.704E-03	2.229E-02	1.860E-02	1.137E-02	NOT IDENT.
CO-58	-4.132E-03	3.154E-02	2.623E-02	1.609E-02	NOT IDENT.
FE-59	-9.580E-02	7.886E-02	5.994E-02	4.023E-02	NOT IDENT.
CO-60	2.094E-02	3.535E-02	3.092E-02	1.803E-02	NOT IDENT.
ZN-65	-1.459E-02	8.149E-02	5.771E-02	4.158E-02	NOT IDENT.
GE-68	1.167E+00	1.011E+00	9.311E-01	5.159E-01	NOT IDENT.
AS-73	1.102E+00	1.096E+00	9.668E-01	5.590E-01	NOT IDENT.
AS-74	-6.095E-02	8.672E-02	6.817E-02	4.425E-02	NOT IDENT.
SE-75	2.359E-02	3.991E-02	3.068E-02	2.036E-02	NOT IDENT.
BR-77	8.994E+00	1.560E+01	1.196E+01	7.961E+00	FAIL ABUN
SR-82	-1.214E-01	3.247E-01	2.663E-01	1.657E-01	NOT IDENT.
RB-83	4.267E-02	6.284E-02	4.859E-02	3.206E-02	NOT IDENT.
RB-84	-1.734E-03	5.689E-02	4.730E-02	2.903E-02	NOT IDENT.
KR-85	2.701E+01	7.140E+00	6.873E+00	3.643E+00	NOT IDENT.
SR-85	1.411E-01	3.730E-02	3.590E-02	1.903E-02	NOT IDENT.
RB-86	4.103E-01	7.081E-01	6.268E-01	3.613E-01	NOT IDENT.
Y-88	1.824E-02	3.075E-02	2.763E-02	1.569E-02	NOT IDENT.
ZR-88	-1.062E-02	2.500E-02	2.095E-02	1.276E-02	NOT IDENT.
Y-91	-5.279E+00	1.443E+01	1.174E+01	7.361E+00	NOT IDENT.
NB-94	-1.471E-02	2.733E-02	2.243E-02	1.394E-02	NOT IDENT.
NB-95	8.533E-03	3.472E-02	2.983E-02	1.771E-02	NOT IDENT.
NB-95M	4.760E-02	1.100E-01	8.419E-02	5.611E-02	NOT IDENT.
ZR-95	3.381E-02	5.754E-02	5.068E-02	2.935E-02	NOT IDENT.
NB-97	3.571E+05	4.663E+05	0.000E+00	2.379E+05	SHORT HLIF
ZR-97	1.068E+07	9.747E+06	0.000E+00	4.973E+06	SHORT HLIF
MO-99	4.080E+00	1.504E+01	1.298E+01	7.671E+00	NOT IDENT.
TC-99M	-2.623E+18	4.581E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-4.329E-03	2.823E-02	2.347E-02	1.440E-02	NOT IDENT.
RH-102	-8.830E-03	2.400E-02	1.979E-02	1.224E-02	NOT IDENT.
RU-103	-2.949E-03	3.284E-02	2.745E-02	1.675E-02	FAIL ABUN
RH-106	1.600E-01	2.524E-01	2.174E-01	1.288E-01	FAIL ABUN
RU-106	1.600E-01	2.519E-01	2.174E-01	1.285E-01	FAIL ABUN
AG-108M	-6.024E-03	2.419E-02	2.026E-02	1.234E-02	NOT IDENT.
AG-110M	1.967E-02	2.919E-02	2.310E-02	1.489E-02	NOT IDENT.
IN-111	1.040E+00	1.370E+00	1.073E+00	6.988E-01	NOT IDENT.
IN-113M	4.044E-04	3.544E-02	3.047E-02	1.808E-02	NOT IDENT.
SN-113	4.044E-04	3.544E-02	3.047E-02	1.808E-02	NOT IDENT.
IN-114M	2.341E-02	1.589E-01	1.219E-01	8.108E-02	NOT IDENT.
CD-115	-5.859E+00	1.468E+01	1.192E+01	7.491E+00	NOT IDENT.
SN-117M	3.218E-03	4.657E-02	4.084E-02	2.376E-02	NOT IDENT.
SB-122	6.933E-01	2.744E+00	2.320E+00	1.400E+00	NOT IDENT.
I-123	1.760E+07	4.185E+07	0.000E+00	2.135E+07	SHORT HLIF
TE-123M	9.311E-03	2.214E-02	1.970E-02	1.130E-02	NOT IDENT.
I-124	-1.122E+00	9.487E-01	5.973E-01	4.840E-01	NOT IDENT.
SB-124	-1.968E-02	5.958E-02	4.728E-02	3.040E-02	FAIL ABUN
SB-125	5.097E-02	6.693E-02	5.983E-02	3.415E-02	FAIL ABUN
TE-125M	-8.072E-01	8.243E+00	6.863E+00	4.206E+00	NOT IDENT.
I-126	6.173E-02	1.813E-01	1.384E-01	9.250E-02	NOT IDENT.
SB-126	-3.447E-02	1.389E-01	1.033E-01	7.086E-02	FAIL ABUN
SB-127	-5.119E-01	1.428E+00	1.187E+00	7.286E-01	NOT IDENT.
XE-127	-2.002E-02	4.088E-02	3.437E-02	2.086E-02	NOT IDENT.
I-131	-2.952E-02	1.049E-01	8.928E-02	5.354E-02	NOT IDENT.
TE-132	-8.653E-02	8.464E-01	7.167E-01	4.318E-01	NOT IDENT.
BA-133	-1.203E-02	4.040E-02	2.804E-02	2.061E-02	FAIL ABUN
I-133	8.358E+03	1.977E+04	0.000E+00	1.009E+04	SHORT HLIF
CS-134	8.360E-02	5.756E-02	3.720E-02	2.937E-02	FAIL ABUN
CS-135	-7.068E-02	1.450E-01	1.027E-01	7.396E-02	NOT IDENT.
I-135	2.607E+17	4.001E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.149E-02	9.174E-02	8.339E-02	4.681E-02	FAIL ABUN
CE-139	6.562E-03	2.402E-02	2.117E-02	1.226E-02	NOT IDENT.
BA-140	-5.313E-02	2.225E-01	1.820E-01	1.135E-01	NOT IDENT.
LA-140	1.150E-01	7.016E-02	6.661E-02	3.579E-02	NOT IDENT.
CE-141	1.346E-02	5.665E-02	4.690E-02	2.890E-02	NOT IDENT.
CE-143	8.394E+02	3.515E+02	0.000E+00	1.793E+02	SHORT HLIF
CE-144	-2.489E-02	1.677E-01	1.371E-01	8.554E-02	NOT IDENT.
PM-144	1.391E-02	2.845E-02	2.500E-02	1.451E-02	NOT IDENT.
PR-144	9.434E-01	1.929E+00	1.696E+00	9.844E-01	NOT IDENT.
PM-146	1.664E-02	3.533E-02	3.080E-02	1.802E-02	NOT IDENT.
ND-147	4.196E-01	4.992E-01	4.390E-01	2.547E-01	NOT IDENT.

PM-149	4.308E+01	1.242E+02	1.057E+02	6.336E+01	NOT IDENT.
EU-152	5.842E-03	9.151E-02	6.592E-02	4.669E-02	NOT IDENT.
GD-153	6.521E-03	7.906E-02	5.979E-02	4.034E-02	FAIL ABUN
EU-154	3.522E-02	1.058E-01	9.072E-02	5.400E-02	NOT IDENT.
EU-155	2.151E-02	9.280E-02	7.865E-02	4.735E-02	FAIL ABUN
TB-160	2.523E-02	1.159E-01	9.834E-02	5.913E-02	FAIL ABUN
HO-166M	-3.524E-02	4.799E-02	3.861E-02	2.448E-02	NOT IDENT.
TM-171	-2.208E+01	2.827E+01	2.301E+01	1.442E+01	NOT IDENT.
LU-176	-1.514E-02	2.077E-02	1.581E-02	1.060E-02	FAIL ABUN
LU-177	3.201E+00	1.408E+00	1.016E+00	7.184E-01	FAIL ABUN
LU-177M	-3.372E-02	1.515E-01	1.280E-01	7.728E-02	NOT IDENT.
HF-181	-1.527E-02	3.566E-02	2.923E-02	1.820E-02	NOT IDENT.
W-181	-1.020E-01	3.866E-01	3.232E-01	1.972E-01	NOT IDENT.
TA-182	-3.757E-02	1.623E-01	1.336E-01	8.279E-02	FAIL ABUN
RE-183	-4.933E-02	9.086E-02	7.640E-02	4.636E-02	FAIL ABUN
RE-184	-9.819E-02	1.878E-01	1.540E-01	9.583E-02	NOT IDENT.
OS-185	1.732E-02	3.361E-02	2.870E-02	1.715E-02	NOT IDENT.
RE-188	1.365E-02	1.401E-01	1.231E-01	7.146E-02	NOT IDENT.
W-188	-3.357E+00	6.714E+00	4.695E+00	3.425E+00	NOT IDENT.
IR-192	9.456E-03	2.758E-02	2.331E-02	1.407E-02	FAIL ABUN
AU-195	3.445E-03	2.023E-01	1.705E-01	1.032E-01	FAIL ABUN
TL-200	6.810E+02	1.104E+03	0.000E+00	5.630E+02	SHORT HLIF
TL-201	1.986E+00	8.475E+00	7.452E+00	4.324E+00	NOT IDENT.
TL-202	2.635E-02	6.298E-02	5.386E-02	3.213E-02	NOT IDENT.
HG-203	6.659E-02	3.869E-02	3.165E-02	1.974E-02	NOT IDENT.
BI-207	-2.325E-02	4.444E-02	3.621E-02	2.267E-02	FAIL ABUN
TL-207	4.443E-02	5.302E-01	4.402E-01	2.705E-01	FAIL ABUN
PO-209	-3.217E+00	5.690E+00	4.480E+00	2.903E+00	NOT IDENT.
BI-210	-2.007E+00	5.015E+00	4.344E+00	2.559E+00	NOT IDENT.
PB-210	-2.007E+00	5.015E+00	4.344E+00	2.559E+00	NOT IDENT.
PO-210	-2.007E+00	5.015E+00	4.344E+00	2.558E+00	NOT IDENT.
PB-211	-3.472E-01	7.830E-01	6.290E-01	3.995E-01	NOT IDENT.
BI-212	1.028E+00	3.673E-01	2.646E-01	1.874E-01	FAIL ABUN
PO-215	4.443E-02	5.302E-01	4.402E-01	2.705E-01	FAIL ABUN
RN-219	-3.247E-01	3.584E-01	2.809E-01	1.828E-01	FAIL ABUN
RN-220	5.133E+00	2.051E+01	1.741E+01	1.047E+01	NOT IDENT.
RA-223	4.443E-02	5.302E-01	4.402E-01	2.705E-01	FAIL ABUN
AC-227	-1.129E-01	3.141E-01	2.595E-01	1.603E-01	FAIL ABUN
TH-227	-1.129E-01	3.143E-01	2.595E-01	1.604E-01	FAIL ABUN
TH-229	-1.456E-02	3.913E-01	3.366E-01	1.996E-01	FAIL ABUN
PA-231	-5.657E-01	1.393E+00	9.839E-01	7.109E-01	FAIL ABUN
TH-231	4.443E-02	5.302E-01	4.402E-01	2.705E-01	FAIL ABUN
U-231	-4.172E-02	1.452E+00	1.093E+00	7.409E-01	FAIL ABUN
PA-233	4.567E-02	5.029E-02	4.391E-02	2.566E-02	FAIL ABUN
PA-234	-1.952E-01	2.491E-01	1.894E-01	1.271E-01	FAIL ABUN
PA-234M	3.896E+00	4.162E+00	3.636E+00	2.123E+00	NOT IDENT.
TH-234	9.210E-01	1.424E+00	1.228E+00	7.266E-01	FAIL ABUN
U-235	9.839E-02	1.867E-01	1.529E-01	9.525E-02	FAIL ABUN
NP-236	7.508E-03	6.271E-02	5.506E-02	3.199E-02	FAIL ABUN
U-238	9.210E-01	1.424E+00	1.228E+00	7.266E-01	FAIL ABUN
NP-239	-8.019E-03	1.617E-01	1.343E-01	8.250E-02	FAIL ABUN
AM-241	2.829E-02	1.582E-01	1.387E-01	8.074E-02	NOT IDENT.
CM-243	-4.485E-02	8.344E-02	6.820E-02	4.257E-02	FAIL ABUN
AM-246	9.729E-02	1.150E-01	1.038E-01	5.867E-02	NOT IDENT.
CM-247	-2.083E-02	3.182E-02	2.550E-02	1.624E-02	FAIL ABUN
CF-249	6.983E-03	3.237E-02	2.817E-02	1.652E-02	NOT IDENT.
CF-251	-4.657E-02	9.702E-02	8.235E-02	4.950E-02	NOT IDENT.

 * GEL Laboratories LLC *
 * 2040 SAVAGE ROAD *
 * CHARLESTON ,SC 29417 *
 * GAMMA SPECTROSCOPY BACKGROUND REPORT *

ENERGY	MDA COUNTS
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46.50	233.9152
46.50	233.9152
46.50	233.9152
48.70	207.4298
49.72	207.3840
51.35	263.8379
52.39	234.0579
52.97	223.6676
53.15	220.1815
53.44	206.7619
54.07	188.0810
56.28	258.6653
56.28	258.6681
57.37	0.0000
57.53	261.6931
57.53	261.6945
57.60	253.4341
57.98	255.6328
57.98	255.6328
59.32	223.3496
59.32	223.3496
59.40	223.4125
59.54	223.5223
59.72	232.0507
60.01	236.9507
61.10	285.6063
61.14	285.6458
61.30	280.1809
63.00	271.4414
63.29	260.3854
63.29	260.3854
63.58	260.6388
64.28	265.9823
65.12	290.4528
65.20	290.5294
65.20	290.5294
66.05	303.7175
66.72	285.2946
66.83	289.2161
66.91	289.2900
67.20	276.1822
67.20	276.1822
67.75	284.3289
67.85	284.4211
68.90	278.6468
68.90	278.6468
69.30	300.1648
69.67	297.6275
70.82	260.9953
70.82	260.9953
70.83	261.0036
72.80	304.8943
72.87	304.9596
72.87	304.9596
74.67	313.9533
74.81	314.0847
74.81	314.0847
74.81	314.0847
74.81	314.0847
74.81	314.0847
74.81	314.0847
74.81	314.0847
74.97	314.2341
75.28	314.5247
75.70	314.9166
77.11	316.2227
77.11	316.2227

77.11	316.2227
77.11	316.2227
77.11	316.2227
77.11	316.2227
77.11	316.2227
78.38	317.3901
79.62	318.5216
79.80	318.6848
79.80	318.6848
80.11	318.9657
80.18	319.0294
80.30	319.1371
80.30	319.1371
80.57	319.3820
81.00	319.7690
81.07	319.8326
81.07	319.8326
81.07	319.8326
81.07	319.8326
82.60	258.1627
83.37	258.7112
83.78	259.0065
83.78	259.0065
83.78	259.0065
83.78	259.0065
84.21	253.2817
84.90	253.7585
85.43	248.0733
86.29	248.6501
86.50	248.7902
86.54	248.8165
86.59	248.8503
86.72	248.9366
86.79	248.9817
86.94	249.0830
87.30	249.3232
87.30	249.3232
87.30	249.3232
87.30	249.3232
87.30	249.3232
87.30	249.3232
87.57	292.1001
87.88	401.9680
88.03	402.1291
88.36	453.2977
88.47	453.4293
89.95	398.0397
91.11	399.2398
92.29	457.9549
92.38	458.0615
92.38	458.0615
93.35	368.5903
94.00	279.9927
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	281.3073
95.87	281.3073
96.73	272.5656
97.43	257.4323
98.44	261.7188
98.44	261.7188
98.88	255.7367
99.55	221.6507
99.55	221.6507
99.86	234.3724
100.00	234.4521
100.10	234.5102
103.18	267.8751
103.76	246.0633
105.00	231.9490
105.31	232.1172
108.00	258.0851
109.28	247.0706

111.00	232.9951
111.00	232.9951
111.76	225.8604
112.95	224.2987
115.19	258.9933
116.30	233.5460
117.00	228.4581
117.00	228.4581
117.66	223.3346
121.11	242.5269
121.62	237.2926
121.78	237.3717
122.06	236.4105
122.32	236.5374
122.32	236.5374
122.32	236.5374
122.32	236.5374
123.07	221.4795
127.23	260.0383
129.76	218.9144
131.20	248.6615
133.02	247.3008
133.54	220.5439
135.34	214.5386
136.00	206.8951
136.25	210.3871
136.48	219.5327
140.51	253.1375
140.51	0.0000
142.18	245.9189
142.65	249.5677
143.76	240.9006
144.24	230.7787
144.24	230.7787
144.24	230.7787
144.24	230.7787
145.22	251.8954
145.44	251.9979
147.16	282.7928
152.43	265.6498
152.70	247.1241
153.22	240.6418
154.21	246.3166
154.21	246.3166
154.21	246.3166
154.21	246.3166
155.03	245.7904
156.02	234.7800
158.56	222.5572
159.00	0.0000
159.00	212.1167
160.31	228.5313
161.27	227.1270
162.32	241.7478
162.64	246.3227
163.35	254.6271
163.89	238.8163
165.85	230.6513
167.43	235.7312
171.28	243.5175
171.86	246.4523
172.10	231.1934
176.55	221.0048
176.60	221.0215
181.06	183.1741
184.41	229.7725
185.71	221.3690
186.00	221.4661
190.27	203.5651
192.34	232.0774
193.63	212.7846
197.04	241.0355
198.01	238.5533
198.60	259.4344
200.40	213.9244
201.83	258.7397
202.84	265.7271
205.31	238.3690

208.36	233.2802
208.81	248.6805
209.75	240.5989
209.75	240.5989
210.97	227.9944
215.65	188.0839
216.55	204.2784
218.09	221.1134
222.10	203.8428
223.80	204.2947
226.40	236.2192
227.00	240.3094
227.08	240.3338
227.20	232.5544
228.16	228.9280
228.18	228.9334
228.18	228.9334
231.56	0.0000
235.69	205.4387
236.00	196.0326
236.00	196.0326
238.63	195.2866
238.63	195.2866
238.63	195.2866
238.63	195.2866
239.00	195.3753
240.98	195.8517
241.98	196.0922
241.98	196.0922
241.98	196.0922
244.69	154.9951
245.39	148.7296
247.94	170.0412
248.90	199.4124
249.79	169.8149
252.40	172.3581
252.85	186.5681
252.85	186.5681
254.15	0.0000
256.20	193.3789
256.20	193.3789
260.50	187.2231
260.90	190.3642
262.80	172.4168
264.65	155.4001
268.24	193.8098
268.79	190.6439
269.46	146.3785
269.46	146.3785
269.46	146.3785
269.46	146.3785
271.23	146.6696
273.65	144.5865
276.40	147.5127
277.35	147.6670
277.60	147.7061
277.60	147.7061
278.00	147.7713
278.60	147.8691
279.20	147.9647
279.53	148.0168
280.46	146.5041
281.68	161.7006
283.67	165.3899
284.30	153.7990
285.00	163.1173
285.90	145.4817
286.10	145.5114
286.10	145.5114
287.40	138.3768
288.45	0.0000
290.67	166.6274
290.80	166.6516
291.72	163.4436
293.26	0.0000
293.70	140.1436
295.21	142.0576
295.21	142.0576

295.21	142.0576
295.96	142.1684
296.50	173.5768
297.23	173.7070
298.57	173.9497
299.80	174.1699
299.80	174.1699
300.09	174.2225
300.09	174.2225
300.09	174.2225
300.09	174.2225
300.12	174.2275
301.29	170.1807
302.84	163.6336
303.76	141.6086
303.91	141.6289
304.40	136.5781
304.40	136.5781
304.84	116.1445
306.84	163.8102
308.46	151.0690
311.98	124.7227
316.51	132.8440
318.01	139.5309
319.02	133.1724
319.41	133.2231
320.08	149.5667
323.87	147.9448
323.87	147.9448
323.87	147.9448
323.87	147.9448
325.23	197.1540
328.77	166.1294
333.44	198.4866
334.20	172.2608
334.20	172.2608
334.30	172.2776
338.28	151.0855
338.28	151.0855
338.28	151.0855
338.28	151.0855
338.32	151.0918
338.32	151.0918
338.32	151.0918
340.50	141.4531
340.57	141.4629
344.27	143.7216
345.85	139.1908
350.59	0.0000
351.07	128.5471
351.92	138.4745
351.92	138.4745
351.92	138.4745
355.39	0.0000
356.01	141.6735
364.48	136.4180
366.43	125.7923
367.43	121.3737
367.94	0.0000
369.80	138.8692
374.96	138.5775
383.85	144.2207
387.95	137.3430
388.63	142.9550
391.69	131.2980
391.69	131.2980
392.90	142.5365
398.62	142.2777
400.65	147.1684
401.10	149.0879
401.81	157.5638
402.60	152.0663
404.84	146.7352
410.95	134.3051
411.60	129.6765
413.65	154.3586
414.70	146.0088
415.30	140.4241

415.76	136.7039
417.63	0.0000
418.52	125.6616
423.70	129.0174
427.08	88.4556
427.89	90.4147
432.53	110.7933
433.93	106.1316
439.47	109.4578
439.56	109.4648
439.89	110.4531
443.98	126.2058
444.90	122.4359
445.03	122.4483
445.03	122.4483
445.03	122.4483
453.90	112.5775
463.38	107.4917
468.07	125.8300
473.00	122.0080
475.06	123.1705
475.35	116.2974
476.78	119.3738
477.59	115.4932
477.96	114.5358
482.03	119.8139
484.57	105.1460
487.03	97.3767
490.36	0.0000
492.35	99.7278
497.08	103.0516
507.63	0.0000
510.53	0.0000
510.84	111.0769
511.00	111.0883
511.85	111.1514
511.85	111.1514
513.99	111.3079
513.99	111.3079
520.41	88.0674
520.65	88.0822
527.90	101.0907
528.96	0.0000
529.64	97.1152
529.87	0.0000
531.02	85.9462
537.32	97.5953
543.00	94.8525
546.56	0.0000
549.76	91.1152
552.65	95.4275
555.20	112.2003
563.23	106.4924
563.90	108.6236
568.70	128.8467
569.32	128.8948
569.50	117.3785
569.67	117.3922
573.80	89.3143
574.00	89.3247
574.64	94.6165
578.91	115.9377
579.30	0.0000
583.14	94.0410
585.48	94.1714
591.81	97.3556
592.07	86.7489
593.00	119.9438
595.88	127.7520
600.56	96.0732
602.52	0.0000
602.71	151.4166
602.71	151.4166
603.60	144.3636
604.41	149.7822
604.70	124.8385
609.31	96.5588

609.31	96.5588
609.31	96.5588
609.31	96.5588
610.33	96.6160
612.46	100.3151
614.37	80.6982
618.01	98.5781
621.84	78.8778
621.84	78.8778
631.29	106.4530
633.02	96.7679
633.10	94.5976
634.78	89.2451
635.90	91.4771
636.97	87.1738
645.85	75.5530
646.12	74.4696
656.30	64.4972
657.75	70.8446
657.90	0.0000
661.65	96.6302
661.65	96.6302
664.57	0.0000
666.33	91.7295
666.33	91.7295
675.00	88.9727
677.61	88.1657
685.20	87.5838
692.80	101.9569
695.00	94.5807
696.49	96.5269
696.49	96.5269
697.00	99.3642
697.49	97.5148
698.33	96.6170
698.50	96.6254
699.00	103.2190
702.63	109.0497
706.10	90.4063
706.58	0.0000
706.67	87.6075
709.31	87.7230
711.68	99.1595
713.82	82.2493
717.42	85.2393
720.50	91.0605
721.93	0.0000
722.20	81.3721
722.78	73.2568
722.78	73.2568
722.89	73.2600
722.95	73.2615
723.30	70.0190
724.18	74.9361
727.18	88.0984
733.00	78.5340
735.90	89.2033
739.58	87.1287
742.81	79.5940
744.21	82.5251
747.13	80.7205
751.79	74.1582
752.31	74.1770
753.82	76.1584
755.35	84.8973
756.15	76.2436
756.87	76.2693
763.93	121.0836
765.79	94.0437
766.42	88.2525
766.84	93.1191
776.49	90.6179
778.00	107.2563
778.57	103.3841
778.89	95.5955
783.80	87.0136
785.46	67.2451
792.07	109.3565

795.84	74.1533
796.30	69.1117
798.80	89.4412
801.93	87.2450
805.60	71.0962
810.29	71.2456
810.76	76.2104
815.85	71.4229
817.79	75.4573
818.51	71.5078
819.60	75.5176
826.30	62.7859
828.27	0.0000
831.60	99.8922
831.96	94.9130
834.83	84.0273
836.80	0.0000
846.75	85.4687
848.13	75.4593
856.28	0.0000
856.80	118.1545
860.37	68.7761
867.32	97.3809
867.82	90.3001
871.10	68.0728
873.19	72.2004
874.81	65.1263
875.33	0.0000
876.40	66.1875
879.36	69.3281
880.27	66.2947
880.51	71.4014
881.50	66.3290
883.24	64.3343
884.67	69.4817
889.25	66.5433
896.60	68.7980
898.02	63.7016
899.00	67.8383
903.28	49.4229
911.07	72.3043
911.07	72.3043
911.07	72.3043
919.63	44.4205
920.93	46.2218
925.00	69.5940
925.24	69.6008
926.50	72.7543
935.52	68.8427
937.48	74.1158
944.10	74.3093
946.00	78.5538
949.00	45.0909
962.29	63.2422
964.01	68.7093
966.15	74.9493
968.20	75.0070
969.11	75.0345
969.11	75.0345
969.11	75.0345
977.42	65.2011
980.50	65.8081
983.50	59.5068
989.30	69.2225
996.32	83.2860
1001.03	65.2494
1001.68	62.0545
1004.76	93.1898
1021.30	0.0000
1024.50	0.0000
1034.80	47.6523
1036.00	50.1504
1037.82	52.0410
1038.57	52.9842
1038.76	0.0000
1045.16	56.8386
1046.59	65.2588
1048.07	53.1671

1050.47	69.0834
1050.47	69.0834
1062.04	81.5534
1063.62	82.5368
1076.63	66.8993
1077.35	54.6622
1078.86	58.4645
1085.78	72.7837
1099.22	90.2155
1112.02	72.1063
1112.84	85.1505
1115.52	73.5303
1120.29	81.3002
1120.29	81.3002
1120.29	81.3002
1120.29	81.3002
1120.51	80.3496
1121.28	88.7420
1124.00	0.0000
1129.67	74.4927
1131.51	0.0000
1147.95	0.0000
1167.94	70.9352
1173.22	83.7114
1175.09	62.3348
1177.93	63.3677
1189.05	74.3566
1204.90	72.7663
1205.75	0.0000
1213.00	75.9124
1221.42	86.9841
1230.97	100.1334
1235.34	89.3502
1236.41	0.0000
1238.25	87.4414
1246.25	79.6903
1260.41	0.0000
1271.85	67.2641
1274.45	65.3060
1274.54	65.3083
1291.56	56.5527
1298.22	0.0000
1312.09	53.8503
1325.50	68.3413
1325.50	68.3413
1332.49	50.0835
1333.61	51.1213
1360.21	32.9688
1362.66	0.0000
1365.15	35.0791
1368.21	45.4348
1368.53	0.0000
1376.25	39.3293
1384.27	60.1645
1394.10	43.6875
1395.20	50.9841
1407.95	51.1636
1434.06	33.6529
1436.60	28.4144
1457.56	0.0000
1460.81	22.2444
1489.15	36.2863
1509.49	26.2867
1596.49	10.2370
1620.62	44.4095
1678.03	0.0000
1691.02	21.5999
1691.02	21.5999
1706.46	0.0000
1750.46	0.0000
1764.49	15.9766
1764.49	15.9766
1764.49	15.9766
1764.49	15.9766
1770.23	12.4422
1771.40	16.0015
1791.20	0.0000
1808.65	22.1853

1836.01

19.2754

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243546001

Total Uranium Activity	2.7855E+00	ug/g
Total Uranium Counting Unc.	4.2377E+00	ug/g
Total Uranium Tpu	2.1621E-06	ug/g
Total Uranium Mda	3.6552E+00	ug/g

```

*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 937069                          SAMPLE ID   : G243546001
*  ANALYST       : MXR1                             DETECTOR    : GAM18
*  SAMPLE DATE   : 21-DEC-2009 12:00:00.00          COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 7-JAN-2010 09:19:03.35          SAMPLE ALQT  : 110.300 GRAM
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 7.038E+00
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.123E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 1.792E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 8.637E-01

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VAX/VMS Nuclide Identification Report Generated 7-JAN-2010 11:31:46.93

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                   *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202005182.CNF;1
Sample date        : 31-DEC-2009 00:00:00 Acquisition date : 7-JAN-2010 09:31:14.
Sample ID          : G1202005182      Sample quantity   : 1.35630E+02 GRAM
Detector name      : GAM13            Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00    Elapsed real time: 0 02:00:00.82  0.0%
Energy tolerance   : 1.50000 keV      Analyst Initials : MXR1
Abundance limit    : 75.00000         Sensitivity       : 5.00000
Batch ID           : 937069           Detector SN#      :
Matrix Spike ID    :                  LCS ID            : 1032-A
*****

```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.25*	20	272	1.02	126.27	121	10	2.71E-03	194.2	
2	0	238.36*	39	116	1.42	476.57	472	9	5.46E-03	57.8	
3	0	511.29*	11	128	1.89	1022.59	1015	16	1.48E-03	286.8	

Flag: "*" = Peak area was modified by background subtraction


```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202005182.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 31-DEC-2009 00:00:00 Acquisition date : 7-JAN-2010 09:31:14
Sample ID        : G1202005182 Sample quantity : 135.63 GRAM
Sample type      : SOLID Sample geometry :
Detector name    : GAMMA13 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.82 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 (keV)	Energy Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	511.00 *	1.165E-02	6.685E-02	4.298E-02	2.999E-03	0.271

---- Non-Identified Nuclides ----

Nuclide	Line Ided (keV)	Energy Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	477.59 *		-1.003E-02	2.454E-01	4.088E-01	3.073E-02	-0.025
NA-22	1274.54 *		-4.909E-03	3.341E-02	5.442E-02	3.071E-03	-0.090
NA-24	1368.53 *		5.654E-05	3.341E-02	Half-Life too short		
AL-26	1129.67		-1.145E-01	1.242E+00	1.981E+00	1.174E-01	-0.058
	1808.65 *		-2.075E-02	3.174E-02	4.564E-02	2.575E-03	-0.455
K-40	1460.81 *		2.748E-01	3.288E-01	6.038E-01	3.692E-02	0.455
TI-44	67.85		-2.482E-03	1.417E-02	2.262E-02	2.048E-03	-0.110
	78.38 *		-1.854E-02	1.524E-02	2.170E-02	1.828E-03	-0.854
SC-46	889.25 *		-1.206E-02	3.568E-02	5.697E-02	4.314E-03	-0.212
	1120.51		-1.650E-02	3.625E-02	5.499E-02	3.306E-03	-0.300
V-48	944.10		-1.965E-01	5.914E-01	9.367E-01	6.839E-02	-0.210
	983.50 *		3.349E-02	4.699E-02	8.304E-02	5.874E-03	0.403
	1312.09		6.541E-03	5.047E-02	8.511E-02	4.825E-03	0.077
CR-51	320.08 *		6.162E-02	2.345E-01	3.910E-01	3.043E-02	0.158
MN-52	744.21		-7.856E-02	9.367E-02	1.371E-01	1.113E-02	-0.573
	848.13		-6.606E-02	2.409E+00	3.995E+00	3.111E-01	-0.017
	935.52		-1.833E-02	9.189E-02	1.482E-01	1.088E-02	-0.124
	1246.25		-1.694E+00	1.995E+00	2.920E+00	1.634E-01	-0.580
	1333.61		7.423E-01	1.739E+00	3.042E+00	1.731E-01	0.244
	1434.06 *		2.886E-02	7.504E-02	1.314E-01	7.551E-03	0.220
MN-54	834.83 *		1.201E-02	3.442E-02	5.915E-02	4.641E-03	0.203
CO-56	846.75 *		-3.632E-03	3.399E-02	5.590E-02	4.357E-03	-0.065
	977.42		2.315E-01	2.524E+00	4.186E+00	2.977E-01	0.055
	1037.82		-9.033E-02	2.402E-01	3.718E-01	2.708E-02	-0.243
	1175.09		7.909E-01	1.518E+00	2.629E+00	1.445E-01	0.301
	1238.25		4.297E-02	5.270E-02	9.684E-02	5.777E-03	0.444
	1360.21		-6.485E-02	8.620E-01	1.409E+00	8.042E-02	-0.046
	1771.40		-1.272E-01	2.154E-01	3.159E-01	1.792E-02	-0.403

---- 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	*		-1.189E-03	1.588E-02	2.577E-02	3.260E-03	-0.046
	136.48			-6.929E-02	1.381E-01	2.158E-01	2.526E-02	-0.321
CO-58	810.76	*		-5.569E-03	3.426E-02	5.628E-02	4.483E-03	-0.099
FE-59	142.65			-1.284E+00	1.876E+00	2.764E+00	2.915E-01	-0.465
	192.34			-9.045E-02	5.396E-01	9.063E-01	1.176E-01	-0.100
	1099.22	*		1.240E-02	7.036E-02	1.167E-01	8.334E-03	0.106
	1291.56			-1.353E-02	8.223E-02	1.332E-01	9.729E-03	-0.102
	1173.22			-5.131E-03	3.485E-02	5.502E-02	3.024E-03	-0.093
	1332.49	*		3.308E-03	3.548E-02	5.948E-02	3.383E-03	0.056
ZN-65	1115.52	*		1.294E-02	7.019E-02	1.164E-01	7.068E-03	0.111
GE-68	1077.35	*		-1.847E-02	9.764E-01	1.583E+00	1.012E-01	-0.012
AS-73	53.44	*		-1.298E-01	1.456E-01	2.142E-01	1.810E-02	-0.606
AS-74	595.88	*		-1.172E-02	6.099E-02	9.824E-02	7.544E-03	-0.119
	634.78			5.560E-02	2.427E-01	4.045E-01	3.223E-02	0.137
SE-75	66.05			-4.626E-01	1.416E+00	2.101E+00	2.289E-01	-0.220
	96.73			-2.558E-01	4.250E-01	6.773E-01	9.399E-02	-0.378
	121.11			4.952E-02	8.203E-02	1.385E-01	1.996E-02	0.358
	136.00			-6.941E-03	2.498E-02	3.970E-02	4.484E-03	-0.175
	198.60			-2.499E-01	1.259E+00	1.982E+00	1.771E-01	-0.126
	264.65	*		2.524E-02	3.224E-02	5.609E-02	4.394E-03	0.450
	279.53			5.979E-02	7.483E-02	1.303E-01	1.048E-02	0.459
	303.91			-3.794E-01	1.775E+00	2.698E+00	2.866E-01	-0.141
	400.65			3.188E-02	2.097E-01	3.407E-01	3.131E-02	0.094
	87.88			4.983E-01	7.982E+00	1.333E+01	1.052E+00	0.037
	200.40			-2.402E+00	1.128E+01	1.884E+01	1.492E+00	-0.128
	239.00	+		8.747E-01	1.013E+00	1.336E+00	1.055E-01	0.655
	249.79			-2.044E+00	5.211E+00	8.453E+00	6.647E-01	-0.242
	281.68			-4.583E+00	7.039E+00	1.106E+01	8.479E-01	-0.414
	297.23			-1.686E+00	4.199E+00	6.705E+00	5.043E-01	-0.252
	303.76			-4.820E+00	1.669E+01	2.524E+01	1.881E+00	-0.191
BR-77	439.47			-8.349E+00	1.225E+01	1.944E+01	1.228E+00	-0.429
	484.57			-1.904E+01	2.142E+01	3.306E+01	2.228E+00	-0.576
	520.65	*		1.198E-01	9.861E-01	1.653E+00	1.168E-01	0.072
	574.64			-2.717E+00	1.871E+01	3.035E+01	2.280E+00	-0.090
	578.91			-2.235E+00	8.205E+00	1.316E+01	9.935E-01	-0.170
	585.48			6.498E+00	1.648E+01	2.794E+01	2.123E+00	0.233
	755.35			-5.591E+00	1.751E+01	2.717E+01	2.200E+00	-0.206
	817.79			1.578E+00	1.278E+01	2.158E+01	1.708E+00	0.073
	698.33			3.122E+00	2.739E+01	4.475E+01	3.654E+00	0.070
	776.49	*		-3.666E-03	2.706E-01	4.529E-01	3.645E-02	-0.008
	1395.20			1.797E+00	7.850E+00	1.339E+01	7.672E-01	0.134
	520.41	*		8.262E-03	5.916E-02	9.932E-02	7.013E-03	0.083
RB-83	529.64			1.833E-02	8.542E-02	1.442E-01	1.030E-02	0.127
	552.65			1.442E-01	1.691E-01	2.990E-01	2.193E-02	0.482
RB-84	881.50	*		-1.221E-02	6.933E-02	9.859E-02	7.509E-03	-0.124
KR-85	513.99	*		1.403E+01	7.382E+00	1.260E+01	8.824E-01	1.114
SR-85	513.99	*		6.635E-02	3.490E-02	5.955E-02	4.171E-03	1.114
RB-86	1076.63	*		-2.369E-02	4.888E-01	7.897E-01	5.052E-02	-0.030
Y-88	898.02			-8.675E-03	3.733E-02	6.021E-02	4.557E-03	-0.144

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	1836.01	*		-1.208E-02	2.790E-02	4.134E-02	2.328E-03	-0.292
ZR-88	392.90	*		1.070E-02	2.504E-02	4.163E-02	2.438E-03	0.257
Y-91	1204.90	*		4.722E+00	1.362E+01	2.364E+01	1.310E+00	0.200
NB-94	702.63	*		4.998E-03	3.294E-02	5.398E-02	4.406E-03	0.093
	871.10			9.608E-03	3.456E-02	5.885E-02	4.516E-03	0.163
NB-95	765.79	*		1.422E-02	3.208E-02	5.606E-02	4.527E-03	0.254
NB-95M	235.69	*		5.016E-02	8.227E-02	1.276E-01	1.180E-02	0.393
ZR-95	724.18			4.615E-03	8.311E-02	1.346E-01	1.202E-02	0.034
	756.15	*		-5.749E-02	6.623E-02	9.623E-02	8.681E-03	-0.597
NB-97	657.90	*		9.862E-06	6.623E-02	Half-Life	too short	
	1024.50			-3.404E-03	6.623E-02	Half-Life	too short	
ZR-97	254.15			-1.488E-04	6.623E-02	Half-Life	too short	
	355.39			-9.217E-04	6.623E-02	Half-Life	too short	
	507.63	*		1.282E-03	6.623E-02	Half-Life	too short	
	602.52			-3.445E-04	6.623E-02	Half-Life	too short	
	1021.30			-1.132E-03	6.623E-02	Half-Life	too short	
	1147.95			6.224E-04	6.623E-02	Half-Life	too short	
	1362.66			-2.863E-04	6.623E-02	Half-Life	too short	
	1750.46			-1.103E-03	6.623E-02	Half-Life	too short	
MO-99	140.51			-1.072E+00	2.619E+00	4.094E+00	1.164E+00	-0.262
	181.06			-5.386E-01	1.749E+00	2.710E+00	4.865E-01	-0.199
	366.43			-7.810E+00	9.130E+00	1.353E+01	8.703E-01	-0.577
	739.58	*		1.846E+00	1.691E+00	2.967E+00	4.423E-01	0.622
	778.00			-2.224E+00	4.303E+00	6.828E+00	5.493E-01	-0.326
TC-99M	140.51	*		-5.920E+00	4.303E+00	Half-Life	too short	
RH-101	127.23			-6.745E-03	1.863E-02	2.949E-02	3.581E-03	-0.229
	198.01	*		-1.462E-03	2.384E-02	3.781E-02	2.994E-03	-0.039
	325.23			-1.805E-01	1.710E-01	2.549E-01	1.827E-02	-0.708
RH-102	418.52			1.496E-01	2.326E-01	3.932E-01	2.404E-02	0.380
	475.06	*		2.394E-02	2.494E-02	4.475E-02	2.978E-03	0.535
	631.29			-3.064E-02	5.059E-02	7.751E-02	6.157E-03	-0.395
	697.49			2.170E-02	7.424E-02	1.233E-01	1.007E-02	0.176
	766.84			7.858E-02	8.577E-02	1.561E-01	1.260E-02	0.504
	1046.59			-5.718E-03	1.136E-01	1.843E-01	1.223E-02	-0.031
	1112.84			1.318E-01	1.841E-01	3.246E-01	1.975E-02	0.406
RU-103	497.08	*		-7.337E-03	3.255E-02	5.323E-02	7.006E-03	-0.138
	610.33			-8.134E-01	6.746E-01	9.203E-01	1.497E-01	-0.884
RH-106	511.85	+		5.737E-02	3.291E-01	3.939E-01	2.752E-02	0.146
	621.84	*		-9.319E-02	2.889E-01	4.569E-01	5.890E-02	-0.204
	1050.47			3.633E+00	2.273E+00	4.283E+00	2.830E-01	0.848
RU-106	511.85	+		5.737E-02	3.291E-01	3.939E-01	2.752E-02	0.146
	621.84	*		-9.319E-02	2.887E-01	4.569E-01	3.598E-02	-0.204
	1050.47			3.633E+00	2.273E+00	4.283E+00	2.830E-01	0.848
AG-108M	433.93	*		-5.795E-03	2.691E-02	4.457E-02	2.998E-03	-0.130
	614.37			5.273E-03	3.415E-02	5.666E-02	4.641E-03	0.093
	722.95			2.585E-02	4.001E-02	6.834E-02	5.812E-03	0.378
CD-109	88.03	*		5.712E-02	3.459E-01	5.810E-01	4.584E-02	0.098
AG-110M	657.75	*		3.831E-03	2.736E-02	4.517E-02	3.795E-03	0.085
	677.61			-1.948E-01	2.938E-01	4.442E-01	3.741E-02	-0.439

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		706.67		-5.373E-02	1.918E-01	3.009E-01	2.531E-02	-0.179
		763.93		-1.850E-02	1.372E-01	2.273E-01	1.895E-02	-0.081
		884.67		-1.438E-02	4.804E-02	7.713E-02	6.102E-03	-0.186
		937.48		1.627E-02	1.014E-01	1.699E-01	1.308E-02	0.096
		1384.27		-7.920E-02	1.385E-01	2.073E-01	1.261E-02	-0.382
IN-111		171.28		-1.172E-02	1.071E-01	1.693E-01	1.329E-02	-0.069
		245.39	*	-1.009E-01	1.126E-01	1.759E-01	1.386E-02	-0.574
IN-113M		391.69	*	1.704E-03	3.469E-02	5.599E-02	3.489E-03	0.030
SN-113		391.69	*	1.704E-03	3.469E-02	5.599E-02	3.489E-03	0.030
IN-114M		190.27	*	-5.145E-02	1.134E-01	1.729E-01	1.367E-02	-0.298
CD-115		260.90		-5.526E+00	8.839E+00	1.403E+01	1.096E+00	-0.394
		492.35		-1.447E+00	2.987E+00	4.782E+00	3.257E-01	-0.303
		527.90	*	9.376E-03	8.494E-01	1.409E+00	1.004E-01	0.007
SN-117M		156.02		-1.715E-01	1.062E+00	1.684E+00	1.522E-01	-0.102
		158.56	*	3.186E-02	2.646E-02	4.536E-02	3.961E-03	0.702
SB-122		563.90	*	-7.947E-02	2.485E-01	3.974E-01	2.951E-02	-0.200
		692.80		-2.420E+00	5.773E+00	8.951E+00	7.309E-01	-0.270
I-123		159.00	*	2.465E-04	5.773E+00	Half-Life	too short	
		528.96		-4.951E-04	5.773E+00	Half-Life	too short	
TE-123M		159.00	*	2.062E-02	1.951E-02	3.319E-02	2.898E-03	0.621
I-124		602.71	*	1.640E-02	1.794E-01	2.963E-01	2.291E-02	0.055
		722.78		7.227E-01	1.159E+00	1.977E+00	1.610E-01	0.366
		1325.50		-7.973E+00	1.032E+01	1.467E+01	8.333E-01	-0.544
		1376.25		1.922E+00	8.071E+00	1.373E+01	7.850E-01	0.140
		1509.49		9.996E-01	4.187E+00	7.100E+00	4.093E-01	0.141
		1691.02		-7.889E-02	1.028E+00	1.634E+00	9.358E-02	-0.048
SB-124		602.71		3.138E-03	3.433E-02	5.668E-02	4.383E-03	0.055
		645.85		-2.139E-01	4.505E-01	6.999E-01	6.018E-02	-0.306
		709.31		-1.115E+00	2.278E+00	3.481E+00	2.840E-01	-0.320
		713.82		-6.932E-02	1.383E+00	2.220E+00	2.600E-01	-0.031
		722.78		2.004E-01	3.215E-01	5.481E-01	4.574E-02	0.366
		968.20		-6.534E-01	2.015E+00	3.048E+00	2.185E-01	-0.214
		1045.16		-8.068E-01	2.147E+00	3.346E+00	2.224E-01	-0.241
		1325.50		-2.361E+00	3.058E+00	4.344E+00	2.468E-01	-0.544
		1368.21		3.551E-01	1.694E+00	2.871E+00	3.396E-01	0.124
		1436.60		7.773E-01	2.974E+00	5.099E+00	2.931E-01	0.152
		1691.02	*	-5.160E-03	6.722E-02	1.069E-01	6.657E-03	-0.048
SB-125		427.89	*	-2.607E-02	7.219E-02	1.182E-01	7.604E-03	-0.221
		463.38		-1.044E-01	2.263E-01	3.649E-01	2.705E-02	-0.286
		600.56		3.289E-02	1.713E-01	2.852E-01	2.401E-02	0.115
		635.90		9.809E-02	2.595E-01	4.377E-01	3.819E-02	0.224
TE-125M		109.28	*	-2.514E+00	5.243E+00	8.349E+00	1.013E+00	-0.301
I-126		388.63		-3.168E-02	1.071E-01	1.676E-01	9.923E-03	-0.189
		666.33	*	7.713E-02	1.094E-01	1.893E-01	1.545E-02	0.407
		753.82		4.561E-01	1.015E+00	1.699E+00	1.376E-01	0.269
SB-126		223.80		-1.316E+00	1.875E+00	3.009E+00	2.385E-01	-0.437
		278.60		2.832E-01	1.160E+00	1.948E+00	1.499E-01	0.145
		296.50		-2.009E-01	7.417E-01	1.149E+00	8.654E-02	-0.175
		414.70		-1.358E-02	3.951E-02	6.111E-02	3.712E-03	-0.222

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Act error (pCi/GRAM)	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.30	-1.658E+00	3.280E+00	4.988E+00	3.033E-01	-0.333
		555.20	8.872E-01	2.380E+00	4.052E+00	2.981E-01	0.219
		573.80	-1.776E-01	6.011E-01	9.622E-01	7.223E-02	-0.185
		593.00	-4.409E-01	5.380E-01	8.100E-01	6.202E-02	-0.544
		656.30	-8.982E-01	1.839E+00	2.827E+00	2.296E-01	-0.318
		666.33	3.166E-02	4.493E-02	7.773E-02	6.342E-03	0.407
		675.00	1.186E-01	1.225E+00	2.006E+00	1.637E-01	0.059
		695.00	1.479E-02	4.844E-02	8.061E-02	6.581E-03	0.183
		697.00	6.403E-02	1.681E-01	2.815E-01	2.298E-02	0.227
		720.50	* 3.696E-02	9.086E-02	1.522E-01	1.240E-02	0.243
		856.80	-1.582E-01	2.639E-01	4.088E-01	3.166E-02	-0.387
		989.30	-1.479E-01	7.122E-01	1.137E+00	8.003E-02	-0.130
		1034.80	-4.729E+00	5.122E+00	7.334E+00	4.932E-01	-0.645
		1213.00	-1.387E+00	2.029E+00	3.059E+00	1.699E-01	-0.453
SN-126	+	64.28	7.622E-02	2.962E-01	3.722E-01	5.796E-02	0.205
		86.94	-7.557E-02	1.546E-01	2.453E-01	1.011E-01	-0.308
		87.57	* -1.430E-02	3.555E-02	5.781E-02	4.573E-03	-0.247
SB-127		61.10	2.190E+00	3.708E+00	5.891E+00	5.958E-01	0.372
		252.40	6.907E-01	8.686E-01	1.437E+00	5.954E-01	0.481
		290.80	-8.684E-01	4.144E+00	6.726E+00	5.613E-01	-0.129
		411.60	-1.818E-01	2.487E+00	3.953E+00	5.175E-01	-0.046
		444.90	-4.095E-01	2.087E+00	3.455E+00	3.189E-01	-0.119
		473.00	2.514E-03	3.470E-01	5.809E-01	5.723E-02	0.004
		543.00	-2.127E+00	3.452E+00	5.350E+00	6.494E-01	-0.398
		603.60	-4.012E-01	2.796E+00	4.526E+00	4.613E-01	-0.089
		685.20	* 2.696E-02	3.090E-01	5.051E-01	4.624E-02	0.053
		698.50	1.613E-02	3.759E+00	6.081E+00	8.694E-01	0.003
		722.20	4.500E+00	7.009E+00	1.198E+01	1.061E+00	0.376
		783.80	4.341E-01	7.890E-01	1.388E+00	1.430E-01	0.313
XE-127		57.60	5.101E-01	1.162E+00	1.939E+00	1.792E-01	0.263
		145.22	-9.285E-02	3.956E-01	6.274E-01	6.440E-02	-0.148
		172.10	-2.073E-02	7.470E-02	1.166E-01	9.157E-03	-0.178
		202.84	* -1.561E-03	2.661E-02	4.484E-02	3.553E-03	-0.035
		374.96	4.992E-02	1.470E-01	2.436E-01	1.521E-02	0.205
I-131		80.18	3.458E-01	1.068E+00	1.729E+00	1.441E-01	0.200
		284.30	-5.160E-01	5.950E-01	9.180E-01	7.439E-02	-0.562
		364.48	* 3.489E-03	4.559E-02	7.422E-02	5.220E-03	0.047
		636.97	5.994E-01	7.689E-01	1.339E+00	1.133E-01	0.448
		722.89	2.219E+00	3.462E+00	5.911E+00	4.824E-01	0.375
TE-132		49.72	-1.859E-01	4.499E-01	7.541E-01	6.327E-02	-0.247
		111.76	-4.064E-01	4.040E+00	6.109E+00	7.059E-01	-0.067
		116.30	5.056E-01	3.410E+00	5.627E+00	6.865E-01	0.090
		228.16	* 8.708E-02	9.404E-02	1.652E-01	2.350E-02	0.527
BA-133		53.15	-7.094E-01	6.523E-01	9.435E-01	7.918E-02	-0.752
		79.62	-3.879E-01	5.771E-01	8.803E-01	1.327E-01	-0.441
		81.00	-5.167E-04	4.458E-02	7.087E-02	1.112E-02	-0.007
		276.40	-1.850E-01	2.955E-01	4.266E-01	5.940E-02	-0.434
		302.84	-5.084E-02	1.264E-01	1.895E-01	2.381E-02	-0.268
		356.01	* -9.428E-03	4.205E-02	6.538E-02	7.849E-03	-0.144

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	+	383.85		-7.706E-02	2.478E-01	3.879E-01	4.267E-02	-0.199
		510.53		2.468E-04	2.478E-01	Half-Life	too short	
		529.87	*	2.746E-06	2.478E-01	Half-Life	too short	
		706.58		-2.124E-04	2.478E-01	Half-Life	too short	
		856.28		-4.684E-04	2.478E-01	Half-Life	too short	
		875.33		-3.324E-04	2.478E-01	Half-Life	too short	
		1236.41		8.690E-04	2.478E-01	Half-Life	too short	
CS-134		1298.22		-3.481E-04	2.478E-01	Half-Life	too short	
		475.35		1.998E+00	1.578E+00	2.895E+00	1.927E-01	0.690
		563.23		2.441E-02	3.076E-01	5.108E-01	3.839E-02	0.048
		569.32		-4.144E-02	1.684E-01	2.709E-01	2.060E-02	-0.153
		604.70		7.503E-03	3.337E-02	5.563E-02	4.324E-03	0.135
		795.84	*	-3.154E-03	3.854E-02	6.390E-02	5.150E-03	-0.049
		801.93		3.891E-01	3.696E-01	6.745E-01	5.413E-02	0.577
		1038.57		-1.673E+00	3.334E+00	5.082E+00	3.404E-01	-0.329
		1167.94		-5.228E-02	1.999E+00	3.213E+00	1.783E-01	-0.016
		1365.15		-1.457E-01	1.234E+00	2.007E+00	1.262E-01	-0.073
CS-135		268.24	*	2.054E-02	1.112E-01	1.866E-01	1.724E-02	0.110
I-135		288.45		-2.392E+01	1.112E-01	Half-Life	too short	
		417.63		3.628E+01	1.112E-01	Half-Life	too short	
		546.56		-6.511E+00	1.112E-01	Half-Life	too short	
		836.80		4.155E+01	1.112E-01	Half-Life	too short	
		1038.76		-1.797E+00	1.112E-01	Half-Life	too short	
		1124.00		3.119E+01	1.112E-01	Half-Life	too short	
		1131.51		-7.265E+00	1.112E-01	Half-Life	too short	
		1260.41	*	-2.638E+00	1.112E-01	Half-Life	too short	
		1457.56		8.000E+01	1.112E-01	Half-Life	too short	
		1678.03		-1.295E+01	1.112E-01	Half-Life	too short	
		1706.46		-2.974E+01	1.112E-01	Half-Life	too short	
		1791.20		-3.556E+00	1.112E-01	Half-Life	too short	
CS-136		66.91		-6.797E-02	1.621E-01	2.381E-01	3.742E-02	-0.285
		86.29		-2.716E-01	3.168E-01	4.998E-01	6.210E-02	-0.543
		153.22		7.706E-02	2.841E-01	4.644E-01	4.783E-02	0.166
		163.89		1.016E-01	5.558E-01	8.490E-01	7.790E-02	0.120
		176.55		-6.813E-02	1.740E-01	2.686E-01	2.257E-02	-0.254
		273.65		2.993E-02	2.061E-01	3.445E-01	2.877E-02	0.087
		340.57		2.586E-02	6.378E-02	1.069E-01	7.723E-03	0.242
		818.51		5.330E-03	4.508E-02	7.610E-02	6.024E-03	0.070
		1048.07	*	-2.828E-02	7.482E-02	1.170E-01	8.293E-03	-0.242
		1235.34		2.276E-01	2.565E-01	4.725E-01	4.658E-02	0.482
BA-137M		661.65	*	-2.317E-02	3.096E-02	4.617E-02	3.766E-03	-0.502
CS-137		661.65	*	-2.450E-02	3.273E-02	4.881E-02	3.989E-03	-0.502
CE-139		165.85	*	-1.736E-02	2.085E-02	3.133E-02	2.457E-03	-0.554
BA-140		162.64		-2.039E-01	3.967E-01	5.800E-01	5.081E-02	-0.352
		304.84		1.691E-02	6.746E-01	1.109E+00	3.070E-01	0.015
LA-140		423.70		-1.002E-01	9.921E-01	1.567E+00	4.991E-01	-0.064
		537.32	*	4.003E-02	1.460E-01	2.467E-01	8.092E-02	0.162
		328.77		6.349E-02	1.516E-01	2.546E-01	1.959E-02	0.249
		432.53		2.994E-01	1.095E+00	1.885E+00	1.285E-01	0.159

----- Non-Identified Nuclides -----

	Line Energy Nuclide Ided (keV) Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	487.03	6.684E-02	7.885E-02	1.402E-01	1.042E-02	0.477
	751.79	7.841E-01	1.116E+00	1.913E+00	1.737E-01	0.410
	815.85	2.011E-01	2.003E-01	3.646E-01	3.279E-02	0.552
	867.82	3.089E-01	9.292E-01	1.590E+00	1.303E-01	0.194
	919.63	3.772E-01	1.739E+00	2.935E+00	2.848E-01	0.129
	925.24	8.856E-02	7.283E-01	1.217E+00	9.759E-02	0.073
	1596.49 *	-1.774E-02	5.558E-02	8.539E-02	4.921E-03	-0.208
CE-141	145.44 *	-1.610E-02	3.499E-02	5.456E-02	5.660E-03	-0.295
CE-143	57.37	3.607E+00	4.561E+00	8.050E+00	8.259E-01	0.448
	231.56	-3.701E+01	3.818E+01	5.694E+01	1.785E+01	-0.650
	293.26 *	1.644E+00	2.093E+00	3.573E+00	7.501E-01	0.460
	350.59	-1.826E+01	3.151E+01	4.764E+01	1.454E+01	-0.383
	490.36	6.286E-01	5.214E+01	8.705E+01	2.707E+01	0.007
	664.57	8.532E+00	2.384E+01	3.983E+01	1.281E+01	0.214
	721.93	1.607E+01	2.729E+01	4.584E+01	1.329E+01	0.351
CE-144	80.11	2.533E-01	9.353E-01	1.510E+00	1.256E-01	0.168
	133.54 *	3.668E-02	1.281E-01	2.113E-01	3.662E-02	0.174
PM-144	476.78	2.576E-02	5.649E-02	9.786E-02	7.517E-03	0.263
	618.01	-6.188E-03	2.928E-02	4.691E-02	3.802E-03	-0.132
	696.49 *	7.711E-03	3.320E-02	5.484E-02	4.478E-03	0.141
	778.57	-6.310E-01	1.959E+00	3.173E+00	2.552E-01	-0.199
PR-144	696.49 *	5.204E-01	2.240E+00	3.701E+00	3.022E-01	0.141
	1489.15	1.425E-01	1.115E+01	1.829E+01	1.054E+00	0.008
PM-146	453.90 *	-2.278E-02	3.850E-02	6.159E-02	5.590E-03	-0.370
	633.02	-1.357E+00	1.430E+00	1.968E+00	7.326E-01	-0.689
	735.90	-7.337E-03	1.441E-01	2.306E-01	6.563E-02	-0.032
	747.13	-5.948E-02	9.274E-02	1.385E-01	1.902E-02	-0.429
ND-147	91.11	-8.447E-01	1.459E-01	1.945E-01	1.754E-02	-4.343
	319.41	1.733E-02	1.575E+00	2.577E+00	1.869E-01	0.007
	439.89	-7.072E-02	2.923E+00	4.909E+00	3.104E-01	-0.014
	531.02 *	-3.148E-02	3.018E-01	4.954E-01	7.012E-02	-0.064
PM-149	285.90 *	4.232E+00	6.134E+00	1.055E+01	1.582E+00	0.401
EU-152	121.78	2.792E-02	4.558E-02	7.704E-02	1.042E-02	0.362
	244.69	-7.418E-02	2.255E-01	3.678E-01	2.899E-02	-0.202
	344.27 *	-4.687E-02	8.149E-02	1.264E-01	9.473E-03	-0.371
	443.98	9.939E-01	8.069E-01	1.477E+00	9.397E-02	0.673
	778.89	-7.238E-02	2.341E-01	3.801E-01	3.057E-02	-0.190
	867.32	2.638E-01	8.469E-01	1.446E+00	1.112E-01	0.182
	964.01	1.078E-01	2.183E-01	3.794E-01	2.728E-02	0.284
	1085.78	-1.910E-01	3.411E-01	5.123E-01	3.238E-02	-0.373
	1112.02	1.208E-01	2.620E-01	4.492E-01	2.736E-02	0.269
	1407.95	-1.618E-02	1.699E-01	2.758E-01	1.582E-02	-0.059
GD-153	69.67	3.491E-01	5.002E-01	8.729E-01	7.803E-02	0.400
	83.37	-3.172E+00	7.091E+00	1.115E+01	9.075E-01	-0.285
	97.43 *	-3.751E-03	4.829E-02	7.418E-02	6.750E-03	-0.051
	103.18	-2.150E-02	6.087E-02	9.816E-02	9.696E-03	-0.219
EU-154	123.07	-1.600E-04	3.174E-02	5.172E-02	7.538E-03	-0.003
	247.94	-8.209E-02	2.631E-01	4.292E-01	4.689E-02	-0.191
	591.81	-1.416E-01	5.398E-01	8.631E-01	9.470E-02	-0.164

----- Non-Identified Nuclides -----

	Line Nuclide	Energy Ided (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.30	4.123E-02	1.715E-01	2.826E-01	2.572E-02	0.146
		756.87	-2.110E-01	7.781E-01	1.213E+00	1.408E-01	-0.174
		873.19	6.502E-02	2.850E-01	4.834E-01	5.603E-02	0.135
		996.32	-2.405E-01	3.272E-01	4.828E-01	8.224E-02	-0.498
		1004.76	-1.414E-01	1.967E-01	2.934E-01	3.068E-02	-0.482
		1274.45	* -1.377E-02	9.370E-02	1.526E-01	1.410E-02	-0.090
EU-155		48.70	-6.114E-01	2.957E-01	4.490E-01	3.389E-02	-1.362
		60.01	-5.670E-01	1.260E+00	1.865E+00	1.785E-01	-0.304
		86.54	-3.409E-02	4.385E-02	6.978E-02	5.625E-03	-0.488
		105.31	* -1.554E-02	6.596E-02	1.071E-01	1.099E-02	-0.145
TB-160		86.79	-5.381E-02	1.082E-01	1.752E-01	1.393E-02	-0.307
		197.04	-2.050E-01	3.803E-01	5.855E-01	4.635E-02	-0.350
		215.65	1.637E-01	4.670E-01	8.028E-01	6.367E-02	0.204
		298.57	-7.488E-02	8.266E-02	1.271E-01	9.539E-03	-0.589
		879.36	* 1.065E-02	1.451E-01	2.098E-01	1.600E-02	0.051
		962.29	2.198E-01	3.837E-01	6.714E-01	4.835E-02	0.327
		966.15	-8.427E-02	1.457E-01	2.224E-01	1.597E-02	-0.379
		1177.93	2.273E-02	2.633E-01	4.294E-01	2.363E-02	0.053
		1271.85	-3.659E-01	5.348E-01	8.053E-01	4.532E-02	-0.454
HO-166M		80.57	6.247E-02	1.210E-01	1.973E-01	1.637E-02	0.317
		184.41	-2.556E-02	3.112E-02	5.375E-02	4.240E-03	-0.476
		280.46	2.578E-02	6.247E-02	1.061E-01	8.144E-03	0.243
		410.95	1.331E-01	1.945E-01	3.300E-01	1.993E-02	0.403
		711.68	* -2.042E-02	5.826E-02	8.627E-02	7.037E-03	-0.237
		752.31	1.847E-01	2.787E-01	4.756E-01	3.854E-02	0.388
		810.29	-2.654E-02	5.436E-02	8.618E-02	6.845E-03	-0.308
TM-171		51.35	4.033E-03	4.109E+00	7.036E+00	5.664E-01	0.001
		52.39	-3.294E+00	2.663E+00	3.792E+00	3.128E-01	-0.868
		59.40	-4.373E+00	6.747E+00	9.839E+00	9.434E-01	-0.444
		66.72	* -3.018E+00	8.748E+00	1.295E+01	1.182E+00	-0.233
LU-176		88.36	2.301E-02	8.225E-02	1.390E-01	1.102E-02	0.166
		201.83	-1.300E-02	1.924E-02	3.119E-02	2.471E-03	-0.417
		306.84	* 2.310E-03	1.974E-02	3.264E-02	2.420E-03	0.071
		401.10	1.612E+00	5.751E+00	9.439E+00	5.606E-01	0.171
LU-177		112.95	-1.705E-01	5.283E-01	7.893E-01	8.892E-02	-0.216
		208.36	* 1.535E-01	3.394E-01	5.866E-01	4.652E-02	0.262
LU-177M		52.97	-3.298E-01	2.805E-01	4.023E-01	3.362E-02	-0.820
		54.07	-1.969E-01	1.628E-01	2.344E-01	2.008E-02	-0.840
		61.30	4.138E-01	3.916E-01	6.374E-01	6.045E-02	0.649
		121.62	1.478E-01	2.268E-01	3.842E-01	4.831E-02	0.385
		147.16	-3.171E-01	3.980E-01	6.021E-01	6.051E-02	-0.527
		171.86	-1.202E-02	3.346E-01	5.314E-01	4.173E-02	-0.023
		218.09	-2.671E-02	5.544E-01	9.298E-01	7.374E-02	-0.029
		268.79	-8.173E-02	5.391E-01	8.837E-01	6.860E-02	-0.092
		319.02	-5.347E-02	1.960E-01	3.136E-01	2.276E-02	-0.171
		367.43	-9.435E-01	6.905E-01	9.683E-01	6.207E-02	-0.974
		413.65	* -3.364E-02	1.363E-01	2.129E-01	1.291E-02	-0.158
HF-181		56.28	6.289E-02	1.642E-01	2.852E-01	2.563E-02	0.220
		57.53	6.718E-02	9.475E-02	1.668E-01	1.539E-02	0.403

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
W-181		65.20		1.247E-01	2.507E-01	3.946E-01	3.640E-02	0.316
		133.02		4.732E-03	3.646E-02	5.963E-02	6.892E-03	0.079
		136.25		-1.114E-01	2.667E-01	4.193E-01	4.707E-02	-0.266
		345.85		1.057E-02	1.401E-01	2.289E-01	1.564E-02	0.046
		482.03	*	4.632E-03	3.068E-02	5.191E-02	3.488E-03	0.089
		56.28		2.688E-02	6.979E-02	1.212E-01	1.090E-02	0.222
		57.53		2.861E-02	4.029E-02	7.092E-02	6.545E-03	0.403
TA-182		65.20	*	5.260E-02	1.058E-01	1.665E-01	1.535E-02	0.316
		67.75		-7.137E-03	3.211E-02	5.109E-02	4.629E-03	-0.140
		100.10		-5.081E-02	9.933E-02	1.589E-01	1.503E-02	-0.320
		152.43		1.087E-01	2.060E-01	3.424E-01	3.237E-02	0.318
		222.10		-2.291E-02	2.281E-01	3.808E-01	3.019E-02	-0.060
		1001.68		6.132E-01	1.902E+00	3.157E+00	2.196E-01	0.194
		1121.28		-1.539E-02	9.680E-02	1.532E-01	9.201E-03	-0.100
RE-183		1189.05		-1.283E-01	2.020E-01	3.079E-01	1.700E-02	-0.417
		1221.42	*	4.978E-02	1.362E-01	2.372E-01	1.320E-02	0.210
		1230.97		-1.532E-01	3.133E-01	4.888E-01	2.726E-02	-0.313
		57.98		3.305E-03	4.072E-02	6.661E-02	6.205E-03	0.050
		59.32		-1.673E-02	2.580E-02	3.763E-02	3.603E-03	-0.444
		67.20		-2.810E-02	5.805E-02	8.491E-02	7.723E-03	-0.331
		162.32	*	-7.009E-02	8.315E-02	1.189E-01	9.843E-03	-0.589
RE-184		208.81		2.436E-01	6.259E-01	1.078E+00	8.552E-02	0.226
		291.72		-3.313E-01	6.949E-01	1.107E+00	8.386E-02	-0.299
		57.98		1.273E-02	1.569E-01	2.567E-01	2.391E-02	0.050
		59.32		-6.440E-02	9.936E-02	1.449E-01	1.387E-02	-0.444
		67.20		-1.083E-01	2.236E-01	3.271E-01	2.975E-02	-0.331
		161.27		-6.138E-02	2.509E-01	3.949E-01	3.319E-02	-0.155
		216.55		-1.903E-02	1.690E-01	2.824E-01	2.240E-02	-0.067
OS-185		252.85	*	8.010E-02	1.717E-01	2.941E-01	2.308E-02	0.272
		318.01		-1.176E-01	3.425E-01	5.451E-01	3.964E-02	-0.216
		792.07		2.394E-02	8.012E-01	1.345E+00	1.076E-01	0.018
		903.28		-4.750E-01	8.740E-01	1.356E+00	1.017E-01	-0.350
		920.93		-1.558E-01	4.280E-01	6.787E-01	5.034E-02	-0.230
		59.72		-2.934E-02	7.025E-02	1.042E-01	9.999E-03	-0.281
		61.14		2.846E-02	4.033E-02	6.452E-02	6.126E-03	0.441
RE-188		69.30		4.300E-02	8.514E-02	1.473E-01	1.320E-02	0.292
		592.07		-7.019E-01	2.070E+00	3.283E+00	2.511E-01	-0.214
		646.12	*	-2.334E-02	3.951E-02	6.063E-02	4.880E-03	-0.385
		717.42		-2.410E-01	8.327E-01	1.304E+00	1.063E-01	-0.185
		874.81		-4.084E-01	5.481E-01	8.371E-01	6.406E-02	-0.488
		880.27		2.942E-01	8.380E-01	1.255E+00	9.567E-02	0.234
		155.03	*	-1.015E-01	1.095E-01	1.640E-01	1.501E-02	-0.619
W-188		477.96		-1.002E+00	2.430E+00	3.920E+00	2.619E-01	-0.256
		633.10		-2.491E+00	2.524E+00	3.710E+00	2.952E-01	-0.672
	+	63.58		7.165E+00	2.783E+01	3.871E+01	3.612E+00	0.185
IR-192		227.08		1.093E+01	8.608E+00	1.542E+01	1.222E+00	0.708
		290.67	*	-2.265E+00	5.381E+00	8.601E+00	6.526E-01	-0.263
		295.96		-6.075E-03	8.125E-02	1.277E-01	9.711E-03	-0.048
		308.46		1.565E-02	7.071E-02	1.178E-01	8.769E-03	0.133

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AU-195	316.51	*		-3.823E-03	2.545E-02	4.116E-02	3.011E-03	-0.093
	468.07			4.043E-02	5.157E-02	9.154E-02	6.757E-03	0.442
	604.41			6.404E-02	4.150E-01	6.882E-01	8.572E-02	0.093
	612.46			-2.531E-01	5.633E-01	8.816E-01	8.110E-02	-0.287
	65.12			4.877E-02	5.102E-02	8.238E-02	7.603E-03	0.592
	66.83			-1.101E-02	2.834E-02	4.181E-02	3.812E-03	-0.263
	75.70			5.278E-02	6.697E-02	1.116E-01	9.576E-03	0.473
TL-200	98.88	*		-1.831E-02	1.388E-01	2.121E-01	1.971E-02	-0.086
	129.76			6.372E-01	1.655E+00	2.754E+00	3.275E-01	0.231
	367.94	*		-3.702E+00	2.589E+00	3.590E+00	2.297E-01	-1.031
	579.30			-4.355E+00	2.305E+01	3.727E+01	2.814E+00	-0.117
	828.27			-5.918E+00	3.157E+01	5.155E+01	4.059E+00	-0.115
TL-201	1205.75			4.505E+00	1.407E+01	2.437E+01	1.351E+00	0.185
	68.90			3.701E-02	2.467E-01	4.196E-01	3.771E-02	0.088
	70.82			-4.135E-02	1.492E-01	2.475E-01	2.195E-02	-0.167
	80.30			3.198E-01	3.843E-01	6.359E-01	5.286E-02	0.503
	135.34			-1.090E-01	2.846E+00	4.598E+00	5.205E-01	-0.024
TL-202	167.43	*		-1.317E-01	8.372E-01	1.321E+00	1.035E-01	-0.100
	68.90			1.246E-02	8.309E-02	1.413E-01	1.270E-02	0.088
	70.82			-1.389E-02	5.011E-02	8.312E-02	7.372E-03	-0.167
	80.30			1.074E-01	1.291E-01	2.136E-01	1.776E-02	0.503
	439.56	*		-1.142E-02	3.558E-02	5.828E-02	3.683E-03	-0.196
HG-203	70.83			-8.419E-02	3.000E-01	4.973E-01	6.846E-02	-0.169
	72.87			-5.285E-02	1.822E-01	3.016E-01	4.006E-02	-0.175
	82.60			-5.173E-01	4.809E-01	7.225E-01	9.735E-02	-0.716
	279.20	*		2.524E-02	2.601E-02	4.575E-02	3.642E-03	0.552
	72.80			-2.002E-02	5.971E-02	9.861E-02	8.627E-03	-0.203
BI-207	74.97			4.534E-03	3.900E-02	6.310E-02	5.440E-03	0.072
	84.90			-3.666E-02	9.183E-02	1.443E-01	1.163E-02	-0.254
	569.67			-7.362E-03	2.636E-02	4.226E-02	3.158E-03	-0.174
	1063.62	*		2.028E-02	4.776E-02	8.158E-02	5.306E-03	0.249
	1770.23			-3.674E-01	4.549E-01	6.299E-01	3.575E-02	-0.583
TL-207	81.07			-7.166E-05	9.868E-02	1.570E-01	1.298E-02	0.000
	83.78			-1.066E-02	6.131E-02	9.773E-02	7.934E-03	-0.109
	94.90			-1.276E+00	2.127E-01	2.070E-01	1.815E-02	-6.165
	122.32			2.085E-01	1.094E+00	1.805E+00	2.359E-01	0.115
	144.24			1.021E-01	5.054E-01	7.845E-01	8.815E-02	0.130
	154.21			-2.622E-01	2.721E-01	4.058E-01	4.079E-02	-0.646
	269.46			-1.014E-01	1.349E-01	2.113E-01	1.681E-02	-0.480
	323.87	*		-2.060E-01	5.020E-01	7.908E-01	1.349E-01	-0.261
	338.28			-2.969E-01	8.404E-01	1.237E+00	1.387E-01	-0.240
	445.03			-3.883E-01	1.952E+00	3.230E+00	3.425E-01	-0.120
TL-208	277.35			-1.291E-01	2.998E-01	4.410E-01	5.165E-02	-0.293
	510.84	+		5.395E-02	3.095E-01	3.745E-01	4.070E-02	0.144
	583.14	*		3.318E-03	3.866E-02	5.993E-02	4.961E-03	0.055
	860.37			-4.462E-02	2.583E-01	4.212E-01	3.551E-02	-0.106
	260.50			-4.830E+00	7.359E+00	1.167E+01	9.117E-01	-0.414
PO-209	262.80			-2.012E+00	2.039E+01	3.361E+01	2.622E+00	-0.060
	896.60	*		8.240E-01	7.084E+00	1.186E+01	8.930E-01	0.069

----- 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	*	-3.030E-01	4.259E-01	6.448E-01	5.256E-02	-0.470
PB-210		46.50	*	-3.030E-01	4.259E-01	6.448E-01	5.256E-02	-0.470
PO-210		46.50	*	-3.030E-01	4.257E-01	6.448E-01	4.597E-02	-0.470
BI-211		72.87		-2.981E-01	1.027E+00	1.701E+00	1.487E-01	-0.175
		351.07	*	-1.090E-01	1.924E-01	2.958E-01	2.156E-02	-0.368
PB-211		404.84	*	-5.010E-01	8.794E-01	1.249E+00	7.790E-01	-0.401
		427.08		-6.364E-01	1.739E+00	2.603E+00	1.610E+00	-0.244
		831.96		-2.726E-01	1.198E+00	1.867E+00	1.168E+00	-0.146
BI-212		727.18	*	3.667E-02	2.796E-01	4.561E-01	4.378E-02	0.080
		785.46		7.936E-01	1.555E+00	2.726E+00	2.187E-01	0.291
		1620.62		8.791E-01	1.266E+00	2.289E+00	1.317E-01	0.384
PB-212		74.81		1.778E-02	1.342E-01	2.172E-01	2.764E-02	0.082
		77.11		-6.531E-02	8.364E-02	1.234E-01	1.049E-02	-0.529
		87.30		-4.916E-02	1.642E-01	2.687E-01	3.428E-02	-0.183
	+	238.63	*	5.176E-02	5.997E-02	7.925E-02	7.200E-03	0.653
		300.09		-2.641E-01	5.950E-01	9.463E-01	9.003E-02	-0.279
PO-212		74.81		1.778E-02	1.342E-01	2.172E-01	2.764E-02	0.082
		77.11		-6.531E-02	8.364E-02	1.234E-01	1.049E-02	-0.529
		87.30		-4.916E-02	1.642E-01	2.687E-01	3.428E-02	-0.183
		115.19		-1.836E+00	2.317E+00	3.593E+00	4.167E-01	-0.511
	+	238.63	*	5.176E-02	5.997E-02	7.925E-02	7.200E-03	0.653
		300.09		-2.641E-01	5.950E-01	9.463E-01	9.003E-02	-0.279
BI-214		609.31	*	-6.609E-02	7.317E-02	1.058E-01	9.893E-03	-0.625
		1120.29		-5.870E-02	2.193E-01	3.417E-01	3.057E-02	-0.172
		1764.49		2.648E-01	2.084E-01	4.172E-01	2.369E-02	0.635
PB-214		74.81		3.064E-02	2.311E-01	3.743E-01	4.257E-02	0.082
		77.11		-1.120E-01	1.436E-01	2.116E-01	2.415E-02	-0.529
		87.30		-8.421E-02	2.813E-01	4.603E-01	5.089E-02	-0.183
		241.98		1.344E-01	2.589E-01	3.904E-01	3.779E-02	0.344
		295.21		1.707E-02	1.150E-01	1.835E-01	1.798E-02	0.093
		351.92	*	-9.439E-02	7.117E-02	1.031E-01	9.227E-03	-0.916
PO-214		74.81		3.064E-02	2.311E-01	3.743E-01	4.257E-02	0.082
		77.11		-1.120E-01	1.436E-01	2.116E-01	2.415E-02	-0.529
		87.30		-8.421E-02	2.813E-01	4.603E-01	5.089E-02	-0.183
		241.98		1.344E-01	2.589E-01	3.904E-01	3.779E-02	0.344
		295.21		1.707E-02	1.150E-01	1.835E-01	1.798E-02	0.093
		351.92	*	-9.439E-02	7.117E-02	1.031E-01	9.227E-03	-0.916
PO-215		81.07		-7.166E-05	9.868E-02	1.570E-01	1.298E-02	0.000
		83.78		-1.066E-02	6.131E-02	9.773E-02	7.934E-03	-0.109
		94.90		-1.276E+00	2.127E-01	2.070E-01	1.815E-02	-6.165
		122.32		2.085E-01	1.094E+00	1.805E+00	2.359E-01	0.115
		144.24		1.021E-01	5.054E-01	7.845E-01	8.815E-02	0.130
		154.21		-2.622E-01	2.721E-01	4.058E-01	4.079E-02	-0.646
		269.46		-1.014E-01	1.349E-01	2.113E-01	1.681E-02	-0.480
		323.87	*	-2.060E-01	5.020E-01	7.908E-01	1.349E-01	-0.261
		338.28		-2.969E-01	8.404E-01	1.237E+00	1.387E-01	-0.240
		445.03		-3.883E-01	1.952E+00	3.230E+00	3.425E-01	-0.120
PO-216		74.81		1.778E-02	1.342E-01	2.172E-01	2.764E-02	0.082
		77.11		-6.531E-02	8.364E-02	1.234E-01	1.049E-02	-0.529

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-218		87.30		-4.916E-02	1.642E-01	2.687E-01	3.428E-02	-0.183
	+	238.63	*	5.176E-02	5.997E-02	7.925E-02	7.200E-03	0.653
		300.09		-2.641E-01	5.950E-01	9.463E-01	9.003E-02	-0.279
		74.81		3.064E-02	2.311E-01	3.743E-01	4.257E-02	0.082
		77.11		-1.120E-01	1.436E-01	2.116E-01	2.415E-02	-0.529
		87.30		-8.421E-02	2.813E-01	4.603E-01	5.089E-02	-0.183
		241.98		1.344E-01	2.589E-01	3.904E-01	3.779E-02	0.344
		295.21		1.707E-02	1.150E-01	1.835E-01	1.798E-02	0.093
RN-219		351.92	*	-9.439E-02	7.117E-02	1.031E-01	9.227E-03	-0.916
		271.23		-6.890E-02	1.668E-01	2.677E-01	2.568E-02	-0.257
		401.81	*	6.959E-02	3.499E-01	5.704E-01	7.797E-02	0.122
RN-220		549.76	*	-4.475E+00	2.357E+01	3.828E+01	2.799E+00	-0.117
RA-223		81.07		-7.166E-05	9.868E-02	1.570E-01	1.298E-02	0.000
		83.78		-1.066E-02	6.131E-02	9.773E-02	7.934E-03	-0.109
		94.90		-1.276E+00	2.127E-01	2.070E-01	1.815E-02	-6.165
		122.32		2.085E-01	1.094E+00	1.805E+00	2.359E-01	0.115
RA-224		144.24		1.021E-01	5.054E-01	7.845E-01	8.815E-02	0.130
		154.21		-2.622E-01	2.721E-01	4.058E-01	4.079E-02	-0.646
		269.46		-1.014E-01	1.349E-01	2.113E-01	1.681E-02	-0.480
		323.87	*	-2.060E-01	5.020E-01	7.908E-01	1.349E-01	-0.261
		338.28		-2.969E-01	8.404E-01	1.237E+00	1.387E-01	-0.240
		445.03		-3.883E-01	1.952E+00	3.230E+00	3.425E-01	-0.120
		240.98	*	8.842E-02	4.989E-01	7.309E-01	5.769E-02	0.121
		609.31	*	-6.609E-02	7.317E-02	1.058E-01	9.893E-03	-0.625
		1120.29		-5.870E-02	2.193E-01	3.417E-01	3.057E-02	-0.172
		1764.49		2.648E-01	2.084E-01	4.172E-01	2.369E-02	0.635
AC-227		79.80		-6.823E-02	7.238E-01	1.144E+00	2.448E-01	-0.060
		236.00		1.162E-01	1.664E-01	2.595E-01	3.050E-02	0.448
		256.20	*	-1.390E-01	2.959E-01	4.760E-01	7.102E-02	-0.292
		286.10		9.317E-01	1.165E+00	2.018E+00	2.539E-01	0.462
		299.80		-7.987E-01	1.124E+00	1.742E+00	2.954E-01	-0.459
TH-227		304.40		-1.525E-01	1.651E+00	2.529E+00	4.531E-01	-0.060
		334.20		-2.555E-01	1.697E+00	2.729E+00	5.120E-01	-0.094
		79.80		-6.823E-02	7.238E-01	1.144E+00	2.480E-01	-0.060
		94.00		2.545E+00	1.530E+00	2.516E+00	5.483E-01	1.012
		236.00		1.162E-01	1.663E-01	2.595E-01	2.733E-02	0.448
		256.20	*	-1.390E-01	2.962E-01	4.760E-01	8.426E-02	-0.292
		286.10		9.317E-01	1.489E+00	2.018E+00	2.024E+00	0.462
		299.80		-7.987E-01	1.124E+00	1.742E+00	2.954E-01	-0.459
		304.40		-1.525E-01	1.651E+00	2.529E+00	4.531E-01	-0.060
		334.20		-2.555E-01	1.697E+00	2.729E+00	5.120E-01	-0.094
AC-228		338.32		-7.058E-02	2.032E-01	2.964E-01	1.213E-01	-0.238
		911.07	*	3.744E-02	1.398E-01	2.336E-01	2.426E-02	0.160
		969.11		-5.392E-02	2.086E-01	3.166E-01	7.230E-02	-0.170
RA-228		338.32		-7.058E-02	2.032E-01	2.964E-01	1.213E-01	-0.238
		911.07	*	3.744E-02	1.398E-01	2.336E-01	2.426E-02	0.160
TH-228		969.11		-5.392E-02	2.086E-01	3.166E-01	7.230E-02	-0.170
		74.81		1.791E-02	1.351E-01	2.189E-01	1.905E-02	0.082
		77.11		-6.579E-02	8.426E-02	1.244E-01	1.056E-02	-0.529

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-229	+	87.30		-4.952E-02	1.654E-01	2.707E-01	2.145E-02	-0.183
		238.63	*	5.215E-02	6.042E-02	7.984E-02	7.253E-03	0.653
		300.09		-2.661E-01	6.192E-01	9.533E-01	5.637E-01	-0.279
		85.43		1.068E-03	8.310E-02	1.386E-01	1.113E-02	0.008
		88.47		-3.497E-02	5.027E-02	8.033E-02	6.382E-03	-0.435
		100.00		-4.538E-02	1.085E-01	1.747E-01	1.649E-02	-0.260
TH-230		193.63	*	1.285E-01	3.325E-01	5.765E-01	4.560E-02	0.223
		210.97		-4.377E-01	5.298E-01	8.487E-01	6.731E-02	-0.516
		609.31	*	-6.609E-02	7.317E-02	1.058E-01	9.893E-03	-0.625
		1120.29		-5.869E-02	2.193E-01	3.417E-01	3.057E-02	-0.172
PA-231		1764.49		2.648E-01	2.084E-01	4.172E-01	2.369E-02	0.635
		283.67	*	-4.889E-01	1.167E+00	1.865E+00	2.733E-01	-0.262
TH-231		301.29		3.942E-01	4.434E-01	7.679E-01	8.807E-02	0.513
		81.07		-7.166E-05	9.868E-02	1.570E-01	1.298E-02	0.000
U-231		83.78		-1.066E-02	6.131E-02	9.773E-02	7.934E-03	-0.109
		94.90		-1.276E+00	2.127E-01	2.070E-01	1.815E-02	-6.165
		122.32		2.085E-01	1.094E+00	1.805E+00	2.359E-01	0.115
		144.24		1.021E-01	5.054E-01	7.845E-01	8.815E-02	0.130
		154.21		-2.622E-01	2.721E-01	4.058E-01	4.079E-02	-0.646
		269.46		-1.014E-01	1.349E-01	2.113E-01	1.681E-02	-0.480
		323.87	*	-2.060E-01	5.020E-01	7.908E-01	1.349E-01	-0.261
		338.28		-2.969E-01	8.404E-01	1.237E+00	1.387E-01	-0.240
		445.03		-3.883E-01	1.952E+00	3.230E+00	3.425E-01	-0.120
		84.21		-1.654E-01	7.324E-01	1.163E+00	9.414E-02	-0.142
		92.29		-7.656E-02	4.614E-01	8.703E-01	7.336E-02	-0.088
		95.87	*	-6.969E-01	2.038E-01	2.613E-01	2.324E-02	-2.667
TH-232		108.00		3.979E-02	3.562E-01	5.892E-01	6.216E-02	0.068
		338.32		-7.058E-02	2.012E-01	2.964E-01	2.064E-02	-0.238
		911.07	*	3.744E-02	1.398E-01	2.336E-01	2.426E-02	0.160
PA-233		969.11		-5.392E-02	2.086E-01	3.166E-01	7.230E-02	-0.170
		75.28		2.955E-01	1.135E+00	1.848E+00	2.835E-01	0.160
		86.59		-5.457E-01	7.287E-01	1.140E+00	3.034E-01	-0.479
		300.12		-1.352E-01	3.079E-01	4.893E-01	6.971E-02	-0.276
		311.98	*	-2.300E-02	5.187E-02	8.211E-02	6.271E-03	-0.280
PA-234	+	340.50		2.051E-01	4.679E-01	7.822E-01	1.821E-01	0.262
		398.62		-3.511E-01	1.857E+00	2.930E+00	7.584E-01	-0.120
		415.76		-9.416E-01	1.362E+00	2.011E+00	4.156E-01	-0.468
		63.00		2.245E-01	8.724E-01	1.213E+00	1.932E-01	0.185
		94.67		-6.403E-01	1.483E-01	1.615E-01	2.016E-02	-3.966
		98.44		4.330E-03	5.819E-02	9.002E-02	5.031E-02	0.048
		99.86		-2.444E-01	3.060E-01	4.480E-01	4.222E-02	-0.546
		111.00		-2.654E-02	1.150E-01	1.860E-01	2.581E-02	-0.143
		131.20		-3.186E-03	6.558E-02	1.061E-01	1.246E-02	-0.030
		152.70		7.623E-02	2.088E-01	3.431E-01	5.992E-02	0.222
		186.00		-1.519E+00	1.254E+00	1.956E+00	6.066E-01	-0.777
		226.40		1.803E-01	2.955E-01	5.118E-01	6.531E-02	0.352
		227.20		3.337E-01	3.164E-01	5.610E-01	4.445E-02	0.595
		248.90		-2.521E-01	6.111E-01	9.863E-01	2.183E-01	-0.256
		293.70		2.305E-01	5.427E-01	8.794E-01	1.477E-01	0.262

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		369.80		3.855E-01	6.874E-01	1.155E+00	2.424E-01	0.334
		568.70		-2.760E-01	8.823E-01	1.411E+00	1.054E-01	-0.196
		569.50		-6.166E-02	2.343E-01	3.763E-01	2.812E-02	-0.164
		574.00		-4.896E-01	1.320E+00	2.098E+00	1.575E-01	-0.233
		699.00		-7.963E-04	7.050E-01	1.140E+00	2.152E-01	-0.001
		706.10		1.552E-01	9.545E-01	1.563E+00	6.957E-01	0.099
		733.00		-5.228E-01	3.859E-01	5.012E-01	1.103E-01	-1.043
		742.81		7.425E-01	1.404E+00	2.232E+00	1.499E+00	0.333
		796.30		-2.464E-01	7.858E-01	1.268E+00	3.406E-01	-0.194
		805.60		2.154E-01	9.551E-01	1.625E+00	4.952E-01	0.133
		819.60		-4.066E-01	1.090E+00	1.726E+00	6.536E-01	-0.236
		826.30		2.822E-01	6.976E-01	1.195E+00	5.331E-01	0.236
		831.60		-1.539E-01	6.141E-01	9.619E-01	2.850E-01	-0.160
		876.40		-8.316E-01	1.186E+00	1.217E+00	1.250E+00	-0.683
		880.51		1.057E-01	3.202E-01	4.782E-01	3.645E-02	0.221
		883.24		7.701E-02	2.853E-01	4.775E-01	3.204E-01	0.161
		899.00		-1.931E-01	7.952E-01	1.274E+00	5.543E-01	-0.152
		925.00		1.397E-01	1.163E+00	1.941E+00	1.436E-01	0.072
		926.50		-6.292E-02	1.761E-01	2.785E-01	6.929E-02	-0.226
		946.00	*	5.482E-02	2.768E-01	4.654E-01	8.467E-02	0.118
		949.00		1.859E-02	4.064E-01	6.722E-01	4.890E-02	0.028
		980.50		2.030E-01	7.070E-01	1.196E+00	8.481E-02	0.170
		1394.10		-4.826E-02	1.056E+00	1.728E+00	1.119E+00	-0.028
PA-234M		766.42		1.035E+01	1.064E+01	1.713E+01	8.677E+00	0.604
		1001.03	*	9.908E-02	4.528E+00	7.284E+00	6.243E-01	0.014
TH-234	+	63.29	*	1.926E-01	7.486E-01	1.042E+00	1.911E-01	0.185
		92.38		-6.277E-02	4.337E-01	8.177E-01	1.472E-01	-0.077
U-234		609.31	*	-6.609E-02	7.317E-02	1.058E-01	9.893E-03	-0.625
		1120.29		-5.869E-02	2.193E-01	3.417E-01	3.057E-02	-0.172
		1764.49		2.648E-01	2.084E-01	4.172E-01	2.369E-02	0.635
U-235		89.95		-5.783E+00	1.922E+00	7.827E-01	2.405E-01	-7.389
		93.35		-7.613E-01	5.638E-01	9.520E-01	2.666E-01	-0.800
		105.00		-1.758E-01	6.481E-01	1.047E+00	3.173E-01	-0.168
		143.76	*	6.651E-02	1.560E-01	2.448E-01	4.520E-02	0.272
		163.35		-6.431E-02	3.733E-01	5.577E-01	1.053E-01	-0.115
		185.71		-5.351E-02	4.330E-02	7.273E-02	5.740E-03	-0.736
		205.31		-2.277E-01	3.932E-01	5.991E-01	1.125E-01	-0.380
NP-236		94.67		-4.837E-01	1.038E-01	1.228E-01	1.073E-02	-3.939
		98.44		3.292E-03	4.395E-02	6.805E-02	6.284E-03	0.048
		111.00		-2.008E-02	8.700E-02	1.407E-01	1.545E-02	-0.143
		160.31	*	-3.724E-02	6.006E-02	9.221E-02	7.858E-03	-0.404
NP-237		86.50	*	-8.456E-02	1.086E-01	1.704E-01	3.769E-02	-0.496
		95.87		-2.199E+00	8.193E-01	8.244E-01	2.039E-01	-2.667
U-238	+	63.29	*	1.926E-01	7.486E-01	1.042E+00	1.911E-01	0.185
		92.38		-6.277E-02	4.336E-01	8.177E-01	6.902E-02	-0.077
NP-239		99.55		-1.150E-02	9.957E-02	1.521E-01	1.427E-02	-0.076
		117.00	*	5.098E-02	1.199E-01	2.010E-01	2.385E-02	0.254
		209.75		2.612E-01	5.206E-01	9.026E-01	7.158E-02	0.289
		228.18		9.758E-02	1.607E-01	2.791E-01	2.211E-02	0.350

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		-9.830E-03	1.433E-01	2.166E-01	1.668E-02	-0.045
		334.30		-3.586E-01	9.757E-01	1.541E+00	1.083E-01	-0.233
AM-241		59.54	*	-2.576E-02	3.976E-02	5.796E-02	5.895E-03	-0.444
AM-243		74.67	*	5.037E-03	2.159E-02	3.513E-02	3.034E-03	0.143
		86.72		-2.923E+00	4.034E+00	6.442E+00	5.126E-01	-0.454
		117.66		-6.972E-01	2.414E+00	3.872E+00	4.633E-01	-0.180
		142.18		-1.749E+01	1.386E+01	1.951E+01	2.067E+00	-0.896
CM-243		99.55		-1.183E-02	1.024E-01	1.564E-01	1.467E-02	-0.076
		103.76	*	-2.809E-02	5.684E-02	9.074E-02	9.035E-03	-0.310
		117.00		5.243E-02	1.233E-01	2.066E-01	2.452E-02	0.254
		209.75		2.574E-01	5.130E-01	8.893E-01	7.053E-02	0.289
		228.18		9.855E-02	1.623E-01	2.818E-01	2.233E-02	0.350
		277.60		-9.905E-03	1.444E-01	2.183E-01	1.681E-02	-0.045
AM-246		798.80		-1.209E-01	1.289E-01	1.947E-01	1.554E-02	-0.621
		1036.00		-2.955E-01	2.566E-01	3.506E-01	2.355E-02	-0.843
		1062.04		4.147E-02	2.032E-01	3.390E-01	2.209E-02	0.122
		1078.86	*	4.251E-02	1.111E-01	1.901E-01	1.213E-02	0.224
CM-247		278.00		3.089E-02	5.972E-01	9.116E-01	7.017E-02	0.034
		287.40		1.307E-01	9.677E-01	1.610E+00	1.226E-01	0.081
		402.60	*	1.381E-02	3.110E-02	5.173E-02	3.081E-03	0.267
CF-249		252.85		3.102E-01	6.651E-01	1.139E+00	8.940E-02	0.272
		333.44		0.000E+00	1.270E-01	2.069E-01	1.457E-02	0.000
		387.95	*	-9.472E-04	3.109E-02	4.988E-02	2.962E-03	-0.019
CF-251		176.60	*	-7.855E-03	8.800E-02	1.389E-01	1.093E-02	-0.057
		227.00		3.601E-01	2.794E-01	5.010E-01	3.970E-02	0.719
		285.00		-4.120E-01	1.356E+00	2.188E+00	1.671E-01	-0.188

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]G1202005182      *
* Acquisition date   : 7-JAN-2010 09:31:14 Detector SN#      :              *
* Detector ID        : GAM13                      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 02:00:00.82             Half life ratio : 8.000        *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 31-DEC-2009 00:00:00 Nuclide Library : SOLID           *
* Sample ID          : G1202005182              Analyst initials: MXR1         *
* Batch Number       : 937069                   Sample Quantity : 1.3563E+02 GRAM  *
* Recovery           : 1.00000                  Carrier Weight  : 0.00000        *
*****
*
*                                     QC DATA                                *
*
* Standard Weight    : 0.00000                                                         *
* CALIB. DATE/TIME   : 2-FEB-2009 10:41:22 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)	
ANH-511	1.165E-02	6.551E-02	4.395E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	-1.003E-02	2.404E-01	4.185E-01	0.000E+00 NOT IDENT.
NA-22	-4.909E-03	3.274E-02	5.469E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	1.448E+02	0.000E+00	0.000E+00 SHORT HLIF
AL-26	-2.075E-02	3.111E-02	4.556E-02	0.000E+00 NOT IDENT.
K-40	2.748E-01	3.222E-01	6.053E-01	0.000E+00 NOT IDENT.
TI-44	-1.854E-02	1.494E-02	2.295E-02	0.000E+00 NOT IDENT.
SC-46	-1.206E-02	3.497E-02	5.765E-02	0.000E+00 NOT IDENT.
V-48	3.349E-02	4.605E-02	8.387E-02	0.000E+00 NOT IDENT.
CR-51	6.162E-02	2.298E-01	4.033E-01	0.000E+00 NOT IDENT.
MN-52	2.886E-02	7.354E-02	1.318E-01	0.000E+00 NOT IDENT.
MN-54	1.201E-02	3.373E-02	5.993E-02	0.000E+00 NOT IDENT.
CO-56	-3.632E-03	3.331E-02	5.662E-02	0.000E+00 NOT IDENT.
CO-57	-1.189E-03	1.556E-02	2.705E-02	0.000E+00 NOT IDENT.
CO-58	-5.569E-03	3.357E-02	5.706E-02	0.000E+00 NOT IDENT.
FE-59	1.240E-02	6.895E-02	1.176E-01	0.000E+00 NOT IDENT.
CO-60	3.308E-03	3.477E-02	5.972E-02	0.000E+00 NOT IDENT.
ZN-65	1.294E-02	6.878E-02	1.173E-01	0.000E+00 NOT IDENT.
GE-68	-1.847E-02	9.569E-01	1.596E+00	0.000E+00 NOT IDENT.
AS-73	-1.298E-01	1.427E-01	2.281E-01	0.000E+00 NOT IDENT.
AS-74	-1.172E-02	5.977E-02	1.002E-01	0.000E+00 NOT IDENT.
SE-75	2.524E-02	3.160E-02	5.805E-02	0.000E+00 NOT IDENT.
BR-77	1.198E-01	9.663E-01	1.690E+00	0.000E+00 FAIL ABUN
SR-82	-3.666E-03	2.652E-01	4.595E-01	0.000E+00 NOT IDENT.
RB-83	8.262E-03	5.798E-02	1.015E-01	0.000E+00 NOT IDENT.
RB-84	-1.221E-02	6.795E-02	9.979E-02	0.000E+00 NOT IDENT.
KR-85	0.000E+00	7.235E+00	1.288E+01	0.000E+00 NOT IDENT.

SR-85	0.000E+00	3.420E-02	6.088E-02	0.000E+00	NOT IDENT.
RB-86	-2.369E-02	4.790E-01	7.962E-01	0.000E+00	NOT IDENT.
Y-88	-1.208E-02	2.734E-02	4.125E-02	0.000E+00	NOT IDENT.
ZR-88	1.070E-02	2.454E-02	4.277E-02	0.000E+00	NOT IDENT.
Y-91	4.722E+00	1.335E+01	2.378E+01	0.000E+00	NOT IDENT.
NB-94	4.998E-03	3.228E-02	5.487E-02	0.000E+00	NOT IDENT.
NB-95	1.422E-02	3.143E-02	5.689E-02	0.000E+00	NOT IDENT.
NB-95M	5.016E-02	8.062E-02	1.323E-01	0.000E+00	NOT IDENT.
ZR-95	-5.749E-02	6.490E-02	9.769E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.776E+01	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	8.930E+02	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.846E+00	1.657E+00	3.013E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.411E+07	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.462E-03	2.337E-02	3.934E-02	0.000E+00	NOT IDENT.
RH-102	2.394E-02	2.444E-02	4.582E-02	0.000E+00	NOT IDENT.
RU-103	-7.337E-03	3.190E-02	5.446E-02	0.000E+00	NOT IDENT.
RH-106	-9.319E-02	2.831E-01	4.655E-01	0.000E+00	FAIL ABUN
RU-106	-9.319E-02	2.830E-01	4.655E-01	0.000E+00	FAIL ABUN
AG-108M	-5.795E-03	2.638E-02	4.571E-02	0.000E+00	NOT IDENT.
CD-109	5.712E-02	3.390E-01	6.132E-01	0.000E+00	NOT IDENT.
AG-110M	3.831E-03	2.681E-02	4.597E-02	0.000E+00	NOT IDENT.
IN-111	-1.009E-01	1.104E-01	1.823E-01	0.000E+00	NOT IDENT.
IN-113M	1.704E-03	3.400E-02	5.754E-02	0.000E+00	NOT IDENT.
SN-113	1.704E-03	3.400E-02	5.754E-02	0.000E+00	NOT IDENT.
IN-114M	-5.145E-02	1.111E-01	1.801E-01	0.000E+00	NOT IDENT.
CD-115	9.376E-03	8.324E-01	1.440E+00	0.000E+00	NOT IDENT.
SN-117M	3.186E-02	2.593E-02	4.738E-02	0.000E+00	NOT IDENT.
SB-122	-7.947E-02	2.435E-01	4.056E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.286E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.062E-02	1.912E-02	3.467E-02	0.000E+00	NOT IDENT.
I-124	1.640E-02	1.759E-01	3.020E-01	0.000E+00	NOT IDENT.
SB-124	-5.160E-03	6.587E-02	1.068E-01	0.000E+00	NOT IDENT.
SB-125	-2.607E-02	7.075E-02	1.212E-01	0.000E+00	NOT IDENT.
TE-125M	-2.514E+00	5.139E+00	8.779E+00	0.000E+00	NOT IDENT.
I-126	7.713E-02	1.072E-01	1.926E-01	0.000E+00	NOT IDENT.
SB-126	3.696E-02	8.904E-02	1.546E-01	0.000E+00	NOT IDENT.
SN-126	-1.430E-02	3.484E-02	6.102E-02	0.000E+00	FAIL ABUN
SB-127	2.696E-02	3.029E-01	5.136E-01	0.000E+00	NOT IDENT.
XE-127	-1.561E-03	2.608E-02	4.663E-02	0.000E+00	NOT IDENT.
I-131	3.489E-03	4.468E-02	7.637E-02	0.000E+00	NOT IDENT.
TE-132	8.708E-02	9.216E-02	1.714E-01	0.000E+00	NOT IDENT.
BA-133	-9.428E-03	4.121E-02	6.730E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.048E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-3.154E-03	3.776E-02	6.480E-02	0.000E+00	NOT IDENT.
CS-135	2.054E-02	1.090E-01	1.931E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.676E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.828E-02	7.332E-02	1.180E-01	0.000E+00	NOT IDENT.
BA-137M	-2.317E-02	3.035E-02	4.698E-02	0.000E+00	NOT IDENT.
CS-137	-2.450E-02	3.208E-02	4.967E-02	0.000E+00	NOT IDENT.
CE-139	-1.736E-02	2.043E-02	3.270E-02	0.000E+00	NOT IDENT.
BA-140	4.003E-02	1.431E-01	2.520E-01	0.000E+00	NOT IDENT.
LA-140	-1.774E-02	5.447E-02	8.545E-02	0.000E+00	NOT IDENT.
CE-141	-1.610E-02	3.429E-02	5.708E-02	0.000E+00	NOT IDENT.
CE-143	1.644E+00	2.051E+00	3.691E+00	0.000E+00	NOT IDENT.
CE-144	3.668E-02	1.255E-01	2.214E-01	0.000E+00	NOT IDENT.
PM-144	7.711E-03	3.253E-02	5.575E-02	0.000E+00	NOT IDENT.
PR-144	5.204E-01	2.196E+00	3.763E+00	0.000E+00	NOT IDENT.
PM-146	-2.278E-02	3.773E-02	6.311E-02	0.000E+00	NOT IDENT.
ND-147	-3.148E-02	2.958E-01	5.062E-01	0.000E+00	NOT IDENT.
PM-149	4.232E+00	6.011E+00	1.091E+01	0.000E+00	NOT IDENT.
EU-152	-4.687E-02	7.986E-02	1.302E-01	0.000E+00	NOT IDENT.
GD-153	-3.751E-03	4.732E-02	7.815E-02	0.000E+00	NOT IDENT.
EU-154	-1.377E-02	9.183E-02	1.534E-01	0.000E+00	NOT IDENT.
EU-155	-1.554E-02	6.464E-02	1.126E-01	0.000E+00	NOT IDENT.
TB-160	1.065E-02	1.422E-01	2.123E-01	0.000E+00	NOT IDENT.
HO-166M	-2.042E-02	5.709E-02	8.767E-02	0.000E+00	NOT IDENT.
TM-171	-3.018E+00	8.573E+00	1.373E+01	0.000E+00	NOT IDENT.
LU-176	2.310E-03	1.934E-02	3.369E-02	0.000E+00	NOT IDENT.
LU-177	1.535E-01	3.326E-01	6.097E-01	0.000E+00	NOT IDENT.
LU-177M	-3.364E-02	1.336E-01	2.186E-01	0.000E+00	NOT IDENT.
HF-181	4.632E-03	3.007E-02	5.314E-02	0.000E+00	NOT IDENT.
W-181	5.260E-02	1.037E-01	1.766E-01	0.000E+00	NOT IDENT.
TA-182	4.978E-02	1.334E-01	2.386E-01	0.000E+00	NOT IDENT.
RE-183	-7.009E-02	8.149E-02	1.242E-01	0.000E+00	NOT IDENT.
RE-184	8.010E-02	1.683E-01	3.046E-01	0.000E+00	NOT IDENT.
OS-185	-2.334E-02	3.872E-02	6.173E-02	0.000E+00	NOT IDENT.
RE-188	-1.015E-01	1.073E-01	1.714E-01	0.000E+00	NOT IDENT.
W-188	-2.265E+00	5.273E+00	8.887E+00	0.000E+00	FAIL ABUN

IR-192	-3.823E-03	2.494E-02	4.246E-02	0.000E+00	NOT IDENT.
AU-195	-1.831E-02	1.360E-01	2.234E-01	0.000E+00	NOT IDENT.
TL-200	-3.702E+00	2.537E+00	3.693E+00	0.000E+00	NOT IDENT.
TL-201	-1.317E-01	8.205E-01	1.378E+00	0.000E+00	NOT IDENT.
TL-202	-1.142E-02	3.487E-02	5.976E-02	0.000E+00	NOT IDENT.
HG-203	2.524E-02	2.549E-02	4.730E-02	0.000E+00	NOT IDENT.
BI-207	2.028E-02	4.681E-02	8.228E-02	0.000E+00	NOT IDENT.
TL-207	-2.060E-01	4.919E-01	8.155E-01	0.000E+00	NOT IDENT.
TL-208	3.318E-03	3.789E-02	6.113E-02	0.000E+00	FAIL ABUN
PO-209	8.240E-01	6.942E+00	1.200E+01	0.000E+00	NOT IDENT.
BI-210	-3.030E-01	4.174E-01	6.881E-01	0.000E+00	NOT IDENT.
PB-210	-3.030E-01	4.174E-01	6.881E-01	0.000E+00	NOT IDENT.
PO-210	-3.030E-01	4.172E-01	6.881E-01	0.000E+00	NOT IDENT.
BI-211	-1.090E-01	1.885E-01	3.046E-01	0.000E+00	NOT IDENT.
PB-211	-5.010E-01	8.618E-01	1.283E+00	0.000E+00	NOT IDENT.
BI-212	3.667E-02	2.740E-01	4.633E-01	0.000E+00	NOT IDENT.
PB-212	5.176E-02	5.877E-02	8.218E-02	0.000E+00	FAIL ABUN
PO-212	5.176E-02	5.877E-02	8.218E-02	0.000E+00	FAIL ABUN
BI-214	-6.609E-02	7.170E-02	1.078E-01	0.000E+00	NOT IDENT.
PB-214	-9.439E-02	6.975E-02	1.061E-01	0.000E+00	NOT IDENT.
PO-214	-9.439E-02	6.975E-02	1.061E-01	0.000E+00	NOT IDENT.
PO-215	-2.060E-01	4.919E-01	8.155E-01	0.000E+00	NOT IDENT.
PO-216	5.176E-02	5.877E-02	8.218E-02	0.000E+00	FAIL ABUN
PO-218	-9.439E-02	6.975E-02	1.061E-01	0.000E+00	NOT IDENT.
RN-219	6.959E-02	3.429E-01	5.859E-01	0.000E+00	NOT IDENT.
RN-220	-4.475E+00	2.310E+01	3.909E+01	0.000E+00	NOT IDENT.
RA-223	-2.060E-01	4.919E-01	8.155E-01	0.000E+00	NOT IDENT.
RA-224	8.842E-02	4.889E-01	7.577E-01	0.000E+00	NOT IDENT.
RA-226	-6.609E-02	7.170E-02	1.078E-01	0.000E+00	NOT IDENT.
AC-227	-1.390E-01	2.900E-01	4.929E-01	0.000E+00	NOT IDENT.
TH-227	-1.390E-01	2.903E-01	4.929E-01	0.000E+00	NOT IDENT.
AC-228	3.744E-02	1.370E-01	2.363E-01	0.000E+00	NOT IDENT.
RA-228	3.744E-02	1.370E-01	2.363E-01	0.000E+00	NOT IDENT.
TH-228	5.215E-02	5.921E-02	8.279E-02	0.000E+00	FAIL ABUN
TH-229	1.285E-01	3.259E-01	6.000E-01	0.000E+00	NOT IDENT.
TH-230	-6.609E-02	7.170E-02	1.078E-01	0.000E+00	NOT IDENT.
PA-231	-4.889E-01	1.144E+00	1.928E+00	0.000E+00	NOT IDENT.
TH-231	-2.060E-01	4.919E-01	8.155E-01	0.000E+00	NOT IDENT.
U-231	-6.969E-01	1.998E-01	2.753E-01	0.000E+00	NOT IDENT.
TH-232	3.744E-02	1.370E-01	2.363E-01	0.000E+00	NOT IDENT.
PA-233	-2.300E-02	5.083E-02	8.473E-02	0.000E+00	NOT IDENT.
PA-234	5.482E-02	2.713E-01	4.704E-01	0.000E+00	FAIL ABUN
PA-234M	9.908E-02	4.438E+00	7.355E+00	0.000E+00	NOT IDENT.
TH-234	1.926E-01	7.337E-01	1.106E+00	0.000E+00	FAIL ABUN
U-234	-6.609E-02	7.170E-02	1.078E-01	0.000E+00	NOT IDENT.
U-235	6.651E-02	1.528E-01	2.562E-01	0.000E+00	NOT IDENT.
NP-236	-3.724E-02	5.886E-02	9.629E-02	0.000E+00	NOT IDENT.
NP-237	-8.456E-02	1.064E-01	1.799E-01	0.000E+00	NOT IDENT.
U-238	1.926E-01	7.337E-01	1.106E+00	0.000E+00	FAIL ABUN
NP-239	5.098E-02	1.175E-01	2.110E-01	0.000E+00	NOT IDENT.
AM-241	-2.576E-02	3.897E-02	6.159E-02	0.000E+00	NOT IDENT.
AM-243	5.037E-03	2.116E-02	3.718E-02	0.000E+00	NOT IDENT.
CM-243	-2.809E-02	5.571E-02	9.549E-02	0.000E+00	NOT IDENT.
AM-246	4.251E-02	1.089E-01	1.917E-01	0.000E+00	NOT IDENT.
CM-247	1.381E-02	3.048E-02	5.313E-02	0.000E+00	NOT IDENT.
CF-249	-9.472E-04	3.047E-02	5.126E-02	0.000E+00	NOT IDENT.
CF-251	-7.855E-03	8.624E-02	1.448E-01	0.000E+00	NOT IDENT.

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                          *
*                               Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202005182.CNF;1
Sample date        : 31-DEC-2009 00:00:00 Acquisition date : 7-JAN-2010 09:31:14.
Sample ID          : G1202005182 Sample quantity : 1.35630E+02 GRAM
Detector name      : GAM13 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:00.82 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 937069 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
ANH-511	511.00	11	100.00*	2.535E+00	1.165E-02	1.165E-02	573.64

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G1202005182

Page : 2
Acquisition date : 7-JAN-2010 09:31:14

Total number of lines in spectrum 3
Number of unidentified lines 0
Number of lines tentatively identified by NID 3 100.00%

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	1.165E-02	1.165E-02	6.685E-02	573.64	
Total Activity :			1.165E-02	1.165E-02			

Grand Total Activity : 1.165E-02 1.165E-02

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202005182

Page : 3
Acquisition date : 7-JAN-2010 09:31:14

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	63.25	20	272	1.02	126.27	121	10	2.71E-03	****	7.39E+00	T
0	238.36	39	116	1.42	476.57	472	9	5.46E-03	****	4.72E+00	T

Flags: "T" = Tentatively associated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                    *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202005182.CNF;1
* Acquisition date   : 7-JAN-2010 09:31:14.  Detector SN#      :
* Detector ID        : GAM13              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 02:00:00.82      Half life ratio      : 8.00000
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 31-DEC-2009 00:00:00  Nuclide Library   : SOLID
* Sample ID          : G1202005182          Analyst initials  : MXR1
* Batch Number       : 937069              Sample Quantity   : 1.35630E+02 GRAM
*****
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 2-FEB-2009 10:41:22.03MS Isotope       :
* MSD ID             :                      MSD Isotope       :
* LCS ID             : 1032-A              LCS Isotope       :
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	1.165E-02	6.685E-02	4.298E-02	2.999E-03	0.271

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.003E-02		2.454E-01	4.088E-01	3.073E-02	-0.025
NA-22	-4.909E-03		3.341E-02	5.442E-02	3.071E-03	-0.090
NA-24	5.654E-05		7.386E-05	Half-Life too short		
AL-26	-2.075E-02		3.174E-02	4.564E-02	2.575E-03	-0.455
K-40	2.748E-01		3.288E-01	6.038E-01	3.692E-02	0.455
TI-44	-1.854E-02		1.524E-02	2.170E-02	1.828E-03	-0.854
SC-46	-1.206E-02		3.568E-02	5.697E-02	4.314E-03	-0.212
V-48	3.349E-02		4.699E-02	8.304E-02	5.874E-03	0.403
CR-51	6.162E-02		2.345E-01	3.910E-01	3.043E-02	0.158
MN-52	2.886E-02		7.504E-02	1.314E-01	7.551E-03	0.220
MN-54	1.201E-02		3.442E-02	5.915E-02	4.641E-03	0.203

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-56	-3.632E-03		3.399E-02	5.590E-02	4.357E-03	-0.065
CO-57	-1.189E-03		1.588E-02	2.577E-02	3.260E-03	-0.046
CO-58	-5.569E-03		3.426E-02	5.628E-02	4.483E-03	-0.099
FE-59	1.240E-02		7.036E-02	1.167E-01	8.334E-03	0.106
CO-60	3.308E-03		3.548E-02	5.948E-02	3.383E-03	0.056
ZN-65	1.294E-02		7.019E-02	1.164E-01	7.068E-03	0.111
GE-68	-1.847E-02		9.764E-01	1.583E+00	1.012E-01	-0.012
AS-73	-1.298E-01		1.456E-01	2.142E-01	1.810E-02	-0.606
AS-74	-1.172E-02		6.099E-02	9.824E-02	7.544E-03	-0.119
SE-75	2.524E-02		3.224E-02	5.609E-02	4.394E-03	0.450
BR-77	1.198E-01		9.861E-01	1.653E+00	1.168E-01	0.072
SR-82	-3.666E-03		2.706E-01	4.529E-01	3.645E-02	-0.008
RB-83	8.262E-03		5.916E-02	9.932E-02	7.013E-03	0.083
RB-84	-1.221E-02		6.933E-02	9.859E-02	7.509E-03	-0.124
KR-85	1.403E+01		7.382E+00	1.260E+01	8.824E-01	1.114
SR-85	6.635E-02		3.490E-02	5.955E-02	4.171E-03	1.114
RB-86	-2.369E-02		4.888E-01	7.897E-01	5.052E-02	-0.030
Y-88	-1.208E-02		2.790E-02	4.134E-02	2.328E-03	-0.292
ZR-88	1.070E-02		2.504E-02	4.163E-02	2.438E-03	0.257
Y-91	4.722E+00		1.362E+01	2.364E+01	1.310E+00	0.200
NB-94	4.998E-03		3.294E-02	5.398E-02	4.406E-03	0.093
NB-95	1.422E-02		3.208E-02	5.606E-02	4.527E-03	0.254
NB-95M	5.016E-02		8.227E-02	1.276E-01	1.180E-02	0.393
ZR-95	-5.749E-02		6.623E-02	9.623E-02	8.681E-03	-0.597
NB-97	9.862E-06		1.926E-05	Half-Life too short		
ZR-97	1.282E-03		4.556E-04	Half-Life too short		
MO-99	1.846E+00		1.691E+00	2.967E+00	4.423E-01	0.622
TC-99M	-5.920E+00		7.199E+00	Half-Life too short		
RH-101	-1.462E-03		2.384E-02	3.781E-02	2.994E-03	-0.039
RH-102	2.394E-02		2.494E-02	4.475E-02	2.978E-03	0.535
RU-103	-7.337E-03		3.255E-02	5.323E-02	7.006E-03	-0.138
RH-106	-9.319E-02		2.889E-01	4.569E-01	5.890E-02	-0.204
RU-106	-9.319E-02		2.887E-01	4.569E-01	3.598E-02	-0.204
AG-108M	-5.795E-03		2.691E-02	4.457E-02	2.998E-03	-0.130
CD-109	5.712E-02		3.459E-01	5.810E-01	4.584E-02	0.098
AG-110M	3.831E-03		2.736E-02	4.517E-02	3.795E-03	0.085
IN-111	-1.009E-01		1.126E-01	1.759E-01	1.386E-02	-0.574
IN-113M	1.704E-03		3.469E-02	5.599E-02	3.489E-03	0.030
SN-113	1.704E-03		3.469E-02	5.599E-02	3.489E-03	0.030
IN-114M	-5.145E-02		1.134E-01	1.729E-01	1.367E-02	-0.298
CD-115	9.376E-03		8.494E-01	1.409E+00	1.004E-01	0.007
SN-117M	3.186E-02		2.646E-02	4.536E-02	3.961E-03	0.702
SB-122	-7.947E-02		2.485E-01	3.974E-01	2.951E-02	-0.200
I-123	2.465E-04		1.166E-04	Half-Life too short		
TE-123M	2.062E-02		1.951E-02	3.319E-02	2.898E-03	0.621
I-124	1.640E-02		1.794E-01	2.963E-01	2.291E-02	0.055
SB-124	-5.160E-03		6.722E-02	1.069E-01	6.657E-03	-0.048
SB-125	-2.607E-02		7.219E-02	1.182E-01	7.604E-03	-0.221

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M	-2.514E+00		5.243E+00	8.349E+00	1.013E+00	-0.301
I-126	7.713E-02		1.094E-01	1.893E-01	1.545E-02	0.407
SB-126	3.696E-02		9.086E-02	1.522E-01	1.240E-02	0.243
SN-126	-1.430E-02		3.555E-02	5.781E-02	4.573E-03	-0.247
SB-127	2.696E-02		3.090E-01	5.051E-01	4.624E-02	0.053
XE-127	-1.561E-03		2.661E-02	4.484E-02	3.553E-03	-0.035
I-131	3.489E-03		4.559E-02	7.422E-02	5.220E-03	0.047
TE-132	8.708E-02		9.404E-02	1.652E-01	2.350E-02	0.527
BA-133	-9.428E-03		4.205E-02	6.538E-02	7.849E-03	-0.144
I-133	2.746E-06		5.349E-06	Half-Life	too short	
CS-134	-3.154E-03		3.854E-02	6.390E-02	5.150E-03	-0.049
CS-135	2.054E-02		1.112E-01	1.866E-01	1.724E-02	0.110
I-135	-2.638E+00		8.550E+00	Half-Life	too short	
CS-136	-2.828E-02		7.482E-02	1.170E-01	8.293E-03	-0.242
BA-137M	-2.317E-02		3.096E-02	4.617E-02	3.766E-03	-0.502
CS-137	-2.450E-02		3.273E-02	4.881E-02	3.989E-03	-0.502
CE-139	-1.736E-02		2.085E-02	3.133E-02	2.457E-03	-0.554
BA-140	4.003E-02		1.460E-01	2.467E-01	8.092E-02	0.162
LA-140	-1.774E-02		5.558E-02	8.539E-02	4.921E-03	-0.208
CE-141	-1.610E-02		3.499E-02	5.456E-02	5.660E-03	-0.295
CE-143	1.644E+00		2.093E+00	3.573E+00	7.501E-01	0.460
CE-144	3.668E-02		1.281E-01	2.113E-01	3.662E-02	0.174
PM-144	7.711E-03		3.320E-02	5.484E-02	4.478E-03	0.141
PR-144	5.204E-01		2.240E+00	3.701E+00	3.022E-01	0.141
PM-146	-2.278E-02		3.850E-02	6.159E-02	5.590E-03	-0.370
ND-147	-3.148E-02		3.018E-01	4.954E-01	7.012E-02	-0.064
PM-149	4.232E+00		6.134E+00	1.055E+01	1.582E+00	0.401
EU-152	-4.687E-02		8.149E-02	1.264E-01	9.473E-03	-0.371
GD-153	-3.751E-03		4.829E-02	7.418E-02	6.750E-03	-0.051
EU-154	-1.377E-02		9.370E-02	1.526E-01	1.410E-02	-0.090
EU-155	-1.554E-02		6.596E-02	1.071E-01	1.099E-02	-0.145
TB-160	1.065E-02		1.451E-01	2.098E-01	1.600E-02	0.051
HO-166M	-2.042E-02		5.826E-02	8.627E-02	7.037E-03	-0.237
TM-171	-3.018E+00		8.748E+00	1.295E+01	1.182E+00	-0.233
LU-176	2.310E-03		1.974E-02	3.264E-02	2.420E-03	0.071
LU-177	1.535E-01		3.394E-01	5.866E-01	4.652E-02	0.262
LU-177M	-3.364E-02		1.363E-01	2.129E-01	1.291E-02	-0.158
HF-181	4.632E-03		3.068E-02	5.191E-02	3.488E-03	0.089
W-181	5.260E-02		1.058E-01	1.665E-01	1.535E-02	0.316
TA-182	4.978E-02		1.362E-01	2.372E-01	1.320E-02	0.210
RE-183	-7.009E-02		8.315E-02	1.189E-01	9.843E-03	-0.589
RE-184	8.010E-02		1.717E-01	2.941E-01	2.308E-02	0.272
OS-185	-2.334E-02		3.951E-02	6.063E-02	4.880E-03	-0.385
RE-188	-1.015E-01		1.095E-01	1.640E-01	1.501E-02	-0.619
W-188	-2.265E+00		5.381E+00	8.601E+00	6.526E-01	-0.263
IR-192	-3.823E-03		2.545E-02	4.116E-02	3.011E-03	-0.093
AU-195	-1.831E-02		1.388E-01	2.121E-01	1.971E-02	-0.086
TL-200	-3.702E+00		2.589E+00	3.590E+00	2.297E-01	-1.031

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-201	-1.317E-01		8.372E-01	1.321E+00	1.035E-01	-0.100
TL-202	-1.142E-02		3.558E-02	5.828E-02	3.683E-03	-0.196
HG-203	2.524E-02		2.601E-02	4.575E-02	3.642E-03	0.552
BI-207	2.028E-02		4.776E-02	8.158E-02	5.306E-03	0.249
TL-207	-2.060E-01		5.020E-01	7.908E-01	1.349E-01	-0.261
TL-208	3.318E-03		3.866E-02	5.993E-02	4.961E-03	0.055
PO-209	8.240E-01		7.084E+00	1.186E+01	8.930E-01	0.069
BI-210	-3.030E-01		4.259E-01	6.448E-01	5.256E-02	-0.470
PB-210	-3.030E-01		4.259E-01	6.448E-01	5.256E-02	-0.470
PO-210	-3.030E-01		4.257E-01	6.448E-01	4.597E-02	-0.470
BI-211	-1.090E-01		1.924E-01	2.958E-01	2.156E-02	-0.368
PB-211	-5.010E-01		8.794E-01	1.249E+00	7.790E-01	-0.401
BI-212	3.667E-02		2.796E-01	4.561E-01	4.378E-02	0.080
PB-212	5.176E-02	+	5.997E-02	7.925E-02	7.200E-03	0.653
PO-212	5.176E-02	+	5.997E-02	7.925E-02	7.200E-03	0.653
BI-214	-6.609E-02		7.317E-02	1.058E-01	9.893E-03	-0.625
PB-214	-9.439E-02		7.117E-02	1.031E-01	9.227E-03	-0.916
PO-214	-9.439E-02		7.117E-02	1.031E-01	9.227E-03	-0.916
PO-215	-2.060E-01		5.020E-01	7.908E-01	1.349E-01	-0.261
PO-216	5.176E-02	+	5.997E-02	7.925E-02	7.200E-03	0.653
PO-218	-9.439E-02		7.117E-02	1.031E-01	9.227E-03	-0.916
RN-219	6.959E-02		3.499E-01	5.704E-01	7.797E-02	0.122
RN-220	-4.475E+00		2.357E+01	3.828E+01	2.799E+00	-0.117
RA-223	-2.060E-01		5.020E-01	7.908E-01	1.349E-01	-0.261
RA-224	8.842E-02		4.989E-01	7.309E-01	5.769E-02	0.121
RA-226	-6.609E-02		7.317E-02	1.058E-01	9.893E-03	-0.625
AC-227	-1.390E-01		2.959E-01	4.760E-01	7.102E-02	-0.292
TH-227	-1.390E-01		2.962E-01	4.760E-01	8.426E-02	-0.292
AC-228	3.744E-02		1.398E-01	2.336E-01	2.426E-02	0.160
RA-228	3.744E-02		1.398E-01	2.336E-01	2.426E-02	0.160
TH-228	5.215E-02	+	6.042E-02	7.984E-02	7.253E-03	0.653
TH-229	1.285E-01		3.325E-01	5.765E-01	4.560E-02	0.223
TH-230	-6.609E-02		7.317E-02	1.058E-01	9.893E-03	-0.625
PA-231	-4.889E-01		1.167E+00	1.865E+00	2.733E-01	-0.262
TH-231	-2.060E-01		5.020E-01	7.908E-01	1.349E-01	-0.261
U-231	-6.969E-01		2.038E-01	2.613E-01	2.324E-02	-2.667
TH-232	3.744E-02		1.398E-01	2.336E-01	2.426E-02	0.160
PA-233	-2.300E-02		5.187E-02	8.211E-02	6.271E-03	-0.280
PA-234	5.482E-02		2.768E-01	4.654E-01	8.467E-02	0.118
PA-234M	9.908E-02		4.528E+00	7.284E+00	6.243E-01	0.014
TH-234	1.926E-01	+	7.486E-01	1.042E+00	1.911E-01	0.185
U-234	-6.609E-02		7.317E-02	1.058E-01	9.893E-03	-0.625
U-235	6.651E-02		1.560E-01	2.448E-01	4.520E-02	0.272
NP-236	-3.724E-02		6.006E-02	9.221E-02	7.858E-03	-0.404
NP-237	-8.456E-02		1.086E-01	1.704E-01	3.769E-02	-0.496
U-238	1.926E-01	+	7.486E-01	1.042E+00	1.911E-01	0.185
NP-239	5.098E-02		1.199E-01	2.010E-01	2.385E-02	0.254
AM-241	-2.576E-02		3.976E-02	5.796E-02	5.895E-03	-0.444

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	5.037E-03		2.159E-02	3.513E-02	3.034E-03	0.143
CM-243	-2.809E-02		5.684E-02	9.074E-02	9.035E-03	-0.310
AM-246	4.251E-02		1.111E-01	1.901E-01	1.213E-02	0.224
CM-247	1.381E-02		3.110E-02	5.173E-02	3.081E-03	0.267
CF-249	-9.472E-04		3.109E-02	4.988E-02	2.962E-03	-0.019
CF-251	-7.855E-03		8.800E-02	1.389E-01	1.093E-02	-0.057

VAX/VMS Nuclide Identification Report Generated

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*                                     *                                       *
* Configuration      : SYSSYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202005182          *
* Acquisition date   : 7-JAN-2010 09:31:14 Detector SN# :                   *
* Detector ID        : GAM13 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 02:00:00.82 Half life ratio : 8.000              *
*****
*                                     SAMPLE DATA                            *
*                                     *                                       *
* Sample date        : 31-DEC-2009 00:00:00 Nuclide Library : SOLID          *
* Sample ID          : G1202005182 Analyst initials: MXR1                 *
* Batch Number       : 937069 Sample Quantity : 1.3563E+02 GRAM           *
* Recovery           : 1.00000 Carrier Weight : 0.00000                  *
*****
*                                     QC DATA                               *
*                                     *                                       *
* CALIB. DATE/TIME   : 2-FEB-2009 10:41:22 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
ANH-511	1.165E-02	6.551E-02	2.199E-02	3.342E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.003E-02	2.404E-01	2.094E-01	1.227E-01	NOT IDENT.
NA-22	-4.909E-03	3.274E-02	2.736E-02	1.671E-02	NOT IDENT.
NA-24	5.654E+01	1.448E+02	0.000E+00	7.386E+01	SHORT HLIF
AL-26	-2.075E-02	3.111E-02	2.279E-02	1.587E-02	NOT IDENT.
K-40	2.748E-01	3.222E-01	3.028E-01	1.644E-01	NOT IDENT.
TI-44	-1.854E-02	1.494E-02	1.148E-02	7.621E-03	NOT IDENT.
SC-46	-1.206E-02	3.497E-02	2.884E-02	1.784E-02	NOT IDENT.
V-48	3.349E-02	4.605E-02	4.196E-02	2.350E-02	NOT IDENT.
CR-51	6.162E-02	2.298E-01	2.018E-01	1.173E-01	NOT IDENT.
MN-52	2.886E-02	7.354E-02	6.592E-02	3.752E-02	NOT IDENT.
MN-54	1.201E-02	3.373E-02	2.998E-02	1.721E-02	NOT IDENT.
CO-56	-3.632E-03	3.331E-02	2.833E-02	1.699E-02	NOT IDENT.
CO-57	-1.189E-03	1.556E-02	1.353E-02	7.941E-03	NOT IDENT.
CO-58	-5.569E-03	3.357E-02	2.855E-02	1.713E-02	NOT IDENT.
FE-59	1.240E-02	6.895E-02	5.883E-02	3.518E-02	NOT IDENT.
CO-60	3.308E-03	3.477E-02	2.988E-02	1.774E-02	NOT IDENT.
ZN-65	1.294E-02	6.878E-02	5.869E-02	3.509E-02	NOT IDENT.
GE-68	-1.847E-02	9.569E-01	7.987E-01	4.882E-01	NOT IDENT.
AS-73	-1.298E-01	1.427E-01	1.141E-01	7.282E-02	NOT IDENT.
AS-74	-1.172E-02	5.977E-02	5.011E-02	3.049E-02	NOT IDENT.
SE-75	2.524E-02	3.160E-02	2.904E-02	1.612E-02	NOT IDENT.
BR-77	1.198E-01	9.663E-01	8.455E-01	4.930E-01	FAIL ABUN
SR-82	-3.666E-03	2.652E-01	2.299E-01	1.353E-01	NOT IDENT.
RB-83	8.262E-03	5.798E-02	5.079E-02	2.958E-02	NOT IDENT.
RB-84	-1.221E-02	6.795E-02	4.992E-02	3.467E-02	NOT IDENT.
KR-85	1.403E+01	7.235E+00	6.443E+00	3.691E+00	NOT IDENT.

SR-85	6.635E-02	3.420E-02	3.046E-02	1.745E-02	NOT IDENT.
RB-86	-2.369E-02	4.790E-01	3.983E-01	2.444E-01	NOT IDENT.
Y-88	-1.208E-02	2.734E-02	2.064E-02	1.395E-02	NOT IDENT.
ZR-88	1.070E-02	2.454E-02	2.140E-02	1.252E-02	NOT IDENT.
Y-91	4.722E+00	1.335E+01	1.190E+01	6.809E+00	NOT IDENT.
NB-94	4.998E-03	3.228E-02	2.745E-02	1.647E-02	NOT IDENT.
NB-95	1.422E-02	3.143E-02	2.846E-02	1.604E-02	NOT IDENT.
NB-95M	5.016E-02	8.062E-02	6.621E-02	4.113E-02	NOT IDENT.
ZR-95	-5.749E-02	6.490E-02	4.887E-02	3.311E-02	NOT IDENT.
NB-97	9.862E+00	3.776E+01	0.000E+00	1.926E+01	SHORT HLIF
ZR-97	1.282E+03	8.930E+02	0.000E+00	4.556E+02	SHORT HLIF
MO-99	1.846E+00	1.657E+00	1.507E+00	8.454E-01	NOT IDENT.
TC-99M	-5.920E+06	1.411E+07	0.000E+00	7.199E+06	SHORT HLIF
RH-101	-1.462E-03	2.337E-02	1.968E-02	1.192E-02	NOT IDENT.
RH-102	2.394E-02	2.444E-02	2.292E-02	1.247E-02	NOT IDENT.
RU-103	-7.337E-03	3.190E-02	2.725E-02	1.628E-02	NOT IDENT.
RH-106	-9.319E-02	2.831E-01	2.329E-01	1.444E-01	FAIL ABUN
RU-106	-9.319E-02	2.830E-01	2.329E-01	1.444E-01	FAIL ABUN
AG-108M	-5.795E-03	2.638E-02	2.287E-02	1.346E-02	NOT IDENT.
CD-109	5.712E-02	3.390E-01	3.068E-01	1.729E-01	NOT IDENT.
AG-110M	3.831E-03	2.681E-02	2.300E-02	1.368E-02	NOT IDENT.
IN-111	-1.009E-01	1.104E-01	9.120E-02	5.630E-02	NOT IDENT.
IN-113M	1.704E-03	3.400E-02	2.879E-02	1.735E-02	NOT IDENT.
SN-113	1.704E-03	3.400E-02	2.879E-02	1.735E-02	NOT IDENT.
IN-114M	-5.145E-02	1.111E-01	9.008E-02	5.668E-02	NOT IDENT.
CD-115	9.376E-03	8.324E-01	7.206E-01	4.247E-01	NOT IDENT.
SN-117M	3.186E-02	2.593E-02	2.371E-02	1.323E-02	NOT IDENT.
SB-122	-7.947E-02	2.435E-01	2.029E-01	1.242E-01	NOT IDENT.
I-123	2.465E+02	2.286E+02	0.000E+00	1.166E+02	SHORT HLIF
TE-123M	2.062E-02	1.912E-02	1.734E-02	9.755E-03	NOT IDENT.
I-124	1.640E-02	1.759E-01	1.511E-01	8.972E-02	NOT IDENT.
SB-124	-5.160E-03	6.587E-02	5.346E-02	3.361E-02	NOT IDENT.
SB-125	-2.607E-02	7.075E-02	6.065E-02	3.610E-02	NOT IDENT.
TE-125M	-2.514E+00	5.139E+00	4.392E+00	2.622E+00	NOT IDENT.
I-126	7.713E-02	1.072E-01	9.638E-02	5.472E-02	NOT IDENT.
SB-126	3.696E-02	8.904E-02	7.736E-02	4.543E-02	NOT IDENT.
SN-126	-1.430E-02	3.484E-02	3.053E-02	1.777E-02	FAIL ABUN
SB-127	2.696E-02	3.029E-01	2.570E-01	1.545E-01	NOT IDENT.
XE-127	-1.561E-03	2.608E-02	2.333E-02	1.331E-02	NOT IDENT.
I-131	3.489E-03	4.468E-02	3.821E-02	2.280E-02	NOT IDENT.
TE-132	8.708E-02	9.216E-02	8.575E-02	4.702E-02	NOT IDENT.
BA-133	-9.428E-03	4.121E-02	3.367E-02	2.103E-02	NOT IDENT.
I-133	2.746E+00	1.048E+01	0.000E+00	5.349E+00	SHORT HLIF
CS-134	-3.154E-03	3.776E-02	3.242E-02	1.927E-02	NOT IDENT.
CS-135	2.054E-02	1.090E-01	9.661E-02	5.561E-02	NOT IDENT.
I-135	-2.638E+06	1.676E+07	0.000E+00	8.550E+06	SHORT HLIF
CS-136	-2.828E-02	7.332E-02	5.905E-02	3.741E-02	NOT IDENT.
BA-137M	-2.317E-02	3.035E-02	2.351E-02	1.548E-02	NOT IDENT.
CS-137	-2.450E-02	3.208E-02	2.485E-02	1.637E-02	NOT IDENT.
CE-139	-1.736E-02	2.043E-02	1.636E-02	1.042E-02	NOT IDENT.
BA-140	4.003E-02	1.431E-01	1.261E-01	7.301E-02	NOT IDENT.
LA-140	-1.774E-02	5.447E-02	4.275E-02	2.779E-02	NOT IDENT.
CE-141	-1.610E-02	3.429E-02	2.856E-02	1.749E-02	NOT IDENT.
CE-143	1.644E+00	2.051E+00	1.847E+00	1.046E+00	NOT IDENT.
CE-144	3.668E-02	1.255E-01	1.108E-01	6.405E-02	NOT IDENT.
PM-144	7.711E-03	3.253E-02	2.789E-02	1.660E-02	NOT IDENT.
PR-144	5.204E-01	2.196E+00	1.882E+00	1.120E+00	NOT IDENT.
PM-146	-2.278E-02	3.773E-02	3.158E-02	1.925E-02	NOT IDENT.
ND-147	-3.148E-02	2.958E-01	2.533E-01	1.509E-01	NOT IDENT.
PM-149	4.232E+00	6.011E+00	5.456E+00	3.067E+00	NOT IDENT.
EU-152	-4.687E-02	7.986E-02	6.513E-02	4.074E-02	NOT IDENT.
GD-153	-3.751E-03	4.732E-02	3.910E-02	2.414E-02	NOT IDENT.
EU-154	-1.377E-02	9.183E-02	7.673E-02	4.685E-02	NOT IDENT.
EU-155	-1.554E-02	6.464E-02	5.635E-02	3.298E-02	NOT IDENT.
TB-160	1.065E-02	1.422E-01	1.062E-01	7.256E-02	NOT IDENT.
HO-166M	-2.042E-02	5.709E-02	4.386E-02	2.913E-02	NOT IDENT.
TM-171	-3.018E+00	8.573E+00	6.872E+00	4.374E+00	NOT IDENT.
LU-176	2.310E-03	1.934E-02	1.686E-02	9.869E-03	NOT IDENT.
LU-177	1.535E-01	3.326E-01	3.050E-01	1.697E-01	NOT IDENT.
LU-177M	-3.364E-02	1.336E-01	1.094E-01	6.816E-02	NOT IDENT.
HF-181	4.632E-03	3.007E-02	2.659E-02	1.534E-02	NOT IDENT.
W-181	5.260E-02	1.037E-01	8.835E-02	5.288E-02	NOT IDENT.
TA-182	4.978E-02	1.334E-01	1.194E-01	6.808E-02	NOT IDENT.
RE-183	-7.009E-02	8.149E-02	6.213E-02	4.158E-02	NOT IDENT.
RE-184	8.010E-02	1.683E-01	1.524E-01	8.586E-02	NOT IDENT.
OS-185	-2.334E-02	3.872E-02	3.088E-02	1.975E-02	NOT IDENT.
RE-188	-1.015E-01	1.073E-01	8.573E-02	5.477E-02	NOT IDENT.
W-188	-2.265E+00	5.273E+00	4.446E+00	2.691E+00	FAIL ABUN

IR-192	-3.823E-03	2.494E-02	2.124E-02	1.273E-02	NOT IDENT.
AU-195	-1.831E-02	1.360E-01	1.117E-01	6.941E-02	NOT IDENT.
TL-200	-3.702E+00	2.537E+00	1.848E+00	1.294E+00	NOT IDENT.
TL-201	-1.317E-01	8.205E-01	6.895E-01	4.186E-01	NOT IDENT.
TL-202	-1.142E-02	3.487E-02	2.990E-02	1.779E-02	NOT IDENT.
HG-203	2.524E-02	2.549E-02	2.366E-02	1.301E-02	NOT IDENT.
BI-207	2.028E-02	4.681E-02	4.116E-02	2.388E-02	NOT IDENT.
TL-207	-2.060E-01	4.919E-01	4.080E-01	2.510E-01	NOT IDENT.
TL-208	3.318E-03	3.789E-02	3.058E-02	1.933E-02	FAIL ABUN
PO-209	8.240E-01	6.942E+00	6.004E+00	3.542E+00	NOT IDENT.
BI-210	-3.030E-01	4.174E-01	3.442E-01	2.129E-01	NOT IDENT.
PB-210	-3.030E-01	4.174E-01	3.442E-01	2.129E-01	NOT IDENT.
PO-210	-3.030E-01	4.172E-01	3.442E-01	2.129E-01	NOT IDENT.
BI-211	-1.090E-01	1.885E-01	1.524E-01	9.618E-02	NOT IDENT.
PB-211	-5.010E-01	8.618E-01	6.419E-01	4.397E-01	NOT IDENT.
BI-212	3.667E-02	2.740E-01	2.318E-01	1.398E-01	NOT IDENT.
PB-212	5.176E-02	5.877E-02	4.111E-02	2.999E-02	FAIL ABUN
PO-212	5.176E-02	5.877E-02	4.111E-02	2.999E-02	FAIL ABUN
BI-214	-6.609E-02	7.170E-02	5.395E-02	3.658E-02	NOT IDENT.
PB-214	-9.439E-02	6.975E-02	5.309E-02	3.558E-02	NOT IDENT.
PO-214	-9.439E-02	6.975E-02	5.309E-02	3.558E-02	NOT IDENT.
PO-215	-2.060E-01	4.919E-01	4.080E-01	2.510E-01	NOT IDENT.
PO-216	5.176E-02	5.877E-02	4.111E-02	2.999E-02	FAIL ABUN
PO-218	-9.439E-02	6.975E-02	5.309E-02	3.558E-02	NOT IDENT.
RN-219	6.959E-02	3.429E-01	2.931E-01	1.750E-01	NOT IDENT.
RN-220	-4.475E+00	2.310E+01	1.956E+01	1.179E+01	NOT IDENT.
RA-223	-2.060E-01	4.919E-01	4.080E-01	2.510E-01	NOT IDENT.
RA-224	8.842E-02	4.889E-01	3.791E-01	2.494E-01	NOT IDENT.
RA-226	-6.609E-02	7.170E-02	5.395E-02	3.658E-02	NOT IDENT.
AC-227	-1.390E-01	2.900E-01	2.466E-01	1.480E-01	NOT IDENT.
TH-227	-1.390E-01	2.903E-01	2.466E-01	1.481E-01	NOT IDENT.
AC-228	3.744E-02	1.370E-01	1.182E-01	6.989E-02	NOT IDENT.
RA-228	3.744E-02	1.370E-01	1.182E-01	6.989E-02	NOT IDENT.
TH-228	5.215E-02	5.921E-02	4.142E-02	3.021E-02	FAIL ABUN
TH-229	1.285E-01	3.259E-01	3.002E-01	1.663E-01	NOT IDENT.
TH-230	-6.609E-02	7.170E-02	5.395E-02	3.658E-02	NOT IDENT.
PA-231	-4.889E-01	1.144E+00	9.644E-01	5.837E-01	NOT IDENT.
TH-231	-2.060E-01	4.919E-01	4.080E-01	2.510E-01	NOT IDENT.
U-231	-6.969E-01	1.998E-01	1.378E-01	1.019E-01	NOT IDENT.
TH-232	3.744E-02	1.370E-01	1.182E-01	6.989E-02	NOT IDENT.
PA-233	-2.300E-02	5.083E-02	4.239E-02	2.593E-02	NOT IDENT.
PA-234	5.482E-02	2.713E-01	2.354E-01	1.384E-01	FAIL ABUN
PA-234M	9.908E-02	4.438E+00	3.680E+00	2.264E+00	NOT IDENT.
TH-234	1.926E-01	7.337E-01	5.531E-01	3.743E-01	FAIL ABUN
U-234	-6.609E-02	7.170E-02	5.395E-02	3.658E-02	NOT IDENT.
U-235	6.651E-02	1.528E-01	1.282E-01	7.798E-02	NOT IDENT.
NP-236	-3.724E-02	5.886E-02	4.817E-02	3.003E-02	NOT IDENT.
NP-237	-8.456E-02	1.064E-01	9.000E-02	5.428E-02	NOT IDENT.
U-238	1.926E-01	7.337E-01	5.531E-01	3.743E-01	FAIL ABUN
NP-239	5.098E-02	1.175E-01	1.056E-01	5.995E-02	NOT IDENT.
AM-241	-2.576E-02	3.897E-02	3.081E-02	1.988E-02	NOT IDENT.
AM-243	5.037E-03	2.116E-02	1.860E-02	1.080E-02	NOT IDENT.
CM-243	-2.809E-02	5.571E-02	4.777E-02	2.842E-02	NOT IDENT.
AM-246	4.251E-02	1.089E-01	9.588E-02	5.556E-02	NOT IDENT.
CM-247	1.381E-02	3.048E-02	2.658E-02	1.555E-02	NOT IDENT.
CF-249	-9.472E-04	3.047E-02	2.565E-02	1.555E-02	NOT IDENT.
CF-251	-7.855E-03	8.624E-02	7.246E-02	4.400E-02	NOT IDENT.

 * GEL Laboratories LLC *
 * 2040 SAVAGE ROAD *
 * CHARLESTON , SC 29417 *
 * GAMMA SPECTROSCOPY BACKGROUND REPORT *

ENERGY MDA COUNTS

46.50	147.7050
46.50	147.7050
46.50	147.7050
48.70	211.3107
49.72	146.7808
51.35	133.4017
52.39	135.6510
52.97	137.6606
53.15	138.6082
53.44	138.7653
54.07	147.6393
56.28	142.0021
56.28	142.0038
57.37	137.3980
57.53	137.4793
57.53	137.4805
57.60	144.2608
57.98	144.4632
57.98	144.4632
59.32	167.1040
59.32	167.1040
59.40	167.1523
59.54	167.2368
59.72	156.8866
60.01	157.0505
61.10	136.6404
61.14	136.6599
61.30	140.6816
63.00	137.5539
63.29	137.6920
63.29	137.6920
63.58	137.8300
64.28	143.4754
65.12	141.2212
65.20	141.2594
65.20	141.2594
66.05	151.0196
66.72	148.6778
66.83	148.7337
66.91	148.7726
67.20	148.9157
67.20	148.9157
67.75	148.3795
67.85	148.4292
68.90	142.1042
68.90	142.1042
69.30	136.8849
69.67	135.2467
70.82	156.5595
70.82	156.5595
70.83	156.5648
72.80	163.0045
72.87	163.0400
72.87	163.0400
74.67	155.7071
74.81	160.3552
74.81	160.3552
74.81	160.3552
74.81	160.3552
74.81	160.3552
74.81	160.3552
74.81	160.3552
74.97	160.4345
75.28	155.9976
75.70	138.7400
77.11	181.7767
77.11	181.7767

77.11	181.7767
77.11	181.7767
77.11	181.7767
77.11	181.7767
77.11	181.7767
78.38	183.3913
79.62	170.1179
79.80	154.3957
79.80	154.3957
80.11	152.6731
80.18	152.7048
80.30	135.0599
80.30	135.0599
80.57	141.6913
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81.07	157.7666
81.07	157.7666
81.07	157.7666
81.07	157.7666
82.60	175.3382
83.37	165.3831
83.78	156.1687
83.78	156.1687
83.78	156.1687
83.78	156.1687
84.21	153.5321
84.90	154.7727
85.43	166.3428
86.29	174.3184
86.50	174.4195
86.54	174.4382
86.59	174.4625
86.72	174.5243
86.79	166.9676
86.94	168.9356
87.30	156.7520
87.30	156.7520
87.30	156.7520
87.30	156.7520
87.30	156.7520
87.30	156.7520
87.57	158.7693
87.88	141.7762
88.03	138.9780
88.36	139.1028
88.47	174.4070
89.95	547.3143
91.11	267.7851
92.29	136.7167
92.38	138.6753
92.38	138.6753
93.35	178.6109
94.00	292.0617
94.67	458.2212
94.67	458.2284
94.90	535.0757
94.90	535.0757
94.90	535.0757
94.90	535.0757
95.87	288.6100
95.87	288.6100
96.73	171.4041
97.43	140.4866
98.44	135.9529
98.44	135.9529
98.88	138.0611
99.55	135.3489
99.55	135.3489
99.86	156.0652
100.00	156.1194
100.10	156.1590
103.18	147.4411
103.76	145.6654
105.00	152.0623
105.31	152.1743
108.00	145.1342
109.28	151.5898

111.00	146.1431
111.00	146.1431
111.76	129.2324
112.95	139.7049
115.19	158.7216
116.30	135.6531
117.00	124.6254
117.00	124.6254
117.66	137.0820
121.11	114.4038
121.62	110.4014
121.78	110.4390
122.06	129.0945
122.32	118.8324
122.32	118.8324
122.32	118.8324
122.32	118.8324
123.07	117.9864
127.23	115.8833
129.76	110.1878
131.20	122.0865
133.02	119.3636
133.54	118.4292
135.34	127.3413
136.00	136.0065
136.25	136.0729
136.48	142.5154
140.51	153.2758
140.51	0.0000
142.18	154.8384
142.65	143.1376
143.76	103.5342
144.24	107.9447
144.24	107.9447
144.24	107.9447
144.24	107.9447
145.22	134.0962
145.44	135.2336
147.16	128.0674
152.43	108.4817
152.70	111.8229
153.22	115.2187
154.21	147.3000
154.21	147.3000
154.21	147.3000
154.21	147.3000
155.03	147.5153
156.02	136.7451
158.56	116.3092
159.00	0.0000
159.00	119.7235
160.31	162.2153
161.27	145.7905
162.32	148.2829
162.64	136.0934
163.35	125.0885
163.89	114.0247
165.85	151.4149
167.43	127.0756
171.28	126.7554
171.86	129.1418
172.10	134.8580
176.55	131.2655
176.60	121.0022
181.06	136.8057
184.41	123.6535
185.71	150.5347
186.00	150.6021
190.27	124.7659
192.34	116.6743
193.63	111.6259
197.04	122.7905
198.01	113.2334
198.60	117.7580
200.40	120.7297
201.83	133.4335
202.84	118.4826
205.31	134.0996

208.36	129.2915
208.81	129.3728
209.75	120.5470
209.75	120.5470
210.97	147.7867
215.65	107.9291
216.55	108.9697
218.09	111.9286
222.10	116.1935
223.80	132.9617
226.40	116.8572
227.00	103.1364
227.08	103.1475
227.20	108.6894
228.16	99.6037
228.18	108.8290
228.18	108.8290
231.56	130.6137
235.69	98.3410
236.00	98.3796
236.00	98.3796
238.63	112.1677
238.63	112.1677
238.63	112.1677
238.63	112.1677
239.00	112.2198
240.98	92.9996
241.98	84.1046
241.98	84.1046
241.98	84.1046
244.69	107.3690
245.39	117.8303
247.94	110.6355
248.90	115.4985
249.79	115.6232
252.40	98.8759
252.85	105.5885
252.85	105.5885
254.15	0.0000
256.20	123.2036
256.20	123.2036
260.50	119.9932
260.90	114.2862
262.80	109.7278
264.65	96.4600
268.24	95.8911
268.79	99.8300
269.46	114.4547
269.46	114.4547
269.46	114.4547
269.46	114.4547
271.23	101.0801
273.65	91.6118
276.40	105.5808
277.35	102.7570
277.60	94.9545
277.60	94.9545
278.00	94.0181
278.60	95.0611
279.20	80.4147
279.53	83.3865
280.46	91.3298
281.68	106.2021
283.67	104.4651
284.30	113.4119
285.00	105.6040
285.90	84.9607
286.10	84.9791
286.10	84.9791
287.40	101.9218
288.45	0.0000
290.67	114.1981
290.80	109.2489
291.72	120.2929
293.26	99.5789
293.70	92.6523
295.21	100.7842
295.21	100.7842

295.21	100.7842
295.96	102.8617
296.50	105.9175
297.23	110.0000
298.57	126.1788
299.80	119.3214
299.80	119.3214
300.09	112.3367
300.09	112.3367
300.09	112.3367
300.09	112.3367
300.12	112.3401
301.29	92.3931
302.84	106.6243
303.76	104.7125
303.91	102.7144
304.40	98.7372
304.40	98.7372
304.84	102.8140
306.84	94.9467
308.46	91.0574
311.98	102.5535
316.51	92.8232
318.01	93.9836
319.02	92.0338
319.41	85.9316
320.08	80.8696
323.87	90.4224
323.87	90.4224
323.87	90.4224
323.87	90.4224
325.23	103.9189
328.77	88.7912
333.44	82.9700
334.20	83.0310
334.20	83.0310
334.30	88.2295
338.28	91.6899
338.28	91.6899
338.28	91.6899
338.28	91.6899
338.32	91.6940
338.32	91.6940
338.32	91.6940
340.50	84.5744
340.57	84.5806
344.27	101.6401
345.85	90.2478
350.59	91.6994
351.07	91.7392
351.92	118.1934
351.92	118.1934
351.92	118.1934
355.39	0.0000
356.01	94.2746
364.48	68.3125
366.43	75.9164
367.43	87.7556
367.94	85.6543
369.80	67.5633
374.96	80.7976
383.85	80.3357
387.95	68.6332
388.63	74.1229
391.69	73.2220
391.69	73.2220
392.90	77.6725
398.62	87.9370
400.65	78.1741
401.10	77.1024
401.81	76.0457
402.60	71.6839
404.84	92.8081
410.95	61.0702
411.60	73.3225
413.65	70.1050
414.70	71.2783
415.30	72.4268

415.76	75.7975
417.63	0.0000
418.52	59.2077
423.70	62.8163
427.08	69.7320
427.89	71.1260
432.53	65.0584
433.93	73.2698
439.47	76.3085
439.56	69.0457
439.89	69.0633
443.98	56.5167
444.90	76.6244
445.03	76.6315
445.03	76.6315
445.03	76.6315
445.03	76.6315
453.90	85.4086
463.38	75.8350
468.07	58.4634
473.00	64.2596
475.06	56.8934
475.35	49.4417
476.78	61.6325
477.59	66.3398
477.96	71.9647
482.03	59.0510
484.57	81.6931
487.03	57.3781
490.36	69.7679
492.35	78.3616
497.08	75.7773
507.63	0.0000
510.53	0.0000
510.84	71.7105
511.00	71.7183
511.85	71.7599
511.85	71.7599
513.99	59.0873
513.99	59.0873
520.41	66.3973
520.65	64.4826
527.90	59.9565
528.96	0.0000
529.64	57.1202
529.87	0.0000
531.02	62.0172
537.32	54.4879
543.00	60.5454
546.56	0.0000
549.76	64.7303
552.65	53.0574
555.20	60.0320
563.23	57.3670
563.90	63.3266
568.70	64.5081
569.32	60.5607
569.50	60.5681
569.67	60.5741
573.80	63.7141
574.00	63.7219
574.64	56.7746
578.91	67.9070
579.30	66.9248
583.14	57.0682
585.48	67.1734
591.81	57.3646
592.07	57.3729
593.00	65.4618
595.88	61.5391
600.56	69.8019
602.52	0.0000
602.71	72.9281
602.71	72.9281
603.60	77.0205
604.41	76.0419
604.70	78.0828
609.31	69.1422

609.31	69.1422
609.31	69.1422
609.31	69.1422
610.33	66.1315
612.46	64.1751
614.37	57.1074
618.01	62.3359
621.84	60.4246
621.84	60.4246
631.29	62.8080
633.02	72.1448
633.10	72.1482
634.78	52.6149
635.90	55.7455
636.97	51.6467
645.85	66.4344
646.12	67.4819
656.30	51.1557
657.75	40.7481
657.90	0.0000
661.65	57.5875
661.65	57.5875
664.57	50.3367
666.33	48.2854
666.33	48.2854
675.00	54.8374
677.61	65.4724
685.20	49.8319
692.80	63.8687
695.00	56.4807
696.49	59.7242
696.49	59.7242
697.00	56.5402
697.49	58.6886
698.33	64.0518
698.50	65.1238
699.00	64.0737
702.63	60.9842
706.10	51.4465
706.58	0.0000
706.67	58.9652
709.31	54.7503
711.68	51.5930
713.82	51.6480
717.42	60.3668
720.50	52.9023
721.93	50.7797
722.20	49.7061
722.78	51.8824
722.78	51.8824
722.89	51.8848
722.95	51.8871
723.30	59.4634
724.18	60.5719
727.18	57.4124
733.00	70.6161
735.90	53.3102
739.58	44.6866
742.81	45.8493
744.21	66.6368
747.13	63.4488
751.79	47.1467
752.31	50.4484
753.82	55.9730
755.35	59.3090
756.15	65.9253
756.87	59.3525
763.93	49.6285
765.79	42.3136
766.42	35.8857
766.84	35.8928
776.49	46.2270
778.00	50.8855
778.57	47.1972
778.89	49.0556
783.80	41.7471
785.46	42.7076
792.07	42.8396

795.84	43.8474
796.30	49.4546
798.80	59.7878
801.93	39.2921
805.60	48.7288
810.29	50.7118
810.76	49.7835
815.85	36.7172
817.79	42.4036
818.51	42.4173
819.60	43.3805
826.30	33.1066
828.27	42.6022
831.60	44.5616
831.96	44.5693
834.83	48.4236
836.80	0.0000
846.75	45.8145
848.13	44.8877
856.28	0.0000
856.80	46.0156
860.37	46.0859
867.32	49.1126
867.82	48.1608
871.10	47.2634
873.19	42.4782
874.81	55.0668
875.33	0.0000
876.40	57.0374
879.36	42.5901
880.27	41.6379
880.51	41.6423
881.50	50.3782
883.24	43.6285
884.67	50.4459
889.25	48.5992
896.60	42.8989
898.02	45.8506
899.00	45.8688
903.28	45.9501
911.07	39.2326
911.07	39.2326
911.07	39.2326
919.63	40.3535
920.93	48.2533
925.00	44.3875
925.24	43.4056
926.50	50.3359
935.52	45.5667
937.48	40.6455
944.10	42.7410
946.00	37.7990
949.00	38.8405
962.29	31.0347
964.01	30.0537
966.15	42.1102
968.20	38.1299
969.11	35.1324
969.11	35.1324
969.11	35.1324
977.42	37.2597
980.50	39.3198
983.50	32.3001
989.30	35.4066
996.32	42.6016
1001.03	28.4512
1001.68	25.4094
1004.76	45.7901
1021.30	0.0000
1024.50	0.0000
1034.80	42.1878
1036.00	41.1768
1037.82	32.9635
1038.57	37.0942
1038.76	0.0000
1045.16	43.3809
1046.59	44.4365
1048.07	51.6988

1050.47	28.9764
1050.47	28.9764
1062.04	33.2539
1063.62	33.2721
1076.63	30.2933
1077.35	28.2107
1078.86	24.0444
1085.78	36.6791
1099.22	32.6398
1112.02	28.5546
1112.84	26.4465
1115.52	30.7063
1120.29	30.7570
1120.29	30.7570
1120.29	30.7570
1120.29	30.7570
1120.51	33.9414
1121.28	28.6458
1124.00	0.0000
1129.67	25.5352
1131.51	0.0000
1147.95	0.0000
1167.94	31.2526
1173.22	30.2274
1175.09	21.6040
1177.93	29.1929
1189.05	29.7634
1204.90	31.7861
1205.75	30.8592
1213.00	29.9933
1221.42	27.2543
1230.97	32.0505
1235.34	20.7670
1236.41	0.0000
1238.25	19.8413
1246.25	32.2035
1260.41	0.0000
1271.85	32.4584
1274.45	25.7965
1274.54	25.7975
1291.56	23.0499
1298.22	0.0000
1312.09	26.0903
1325.50	29.1044
1325.50	29.1044
1332.49	25.2764
1333.61	22.3671
1360.21	24.5004
1362.66	0.0000
1365.15	28.4609
1368.21	28.4852
1368.53	0.0000
1376.25	26.5819
1384.27	24.6695
1394.10	20.7795
1395.20	18.8065
1407.95	23.8410
1434.06	14.0078
1436.60	16.0201
1457.56	0.0000
1460.81	16.1261
1489.15	18.2800
1509.49	19.3996
1596.49	20.8796
1620.62	13.6529
1678.03	0.0000
1691.02	12.8186
1691.02	12.8186
1706.46	0.0000
1750.46	0.0000
1764.49	7.6064
1764.49	7.6064
1764.49	7.6064
1764.49	7.6064
1770.23	17.1365
1771.40	16.1891
1791.20	0.0000
1808.65	16.3250

1836.01

10.6274

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202005182

Total Uranium Activity	6.0363E-01	ug/g
Total Uranium Counting Unc.	2.1838E+00	ug/g
Total Uranium Tpu	1.1142E-06	ug/g
Total Uranium Mda	1.6466E+00	ug/g


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*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 937069                          SAMPLE ID   : G1202005182
*  ANALYST       : MXR1                             DETECTOR    : GAM13
*  SAMPLE DATE   : 31-DEC-2009 00:00:00.00          COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 7-JAN-2010 09:31:14.08          SAMPLE ALQT  : 135.630 GRAM
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 4.206E-02
GROSS GAMMA ERROR   (pCi/GRAM ) : 6.663E-02
GROSS GAMMA MDA     (pCi/GRAM ) : 1.216E-01
GROSS GAMMA DLC     (pCi/GRAM ) : 5.805E-02

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VAX/VMS Nuclide Identification Report Generated 7-JAN-2010 15:06:28.75

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202005183.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 13:06:00.
Sample ID          : G1202005183 Sample quantity : 1.10300E+02 GRAM
Detector name      : GAM04 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:00.96 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 937069 Detector SN# :
Matrix Spike ID    : LCS ID : 1032-A
*****
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.70	202	267	1.02	149.44	146	15	2.80E-02	14.1	7.86E-01
2	3	77.05	332	224	1.03	154.13	146	15	4.61E-02	9.2	
3	3	83.79*	78	149	1.24	167.62	165	19	1.08E-02	28.4	4.69E+00
4	3	87.17	146	293	1.25	174.38	165	19	2.02E-02	21.6	
5	0	92.88*	187	235	1.53	185.79	183	8	2.59E-02	16.6	
6	0	185.65*	107	200	1.15	371.36	368	8	1.48E-02	25.9	
7	0	209.24	81	169	1.43	418.55	415	8	1.12E-02	30.1	
8	0	238.40*	740	256	1.11	476.88	473	8	1.03E-01	5.4	
9	0	241.54	150	164	1.25	483.16	481	7	2.08E-02	17.0	
10	0	269.65	53	128	1.53	539.38	536	9	7.31E-03	40.9	
11	0	295.01*	257	150	0.92	590.10	585	11	3.56E-02	11.3	
12	0	300.05	40	99	1.00	600.17	597	9	5.60E-03	46.9	
13	0	338.15*	188	98	1.28	676.37	672	10	2.61E-02	12.5	
14	0	351.64*	411	118	1.17	703.36	698	12	5.71E-02	7.4	
15	0	510.67*	63	115	2.16	1021.44	1015	16	8.79E-03	45.8	
16	0	582.76*	247	95	1.50	1165.62	1159	15	3.43E-02	10.9	
17	0	608.87*	283	75	1.32	1217.83	1212	14	3.93E-02	9.1	
18	0	661.42*	121	68	1.89	1322.93	1317	13	1.68E-02	17.5	
19	0	726.52	87	44	1.68	1453.12	1445	16	1.21E-02	20.2	
20	0	767.26	53	30	3.43	1534.61	1529	11	7.35E-03	24.4	
21	0	910.42*	156	52	1.64	1820.90	1813	13	2.17E-02	11.9	
22	0	969.37*	80	79	2.06	1938.79	1929	19	1.11E-02	30.0	
23	0	1047.75	16	49	1.23	2095.53	2089	14	2.22E-03	96.1	
24	0	1119.67	81	31	2.86	2239.36	2232	14	1.12E-02	18.5	
25	0	1459.57	785	10	2.00	2919.02	2912	14	1.09E-01	3.7	
26	0	1763.46	52	11	1.32	3526.65	3519	15	7.21E-03	19.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 7-JAN-2010 15:06:31

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202005183.CNF;1
 Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
 Sample title : MXR1
 Sample date : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 13:06:00
 Sample ID : G1202005183 Sample quantity : 110.30 GRAM
 Sample type : SOLID Sample geometry :
 Detector name : GAMMA4 Detector geometry: CAN
 Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.96 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	*	2.327E+01	2.380E+00	3.989E-01	2.835E-02	58.335
NB-95	+	765.79	*	1.120E-01	5.503E-02	7.099E-02	4.424E-03	1.577
CD-109	+	88.03	*	2.727E+00	1.224E+00	1.290E+00	1.551E-01	2.113
SN-126		64.28		7.425E-01	6.182E-01	1.070E+00	1.844E-01	0.694
	+	86.94		1.111E+00	6.713E-01	5.356E-01	2.259E-01	2.075
	+	87.57	*	2.673E-01	1.199E-01	1.274E-01	1.528E-02	2.097
CS-135	+	268.24	*	2.535E-01	2.087E-01	2.351E-01	1.960E-02	1.078
BA-137M	+	661.65	*	2.073E-01	7.314E-02	5.982E-02	2.917E-03	3.465
CS-137	+	661.65	*	2.191E-01	7.732E-02	6.324E-02	3.102E-03	3.465
TL-208		277.35		1.127E-01	3.493E-01	6.005E-01	6.636E-02	0.188
	+	510.84		3.652E-01	3.363E-01	2.336E-01	2.345E-02	1.563
	+	583.14	*	4.062E-01	9.241E-02	5.371E-02	3.379E-03	7.563
		860.37		2.695E-01	3.033E-01	5.428E-01	4.528E-02	0.497
BI-211		72.87		2.917E+00	3.783E+00	5.939E+00	6.809E-01	0.491
	+	351.07	*	2.979E+00	4.840E-01	3.235E-01	2.185E-02	9.210
PB-212	+	74.81		1.769E+00	5.629E-01	5.956E-01	8.804E-02	2.970
	+	77.11		1.599E+00	3.465E-01	3.288E-01	3.772E-02	4.865
	+	87.30		1.236E+00	5.683E-01	5.921E-01	9.236E-02	2.088
	+	238.63	*	1.170E+00	1.566E-01	1.185E-01	9.518E-03	9.870
	+	300.09		9.852E-01	9.275E-01	1.029E+00	9.063E-02	0.957
PO-212	+	74.81		1.769E+00	5.629E-01	5.956E-01	8.804E-02	2.970
	+	77.11		1.599E+00	3.465E-01	3.288E-01	3.772E-02	4.865
	+	87.30		1.236E+00	5.683E-01	5.921E-01	9.236E-02	2.088
		115.19		-9.811E-01	3.176E+00	5.143E+00	3.870E-01	-0.191
	+	238.63	*	1.170E+00	1.566E-01	1.185E-01	9.518E-03	9.870
	+	300.09		9.852E-01	9.275E-01	1.029E+00	9.063E-02	0.957
BI-214	+	609.31	*	8.773E-01	1.726E-01	1.064E-01	7.816E-03	8.248
	+	1120.29		1.337E+00	5.102E-01	4.944E-01	4.606E-02	2.705
	+	1764.49		1.173E+00	4.690E-01	3.439E-01	2.096E-02	3.410
PB-214	+	74.81		3.047E+00	9.543E-01	1.026E+00	1.400E-01	2.970
	+	77.11		2.742E+00	6.297E-01	5.636E-01	7.762E-02	4.865
	+	87.30		2.118E+00	9.642E-01	1.014E+00	1.444E-01	2.088
	+	241.98		1.422E+00	4.980E-01	5.682E-01	4.950E-02	2.503
	+	295.21		1.101E+00	2.689E-01	1.942E-01	1.764E-02	5.667

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	351.92	*	1.036E+00	1.768E-01	1.128E-01	9.619E-03	9.190
	+	74.81		3.047E+00	9.543E-01	1.026E+00	1.400E-01	2.970
	+	77.11		2.742E+00	6.297E-01	5.636E-01	7.762E-02	4.865
	+	87.30		2.118E+00	9.642E-01	1.014E+00	1.444E-01	2.088
	+	241.98		1.422E+00	4.980E-01	5.682E-01	4.950E-02	2.503
PO-216	+	295.21		1.101E+00	2.689E-01	1.942E-01	1.764E-02	5.667
	+	351.92	*	1.036E+00	1.768E-01	1.128E-01	9.619E-03	9.190
	+	74.81		1.769E+00	5.629E-01	5.956E-01	8.804E-02	2.970
	+	77.11		1.599E+00	3.465E-01	3.288E-01	3.772E-02	4.865
	+	87.30		1.236E+00	5.683E-01	5.921E-01	9.236E-02	2.088
PO-218	+	238.63	*	1.170E+00	1.566E-01	1.185E-01	9.518E-03	9.870
	+	300.09		9.852E-01	9.275E-01	1.029E+00	9.063E-02	0.957
	+	74.81		3.047E+00	9.543E-01	1.026E+00	1.400E-01	2.970
	+	77.11		2.742E+00	6.297E-01	5.636E-01	7.762E-02	4.865
	+	87.30		2.118E+00	9.642E-01	1.014E+00	1.444E-01	2.088
RA-224	+	241.98		1.422E+00	4.980E-01	5.682E-01	4.950E-02	2.503
	+	295.21		1.101E+00	2.689E-01	1.942E-01	1.764E-02	5.667
	+	351.92	*	1.036E+00	1.768E-01	1.128E-01	9.619E-03	9.190
	+	240.98	*	2.697E+00	9.321E-01	1.349E+00	8.994E-02	1.999
	+	609.31	*	8.773E-01	1.726E-01	1.064E-01	7.816E-03	8.248
RA-226	+	1120.29		1.337E+00	5.102E-01	4.944E-01	4.606E-02	2.705
	+	1764.49		1.173E+00	4.690E-01	3.439E-01	2.096E-02	3.410
	+	338.32		1.502E+00	7.197E-01	3.664E-01	1.496E-01	4.099
	+	911.07	*	1.160E+00	3.045E-01	2.142E-01	2.335E-02	5.418
	+	969.11		1.047E+00	6.722E-01	4.237E-01	9.771E-02	2.471
RA-228	+	338.32		1.502E+00	7.197E-01	3.664E-01	1.496E-01	4.099
	+	911.07	*	1.160E+00	3.045E-01	2.142E-01	2.335E-02	5.418
	+	969.11		1.047E+00	6.722E-01	4.237E-01	9.771E-02	2.471
	+	74.81		1.799E+00	5.477E-01	6.058E-01	6.971E-02	2.970
	+	77.11		1.627E+00	3.525E-01	3.344E-01	3.836E-02	4.865
TH-228	+	87.30		1.257E+00	5.642E-01	6.023E-01	7.210E-02	2.088
	+	238.63	*	1.190E+00	1.592E-01	1.205E-01	9.681E-03	9.870
	+	300.09		1.002E+00	1.110E+00	1.047E+00	6.179E-01	0.957
	+	609.31	*	8.773E-01	1.726E-01	1.064E-01	7.816E-03	8.248
	+	1120.29		1.337E+00	5.102E-01	4.944E-01	4.606E-02	2.705
TH-230	+	1764.49		1.173E+00	4.690E-01	3.439E-01	2.096E-02	3.410
	+	338.32		1.502E+00	3.883E-01	3.664E-01	2.303E-02	4.099
	+	911.07	*	1.160E+00	3.045E-01	2.142E-01	2.335E-02	5.418
	+	969.11		1.047E+00	6.722E-01	4.237E-01	9.771E-02	2.471
	+	609.31	*	8.773E-01	1.726E-01	1.064E-01	7.816E-03	8.248
U-234	+	1120.29		1.337E+00	5.102E-01	4.944E-01	4.606E-02	2.705
	+	1764.49		1.173E+00	4.690E-01	3.439E-01	2.096E-02	3.410
	+	86.50	*	7.849E-01	3.876E-01	3.812E-01	9.084E-02	2.059
	+	95.87		-4.746E-01	1.020E+00	1.463E+00	3.685E-01	-0.325
	+	74.67	*	2.867E-01	8.724E-02	9.702E-02	1.111E-02	2.955
AM-243	+	86.72		2.943E+01	1.321E+01	1.424E+01	1.699E+00	2.067
	+	117.66		-2.725E+00	3.521E+00	5.541E+00	4.045E-01	-0.492
	+	142.18		-3.669E+00	1.592E+01	2.563E+01	1.677E+00	-0.143
	+	511.00	*	7.888E-02	7.235E-02	5.048E-02	2.823E-03	1.563
	+							

---- 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	*	-3.242E-02	3.409E-01	5.513E-01	3.652E-02	-0.059
NA-22		1274.54	*	1.963E-02	4.718E-02	8.254E-02	5.397E-03	0.238
NA-24		1368.53	*	6.629E-01	4.718E-02	Half-Life too short		
AL-26		1129.67		-1.396E+00	1.830E+00	2.672E+00	1.723E-01	-0.523
		1808.65	*	-1.617E-03	3.148E-02	5.048E-02	2.994E-03	-0.032
TI-44		67.85		9.687E-03	5.231E-02	8.891E-02	1.034E-02	0.109
	+	78.38	*	2.951E-01	6.395E-02	7.585E-02	8.722E-03	3.891
SC-46		889.25	*	2.348E-02	4.086E-02	7.144E-02	5.778E-03	0.329
	+	1120.51		2.326E-01	8.739E-02	1.362E-01	8.923E-03	1.708
V-48		944.10		3.801E-01	9.631E-01	1.651E+00	1.320E-01	0.230
		983.50	*	-1.030E-01	7.304E-02	9.392E-02	7.276E-03	-1.097
		1312.09		-1.580E-02	9.320E-02	1.522E-01	1.026E-02	-0.104
CR-51		320.08	*	-5.502E-02	3.830E-01	6.348E-01	4.470E-02	-0.087
MN-52		744.21		-3.076E-01	2.878E-01	4.230E-01	2.511E-02	-0.727
		848.13		-4.613E+00	8.183E+00	1.260E+01	9.375E-01	-0.366
		935.52		2.750E-01	3.284E-01	5.868E-01	4.719E-02	0.469
		1246.25		3.281E+00	9.378E+00	1.630E+01	1.037E+00	0.201
		1333.61		-7.663E+00	6.246E+00	8.396E+00	5.753E-01	-0.913
		1434.06	*	8.886E-02	2.939E-01	5.115E-01	3.490E-02	0.174
MN-54		834.83	*	1.905E-02	3.946E-02	6.825E-02	4.939E-03	0.279
CO-56		846.75	*	-1.259E-02	3.840E-02	6.104E-02	4.528E-03	-0.206
		977.42		1.095E+00	2.795E+00	4.435E+00	3.454E-01	0.247
		1037.82		-1.707E-01	3.162E-01	4.741E-01	3.731E-02	-0.360
		1175.09		8.000E-02	2.797E+00	4.514E+00	2.690E-01	0.018
		1238.25		-2.771E-02	8.869E-02	1.440E-01	9.587E-03	-0.192
		1360.21		-1.324E-01	1.038E+00	1.694E+00	1.161E-01	-0.078
		1771.40		-9.923E-03	2.324E-01	3.742E-01	2.272E-02	-0.027
CO-57		122.06	*	-6.421E-03	2.461E-02	3.989E-02	2.769E-03	-0.161
		136.48		-1.237E-01	1.973E-01	3.110E-01	2.313E-02	-0.398
CO-58		810.76	*	-1.474E-02	4.148E-02	6.671E-02	4.605E-03	-0.221
FE-59		142.65		-1.973E+00	2.673E+00	4.050E+00	2.647E-01	-0.487
		192.34		2.939E-01	9.297E-01	1.519E+00	1.847E-01	0.193
		1099.22	*	-8.898E-03	9.416E-02	1.505E-01	1.150E-02	-0.059
		1291.56		-2.267E-02	1.303E-01	2.130E-01	1.721E-02	-0.106
CO-60		1173.22		7.316E-02	5.234E-02	9.601E-02	5.710E-03	0.762
		1332.49	*	-2.922E-02	3.757E-02	5.538E-02	3.794E-03	-0.528
ZN-65		1115.52	*	-8.372E-02	1.144E-01	1.393E-01	9.214E-03	-0.601
GE-68		1077.35	*	-2.627E-01	1.264E+00	1.994E+00	1.393E-01	-0.132
AS-73		53.44	*	-1.878E+00	1.568E+00	2.469E+00	3.230E-01	-0.761
AS-74		595.88	*	1.383E-01	9.896E-02	1.796E-01	9.482E-03	0.770
		634.78		4.094E-02	3.666E-01	5.927E-01	2.998E-02	0.069
SE-75		66.05		-1.049E+01	5.981E+00	8.960E+00	1.176E+00	-1.171
		96.73		-5.514E-01	8.610E-01	1.222E+00	1.773E-01	-0.451
		121.11		2.456E-02	1.326E-01	2.202E-01	2.209E-02	0.112
		136.00		3.352E-03	3.662E-02	6.016E-02	4.032E-03	0.056
		198.60		6.599E-01	1.919E+00	3.047E+00	2.352E-01	0.217
		264.65	*	3.481E-02	4.179E-02	6.988E-02	4.701E-03	0.498
		279.53		-3.703E-02	1.032E-01	1.703E-01	1.202E-02	-0.218
		303.91		-3.131E-01	2.107E+00	3.071E+00	3.075E-01	-0.102

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	400.65		-1.389E-01	2.600E-01	4.107E-01	3.698E-02	-0.338
		87.88		1.031E+03	4.627E+02	5.903E+02	7.093E+01	1.747
	+	200.40		-5.648E+01	2.921E+02	4.623E+02	3.016E+01	-0.122
		239.00		3.297E+02	4.158E+01	6.616E+01	4.408E+00	4.983
		249.79		-6.984E+01	1.044E+02	1.699E+02	1.134E+01	-0.411
		281.68		-7.629E+00	1.526E+02	2.565E+02	1.704E+01	-0.030
		297.23		1.613E+02	1.208E+02	1.574E+02	1.036E+01	1.024
		303.76		-3.842E+01	3.120E+02	4.561E+02	2.986E+01	-0.084
		439.47		1.423E+02	2.542E+02	4.355E+02	2.470E+01	0.327
		484.57		6.034E+01	3.921E+02	6.476E+02	3.654E+01	0.093
		520.65	*	-3.051E+00	1.778E+01	2.831E+01	1.577E+00	-0.108
		574.64		-7.818E+01	3.436E+02	5.392E+02	2.901E+01	-0.145
		578.91		8.540E+01	1.674E+02	2.512E+02	1.347E+01	0.340
		585.48		5.601E+02	3.275E+02	5.556E+02	2.961E+01	1.008
		755.35		2.475E+02	2.902E+02	5.224E+02	3.180E+01	0.474
		817.79		-1.150E+02	2.321E+02	3.631E+02	2.535E+01	-0.317
SR-82		698.33		1.436E+01	3.438E+01	5.982E+01	3.190E+00	0.240
	*	776.49		-1.825E-01	3.707E-01	5.825E-01	3.718E-02	-0.313
		1395.20		-6.316E+00	1.194E+01	1.813E+01	1.241E+00	-0.348
RB-83	*	520.41		-1.038E-02	6.748E-02	1.077E-01	5.996E-03	-0.096
		529.64		-1.006E-01	9.942E-02	1.427E-01	7.911E-03	-0.705
		552.65		-2.095E-03	2.038E-01	3.285E-01	1.796E-02	-0.006
RB-84	*	881.50		4.459E-02	7.360E-02	1.292E-01	1.029E-02	0.345
KR-85	*	513.99		3.452E+00	8.147E+00	1.212E+01	6.771E-01	0.285
SR-85	*	513.99		1.806E-02	4.263E-02	6.343E-02	3.543E-03	0.285
RB-86	*	1076.63		-6.989E-02	8.964E-01	1.439E+00	1.006E-01	-0.049
Y-88		898.02		-7.922E-03	4.357E-02	7.022E-02	5.810E-03	-0.113
	*	1836.01		-7.383E-03	3.835E-02	5.943E-02	3.468E-03	-0.124
ZR-88	*	392.90		-2.686E-02	3.133E-02	4.822E-02	2.714E-03	-0.557
Y-91	*	1204.90		-1.050E+01	2.122E+01	3.210E+01	1.967E+00	-0.327
NB-94	*	702.63		-9.130E-03	3.208E-02	5.230E-02	2.818E-03	-0.175
		871.10		8.023E-03	3.368E-02	5.704E-02	4.448E-03	0.141
NB-95M	*	235.69		9.353E-02	1.409E-01	2.087E-01	1.713E-02	0.448
ZR-95		724.18		8.657E-02	1.016E-01	1.644E-01	1.109E-02	0.527
	*	756.15		2.851E-02	7.242E-02	1.253E-01	9.121E-03	0.228
NB-97	*	657.90		4.508E-01	7.242E-02	Half-Life	too short	
		1024.50		-1.375E+01	7.242E-02	Half-Life	too short	
ZR-97		254.15		9.766E-01	7.242E-02	Half-Life	too short	
		355.39		8.533E+00	7.242E-02	Half-Life	too short	
	*	507.63		2.101E+01	7.242E-02	Half-Life	too short	
		602.52		2.170E+01	7.242E-02	Half-Life	too short	
		1021.30		5.894E+00	7.242E-02	Half-Life	too short	
		1147.95		-1.657E+01	7.242E-02	Half-Life	too short	
		1362.66		-2.689E+01	7.242E-02	Half-Life	too short	
		1750.46		-2.500E+01	7.242E-02	Half-Life	too short	
MO-99		140.51		3.417E+01	3.961E+01	6.587E+01	1.786E+01	0.519
		181.06		-1.412E+01	2.801E+01	4.131E+01	7.172E+00	-0.342
		366.43		-1.415E+00	1.202E+02	1.993E+02	1.192E+01	-0.007
	*	739.58		1.467E+01	1.736E+01	3.131E+01	4.324E+00	0.469

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.00		-2.009E+01	5.014E+01	7.957E+01	5.097E+00	-0.253
TC-99M		140.51	*	6.308E+12	5.014E+01	Half-Life	too short	
RH-101		127.23		6.397E-03	2.994E-02	4.965E+02	3.372E-03	0.129
		198.01	*	3.776E-02	3.425E-02	5.653E-02	3.681E-03	0.668
		325.23		-8.045E-02	2.384E-01	3.904E-01	2.499E-02	-0.206
RH-102		418.52		-1.798E-01	2.815E-01	4.380E-01	2.480E-02	-0.410
		475.06	*	-1.536E-02	2.954E-02	4.592E-02	2.596E-03	-0.335
		631.29		-1.254E-02	5.403E-02	8.404E-02	4.269E-03	-0.149
		697.49		4.561E-02	7.323E-02	1.297E-01	6.901E-03	0.352
	+	766.84		2.763E-01	1.358E-01	2.164E-01	1.352E-02	1.277
	+	1046.59		1.119E-01	2.153E-01	2.408E-01	1.749E-02	0.465
		1112.84		-3.101E-03	2.699E-01	3.757E-01	2.491E-02	-0.008
RU-103		497.08	*	-1.456E-02	4.279E-02	6.733E-02	8.459E-03	-0.216
	+	610.33		9.800E+00	2.328E+00	2.778E+00	4.224E-01	3.528
RH-106	+	511.85		3.954E-01	3.627E-01	4.457E-01	2.492E-02	0.887
		621.84	*	5.397E-02	3.120E-01	5.081E-01	5.805E-02	0.106
		1050.47		-9.488E-01	2.799E+00	3.684E+00	2.663E-01	-0.258
RU-106	+	511.85		3.954E-01	3.627E-01	4.457E-01	2.492E-02	0.887
		621.84	*	5.397E-02	3.119E-01	5.081E-01	2.611E-02	0.106
		1050.47		-9.488E-01	2.799E+00	3.684E+00	2.663E-01	-0.258
AG-108M		433.93	*	-1.193E-03	3.218E-02	5.265E-02	3.253E-03	-0.023
		614.37		-1.971E-03	4.134E-02	5.726E-02	3.279E-03	-0.034
		722.95		-1.239E-02	4.388E-02	6.119E-02	3.766E-03	-0.202
AG-110M		657.75	*	2.229E-02	3.662E-02	5.813E-02	3.106E-03	0.383
		677.61		2.205E-01	2.718E-01	4.934E-01	2.701E-02	0.447
		706.67		-1.576E-02	2.034E-01	3.384E-01	1.965E-02	-0.047
		763.93		1.253E-01	1.753E-01	2.791E-01	1.825E-02	0.449
		884.67		-3.693E-02	5.123E-02	7.711E-02	6.409E-03	-0.479
		937.48		-1.014E-01	1.147E-01	1.675E-01	1.401E-02	-0.605
		1384.27		5.094E-04	1.721E-01	2.862E-01	2.047E-02	0.002
IN-111		171.28		-4.908E-01	1.481E+00	2.343E+00	1.493E-01	-0.210
		245.39	*	7.646E-01	1.822E+00	2.641E+00	1.762E-01	0.290
IN-113M		391.69	*	-3.411E-02	4.589E-02	7.146E-02	4.306E-03	-0.477
SN-113		391.69	*	-3.411E-02	4.589E-02	7.146E-02	4.306E-03	-0.477
IN-114M		190.27	*	-7.517E-02	2.014E-01	2.792E-01	1.807E-02	-0.269
CD-115		260.90		-1.254E+02	2.166E+02	3.534E+02	2.360E+01	-0.355
		492.35		2.651E+01	6.795E+01	1.143E+02	6.435E+00	0.232
		527.90	*	2.296E+01	1.738E+01	3.189E+01	1.769E+00	0.720
SN-117M		156.02		-2.042E+00	2.301E+00	3.536E+00	2.268E-01	-0.577
		158.56	*	7.033E-02	5.584E-02	9.663E-02	6.181E-03	0.728
SB-122		563.90	*	2.422E-01	3.412E+00	5.534E+00	3.002E-01	0.044
		692.80		-4.316E+01	6.554E+01	1.026E+02	5.396E+00	-0.421
I-123		159.00	*	4.252E+01	6.554E+01	Half-Life	too short	
		528.96		-9.096E+02	6.554E+01	Half-Life	too short	
TE-123M		159.00	*	1.844E-02	2.687E-02	4.520E-02	2.922E-03	0.408
I-124		602.71	*	3.998E-01	1.011E+00	1.491E+00	7.818E-02	0.268
		722.78		-1.857E+00	6.304E+00	8.774E+00	4.956E-01	-0.212
		1325.50		-1.496E+01	4.478E+01	7.085E+01	4.827E+00	-0.211
		1376.25		4.287E+00	4.876E+01	8.197E+01	5.616E+00	0.052

----- Non-Identified Nuclides -----

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SB-124		1509.49		2.651E+01	2.205E+01	4.306E+01	2.903E+00	0.616
		1691.02		4.238E+00	4.642E+00	9.199E+00	5.830E-01	0.461
		602.71		1.725E-02	4.363E-02	6.434E-02	3.376E-03	0.268
		645.85		7.081E-02	4.855E-01	8.297E-01	4.841E-02	0.085
		709.31		2.132E+00	2.669E+00	4.802E+00	2.628E-01	0.444
		713.82		-2.060E+00	1.565E+00	2.222E+00	2.235E-01	-0.927
		722.78		-1.162E-01	3.944E-01	5.489E-01	3.255E-02	-0.212
	+	968.20		1.102E+01	6.659E+00	7.231E+00	5.675E-01	1.524
		1045.16		1.969E+00	3.341E+00	5.110E+00	3.717E-01	0.385
		1325.50		-9.997E-01	2.992E+00	4.734E+00	3.225E-01	-0.211
		1368.21		-1.241E-01	1.712E+00	2.814E+00	3.495E-01	-0.044
		1436.60		1.461E+00	4.155E+00	7.251E+00	4.947E-01	0.202
		1691.02	*	6.253E-02	6.852E-02	1.357E-01	9.224E-03	0.461
		427.89	*	2.765E-03	8.659E-02	1.426E-01	8.444E-03	0.019
SB-125		463.38		3.363E-01	2.777E-01	4.960E-01	3.297E-02	0.678
		600.56		-9.184E-02	1.826E-01	2.779E-01	1.735E-02	-0.330
		635.90		-1.202E-01	2.702E-01	4.093E-01	2.523E-02	-0.294
		109.28	*	3.331E+00	8.612E+00	1.433E+01	1.423E+00	0.232
TE-125M		388.63		1.894E-01	2.396E-01	4.173E-01	2.367E-02	0.454
		666.33	*	-3.076E-02	2.136E-01	3.068E-01	1.514E-02	-0.100
I-126		753.82		2.408E+00	1.605E+00	3.040E+00	1.844E-01	0.792
		223.80		4.024E+00	4.263E+00	7.184E+00	4.758E-01	0.560
SB-126		278.60		-5.511E-01	2.567E+00	4.276E+00	2.843E-01	-0.129
	+	296.50		1.220E+01	2.883E+00	3.713E+00	2.444E-01	3.287
		414.70		1.120E-01	7.609E-02	1.399E-01	7.918E-03	0.801
		415.30		2.675E+00	6.691E+00	1.137E+01	6.433E-01	0.235
		555.20		5.274E-01	4.343E+00	7.090E+00	3.870E-01	0.074
		573.80		-4.462E-01	1.124E+00	1.732E+00	9.326E-02	-0.258
		593.00		-1.367E+00	1.078E+00	1.492E+00	7.896E-02	-0.916
		656.30		1.198E+00	4.046E+00	6.172E+00	3.034E-01	0.194
		666.33		-1.291E-02	8.965E-02	1.288E-01	6.353E-03	-0.100
		675.00		-9.631E-01	2.080E+00	3.335E+00	1.681E-01	-0.289
		695.00		-2.608E-02	8.014E-02	1.301E-01	6.883E-03	-0.200
		697.00		2.653E-01	2.788E-01	5.077E-01	2.698E-02	0.523
		720.50	*	5.844E-03	1.695E-01	2.479E-01	1.393E-02	0.024
		856.80		-2.810E-01	5.255E-01	8.158E-01	6.178E-02	-0.344
		989.30		1.202E+00	1.493E+00	2.654E+00	2.045E-01	0.453
		1034.80		3.733E+00	9.151E+00	1.569E+01	1.155E+00	0.238
SB-127		1213.00		1.562E+00	5.590E+00	9.256E+00	5.716E-01	0.169
		61.10		-7.260E+01	1.101E+02	1.795E+02	2.599E+01	-0.405
		252.40		8.817E-01	5.667E+00	9.684E+00	4.052E+00	0.091
		290.80		-9.176E+00	3.160E+01	4.566E+01	4.734E+00	-0.201
		411.60		-2.309E+01	1.798E+01	2.607E+01	3.854E+00	-0.886
		444.90		3.764E+00	1.361E+01	2.282E+01	2.587E+00	0.165
		473.00		1.607E+00	2.337E+00	4.029E+00	4.713E-01	0.399
		543.00		-1.069E+01	2.411E+01	3.719E+01	4.944E+00	-0.288
		603.60		-2.194E+00	1.887E+01	2.595E+01	2.881E+00	-0.085
		685.20	*	4.601E-01	1.805E+00	3.104E+00	3.034E-01	0.148
		698.50		7.415E+00	2.063E+01	3.568E+01	5.267E+00	0.208

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XE-127	722.20			-2.913E+01	4.611E+01	6.078E+01	5.946E+00	-0.479
	783.80			2.227E+00	5.238E+00	9.048E+00	1.053E+00	0.246
	57.60			-1.025E+01	9.822E+00	1.564E+01	1.958E+00	-0.656
	145.22			3.443E-01	6.450E-01	1.081E+00	7.036E-02	0.318
	172.10			-1.023E-01	1.157E-01	1.763E-01	1.125E-02	-0.580
I-131	202.84	*		1.860E-03	4.562E-02	7.316E-02	4.782E-03	0.025
	374.96			9.840E-02	1.930E-01	3.322E-01	1.949E-02	0.296
	80.18			-5.272E-01	6.996E+00	8.295E+00	9.630E-01	-0.064
	284.30			-3.081E-01	1.733E+00	2.889E+00	2.087E-01	-0.107
	364.48	*		-4.801E-02	1.190E-01	1.908E-01	1.273E-02	-0.252
TE-132	636.97			-5.542E-01	1.738E+00	2.668E+00	1.561E-01	-0.208
	722.89			-2.610E+00	8.714E+00	1.212E+01	6.975E-01	-0.215
	49.72			-1.223E+01	6.240E+01	1.052E+02	1.515E+01	-0.116
	111.76			7.651E-01	4.118E+01	6.803E+01	7.363E+00	0.011
	116.30			-1.610E+01	3.662E+01	5.875E+01	6.173E+00	-0.274
BA-133	228.16	*		1.570E-01	9.756E-01	1.566E+00	2.368E-01	0.100
	53.15			-8.122E+00	6.753E+00	1.063E+01	1.391E+00	-0.764
	79.62			3.022E-01	1.427E+00	1.996E+00	3.403E-01	0.151
	81.00			-3.263E-02	1.245E-01	1.443E-01	2.549E-02	-0.226
	276.40			2.171E-01	3.497E-01	6.094E-01	8.147E-02	0.356
I-133	302.84			-5.393E-02	1.451E-01	2.068E-01	2.491E-02	-0.261
	356.01	*		1.856E-02	4.407E-02	6.728E-02	7.881E-03	0.276
	383.85			-8.009E-02	2.996E-01	4.854E-01	5.262E-02	-0.165
	510.53	+		3.753E+00	2.996E-01	Half-Life	too short	
	529.87	*		-4.201E-02	2.996E-01	Half-Life	too short	
CS-134	706.58			-2.298E-01	2.996E-01	Half-Life	too short	
	856.28			-1.605E+00	2.996E-01	Half-Life	too short	
	875.33			-7.642E-01	2.996E-01	Half-Life	too short	
	1236.41			1.185E+00	2.996E-01	Half-Life	too short	
	1298.22			7.630E-01	2.996E-01	Half-Life	too short	
I-135	475.35			-1.247E+00	1.970E+00	3.031E+00	1.714E-01	-0.411
	563.23			1.502E-01	3.642E-01	6.096E-01	3.388E-02	0.246
	569.32			-5.456E-02	1.955E-01	2.997E-01	1.675E-02	-0.182
	604.70			-2.865E-03	3.926E-02	5.432E-02	2.863E-03	-0.053
	795.84	*		9.626E-02	4.622E-02	9.067E-02	6.111E-03	1.062
I-135	801.93			-1.924E-01	4.489E-01	7.082E-01	4.822E-02	-0.272
	1038.57			1.906E+00	3.716E+00	6.439E+00	4.720E-01	0.296
	1167.94			-1.098E+00	2.892E+00	4.456E+00	2.679E-01	-0.246
	1365.15			-8.503E-01	1.175E+00	1.706E+00	1.252E-01	-0.498
	288.45			-7.956E+11	1.175E+00	Half-Life	too short	
I-135	417.63			1.034E+11	1.175E+00	Half-Life	too short	
	546.56			1.621E+12	1.175E+00	Half-Life	too short	
	836.80			3.048E+12	1.175E+00	Half-Life	too short	
	1038.76			7.522E+11	1.175E+00	Half-Life	too short	
	1124.00			3.624E+12	1.175E+00	Half-Life	too short	
I-135	1131.51			-2.045E+11	1.175E+00	Half-Life	too short	
	1260.41	*		5.663E+11	1.175E+00	Half-Life	too short	
	1457.56			1.152E+14	1.175E+00	Half-Life	too short	
	1678.03			1.127E+11	1.175E+00	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-136		1706.46		2.072E+12	1.175E+00	Half-Life	too short	
		1791.20		-9.273E+11	1.175E+00	Half-Life	too short	
		66.91		-3.481E-01	9.724E-01	1.608E+00	2.787E-01	-0.216
	+	86.29		3.861E+00	1.771E+00	2.260E+00	3.445E-01	1.709
		153.22		2.494E-01	6.347E-01	1.055E+00	8.167E-02	0.237
		163.89		7.055E-01	1.102E+00	1.847E+00	1.424E-01	0.382
		176.55		-9.785E-02	3.859E-01	6.127E-01	4.325E-02	-0.160
		273.65		-2.837E-01	5.466E-01	7.802E-01	5.761E-02	-0.364
		340.57		2.181E-01	1.414E-01	2.361E-01	1.560E-02	0.924
		818.51		-5.259E-02	8.034E-02	1.230E-01	8.611E-03	-0.428
CE-139	+	1048.07	*	1.163E-01	2.237E-01	2.434E-01	1.870E-02	0.478
		1235.34		3.393E-01	6.300E-01	1.111E+00	1.143E-01	0.305
		165.85	*	-2.130E-03	2.837E-02	4.571E-02	2.904E-03	-0.047
		162.64		2.212E-01	7.789E-01	1.282E+00	9.017E-02	0.173
BA-140		304.84		3.608E-01	1.390E+00	2.104E+00	5.776E-01	0.172
		423.70		-5.964E-01	1.958E+00	3.117E+00	9.899E-01	-0.191
		537.32	*	1.413E-01	3.098E-01	5.157E-01	1.675E-01	0.274
		328.77		3.052E-01	3.435E-01	6.027E-01	4.226E-02	0.506
LA-140		432.53		-9.103E-01	2.257E+00	3.576E+00	2.249E-01	-0.255
		487.03		-5.325E-02	1.543E-01	2.432E-01	1.562E-02	-0.219
		751.79		-1.613E+00	1.992E+00	3.054E+00	2.227E-01	-0.528
		815.85		1.463E-01	3.344E-01	5.813E-01	4.738E-02	0.252
		867.82		-6.742E-01	1.564E+00	2.452E+00	2.023E-01	-0.275
		919.63		-1.178E+00	2.961E+00	4.613E+00	4.730E-01	-0.255
		925.24		5.218E-01	1.278E+00	2.194E+00	1.902E-01	0.238
		1596.49	*	4.088E-03	9.213E-02	1.526E-01	1.005E-02	0.027
		145.44	*	2.783E-02	5.878E-02	9.822E-02	6.593E-03	0.283
		57.37		-3.287E-03	5.878E-02	Half-Life	too short	
CE-141		231.56		-6.452E-05	5.878E-02	Half-Life	too short	
		293.26	*	1.654E-03	5.878E-02	Half-Life	too short	
	+	350.59		6.245E-02	5.878E-02	Half-Life	too short	
		490.36		4.129E-03	5.878E-02	Half-Life	too short	
CE-143		664.57		2.722E-03	5.878E-02	Half-Life	too short	
		721.93		-2.179E-03	5.878E-02	Half-Life	too short	
		80.11		-1.584E-01	2.744E+00	3.260E+00	3.766E-01	-0.049
		133.54	*	3.823E-02	1.926E-01	3.183E-01	4.639E-02	0.120
PM-144		476.78		-4.967E-02	6.995E-02	1.067E-01	7.281E-03	-0.465
		618.01		-2.182E-02	3.270E-02	4.852E-02	2.693E-03	-0.450
		696.49	*	2.656E-02	3.152E-02	5.700E-02	3.029E-03	0.466
		778.57		-1.882E-02	2.100E+00	3.490E+00	2.239E-01	-0.005
PR-144		696.49	*	1.802E+00	2.138E+00	3.867E+00	2.053E-01	0.466
		1489.15		-1.356E+00	1.050E+01	1.687E+01	1.142E+00	-0.080
PM-146		453.90	*	3.258E-03	4.467E-02	7.354E-02	6.277E-03	0.044
		633.02		6.279E-01	1.341E+00	2.222E+00	8.158E-01	0.283
		735.90		-2.878E-03	1.315E-01	2.191E-01	6.110E-02	-0.013
		747.13		5.741E-02	8.361E-02	1.490E-01	1.875E-02	0.385
ND-147		91.11		9.812E-01	3.674E-01	5.427E-01	6.364E-02	1.808
		319.41		5.778E-01	3.620E+00	6.125E+00	3.949E-01	0.094
		439.89		2.301E+00	6.680E+00	1.126E+01	6.389E-01	0.204

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-149 EU-152	531.02	*		-1.823E-01	5.752E-01	8.978E-01	1.204E-01	-0.203
	285.90	*		-4.292E+00	1.586E+02	2.645E+02	3.845E+01	-0.016
	121.78			-1.232E-02	7.142E-02	1.163E-01	9.915E-03	-0.106
	244.69			2.065E-01	3.489E-01	5.133E-01	3.425E-02	0.402
	344.27	*		-2.960E-02	9.099E-02	1.425E-01	9.865E-03	-0.208
	443.98			-9.131E-02	9.589E-01	1.559E+00	8.842E-02	-0.059
	778.89			3.890E-02	2.403E-01	4.068E-01	2.610E-02	0.096
	867.32			-2.600E-01	8.614E-01	1.373E+00	1.063E-01	-0.189
	964.01			6.669E-02	3.719E-01	5.391E-01	4.245E-02	0.124
	1085.78			-3.176E-02	3.973E-01	6.369E-01	4.397E-02	-0.050
GD-153	1112.02			8.689E-03	3.690E-01	5.419E-01	3.598E-02	0.016
	1407.95			7.325E-02	1.947E-01	3.404E-01	2.329E-02	0.215
	69.67			-7.114E-01	1.883E+00	3.112E+00	3.594E-01	-0.229
	83.37	+		2.710E+01	1.574E+01	2.637E+01	3.087E+00	1.028
	97.43	*		6.400E-02	8.225E-02	1.284E-01	1.260E-02	0.499
	103.18			5.079E-02	9.918E-02	1.684E-01	1.499E-02	0.302
	123.07			-1.293E-02	4.982E-02	8.071E-02	8.169E-03	-0.160
	247.94			-2.341E-01	3.537E-01	5.300E-01	5.352E-02	-0.442
	591.81			-5.718E-02	5.816E-01	9.232E-01	8.758E-02	-0.062
	723.30			5.787E-03	1.826E-01	2.669E-01	1.859E-02	0.022
EU-154	756.87			1.986E-01	7.690E-01	1.314E+00	1.355E-01	0.151
	873.19			1.573E-01	2.854E-01	4.998E-01	5.849E-02	0.315
	996.32			-1.282E-01	3.701E-01	5.769E-01	9.991E-02	-0.222
	1004.76			-6.465E-02	1.930E-01	2.998E-01	3.269E-02	-0.216
	1274.45	*		6.220E-02	1.309E-01	2.303E-01	2.259E-02	0.270
	48.70			-4.388E+00	5.604E+00	9.135E+00	1.053E+00	-0.480
	60.01			3.900E+00	6.840E+00	1.187E+01	1.442E+00	0.328
	86.54	+		3.222E-01	1.446E-01	1.883E-01	2.255E-02	1.711
	105.31	*		2.873E-02	1.031E-01	1.729E-01	1.507E-02	0.166
	86.79	+		8.759E-01	3.930E-01	5.107E-01	6.094E-02	1.715
TB-160	197.04			-1.558E-01	6.029E-01	9.254E-01	6.022E-02	-0.168
	215.65			5.985E-01	7.520E-01	1.255E+00	8.277E-02	0.477
	298.57	+		1.460E-01	1.372E-01	1.763E-01	1.159E-02	0.828
	879.36	*		1.275E-01	1.407E-01	2.545E-01	2.018E-02	0.501
	962.29			2.121E-01	6.836E-01	1.009E+00	7.955E-02	0.210
	966.15			5.398E-01	3.045E-01	5.098E-01	4.008E-02	1.059
	1177.93			-5.786E-01	4.367E-01	5.920E-01	3.537E-02	-0.977
	1271.85			5.430E-01	7.460E-01	1.350E+00	8.792E-02	0.402
	80.57			-1.173E-03	3.407E-01	4.069E-01	4.709E-02	-0.003
	184.41	+		8.843E-02	4.623E-02	6.310E-02	4.064E-03	1.401
HO-166M	280.46			-5.289E-02	8.323E-02	1.349E-01	8.966E-03	-0.392
	410.95			-6.686E-02	2.460E-01	3.968E-01	2.244E-02	-0.168
	711.68	*		-2.094E-02	5.517E-02	8.870E-02	4.882E-03	-0.236
	752.31			-7.672E-02	2.814E-01	4.568E-01	2.762E-02	-0.168
	810.29			-4.413E-02	6.156E-02	9.495E-02	6.523E-03	-0.465
	51.35			1.633E+01	6.089E+01	1.050E+02	1.360E+01	0.156
	52.39			-1.695E+01	2.990E+01	4.923E+01	6.439E+00	-0.344
	59.40			3.484E+01	3.712E+01	6.536E+01	7.970E+00	0.533
	66.72	*		-1.572E+01	3.198E+01	5.254E+01	6.142E+00	-0.299
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----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
LU-176	+	88.36	6.340E-01	2.845E-01	3.568E-01	4.253E-02	1.777
		201.83	-5.862E-03	2.820E-02	4.455E-02	2.910E-03	-0.132
		306.84	3.288E-03	2.221E-02	3.766E-02	2.458E-03	0.087
		401.10	-1.629E+00	6.589E+00	1.066E+01	6.014E-01	-0.153
LU-177	+	112.95	-3.345E-01	1.790E+00	2.922E+00	2.262E-01	-0.114
		208.36	2.763E+00	1.671E+00	2.394E+00	1.571E-01	1.154
LU-177M	+	52.97	-1.901E+00	3.002E+00	4.920E+00	6.442E-01	-0.386
		54.07	1.349E-01	1.539E+00	2.626E+00	3.424E-01	0.051
		61.30	-1.714E+00	1.994E+00	3.214E+00	3.878E-01	-0.533
		121.62	8.834E-02	3.622E-01	6.030E-01	4.200E-02	0.147
		147.16	-1.527E-01	6.015E-01	9.655E-01	6.264E-02	-0.158
		171.86	-4.610E-01	4.498E-01	6.787E-01	4.328E-02	-0.679
		218.09	-1.084E-02	8.567E-01	1.363E+00	9.003E-02	-0.008
		268.79	1.285E+00	1.055E+00	1.321E+00	8.808E-02	0.973
		319.02	-5.362E-02	2.499E-01	4.122E-01	2.658E-02	-0.130
		367.43	-4.793E-01	8.385E-01	1.325E+00	7.905E-02	-0.362
		413.65	-1.174E-01	1.714E-01	2.660E-01	1.505E-02	-0.441
HF-181	+	56.28	2.861E-01	1.572E+00	2.691E+00	3.430E-01	0.106
		57.53	-7.975E-01	8.226E-01	1.316E+00	1.650E-01	-0.606
		65.20	-1.322E+00	1.174E+00	1.856E+00	2.188E-01	-0.712
		133.02	1.296E-02	6.283E-02	1.040E-01	6.938E-03	0.125
		136.25	-1.587E-01	4.383E-01	7.021E-01	4.648E-02	-0.226
		345.85	-1.195E-01	2.096E-01	2.883E-01	1.791E-02	-0.415
		482.03	-1.847E-02	4.538E-02	7.125E-02	4.023E-03	-0.259
W-181	+	56.28	1.079E-01	6.026E-01	1.031E+00	1.315E-01	0.105
		57.53	-3.060E-01	3.157E-01	5.053E-01	6.333E-02	-0.605
		65.20	-5.033E-01	4.471E-01	7.066E-01	8.329E-02	-0.712
TA-182	+	67.75	1.069E-02	1.259E-01	2.130E-01	2.478E-02	0.050
		100.10	-6.962E-02	1.714E-01	2.764E-01	2.587E-02	-0.252
		152.43	4.063E-02	2.985E-01	4.891E-01	3.150E-02	0.083
		222.10	2.349E-01	3.476E-01	5.759E-01	3.811E-02	0.408
		1001.68	-4.794E-01	1.802E+00	2.830E+00	2.156E-01	-0.169
		1121.28	3.276E-01	2.145E-01	3.529E-01	2.308E-02	0.928
		1189.05	1.804E-01	3.242E-01	5.550E-01	3.351E-02	0.325
		1221.42	1.342E-01	2.206E-01	3.903E-01	2.429E-02	0.344
RE-183	+	1230.97	-4.662E-02	5.153E-01	8.572E-01	5.382E-02	-0.054
		57.98	-4.125E-01	3.111E-01	4.845E-01	6.032E-02	-0.851
		59.32	1.441E-01	1.556E-01	2.739E-01	3.344E-02	0.526
		67.20	-6.826E-02	2.277E-01	3.781E-01	4.410E-02	-0.181
		162.32	-5.706E-03	1.049E-01	1.694E-01	1.079E-02	-0.034
RE-184	+	208.81	2.074E+00	1.255E+00	1.799E+00	1.181E-01	1.153
		291.72	1.611E-01	9.810E-01	1.477E+00	9.758E-02	0.109
		57.98	-1.503E+00	1.134E+00	1.765E+00	2.198E-01	-0.851
		59.32	5.245E-01	5.666E-01	9.971E-01	1.217E-01	0.526
		67.20	-2.487E-01	8.296E-01	1.377E+00	1.607E-01	-0.181
		161.27	-3.154E-01	3.422E-01	5.242E-01	3.344E-02	-0.602
		216.55	1.097E-01	2.733E-01	4.458E-01	2.941E-02	0.246
		252.85	-4.919E-02	2.189E-01	3.666E-01	2.448E-02	-0.134
		318.01	-1.877E-02	4.177E-01	6.972E-01	4.501E-02	-0.027

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
OS-185		792.07		2.387E-02	9.789E-01	1.630E+00	1.077E-01	0.015
		903.28		1.031E+00	1.137E+00	1.847E+00	1.515E-01	0.559
		920.93		-1.038E-01	4.323E-01	6.881E-01	5.587E-02	-0.151
		59.72		4.777E-01	4.076E-01	7.230E-01	8.795E-02	0.661
		61.14		-1.564E-01	2.235E-01	3.639E-01	4.395E-02	-0.430
		69.30		2.151E-01	3.317E-01	5.739E-01	6.635E-02	0.375
		592.07		-7.670E-01	2.492E+00	3.866E+00	2.049E-01	-0.198
		646.12	*	-1.130E-03	4.139E-02	6.960E-02	3.470E-03	-0.016
		717.42		7.544E-01	8.837E-01	1.566E+00	8.737E-02	0.482
		874.81		-3.943E-01	5.966E-01	9.051E-01	7.111E-02	-0.436
RE-188		880.27		8.560E-01	7.889E-01	1.449E+00	1.151E-01	0.591
		155.03	*	-4.941E-02	1.553E-01	2.474E-01	1.589E-02	-0.200
		477.96		8.267E-01	3.249E+00	5.411E+00	3.058E-01	0.153
		633.10		1.248E+00	2.716E+00	4.560E+00	2.312E-01	0.274
W-188		63.58		6.555E+01	6.679E+01	1.162E+02	1.383E+01	0.564
		227.08		-3.484E+00	1.188E+01	1.848E+01	1.226E+00	-0.189
IR-192	+	290.67	*	-2.543E+00	7.865E+00	1.133E+01	7.489E-01	-0.224
		295.96		8.545E-01	2.020E-01	2.825E-01	1.883E-02	3.025
		308.46		-8.773E-03	8.931E-02	1.488E-01	9.786E-03	-0.059
		316.51	*	-7.773E-04	3.212E-02	5.370E-02	3.487E-03	-0.014
		468.07		-1.642E-02	6.418E-02	1.023E-01	6.718E-03	-0.160
AU-195		604.41		-1.878E-01	5.586E-01	7.454E-01	8.253E-02	-0.252
		612.46		5.405E-01	7.254E-01	1.122E+00	7.988E-02	0.482
		65.12		-2.232E-01	2.071E-01	3.285E-01	3.874E-02	-0.679
		66.83		-4.439E-02	1.064E-01	1.755E-01	2.051E-02	-0.253
	+	75.70		9.347E-01	2.844E-01	4.946E-01	5.666E-02	1.890
		98.88	*	1.416E-01	2.209E-01	3.753E-01	3.588E-02	0.377
TL-200		129.76		3.834E+00	2.706E+00	4.729E+00	3.186E-01	0.811
		367.94	*	-4.466E-04	2.706E+00	Half-Life	too short	
		579.30		1.013E-02	2.706E+00	Half-Life	too short	
		828.27		1.801E-02	2.706E+00	Half-Life	too short	
TL-201		1205.75		8.199E-04	2.706E+00	Half-Life	too short	
		68.90		6.314E+00	8.247E+00	1.433E+01	1.659E+00	0.441
		70.82		-4.634E+00	5.352E+00	7.628E+00	8.779E-01	-0.608
		80.30		-1.071E+00	9.990E+00	1.180E+01	1.365E+00	-0.091
		135.34		2.879E+01	3.634E+01	6.187E+01	4.105E+00	0.465
TL-202		167.43	*	-4.857E+00	1.018E+01	1.600E+01	1.017E+00	-0.304
		68.90		4.083E-01	5.333E-01	9.267E-01	1.073E-01	0.441
		70.82		-2.989E-01	3.451E-01	4.919E-01	5.661E-02	-0.608
		80.30		-6.912E-02	6.445E-01	7.614E-01	8.802E-02	-0.091
HG-203		439.56	*	4.435E-02	7.826E-02	1.341E-01	7.608E-03	0.331
		70.83		-1.192E+00	1.385E+00	1.967E+00	3.067E-01	-0.606
		72.87		5.971E-01	7.766E-01	1.216E+00	1.849E-01	0.491
	+	82.60		2.062E+00	1.218E+00	1.868E+00	2.957E-01	1.104
BI-207		279.20	*	-5.546E-03	3.937E-02	6.585E-02	4.585E-03	-0.084
		72.80		1.548E-01	2.204E-01	3.450E-01	3.955E-02	0.449
	+	74.97		5.147E-01	1.566E-01	2.478E-01	2.837E-02	2.078
	+	84.90		3.486E-01	2.024E-01	3.271E-01	3.860E-02	1.066
		569.67		-8.132E-03	2.988E-02	4.579E-02	2.473E-03	-0.178

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-207		1063.62	*	3.172E-02	5.597E-02	9.674E-02	6.880E-03	0.328
		1770.23		-8.151E-01	6.255E-01	7.473E-01	4.540E-02	-1.091
		81.07		-7.776E-02	2.740E-01	3.171E-01	3.675E-02	-0.245
	+	83.78		2.298E-01	1.335E-01	2.251E-01	2.641E-02	1.021
		94.90		1.511E-01	2.371E-01	3.670E-01	3.782E-02	0.412
		122.32		-5.966E-01	1.699E+00	2.740E+00	2.108E-01	-0.218
		144.24		-2.024E-01	6.418E-01	9.960E-01	7.789E-02	-0.203
		154.21		-6.695E-02	3.557E-01	5.715E-01	4.309E-02	-0.117
	+	269.46		2.982E-01	2.451E-01	3.285E-01	2.266E-02	0.908
		323.87	*	-4.997E-01	7.085E-01	1.125E+00	1.884E-01	-0.444
PO-209	+	338.28		6.271E+00	1.712E+00	2.533E+00	2.738E-01	2.475
		445.03		5.700E-01	2.236E+00	3.742E+00	3.816E-01	0.152
		260.50		-4.584E+00	8.779E+00	1.438E+01	9.604E-01	-0.319
		262.80		-2.159E+01	2.400E+01	3.823E+01	2.552E+00	-0.565
		896.60	*	2.215E+00	7.366E+00	1.254E+01	1.029E+00	0.177
BI-210		46.50	*	7.050E+00	8.812E+00	1.562E+01	1.361E+00	0.451
PB-210		46.50	*	7.050E+00	8.812E+00	1.562E+01	1.361E+00	0.451
PO-210		46.50	*	7.050E+00	8.807E+00	1.562E+01	1.213E+00	0.451
PB-211		404.84	*	-8.341E-01	1.126E+00	1.545E+00	9.632E-01	-0.540
BI-212		427.08		-6.909E-02	1.960E+00	3.209E+00	1.983E+00	-0.022
		831.96		-9.055E-01	1.475E+00	2.110E+00	1.318E+00	-0.429
	+	727.18	*	1.232E+00	5.055E-01	6.665E-01	5.095E-02	1.849
		785.46		1.474E+00	1.861E+00	3.310E+00	2.155E-01	0.445
		1620.62		1.321E+00	1.382E+00	2.626E+00	1.714E-01	0.503
PO-215		81.07		-7.776E-02	2.740E-01	3.171E-01	3.675E-02	-0.245
	+	83.78		2.298E-01	1.335E-01	2.251E-01	2.641E-02	1.021
		94.90		1.511E-01	2.371E-01	3.670E-01	3.782E-02	0.412
		122.32		-5.966E-01	1.699E+00	2.740E+00	2.108E-01	-0.218
		144.24		-2.024E-01	6.418E-01	9.960E-01	7.789E-02	-0.203
		154.21		-6.695E-02	3.557E-01	5.715E-01	4.309E-02	-0.117
	+	269.46		2.982E-01	2.451E-01	3.285E-01	2.266E-02	0.908
		323.87	*	-4.997E-01	7.085E-01	1.125E+00	1.884E-01	-0.444
	+	338.28		6.271E+00	1.712E+00	2.533E+00	2.738E-01	2.475
		445.03		5.700E-01	2.236E+00	3.742E+00	3.816E-01	0.152
RN-219		271.23		2.286E-01	2.699E-01	4.273E-01	3.736E-02	0.535
		401.81	*	2.199E-01	4.078E-01	6.985E-01	9.457E-02	0.315
RN-220		549.76	*	-1.748E+01	2.746E+01	4.155E+01	2.276E+00	-0.421
RA-223		81.07		-7.776E-02	2.740E-01	3.171E-01	3.675E-02	-0.245
	+	83.78		2.298E-01	1.335E-01	2.251E-01	2.641E-02	1.021
		94.90		1.511E-01	2.371E-01	3.670E-01	3.782E-02	0.412
		122.32		-5.966E-01	1.699E+00	2.740E+00	2.108E-01	-0.218
		144.24		-2.024E-01	6.418E-01	9.960E-01	7.789E-02	-0.203
		154.21		-6.695E-02	3.557E-01	5.715E-01	4.309E-02	-0.117
	+	269.46		2.982E-01	2.451E-01	3.285E-01	2.266E-02	0.908
		323.87	*	-4.997E-01	7.085E-01	1.125E+00	1.884E-01	-0.444
	+	338.28		6.271E+00	1.712E+00	2.533E+00	2.738E-01	2.475
		445.03		5.700E-01	2.236E+00	3.742E+00	3.816E-01	0.152
		79.80		4.530E-01	1.810E+00	2.538E+00	5.794E-01	0.179
AC-227		236.00		4.115E-01	2.710E-01	4.193E-01	4.592E-02	0.981

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-227		256.20	*	1.620E-01	3.712E-01	6.434E-01	9.231E-02	0.252
		286.10		-3.011E-01	1.458E+00	2.403E+00	2.883E-01	-0.125
	+	299.80		1.826E+00	1.738E+00	2.261E+00	3.748E-01	0.807
		304.40		2.556E-01	1.829E+00	2.743E+00	4.816E-01	0.093
		334.20		-9.591E-01	2.478E+00	3.494E+00	6.466E-01	-0.274
		79.80		4.530E-01	1.810E+00	2.538E+00	5.860E-01	0.179
	+	94.00		8.286E+00	3.337E+00	3.605E+00	8.143E-01	2.298
		236.00		4.115E-01	2.701E-01	4.193E-01	4.037E-02	0.981
		256.20	*	1.620E-01	3.716E-01	6.434E-01	1.108E-01	0.252
		286.10		-3.011E-01	1.489E+00	2.403E+00	2.409E+00	-0.125
TH-229	+	299.80		1.826E+00	1.738E+00	2.261E+00	3.748E-01	0.807
		304.40		2.556E-01	1.829E+00	2.743E+00	4.816E-01	0.093
		334.20		-9.591E-01	2.478E+00	3.494E+00	6.466E-01	-0.274
		85.43		9.404E-02	2.102E-01	3.223E-01	3.814E-02	0.292
	+	88.47		3.649E-01	1.637E-01	2.039E-01	2.424E-02	1.790
		100.00		-6.471E-02	1.763E-01	2.849E-01	2.672E-02	-0.227
		193.63	*	1.633E-01	4.943E-01	8.081E-01	5.245E-02	0.202
		210.97		6.496E-01	8.153E-01	1.229E+00	8.079E-02	0.529
	PA-231	283.67	*	7.031E-01	1.475E+00	2.552E+00	3.611E-01	0.276
	+	301.29		7.303E-01	6.891E-01	9.252E-01	1.008E-01	0.789
TH-231		81.07		-7.776E-02	2.740E-01	3.171E-01	3.675E-02	-0.245
	+	83.78		2.298E-01	1.335E-01	2.251E-01	2.641E-02	1.021
		94.90		1.511E-01	2.371E-01	3.670E-01	3.782E-02	0.412
		122.32		-5.966E-01	1.699E+00	2.740E+00	2.108E-01	-0.218
		144.24		-2.024E-01	6.418E-01	9.960E-01	7.789E-02	-0.203
		154.21		-6.695E-02	3.557E-01	5.715E-01	4.309E-02	-0.117
	+	269.46		2.982E-01	2.451E-01	3.285E-01	2.266E-02	0.908
		323.87	*	-4.997E-01	7.085E-01	1.125E+00	1.884E-01	-0.444
	+	338.28		6.271E+00	1.712E+00	2.533E+00	2.738E-01	2.475
		445.03		5.700E-01	2.236E+00	3.742E+00	3.816E-01	0.152
U-231	+	84.21		1.361E+01	7.901E+00	1.321E+01	1.553E+00	1.030
	+	92.29		1.125E+01	3.932E+00	5.510E+00	5.995E-01	2.042
		95.87	*	-7.395E-01	1.580E+00	2.279E+00	2.304E-01	-0.325
		108.00		-2.988E+00	2.612E+00	4.030E+00	3.337E-01	-0.741
	PA-233	75.28		1.502E+01	4.952E+00	7.401E+00	1.266E+00	2.029
	+	86.59		5.233E+00	2.698E+00	3.054E+00	8.566E-01	1.714
	+	300.12		5.090E-01	4.822E-01	6.383E-01	8.799E-02	0.797
		311.98	*	-1.757E-02	5.795E-02	9.501E-02	6.479E-03	-0.185
		340.50		1.098E+00	6.748E-01	1.064E+00	2.457E-01	1.032
		398.62		-9.497E-01	2.129E+00	3.370E+00	8.702E-01	-0.282
PA-234		415.76		4.494E-01	1.588E+00	2.670E+00	5.487E-01	0.168
		63.00		-5.808E-01	2.034E+00	3.358E+00	5.900E-01	-0.173
		94.67		2.264E-01	1.712E-01	2.723E-01	3.721E-02	0.831
		98.44		9.970E-02	1.048E-01	1.545E-01	8.644E-02	0.645
		99.86		-1.409E-01	4.477E-01	7.259E-01	6.823E-02	-0.194
		111.00		-4.534E-02	1.744E-01	2.805E-01	3.258E-02	-0.162
		131.20		-1.055E-01	1.020E-01	1.575E-01	1.056E-02	-0.670
		152.70		1.515E-01	2.790E-01	4.663E-01	7.486E-02	0.325
	+	186.00		3.183E+00	1.919E+00	2.369E+00	7.268E-01	1.344

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		226.40		-4.886E-01	3.894E-01	5.573E-01	6.687E-02	-0.877
		227.20		-1.011E-01	3.946E-01	6.155E-01	4.083E-02	-0.164
		248.90		4.345E-02	7.712E-01	1.223E+00	2.660E-01	0.036
	+	293.70		5.283E+00	1.478E+00	1.725E+00	2.827E-01	3.063
		369.80		5.143E-01	7.834E-01	1.354E+00	2.825E-01	0.380
		568.70		-4.934E-01	1.006E+00	1.509E+00	8.157E-02	-0.327
		569.50		-8.913E-02	2.687E-01	4.095E-01	2.212E-02	-0.218
		574.00		-3.379E-01	1.412E+00	2.214E+00	1.191E-01	-0.153
		699.00		1.774E-01	6.979E-01	1.196E+00	2.133E-01	0.148
		706.10		-3.698E-01	1.031E+00	1.647E+00	7.259E-01	-0.225
		733.00		-4.054E-01	3.826E-01	4.371E-01	9.292E-02	-0.927
		742.81		2.933E-02	1.218E+00	2.038E+00	1.364E+00	0.014
		796.30		1.272E+00	9.602E-01	1.690E+00	4.478E-01	0.752
		805.60		2.383E-01	1.024E+00	1.735E+00	5.239E-01	0.137
		819.60		-3.810E-01	1.202E+00	1.905E+00	7.181E-01	-0.200
		826.30		-2.041E-01	9.507E-01	1.535E+00	6.827E-01	-0.133
		831.60		-4.352E-01	7.196E-01	1.103E+00	3.250E-01	-0.395
		876.40		-6.615E-01	1.096E+00	1.290E+00	1.325E+00	-0.513
		880.51		2.973E-01	2.803E-01	5.137E-01	4.083E-02	0.579
		883.24		-1.659E-01	3.198E-01	4.627E-01	3.107E-01	-0.358
		899.00		-1.355E+00	1.099E+00	1.270E+00	5.544E-01	-1.066
		925.00		4.207E-01	1.187E+00	2.028E+00	1.643E-01	0.207
		926.50		8.936E-02	1.811E-01	3.115E-01	7.820E-02	0.287
		946.00	*	-1.861E-01	3.226E-01	4.901E-01	9.057E-02	-0.380
		949.00		3.574E-01	4.550E-01	8.096E-01	6.449E-02	0.442
		980.50		-1.656E-01	6.387E-01	1.004E+00	7.801E-02	-0.165
		1394.10		-7.252E-01	1.297E+00	1.810E+00	1.174E+00	-0.401
PA-234M	+	766.42		2.903E+01	2.035E+01	2.249E+01	1.133E+01	1.291
		1001.03	*	-2.926E-01	4.226E+00	6.859E+00	6.253E-01	-0.043
TH-234		63.29	*	4.030E-01	1.683E+00	2.846E+00	5.632E-01	0.142
	+	92.38		2.144E+00	8.233E-01	1.050E+00	2.021E-01	2.042
U-235		89.95		1.087E+00	1.221E+00	1.843E+00	5.854E-01	0.590
	+	93.35		2.578E+00	1.133E+00	1.252E+00	3.593E-01	2.060
		105.00		1.066E+00	1.040E+00	1.729E+00	5.160E-01	0.617
		143.76	*	-9.407E-02	2.032E-01	3.125E-01	5.179E-02	-0.301
		163.35		2.400E-01	4.409E-01	7.324E-01	1.331E-01	0.328
	+	185.71		1.179E-01	6.164E-02	8.863E-02	5.715E-03	1.330
		205.31		1.899E-01	5.198E-01	7.607E-01	1.387E-01	0.250
NP-236		94.67		1.726E-01	1.290E-01	2.067E-01	2.140E-02	0.835
		98.44		7.540E-02	6.746E-02	1.168E-01	1.126E-02	0.646
		111.00		-3.429E-02	1.319E-01	2.122E-01	1.685E-02	-0.162
		160.31	*	-2.159E-02	7.569E-02	1.207E-01	7.706E-03	-0.179
U-238		63.29	*	4.030E-01	1.683E+00	2.846E+00	5.632E-01	0.142
	+	92.38		2.144E+00	7.495E-01	1.050E+00	1.140E-01	2.042
NP-239		99.55		2.945E-02	1.481E-01	2.466E-01	2.331E-02	0.119
		117.00	*	-1.579E-01	1.758E-01	2.745E-01	2.020E-02	-0.575
	+	209.75		1.605E+00	9.712E-01	1.403E+00	9.219E-02	1.144
		228.18		3.560E-02	2.118E-01	3.402E-01	2.258E-02	0.105
		277.60		-1.557E-02	1.708E-01	2.867E-01	1.907E-02	-0.054

Sample ID : G1202005183

Acquisition date : 7-JAN-2010 13:06:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-5.880E-01	1.398E+00	1.969E+00	1.245E-01	-0.299
AM-241		59.54	*	2.226E-01	2.136E-01	3.771E-01	4.760E-02	0.590
CM-243		99.55		3.031E-02	1.524E-01	2.538E-01	2.399E-02	0.119
		103.76	*	4.566E-02	9.239E-02	1.567E-01	1.381E-02	0.291
		117.00		-1.624E-01	1.809E-01	2.824E-01	2.078E-02	-0.575
	+	209.75		1.583E+00	9.575E-01	1.384E+00	9.089E-02	1.144
		228.18		3.598E-02	2.140E-01	3.438E-01	2.282E-02	0.105
		277.60		-1.570E-02	1.722E-01	2.891E-01	1.923E-02	-0.054
AM-246		798.80		-2.158E-01	1.508E-01	2.129E-01	1.427E-02	-1.013
		1036.00		-1.023E-01	3.070E-01	4.753E-01	3.494E-02	-0.215
		1062.04		-3.134E-02	2.489E-01	3.979E-01	2.836E-02	-0.079
		1078.86	*	-1.146E-01	1.519E-01	2.222E-01	1.549E-02	-0.516
CM-247		278.00		-2.684E-01	7.167E-01	1.183E+00	7.865E-02	-0.227
		287.40		-1.051E+00	1.170E+00	1.836E+00	1.216E-01	-0.573
		402.60	*	1.343E-02	3.644E-02	6.178E-02	3.487E-03	0.217
CF-249		252.85		-1.831E-01	8.151E-01	1.365E+00	9.114E-02	-0.134
		333.44		8.004E-02	1.815E-01	2.778E-01	1.759E-02	0.288
		387.95	*	8.817E-03	4.231E-02	7.097E-02	4.033E-03	0.124
CF-251		176.60	*	-2.688E-02	1.204E-01	1.916E-01	1.226E-02	-0.140
		227.00		-1.604E-01	3.528E-01	5.421E-01	3.597E-02	-0.296
		285.00		-1.053E-01	1.694E+00	2.844E+00	1.885E-01	-0.037

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]G1202005183      *
* Acquisition date   : 7-JAN-2010 13:06:00 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 02:00:00.96 Half life ratio : 8.000   *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G1202005183 Analyst initials: MXR1          *
* Batch Number       : 937069 Sample Quantity : 1.1030E+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     :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.327E+01	2.332E+00	3.967E-01	0.000E+00
NB-95	1.120E-01	5.393E-02	7.094E-02	0.000E+00
CD-109	2.727E+00	1.199E+00	1.310E+00	0.000E+00
SN-126	2.673E-01	1.175E-01	1.294E-01	0.000E+00
CS-135	2.535E-01	2.045E-01	2.368E-01	0.000E+00
BA-137M	2.073E-01	7.168E-02	5.985E-02	0.000E+00
CS-137	2.191E-01	7.578E-02	6.326E-02	0.000E+00
TL-208	4.062E-01	9.056E-02	5.378E-02	0.000E+00
BI-211	2.979E+00	4.743E-01	3.252E-01	0.000E+00
PB-212	1.170E+00	1.534E-01	1.195E-01	0.000E+00
PO-212	1.170E+00	1.534E-01	1.195E-01	0.000E+00
BI-214	8.773E-01	1.692E-01	1.065E-01	0.000E+00
PB-214	1.036E+00	1.733E-01	1.133E-01	0.000E+00
PO-214	1.036E+00	1.733E-01	1.133E-01	0.000E+00
PO-216	1.170E+00	1.534E-01	1.195E-01	0.000E+00
PO-218	1.036E+00	1.733E-01	1.133E-01	0.000E+00
RA-224	2.697E+00	9.135E-01	1.360E+00	0.000E+00
RA-226	8.773E-01	1.692E-01	1.065E-01	0.000E+00
AC-228	1.160E+00	2.984E-01	2.137E-01	0.000E+00
RA-228	1.160E+00	2.984E-01	2.137E-01	0.000E+00
TH-228	1.190E+00	1.561E-01	1.215E-01	0.000E+00
TH-230	8.773E-01	1.692E-01	1.065E-01	0.000E+00
TH-232	1.160E+00	2.984E-01	2.137E-01	0.000E+00
U-234	8.773E-01	1.692E-01	1.065E-01	0.000E+00
NP-237	7.849E-01	3.799E-01	3.871E-01	0.000E+00
AM-243	2.867E-01	8.550E-02	9.863E-02	0.000E+00
ANH-511	7.888E-02	7.090E-02	5.060E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)
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BE-7	-3.242E-02	3.341E-01	5.529E-01	0.000E+00	NOT IDENT.
NA-22	1.963E-02	4.624E-02	8.218E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.055E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.617E-03	3.085E-02	5.012E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.267E-02	7.708E-02	0.000E+00	FAIL ABUN
SC-46	2.348E-02	4.004E-02	7.132E-02	0.000E+00	FAIL ABUN
V-48	-1.030E-01	7.158E-02	9.369E-02	0.000E+00	NOT IDENT.
CR-51	-5.502E-02	3.753E-01	6.385E-01	0.000E+00	NOT IDENT.
MN-52	8.886E-02	2.880E-01	5.088E-01	0.000E+00	NOT IDENT.
MN-54	1.905E-02	3.867E-02	6.817E-02	0.000E+00	NOT IDENT.
CO-56	-1.259E-02	3.763E-02	6.095E-02	0.000E+00	NOT IDENT.
CO-57	-6.421E-03	2.412E-02	4.041E-02	0.000E+00	NOT IDENT.
CO-58	-1.474E-02	4.065E-02	6.663E-02	0.000E+00	NOT IDENT.
FE-59	-8.898E-03	9.228E-02	1.500E-01	0.000E+00	NOT IDENT.
CO-60	-2.922E-02	3.682E-02	5.511E-02	0.000E+00	NOT IDENT.
ZN-65	-8.372E-02	1.121E-01	1.388E-01	0.000E+00	NOT IDENT.
GE-68	-2.627E-01	1.239E+00	1.988E+00	0.000E+00	NOT IDENT.
AS-73	-1.878E+00	1.537E+00	2.516E+00	0.000E+00	NOT IDENT.
AS-74	1.383E-01	9.698E-02	1.798E-01	0.000E+00	NOT IDENT.
SE-75	3.481E-02	4.096E-02	7.039E-02	0.000E+00	NOT IDENT.
BR-77	-3.051E+00	1.742E+01	2.838E+01	0.000E+00	FAIL ABUN
SR-82	-1.825E-01	3.633E-01	5.821E-01	0.000E+00	NOT IDENT.
RB-83	-1.038E-02	6.613E-02	1.079E-01	0.000E+00	NOT IDENT.
RB-84	4.459E-02	7.213E-02	1.290E-01	0.000E+00	NOT IDENT.
KR-85	3.452E+00	7.984E+00	1.215E+01	0.000E+00	NOT IDENT.
SR-85	1.806E-02	4.177E-02	6.358E-02	0.000E+00	NOT IDENT.
RB-86	-6.989E-02	8.785E-01	1.435E+00	0.000E+00	NOT IDENT.
Y-88	-7.383E-03	3.758E-02	5.901E-02	0.000E+00	NOT IDENT.
ZR-88	-2.686E-02	3.070E-02	4.843E-02	0.000E+00	NOT IDENT.
Y-91	-1.050E+01	2.079E+01	3.197E+01	0.000E+00	NOT IDENT.
NB-94	-9.130E-03	3.143E-02	5.230E-02	0.000E+00	NOT IDENT.
NB-95M	9.353E-02	1.381E-01	2.104E-01	0.000E+00	NOT IDENT.
ZR-95	2.851E-02	7.097E-02	1.252E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.682E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.364E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.467E+01	1.701E+01	3.129E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.244E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.776E-02	3.356E-02	5.706E-02	0.000E+00	NOT IDENT.
RH-102	-1.536E-02	2.895E-02	4.605E-02	0.000E+00	FAIL ABUN
RU-103	-1.456E-02	4.193E-02	6.750E-02	0.000E+00	FAIL ABUN
RH-106	5.397E-02	3.057E-01	5.086E-01	0.000E+00	FAIL ABUN
RU-106	5.397E-02	3.057E-01	5.086E-01	0.000E+00	FAIL ABUN
AG-108M	-1.193E-03	3.154E-02	5.284E-02	0.000E+00	NOT IDENT.
AG-110M	2.229E-02	3.589E-02	5.816E-02	0.000E+00	NOT IDENT.
IN-111	7.646E-01	1.786E+00	2.661E+00	0.000E+00	NOT IDENT.
IN-113M	-3.411E-02	4.497E-02	7.177E-02	0.000E+00	NOT IDENT.
SN-113	-3.411E-02	4.497E-02	7.177E-02	0.000E+00	NOT IDENT.
IN-114M	-7.517E-02	1.974E-01	2.819E-01	0.000E+00	NOT IDENT.
CD-115	2.296E+01	1.704E+01	3.195E+01	0.000E+00	NOT IDENT.
SN-117M	7.033E-02	5.472E-02	9.769E-02	0.000E+00	NOT IDENT.
SB-122	2.422E-01	3.343E+00	5.543E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.071E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.844E-02	2.633E-02	4.570E-02	0.000E+00	NOT IDENT.
I-124	3.998E-01	9.906E-01	1.492E+00	0.000E+00	NOT IDENT.
SB-124	6.253E-02	6.715E-02	1.349E-01	0.000E+00	FAIL ABUN
SB-125	2.765E-03	8.486E-02	1.432E-01	0.000E+00	NOT IDENT.
TE-125M	3.331E+00	8.440E+00	1.453E+01	0.000E+00	NOT IDENT.
I-126	-3.076E-02	2.093E-01	3.069E-01	0.000E+00	NOT IDENT.
SB-126	5.844E-03	1.661E-01	2.479E-01	0.000E+00	FAIL ABUN
SB-127	4.601E-01	1.769E+00	3.105E+00	0.000E+00	NOT IDENT.
XE-127	1.860E-03	4.471E-02	7.384E-02	0.000E+00	NOT IDENT.
I-131	-4.801E-02	1.167E-01	1.917E-01	0.000E+00	NOT IDENT.
TE-132	1.570E-01	9.561E-01	1.579E+00	0.000E+00	NOT IDENT.
BA-133	1.856E-02	4.319E-02	6.761E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.696E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.529E-02	9.059E-02	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.110E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.163E-01	2.193E-01	2.427E-01	0.000E+00	FAIL ABUN
CE-139	-2.130E-03	2.780E-02	4.619E-02	0.000E+00	NOT IDENT.
BA-140	1.413E-01	3.036E-01	5.168E-01	0.000E+00	NOT IDENT.
LA-140	4.088E-03	9.029E-02	1.517E-01	0.000E+00	NOT IDENT.
CE-141	2.783E-02	5.760E-02	9.937E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.680E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	3.823E-02	1.887E-01	3.222E-01	0.000E+00	NOT IDENT.
PM-144	2.656E-02	3.089E-02	5.701E-02	0.000E+00	NOT IDENT.
PR-144	1.802E+00	2.095E+00	3.867E+00	0.000E+00	NOT IDENT.
PM-146	3.258E-03	4.378E-02	7.378E-02	0.000E+00	NOT IDENT.
ND-147	-1.823E-01	5.637E-01	8.997E-01	0.000E+00	NOT IDENT.

PM-149	-4.292E+00	1.554E+02	2.662E+02	0.000E+00	NOT IDENT.
EU-152	-2.960E-02	8.917E-02	1.433E-01	0.000E+00	NOT IDENT.
GD-153	6.400E-02	8.061E-02	1.302E-01	0.000E+00	FAIL ABUN
EU-154	6.220E-02	1.283E-01	2.293E-01	0.000E+00	NOT IDENT.
EU-155	2.873E-02	1.010E-01	1.754E-01	0.000E+00	FAIL ABUN
TB-160	1.275E-01	1.379E-01	2.541E-01	0.000E+00	FAIL ABUN
HO-166M	-2.094E-02	5.406E-02	8.869E-02	0.000E+00	FAIL ABUN
TM-171	-1.572E+01	3.134E+01	5.345E+01	0.000E+00	NOT IDENT.
LU-176	3.288E-03	2.177E-02	3.789E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.638E+00	2.416E+00	0.000E+00	FAIL ABUN
LU-177M	-1.174E-01	1.680E-01	2.670E-01	0.000E+00	FAIL ABUN
HF-181	-1.847E-02	4.447E-02	7.145E-02	0.000E+00	NOT IDENT.
W-181	-5.033E-01	4.381E-01	7.190E-01	0.000E+00	NOT IDENT.
TA-182	1.342E-01	2.161E-01	3.887E-01	0.000E+00	NOT IDENT.
RE-183	-5.706E-03	1.028E-01	1.712E-01	0.000E+00	FAIL ABUN
RE-184	-4.919E-02	2.146E-01	3.693E-01	0.000E+00	NOT IDENT.
OS-185	-1.130E-03	4.056E-02	6.965E-02	0.000E+00	NOT IDENT.
RE-188	-4.941E-02	1.522E-01	2.502E-01	0.000E+00	NOT IDENT.
W-188	-2.543E+00	7.707E+00	1.141E+01	0.000E+00	NOT IDENT.
IR-192	-7.773E-04	3.148E-02	5.402E-02	0.000E+00	FAIL ABUN
AU-195	1.416E-01	2.164E-01	3.807E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.412E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-4.857E+00	9.981E+00	1.617E+01	0.000E+00	NOT IDENT.
TL-202	4.435E-02	7.669E-02	1.346E-01	0.000E+00	NOT IDENT.
HG-203	-5.546E-03	3.858E-02	6.630E-02	0.000E+00	FAIL ABUN
BI-207	3.172E-02	5.485E-02	9.644E-02	0.000E+00	FAIL ABUN
TL-207	-4.997E-01	6.944E-01	1.132E+00	0.000E+00	FAIL ABUN
PO-209	2.215E+00	7.219E+00	1.251E+01	0.000E+00	NOT IDENT.
BI-210	7.050E+00	8.635E+00	1.593E+01	0.000E+00	NOT IDENT.
PB-210	7.050E+00	8.635E+00	1.593E+01	0.000E+00	NOT IDENT.
PO-210	7.050E+00	8.631E+00	1.593E+01	0.000E+00	NOT IDENT.
PB-211	-8.341E-01	1.103E+00	1.552E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.954E-01	6.664E-01	0.000E+00	FAIL ABUN
PO-215	-4.997E-01	6.944E-01	1.132E+00	0.000E+00	FAIL ABUN
RN-219	2.199E-01	3.997E-01	7.014E-01	0.000E+00	NOT IDENT.
RN-220	-1.748E+01	2.691E+01	4.163E+01	0.000E+00	NOT IDENT.
RA-223	-4.997E-01	6.944E-01	1.132E+00	0.000E+00	FAIL ABUN
AC-227	1.620E-01	3.638E-01	6.482E-01	0.000E+00	FAIL ABUN
TH-227	1.620E-01	3.641E-01	6.482E-01	0.000E+00	FAIL ABUN
TH-229	1.633E-01	4.844E-01	8.159E-01	0.000E+00	FAIL ABUN
PA-231	7.031E-01	1.445E+00	2.569E+00	0.000E+00	FAIL ABUN
TH-231	-4.997E-01	6.944E-01	1.132E+00	0.000E+00	FAIL ABUN
U-231	-7.395E-01	1.549E+00	2.312E+00	0.000E+00	FAIL ABUN
PA-233	-1.757E-02	5.679E-02	9.558E-02	0.000E+00	FAIL ABUN
PA-234	-1.861E-01	3.161E-01	4.890E-01	0.000E+00	FAIL ABUN
PA-234M	-2.926E-01	4.141E+00	6.841E+00	0.000E+00	FAIL ABUN
TH-234	4.030E-01	1.649E+00	2.897E+00	0.000E+00	FAIL ABUN
U-235	-9.407E-02	1.991E-01	3.161E-01	0.000E+00	FAIL ABUN
NP-236	-2.159E-02	7.418E-02	1.220E-01	0.000E+00	NOT IDENT.
U-238	4.030E-01	1.649E+00	2.897E+00	0.000E+00	FAIL ABUN
NP-239	-1.579E-01	1.723E-01	2.781E-01	0.000E+00	FAIL ABUN
AM-241	2.226E-01	2.093E-01	3.839E-01	0.000E+00	NOT IDENT.
CM-243	4.566E-02	9.054E-02	1.589E-01	0.000E+00	FAIL ABUN
AM-246	-1.146E-01	1.488E-01	2.215E-01	0.000E+00	NOT IDENT.
CM-247	1.343E-02	3.571E-02	6.204E-02	0.000E+00	NOT IDENT.
CF-249	8.817E-03	4.146E-02	7.129E-02	0.000E+00	NOT IDENT.
CF-251	-2.688E-02	1.180E-01	1.935E-01	0.000E+00	NOT IDENT.

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202005183.CNF;1
Sample date        : 21-DEC-2009 12:00:00 Acquisition date : 7-JAN-2010 13:06:00.
Sample ID          : G1202005183      Sample quantity   : 1.10300E+02 GRAM
Detector name      : GAM04             Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00     Elapsed real time: 0 02:00:00.96  0.0%
Energy tolerance   : 1.50000 keV       Analyst Initials : MXR1
Abundance limit    : 75.00000           Sensitivity      : 5.00000
Batch ID           : 937069             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	785	10.67*	1.075E+00	2.327E+01	2.327E+01	10.23
NB-95	765.79	53	99.81*	1.938E+00	9.307E-02	1.120E-01	49.15
CD-109	88.03	146	3.72*	5.010E+00	2.659E+00	2.727E+00	44.87
SN-126	64.28	-----	9.60	2.203E+00	-----	Line Not Found	-----
	86.94	146	8.90	5.010E+00	1.111E+00	1.111E+00	60.41
	87.57	146	37.00*	5.010E+00	2.673E-01	2.673E-01	44.87
CS-135	268.24	53	16.00*	4.417E+00	2.535E-01	2.535E-01	82.31
BA-137M	661.65	121	89.98*	2.209E+00	2.070E-01	2.073E-01	35.29
CS-137	661.65	121	85.12*	2.209E+00	2.189E-01	2.191E-01	35.29
TL-208	277.35	-----	6.80	4.326E+00	-----	Line Not Found	-----
	510.84	63	21.60	2.731E+00	3.652E-01	3.652E-01	92.10
	583.14	247	84.20*	2.456E+00	4.062E-01	4.062E-01	22.75
	860.37	-----	12.46	1.744E+00	-----	Line Not Found	-----
BI-211	72.87	-----	1.27	3.384E+00	-----	Line Not Found	-----
	351.07	411	12.94*	3.628E+00	2.979E+00	2.979E+00	16.24
PB-212	74.81	202	10.70	3.624E+00	1.769E+00	1.769E+00	31.83
	77.11	332	18.00	3.920E+00	1.599E+00	1.599E+00	21.67
	87.30	146	8.00	5.010E+00	1.236E+00	1.236E+00	45.97
	238.63	740	44.60*	4.829E+00	1.170E+00	1.170E+00	13.38
	300.09	40	3.41	4.082E+00	9.852E-01	9.852E-01	94.14
PO-212	74.81	202	10.70	3.624E+00	1.769E+00	1.769E+00	31.83
	77.11	332	18.00	3.920E+00	1.599E+00	1.599E+00	21.67
	87.30	146	8.00	5.010E+00	1.236E+00	1.236E+00	45.97
	115.19	-----	0.60	6.408E+00	-----	Line Not Found	-----
	238.63	740	44.60*	4.829E+00	1.170E+00	1.170E+00	13.38
	300.09	40	3.41	4.082E+00	9.852E-01	9.852E-01	94.14
BI-214	609.31	283	46.30*	2.369E+00	8.773E-01	8.773E-01	19.68
	1120.29	81	15.10	1.358E+00	1.337E+00	1.337E+00	38.15
	1764.49	52	15.80	9.532E-01	1.173E+00	1.173E+00	40.00
PB-214	74.81	202	6.21	3.624E+00	3.047E+00	3.047E+00	31.31
	77.11	332	10.50	3.920E+00	2.742E+00	2.742E+00	22.97
	87.30	146	4.67	5.010E+00	2.118E+00	2.118E+00	45.53

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	241.98	150	7.49	4.784E+00	1.422E+00	1.422E+00	35.01
	295.21	257	19.20	4.134E+00	1.101E+00	1.101E+00	24.44
	351.92	411	37.20*	3.628E+00	1.036E+00	1.036E+00	17.06
	74.81	202	6.21	3.624E+00	3.047E+00	3.047E+00	31.31
	77.11	332	10.50	3.920E+00	2.742E+00	2.742E+00	22.97
	87.30	146	4.67	5.010E+00	2.118E+00	2.118E+00	45.53
	241.98	150	7.49	4.784E+00	1.422E+00	1.422E+00	35.01
PO-216	295.21	257	19.20	4.134E+00	1.101E+00	1.101E+00	24.44
	351.92	411	37.20*	3.628E+00	1.036E+00	1.036E+00	17.06
	74.81	202	6.21	3.624E+00	1.769E+00	1.769E+00	31.83
	77.11	332	18.00	3.920E+00	1.599E+00	1.599E+00	21.67
	87.30	146	8.00	5.010E+00	1.236E+00	1.236E+00	45.97
	238.63	740	44.60*	4.829E+00	1.170E+00	1.170E+00	13.38
	300.09	40	3.41	4.082E+00	9.852E-01	9.852E-01	94.14
PO-218	74.81	202	6.21	3.624E+00	3.047E+00	3.047E+00	31.31
	77.11	332	10.50	3.920E+00	2.742E+00	2.742E+00	22.97
	87.30	146	4.67	5.010E+00	2.118E+00	2.118E+00	45.53
	241.98	150	7.49	4.784E+00	1.422E+00	1.422E+00	35.01
	295.21	257	19.20	4.134E+00	1.101E+00	1.101E+00	24.44
	351.92	411	37.20*	3.628E+00	1.036E+00	1.036E+00	17.06
	240.98	150	3.95*	4.784E+00	2.697E+00	2.697E+00	34.56
RA-224	609.31	283	46.30*	2.369E+00	8.773E-01	8.773E-01	19.68
RA-226	1120.29	81	15.10	1.358E+00	1.337E+00	1.337E+00	38.15
AC-228	1764.49	52	15.80	9.532E-01	1.173E+00	1.173E+00	40.00
	338.32	188	11.40	3.736E+00	1.502E+00	1.502E+00	47.92
	911.07	156	27.70*	1.654E+00	1.160E+00	1.160E+00	26.24
	969.11	80	16.60	1.558E+00	1.047E+00	1.047E+00	64.20
RA-228	338.32	188	11.40	3.736E+00	1.502E+00	1.502E+00	47.92
	911.07	156	27.70*	1.654E+00	1.160E+00	1.160E+00	26.24
	969.11	80	16.60	1.558E+00	1.047E+00	1.047E+00	64.20
TH-228	74.81	202	10.70	3.624E+00	1.769E+00	1.799E+00	30.45
	77.11	332	18.00	3.920E+00	1.599E+00	1.627E+00	21.67
	87.30	146	8.00	5.010E+00	1.236E+00	1.257E+00	44.87
	238.63	740	44.60*	4.829E+00	1.170E+00	1.190E+00	13.38
TH-230	300.09	40	3.41	4.082E+00	9.852E-01	1.002E+00	110.76
	609.31	283	46.30*	2.369E+00	8.773E-01	8.773E-01	19.68
	1120.29	81	15.10	1.358E+00	1.337E+00	1.337E+00	38.15
	1764.49	52	15.80	9.532E-01	1.173E+00	1.173E+00	40.00
TH-232	338.32	188	11.40	3.736E+00	1.502E+00	1.502E+00	25.86
	911.07	156	27.70*	1.654E+00	1.160E+00	1.160E+00	26.24
	969.11	80	16.60	1.558E+00	1.047E+00	1.047E+00	64.20
	609.31	283	46.30*	2.369E+00	8.773E-01	8.773E-01	19.68
U-234	1120.29	81	15.10	1.358E+00	1.337E+00	1.337E+00	38.15
	1764.49	52	15.80	9.532E-01	1.173E+00	1.173E+00	40.00
	86.50	146	12.60*	5.010E+00	7.849E-01	7.849E-01	49.39
NP-237	95.87	-----	2.60	5.678E+00	-----	Line Not Found	-----
AM-243	74.67	202	66.00*	3.624E+00	2.867E-01	2.867E-01	30.43
	86.72	146	0.34	5.010E+00	2.943E+01	2.943E+01	44.87
	117.66	-----	0.55	6.445E+00	-----	Line Not Found	-----

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	-----	0.13	6.417E+00	-----	Line Not Found	-----
ANH-511	511.00	63	100.00*	2.731E+00	7.888E-02	7.888E-02	91.72

Flag: "*" = Keyline

Total number of lines in spectrum 26
Number of unidentified lines 0
Number of lines tentatively identified by NID 26 100.00%

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	2.327E+01	2.327E+01	0.238E+01	10.23	
NB-95	64.02D	1.20	9.307E-02	1.120E-01	0.550E-01	49.15	
CD-109	464.00D	1.03	2.659E+00	2.727E+00	1.224E+00	44.87	
SN-126	1.00E+05Y	1.00	2.673E-01	2.673E-01	1.199E-01	44.87	
CS-135	2.30E+06Y	1.00	2.535E-01	2.535E-01	2.087E-01	82.31	
BA-137M	30.17Y	1.00	2.070E-01	2.073E-01	0.731E-01	35.29	
CS-137	30.17Y	1.00	2.189E-01	2.191E-01	0.773E-01	35.29	
TL-208	1.41E+10Y	1.00	4.062E-01	4.062E-01	0.924E-01	22.75	
BI-211	7.04E+08Y	1.00	2.979E+00	2.979E+00	0.484E+00	16.24	
PB-212	1.41E+10Y	1.00	1.170E+00	1.170E+00	0.157E+00	13.38	
PO-212	1.41E+10Y	1.00	1.170E+00	1.170E+00	0.157E+00	13.38	
BI-214	1600.00Y	1.00	8.773E-01	8.773E-01	1.726E-01	19.68	
PB-214	1600.00Y	1.00	1.036E+00	1.036E+00	0.177E+00	17.06	
PO-214	1600.00Y	1.00	1.036E+00	1.036E+00	0.177E+00	17.06	
PO-216	1.41E+10Y	1.00	1.170E+00	1.170E+00	0.157E+00	13.38	
PO-218	1600.00Y	1.00	1.036E+00	1.036E+00	0.177E+00	17.06	
RA-224	1.41E+10Y	1.00	2.697E+00	2.697E+00	0.932E+00	34.56	
RA-226	1600.00Y	1.00	8.773E-01	8.773E-01	1.726E-01	19.68	
AC-228	1.41E+10Y	1.00	1.160E+00	1.160E+00	0.304E+00	26.24	
RA-228	1.41E+10Y	1.00	1.160E+00	1.160E+00	0.304E+00	26.24	
TH-228	1.91Y	1.02	1.170E+00	1.190E+00	0.159E+00	13.38	
TH-230	4.47E+09Y	1.00	8.773E-01	8.773E-01	1.726E-01	19.68	
TH-232	1.41E+10Y	1.00	1.160E+00	1.160E+00	0.304E+00	26.24	
U-234	4.47E+09Y	1.00	8.773E-01	8.773E-01	1.726E-01	19.68	
NP-237	2.14E+06Y	1.00	7.849E-01	7.849E-01	3.876E-01	49.39	
AM-243	7380.00Y	1.00	2.867E-01	2.867E-01	0.872E-01	30.43	
ANH-511	1.00E+09Y	1.00	7.888E-02	7.888E-02	7.235E-02	91.72	
Total Activity :			4.898E+01	4.909E+01			

Grand Total Activity : 4.898E+01 4.909E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202005183

Page : 5
Acquisition date : 7-JAN-2010 13:06:00

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	83.79	78	149	1.24	167.62	165	19	1.08E-02	56.9	4.68E+00	T
0	92.88	187	235	1.53	185.79	183	8	2.59E-02	33.3	5.48E+00	T
0	185.65	107	200	1.15	371.36	368	8	1.48E-02	51.9	5.70E+00	T
0	209.24	81	169	1.43	418.55	415	8	1.12E-02	60.1	5.29E+00	T
0	726.52	87	44	1.68	1453.12	1445	16	1.21E-02	40.3	2.03E+00	T
0	1047.75	16	49	1.23	2095.53	2089	14	2.22E-03	***	1.45E+00	T

Flags: "T" = Tentatively associated

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*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202005183.CNF;1
* Acquisition date   : 7-JAN-2010 13:06:00.   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 02:00:00.96          Half life ratio  : 8.00000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 21-DEC-2009 12:00:00   Nuclide Library : SOLID
* Sample ID          : G1202005183           Analyst initials: MXR1
* Batch Number       : 937069                Sample Quantity  : 1.10300E+02 GRAM
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 5-MAY-2009 14:25:41.36MS Isotope      :
* MSD ID             :                          MSD Isotope   :
* LCS ID             : 1032-A                  LCS Isotope      :
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.327E+01	2.380E+00	3.989E-01	2.835E-02	58.335
NB-95	1.120E-01	5.503E-02	7.099E-02	4.424E-03	1.577
CD-109	2.727E+00	1.224E+00	1.290E+00	1.551E-01	2.113
SN-126	2.673E-01	1.199E-01	1.274E-01	1.528E-02	2.097
CS-135	2.535E-01	2.087E-01	2.351E-01	1.960E-02	1.078
BA-137M	2.073E-01	7.314E-02	5.982E-02	2.917E-03	3.465
CS-137	2.191E-01	7.732E-02	6.324E-02	3.102E-03	3.465
TL-208	4.062E-01	9.241E-02	5.371E-02	3.379E-03	7.563
BI-211	2.979E+00	4.840E-01	3.235E-01	2.185E-02	9.210
PB-212	1.170E+00	1.566E-01	1.185E-01	9.518E-03	9.870
PO-212	1.170E+00	1.566E-01	1.185E-01	9.518E-03	9.870
BI-214	8.773E-01	1.726E-01	1.064E-01	7.816E-03	8.248
PB-214	1.036E+00	1.768E-01	1.128E-01	9.619E-03	9.190
PO-214	1.036E+00	1.768E-01	1.128E-01	9.619E-03	9.190
PO-216	1.170E+00	1.566E-01	1.185E-01	9.518E-03	9.870
PO-218	1.036E+00	1.768E-01	1.128E-01	9.619E-03	9.190
RA-224	2.697E+00	9.321E-01	1.349E+00	8.994E-02	1.999
RA-226	8.773E-01	1.726E-01	1.064E-01	7.816E-03	8.248

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.160E+00	3.045E-01	2.142E-01	2.335E-02	5.418
RA-228	1.160E+00	3.045E-01	2.142E-01	2.335E-02	5.418
TH-228	1.190E+00	1.592E-01	1.205E-01	9.681E-03	9.870
TH-230	8.773E-01	1.726E-01	1.064E-01	7.816E-03	8.248
TH-232	1.160E+00	3.045E-01	2.142E-01	2.335E-02	5.418
U-234	8.773E-01	1.726E-01	1.064E-01	7.816E-03	8.248
NP-237	7.849E-01	3.876E-01	3.812E-01	9.084E-02	2.059
AM-243	2.867E-01	8.724E-02	9.702E-02	1.111E-02	2.955
ANH-511	7.888E-02	7.235E-02	5.048E-02	2.823E-03	1.563

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.242E-02		3.409E-01	5.513E-01	3.652E-02	-0.059
NA-22	1.963E-02		4.718E-02	8.254E-02	5.397E-03	0.238
NA-24	6.629E-01		3.090E+00	Half-Life too short		
AL-26	-1.617E-03		3.148E-02	5.048E-02	2.994E-03	-0.032
TI-44	2.951E-01	+	6.395E-02	7.585E-02	8.722E-03	3.891
SC-46	2.348E-02		4.086E-02	7.144E-02	5.778E-03	0.329
V-48	-1.030E-01		7.304E-02	9.392E-02	7.276E-03	-1.097
CR-51	-5.502E-02		3.830E-01	6.348E-01	4.470E-02	-0.087
MN-52	8.886E-02		2.939E-01	5.115E-01	3.490E-02	0.174
MN-54	1.905E-02		3.946E-02	6.825E-02	4.939E-03	0.279
CO-56	-1.259E-02		3.840E-02	6.104E-02	4.528E-03	-0.206
CO-57	-6.421E-03		2.461E-02	3.989E-02	2.769E-03	-0.161
CO-58	-1.474E-02		4.148E-02	6.671E-02	4.605E-03	-0.221
FE-59	-8.898E-03		9.416E-02	1.505E-01	1.150E-02	-0.059
CO-60	-2.922E-02		3.757E-02	5.538E-02	3.794E-03	-0.528
ZN-65	-8.372E-02		1.144E-01	1.393E-01	9.214E-03	-0.601
GE-68	-2.627E-01		1.264E+00	1.994E+00	1.393E-01	-0.132
AS-73	-1.878E+00		1.568E+00	2.469E+00	3.230E-01	-0.761
AS-74	1.383E-01		9.896E-02	1.796E-01	9.482E-03	0.770
SE-75	3.481E-02		4.179E-02	6.988E-02	4.701E-03	0.498
BR-77	-3.051E+00		1.778E+01	2.831E+01	1.577E+00	-0.108
SR-82	-1.825E-01		3.707E-01	5.825E-01	3.718E-02	-0.313
RB-83	-1.038E-02		6.748E-02	1.077E-01	5.996E-03	-0.096
RB-84	4.459E-02		7.360E-02	1.292E-01	1.029E-02	0.345
KR-85	3.452E+00		8.147E+00	1.212E+01	6.771E-01	0.285
SR-85	1.806E-02		4.263E-02	6.343E-02	3.543E-03	0.285
RB-86	-6.989E-02		8.964E-01	1.439E+00	1.006E-01	-0.049
Y-88	-7.383E-03		3.835E-02	5.943E-02	3.468E-03	-0.124
ZR-88	-2.686E-02		3.133E-02	4.822E-02	2.714E-03	-0.557
Y-91	-1.050E+01		2.122E+01	3.210E+01	1.967E+00	-0.327
NB-94	-9.130E-03		3.208E-02	5.230E-02	2.818E-03	-0.175
NB-95M	9.353E-02		1.409E-01	2.087E-01	1.713E-02	0.448
ZR-95	2.851E-02		7.242E-02	1.253E-01	9.121E-03	0.228
NB-97	4.508E-01		3.409E-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
ZR-97	2.101E+01		6.961E+00	Half-Life too short		
MO-99	1.467E+01		1.736E+01	3.131E+01	4.324E+00	0.469
TC-99M	6.308E+12		3.696E+12	Half-Life too short		
RH-101	3.776E-02		3.425E-02	5.653E-02	3.681E-03	0.668
RH-102	-1.536E-02		2.954E-02	4.592E-02	2.596E-03	-0.335
RU-103	-1.456E-02		4.279E-02	6.733E-02	8.459E-03	-0.216
RH-106	5.397E-02		3.120E-01	5.081E-01	5.805E-02	0.106
RU-106	5.397E-02		3.119E-01	5.081E-01	2.611E-02	0.106
AG-108M	-1.193E-03		3.218E-02	5.265E-02	3.253E-03	-0.023
AG-110M	2.229E-02		3.662E-02	5.813E-02	3.106E-03	0.383
IN-111	7.646E-01		1.822E+00	2.641E+00	1.762E-01	0.290
IN-113M	-3.411E-02		4.589E-02	7.146E-02	4.306E-03	-0.477
SN-113	-3.411E-02		4.589E-02	7.146E-02	4.306E-03	-0.477
IN-114M	-7.517E-02		2.014E-01	2.792E-01	1.807E-02	-0.269
CD-115	2.296E+01		1.738E+01	3.189E+01	1.769E+00	0.720
SN-117M	7.033E-02		5.584E-02	9.663E-02	6.181E-03	0.728
SB-122	2.422E-01		3.412E+00	5.534E+00	3.002E-01	0.044
I-123	4.252E+01		3.097E+01	Half-Life too short		
TE-123M	1.844E-02		2.687E-02	4.520E-02	2.922E-03	0.408
I-124	3.998E-01		1.011E+00	1.491E+00	7.818E-02	0.268
SB-124	6.253E-02		6.852E-02	1.357E-01	9.224E-03	0.461
SB-125	2.765E-03		8.659E-02	1.426E-01	8.444E-03	0.019
TE-125M	3.331E+00		8.612E+00	1.433E+01	1.423E+00	0.232
I-126	-3.076E-02		2.136E-01	3.068E-01	1.514E-02	-0.100
SB-126	5.844E-03		1.695E-01	2.479E-01	1.393E-02	0.024
SB-127	4.601E-01		1.805E+00	3.104E+00	3.034E-01	0.148
XE-127	1.860E-03		4.562E-02	7.316E-02	4.782E-03	0.025
I-131	-4.801E-02		1.190E-01	1.908E-01	1.273E-02	-0.252
TE-132	1.570E-01		9.756E-01	1.566E+00	2.368E-01	0.100
BA-133	1.856E-02		4.407E-02	6.728E-02	7.881E-03	0.276
I-133	-4.201E-02		1.376E-02	Half-Life too short		
CS-134	9.626E-02		4.622E-02	9.067E-02	6.111E-03	1.062
I-135	5.663E+11		3.627E+11	Half-Life too short		
CS-136	1.163E-01	+	2.237E-01	2.434E-01	1.870E-02	0.478
CE-139	-2.130E-03		2.837E-02	4.571E-02	2.904E-03	-0.047
BA-140	1.413E-01		3.098E-01	5.157E-01	1.675E-01	0.274
LA-140	4.088E-03		9.213E-02	1.526E-01	1.005E-02	0.027
CE-141	2.783E-02		5.878E-02	9.822E-02	6.593E-03	0.283
CE-143	1.654E-03		2.898E-04	Half-Life too short		
CE-144	3.823E-02		1.926E-01	3.183E-01	4.639E-02	0.120
PM-144	2.656E-02		3.152E-02	5.700E-02	3.029E-03	0.466
PR-144	1.802E+00		2.138E+00	3.867E+00	2.053E-01	0.466
PM-146	3.258E-03		4.467E-02	7.354E-02	6.277E-03	0.044
ND-147	-1.823E-01		5.752E-01	8.978E-01	1.204E-01	-0.203
PM-149	-4.292E+00		1.586E+02	2.645E+02	3.845E+01	-0.016
EU-152	-2.960E-02		9.099E-02	1.425E-01	9.865E-03	-0.208
GD-153	6.400E-02		8.225E-02	1.284E-01	1.260E-02	0.499
EU-154	6.220E-02		1.309E-01	2.303E-01	2.259E-02	0.270

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	2.873E-02		1.031E-01	1.729E-01	1.507E-02	0.166
TB-160	1.275E-01		1.407E-01	2.545E-01	2.018E-02	0.501
HO-166M	-2.094E-02		5.517E-02	8.870E-02	4.882E-03	-0.236
TM-171	-1.572E+01		3.198E+01	5.254E+01	6.142E+00	-0.299
LU-176	3.288E-03		2.221E-02	3.766E-02	2.458E-03	0.087
LU-177	2.763E+00	+	1.671E+00	2.394E+00	1.571E-01	1.154
LU-177M	-1.174E-01		1.714E-01	2.660E-01	1.505E-02	-0.441
HF-181	-1.847E-02		4.538E-02	7.125E-02	4.023E-03	-0.259
W-181	-5.033E-01		4.471E-01	7.066E-01	8.329E-02	-0.712
TA-182	1.342E-01		2.206E-01	3.903E-01	2.429E-02	0.344
RE-183	-5.706E-03		1.049E-01	1.694E-01	1.079E-02	-0.034
RE-184	-4.919E-02		2.189E-01	3.666E-01	2.448E-02	-0.134
OS-185	-1.130E-03		4.139E-02	6.960E-02	3.470E-03	-0.016
RE-188	-4.941E-02		1.553E-01	2.474E-01	1.589E-02	-0.200
W-188	-2.543E+00		7.865E+00	1.133E+01	7.489E-01	-0.224
IR-192	-7.773E-04		3.212E-02	5.370E-02	3.487E-03	-0.014
AU-195	1.416E-01		2.209E-01	3.753E-01	3.588E-02	0.377
TL-200	-4.466E-04		7.206E-04	Half-Life too short		
TL-201	-4.857E+00		1.018E+01	1.600E+01	1.017E+00	-0.304
TL-202	4.435E-02		7.826E-02	1.341E-01	7.608E-03	0.331
HG-203	-5.546E-03		3.937E-02	6.585E-02	4.585E-03	-0.084
BI-207	3.172E-02		5.597E-02	9.674E-02	6.880E-03	0.328
TL-207	-4.997E-01		7.085E-01	1.125E+00	1.884E-01	-0.444
PO-209	2.215E+00		7.366E+00	1.254E+01	1.029E+00	0.177
BI-210	7.050E+00		8.812E+00	1.562E+01	1.361E+00	0.451
PB-210	7.050E+00		8.812E+00	1.562E+01	1.361E+00	0.451
PO-210	7.050E+00		8.807E+00	1.562E+01	1.213E+00	0.451
PB-211	-8.341E-01		1.126E+00	1.545E+00	9.632E-01	-0.540
BI-212	1.232E+00	+	5.055E-01	6.665E-01	5.095E-02	1.849
PO-215	-4.997E-01		7.085E-01	1.125E+00	1.884E-01	-0.444
RN-219	2.199E-01		4.078E-01	6.985E-01	9.457E-02	0.315
RN-220	-1.748E+01		2.746E+01	4.155E+01	2.276E+00	-0.421
RA-223	-4.997E-01		7.085E-01	1.125E+00	1.884E-01	-0.444
AC-227	1.620E-01		3.712E-01	6.434E-01	9.231E-02	0.252
TH-227	1.620E-01		3.716E-01	6.434E-01	1.108E-01	0.252
TH-229	1.633E-01		4.943E-01	8.081E-01	5.245E-02	0.202
PA-231	7.031E-01		1.475E+00	2.552E+00	3.611E-01	0.276
TH-231	-4.997E-01		7.085E-01	1.125E+00	1.884E-01	-0.444
U-231	-7.395E-01		1.580E+00	2.279E+00	2.304E-01	-0.325
PA-233	-1.757E-02		5.795E-02	9.501E-02	6.479E-03	-0.185
PA-234	-1.861E-01		3.226E-01	4.901E-01	9.057E-02	-0.380
PA-234M	-2.926E-01		4.226E+00	6.859E+00	6.253E-01	-0.043
TH-234	4.030E-01		1.683E+00	2.846E+00	5.632E-01	0.142
U-235	-9.407E-02		2.032E-01	3.125E-01	5.179E-02	-0.301
NP-236	-2.159E-02		7.569E-02	1.207E-01	7.706E-03	-0.179
U-238	4.030E-01		1.683E+00	2.846E+00	5.632E-01	0.142
NP-239	-1.579E-01		1.758E-01	2.745E-01	2.020E-02	-0.575
AM-241	2.226E-01		2.136E-01	3.771E-01	4.760E-02	0.590

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	4.566E-02		9.239E-02	1.567E-01	1.381E-02	0.291
AM-246	-1.146E-01		1.519E-01	2.222E-01	1.549E-02	-0.516
CM-247	1.343E-02		3.644E-02	6.178E-02	3.487E-03	0.217
CF-249	8.817E-03		4.231E-02	7.097E-02	4.033E-03	0.124
CF-251	-2.688E-02		1.204E-01	1.916E-01	1.226E-02	-0.140

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]G1202005183          *
* Acquisition date   : 7-JAN-2010 13:06:00 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 02:00:00.96 Half life ratio : 8.000              *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 21-DEC-2009 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G1202005183 Analyst initials: MXR1                 *
* Batch Number       : 937069 Sample Quantity : 1.1030E+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 :                               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.327E+01	2.332E+00	1.985E-01	1.190E+00
NB-95	1.120E-01	5.393E-02	3.549E-02	2.752E-02
CD-109	2.727E+00	1.199E+00	6.555E-01	6.119E-01
SN-126	2.673E-01	1.175E-01	6.474E-02	5.997E-02
CS-135	2.535E-01	2.045E-01	1.185E-01	1.043E-01
BA-137M	2.073E-01	7.168E-02	2.994E-02	3.657E-02
CS-137	2.191E-01	7.578E-02	3.165E-02	3.866E-02
TL-208	4.062E-01	9.056E-02	2.691E-02	4.620E-02
BI-211	2.979E+00	4.743E-01	1.627E-01	2.420E-01
PB-212	1.170E+00	1.534E-01	5.976E-02	7.828E-02
PO-212	1.170E+00	1.534E-01	5.976E-02	7.828E-02
BI-214	8.773E-01	1.692E-01	5.327E-02	8.632E-02
PB-214	1.036E+00	1.733E-01	5.671E-02	8.841E-02
PO-214	1.036E+00	1.733E-01	5.671E-02	8.841E-02
PO-216	1.170E+00	1.534E-01	5.976E-02	7.828E-02
PO-218	1.036E+00	1.733E-01	5.671E-02	8.841E-02
RA-224	2.697E+00	9.135E-01	6.803E-01	4.661E-01
RA-226	8.773E-01	1.692E-01	5.327E-02	8.632E-02
AC-228	1.160E+00	2.984E-01	1.069E-01	1.522E-01
RA-228	1.160E+00	2.984E-01	1.069E-01	1.522E-01
TH-228	1.190E+00	1.561E-01	6.079E-02	7.962E-02
TH-230	8.773E-01	1.692E-01	5.327E-02	8.632E-02
TH-232	1.160E+00	2.984E-01	1.069E-01	1.522E-01
U-234	8.773E-01	1.692E-01	5.327E-02	8.632E-02
NP-237	7.849E-01	3.799E-01	1.937E-01	1.938E-01
AM-243	2.867E-01	8.550E-02	4.934E-02	4.362E-02
ANH-511	7.888E-02	7.090E-02	2.531E-02	3.617E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
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BE-7	-3.242E-02	3.341E-01	2.766E-01	1.705E-01	NOT IDENT.
NA-22	1.963E-02	4.624E-02	4.111E-02	2.359E-02	NOT IDENT.
NA-24	6.629E+05	6.055E+06	0.000E+00	3.090E+06	SHORT HLIF
AL-26	-1.617E-03	3.085E-02	2.508E-02	1.574E-02	NOT IDENT.
TI-44	2.951E-01	6.267E-02	3.856E-02	3.198E-02	FAIL ABUN
SC-46	2.348E-02	4.004E-02	3.568E-02	2.043E-02	FAIL ABUN
V-48	-1.030E-01	7.158E-02	4.687E-02	3.652E-02	NOT IDENT.
CR-51	-5.502E-02	3.753E-01	3.194E-01	1.915E-01	NOT IDENT.
MN-52	8.886E-02	2.880E-01	2.545E-01	1.469E-01	NOT IDENT.
MN-54	1.905E-02	3.867E-02	3.410E-02	1.973E-02	NOT IDENT.
CO-56	-1.259E-02	3.763E-02	3.050E-02	1.920E-02	NOT IDENT.
CO-57	-6.421E-03	2.412E-02	2.022E-02	1.231E-02	NOT IDENT.
CO-58	-1.474E-02	4.065E-02	3.334E-02	2.074E-02	NOT IDENT.
FE-59	-8.898E-03	9.228E-02	7.506E-02	4.708E-02	NOT IDENT.
CO-60	-2.922E-02	3.682E-02	2.757E-02	1.879E-02	NOT IDENT.
ZN-65	-8.372E-02	1.121E-01	6.945E-02	5.721E-02	NOT IDENT.
GE-68	-2.627E-01	1.239E+00	9.946E-01	6.321E-01	NOT IDENT.
AS-73	-1.878E+00	1.537E+00	1.259E+00	7.840E-01	NOT IDENT.
AS-74	1.383E-01	9.698E-02	8.996E-02	4.948E-02	NOT IDENT.
SE-75	3.481E-02	4.096E-02	3.522E-02	2.090E-02	NOT IDENT.
BR-77	-3.051E+00	1.742E+01	1.420E+01	8.888E+00	FAIL ABUN
SR-82	-1.825E-01	3.633E-01	2.912E-01	1.853E-01	NOT IDENT.
RB-83	-1.038E-02	6.613E-02	5.398E-02	3.374E-02	NOT IDENT.
RB-84	4.459E-02	7.213E-02	6.455E-02	3.680E-02	NOT IDENT.
KR-85	3.452E+00	7.984E+00	6.079E+00	4.073E+00	NOT IDENT.
SR-85	1.806E-02	4.177E-02	3.181E-02	2.131E-02	NOT IDENT.
RB-86	-6.989E-02	8.785E-01	7.179E-01	4.482E-01	NOT IDENT.
Y-88	-7.383E-03	3.758E-02	2.952E-02	1.917E-02	NOT IDENT.
ZR-88	-2.686E-02	3.070E-02	2.423E-02	1.566E-02	NOT IDENT.
Y-91	-1.050E+01	2.079E+01	1.599E+01	1.061E+01	NOT IDENT.
NB-94	-9.130E-03	3.143E-02	2.617E-02	1.604E-02	NOT IDENT.
NB-95M	9.353E-02	1.381E-01	1.053E-01	7.047E-02	NOT IDENT.
ZR-95	2.851E-02	7.097E-02	6.264E-02	3.621E-02	NOT IDENT.
NB-97	4.508E+05	6.682E+05	0.000E+00	3.409E+05	SHORT HLIF
ZR-97	2.101E+07	1.364E+07	0.000E+00	6.961E+06	SHORT HLIF
MO-99	1.467E+01	1.701E+01	1.566E+01	8.680E+00	NOT IDENT.
TC-99M	6.308E+18	7.244E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.776E-02	3.356E-02	2.855E-02	1.712E-02	NOT IDENT.
RH-102	-1.536E-02	2.895E-02	2.304E-02	1.477E-02	FAIL ABUN
RU-103	-1.456E-02	4.193E-02	3.377E-02	2.139E-02	FAIL ABUN
RH-106	5.397E-02	3.057E-01	2.545E-01	1.560E-01	FAIL ABUN
RU-106	5.397E-02	3.057E-01	2.545E-01	1.560E-01	FAIL ABUN
AG-108M	-1.193E-03	3.154E-02	2.644E-02	1.609E-02	NOT IDENT.
AG-110M	2.229E-02	3.589E-02	2.910E-02	1.831E-02	NOT IDENT.
IN-111	7.646E-01	1.786E+00	1.331E+00	9.111E-01	NOT IDENT.
IN-113M	-3.411E-02	4.497E-02	3.590E-02	2.295E-02	NOT IDENT.
SN-113	-3.411E-02	4.497E-02	3.590E-02	2.295E-02	NOT IDENT.
IN-114M	-7.517E-02	1.974E-01	1.410E-01	1.007E-01	NOT IDENT.
CD-115	2.296E+01	1.704E+01	1.599E+01	8.691E+00	NOT IDENT.
SN-117M	7.033E-02	5.472E-02	4.887E-02	2.792E-02	NOT IDENT.
SB-122	2.422E-01	3.343E+00	2.773E+00	1.706E+00	NOT IDENT.
I-123	4.252E+07	6.071E+07	0.000E+00	3.097E+07	SHORT HLIF
TE-123M	1.844E-02	2.633E-02	2.286E-02	1.343E-02	NOT IDENT.
I-124	3.998E-01	9.906E-01	7.467E-01	5.054E-01	NOT IDENT.
SB-124	6.253E-02	6.715E-02	6.747E-02	3.426E-02	FAIL ABUN
SB-125	2.765E-03	8.446E-02	7.163E-02	4.330E-02	NOT IDENT.
TE-125M	3.331E+00	8.440E+00	7.268E+00	4.306E+00	NOT IDENT.
I-126	-3.076E-02	2.093E-01	1.536E-01	1.068E-01	NOT IDENT.
SB-126	5.844E-03	1.661E-01	1.240E-01	8.474E-02	FAIL ABUN
SB-127	4.601E-01	1.769E+00	1.553E+00	9.023E-01	NOT IDENT.
XE-127	1.860E-02	4.471E-02	3.694E-02	2.281E-02	NOT IDENT.
I-131	-4.801E-02	1.167E-01	9.591E-02	5.952E-02	NOT IDENT.
TE-132	1.570E-01	9.561E-01	7.901E-01	4.878E-01	NOT IDENT.
BA-133	1.856E-02	4.319E-02	3.383E-02	2.204E-02	NOT IDENT.
I-133	-4.201E+04	2.696E+04	0.000E+00	1.376E+04	SHORT HLIF
CS-134	9.626E-02	4.529E-02	4.532E-02	2.311E-02	NOT IDENT.
I-135	5.663E+17	7.110E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.163E-01	2.193E-01	1.214E-01	1.119E-01	FAIL ABUN
CE-139	-2.130E-03	2.780E-02	2.311E-02	1.419E-02	NOT IDENT.
BA-140	1.413E-01	3.036E-01	2.585E-01	1.549E-01	NOT IDENT.
LA-140	4.088E-03	9.029E-02	7.587E-02	4.607E-02	NOT IDENT.
CE-141	2.783E-02	5.760E-02	4.971E-02	2.939E-02	NOT IDENT.
CE-143	1.654E+03	5.680E+02	0.000E+00	2.898E+02	SHORT HLIF
CE-144	3.823E-02	1.887E-01	1.612E-01	9.628E-02	NOT IDENT.
PM-144	2.656E-02	3.089E-02	2.852E-02	1.576E-02	NOT IDENT.
PR-144	1.802E+00	2.095E+00	1.935E+00	1.069E+00	NOT IDENT.
PM-146	3.258E-03	4.378E-02	3.691E-02	2.234E-02	NOT IDENT.
ND-147	-1.823E-01	5.637E-01	4.501E-01	2.876E-01	NOT IDENT.

PM-149	-4.292E+00	1.554E+02	1.332E+02	7.928E+01	NOT IDENT.
EU-152	-2.960E-02	8.917E-02	7.169E-02	4.549E-02	NOT IDENT.
GD-153	6.400E-02	8.061E-02	6.516E-02	4.113E-02	FAIL ABUN
EU-154	6.220E-02	1.283E-01	1.147E-01	6.545E-02	NOT IDENT.
EU-155	2.873E-02	1.010E-01	8.774E-02	5.154E-02	FAIL ABUN
TB-160	1.275E-01	1.379E-01	1.271E-01	7.034E-02	FAIL ABUN
HO-166M	-2.094E-02	5.406E-02	4.437E-02	2.758E-02	FAIL ABUN
TM-171	-1.572E+01	3.134E+01	2.674E+01	1.599E+01	NOT IDENT.
LU-176	3.288E-03	2.177E-02	1.895E-02	1.111E-02	FAIL ABUN
LU-177	2.763E+00	1.638E+00	1.209E+00	8.356E-01	FAIL ABUN
LU-177M	-1.174E-01	1.680E-01	1.336E-01	8.570E-02	FAIL ABUN
HF-181	-1.847E-02	4.447E-02	3.575E-02	2.269E-02	NOT IDENT.
W-181	-5.033E-01	4.381E-01	3.597E-01	2.235E-01	NOT IDENT.
TA-182	1.342E-01	2.161E-01	1.945E-01	1.103E-01	NOT IDENT.
RE-183	-5.706E-03	1.028E-01	8.566E-02	5.245E-02	FAIL ABUN
RE-184	-4.919E-02	2.146E-01	1.848E-01	1.095E-01	NOT IDENT.
OS-185	-1.130E-03	4.056E-02	3.484E-02	2.069E-02	NOT IDENT.
RE-188	-4.941E-02	1.522E-01	1.252E-01	7.766E-02	NOT IDENT.
W-188	-2.543E+00	7.707E+00	5.706E+00	3.932E+00	NOT IDENT.
IR-192	-7.773E-04	3.148E-02	2.703E-02	1.606E-02	FAIL ABUN
AU-195	1.416E-01	2.164E-01	1.905E-01	1.104E-01	FAIL ABUN
TL-200	-4.466E+02	1.412E+03	0.000E+00	7.206E+02	SHORT HLIF
TL-201	-4.857E+00	9.981E+00	8.090E+00	5.092E+00	NOT IDENT.
TL-202	4.435E-02	7.669E-02	6.734E-02	3.913E-02	NOT IDENT.
HG-203	-5.546E-03	3.858E-02	3.317E-02	1.968E-02	FAIL ABUN
BI-207	3.172E-02	5.485E-02	4.825E-02	2.798E-02	FAIL ABUN
TL-207	-4.997E-01	6.944E-01	5.662E-01	3.543E-01	FAIL ABUN
PO-209	2.215E+00	7.219E+00	6.260E+00	3.683E+00	NOT IDENT.
BI-210	7.050E+00	8.635E+00	7.970E+00	4.406E+00	NOT IDENT.
PB-210	7.050E+00	8.635E+00	7.970E+00	4.406E+00	NOT IDENT.
PO-210	7.050E+00	8.631E+00	7.970E+00	4.404E+00	NOT IDENT.
PB-211	-8.341E-01	1.103E+00	7.763E-01	5.628E-01	NOT IDENT.
BI-212	1.232E+00	4.954E-01	3.334E-01	2.528E-01	FAIL ABUN
PO-215	-4.997E-01	6.944E-01	5.662E-01	3.543E-01	FAIL ABUN
RN-219	2.199E-01	3.997E-01	3.509E-01	2.039E-01	NOT IDENT.
RN-220	-1.748E+01	2.691E+01	2.083E+01	1.373E+01	NOT IDENT.
RA-223	-4.997E-01	6.944E-01	5.662E-01	3.543E-01	FAIL ABUN
AC-227	1.620E-01	3.638E-01	3.243E-01	1.856E-01	FAIL ABUN
TH-227	1.620E-01	3.641E-01	3.243E-01	1.858E-01	FAIL ABUN
TH-229	1.633E-01	4.844E-01	4.082E-01	2.472E-01	FAIL ABUN
PA-231	7.031E-01	1.445E+00	1.285E+00	7.374E-01	FAIL ABUN
TH-231	-4.997E-01	6.944E-01	5.662E-01	3.543E-01	FAIL ABUN
U-231	-7.395E-01	1.549E+00	1.157E+00	7.902E-01	FAIL ABUN
PA-233	-1.757E-02	5.679E-02	4.782E-02	2.898E-02	FAIL ABUN
PA-234	-1.861E-01	3.161E-01	2.447E-01	1.613E-01	FAIL ABUN
PA-234M	-2.926E-01	4.141E+00	3.422E+00	2.113E+00	FAIL ABUN
TH-234	4.030E-01	1.649E+00	1.449E+00	8.413E-01	FAIL ABUN
U-235	-9.407E-02	1.991E-01	1.582E-01	1.016E-01	FAIL ABUN
NP-236	-2.159E-02	7.418E-02	6.104E-02	3.785E-02	NOT IDENT.
U-238	4.030E-01	1.649E+00	1.449E+00	8.413E-01	FAIL ABUN
NP-239	-1.579E-01	1.723E-01	1.391E-01	8.789E-02	FAIL ABUN
AM-241	2.226E-01	2.093E-01	1.921E-01	1.068E-01	NOT IDENT.
CM-243	4.566E-02	9.054E-02	7.949E-02	4.619E-02	FAIL ABUN
AM-246	-1.146E-01	1.488E-01	1.108E-01	7.594E-02	NOT IDENT.
CM-247	1.343E-02	3.571E-02	3.104E-02	1.822E-02	NOT IDENT.
CF-249	8.817E-03	4.146E-02	3.566E-02	2.115E-02	NOT IDENT.
CF-251	-2.688E-02	1.180E-01	9.682E-02	6.020E-02	NOT IDENT.

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*                                     *
*               GEL Laboratories LLC   *
*               2040 SAVAGE ROAD       *
*               CHARLESTON , SC 29417  *
*               GAMMA SPECTROSCOPY BACKGROUND REPORT *
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ENERGY          MDA COUNTS

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46.50	133.9948
46.50	133.9948
46.50	133.9948
48.70	172.6654
49.72	156.8057
51.35	150.6092
52.39	166.6729
52.97	166.9404
53.15	186.1615
53.44	186.3096
54.07	163.0838
56.28	161.4211
56.28	161.4225
57.37	0.0000
57.53	190.1201
57.53	190.1212
57.60	191.9159
57.98	195.6307
57.98	195.6307
59.32	146.7892
59.32	146.7892
59.40	146.8192
59.54	143.3324
59.72	139.8577
60.01	161.2208
61.10	198.0848
61.14	198.1046
61.30	198.1846
63.00	192.7757
63.29	175.0510
63.29	175.0510
63.58	152.8318
64.28	143.2446
65.12	212.6130
65.20	212.6539
65.20	212.6539
66.05	233.7670
66.72	190.0125
66.83	190.0629
66.91	189.1985
67.20	188.4261
67.20	188.4261
67.75	186.8652
67.85	186.9094
68.90	178.3158
68.90	178.3158
69.30	181.1991
69.67	216.7202
70.82	242.7469
70.82	242.7469
70.83	242.7523
72.80	223.2881
72.87	223.3229
72.87	223.3229
74.67	214.5869
74.81	214.6535
74.81	214.6535
74.81	214.6535
74.81	214.6535
74.81	214.6535
74.81	214.6535
74.97	214.7285
75.28	214.8749
75.70	215.0725
77.11	215.7307
77.11	215.7307

77.11	215.7307
77.11	215.7307
77.11	215.7307
77.11	215.7307
77.11	215.7307
78.38	216.3186
79.62	174.2525
79.80	174.3185
79.80	174.3185
80.11	186.4940
80.18	186.5211
80.30	186.5676
80.30	186.5676
80.57	178.3154
81.00	186.8416
81.07	186.8682
81.07	186.8682
81.07	186.8682
81.07	186.8682
82.60	187.4622
83.37	183.5531
83.78	224.3762
83.78	224.3762
83.78	224.3762
83.78	224.3762
84.21	224.5728
84.90	224.8877
85.43	225.1270
86.29	225.5164
86.50	225.6104
86.54	225.6287
86.59	225.6506
86.72	225.7092
86.79	225.7397
86.94	225.8081
87.30	225.9705
87.30	225.9705
87.30	225.9705
87.30	225.9705
87.30	225.9705
87.30	225.9705
87.57	226.0913
87.88	226.2292
88.03	226.2964
88.36	226.4441
88.47	226.4929
89.95	227.1484
91.11	119.5208
92.29	119.7919
92.38	119.8124
92.38	119.8124
93.35	185.7661
94.00	181.7031
94.67	170.4697
94.67	170.4715
94.90	184.8765
94.90	184.8765
94.90	184.8765
94.90	184.8765
95.87	206.7484
95.87	206.7484
96.73	215.7074
97.43	155.5096
98.44	158.6831
98.44	158.6831
98.88	169.3980
99.55	167.6775
99.55	167.6775
99.86	181.2701
100.00	181.3160
100.10	181.3505
103.18	166.8315
103.76	172.8286
105.00	157.6362
105.31	180.1145
108.00	196.6050
109.28	148.0216

111.00	174.9987
111.00	174.9987
111.76	176.2059
112.95	172.6119
115.19	168.3018
116.30	164.6406
117.00	186.6728
117.00	186.6728
117.66	184.8846
121.11	178.9126
121.62	174.0558
121.78	189.1077
122.06	189.1913
122.32	192.2734
122.32	192.2734
122.32	192.2734
122.32	192.2734
123.07	188.4896
127.23	180.6274
129.76	162.0784
131.20	215.2198
133.02	173.0505
133.54	175.2229
135.34	158.3238
136.00	170.7459
136.25	181.0368
136.48	190.3055
140.51	155.3977
140.51	0.0000
142.18	177.4310
142.65	187.8708
143.76	185.0635
144.24	172.7743
144.24	172.7743
144.24	172.7743
144.24	172.7743
145.22	158.5081
145.44	159.5927
147.16	177.6345
152.43	152.7606
152.70	139.2100
153.22	146.6394
154.21	165.7116
154.21	165.7116
154.21	165.7116
154.21	165.7116
155.03	163.7949
156.02	183.9864
158.56	140.2991
159.00	0.0000
159.00	155.1572
160.31	178.6840
161.27	191.6110
162.32	169.6094
162.64	162.2559
163.35	156.0365
163.89	154.0197
165.85	169.3144
167.43	172.8550
171.28	158.6803
171.86	171.6699
172.10	171.7204
176.55	166.1863
176.60	166.1973
181.06	179.6796
184.41	166.6698
185.71	187.6543
186.00	187.7173
190.27	169.4574
192.34	151.7208
193.63	157.4492
197.04	174.6367
198.01	141.6328
198.60	162.7626
200.40	180.8414
201.83	168.9049
202.84	149.0693
205.31	132.1830

208.36	162.8394
208.81	164.5974
209.75	144.5896
209.75	144.5896
210.97	144.7786
215.65	138.7316
216.55	154.6685
218.09	152.6578
222.10	136.2610
223.80	118.2992
226.40	155.1112
227.00	131.2397
227.08	126.6850
227.20	126.7008
228.16	125.6814
228.18	125.6836
228.18	125.6836
231.56	0.0000
235.69	150.2295
236.00	152.0020
236.00	152.0020
238.63	259.7649
238.63	259.7649
238.63	259.7649
238.63	259.7649
239.00	259.8587
240.98	260.3600
241.98	165.0555
241.98	165.0555
241.98	165.0555
244.69	104.5184
245.39	106.3311
247.94	128.1420
248.90	108.4366
249.79	124.2825
252.40	115.8142
252.85	125.5189
252.85	125.5189
254.15	0.0000
256.20	124.1501
256.20	124.1501
260.50	121.1084
260.90	121.1523
262.80	121.3634
264.65	89.9176
268.24	111.1005
268.79	115.4309
269.46	111.2224
269.46	111.2224
269.46	111.2224
269.46	111.2224
271.23	127.1075
273.65	141.6937
276.40	112.9839
277.35	114.8730
277.60	124.7725
277.60	124.7725
278.00	131.9985
278.60	122.1854
279.20	119.5531
279.53	122.2850
280.46	134.9831
281.68	119.8108
283.67	106.4802
284.30	120.9856
285.00	115.6367
285.90	103.0690
286.10	106.7034
286.10	106.7034
287.40	116.7803
288.45	0.0000
290.67	111.8399
290.80	111.8511
291.72	103.2152
293.26	0.0000
293.70	106.3009
295.21	94.7705
295.21	94.7705

295.21	94.7705
295.96	65.6521
296.50	80.2764
297.23	80.3260
298.57	80.4147
299.80	80.4966
299.80	80.4966
300.09	81.9807
300.09	81.9807
300.09	81.9807
300.09	81.9807
300.12	81.9820
301.29	86.4575
302.84	99.7721
303.76	92.5066
303.91	92.5174
304.40	85.2087
304.40	85.2087
304.84	83.7702
306.84	87.4027
308.46	93.0446
311.98	92.3843
316.51	89.0112
318.01	90.9733
319.02	100.3354
319.41	96.6494
320.08	104.1387
323.87	135.2229
323.87	135.2229
323.87	135.2229
323.87	135.2229
325.23	133.4995
328.77	111.3991
333.44	91.6936
334.20	103.7796
334.20	103.7796
334.30	103.7864
338.28	97.1220
338.28	97.1220
338.28	97.1220
338.28	97.1220
338.32	97.1252
338.32	97.1252
338.32	97.1252
340.50	72.5391
340.57	72.5426
344.27	85.5163
345.85	92.5529
350.59	0.0000
351.07	92.3392
351.92	92.3969
351.92	92.3969
351.92	92.3969
355.39	0.0000
356.01	71.8448
364.48	72.0921
366.43	67.3788
367.43	80.9123
367.94	0.0000
369.80	64.6456
374.96	70.6898
383.85	88.6645
387.95	93.7983
388.63	85.0432
391.69	97.9538
391.69	97.9538
392.90	96.0725
398.62	91.5213
400.65	91.6448
401.10	84.7717
401.81	74.9505
402.60	76.9622
404.84	108.6975
410.95	89.2900
411.60	105.2091
413.65	84.4773
414.70	48.7323
415.30	68.6494

415.76	69.6646
417.63	0.0000
418.52	82.7492
423.70	69.0200
427.08	69.1674
427.89	66.1944
432.53	76.4465
433.93	71.4789
439.47	67.6839
439.56	67.6880
439.89	70.7338
443.98	72.9371
444.90	65.8837
445.03	65.8887
445.03	65.8887
445.03	65.8887
445.03	65.8887
453.90	73.3788
463.38	59.4461
468.07	65.7783
473.00	56.6919
475.06	74.3038
475.35	78.4446
476.78	79.5425
477.59	72.3456
477.96	68.2267
482.03	74.6038
484.57	60.1851
487.03	69.6223
490.36	0.0000
492.35	62.5369
497.08	68.9739
507.63	0.0000
510.53	0.0000
510.84	75.8216
511.00	75.8287
511.85	75.8639
511.85	75.8639
513.99	69.2015
513.99	69.2015
520.41	57.1641
520.65	58.2310
527.90	32.9489
528.96	0.0000
529.64	60.6408
529.87	0.0000
531.02	51.1025
537.32	60.8878
543.00	65.3561
546.56	0.0000
549.76	69.8877
552.65	58.1479
555.20	52.8326
563.23	55.2163
563.90	58.4841
568.70	57.5401
569.32	53.2154
569.50	53.2199
569.67	51.0520
573.80	57.6889
574.00	53.3410
574.64	52.2686
578.91	50.6339
579.30	0.0000
583.14	49.2091
585.48	42.0410
591.81	48.3224
592.07	53.8195
593.00	71.4270
595.88	40.7149
600.56	66.1743
602.52	0.0000
602.71	51.2286
602.71	51.2286
603.60	61.8550
604.41	70.7188
604.70	63.6557
609.31	54.2711

609.31	54.2711
609.31	54.2711
609.31	54.2711
610.33	54.2981
612.46	40.8205
614.37	49.7396
618.01	61.1700
621.84	46.7950
621.84	46.7950
631.29	50.3600
633.02	40.3209
633.10	40.3220
634.78	43.7167
635.90	52.7115
636.97	47.1270
645.85	46.8686
646.12	49.5792
656.30	46.7901
657.75	40.7791
657.90	0.0000
661.65	56.2829
661.65	56.2829
664.57	0.0000
666.33	50.0331
666.33	50.0331
675.00	51.1396
677.61	32.9133
685.20	43.1124
692.80	52.4578
695.00	50.6655
696.49	37.7934
696.49	37.7934
697.00	38.7239
697.49	44.2652
698.33	47.0480
698.50	47.9743
699.00	50.7528
702.63	53.6047
706.10	55.5352
706.58	0.0000
706.67	51.8451
709.31	38.9279
711.68	46.3892
713.82	56.6454
717.42	37.2012
720.50	43.4572
721.93	0.0000
722.20	54.3599
722.78	48.1600
722.78	48.1600
722.89	48.1613
722.95	48.1625
723.30	45.0623
724.18	40.4155
727.18	28.9490
733.00	45.2441
735.90	37.4883
739.58	31.9132
742.81	37.5947
744.21	52.6627
747.13	32.9535
751.79	60.3719
752.31	52.8363
753.82	31.1542
755.35	38.7308
756.15	43.4687
756.87	44.4262
763.93	37.9170
765.79	52.1748
766.42	52.1869
766.84	49.3492
776.49	43.8224
778.00	40.9886
778.57	38.1377
778.89	36.2354
783.80	45.8590
785.46	44.9323
792.07	46.0066

795.84	25.9170
796.30	33.6021
798.80	68.2300
801.93	48.1067
805.60	43.3570
810.29	48.2605
810.76	44.4075
815.85	31.9196
817.79	44.5266
818.51	44.5389
819.60	40.6824
826.30	56.3220
828.27	0.0000
831.60	62.2719
831.96	62.2797
834.83	45.7860
836.80	0.0000
846.75	40.1171
848.13	41.1171
856.28	0.0000
856.80	47.1398
860.37	38.3506
867.32	44.3628
867.82	43.3845
871.10	34.5514
873.19	29.6375
874.81	43.4930
875.33	0.0000
876.40	46.4848
879.36	28.7125
880.27	27.7313
880.51	27.7341
881.50	32.6979
883.24	45.6069
884.67	45.6305
889.25	33.7817
896.60	33.8688
898.02	41.8595
899.00	59.8198
903.28	29.9546
911.07	38.3792
911.07	38.3792
911.07	38.3792
919.63	36.1494
920.93	34.1561
925.00	33.1982
925.24	33.2006
926.50	33.2151
935.52	31.2982
937.48	46.4728
944.10	31.3890
946.00	45.5933
949.00	30.4263
962.29	50.9351
964.01	54.3620
966.15	56.0997
968.20	47.9730
969.11	47.9868
969.11	47.9868
969.11	47.9868
977.42	21.9381
980.50	27.6704
983.50	41.0332
989.30	30.8328
996.32	38.1129
1001.03	28.8859
1001.68	29.9240
1004.76	30.9866
1021.30	0.0000
1024.50	0.0000
1034.80	25.0254
1036.00	33.3797
1037.82	33.3984
1038.57	26.0986
1038.76	0.0000
1045.16	38.3568
1046.59	22.6749
1048.07	26.1755

1050.47	38.4194
1050.47	38.4194
1062.04	39.9575
1063.62	32.6136
1076.63	36.9670
1077.35	34.8627
1078.86	43.3343
1085.78	32.8331
1099.22	34.0281
1112.02	38.1208
1112.84	37.3687
1115.52	49.8636
1120.29	41.0155
1120.29	41.0155
1120.29	41.0155
1120.29	41.0155
1120.51	41.0193
1121.28	49.9479
1124.00	0.0000
1129.67	46.1347
1131.51	0.0000
1147.95	0.0000
1167.94	49.8970
1173.22	33.6762
1175.09	52.1719
1177.93	62.0042
1189.05	33.8260
1204.90	49.3176
1205.75	0.0000
1213.00	40.6404
1221.42	44.9546
1230.97	50.5912
1235.34	38.6777
1236.41	0.0000
1238.25	47.9248
1246.25	35.0977
1260.41	0.0000
1271.85	26.0369
1274.45	30.7079
1274.54	31.6384
1291.56	30.8448
1298.22	0.0000
1312.09	30.0690
1325.50	22.6289
1325.50	22.6289
1332.49	17.9466
1333.61	21.7310
1360.21	21.8760
1362.66	0.0000
1365.15	21.9032
1368.21	18.1078
1368.53	0.0000
1376.25	29.6024
1384.27	22.0070
1394.10	23.0186
1395.20	23.0254
1407.95	19.2472
1434.06	14.5258
1436.60	17.4412
1457.56	0.0000
1460.81	8.3531
1489.15	11.7715
1509.49	9.8551
1596.49	13.0624
1620.62	10.1005
1678.03	0.0000
1691.02	4.1006
1691.02	4.1006
1706.46	0.0000
1750.46	0.0000
1764.49	10.7030
1764.49	10.7030
1764.49	10.7030
1764.49	10.7030
1770.23	25.0020
1771.40	9.3779
1791.20	0.0000
1808.65	9.4468

1836.01

11.6078

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202005183

Total Uranium Activity	1.1554E+00	ug/g
Total Uranium Counting Unc.	4.9064E+00	ug/g
Total Uranium Tpu	2.5033E-06	ug/g
Total Uranium Mda	4.3124E+00	ug/g

```

*****
*
*               GEL Laboratories LLC
*               2040 SAVAGE ROAD
*               CHARLESTON , SC 29417
*               GROSS GAMMA REPORT
*
*****
*
*  BATCH ID      : 937069                SAMPLE ID   : G1202005183
*  ANALYST       : MXR1                  DETECTOR    : GAM04
*  SAMPLE DATE   : 21-DEC-2009 12:00:00.00  COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 7-JAN-2010 13:06:00.81  SAMPLE ALQT  : 110.300 GRAM
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 6.989E+00
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.133E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 2.169E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 1.037E+00

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VAX/VMS Nuclide Identification Report Generated 7-JAN-2010 11:59:40.95

```
*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202005184.CNF;1
Sample date        : 31-DEC-2009 00:00:00 Acquisition date : 7-JAN-2010 10:59:16.
Sample ID          : G1202005184      Sample quantity   : 1.55440E+02 GRAM
Detector name      : GAM01            Detector geometry: CAN
Elapsed live time  : 0 01:00:00.00    Elapsed real time: 0 01:00:01.16  0.0%
Energy tolerance   : 1.50000 keV      Analyst Initials  : MXR1
Abundance limit    : 75.00000          Sensitivity       : 5.00000
Batch ID           : 937069            Detector SN#       :
Matrix Spike ID    :                   LCS ID            : 1032-A
*****
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.47*	2297	838	1.20	119.71	113	13	6.38E-01	3.3	
2	0	87.90	1327	574	1.16	176.57	170	14	3.69E-01	4.7	
3	0	92.83*	49	294	1.44	186.43	183	8	1.35E-02	66.0	
4	0	122.06	253	298	1.07	244.87	239	10	7.04E-02	14.2	
5	5	238.85*	390	205	1.28	478.44	472	16	1.08E-01	8.2	6.42E-01
6	5	241.77	96	178	1.31	484.27	472	16	2.66E-02	28.5	
7	0	295.26*	126	240	1.08	591.23	585	12	3.50E-02	26.3	
8	0	338.63*	120	186	1.25	677.95	673	12	3.33E-02	24.7	
9	0	352.26*	162	198	1.35	705.21	699	11	4.50E-02	18.8	
10	0	582.85*	78	187	1.50	1166.28	1161	16	2.18E-02	41.0	
11	0	609.41*	125	117	1.29	1219.39	1215	11	3.46E-02	19.3	
12	0	661.48	1873	116	1.58	1323.49	1316	15	5.20E-01	2.6	
13	0	910.95*	83	100	1.69	1822.25	1817	11	2.32E-02	26.1	
14	0	968.79	34	77	0.74	1937.88	1933	9	9.31E-03	50.6	
15	0	1172.70	1506	85	1.68	2345.51	2337	18	4.18E-01	3.0	
16	0	1331.89	1401	4	1.85	2663.70	2655	17	3.89E-01	2.7	
17	0	1729.50	7	8	1.35	3458.38	3451	11	1.85E-03	92.1	
18	0	1763.85*	25	3	1.68	3527.03	3521	11	6.89E-03	25.9	

Flag: "*" = Peak area was modified by background subtraction

```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202005184.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 31-DEC-2009 00:00:00 Acquisition date : 7-JAN-2010 10:59:16
Sample ID         : G1202005184 Sample quantity : 155.44 GRAM
Sample type       : SOLID Sample geometry :
Detector name     : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.16 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

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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	*	2.393E-01	6.954E-02	7.079E-02	4.347E-03	3.380
		136.48		3.486E-01	3.402E-01	5.992E-01	4.024E-02	0.582
CO-60	+	1173.22		6.240E+00	5.039E-01	1.253E-01	6.899E-03	49.795
	+	1332.49	*	6.504E+00	5.705E-01	6.989E-02	4.843E-03	93.058
CD-109	+	88.03	*	3.361E+01	4.434E+00	2.004E+00	1.844E-01	16.773
SN-126		64.28		-7.190E-01	9.521E-01	1.325E+00	1.992E-01	-0.543
	+	86.94		1.389E+01	5.911E+00	8.391E-01	3.480E-01	16.555
	+	87.57	*	3.342E+00	4.408E-01	2.003E-01	1.838E-02	16.682
BA-137M	+	661.65	*	5.134E+00	3.743E-01	1.199E-01	6.054E-03	42.825
CS-137	+	661.65	*	5.427E+00	3.967E-01	1.267E-01	6.435E-03	42.825
BI-211		72.87		3.728E+00	5.571E+00	9.203E+00	7.708E-01	0.405
	+	351.07	*	1.834E+00	6.976E-01	6.183E-01	3.915E-02	2.967
BI-214	+	609.31	*	6.182E-01	2.429E-01	2.430E-01	1.802E-02	2.544
	+	1120.29		1.124E+00	6.632E-01	1.203E+00	1.070E-01	0.935
	+	1764.49		9.065E-01	4.728E-01	4.522E-01	2.691E-02	2.004
PB-214		74.81		-1.732E-01	1.207E+00	1.937E+00	2.174E-01	-0.089
		77.11		6.838E-01	6.750E-01	1.118E+00	1.278E-01	0.612
	+	87.30		2.648E+01	4.045E+00	1.592E+00	1.905E-01	16.628
	+	241.98		1.402E+00	8.080E-01	8.701E-01	6.992E-02	1.611
	+	295.21		8.372E-01	4.455E-01	3.906E-01	3.344E-02	2.143
	+	351.92	*	6.380E-01	2.449E-01	2.155E-01	1.768E-02	2.960
PO-214		74.81		-1.732E-01	1.207E+00	1.937E+00	2.174E-01	-0.089
		77.11		6.838E-01	6.750E-01	1.118E+00	1.278E-01	0.612
	+	87.30		2.648E+01	4.045E+00	1.592E+00	1.905E-01	16.628
	+	241.98		1.402E+00	8.080E-01	8.701E-01	6.992E-02	1.611
	+	295.21		8.372E-01	4.455E-01	3.906E-01	3.344E-02	2.143
	+	351.92	*	6.380E-01	2.449E-01	2.155E-01	1.768E-02	2.960
PO-218		74.81		-1.732E-01	1.207E+00	1.937E+00	2.174E-01	-0.089
		77.11		6.838E-01	6.750E-01	1.118E+00	1.278E-01	0.612
	+	87.30		2.648E+01	4.045E+00	1.592E+00	1.905E-01	16.628
	+	241.98		1.402E+00	8.080E-01	8.701E-01	6.992E-02	1.611
	+	295.21		8.372E-01	4.455E-01	3.906E-01	3.344E-02	2.143
	+	351.92	*	6.380E-01	2.449E-01	2.155E-01	1.768E-02	2.960
RA-224	+	240.98	*	2.658E+00	1.525E+00	1.821E+00	1.047E-01	1.460

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	+	609.31	*	6.182E-01	2.429E-01	2.430E-01	1.802E-02	2.544
		1120.29		1.124E+00	6.632E-01	1.203E+00	1.070E-01	0.935
	+	1764.49		9.065E-01	4.728E-01	4.522E-01	2.691E-02	2.004
AC-228	+	338.32		1.494E+00	9.568E-01	7.160E-01	2.918E-01	2.086
	+	911.07	*	9.872E-01	5.253E-01	6.171E-01	6.235E-02	1.600
	+	969.11		7.006E-01	7.272E-01	1.014E+00	2.307E-01	0.691
RA-228	+	338.32		1.494E+00	9.568E-01	7.160E-01	2.918E-01	2.086
	+	911.07	*	9.872E-01	5.253E-01	6.171E-01	6.235E-02	1.600
	+	969.11		7.006E-01	7.272E-01	1.014E+00	2.307E-01	0.691
TH-230	+	609.31	*	6.182E-01	2.429E-01	2.430E-01	1.802E-02	2.544
		1120.29		1.124E+00	6.632E-01	1.203E+00	1.070E-01	0.935
	+	1764.49		9.065E-01	4.728E-01	4.522E-01	2.691E-02	2.004
TH-232	+	338.32		1.494E+00	7.431E-01	7.160E-01	4.117E-02	2.086
	+	911.07	*	9.872E-01	5.253E-01	6.171E-01	6.235E-02	1.600
	+	969.11		7.006E-01	7.272E-01	1.014E+00	2.307E-01	0.691
U-234	+	609.31	*	6.182E-01	2.429E-01	2.430E-01	1.802E-02	2.544
		1120.29		1.124E+00	6.632E-01	1.203E+00	1.070E-01	0.935
	+	1764.49		9.065E-01	4.728E-01	4.522E-01	2.691E-02	2.004
NP-237	+	86.50	*	9.813E+00	2.403E+00	5.960E-01	1.344E-01	16.464
		95.87		-6.308E-01	1.706E+00	2.358E+00	5.767E-01	-0.267
AM-241	+	59.54	*	1.393E+01	1.578E+00	5.900E-01	5.392E-02	23.606

---- 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	*	2.666E-01	6.635E-01	1.091E+00	7.133E-02	0.244
NA-22		1274.54	*	3.827E-02	6.139E-02	1.108E-01	7.103E-03	0.345
NA-24		1368.53	*	-3.889E-05	6.139E-02	Half-Life too short		
AL-26		1129.67		-7.230E-01	3.166E+00	4.960E+00	2.909E-01	-0.146
		1808.65	*	8.570E-04	4.658E-02	7.731E-02	4.458E-03	0.011
K-40		1460.81	*	8.267E-01	5.527E-01	1.155E+00	8.207E-02	0.716
TI-44		67.85		3.353E-02	7.685E-02	1.266E-01	1.053E-02	0.265
		78.38	*	5.784E-02	6.680E-02	1.107E-01	9.495E-03	0.523
SC-46		889.25	*	-1.056E-01	9.607E-02	1.434E-01	1.008E-02	-0.736
		1120.51		1.820E-01	1.060E-01	1.936E-01	1.149E-02	0.940
V-48		944.10		-2.890E-01	1.703E+00	2.738E+00	1.903E-01	-0.106
		983.50	*	-2.356E-02	1.276E-01	2.041E-01	1.384E-02	-0.115
		1312.09		-1.187E-02	6.356E-02	1.020E-01	6.874E-03	-0.116
CR-51		320.08	*	3.361E-01	5.858E-01	9.903E-01	6.410E-02	0.339
MN-52		744.21		7.235E-03	1.928E-01	3.196E-01	1.834E-02	0.023
		848.13		-2.201E-01	6.134E+00	1.003E+01	6.671E-01	-0.022
		935.52		1.093E-01	2.675E-01	4.478E-01	3.127E-02	0.244
		1246.25		-1.927E+00	3.226E+00	4.875E+00	2.995E-01	-0.395
		1333.61		2.939E+02	2.636E+01	3.854E+01	2.671E+00	7.626
		1434.06	*	9.488E-02	1.145E-01	2.201E-01	1.506E-02	0.431
MN-54		834.83	*	6.298E-02	8.186E-02	1.418E-01	9.263E-03	0.444
CO-56		846.75	*	1.166E-02	8.605E-02	1.426E-01	9.465E-03	0.082
		977.42		-4.680E+00	7.150E+00	1.100E+01	7.488E-01	-0.426

---- Non-Identified Nuclides ----

	Line Energy Nuclide Ided (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	1037.82	6.401E-01	7.262E-01	1.255E+00	8.900E-02	0.510
	1175.09	2.041E+02	1.732E+01	2.978E+01	1.644E+00	6.854
	1238.25	4.253E-02	1.042E-01	1.827E-01	1.173E-02	0.233
	1360.21	-3.498E-01	1.133E+00	1.763E+00	1.219E-01	-0.198
	1771.40	1.306E-01	2.727E-01	5.046E-01	2.989E-02	0.259
CO-58	810.76 *	-6.530E-02	8.566E-02	1.324E-01	8.404E-03	-0.493
FE-59	142.65	-1.804E-01	3.774E+00	6.374E+00	3.624E-01	-0.028
	192.34	-2.480E-01	1.422E+00	2.364E+00	2.757E-01	-0.105
	1099.22 *	-9.164E-02	1.916E-01	2.952E-01	2.081E-02	-0.310
	1291.56	4.225E-02	1.383E-01	2.415E-01	1.938E-02	0.175
ZN-65	1115.52 *	-2.747E-01	2.171E-01	3.111E-01	1.863E-02	-0.883
GE-68	1077.35 *	-6.107E-01	2.977E+00	4.717E+00	2.946E-01	-0.129
AS-73	53.44 *	-3.309E-02	2.399E+00	3.486E+00	2.967E-01	-0.009
AS-74	595.88 *	4.269E-02	1.304E-01	2.235E-01	1.196E-02	0.191
	634.78	-2.598E-01	4.751E-01	7.561E-01	3.923E-02	-0.344
SE-75	66.05	-3.173E+00	7.687E+00	1.220E+01	1.244E+00	-0.260
	96.73	6.391E-01	1.281E+00	1.880E+00	2.490E-01	0.340
+	121.11	1.255E+00	3.757E-01	4.895E-01	4.638E-02	2.564
	136.00	9.433E-02	6.181E-02	1.108E-01	6.525E-03	0.852
	198.60	1.507E-01	2.958E+00	4.945E+00	3.416E-01	0.030
	264.65 *	4.067E-02	7.570E-02	1.286E-01	7.566E-03	0.316
	279.53	-8.259E-02	1.905E-01	3.068E-01	1.937E-02	-0.269
	303.91	-3.832E+00	3.832E+00	5.912E+00	5.656E-01	-0.648
	400.65	-2.556E-01	5.049E-01	7.905E-01	7.014E-02	-0.323
BR-77	87.88	7.821E+02	1.032E+02	1.079E+02	9.930E+00	7.246
	200.40	2.547E+01	3.007E+01	5.208E+01	2.887E+00	0.489
+	239.00	1.623E+01	2.832E+00	4.762E+00	2.736E-01	3.408
	249.79	5.223E-01	1.269E+01	2.108E+01	1.219E+00	0.025
	281.68	-1.598E+01	1.759E+01	2.750E+01	1.608E+00	-0.581
	297.23	1.146E+01	1.310E+01	1.994E+01	1.167E+00	0.574
	303.76	-3.854E+01	3.654E+01	5.639E+01	3.295E+00	-0.683
	439.47	2.470E+01	3.485E+01	5.851E+01	3.227E+00	0.422
	484.57	-1.127E+01	5.596E+01	8.845E+01	4.908E+00	-0.127
	520.65 *	-1.110E+00	2.387E+00	3.671E+00	2.030E-01	-0.302
	574.64	-2.983E+00	3.937E+01	6.569E+01	3.560E+00	-0.045
	578.91	-1.679E-01	1.942E+01	2.833E+01	1.532E+00	-0.006
	585.48	7.364E+01	3.815E+01	7.073E+01	3.810E+00	1.041
	755.35	7.952E+00	3.729E+01	6.258E+01	3.651E+00	0.127
	817.79	1.142E+01	3.218E+01	5.433E+01	3.466E+00	0.210
SR-82	698.33	-1.164E+01	5.441E+01	8.883E+01	4.753E+00	-0.131
	776.49 *	-4.007E-01	6.499E-01	1.017E+00	6.121E-02	-0.394
	1395.20	-6.322E+00	1.069E+01	1.536E+01	1.057E+00	-0.412
RB-83	520.41 *	-7.813E-02	1.384E-01	2.111E-01	1.167E-02	-0.370
	529.64	-2.854E-02	2.052E-01	3.428E-01	1.891E-02	-0.083
	552.65	-7.657E-02	3.594E-01	5.954E-01	3.259E-02	-0.129
RB-84	881.50 *	-1.035E-01	1.501E-01	2.321E-01	1.615E-02	-0.446
KR-85	513.99 *	-2.472E+01	1.713E+01	2.477E+01	1.371E+00	-0.998
SR-85	513.99 *	-1.169E-01	8.103E-02	1.172E-01	6.485E-03	-0.998
RB-86	1076.63 *	-1.941E-02	1.405E+00	2.265E+00	1.415E-01	-0.009

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-88	898.02			-6.960E-02	1.044E-01	1.620E-01	1.160E-02	-0.430
	1836.01		*	-1.638E-03	4.435E-02	7.130E-02	4.035E-03	-0.023
ZR-88	392.90		*	5.725E-04	6.087E-02	9.872E-02	5.338E-03	0.006
Y-91	1204.90		*	-5.962E+00	2.360E+01	3.831E+01	2.214E+00	-0.156
NB-94	702.63		*	3.726E-03	6.468E-02	1.078E-01	5.806E-03	0.035
	871.10			2.486E-02	7.757E-02	1.302E-01	8.936E-03	0.191
NB-95	765.79		*	1.407E-02	8.188E-02	1.368E-01	8.104E-03	0.103
NB-95M	235.69		*	-1.667E-01	2.269E-01	3.153E-01	2.357E-02	-0.529
ZR-95	724.18			-7.289E-02	1.799E-01	2.890E-01	1.926E-02	-0.252
	756.15		*	7.238E-02	1.348E-01	2.317E-01	1.638E-02	0.312
NB-97	657.90		*	3.100E-04	1.348E-01	Half-Life	too short	
	1024.50			2.028E-03	1.348E-01	Half-Life	too short	
ZR-97	254.15			6.914E-04	1.348E-01	Half-Life	too short	
	355.39			-1.521E-03	1.348E-01	Half-Life	too short	
	507.63		*	-3.176E-03	1.348E-01	Half-Life	too short	
	602.52			-2.930E-03	1.348E-01	Half-Life	too short	
	1021.30			-1.668E-03	1.348E-01	Half-Life	too short	
	1147.95			-3.148E-03	1.348E-01	Half-Life	too short	
	1362.66			2.061E-03	1.348E-01	Half-Life	too short	
	1750.46			-2.196E-03	1.348E-01	Half-Life	too short	
MO-99	140.51			-4.810E+00	6.003E+00	9.591E+00	2.583E+00	-0.502
	181.06			-2.506E+00	4.173E+00	6.794E+00	1.156E+00	-0.369
	366.43			-5.312E+00	2.396E+01	3.843E+01	2.151E+00	-0.138
	739.58		*	-2.223E+00	3.462E+00	5.403E+00	7.422E-01	-0.411
	778.00			-3.703E+00	1.041E+01	1.666E+01	1.005E+00	-0.222
TC-99M	140.51		*	-2.943E+01	1.041E+01	Half-Life	too short	
RH-101	127.23			-1.843E-02	5.475E-02	8.521E-02	5.104E-03	-0.216
	198.01		*	-8.697E-03	5.673E-02	9.398E-02	5.196E-03	-0.093
	325.23			-4.558E-01	4.120E-01	6.283E-01	3.643E-02	-0.725
RH-102	418.52			7.182E-01	6.468E-01	1.110E+00	6.078E-02	0.647
	475.06		*	-6.328E-03	6.731E-02	1.073E-01	5.952E-03	-0.059
	631.29			-3.083E-02	1.040E-01	1.695E-01	8.824E-03	-0.182
	697.49			-3.916E-02	1.499E-01	2.438E-01	1.303E-02	-0.161
	766.84			1.278E-01	2.202E-01	3.784E-01	2.245E-02	0.338
	1046.59			-3.334E-03	2.721E-01	4.404E-01	2.836E-02	-0.008
	1112.84			2.744E-01	5.170E-01	8.696E-01	5.212E-02	0.316
RU-103	497.08		*	-1.293E-02	7.756E-02	1.226E-01	1.536E-02	-0.106
	610.33			5.831E+00	2.419E+00	3.291E+00	5.014E-01	1.772
RH-106	511.85			2.579E-01	3.697E-01	6.602E-01	3.655E-02	0.391
	621.84		*	-1.816E-01	6.350E-01	1.038E+00	1.192E-01	-0.175
	1050.47			-2.180E+00	5.666E+00	8.858E+00	5.684E-01	-0.246
RU-106	511.85			2.579E-01	3.697E-01	6.602E-01	3.655E-02	0.391
	621.84		*	-1.816E-01	6.348E-01	1.038E+00	5.450E-02	-0.175
	1050.47			-2.180E+00	5.666E+00	8.858E+00	5.684E-01	-0.246
AG-108M	433.93		*	-8.398E-02	7.934E-02	1.195E-01	7.205E-03	-0.703
	614.37			4.199E-02	8.851E-02	1.346E-01	7.827E-03	0.312
	722.95			-5.807E-02	8.702E-02	1.368E-01	8.304E-03	-0.424
AG-110M	657.75		*	1.427E-01	8.760E-02	1.447E-01	7.955E-03	0.986
	677.61			-5.234E-01	5.835E-01	8.974E-01	5.002E-02	-0.583

Sample ID : G1202005184

Acquisition date : 7-JAN-2010 10:59:16

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		706.67		-4.064E-02	4.005E-01	6.590E-01	3.816E-02	-0.062
		763.93		2.723E-01	3.383E-01	5.903E-01	3.694E-02	0.461
		884.67		6.330E-02	1.176E-01	2.000E-01	1.465E-02	0.316
		937.48		-2.895E-01	3.036E-01	4.596E-01	3.382E-02	-0.630
		1384.27		2.645E-02	2.194E-01	3.718E-01	2.676E-02	0.071
IN-111		171.28		-1.128E-01	2.422E-01	3.989E-01	2.140E-02	-0.283
		245.39	*	-5.427E-02	3.131E-01	4.507E-01	2.600E-02	-0.120
IN-113M		391.69	*	-8.234E-03	8.829E-02	1.423E-01	8.279E-03	-0.058
SN-113		391.69	*	-8.234E-03	8.829E-02	1.423E-01	8.279E-03	-0.058
IN-114M		190.27	*	1.318E-01	2.752E-01	4.708E-01	2.580E-02	0.280
CD-115		260.90		-1.020E+01	2.233E+01	3.606E+01	2.097E+00	-0.283
		492.35		5.269E-01	7.538E+00	1.212E+01	6.726E-01	0.043
		527.90	*	-1.336E-01	2.005E+00	3.365E+00	1.857E-01	-0.040
SN-117M		156.02		-3.398E-01	2.307E+00	3.871E+00	2.121E-01	-0.088
		158.56	*	1.087E-02	5.696E-02	9.698E-02	5.277E-03	0.112
SB-122		563.90	*	-1.059E-01	5.255E-01	8.697E-01	4.738E-02	-0.122
		692.80		-2.253E+00	1.136E+01	1.856E+01	9.847E-01	-0.121
I-123		159.00	*	-1.495E-04	1.136E+01	Half-Life too short		
		528.96		-3.034E-02	1.136E+01	Half-Life too short		
TE-123M		159.00	*	-1.188E-02	4.224E-02	7.040E-02	3.885E-03	-0.169
I-124		602.71	*	-1.418E-01	3.916E-01	6.010E-01	3.201E-02	-0.236
		722.78		-1.621E+00	2.536E+00	3.996E+00	2.220E-01	-0.406
		1325.50		-5.360E-01	1.042E+01	1.467E+01	1.007E+00	-0.037
		1376.25		5.295E+00	1.241E+01	2.201E+01	1.519E+00	0.241
		1509.49		3.710E+00	6.197E+00	1.134E+01	7.619E-01	0.327
		1691.02		-1.382E+00	1.408E+00	1.545E+00	9.618E-02	-0.894
SB-124		602.71		-2.695E-02	7.444E-02	1.143E-01	6.088E-03	-0.236
		645.85		5.761E-01	9.211E-01	1.604E+00	9.565E-02	0.359
		709.31		-1.045E+00	4.938E+00	8.049E+00	4.381E-01	-0.130
		713.82		4.014E-03	2.866E+00	4.750E+00	4.766E-01	0.001
		722.78		-4.468E-01	6.988E-01	1.101E+00	6.433E-02	-0.406
	+	968.20		6.602E+00	6.702E+00	1.018E+01	6.976E-01	0.648
		1045.16		-2.356E+00	5.589E+00	8.728E+00	5.629E-01	-0.270
		1325.50		-1.578E-01	3.067E+00	4.317E+00	2.963E-01	-0.037
		1368.21		-1.491E-03	2.111E+00	3.506E+00	4.365E-01	0.000
		1436.60		-6.626E+00	5.203E+00	6.344E+00	4.337E-01	-1.045
		1691.02	*	-8.985E-02	9.155E-02	1.005E-01	6.718E-03	-0.894
SB-125		427.89	*	9.320E-02	2.019E-01	3.350E-01	1.927E-02	0.278
		463.38		2.775E-01	6.454E-01	1.063E+00	6.953E-02	0.261
		600.56		1.047E-01	3.492E-01	5.963E-01	3.762E-02	0.176
		635.90		-2.327E-01	4.755E-01	7.597E-01	4.766E-02	-0.306
TE-125M		109.28	*	-4.247E+00	1.349E+01	2.111E+01	1.882E+00	-0.201
I-126		388.63		-9.189E-02	2.782E-01	4.419E-01	2.399E-02	-0.208
		666.33	*	-6.654E-02	2.621E-01	3.679E-01	1.872E-02	-0.181
		753.82		1.436E-01	2.105E+00	3.494E+00	2.034E-01	0.041
SB-126		223.80		-8.052E-01	4.747E+00	7.844E+00	4.451E-01	-0.103
		278.60		1.948E+00	2.872E+00	4.900E+00	2.864E-01	0.398
	+	296.50		5.426E+00	2.867E+00	3.373E+00	1.973E-01	1.608
		414.70		-5.548E-02	1.068E-01	1.670E-01	9.131E-03	-0.332

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127		415.30		-4.266E+00	8.964E+00	1.406E+01	7.686E-01	-0.303
		555.20		-1.903E+00	4.871E+00	7.956E+00	4.351E-01	-0.239
		573.80		-1.412E-01	1.186E+00	1.973E+00	1.069E-01	-0.072
		593.00		-6.597E-01	1.165E+00	1.869E+00	1.002E-01	-0.353
		656.30		1.516E+00	5.280E+00	7.860E+00	3.993E-01	0.193
		666.33		-2.732E-02	1.076E-01	1.511E-01	7.685E-03	-0.181
		675.00		-8.894E-01	2.525E+00	4.080E+00	2.105E-01	-0.218
		695.00		4.645E-02	9.545E-02	1.644E-01	8.750E-03	0.283
		697.00		8.978E-02	3.375E-01	5.715E-01	3.052E-02	0.157
		720.50	*	4.280E-02	1.832E-01	3.090E-01	1.711E-02	0.139
		856.80		3.278E-03	6.886E-01	1.129E+00	7.597E-02	0.003
		989.30		-3.700E-01	2.062E+00	3.297E+00	2.227E-01	-0.112
		1034.80		-6.286E+00	1.428E+01	2.223E+01	1.447E+00	-0.283
		1213.00		-3.357E+00	4.530E+00	6.927E+00	4.052E-01	-0.485
		61.10		6.279E+02	7.389E+01	9.492E+01	8.674E+00	6.615
		252.40		1.225E+00	2.051E+00	3.395E+00	1.395E+00	0.361
		290.80		9.999E-01	1.049E+01	1.526E+01	1.040E+00	0.066
		411.60		-6.765E-01	6.482E+00	1.041E+01	1.337E+00	-0.065
		444.90		2.056E+00	5.385E+00	8.877E+00	7.700E-01	0.232
		473.00		2.130E-01	9.958E-01	1.619E+00	1.483E-01	0.132
		543.00		-2.136E+00	8.823E+00	1.462E+01	1.635E+00	-0.146
		603.60		-3.574E+00	6.304E+00	9.107E+00	7.752E-01	-0.392
		685.20	*	2.168E-01	6.901E-01	1.167E+00	7.806E-02	0.186
		698.50		3.254E-01	7.370E+00	1.227E+01	1.583E+00	0.027
		722.20		-5.214E+00	1.504E+01	2.423E+01	1.590E+00	-0.215
XE-127		783.80		-2.109E-01	1.957E+00	3.197E+00	2.839E-01	-0.066
		57.60		1.470E+02	2.127E+01	3.357E+01	2.864E+00	4.378
		145.22		1.858E-01	9.877E-01	1.683E+00	9.495E-02	0.110
		172.10		-1.003E-01	1.594E-01	2.601E-01	1.397E-02	-0.386
I-131		202.84	*	-3.114E-02	7.007E-02	1.148E-01	6.383E-03	-0.271
		374.96		1.981E-01	3.737E-01	6.252E-01	3.462E-02	0.317
		80.18		-9.572E+00	4.379E+00	6.295E+00	5.466E-01	-1.521
		284.30		8.450E-01	1.405E+00	2.389E+00	1.538E-01	0.354
TE-132		364.48	*	-6.591E-03	1.185E-01	1.921E-01	1.201E-02	-0.034
		636.97		-6.349E-01	1.463E+00	2.352E+00	1.384E-01	-0.270
		722.89		-4.818E+00	7.535E+00	1.187E+01	6.624E-01	-0.406
		49.72		-1.175E-01	1.013E+01	1.651E+01	1.445E+00	-0.007
BA-133		111.76		-3.560E+00	9.224E+00	1.432E+01	1.069E+00	-0.249
		116.30		4.257E+00	1.043E+01	1.511E+01	1.090E+00	0.282
		228.16	*	-1.288E-01	2.421E-01	3.919E-01	5.142E-02	-0.329
		53.15		-7.998E+00	1.056E+01	1.586E+01	1.348E+00	-0.504
I-133		79.62		-7.249E+00	2.674E+00	3.459E+00	5.271E-01	-2.095
		81.00		-2.223E-01	1.709E-01	2.539E-01	4.045E-02	-0.875
		276.40		2.998E-01	6.705E-01	1.130E+00	1.467E-01	0.265
		302.84		6.805E-03	2.671E-01	4.393E-01	5.131E-02	0.015
I-133		356.01	*	-2.850E-02	1.012E-01	1.410E-01	1.620E-02	-0.202
		383.85		6.345E-01	6.146E-01	1.054E+00	1.127E-01	0.602
		510.53		1.879E-03	6.146E-01	Half-Life too short		
		529.87	*	9.844E-07	6.146E-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		706.58		-1.514E-04	6.146E-01	Half-Life	too short	
		856.28		-9.640E-04	6.146E-01	Half-Life	too short	
		875.33		1.218E-04	6.146E-01	Half-Life	too short	
		1236.41		1.839E-03	6.146E-01	Half-Life	too short	
		1298.22		-7.902E-04	6.146E-01	Half-Life	too short	
		475.35		-2.470E+00	4.515E+00	6.986E+00	3.875E-01	-0.354
		563.23		4.036E-02	6.627E-01	1.118E+00	6.238E-02	0.036
		569.32		1.569E-01	3.259E-01	5.677E-01	3.189E-02	0.276
		604.70		-2.653E-02	7.504E-02	1.054E-01	5.642E-03	-0.252
		795.84	*	1.582E-02	9.881E-02	1.646E-01	1.033E-02	0.096
		801.93		-6.232E-01	9.020E-01	1.402E+00	8.842E-02	-0.445
		1038.57		8.147E+00	9.520E+00	1.644E+01	1.067E+00	0.496
		1167.94		5.912E+00	5.748E+00	9.337E+00	5.183E-01	0.633
		1365.15		-3.686E-01	1.533E+00	2.424E+00	1.792E-01	-0.152
CS-135		268.24	*	6.299E-03	2.886E-01	4.774E-01	3.667E-02	0.013
I-135		288.45		-4.618E+01	2.886E-01	Half-Life	too short	
		417.63		2.352E+02	2.886E-01	Half-Life	too short	
		546.56		-2.791E+00	2.886E-01	Half-Life	too short	
		836.80		5.552E+01	2.886E-01	Half-Life	too short	
		1038.76		1.423E+02	2.886E-01	Half-Life	too short	
		1124.00		-6.181E+02	2.886E-01	Half-Life	too short	
		1131.51		-1.409E+01	2.886E-01	Half-Life	too short	
		1260.41	*	-4.011E+00	2.886E-01	Half-Life	too short	
		1457.56		-1.812E+01	2.886E-01	Half-Life	too short	
		1678.03		3.442E+01	2.886E-01	Half-Life	too short	
		1706.46		-9.617E+01	2.886E-01	Half-Life	too short	
CS-136		1791.20		3.640E+01	2.886E-01	Half-Life	too short	
		66.91		-1.270E-01	8.489E-01	1.364E+00	2.082E-01	-0.093
		86.29		1.429E+01	2.520E+00	3.172E+00	4.173E-01	4.506
		153.22		-2.218E-01	6.667E-01	1.110E+00	7.762E-02	-0.200
		163.89		-1.311E-01	1.127E+00	1.891E+00	1.305E-01	-0.069
		176.55		-4.204E-03	3.923E-01	6.593E-01	4.056E-02	-0.006
		273.65		-9.935E-01	5.745E-01	8.586E-01	5.703E-02	-1.157
		340.57		1.774E-01	1.843E-01	2.823E-01	1.722E-02	0.629
		818.51		-1.693E-02	1.136E-01	1.845E-01	1.179E-02	-0.092
		1048.07	*	8.546E-02	1.761E-01	2.959E-01	2.044E-02	0.289
		1235.34		5.517E-01	4.934E-01	9.274E-01	9.392E-02	0.595
CE-139		165.85	*	1.830E-02	4.612E-02	7.905E-02	4.222E-03	0.232
BA-140		162.64		-3.336E-01	7.962E-01	1.318E+00	8.113E-02	-0.253
		304.84		-6.831E-01	1.597E+00	2.541E+00	6.938E-01	-0.269
		423.70		-1.570E+00	2.800E+00	4.288E+00	1.360E+00	-0.366
		537.32	*	-1.392E-01	3.453E-01	5.610E-01	1.821E-01	-0.248
LA-140		328.77		1.397E-01	3.421E-01	5.732E-01	3.717E-02	0.244
		432.53		5.057E-01	3.053E+00	4.974E+00	3.053E-01	0.102
		487.03		1.578E-01	2.101E-01	3.525E-01	2.237E-02	0.448
		751.79		7.845E-01	2.407E+00	4.073E+00	2.892E-01	0.193
		815.85		2.581E-01	4.823E-01	8.246E-01	6.312E-02	0.313
		867.82		-4.692E-01	2.118E+00	3.405E+00	2.519E-01	-0.138
		919.63		-2.393E+00	5.224E+00	8.241E+00	7.758E-01	-0.290

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		925.24		-9.875E-01	2.046E+00	3.216E+00	2.468E-01	-0.307
		1596.49	*	-5.037E-02	7.588E-02	1.044E-01	6.804E-03	-0.482
CE-141		145.44	*	3.419E-02	8.689E-02	1.494E-01	8.781E-03	0.229
CE-143		57.37		2.444E+02	7.993E+01	1.232E+02	1.193E+01	1.983
		231.56		3.240E+01	9.901E+01	1.610E+02	4.972E+01	0.201
		293.26	*	6.902E+00	5.740E+00	8.746E+00	1.788E+00	0.789
		350.59		2.530E+02	1.161E+02	1.488E+02	4.510E+01	1.700
		490.36		-4.832E+01	1.412E+02	2.196E+02	6.774E+01	-0.220
		664.57		5.610E+02	1.979E+02	1.787E+02	5.631E+01	3.140
		721.93		-1.209E+01	5.791E+01	9.420E+01	2.673E+01	-0.128
CE-144		80.11		-8.293E+00	3.838E+00	5.528E+00	4.791E-01	-1.500
		133.54	*	-4.776E-01	3.680E-01	5.337E-01	7.591E-02	-0.895
PM-144		476.78		-2.294E-02	1.562E-01	2.481E-01	1.670E-02	-0.092
		618.01		-1.783E-02	6.434E-02	1.054E-01	5.949E-03	-0.169
		696.49	*	4.329E-02	6.456E-02	1.126E-01	6.009E-03	0.385
		778.57		3.145E+00	4.751E+00	8.229E+00	4.967E-01	0.382
PR-144		696.49	*	2.921E+00	4.357E+00	7.598E+00	4.054E-01	0.385
		1489.15		5.418E+00	1.496E+01	2.664E+01	1.799E+00	0.203
PM-146		453.90	*	-5.005E-02	1.022E-01	1.592E-01	1.344E-02	-0.314
		633.02		-9.894E-01	2.506E+00	4.001E+00	1.470E+00	-0.247
		735.90		9.328E-02	3.053E-01	5.153E-01	1.435E-01	0.181
		747.13		-9.896E-02	1.963E-01	3.110E-01	3.885E-02	-0.318
ND-147		91.11		4.735E-01	3.342E-01	4.218E-01	3.972E-02	1.123
		319.41		9.456E-01	3.939E+00	6.542E+00	3.803E-01	0.145
		439.89		-1.203E-01	8.434E+00	1.358E+01	7.488E-01	-0.009
		531.02	*	2.187E-01	7.141E-01	1.226E+00	1.643E-01	0.178
PM-149		285.90	*	3.422E-01	1.504E+01	2.481E+01	3.516E+00	0.014
EU-152	+	121.78		7.075E-01	2.086E-01	2.795E-01	2.201E-02	2.532
		244.69		-2.897E-01	6.417E-01	9.048E-01	5.218E-02	-0.320
		344.27	*	4.352E-02	2.092E-01	3.042E-01	1.968E-02	0.143
		443.98		1.263E+00	2.097E+00	3.495E+00	1.929E-01	0.362
		778.89		4.109E-01	5.595E-01	9.736E-01	5.878E-02	0.422
		867.32		-1.193E+00	1.914E+00	2.970E+00	2.027E-01	-0.402
		964.01		-8.690E-02	8.478E-01	1.178E+00	8.092E-02	-0.074
		1085.78		-2.908E-01	9.290E-01	1.455E+00	9.003E-02	-0.200
		1112.02		5.027E-01	7.550E-01	1.282E+00	7.689E-02	0.392
		1407.95		1.306E-01	2.667E-01	4.773E-01	3.280E-02	0.274
GD-153		69.67		-2.424E+00	2.811E+00	4.366E+00	3.633E-01	-0.555
		83.37		-1.510E+00	2.646E+01	3.787E+01	3.357E+00	-0.040
		97.43	*	-2.715E-02	1.414E-01	1.985E-01	1.571E-02	-0.137
		103.18		-2.093E-01	1.666E-01	2.470E-01	1.817E-02	-0.847
EU-154	+	123.07		4.964E-01	1.489E-01	1.930E-01	1.852E-02	2.572
		247.94		-2.741E-02	6.360E-01	1.052E+00	1.002E-01	-0.026
		591.81		-1.129E+00	1.304E+00	1.903E+00	1.812E-01	-0.593
		723.30		-1.017E-01	3.639E-01	5.901E-01	4.064E-02	-0.172
		756.87		4.926E-01	1.602E+00	2.708E+00	2.753E-01	0.182
		873.19		-5.743E-02	7.180E-01	1.167E+00	1.295E-01	-0.049
		996.32		-1.562E+00	9.222E-01	1.206E+00	2.041E-01	-1.295
		1004.76		-4.181E-01	5.391E-01	8.159E-01	8.390E-02	-0.512

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155		1274.45	*	1.073E-01	1.723E-01	3.108E-01	3.022E-02	0.345
		48.70		-3.354E+00	6.477E+00	1.036E+01	8.155E-01	-0.324
	+	60.01		4.517E+02	4.890E+01	4.478E+01	3.800E+00	10.087
	+	86.54		4.013E+00	5.317E-01	4.891E-01	4.488E-02	8.204
TB-160		105.31	*	-5.042E-02	1.751E-01	2.751E-01	2.010E-02	-0.183
	+	86.79		9.987E+00	1.318E+00	1.312E+00	1.196E-01	7.610
		197.04		-2.202E-01	8.828E-01	1.462E+00	8.072E-02	-0.151
		215.65		6.532E-01	1.197E+00	2.045E+00	1.152E-01	0.319
HO-166M		298.57		1.271E-01	2.185E-01	3.283E-01	1.920E-02	0.387
		879.36	*	1.110E-01	3.161E-01	5.307E-01	3.681E-02	0.209
		962.29		2.218E-01	1.361E+00	2.033E+00	1.398E-01	0.109
		966.15		4.749E-01	5.396E-01	8.272E-01	5.673E-02	0.574
		1177.93		2.850E-01	6.021E-01	9.364E-01	5.193E-02	0.304
		1271.85		-5.261E-02	9.133E-01	1.512E+00	9.637E-02	-0.035
		80.57		-6.628E-01	4.707E-01	7.071E-01	6.146E-02	-0.937
		184.41		7.500E-02	5.777E-02	1.016E-01	5.531E-03	0.738
		280.46		-1.277E-01	1.549E-01	2.436E-01	1.424E-02	-0.524
		410.95		4.372E-01	5.030E-01	8.557E-01	4.670E-02	0.511
		711.68	*	7.577E-04	1.161E-01	1.926E-01	1.052E-02	0.004
		752.31		1.022E-01	5.942E-01	9.941E-01	5.774E-02	0.103
TM-171		810.29		-1.636E-01	1.418E-01	2.120E-01	1.338E-02	-0.772
		51.35		-2.052E+01	8.156E+01	1.317E+02	1.103E+01	-0.156
		52.39		-5.279E+01	4.395E+01	6.818E+01	5.769E+00	-0.774
	+	59.40		2.365E+03	2.560E+02	2.472E+02	2.104E+01	9.565
LU-176		66.72	*	-2.435E+01	4.653E+01	7.344E+01	6.110E+00	-0.332
	+	88.36		7.926E+00	1.046E+00	1.073E+00	9.814E-02	7.387
		201.83		5.505E-03	4.968E-02	8.350E-02	4.636E-03	0.066
		306.84	*	8.850E-03	4.626E-02	7.677E-02	4.482E-03	0.115
LU-177		401.10		-8.153E+00	1.383E+01	2.153E+01	1.170E+00	-0.379
		112.95		6.006E-02	1.186E+00	1.884E+00	1.251E-01	0.032
LU-177M		208.36	*	4.640E-01	8.497E-01	1.452E+00	8.115E-02	0.320
		52.97		-3.919E+00	4.629E+00	6.925E+00	5.881E-01	-0.566
		54.07		1.943E+00	2.561E+00	3.837E+00	3.273E-01	0.506
		61.30		4.353E+01	5.516E+00	8.141E+00	6.868E-01	5.347
HF-181	+	121.62		3.514E+00	1.021E+00	1.396E+00	8.583E-02	2.518
		147.16		-1.645E-01	1.024E+00	1.722E+00	9.663E-02	-0.096
		171.86		-5.185E-01	7.273E-01	1.182E+00	6.348E-02	-0.439
		218.09		-7.305E-01	1.460E+00	2.377E+00	1.342E-01	-0.307
		268.79		2.482E-01	1.413E+00	2.355E+00	1.373E-01	0.105
		319.02		-8.487E-02	4.882E-01	7.920E-01	4.605E-02	-0.107
		367.43		-9.329E-01	1.729E+00	2.714E+00	1.517E-01	-0.344
		413.65	*	-3.498E-01	3.647E-01	5.527E-01	3.020E-02	-0.633
		56.28		4.421E+00	2.658E+00	4.078E+00	3.484E-01	1.084
		57.53		1.109E+01	1.721E+00	2.777E+00	2.370E-01	3.994
		65.20		-7.875E-01	1.450E+00	2.171E+00	1.809E-01	-0.363
		133.02		-1.337E-01	1.040E-01	1.534E-01	8.992E-03	-0.872
		136.25		7.081E-01	6.710E-01	1.184E+00	6.864E-02	0.598
		345.85		-5.664E-02	4.019E-01	5.267E-01	3.011E-02	-0.108
		482.03	*	-2.835E-02	8.293E-02	1.297E-01	7.198E-03	-0.219

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
W-181		56.28		1.879E+00	1.129E+00	1.732E+00	1.480E-01	1.085
		57.53		4.696E+00	7.303E-01	1.179E+00	1.006E-01	3.983
		65.20	*	-3.321E-01	6.115E-01	9.152E-01	7.629E-02	-0.363
TA-182		67.75		1.501E-01	1.723E-01	2.888E-01	2.401E-02	0.520
		100.10		-6.084E-02	2.750E-01	4.343E-01	3.318E-02	-0.140
		152.43		4.989E-02	4.915E-01	8.346E-01	4.616E-02	0.060
		222.10		2.144E-01	5.905E-01	9.997E-01	5.664E-02	0.215
		1001.68		3.771E+00	4.568E+00	7.886E+00	5.277E-01	0.478
		1121.28		4.923E-01	2.876E-01	5.274E-01	3.127E-02	0.934
		1189.05		2.911E-01	4.476E-01	8.024E-01	4.526E-02	0.363
		1221.42	*	-2.563E-01	2.406E-01	3.426E-01	2.029E-02	-0.748
		1230.97		-3.426E-01	5.181E-01	7.809E-01	4.691E-02	-0.439
RE-183	+	57.98		1.574E+01	1.704E+00	1.435E+00	1.224E-01	10.967
	+	59.32		9.049E+00	9.797E-01	9.521E-01	8.102E-02	9.504
		67.20		-2.560E-02	3.062E-01	4.936E-01	4.105E-02	-0.052
		162.32	*	-1.343E-02	1.606E-01	2.699E-01	1.454E-02	-0.050
		208.81		1.855E+00	1.557E+00	2.725E+00	1.524E-01	0.681
		291.72		2.884E-02	1.721E+00	2.488E+00	1.456E-01	0.012
RE-184	+	57.98		6.065E+01	6.566E+00	5.531E+00	4.717E-01	10.967
	+	59.32		3.483E+01	3.771E+00	3.665E+00	3.119E-01	9.504
		67.20		-9.860E-02	1.179E+00	1.901E+00	1.581E-01	-0.052
		161.27		3.321E-01	5.341E-01	9.254E-01	5.000E-02	0.359
		216.55		2.072E-01	4.514E-01	7.682E-01	4.330E-02	0.270
		252.85	*	2.426E-01	4.087E-01	6.968E-01	4.037E-02	0.348
		318.01		-7.020E-01	8.639E-01	1.349E+00	7.846E-02	-0.520
		792.07		-2.542E-01	2.019E+00	3.292E+00	2.026E-01	-0.077
		903.28		7.728E-01	2.527E+00	4.110E+00	2.915E-01	0.188
		920.93		5.232E-01	1.217E+00	2.042E+00	1.437E-01	0.256
OS-185	+	59.72		2.516E+01	2.724E+00	2.564E+00	2.179E-01	9.813
		61.14		6.299E+00	7.219E-01	9.898E-01	8.355E-02	6.364
		69.30		-5.338E-01	4.812E-01	7.370E-01	6.132E-02	-0.724
		592.07		-4.083E+00	5.044E+00	7.425E+00	3.983E-01	-0.550
		646.12	*	6.970E-02	8.103E-02	1.433E-01	7.357E-03	0.486
		717.42		-8.157E-01	1.661E+00	2.640E+00	1.455E-01	-0.309
		874.81		-2.338E-01	1.365E+00	2.204E+00	1.520E-01	-0.106
		880.27		8.717E-02	1.793E+00	2.944E+00	2.045E-01	0.030
RE-188		155.03	*	-4.785E-02	2.390E-01	4.001E-01	2.198E-02	-0.120
		477.96		6.187E+00	6.348E+00	1.081E+01	5.999E-01	0.572
		633.10		-2.019E+00	4.642E+00	7.462E+00	3.878E-01	-0.271
W-188		63.58		-1.279E+01	8.940E+01	1.301E+02	1.089E+01	-0.098
		227.08		9.800E+00	2.109E+01	3.584E+01	2.040E+00	0.273
		290.67	*	1.546E+00	1.342E+01	1.956E+01	1.145E+00	0.079
IR-192	+	295.96		5.941E-01	3.140E-01	3.714E-01	2.206E-02	1.599
		308.46		1.029E-01	1.672E-01	2.837E-01	1.675E-02	0.363
		316.51	*	1.634E-03	6.266E-02	1.029E-01	6.017E-03	0.016
		468.07		-6.513E-02	1.442E-01	2.248E-01	1.453E-02	-0.290
		604.41		-8.608E-02	9.292E-01	1.340E+00	1.489E-01	-0.064
		612.46		1.427E+00	1.456E+00	2.309E+00	1.660E-01	0.618
AU-195		65.12		-1.599E-01	2.876E-01	4.301E-01	3.586E-02	-0.372

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		66.83		-2.931E-02	1.483E-01	2.377E-01	1.977E-02	-0.123
		75.70		7.598E-01	3.545E-01	6.023E-01	5.098E-02	1.261
		98.88	*	1.603E-01	3.459E-01	5.654E-01	4.388E-02	0.284
		129.76		2.870E+00	4.639E+00	7.560E+00	4.485E-01	0.380
TL-200		367.94	*	-2.633E+00	6.881E+00	1.092E+01	6.103E-01	-0.241
		579.30		-2.511E+01	5.762E+01	8.036E+01	4.344E+00	-0.312
		828.27		-7.143E+01	8.016E+01	1.214E+02	7.858E+00	-0.588
		1205.75		-2.614E+00	2.518E+01	4.164E+01	2.409E+00	-0.063
TL-201		68.90		-1.009E+00	1.417E+00	2.217E+00	1.844E-01	-0.455
		70.82		-3.120E-01	8.278E-01	1.316E+00	1.097E-01	-0.237
		80.30		-3.965E+00	1.628E+00	2.302E+00	1.997E-01	-1.722
		135.34		1.048E+01	7.329E+00	1.309E+01	7.613E-01	0.800
		167.43	*	2.044E+00	1.919E+00	3.379E+00	1.806E-01	0.605
TL-202		68.90		-3.374E-01	4.741E-01	7.415E-01	6.167E-02	-0.455
		70.82		-1.041E-01	2.761E-01	4.389E-01	3.659E-02	-0.237
		80.30		-1.323E+00	5.430E-01	7.680E-01	6.665E-02	-1.722
		439.56	*	6.899E-02	1.023E-01	1.715E-01	9.455E-03	0.402
HG-203		70.83		-6.192E-01	1.651E+00	2.622E+00	3.521E-01	-0.236
		72.87		6.614E-01	9.907E-01	1.633E+00	2.130E-01	0.405
		82.60		-5.591E-01	1.820E+00	2.557E+00	3.546E-01	-0.219
		279.20	*	2.239E-02	6.505E-02	1.092E-01	6.773E-03	0.205
BI-207		72.80		1.944E-01	3.244E-01	5.347E-01	4.478E-02	0.363
		74.97		4.687E-03	2.041E-01	3.294E-01	2.779E-02	0.014
		84.90		3.355E-01	3.530E-01	5.305E-01	4.759E-02	0.632
		569.67		2.348E-02	5.174E-02	8.990E-02	4.884E-03	0.261
		1063.62	*	6.061E-02	1.242E-01	2.097E-01	1.329E-02	0.289
		1770.23		-8.956E-01	8.148E-01	9.609E-01	5.696E-02	-0.932
TL-207		81.07		-9.928E-02	3.536E-01	5.618E-01	4.900E-02	-0.177
		83.78		3.604E-02	2.298E-01	3.328E-01	2.959E-02	0.108
		94.90		7.233E-02	4.081E-01	5.875E-01	4.821E-02	0.123
	+	122.32		1.687E+01	4.935E+00	6.542E+00	4.567E-01	2.578
		144.24		2.588E-01	1.111E+00	1.896E+00	1.350E-01	0.136
		154.21		-1.910E-01	5.960E-01	9.925E-01	6.721E-02	-0.192
		269.46		4.952E-01	3.446E-01	6.065E-01	3.697E-02	0.816
		323.87	*	-5.058E-01	1.251E+00	1.996E+00	3.296E-01	-0.253
	+	338.28		6.237E+00	3.151E+00	3.732E+00	3.920E-01	1.671
		445.03		1.791E+00	4.993E+00	8.219E+00	8.314E-01	0.218
TL-208		277.35		5.985E-01	6.841E-01	1.174E+00	1.242E-01	0.510
		510.84		3.169E-01	3.532E-01	6.332E-01	6.335E-02	0.501
	+	583.14	*	2.058E-01	1.694E-01	1.777E-01	1.126E-02	1.158
		860.37		-3.451E-01	6.553E-01	1.031E+00	7.790E-02	-0.335
PO-209		260.50		9.232E-01	1.793E+01	2.974E+01	1.729E+00	0.031
		262.80		-2.714E+01	5.024E+01	8.075E+01	4.700E+00	-0.336
		896.60	*	1.292E+01	1.925E+01	3.292E+01	2.336E+00	0.392
BI-210		46.50	*	-4.755E+00	9.273E+00	1.485E+01	1.176E+00	-0.320
PB-210		46.50	*	-4.755E+00	9.273E+00	1.485E+01	1.176E+00	-0.320
PO-210		46.50	*	-4.755E+00	9.271E+00	1.485E+01	1.020E+00	-0.320
PB-211		404.84	*	-7.473E-01	2.022E+00	3.109E+00	1.937E+00	-0.240
		427.08		-5.897E-01	4.552E+00	7.263E+00	4.487E+00	-0.081

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-212		831.96		5.194E-01	2.574E+00	4.261E+00	2.659E+00	0.122
		727.18	*	7.847E-01	6.316E-01	1.128E+00	8.530E-02	0.695
		785.46		-1.650E+00	3.735E+00	5.937E+00	3.618E-01	-0.278
PB-212		1620.62		8.450E-01	1.699E+00	3.094E+00	1.995E-01	0.273
		74.81		-1.005E-01	7.007E-01	1.124E+00	1.415E-01	-0.089
		77.11		3.989E-01	3.926E-01	6.522E-01	5.557E-02	0.612
PO-212	+	87.30		1.546E+01	2.558E+00	2.142E+00	2.904E-01	7.215
	+	238.63	*	9.493E-01	1.710E-01	2.782E-01	2.027E-02	3.412
		300.09		1.094E+00	1.581E+00	2.393E+00	1.981E-01	0.457
PO-215		74.81		-1.005E-01	7.007E-01	1.124E+00	1.415E-01	-0.089
		77.11		3.989E-01	3.926E-01	6.522E-01	5.557E-02	0.612
	+	87.30		1.546E+01	2.558E+00	2.142E+00	2.904E-01	7.215
PO-216		115.19		-1.499E+00	6.049E+00	9.493E+00	6.173E-01	-0.158
	+	238.63	*	9.493E-01	1.710E-01	2.782E-01	2.027E-02	3.412
		300.09		1.094E+00	1.581E+00	2.393E+00	1.981E-01	0.457
PO-219		81.07		-9.928E-02	3.536E-01	5.618E-01	4.900E-02	-0.177
		83.78		3.604E-02	2.298E-01	3.328E-01	2.959E-02	0.108
		94.90		7.233E-02	4.081E-01	5.875E-01	4.821E-02	0.123
PO-216	+	122.32		1.687E+01	4.935E+00	6.542E+00	4.567E-01	2.578
		144.24		2.588E-01	1.111E+00	1.896E+00	1.350E-01	0.136
		154.21		-1.910E-01	5.960E-01	9.925E-01	6.721E-02	-0.192
PO-216		269.46		4.952E-01	3.446E-01	6.065E-01	3.697E-02	0.816
	+	323.87	*	-5.058E-01	1.251E+00	1.996E+00	3.296E-01	-0.253
	+	338.28		6.237E+00	3.151E+00	3.732E+00	3.920E-01	1.671
PO-216		445.03		1.791E+00	4.993E+00	8.219E+00	8.314E-01	0.218
		74.81		-1.005E-01	7.007E-01	1.124E+00	1.415E-01	-0.089
		77.11		3.989E-01	3.926E-01	6.522E-01	5.557E-02	0.612
RN-219	+	87.30		1.546E+01	2.558E+00	2.142E+00	2.904E-01	7.215
	+	238.63	*	9.493E-01	1.710E-01	2.782E-01	2.027E-02	3.412
		300.09		1.094E+00	1.581E+00	2.393E+00	1.981E-01	0.457
RN-220		271.23		6.580E-01	4.461E-01	7.838E-01	6.372E-02	0.840
		401.81	*	-2.456E-01	8.482E-01	1.347E+00	1.812E-01	-0.182
		549.76	*	2.386E+00	5.265E+01	8.883E+01	4.869E+00	0.027
RA-223		81.07		-9.928E-02	3.536E-01	5.618E-01	4.900E-02	-0.177
		83.78		3.604E-02	2.298E-01	3.328E-01	2.959E-02	0.108
		94.90		7.233E-02	4.081E-01	5.875E-01	4.821E-02	0.123
AC-227	+	122.32		1.687E+01	4.935E+00	6.542E+00	4.567E-01	2.578
		144.24		2.588E-01	1.111E+00	1.896E+00	1.350E-01	0.136
		154.21		-1.910E-01	5.960E-01	9.925E-01	6.721E-02	-0.192
AC-227		269.46		4.952E-01	3.446E-01	6.065E-01	3.697E-02	0.816
	+	323.87	*	-5.058E-01	1.251E+00	1.996E+00	3.296E-01	-0.253
	+	338.28		6.237E+00	3.151E+00	3.732E+00	3.920E-01	1.671
AC-227		445.03		1.791E+00	4.993E+00	8.219E+00	8.314E-01	0.218
		79.80		-8.847E+00	3.616E+00	4.383E+00	9.431E-01	-2.018
		236.00		-1.352E-01	4.542E-01	6.506E-01	6.776E-02	-0.208
AC-227		256.20	*	-6.343E-01	7.186E-01	1.127E+00	1.574E-01	-0.563
		286.10		-6.103E-02	2.774E+00	4.564E+00	5.287E-01	-0.013
		299.80		1.474E+00	2.989E+00	4.451E+00	7.256E-01	0.331
AC-227		304.40		-3.485E+00	3.623E+00	5.546E+00	9.601E-01	-0.628

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-227		334.20	5.022E+00	4.567E+00	7.019E+00	1.286E+00	0.715
		79.80	-8.847E+00	3.629E+00	4.383E+00	9.551E-01	-2.018
	+	94.00	3.065E+00	4.100E+00	5.429E+00	1.176E+00	0.565
		236.00	-1.352E-01	4.542E-01	6.506E-01	5.865E-02	-0.208
		256.20	-6.343E-01	7.211E-01	1.127E+00	1.905E-01	-0.563
		286.10	-6.103E-02	2.775E+00	4.564E+00	4.572E+00	-0.013
		299.80	1.474E+00	2.989E+00	4.451E+00	7.256E-01	0.331
TH-228		304.40	-3.485E+00	3.623E+00	5.546E+00	9.601E-01	-0.628
		334.20	5.022E+00	4.567E+00	7.019E+00	1.286E+00	0.715
		74.81	-1.013E-01	7.059E-01	1.133E+00	9.636E-02	-0.089
		77.11	4.018E-01	3.955E-01	6.571E-01	5.598E-02	0.612
	+	87.30	1.557E+01	2.054E+00	2.158E+00	1.975E-01	7.215
	+	238.63	9.563E-01	1.723E-01	2.803E-01	2.042E-02	3.412
		300.09	1.102E+00	1.717E+00	2.410E+00	1.421E+00	0.457
TH-229		85.43	7.683E-01	3.603E-01	5.634E-01	5.076E-02	1.364
	+	88.47	4.562E+00	6.019E-01	6.144E-01	5.608E-02	7.426
		100.00	1.600E-02	2.970E-01	4.757E-01	3.639E-02	0.034
		193.63	-2.496E-01	8.501E-01	1.405E+00	7.731E-02	-0.178
		210.97	4.947E-01	1.299E+00	2.204E+00	1.236E-01	0.224
PA-231		283.67	1.730E+00	2.752E+00	4.674E+00	6.451E-01	0.370
		301.29	1.939E-01	1.137E+00	1.748E+00	1.832E-01	0.111
TH-231		81.07	-9.928E-02	3.536E-01	5.618E-01	4.900E-02	-0.177
		83.78	3.604E-02	2.298E-01	3.328E-01	2.959E-02	0.108
		94.90	7.233E-02	4.081E-01	5.875E-01	4.821E-02	0.123
	+	122.32	1.687E+01	4.935E+00	6.542E+00	4.567E-01	2.578
		144.24	2.588E-01	1.111E+00	1.896E+00	1.350E-01	0.136
		154.21	-1.910E-01	5.960E-01	9.925E-01	6.721E-02	-0.192
		269.46	4.952E-01	3.446E-01	6.065E-01	3.697E-02	0.816
		323.87	-5.058E-01	1.251E+00	1.996E+00	3.296E-01	-0.253
	+	338.28	6.237E+00	3.151E+00	3.732E+00	3.920E-01	1.671
		445.03	1.791E+00	4.993E+00	8.219E+00	8.314E-01	0.218
U-231		84.21	1.220E+00	2.740E+00	4.029E+00	3.595E-01	0.303
	+	92.29	8.521E-01	1.127E+00	1.591E+00	1.360E-01	0.536
		95.87	-2.012E-01	5.421E-01	7.524E-01	6.088E-02	-0.267
		108.00	3.577E-01	9.122E-01	1.482E+00	1.034E-01	0.241
PA-233		75.28	9.998E+00	5.878E+00	9.705E+00	1.480E+00	1.030
	+	86.59	6.542E+01	1.872E+01	8.130E+00	2.193E+00	8.047
		300.12	5.595E-01	8.186E-01	1.235E+00	1.662E-01	0.453
		311.98	-8.383E-02	1.241E-01	1.954E-01	1.209E-02	-0.429
		340.50	1.427E+00	1.383E+00	2.074E+00	4.760E-01	0.688
		398.62	-2.443E-02	4.392E+00	7.112E+00	1.833E+00	-0.003
PA-234		415.76	-1.702E+00	3.638E+00	5.682E+00	1.165E+00	-0.300
		63.00	-1.008E+00	2.883E+00	4.139E+00	6.361E-01	-0.244
		94.67	2.432E-01	2.928E-01	4.363E-01	5.296E-02	0.557
		98.44	-8.404E-04	1.482E-01	2.369E-01	1.319E-01	-0.004
		99.86	1.172E-01	7.555E-01	1.216E+00	9.321E-02	0.096
		111.00	-2.615E-01	2.961E-01	4.467E-01	4.844E-02	-0.585
		131.20	1.079E-02	1.814E-01	2.877E-01	1.698E-02	0.037
		152.70	5.937E-02	4.983E-01	8.467E-01	1.330E-01	0.070

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		186.00		1.365E+00	2.138E+00	3.712E+00	1.132E+00	0.368
		226.40		4.772E-01	7.106E-01	1.216E+00	1.399E-01	0.392
		227.20		3.177E-01	7.673E-01	1.301E+00	7.405E-02	0.244
		248.90		3.284E-01	1.461E+00	2.446E+00	5.255E-01	0.134
		293.70		3.135E+00	1.475E+00	2.307E+00	3.715E-01	1.359
		369.80		-1.155E+00	1.781E+00	2.755E+00	5.719E-01	-0.419
		568.70		8.311E-01	1.731E+00	3.010E+00	1.636E-01	0.276
		569.50		2.329E-01	4.555E-01	7.949E-01	4.319E-02	0.293
		574.00		-4.423E-01	2.606E+00	4.316E+00	2.340E-01	-0.102
		699.00		-2.956E-01	1.398E+00	2.280E+00	4.069E-01	-0.130
		706.10		1.316E-01	2.034E+00	3.388E+00	1.494E+00	0.039
		733.00		-5.018E-02	7.984E-01	1.315E+00	2.790E-01	-0.038
		742.81		1.192E+00	2.860E+00	4.697E+00	3.143E+00	0.254
		796.30		6.237E-01	1.955E+00	3.283E+00	8.660E-01	0.190
		805.60		1.606E+00	2.353E+00	3.981E+00	1.197E+00	0.403
		819.60		9.255E-02	2.786E+00	4.590E+00	1.725E+00	0.020
		826.30		2.666E-02	1.740E+00	2.862E+00	1.270E+00	0.009
		831.60		2.689E-01	1.324E+00	2.205E+00	6.463E-01	0.122
		876.40		-7.588E-02	2.027E+00	3.304E+00	3.392E+00	-0.023
		880.51		-9.749E-02	6.927E-01	1.121E+00	7.784E-02	-0.087
		883.24		3.287E-01	7.337E-01	1.185E+00	7.945E-01	0.277
		899.00		-2.396E+00	2.437E+00	3.306E+00	1.436E+00	-0.725
		925.00		-1.541E+00	3.223E+00	5.069E+00	3.559E-01	-0.304
		926.50		-3.403E-01	4.815E-01	7.316E-01	1.813E-01	-0.465
		946.00	*	1.122E-01	8.197E-01	1.347E+00	2.432E-01	0.083
		949.00		-2.418E-01	1.242E+00	1.993E+00	1.382E-01	-0.121
		980.50		1.212E+00	1.832E+00	3.126E+00	2.124E-01	0.388
		1394.10		-8.084E-01	1.466E+00	1.956E+00	1.269E+00	-0.413
PA-234M		766.42		1.809E+01	2.541E+01	4.126E+01	2.077E+01	0.438
		1001.03	*	1.003E+01	1.062E+01	1.859E+01	1.553E+00	0.539
TH-234		63.29	*	-4.670E-01	2.430E+00	3.526E+00	6.302E-01	-0.132
	+	92.38		7.931E-01	1.057E+00	1.476E+00	2.662E-01	0.537
U-235		89.95		1.219E+01	4.489E+00	3.774E+00	1.167E+00	3.231
	+	93.35		9.535E-01	1.287E+00	1.740E+00	4.866E-01	0.548
		105.00		1.332E-01	1.662E+00	2.661E+00	7.840E-01	0.050
		143.76	*	1.153E-01	3.379E-01	5.786E-01	9.407E-02	0.199
		163.35		-3.640E-01	7.546E-01	1.241E+00	2.215E-01	-0.293
		185.71		7.819E-02	7.812E-02	1.398E-01	7.620E-03	0.559
		205.31		-2.926E-01	8.863E-01	1.457E+00	2.610E-01	-0.201
NP-236		94.67		1.862E-01	2.216E-01	3.312E-01	2.727E-02	0.562
		98.44		-6.755E-04	1.121E-01	1.790E-01	1.398E-02	-0.004
		111.00		-1.978E-01	2.233E-01	3.379E-01	2.286E-02	-0.585
		160.31	*	1.721E-02	1.246E-01	2.115E-01	1.146E-02	0.081
U-238		63.29	*	-4.670E-01	2.430E+00	3.526E+00	6.302E-01	-0.132
	+	92.38		7.931E-01	1.049E+00	1.476E+00	1.259E-01	0.537
NP-239		99.55		1.306E-01	2.510E-01	4.113E-01	3.164E-02	0.318
		117.00	*	4.124E-01	3.548E-01	5.383E-01	3.444E-02	0.766
		209.75		6.514E-01	1.338E+00	2.280E+00	1.276E-01	0.286
		228.18		-2.166E-01	4.049E-01	6.565E-01	3.740E-02	-0.330

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243		277.60		2.419E-01	3.284E-01	5.615E-01	3.282E-02	0.431
		334.30		2.860E+00	2.541E+00	3.980E+00	2.295E-01	0.719
		74.67	*	-1.067E-01	1.168E-01	1.820E-01	1.534E-02	-0.586
	+	86.72		3.680E+02	4.854E+01	4.792E+01	4.364E+00	7.678
CM-243		117.66		1.735E+00	7.439E+00	1.066E+01	6.778E-01	0.163
		142.18		-6.739E+00	2.722E+01	4.566E+01	2.599E+00	-0.148
		99.55		1.343E-01	2.582E-01	4.230E-01	3.254E-02	0.318
		103.76	*	-6.673E-02	1.520E-01	2.366E-01	1.729E-02	-0.282
AM-246		117.00		4.241E-01	3.649E-01	5.535E-01	3.541E-02	0.766
		209.75		6.419E-01	1.319E+00	2.247E+00	1.258E-01	0.286
		228.18		-2.187E-01	4.089E-01	6.631E-01	3.777E-02	-0.330
		277.60		2.437E-01	3.309E-01	5.658E-01	3.307E-02	0.431
CM-247		798.80		-4.286E-02	3.108E-01	5.061E-01	3.144E-02	-0.085
		1036.00		7.953E-02	7.478E-01	1.220E+00	7.936E-02	0.065
		1062.04		2.811E-01	5.381E-01	9.076E-01	5.758E-02	0.310
		1078.86	*	1.472E-01	3.369E-01	5.639E-01	3.515E-02	0.261
CF-249		278.00		1.021E+00	1.338E+00	2.293E+00	1.340E-01	0.445
		287.40		-8.858E-02	2.254E+00	3.704E+00	2.167E-01	-0.024
		402.60	*	4.350E-03	7.525E-02	1.223E-01	6.646E-03	0.036
		252.85		9.395E-01	1.583E+00	2.698E+00	1.563E-01	0.348
CF-251		333.44		1.069E-01	3.524E-01	5.173E-01	2.984E-02	0.207
		387.95	*	-4.959E-02	8.376E-02	1.308E-01	7.112E-03	-0.379
		176.60	*	-4.636E-02	2.045E-01	3.402E-01	1.836E-02	-0.136
		227.00		3.420E-01	6.845E-01	1.165E+00	6.629E-02	0.294
ANH-511		285.00		1.719E+00	3.183E+00	5.395E+00	3.156E-01	0.319
		511.00	*	6.403E-02	7.586E-02	1.361E-01	7.537E-03	0.470

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]G1202005184      *
* Acquisition date   : 7-JAN-2010 10:59:16 Detector SN#      :              *
* Detector ID        : GAM01                      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 01:00:01.16             Half life ratio : 8.000        *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 31-DEC-2009 00:00:00 Nuclide Library : SOLID           *
* Sample ID          : G1202005184             Analyst initials: MXR1          *
* Batch Number       : 937069                  Sample Quantity : 1.5544E+02 GRAM  *
* Recovery           : 1.00000                 Carrier Weight  : 0.00000        *
*****
*
*                                     QC DATA                                *
*
* Standard Weight    : 0.00000                                                         *
* CALIB. DATE/TIME   : 29-JAN-2009 10:38:56 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)	
CO-57	2.393E-01	6.815E-02	7.624E-02	0.000E+00
CO-60	6.504E+00	5.591E-01	7.067E-02	0.000E+00
CD-109	3.361E+01	4.345E+00	2.176E+00	0.000E+00
SN-126	3.342E+00	4.320E-01	2.175E-01	0.000E+00
BA-137M	5.134E+00	3.668E-01	1.236E-01	0.000E+00
CS-137	5.427E+00	3.888E-01	1.306E-01	0.000E+00
BI-211	1.834E+00	6.837E-01	6.482E-01	0.000E+00
BI-214	6.182E-01	2.380E-01	2.511E-01	0.000E+00
PB-214	6.380E-01	2.400E-01	2.260E-01	0.000E+00
PO-214	6.380E-01	2.400E-01	2.260E-01	0.000E+00
PO-218	6.380E-01	2.400E-01	2.260E-01	0.000E+00
RA-224	2.658E+00	1.494E+00	1.928E+00	0.000E+00
RA-226	6.182E-01	2.380E-01	2.511E-01	0.000E+00
AC-228	9.872E-01	5.148E-01	6.307E-01	0.000E+00
RA-228	9.872E-01	5.148E-01	6.307E-01	0.000E+00
TH-230	6.182E-01	2.380E-01	2.511E-01	0.000E+00
TH-232	9.872E-01	5.148E-01	6.307E-01	0.000E+00
U-234	6.182E-01	2.380E-01	2.511E-01	0.000E+00
NP-237	9.813E+00	2.355E+00	6.474E-01	0.000E+00
AM-241	1.393E+01	1.546E+00	6.466E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	2.666E-01	6.503E-01	1.135E+00	0.000E+00 NOT IDENT.
NA-22	3.827E-02	6.016E-02	1.122E-01	0.000E+00 NOT IDENT.
NA-24	0.000E+00	1.900E+02	0.000E+00	0.000E+00 SHORT HLIF
AL-26	8.570E-04	4.565E-02	7.750E-02	0.000E+00 NOT IDENT.
K-40	8.267E-01	5.417E-01	1.165E+00	0.000E+00 NOT IDENT.
TI-44	5.784E-02	6.547E-02	1.205E-01	0.000E+00 NOT IDENT.
SC-46	-1.056E-01	9.414E-02	1.466E-01	0.000E+00 NOT IDENT.

V-48	-2.356E-02	1.251E-01	2.081E-01	0.000E+00	NOT IDENT.
CR-51	3.361E-01	5.741E-01	1.041E+00	0.000E+00	NOT IDENT.
MN-52	9.488E-02	1.122E-01	2.221E-01	0.000E+00	NOT IDENT.
MN-54	6.298E-02	8.022E-02	1.453E-01	0.000E+00	NOT IDENT.
CO-56	1.166E-02	8.433E-02	1.460E-01	0.000E+00	NOT IDENT.
CO-58	-6.530E-02	8.395E-02	1.358E-01	0.000E+00	NOT IDENT.
FE-59	-9.164E-02	1.877E-01	3.001E-01	0.000E+00	NOT IDENT.
ZN-65	-2.747E-01	2.128E-01	3.162E-01	0.000E+00	NOT IDENT.
GE-68	-6.107E-01	2.917E+00	4.798E+00	0.000E+00	NOT IDENT.
AS-73	-3.309E-02	2.351E+00	3.830E+00	0.000E+00	NOT IDENT.
AS-74	4.269E-02	1.278E-01	2.310E-01	0.000E+00	NOT IDENT.
SE-75	4.067E-02	7.418E-02	1.358E-01	0.000E+00	FAIL ABUN
BR-77	-1.110E+00	2.339E+00	3.809E+00	0.000E+00	FAIL ABUN
SR-82	-4.007E-01	6.369E-01	1.044E+00	0.000E+00	NOT IDENT.
RB-83	-7.813E-02	1.357E-01	2.191E-01	0.000E+00	NOT IDENT.
RB-84	-1.035E-01	1.471E-01	2.374E-01	0.000E+00	NOT IDENT.
KR-85	-2.472E+01	1.679E+01	2.571E+01	0.000E+00	NOT IDENT.
SR-85	-1.169E-01	7.941E-02	1.216E-01	0.000E+00	NOT IDENT.
RB-86	-1.941E-02	1.377E+00	2.304E+00	0.000E+00	NOT IDENT.
Y-88	-1.638E-03	4.346E-02	7.144E-02	0.000E+00	NOT IDENT.
ZR-88	5.725E-04	5.965E-02	1.032E-01	0.000E+00	NOT IDENT.
Y-91	-5.962E+00	2.313E+01	3.885E+01	0.000E+00	NOT IDENT.
NB-94	3.726E-03	6.339E-02	1.109E-01	0.000E+00	NOT IDENT.
NB-95	1.407E-02	8.025E-02	1.405E-01	0.000E+00	NOT IDENT.
NB-95M	-1.667E-01	2.224E-01	3.340E-01	0.000E+00	NOT IDENT.
ZR-95	7.238E-02	1.321E-01	2.380E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.335E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.096E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-2.223E+00	3.392E+00	5.553E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.541E+07	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.697E-03	5.559E-02	1.000E-01	0.000E+00	NOT IDENT.
RH-102	-6.328E-03	6.596E-02	1.116E-01	0.000E+00	NOT IDENT.
RU-103	-1.293E-02	7.600E-02	1.273E-01	0.000E+00	FAIL ABUN
RH-106	-1.816E-01	6.223E-01	1.072E+00	0.000E+00	NOT IDENT.
RU-106	-1.816E-01	6.221E-01	1.072E+00	0.000E+00	NOT IDENT.
AG-108M	-8.398E-02	7.775E-02	1.246E-01	0.000E+00	NOT IDENT.
AG-110M	1.427E-01	8.585E-02	1.492E-01	0.000E+00	NOT IDENT.
IN-111	-5.427E-02	3.069E-01	4.769E-01	0.000E+00	NOT IDENT.
IN-113M	-8.234E-03	8.652E-02	1.488E-01	0.000E+00	NOT IDENT.
SN-113	-8.234E-03	8.652E-02	1.488E-01	0.000E+00	NOT IDENT.
IN-114M	1.318E-01	2.697E-01	5.014E-01	0.000E+00	NOT IDENT.
CD-115	-1.336E-01	1.965E+00	3.490E+00	0.000E+00	NOT IDENT.
SN-117M	1.087E-02	5.582E-02	1.038E-01	0.000E+00	NOT IDENT.
SB-122	-1.059E-01	5.149E-01	9.004E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.210E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.188E-02	4.140E-02	7.532E-02	0.000E+00	NOT IDENT.
I-124	-1.418E-01	3.837E-01	6.211E-01	0.000E+00	NOT IDENT.
SB-124	-8.985E-02	8.972E-02	1.009E-01	0.000E+00	FAIL ABUN
SB-125	9.320E-02	1.979E-01	3.494E-01	0.000E+00	NOT IDENT.
TE-125M	-4.247E+00	1.322E+01	2.280E+01	0.000E+00	NOT IDENT.
I-126	-6.654E-02	2.569E-01	3.792E-01	0.000E+00	NOT IDENT.
SB-126	4.280E-02	1.795E-01	3.178E-01	0.000E+00	FAIL ABUN
SB-127	2.168E-01	6.763E-01	1.202E+00	0.000E+00	NOT IDENT.
XE-127	-3.114E-02	6.867E-02	1.221E-01	0.000E+00	NOT IDENT.
I-131	-6.591E-03	1.161E-01	2.012E-01	0.000E+00	NOT IDENT.
TE-132	-1.288E-01	2.373E-01	4.155E-01	0.000E+00	NOT IDENT.
BA-133	-2.850E-02	9.920E-02	1.477E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.610E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.582E-02	9.683E-02	1.689E-01	0.000E+00	NOT IDENT.
CS-135	6.299E-03	2.829E-01	5.040E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.653E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.546E-02	1.726E-01	3.012E-01	0.000E+00	NOT IDENT.
CE-139	1.830E-02	4.520E-02	8.449E-02	0.000E+00	NOT IDENT.
BA-140	-1.392E-01	3.384E-01	5.815E-01	0.000E+00	NOT IDENT.
LA-140	-5.037E-02	7.436E-02	1.051E-01	0.000E+00	NOT IDENT.
CE-141	3.419E-02	8.515E-02	1.602E-01	0.000E+00	NOT IDENT.
CE-143	6.902E+00	5.625E+00	9.213E+00	0.000E+00	NOT IDENT.
CE-144	-4.776E-01	3.607E-01	5.736E-01	0.000E+00	NOT IDENT.
PM-144	4.329E-02	6.327E-02	1.159E-01	0.000E+00	NOT IDENT.
PR-144	2.921E+00	4.270E+00	7.821E+00	0.000E+00	NOT IDENT.
PM-146	-5.005E-02	1.001E-01	1.658E-01	0.000E+00	NOT IDENT.
ND-147	2.187E-01	6.998E-01	1.271E+00	0.000E+00	NOT IDENT.
PM-149	3.422E-01	1.474E+01	2.615E+01	0.000E+00	NOT IDENT.
EU-152	4.352E-02	2.050E-01	3.191E-01	0.000E+00	FAIL ABUN
GD-153	-2.715E-02	1.385E-01	2.150E-01	0.000E+00	NOT IDENT.
EU-154	1.073E-01	1.689E-01	3.146E-01	0.000E+00	FAIL ABUN
EU-155	-5.042E-02	1.716E-01	2.973E-01	0.000E+00	FAIL ABUN
TB-160	1.110E-01	3.098E-01	5.429E-01	0.000E+00	FAIL ABUN

HO-166M	7.577E-04	1.138E-01	1.982E-01	0.000E+00	NOT IDENT.
TM-171	-2.435E+01	4.560E+01	8.027E+01	0.000E+00	FAIL ABUN
LU-176	8.850E-03	4.534E-02	8.077E-02	0.000E+00	FAIL ABUN
LU-177	4.640E-01	8.327E-01	1.542E+00	0.000E+00	NOT IDENT.
LU-177M	-3.498E-01	3.574E-01	5.770E-01	0.000E+00	FAIL ABUN
HF-181	-2.835E-02	8.128E-02	1.349E-01	0.000E+00	NOT IDENT.
W-181	-3.321E-01	5.993E-01	1.001E+00	0.000E+00	NOT IDENT.
TA-182	-2.563E-01	2.358E-01	3.473E-01	0.000E+00	NOT IDENT.
RE-183	-1.343E-02	1.574E-01	2.886E-01	0.000E+00	FAIL ABUN
RE-184	2.426E-01	4.005E-01	7.368E-01	0.000E+00	FAIL ABUN
OS-185	6.970E-02	7.941E-02	1.479E-01	0.000E+00	FAIL ABUN
RE-188	-4.785E-02	2.342E-01	4.284E-01	0.000E+00	NOT IDENT.
W-188	1.546E+00	1.315E+01	2.061E+01	0.000E+00	NOT IDENT.
IR-192	1.634E-03	6.141E-02	1.081E-01	0.000E+00	FAIL ABUN
AU-195	1.603E-01	3.390E-01	6.121E-01	0.000E+00	NOT IDENT.
TL-200	-2.633E+00	6.744E+00	2.144E+01	0.000E+00	NOT IDENT.
TL-201	2.044E+00	1.880E+00	3.610E+00	0.000E+00	NOT IDENT.
TL-202	6.899E-02	1.003E-01	1.787E-01	0.000E+00	NOT IDENT.
HG-203	2.239E-02	6.375E-02	1.152E-01	0.000E+00	NOT IDENT.
BI-207	6.061E-02	1.217E-01	2.134E-01	0.000E+00	NOT IDENT.
TL-207	-5.058E-01	1.226E+00	2.097E+00	0.000E+00	FAIL ABUN
TL-208	0.000E+00	1.660E-01	1.838E-01	0.000E+00	FAIL ABUN
PO-209	1.292E+01	1.886E+01	3.366E+01	0.000E+00	NOT IDENT.
BI-210	-4.755E+00	9.088E+00	1.637E+01	0.000E+00	NOT IDENT.
PB-210	-4.755E+00	9.088E+00	1.637E+01	0.000E+00	NOT IDENT.
PO-210	-4.755E+00	9.086E+00	1.637E+01	0.000E+00	NOT IDENT.
PB-211	-7.473E-01	1.981E+00	3.247E+00	0.000E+00	NOT IDENT.
BI-212	7.847E-01	6.190E-01	1.160E+00	0.000E+00	NOT IDENT.
PB-212	0.000E+00	1.676E-01	2.946E-01	0.000E+00	FAIL ABUN
PO-212	0.000E+00	1.676E-01	2.946E-01	0.000E+00	FAIL ABUN
PO-215	-5.058E-01	1.226E+00	2.097E+00	0.000E+00	FAIL ABUN
PO-216	0.000E+00	1.676E-01	2.946E-01	0.000E+00	FAIL ABUN
RN-219	-2.456E-01	8.312E-01	1.407E+00	0.000E+00	NOT IDENT.
RN-220	2.386E+00	5.160E+01	9.203E+01	0.000E+00	NOT IDENT.
RA-223	-5.058E-01	1.226E+00	2.097E+00	0.000E+00	FAIL ABUN
AC-227	-6.343E-01	7.042E-01	1.192E+00	0.000E+00	NOT IDENT.
TH-227	-6.343E-01	7.067E-01	1.192E+00	0.000E+00	FAIL ABUN
TH-228	0.000E+00	1.688E-01	2.968E-01	0.000E+00	FAIL ABUN
TH-229	-2.496E-01	8.331E-01	1.496E+00	0.000E+00	FAIL ABUN
PA-231	1.730E+00	2.697E+00	4.928E+00	0.000E+00	NOT IDENT.
TH-231	-5.058E-01	1.226E+00	2.097E+00	0.000E+00	FAIL ABUN
U-231	-2.012E-01	5.313E-01	8.152E-01	0.000E+00	FAIL ABUN
PA-233	-8.383E-02	1.216E-01	2.055E-01	0.000E+00	FAIL ABUN
PA-234	1.122E-01	8.033E-01	1.375E+00	0.000E+00	NOT IDENT.
PA-234M	1.003E+01	1.040E+01	1.895E+01	0.000E+00	NOT IDENT.
TH-234	-4.670E-01	2.382E+00	3.859E+00	0.000E+00	FAIL ABUN
U-235	1.153E-01	3.311E-01	6.206E-01	0.000E+00	FAIL ABUN
NP-236	1.721E-02	1.221E-01	2.263E-01	0.000E+00	NOT IDENT.
U-238	-4.670E-01	2.382E+00	3.859E+00	0.000E+00	FAIL ABUN
NP-239	4.124E-01	3.477E-01	5.803E-01	0.000E+00	NOT IDENT.
AM-243	-1.067E-01	1.144E-01	1.984E-01	0.000E+00	FAIL ABUN
CM-243	-6.673E-02	1.489E-01	2.559E-01	0.000E+00	NOT IDENT.
AM-246	1.472E-01	3.302E-01	5.735E-01	0.000E+00	NOT IDENT.
CM-247	4.350E-03	7.375E-02	1.277E-01	0.000E+00	NOT IDENT.
CF-249	-4.959E-02	8.208E-02	1.368E-01	0.000E+00	NOT IDENT.
CF-251	-4.636E-02	2.004E-01	3.631E-01	0.000E+00	NOT IDENT.
ANH-511	6.403E-02	7.435E-02	1.413E-01	0.000E+00	NOT IDENT.


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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                          *
*                               Charleston, SC 29414                     *
*****
Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202005184.CNF;1
Sample date   : 31-DEC-2009 00:00:00 Acquisition date : 7-JAN-2010 10:59:16.
Sample ID     : G1202005184 Sample quantity : 1.55440E+02 GRAM
Detector name : GAM01 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.16 0.0%
Energy tolerance: 1.50000 keV Analyst Initials : MXR1
Abundance limit: 75.00000 Sensitivity : 5.00000
Batch ID      : 937069 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
CO-57	122.06	253	85.51*	6.096E+00	2.347E-01	2.393E-01	29.06
	136.48	-----	10.60	6.022E+00	-----	Line Not Found	-----
CO-60	1173.22	1506	100.00	1.169E+00	6.223E+00	6.240E+00	8.08
	1332.49	1401	100.00*	1.043E+00	6.487E+00	6.504E+00	8.77
CD-109	88.03	1327	3.72*	5.184E+00	3.324E+01	3.361E+01	13.19
SN-126	64.28	-----	9.60	2.844E+00	-----	Line Not Found	-----
	86.94	1327	8.90	5.184E+00	1.389E+01	1.389E+01	42.55
	87.57	1327	37.00*	5.184E+00	3.342E+00	3.342E+00	13.19
BA-137M	661.65	1873	89.98*	1.959E+00	5.131E+00	5.134E+00	7.29
CS-137	661.65	1873	85.12*	1.959E+00	5.424E+00	5.427E+00	7.31
BI-211	72.87	-----	1.27	3.875E+00	-----	Line Not Found	-----
	351.07	162	12.94*	3.294E+00	1.834E+00	1.834E+00	38.03
BI-214	609.31	125	46.30*	2.102E+00	6.182E-01	6.182E-01	39.29
	1120.29	-----	15.10	1.218E+00	-----	Line Not Found	-----
	1764.49	25	15.80	8.370E-01	9.065E-01	9.065E-01	52.16
PB-214	74.81	-----	6.21	4.083E+00	-----	Line Not Found	-----
	77.11	-----	10.50	4.314E+00	-----	Line Not Found	-----
	87.30	1327	4.67	5.184E+00	2.648E+01	2.648E+01	15.28
	241.98	96	7.49	4.405E+00	1.402E+00	1.402E+00	57.65
	295.21	126	19.20	3.785E+00	8.372E-01	8.372E-01	53.22
	351.92	162	37.20*	3.294E+00	6.380E-01	6.380E-01	38.39
PO-214	74.81	-----	6.21	4.083E+00	-----	Line Not Found	-----
	77.11	-----	10.50	4.314E+00	-----	Line Not Found	-----
	87.30	1327	4.67	5.184E+00	2.648E+01	2.648E+01	15.28
	241.98	96	7.49	4.405E+00	1.402E+00	1.402E+00	57.65
	295.21	126	19.20	3.785E+00	8.372E-01	8.372E-01	53.22
	351.92	162	37.20*	3.294E+00	6.380E-01	6.380E-01	38.39
PO-218	74.81	-----	6.21	4.083E+00	-----	Line Not Found	-----
	77.11	-----	10.50	4.314E+00	-----	Line Not Found	-----
	87.30	1327	4.67	5.184E+00	2.648E+01	2.648E+01	15.28
	241.98	96	7.49	4.405E+00	1.402E+00	1.402E+00	57.65
	295.21	126	19.20	3.785E+00	8.372E-01	8.372E-01	53.22

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	162	37.20*	3.294E+00	6.380E-01	6.380E-01	38.39
RA-224	240.98	96	3.95*	4.405E+00	2.658E+00	2.658E+00	57.38
RA-226	609.31	125	46.30*	2.102E+00	6.182E-01	6.182E-01	39.29
	1120.29	-----	15.10	1.218E+00	-----	Line Not Found	-----
	1764.49	25	15.80	8.370E-01	9.065E-01	9.065E-01	52.16
AC-228	338.32	120	11.40	3.399E+00	1.494E+00	1.494E+00	64.06
	911.07	83	27.70*	1.473E+00	9.872E-01	9.872E-01	53.22
	969.11	34	16.60	1.392E+00	7.006E-01	7.006E-01	103.80
RA-228	338.32	120	11.40	3.399E+00	1.494E+00	1.494E+00	64.06
	911.07	83	27.70*	1.473E+00	9.872E-01	9.872E-01	53.22
	969.11	34	16.60	1.392E+00	7.006E-01	7.006E-01	103.80
TH-230	609.31	125	46.30*	2.102E+00	6.182E-01	6.182E-01	39.29
	1120.29	-----	15.10	1.218E+00	-----	Line Not Found	-----
	1764.49	25	15.80	8.370E-01	9.065E-01	9.065E-01	52.16
TH-232	338.32	120	11.40	3.399E+00	1.494E+00	1.494E+00	49.75
	911.07	83	27.70*	1.473E+00	9.872E-01	9.872E-01	53.22
	969.11	34	16.60	1.392E+00	7.006E-01	7.006E-01	103.80
U-234	609.31	125	46.30*	2.102E+00	6.182E-01	6.182E-01	39.29
	1120.29	-----	15.10	1.218E+00	-----	Line Not Found	-----
	1764.49	25	15.80	8.370E-01	9.065E-01	9.065E-01	52.16
NP-237	86.50	1327	12.60*	5.184E+00	9.813E+00	9.813E+00	24.49
	95.87	-----	2.60	5.609E+00	-----	Line Not Found	-----
AM-241	59.54	2297	35.90*	2.219E+00	1.393E+01	1.393E+01	11.33

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G1202005184

Page : 3
Acquisition date : 7-JAN-2010 10:59:16

Total number of lines in spectrum 18
Number of unidentified lines 1
Number of lines tentatively identified by NID 17 94.44%

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	2.347E-01	2.393E-01	0.695E-01	29.06	
CO-60	5.27Y	1.00	6.487E+00	6.504E+00	0.571E+00	8.77	
CD-109	464.00D	1.01	3.324E+01	3.361E+01	0.443E+01	13.19	
SN-126	1.00E+05Y	1.00	3.342E+00	3.342E+00	0.441E+00	13.19	
BA-137M	30.17Y	1.00	5.131E+00	5.134E+00	0.374E+00	7.29	
CS-137	30.17Y	1.00	5.424E+00	5.427E+00	0.397E+00	7.31	
BI-211	7.04E+08Y	1.00	1.834E+00	1.834E+00	0.698E+00	38.03	
BI-214	1600.00Y	1.00	6.182E-01	6.182E-01	2.429E-01	39.29	
PB-214	1600.00Y	1.00	6.380E-01	6.380E-01	2.449E-01	38.39	
PO-214	1600.00Y	1.00	6.380E-01	6.380E-01	2.449E-01	38.39	
PO-218	1600.00Y	1.00	6.380E-01	6.380E-01	2.449E-01	38.39	
RA-224	1.41E+10Y	1.00	2.658E+00	2.658E+00	1.525E+00	57.38	
RA-226	1600.00Y	1.00	6.182E-01	6.182E-01	2.429E-01	39.29	
AC-228	1.41E+10Y	1.00	9.872E-01	9.872E-01	5.253E-01	53.22	
RA-228	1.41E+10Y	1.00	9.872E-01	9.872E-01	5.253E-01	53.22	
TH-230	4.47E+09Y	1.00	6.182E-01	6.182E-01	2.429E-01	39.29	
TH-232	1.41E+10Y	1.00	9.872E-01	9.872E-01	5.253E-01	53.22	
U-234	4.47E+09Y	1.00	6.182E-01	6.182E-01	2.429E-01	39.29	
NP-237	2.14E+06Y	1.00	9.813E+00	9.813E+00	2.403E+00	24.49	
AM-241	432.20Y	1.00	1.393E+01	1.393E+01	0.158E+01	11.33	

Total Activity : 8.944E+01 8.984E+01

Grand Total Activity : 8.944E+01 8.984E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202005184

Page : 4
Acquisition date : 7-JAN-2010 10:59:16

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.83	49	294	1.44	186.43	183	8	1.35E-02	****	5.47E+00	T
5	238.85	390	205	1.28	478.44	472	16	1.08E-01	16.5	4.44E+00	T
0	582.85	78	187	1.50	1166.28	1161	16	2.18E-02	82.1	2.18E+00	T
0	1729.50	7	8	1.35	3458.38	3451	11	1.85E-03	****	8.48E-01	

Flags: "T" = Tentatively associated

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202005184.CNF;1
* Acquisition date   : 7-JAN-2010 10:59:16.  Detector SN#      :
* Detector ID        : GAM01                      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 01:00:01.16             Half life ratio : 8.00000
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 31-DEC-2009 00:00:00  Nuclide Library : SOLID
* Sample ID          : G1202005184           Analyst initials: MXR1
* Batch Number       : 937069                Sample Quantity : 1.55440E+02 GRAM
*****
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 29-JAN-2009 10:38:56.1MS Isotope      :
* MSD ID              :                               MSD Isotope :
* LCS ID              : 1032-A                       LCS Isotope  :
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.393E-01	6.954E-02	7.079E-02	4.347E-03	3.380
CO-60	6.504E+00	5.705E-01	6.989E-02	4.843E-03	93.058
CD-109	3.361E+01	4.434E+00	2.004E+00	1.844E-01	16.773
SN-126	3.342E+00	4.408E-01	2.003E-01	1.838E-02	16.682
BA-137M	5.134E+00	3.743E-01	1.199E-01	6.054E-03	42.825
CS-137	5.427E+00	3.967E-01	1.267E-01	6.435E-03	42.825
BI-211	1.834E+00	6.976E-01	6.183E-01	3.915E-02	2.967
BI-214	6.182E-01	2.429E-01	2.430E-01	1.802E-02	2.544
PB-214	6.380E-01	2.449E-01	2.155E-01	1.768E-02	2.960
PO-214	6.380E-01	2.449E-01	2.155E-01	1.768E-02	2.960
PO-218	6.380E-01	2.449E-01	2.155E-01	1.768E-02	2.960
RA-224	2.658E+00	1.525E+00	1.821E+00	1.047E-01	1.460
RA-226	6.182E-01	2.429E-01	2.430E-01	1.802E-02	2.544
AC-228	9.872E-01	5.253E-01	6.171E-01	6.235E-02	1.600
RA-228	9.872E-01	5.253E-01	6.171E-01	6.235E-02	1.600
TH-230	6.182E-01	2.429E-01	2.430E-01	1.802E-02	2.544
TH-232	9.872E-01	5.253E-01	6.171E-01	6.235E-02	1.600
U-234	6.182E-01	2.429E-01	2.430E-01	1.802E-02	2.544

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	9.813E+00	2.403E+00	5.960E-01	1.344E-01	16.464
AM-241	1.393E+01	1.578E+00	5.900E-01	5.392E-02	23.606

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.666E-01		6.635E-01	1.091E+00	7.133E-02	0.244
NA-22	3.827E-02		6.139E-02	1.108E-01	7.103E-03	0.345
NA-24	-3.889E-05		9.696E-05	Half-Life too short		
AL-26	8.570E-04		4.658E-02	7.731E-02	4.458E-03	0.011
K-40	8.267E-01		5.527E-01	1.155E+00	8.207E-02	0.716
TI-44	5.784E-02		6.680E-02	1.107E-01	9.495E-03	0.523
SC-46	-1.056E-01		9.607E-02	1.434E-01	1.008E-02	-0.736
V-48	-2.356E-02		1.276E-01	2.041E-01	1.384E-02	-0.115
CR-51	3.361E-01		5.858E-01	9.903E-01	6.410E-02	0.339
MN-52	9.488E-02		1.145E-01	2.201E-01	1.506E-02	0.431
MN-54	6.298E-02		8.186E-02	1.418E-01	9.263E-03	0.444
CO-56	1.166E-02		8.605E-02	1.426E-01	9.465E-03	0.082
CO-58	-6.530E-02		8.566E-02	1.324E-01	8.404E-03	-0.493
FE-59	-9.164E-02		1.916E-01	2.952E-01	2.081E-02	-0.310
ZN-65	-2.747E-01		2.171E-01	3.111E-01	1.863E-02	-0.883
GE-68	-6.107E-01		2.977E+00	4.717E+00	2.946E-01	-0.129
AS-73	-3.309E-02		2.399E+00	3.486E+00	2.967E-01	-0.009
AS-74	4.269E-02		1.304E-01	2.235E-01	1.196E-02	0.191
SE-75	4.067E-02		7.570E-02	1.286E-01	7.566E-03	0.316
BR-77	-1.110E+00		2.387E+00	3.671E+00	2.030E-01	-0.302
SR-82	-4.007E-01		6.499E-01	1.017E+00	6.121E-02	-0.394
RB-83	-7.813E-02		1.384E-01	2.111E-01	1.167E-02	-0.370
RB-84	-1.035E-01		1.501E-01	2.321E-01	1.615E-02	-0.446
KR-85	-2.472E+01		1.713E+01	2.477E+01	1.371E+00	-0.998
SR-85	-1.169E-01		8.103E-02	1.172E-01	6.485E-03	-0.998
RB-86	-1.941E-02		1.405E+00	2.265E+00	1.415E-01	-0.009
Y-88	-1.638E-03		4.435E-02	7.130E-02	4.035E-03	-0.023
ZR-88	5.725E-04		6.087E-02	9.872E-02	5.338E-03	0.006
Y-91	-5.962E+00		2.360E+01	3.831E+01	2.214E+00	-0.156
NB-94	3.726E-03		6.468E-02	1.078E-01	5.806E-03	0.035
NB-95	1.407E-02		8.188E-02	1.368E-01	8.104E-03	0.103
NB-95M	-1.667E-01		2.269E-01	3.153E-01	2.357E-02	-0.529
ZR-95	7.238E-02		1.348E-01	2.317E-01	1.638E-02	0.312
NB-97	3.100E-04		6.813E-05	Half-Life too short		
ZR-97	-3.176E-03		1.069E-03	Half-Life too short		
MO-99	-2.223E+00		3.462E+00	5.403E+00	7.422E-01	-0.411
TC-99M	-2.943E+01		1.807E+01	Half-Life too short		
RH-101	-8.697E-03		5.673E-02	9.398E-02	5.196E-03	-0.093
RH-102	-6.328E-03		6.731E-02	1.073E-01	5.952E-03	-0.059
RU-103	-1.293E-02		7.756E-02	1.226E-01	1.536E-02	-0.106
RH-106	-1.816E-01		6.350E-01	1.038E+00	1.192E-01	-0.175

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RU-106	-1.816E-01		6.348E-01	1.038E+00	5.450E-02	-0.175
AG-108M	-8.398E-02		7.934E-02	1.195E-01	7.205E-03	-0.703
AG-110M	1.427E-01		8.760E-02	1.447E-01	7.955E-03	0.986
IN-111	-5.427E-02		3.131E-01	4.507E-01	2.600E-02	-0.120
IN-113M	-8.234E-03		8.829E-02	1.423E-01	8.279E-03	-0.058
SN-113	-8.234E-03		8.829E-02	1.423E-01	8.279E-03	-0.058
IN-114M	1.318E-01		2.752E-01	4.708E-01	2.580E-02	0.280
CD-115	-1.336E-01		2.005E+00	3.365E+00	1.857E-01	-0.040
SN-117M	1.087E-02		5.696E-02	9.698E-02	5.277E-03	0.112
SB-122	-1.059E-01		5.255E-01	8.697E-01	4.738E-02	-0.122
I-123	-1.495E-04		2.658E-04	Half-Life	too short	
TE-123M	-1.188E-02		4.224E-02	7.040E-02	3.885E-03	-0.169
I-124	-1.418E-01		3.916E-01	6.010E-01	3.201E-02	-0.236
SB-124	-8.985E-02		9.155E-02	1.005E-01	6.718E-03	-0.894
SB-125	9.320E-02		2.019E-01	3.350E-01	1.927E-02	0.278
TE-125M	-4.247E+00		1.349E+01	2.111E+01	1.882E+00	-0.201
I-126	-6.654E-02		2.621E-01	3.679E-01	1.872E-02	-0.181
SB-126	4.280E-02		1.832E-01	3.090E-01	1.711E-02	0.139
SB-127	2.168E-01		6.901E-01	1.167E+00	7.806E-02	0.186
XE-127	-3.114E-02		7.007E-02	1.148E-01	6.383E-03	-0.271
I-131	-6.591E-03		1.185E-01	1.921E-01	1.201E-02	-0.034
TE-132	-1.288E-01		2.421E-01	3.919E-01	5.142E-02	-0.329
BA-133	-2.850E-02		1.012E-01	1.410E-01	1.620E-02	-0.202
I-133	9.844E-07		1.332E-05	Half-Life	too short	
CS-134	1.582E-02		9.881E-02	1.646E-01	1.033E-02	0.096
CS-135	6.299E-03		2.886E-01	4.774E-01	3.667E-02	0.013
I-135	-4.011E+00		1.353E+01	Half-Life	too short	
CS-136	8.546E-02		1.761E-01	2.959E-01	2.044E-02	0.289
CE-139	1.830E-02		4.612E-02	7.905E-02	4.222E-03	0.232
BA-140	-1.392E-01		3.453E-01	5.610E-01	1.821E-01	-0.248
LA-140	-5.037E-02		7.588E-02	1.044E-01	6.804E-03	-0.482
CE-141	3.419E-02		8.689E-02	1.494E-01	8.781E-03	0.229
CE-143	6.902E+00		5.740E+00	8.746E+00	1.788E+00	0.789
CE-144	-4.776E-01		3.680E-01	5.337E-01	7.591E-02	-0.895
PM-144	4.329E-02		6.456E-02	1.126E-01	6.009E-03	0.385
PR-144	2.921E+00		4.357E+00	7.598E+00	4.054E-01	0.385
PM-146	-5.005E-02		1.022E-01	1.592E-01	1.344E-02	-0.314
ND-147	2.187E-01		7.141E-01	1.226E+00	1.643E-01	0.178
PM-149	3.422E-01		1.504E+01	2.481E+01	3.516E+00	0.014
EU-152	4.352E-02		2.092E-01	3.042E-01	1.968E-02	0.143
GD-153	-2.715E-02		1.414E-01	1.985E-01	1.571E-02	-0.137
EU-154	1.073E-01		1.723E-01	3.108E-01	3.022E-02	0.345
EU-155	-5.042E-02		1.751E-01	2.751E-01	2.010E-02	-0.183
TB-160	1.110E-01		3.161E-01	5.307E-01	3.681E-02	0.209
HO-166M	7.577E-04		1.161E-01	1.926E-01	1.052E-02	0.004
TM-171	-2.435E+01		4.653E+01	7.344E+01	6.110E+00	-0.332
LU-176	8.850E-03		4.626E-02	7.677E-02	4.482E-03	0.115
LU-177	4.640E-01		8.497E-01	1.452E+00	8.115E-02	0.320

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
LU-177M	-3.498E-01		3.647E-01	5.527E-01	3.020E-02	-0.633
HF-181	-2.835E-02		8.293E-02	1.297E-01	7.198E-03	-0.219
W-181	-3.321E-01		6.115E-01	9.152E-01	7.629E-02	-0.363
TA-182	-2.563E-01		2.406E-01	3.426E-01	2.029E-02	-0.748
RE-183	-1.343E-02		1.606E-01	2.699E-01	1.454E-02	-0.050
RE-184	2.426E-01		4.087E-01	6.968E-01	4.037E-02	0.348
OS-185	6.970E-02		8.103E-02	1.433E-01	7.357E-03	0.486
RE-188	-4.785E-02		2.390E-01	4.001E-01	2.198E-02	-0.120
W-188	1.546E+00		1.342E+01	1.956E+01	1.145E+00	0.079
IR-192	1.634E-03		6.266E-02	1.029E-01	6.017E-03	0.016
AU-195	1.603E-01		3.459E-01	5.654E-01	4.388E-02	0.284
TL-200	-2.633E+00		6.881E+00	1.092E+01	6.103E-01	-0.241
TL-201	2.044E+00		1.919E+00	3.379E+00	1.806E-01	0.605
TL-202	6.899E-02		1.023E-01	1.715E-01	9.455E-03	0.402
HG-203	2.239E-02		6.505E-02	1.092E-01	6.773E-03	0.205
BI-207	6.061E-02		1.242E-01	2.097E-01	1.329E-02	0.289
TL-207	-5.058E-01		1.251E+00	1.996E+00	3.296E-01	-0.253
TL-208	2.058E-01	+	1.694E-01	1.777E-01	1.126E-02	1.158
PO-209	1.292E+01		1.925E+01	3.292E+01	2.336E+00	0.392
BI-210	-4.755E+00		9.273E+00	1.485E+01	1.176E+00	-0.320
PB-210	-4.755E+00		9.273E+00	1.485E+01	1.176E+00	-0.320
PO-210	-4.755E+00		9.271E+00	1.485E+01	1.020E+00	-0.320
PB-211	-7.473E-01		2.022E+00	3.109E+00	1.937E+00	-0.240
BI-212	7.847E-01		6.316E-01	1.128E+00	8.530E-02	0.695
PB-212	9.493E-01	+	1.710E-01	2.782E-01	2.027E-02	3.412
PO-212	9.493E-01	+	1.710E-01	2.782E-01	2.027E-02	3.412
PO-215	-5.058E-01		1.251E+00	1.996E+00	3.296E-01	-0.253
PO-216	9.493E-01	+	1.710E-01	2.782E-01	2.027E-02	3.412
RN-219	-2.456E-01		8.482E-01	1.347E+00	1.812E-01	-0.182
RN-220	2.386E+00		5.265E+01	8.883E+01	4.869E+00	0.027
RA-223	-5.058E-01		1.251E+00	1.996E+00	3.296E-01	-0.253
AC-227	-6.343E-01		7.186E-01	1.127E+00	1.574E-01	-0.563
TH-227	-6.343E-01		7.211E-01	1.127E+00	1.905E-01	-0.563
TH-228	9.563E-01	+	1.723E-01	2.803E-01	2.042E-02	3.412
TH-229	-2.496E-01		8.501E-01	1.405E+00	7.731E-02	-0.178
PA-231	1.730E+00		2.752E+00	4.674E+00	6.451E-01	0.370
TH-231	-5.058E-01		1.251E+00	1.996E+00	3.296E-01	-0.253
U-231	-2.012E-01		5.421E-01	7.524E-01	6.088E-02	-0.267
PA-233	-8.383E-02		1.241E-01	1.954E-01	1.209E-02	-0.429
PA-234	1.122E-01		8.197E-01	1.347E+00	2.432E-01	0.083
PA-234M	1.003E+01		1.062E+01	1.859E+01	1.553E+00	0.539
TH-234	-4.670E-01		2.430E+00	3.526E+00	6.302E-01	-0.132
U-235	1.153E-01		3.379E-01	5.786E-01	9.407E-02	0.199
NP-236	1.721E-02		1.246E-01	2.115E-01	1.146E-02	0.081
U-238	-4.670E-01		2.430E+00	3.526E+00	6.302E-01	-0.132
NP-239	4.124E-01		3.548E-01	5.383E-01	3.444E-02	0.766
AM-243	-1.067E-01		1.168E-01	1.820E-01	1.534E-02	-0.586
CM-243	-6.673E-02		1.520E-01	2.366E-01	1.729E-02	-0.282

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-246	1.472E-01		3.369E-01	5.639E-01	3.515E-02	0.261
CM-247	4.350E-03		7.525E-02	1.223E-01	6.646E-03	0.036
CF-249	-4.959E-02		8.376E-02	1.308E-01	7.112E-03	-0.379
CF-251	-4.636E-02		2.045E-01	3.402E-01	1.836E-02	-0.136
ANH-511	6.403E-02		7.586E-02	1.361E-01	7.537E-03	0.470

VAX/VMS Nuclide Identification Report Generated

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                    *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : SYSSYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202005184          *
* Acquisition date   : 7-JAN-2010 10:59:16 Detector SN# :                  *
* Detector ID        : GAM01 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 01:00:01.16 Half life ratio : 8.000              *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 31-DEC-2009 00:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202005184 Analyst initials: MXR1                 *
* Batch Number       : 937069 Sample Quantity : 1.5544E+02 GRAM          *
* Recovery           : 1.00000 Carrier Weight : 0.00000                  *
*****
*                                     QC DATA                                *
*
* CALIB. DATE/TIME  : 29-JAN-2009 10:38:56 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
CO-57	2.393E-01	6.815E-02	3.814E-02	3.477E-02
CO-60	6.504E+00	5.591E-01	3.536E-02	2.853E-01
CD-109	3.361E+01	4.345E+00	1.088E+00	2.217E+00
SN-126	3.342E+00	4.320E-01	1.088E-01	2.204E-01
BA-137M	5.134E+00	3.668E-01	6.183E-02	1.872E-01
CS-137	5.427E+00	3.888E-01	6.536E-02	1.984E-01
BI-211	1.834E+00	6.837E-01	3.243E-01	3.488E-01
BI-214	6.182E-01	2.380E-01	1.256E-01	1.214E-01
PB-214	6.380E-01	2.400E-01	1.130E-01	1.225E-01
PO-214	6.380E-01	2.400E-01	1.130E-01	1.225E-01
PO-218	6.380E-01	2.400E-01	1.130E-01	1.225E-01
RA-224	2.658E+00	1.494E+00	9.645E-01	7.625E-01
RA-226	6.182E-01	2.380E-01	1.256E-01	1.214E-01
AC-228	9.872E-01	5.148E-01	3.155E-01	2.627E-01
RA-228	9.872E-01	5.148E-01	3.155E-01	2.627E-01
TH-230	6.182E-01	2.380E-01	1.256E-01	1.214E-01
TH-232	9.872E-01	5.148E-01	3.155E-01	2.627E-01
U-234	6.182E-01	2.380E-01	1.256E-01	1.214E-01
NP-237	9.813E+00	2.355E+00	3.239E-01	1.202E+00
AM-241	1.393E+01	1.546E+00	3.235E-01	7.890E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	2.666E-01	6.503E-01	5.678E-01	3.318E-01 NOT IDENT.
NA-22	3.827E-02	6.016E-02	5.613E-02	3.070E-02 NOT IDENT.
NA-24	-3.889E+01	1.900E+02	0.000E+00	9.696E+01 SHORT HLIF
AL-26	8.570E-04	4.565E-02	3.877E-02	2.329E-02 NOT IDENT.
K-40	8.267E-01	5.417E-01	5.827E-01	2.764E-01 NOT IDENT.
TI-44	5.784E-02	6.547E-02	6.030E-02	3.340E-02 NOT IDENT.
SC-46	-1.056E-01	9.414E-02	7.336E-02	4.803E-02 NOT IDENT.

V-48	-2.356E-02	1.251E-01	1.041E-01	6.381E-02	NOT IDENT.
CR-51	3.361E-01	5.741E-01	5.207E-01	2.929E-01	NOT IDENT.
MN-52	9.488E-02	1.122E-01	1.111E-01	5.727E-02	NOT IDENT.
MN-54	6.298E-02	8.022E-02	7.267E-02	4.093E-02	NOT IDENT.
CO-56	1.166E-02	8.433E-02	7.303E-02	4.302E-02	NOT IDENT.
CO-58	-6.530E-02	8.395E-02	6.792E-02	4.283E-02	NOT IDENT.
FE-59	-9.164E-02	1.877E-01	1.502E-01	9.579E-02	NOT IDENT.
ZN-65	-2.747E-01	2.128E-01	1.582E-01	1.086E-01	NOT IDENT.
GE-68	-6.107E-01	2.917E+00	2.401E+00	1.488E+00	NOT IDENT.
AS-73	-3.309E-02	2.351E+00	1.916E+00	1.200E+00	NOT IDENT.
AS-74	4.269E-02	1.278E-01	1.156E-01	6.522E-02	NOT IDENT.
SE-75	4.067E-02	7.418E-02	6.794E-02	3.785E-02	FAIL ABUN
BR-77	-1.110E+00	2.339E+00	1.906E+00	1.193E+00	FAIL ABUN
SR-82	-4.007E-01	6.369E-01	5.224E-01	3.249E-01	NOT IDENT.
RB-83	-7.813E-02	1.357E-01	1.096E-01	6.921E-02	NOT IDENT.
RB-84	-1.035E-01	1.471E-01	1.188E-01	7.504E-02	NOT IDENT.
KR-85	-2.472E+01	1.679E+01	1.286E+01	8.566E+00	NOT IDENT.
SR-85	-1.169E-01	7.941E-02	6.084E-02	4.051E-02	NOT IDENT.
RB-86	-1.941E-02	1.377E+00	1.153E+00	7.027E-01	NOT IDENT.
Y-88	-1.638E-03	4.346E-02	3.574E-02	2.218E-02	NOT IDENT.
ZR-88	5.725E-04	5.965E-02	5.163E-02	3.043E-02	NOT IDENT.
Y-91	-5.962E+00	2.313E+01	1.944E+01	1.180E+01	NOT IDENT.
NB-94	3.726E-03	6.339E-02	5.549E-02	3.234E-02	NOT IDENT.
NB-95	1.407E-02	8.025E-02	7.027E-02	4.094E-02	NOT IDENT.
NB-95M	-1.667E-01	2.224E-01	1.671E-01	1.135E-01	NOT IDENT.
ZR-95	7.238E-02	1.321E-01	1.191E-01	6.739E-02	NOT IDENT.
NB-97	3.100E+02	1.335E+02	0.000E+00	6.813E+01	SHORT HLIF
ZR-97	-3.176E+03	2.096E+03	0.000E+00	1.069E+03	SHORT HLIF
MO-99	-2.223E+00	3.392E+00	2.778E+00	1.731E+00	NOT IDENT.
TC-99M	-2.943E+07	3.541E+07	0.000E+00	1.807E+07	SHORT HLIF
RH-101	-8.697E-03	5.559E-02	5.003E-02	2.836E-02	NOT IDENT.
RH-102	-6.328E-03	6.596E-02	5.584E-02	3.365E-02	NOT IDENT.
RU-103	-1.293E-02	7.600E-02	6.370E-02	3.878E-02	FAIL ABUN
RH-106	-1.816E-01	6.223E-01	5.365E-01	3.175E-01	NOT IDENT.
RU-106	-1.816E-01	6.221E-01	5.365E-01	3.174E-01	NOT IDENT.
AG-108M	-8.398E-02	7.775E-02	6.235E-02	3.967E-02	NOT IDENT.
AG-110M	1.427E-01	8.585E-02	7.466E-02	4.380E-02	NOT IDENT.
IN-111	-5.427E-02	3.069E-01	2.386E-01	1.566E-01	NOT IDENT.
IN-113M	-8.234E-03	8.652E-02	7.443E-02	4.414E-02	NOT IDENT.
SN-113	-8.234E-03	8.652E-02	7.443E-02	4.414E-02	NOT IDENT.
IN-114M	1.318E-01	2.697E-01	2.509E-01	1.376E-01	NOT IDENT.
CD-115	-1.336E-01	1.965E+00	1.746E+00	1.002E+00	NOT IDENT.
SN-117M	1.087E-02	5.582E-02	5.192E-02	2.848E-02	NOT IDENT.
SB-122	-1.059E-01	5.149E-01	4.505E-01	2.627E-01	NOT IDENT.
I-123	-1.495E+02	5.210E+02	0.000E+00	2.658E+02	SHORT HLIF
TE-123M	-1.188E-02	4.140E-02	3.768E-02	2.112E-02	NOT IDENT.
I-124	-1.418E-01	3.837E-01	3.108E-01	1.958E-01	NOT IDENT.
SB-124	-8.985E-02	8.972E-02	5.047E-02	4.578E-02	FAIL ABUN
SB-125	9.320E-02	1.979E-01	1.748E-01	1.010E-01	NOT IDENT.
TE-125M	-4.247E+00	1.322E+01	1.141E+01	6.743E+00	NOT IDENT.
I-126	-6.654E-02	2.569E-01	1.897E-01	1.310E-01	NOT IDENT.
SB-126	4.280E-02	1.795E-01	1.590E-01	9.160E-02	FAIL ABUN
SB-127	2.168E-01	6.763E-01	6.014E-01	3.451E-01	NOT IDENT.
XE-127	-3.114E-02	6.867E-02	6.110E-02	3.504E-02	NOT IDENT.
I-131	-6.591E-03	1.161E-01	1.007E-01	5.924E-02	NOT IDENT.
TE-132	-1.288E-01	2.373E-01	2.079E-01	1.211E-01	NOT IDENT.
BA-133	-2.850E-02	9.920E-02	7.391E-02	5.061E-02	NOT IDENT.
I-133	9.844E-01	2.610E+01	0.000E+00	1.332E+01	SHORT HLIF
CS-134	1.582E-02	9.683E-02	8.448E-02	4.940E-02	NOT IDENT.
CS-135	6.299E-03	2.829E-01	0.521E-01	1.443E-01	NOT IDENT.
I-135	-4.011E+06	2.653E+07	2.000E+00	1.353E+07	SHORT HLIF
CS-136	8.546E-02	1.726E-01	1.507E-01	8.805E-02	NOT IDENT.
CE-139	1.830E-02	4.520E-02	4.227E-02	2.306E-02	NOT IDENT.
BA-140	-1.392E-01	3.384E-01	2.909E-01	1.726E-01	NOT IDENT.
LA-140	-5.037E-02	7.436E-02	5.256E-02	3.794E-02	NOT IDENT.
CE-141	3.419E-02	8.515E-02	8.017E-02	4.344E-02	NOT IDENT.
CE-143	6.902E+00	5.625E+00	4.609E+00	2.870E+00	NOT IDENT.
CE-144	-4.776E-01	3.607E-01	2.870E-01	1.840E-01	NOT IDENT.
PM-144	4.329E-02	6.327E-02	5.798E-02	3.228E-02	NOT IDENT.
PR-144	2.921E+00	4.270E+00	3.913E+00	2.179E+00	NOT IDENT.
PM-146	-5.005E-02	1.001E-01	8.293E-02	5.109E-02	NOT IDENT.
ND-147	2.187E-01	6.998E-01	6.359E-01	3.570E-01	NOT IDENT.
PM-149	3.422E-01	1.474E+01	1.308E+01	7.521E+00	NOT IDENT.
EU-152	4.352E-02	2.050E-01	1.596E-01	1.046E-01	FAIL ABUN
GD-153	-2.715E-02	1.385E-01	1.076E-01	7.068E-02	NOT IDENT.
EU-154	1.073E-01	1.689E-01	1.574E-01	8.616E-02	FAIL ABUN
EU-155	-5.042E-02	1.716E-01	1.488E-01	8.756E-02	FAIL ABUN
TB-160	1.110E-01	3.098E-01	2.716E-01	1.580E-01	FAIL ABUN

HO-166M	7.577E-04	1.138E-01	9.914E-02	5.807E-02	NOT IDENT.
TM-171	-2.435E+01	4.560E+01	4.016E+01	2.326E+01	FAIL ABUN
LU-176	8.850E-03	4.534E-02	4.041E-02	2.313E-02	FAIL ABUN
LU-177	4.640E-01	8.327E-01	7.717E-01	4.249E-01	NOT IDENT.
LU-177M	-3.498E-01	3.574E-01	2.887E-01	1.823E-01	FAIL ABUN
HF-181	-2.835E-02	8.128E-02	6.748E-02	4.147E-02	NOT IDENT.
W-181	-3.321E-01	5.993E-01	5.008E-01	3.058E-01	NOT IDENT.
TA-182	-2.563E-01	2.358E-01	1.738E-01	1.203E-01	NOT IDENT.
RE-183	-1.343E-02	1.574E-01	1.444E-01	8.030E-02	FAIL ABUN
RE-184	2.426E-01	4.005E-01	3.686E-01	2.043E-01	FAIL ABUN
OS-185	6.970E-02	7.941E-02	7.397E-02	4.052E-02	FAIL ABUN
RE-188	-4.785E-02	2.342E-01	2.143E-01	1.195E-01	NOT IDENT.
W-188	1.546E+00	1.315E+01	1.031E+01	6.712E+00	NOT IDENT.
IR-192	1.634E-03	6.141E-02	5.410E-02	3.133E-02	FAIL ABUN
AU-195	1.603E-01	3.390E-01	3.062E-01	1.729E-01	NOT IDENT.
TL-200	-2.633E+00	6.744E+00	5.722E+00	3.441E+00	NOT IDENT.
TL-201	2.044E+00	1.880E+00	1.806E+00	9.594E-01	NOT IDENT.
TL-202	6.899E-02	1.003E-01	8.940E-02	5.115E-02	NOT IDENT.
HG-203	2.239E-02	6.375E-02	5.763E-02	3.253E-02	NOT IDENT.
BI-207	6.061E-02	1.217E-01	1.068E-01	6.211E-02	NOT IDENT.
TL-207	-5.058E-01	1.226E+00	1.049E+00	6.256E-01	FAIL ABUN
TL-208	2.058E-01	1.660E-01	9.195E-02	8.471E-02	FAIL ABUN
PO-209	1.292E+01	1.886E+01	1.684E+01	9.624E+00	NOT IDENT.
BI-210	-4.755E+00	9.088E+00	8.191E+00	4.637E+00	NOT IDENT.
PB-210	-4.755E+00	9.088E+00	8.191E+00	4.637E+00	NOT IDENT.
PO-210	-4.755E+00	9.086E+00	8.191E+00	4.636E+00	NOT IDENT.
PB-211	-7.473E-01	1.981E+00	1.625E+00	1.011E+00	NOT IDENT.
BI-212	7.847E-01	6.190E-01	5.805E-01	3.158E-01	NOT IDENT.
PB-212	9.493E-01	1.676E-01	1.474E-01	8.550E-02	FAIL ABUN
PO-212	9.493E-01	1.676E-01	1.474E-01	8.550E-02	FAIL ABUN
PO-215	-5.058E-01	1.226E+00	1.049E+00	6.256E-01	FAIL ABUN
PO-216	9.493E-01	1.676E-01	1.474E-01	8.550E-02	FAIL ABUN
RN-219	-2.456E-01	8.312E-01	7.040E-01	4.241E-01	NOT IDENT.
RN-220	2.386E+00	5.160E+01	4.604E+01	2.632E+01	NOT IDENT.
RA-223	-5.058E-01	1.226E+00	1.049E+00	6.256E-01	FAIL ABUN
AC-227	-6.343E-01	7.042E-01	5.962E-01	3.593E-01	NOT IDENT.
TH-227	-6.343E-01	7.067E-01	5.962E-01	3.606E-01	FAIL ABUN
TH-228	9.563E-01	1.688E-01	1.485E-01	8.614E-02	FAIL ABUN
TH-229	-2.496E-01	8.331E-01	7.485E-01	4.251E-01	FAIL ABUN
PA-231	1.730E+00	2.697E+00	2.466E+00	1.376E+00	NOT IDENT.
TH-231	-5.058E-01	1.226E+00	1.049E+00	6.256E-01	FAIL ABUN
U-231	-2.012E-01	5.313E-01	4.079E-01	2.711E-01	FAIL ABUN
PA-233	-8.383E-02	1.216E-01	1.028E-01	6.203E-02	FAIL ABUN
PA-234	1.122E-01	8.033E-01	6.879E-01	4.098E-01	NOT IDENT.
PA-234M	1.003E+01	1.040E+01	9.481E+00	5.308E+00	NOT IDENT.
TH-234	-4.670E-01	2.382E+00	1.931E+00	1.215E+00	FAIL ABUN
U-235	1.153E-01	3.311E-01	3.105E-01	1.689E-01	FAIL ABUN
NP-236	1.721E-02	1.221E-01	1.132E-01	6.229E-02	NOT IDENT.
U-238	-4.670E-01	2.382E+00	1.931E+00	1.215E+00	FAIL ABUN
NP-239	4.124E-01	3.477E-01	2.903E-01	1.774E-01	NOT IDENT.
AM-243	-1.067E-01	1.144E-01	9.924E-02	5.839E-02	FAIL ABUN
CM-243	-6.673E-02	1.489E-01	1.280E-01	7.598E-02	NOT IDENT.
AM-246	1.472E-01	3.302E-01	2.869E-01	1.685E-01	NOT IDENT.
CM-247	4.350E-03	7.375E-02	6.390E-02	3.763E-02	NOT IDENT.
CF-249	-4.959E-02	8.208E-02	6.845E-02	4.188E-02	NOT IDENT.
CF-251	-4.636E-02	2.004E-01	1.816E-01	1.022E-01	NOT IDENT.
ANH-511	6.403E-02	7.435E-02	7.069E-02	3.793E-02	NOT IDENT.

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*****
*                               GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                               *
*                               CHARLESTON , SC 29417                          *
*                               GAMMA SPECTROSCOPY BACKGROUND REPORT            *
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ENERGY          MDA COUNTS

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46.50	389.1701
46.50	389.1701
46.50	389.1701
48.70	409.4851
49.72	407.2493
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241.98	163.2079
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269.46	165.8591
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445.03	126.9993
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911.07	125.6606
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1836.01

6.2761

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202005184

Total Uranium Activity	-1.3360E+00	ug/g
Total Uranium Counting Unc.	7.0875E+00	ug/g
Total Uranium Tpu	3.6161E-06	ug/g
Total Uranium Mda	5.7450E+00	ug/g

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*
*                               GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                               *
*                               CHARLESTON ,SC 29417                           *
*                               GROSS GAMMA REPORT                             *
*
*****
*
*  BATCH ID      : 937069                SAMPLE ID   : G1202005184                *
*  ANALYST       : MXR1                  DETECTOR    : GAM01                    *
*  SAMPLE DATE   : 31-DEC-2009 00:00:00.00  COUNT TIME : 0 01:00:00.00          *
*  ANALYSIS DATE: 7-JAN-2010 10:59:16.85  SAMPLE ALQT: 155.440 GRAM            *
*
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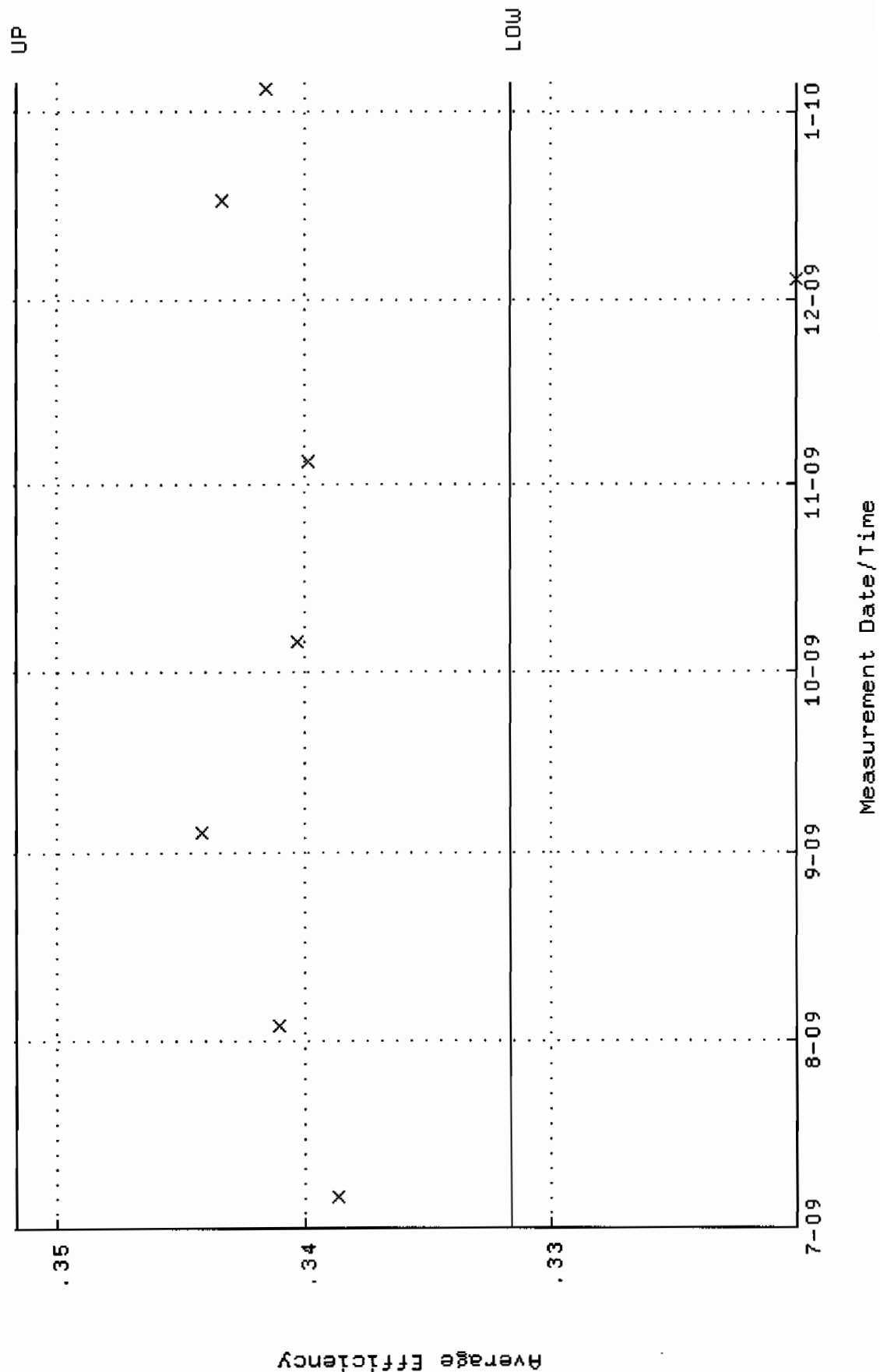
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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 2.593E+01
GROSS GAMMA ERROR   (pCi/GRAM ) : 2.689E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 4.610E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 2.245E+00

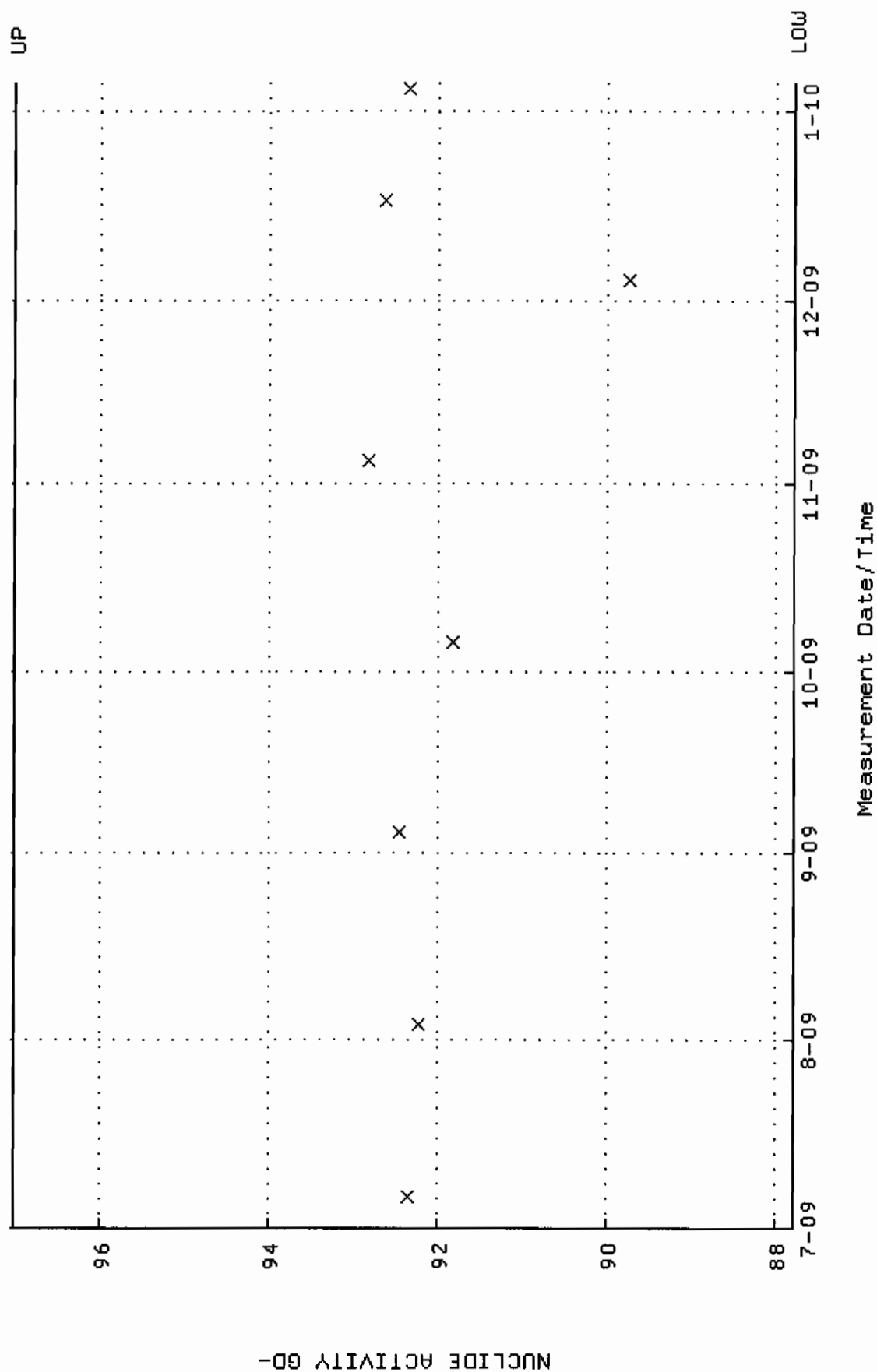
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BACKGROUND AND EFFICIENCY DATA

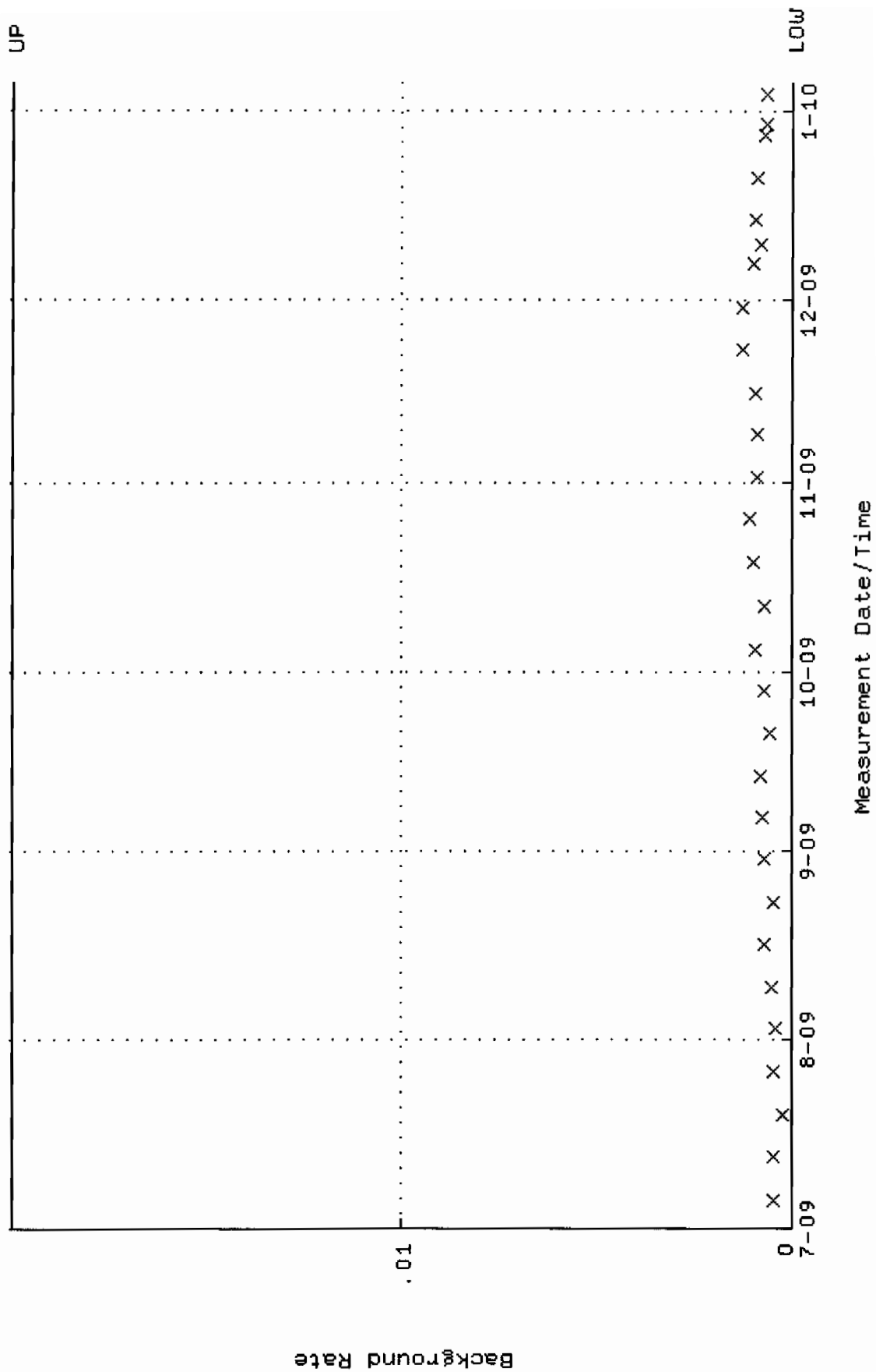
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 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.331676 through 0.351676



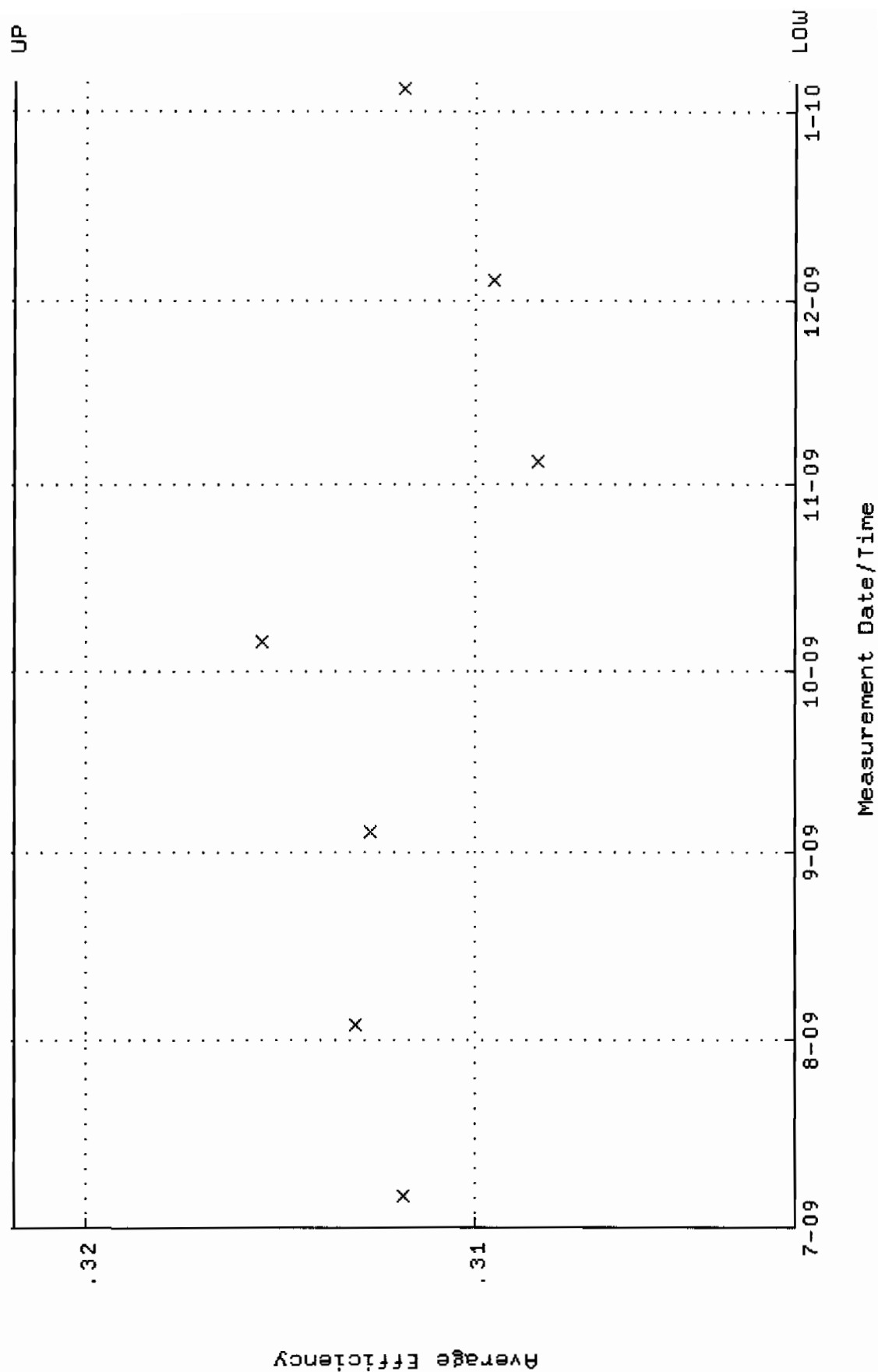
QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 87.7736 through 97.0130



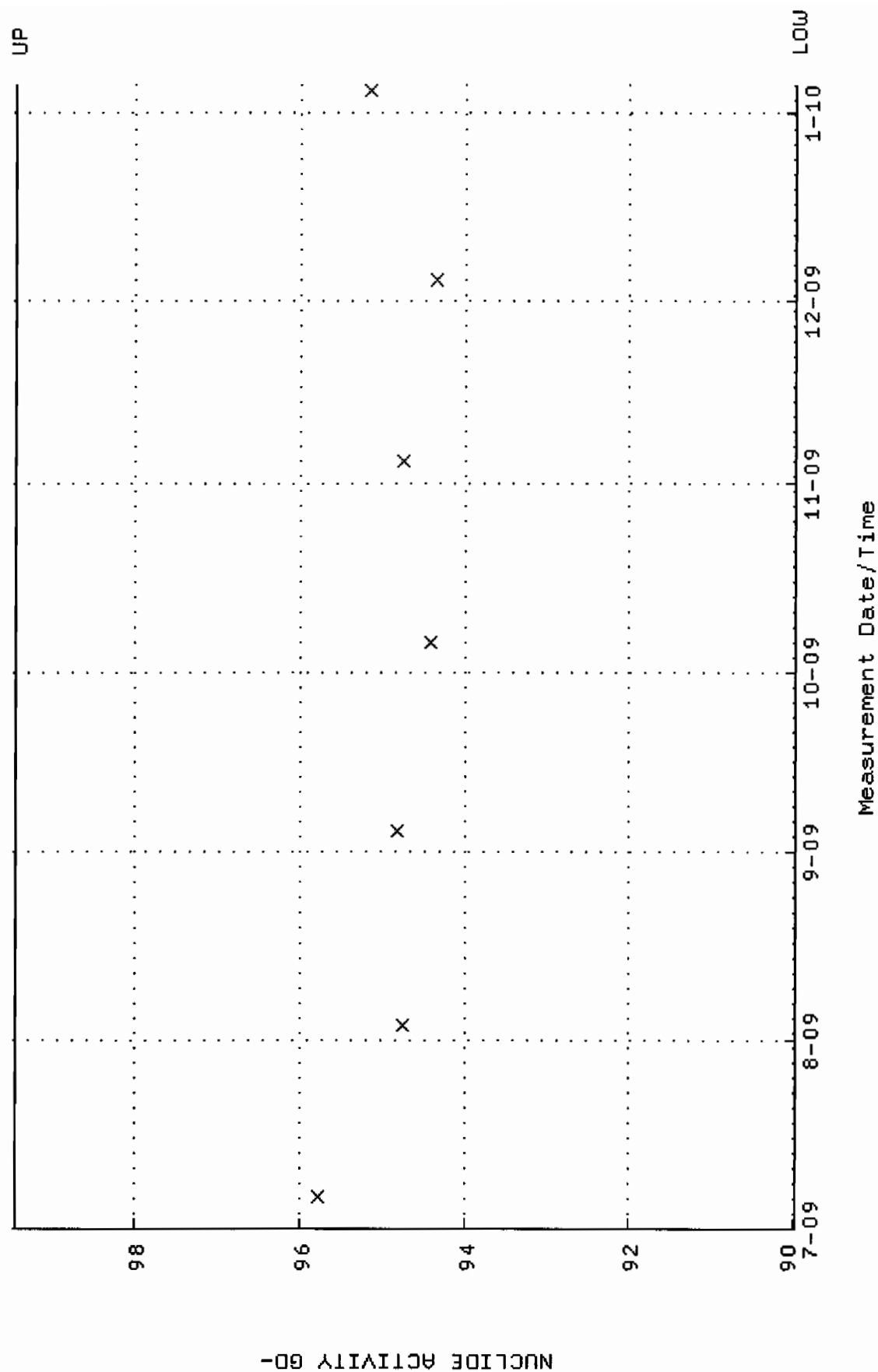
QA filename : DKA100:[ENV_ALPHA.QA.B]B013.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:11:56 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



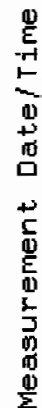
QA filename : DKA100:[ENV_ALPHA.QA.W]w014.QAF;4
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.301834 through 0.321834



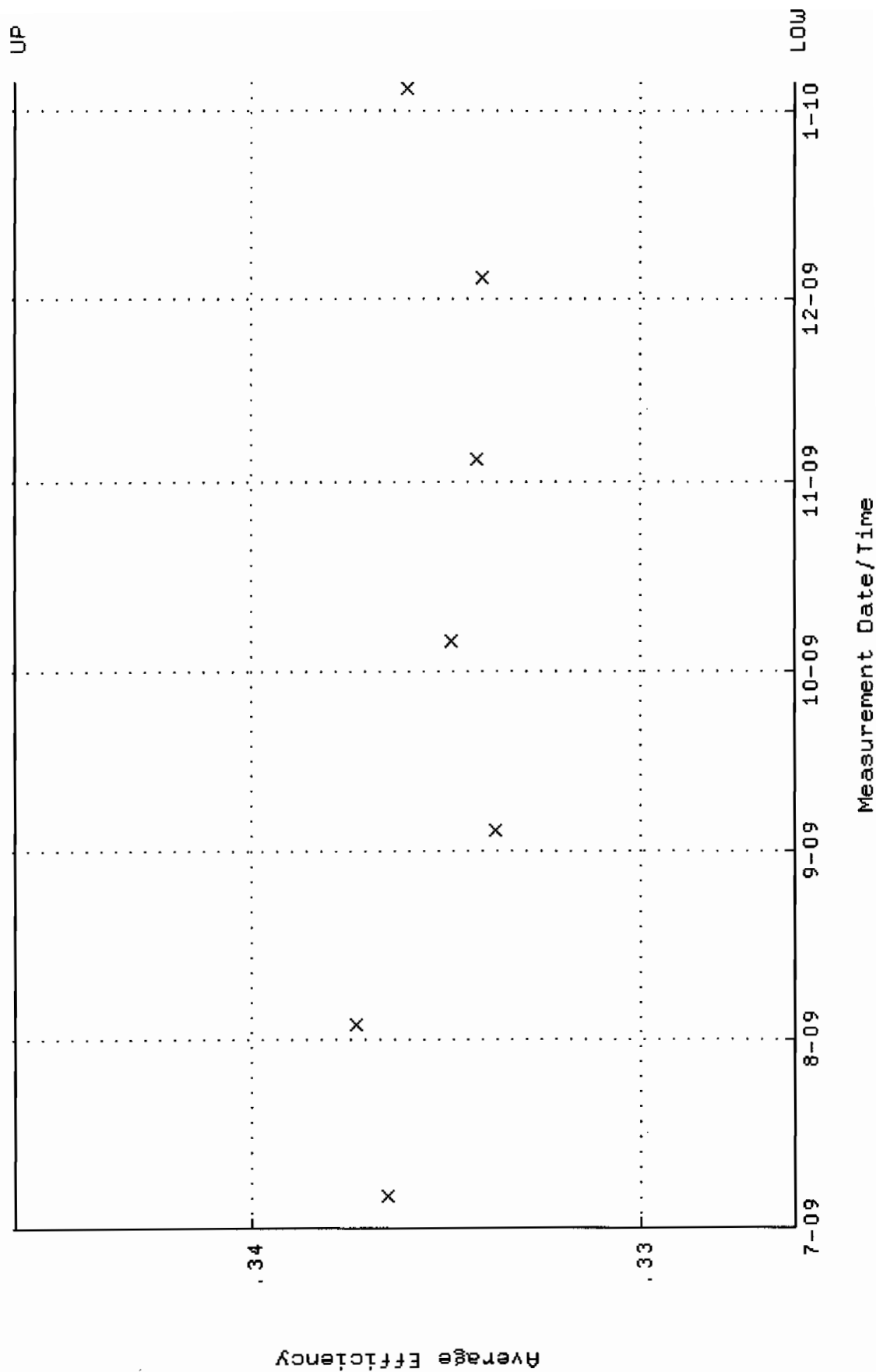
QA filename : DKA100:[ENV_ALPHA.QA.W]W014.QAF;4
 Parameter Name : NACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 89.9790 through 99.4504



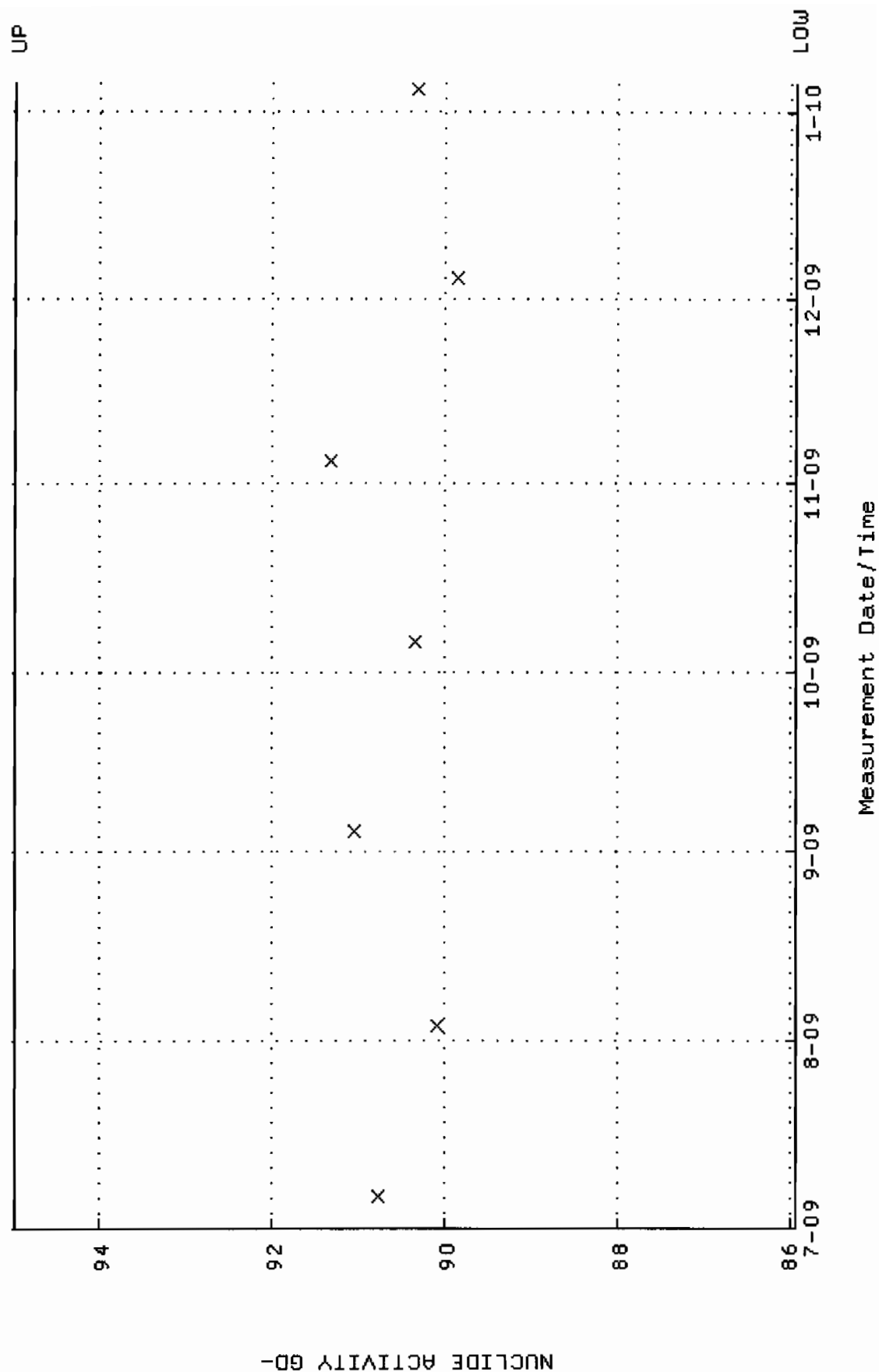
Lower/Upper | mts: 0.000000E+00 through 2.000000E-02



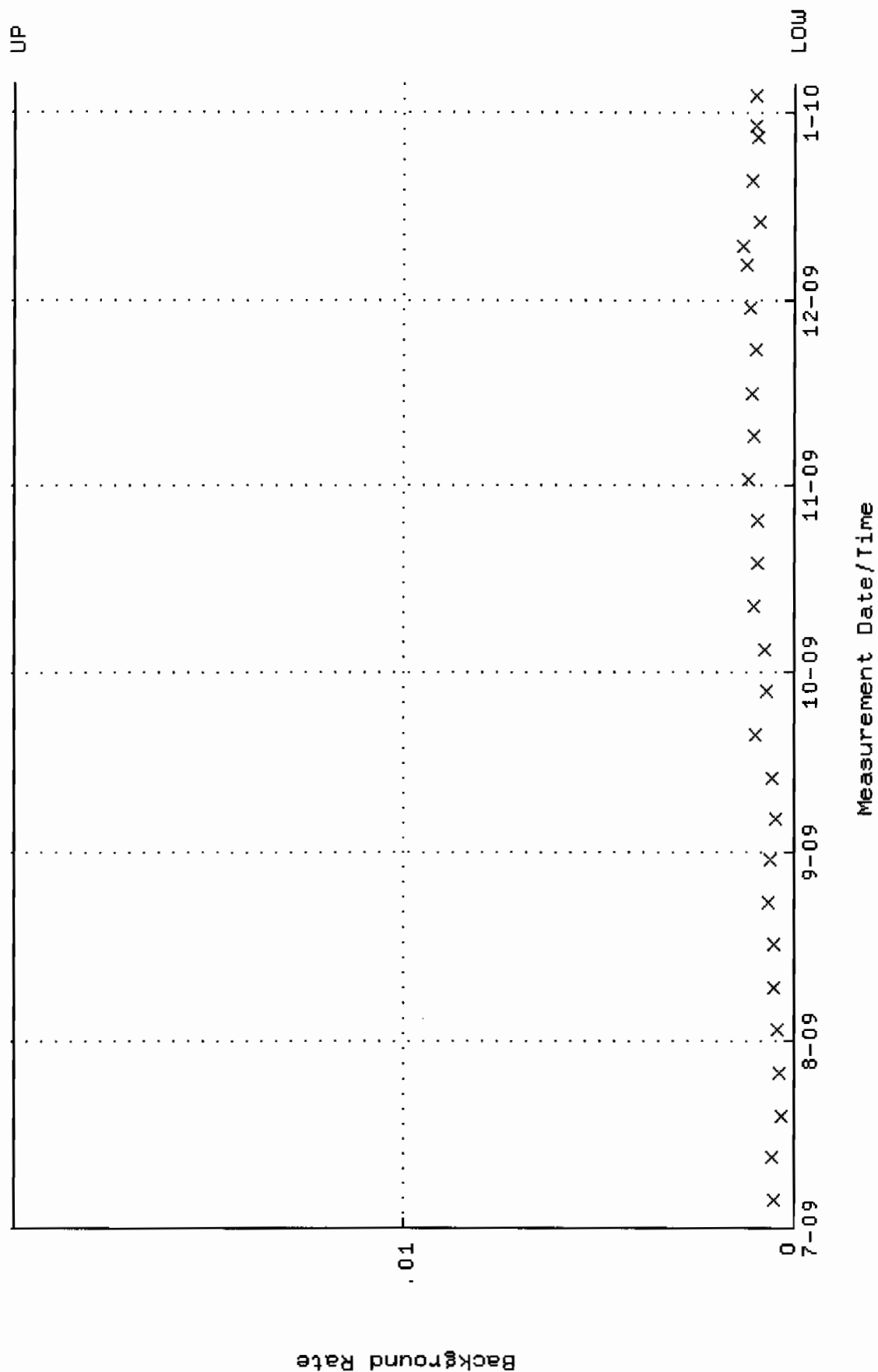
QA filename : DKA100:[ENV_ALPHA.QA.W]W016.QAF;3
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.326058 through 0.346058



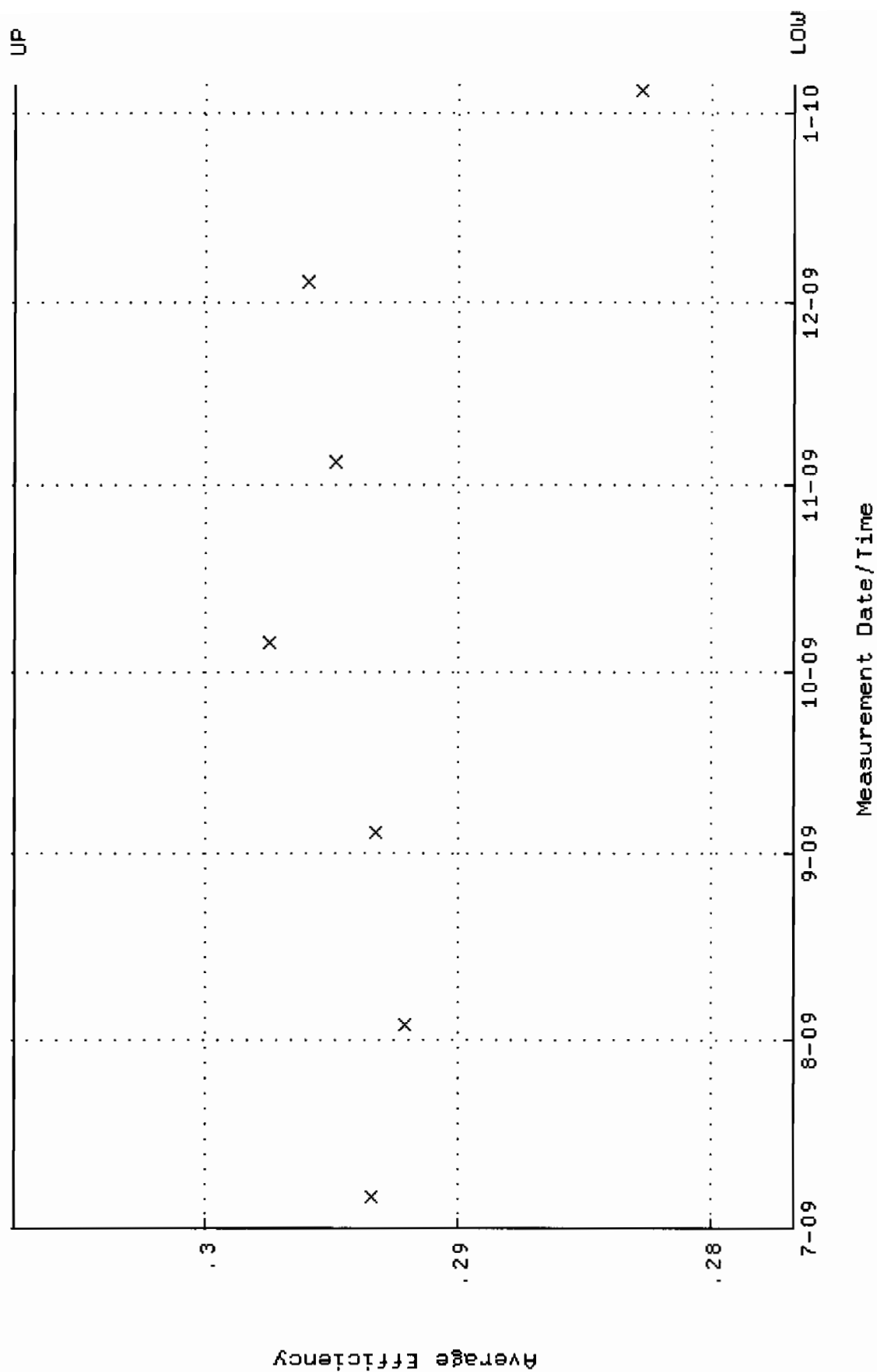
QA filename : DKA100:[ENV_ALPHA.QA.W]W016.QAF;3
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 85.9280 through 94.9730



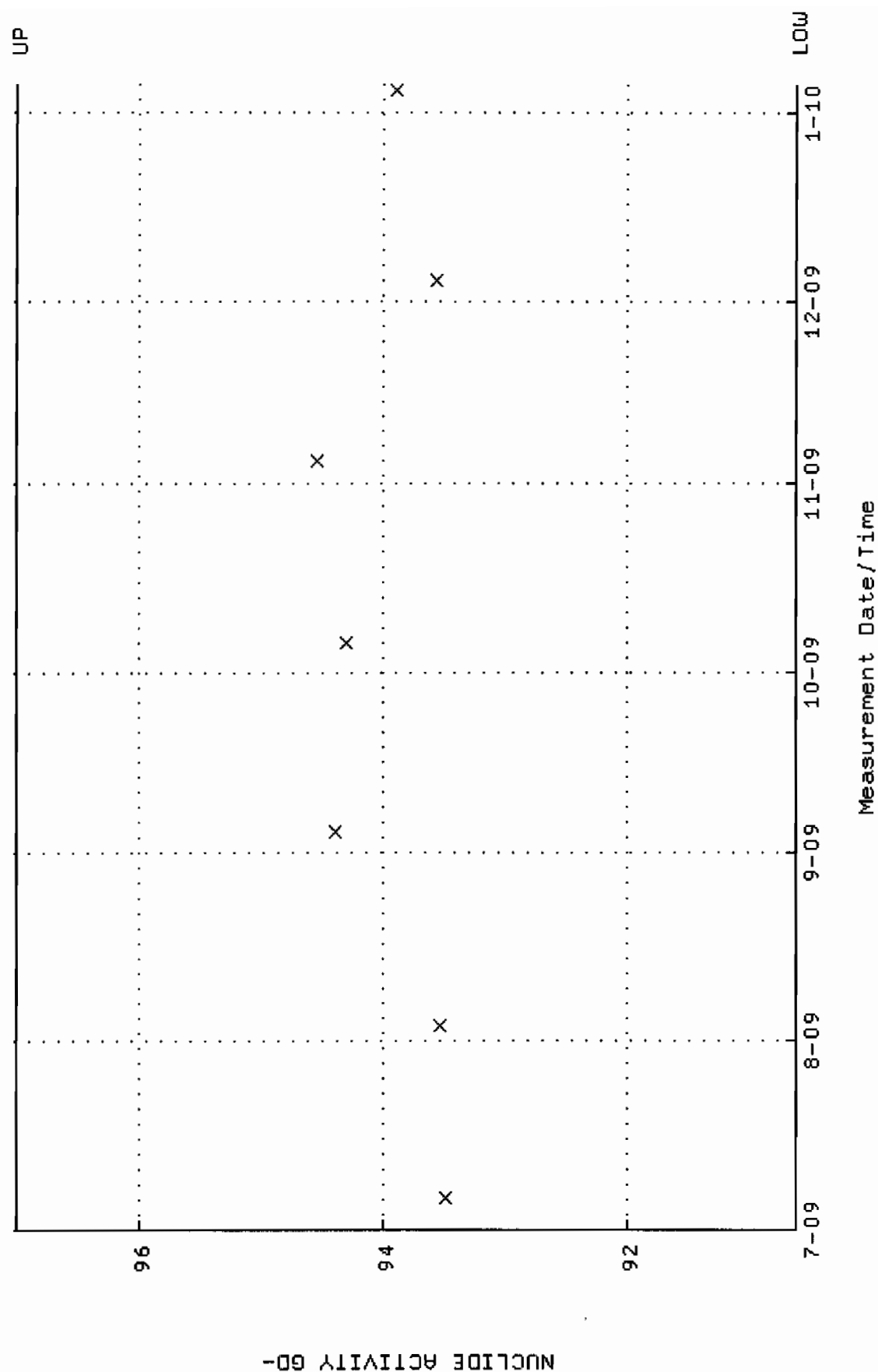
QA filename : DKA100:[ENV_ALPHA.QA.B]B016.QAF;2
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:11:56 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



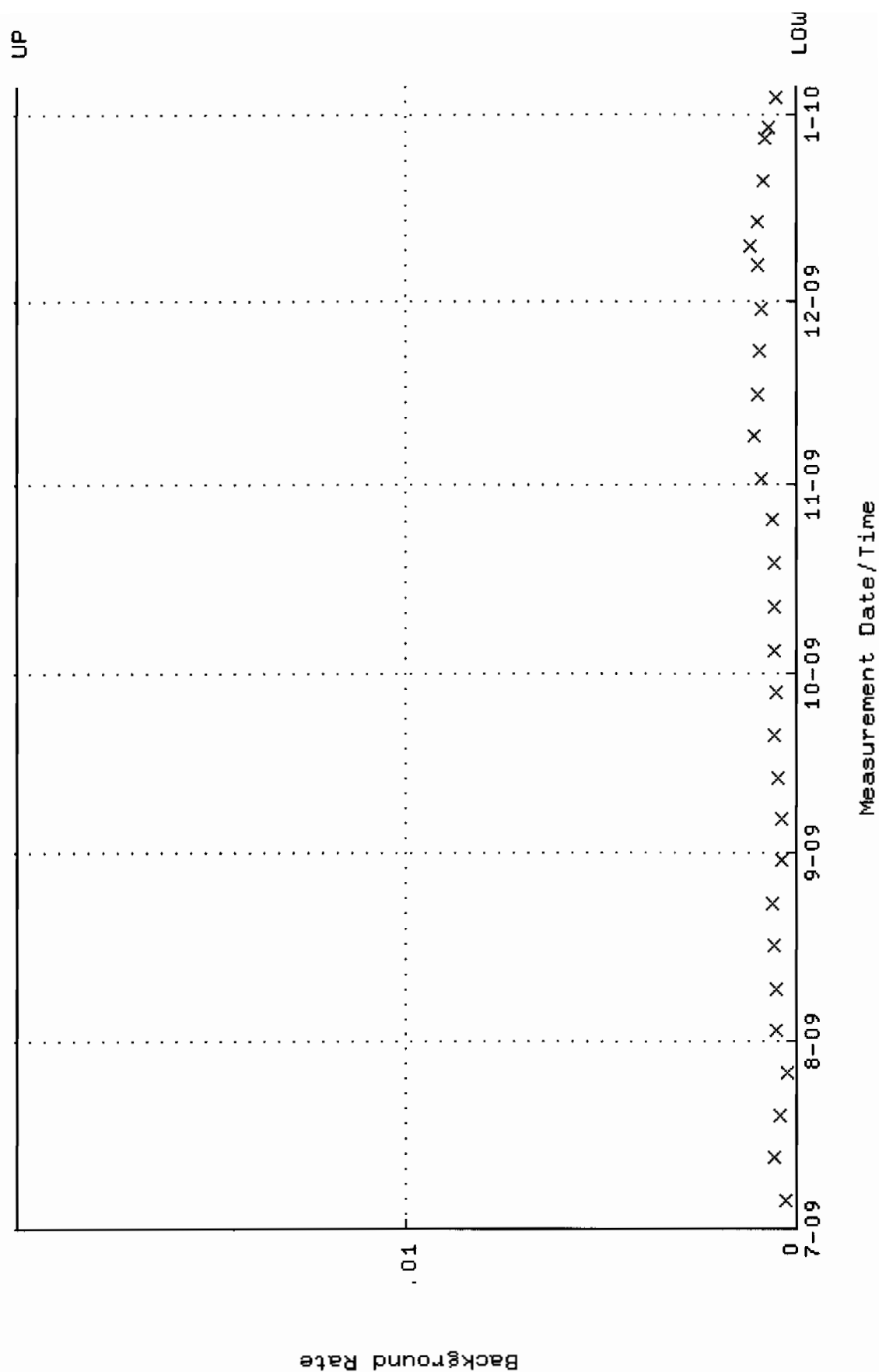
QA filename : DKA100:[ENV_ALPHA.QA.W]W017.QAF;4
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.276771 through 0.307557



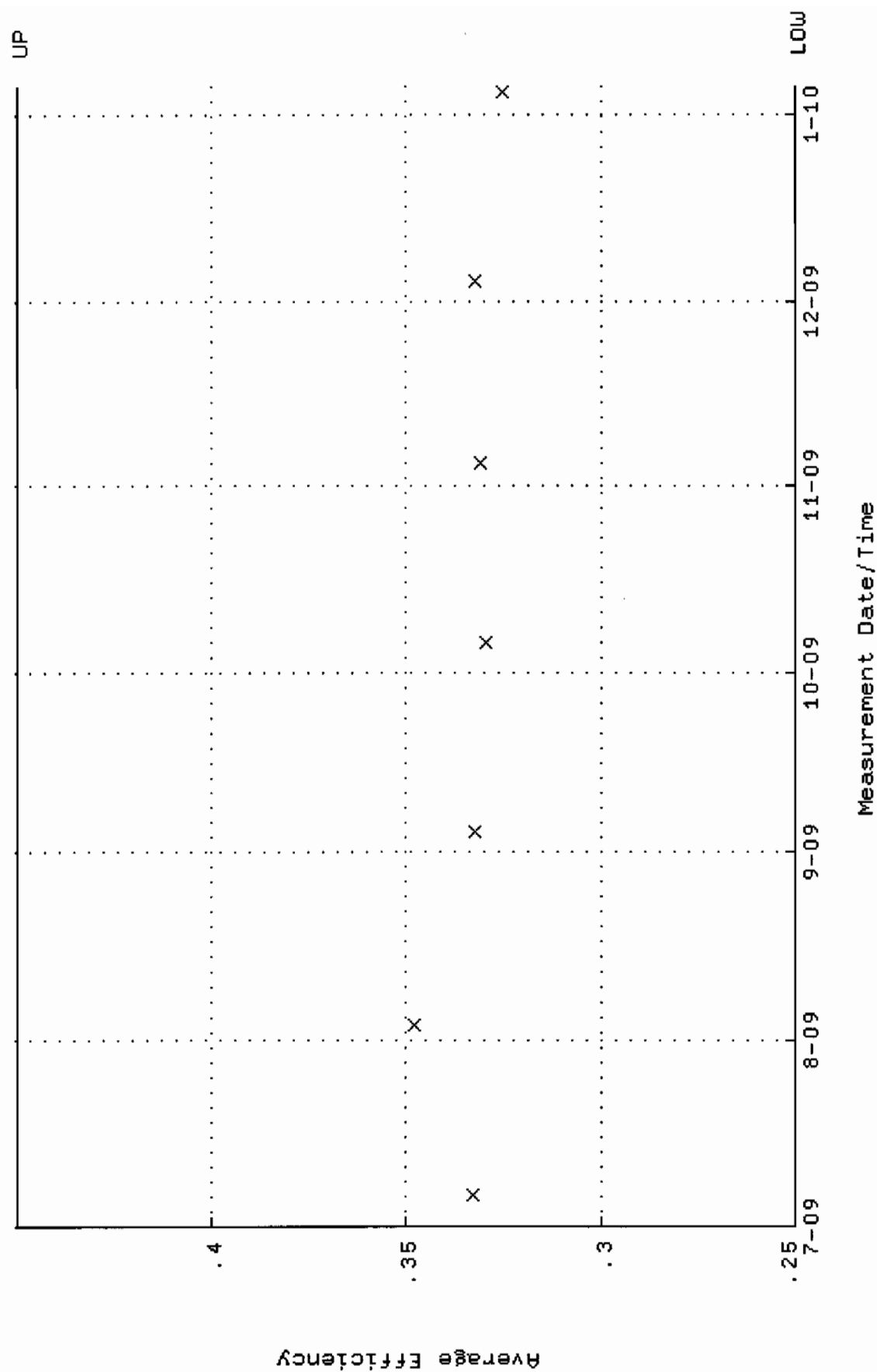
QA filename : DKA100:[ENV_ALPHA.QA.W]W017.QAF;4
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 90.6063 through 97.0149



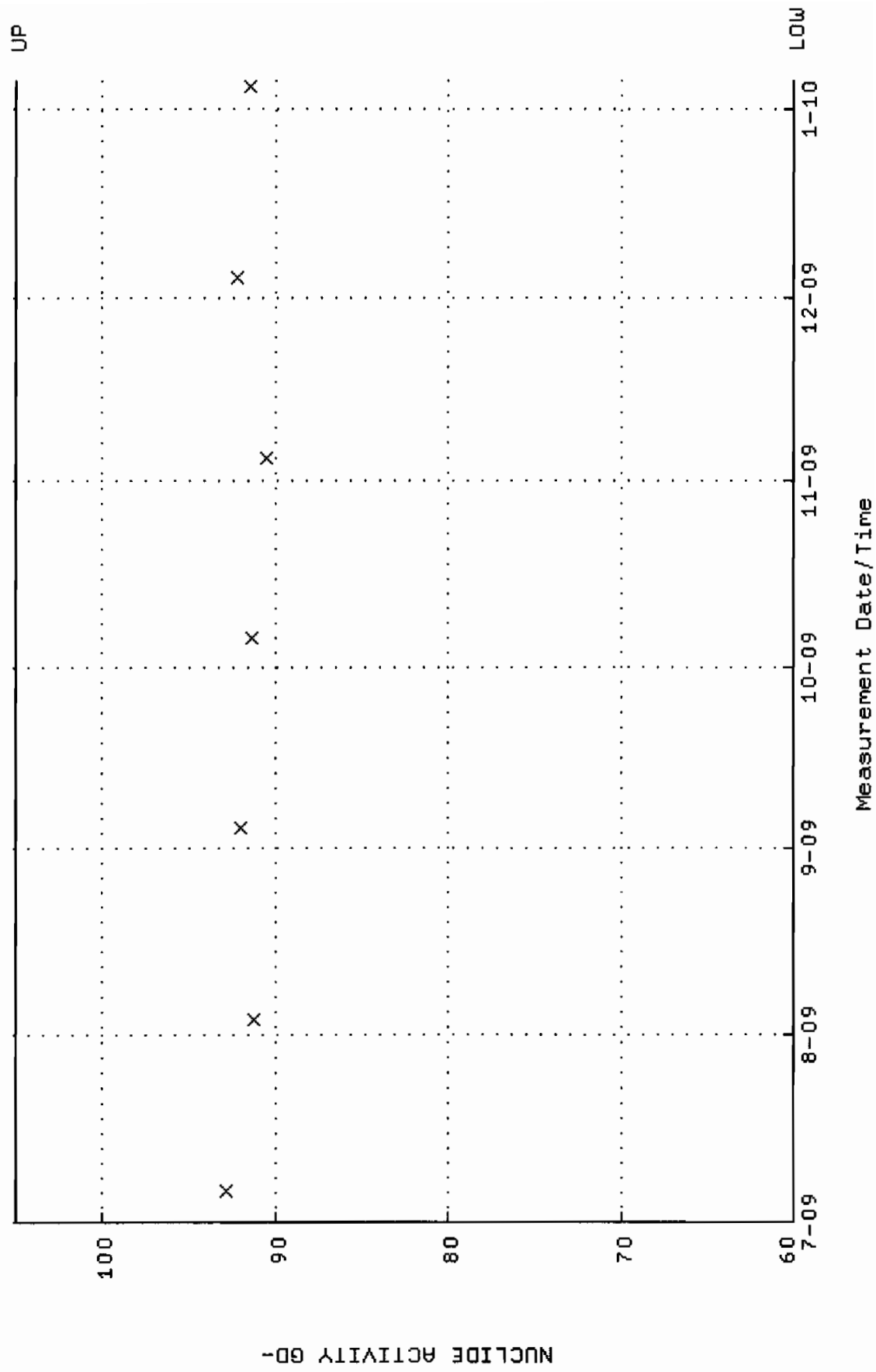
QA filename : DKA100:[ENV_ALPHA.QA.B]B017.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:11:56 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



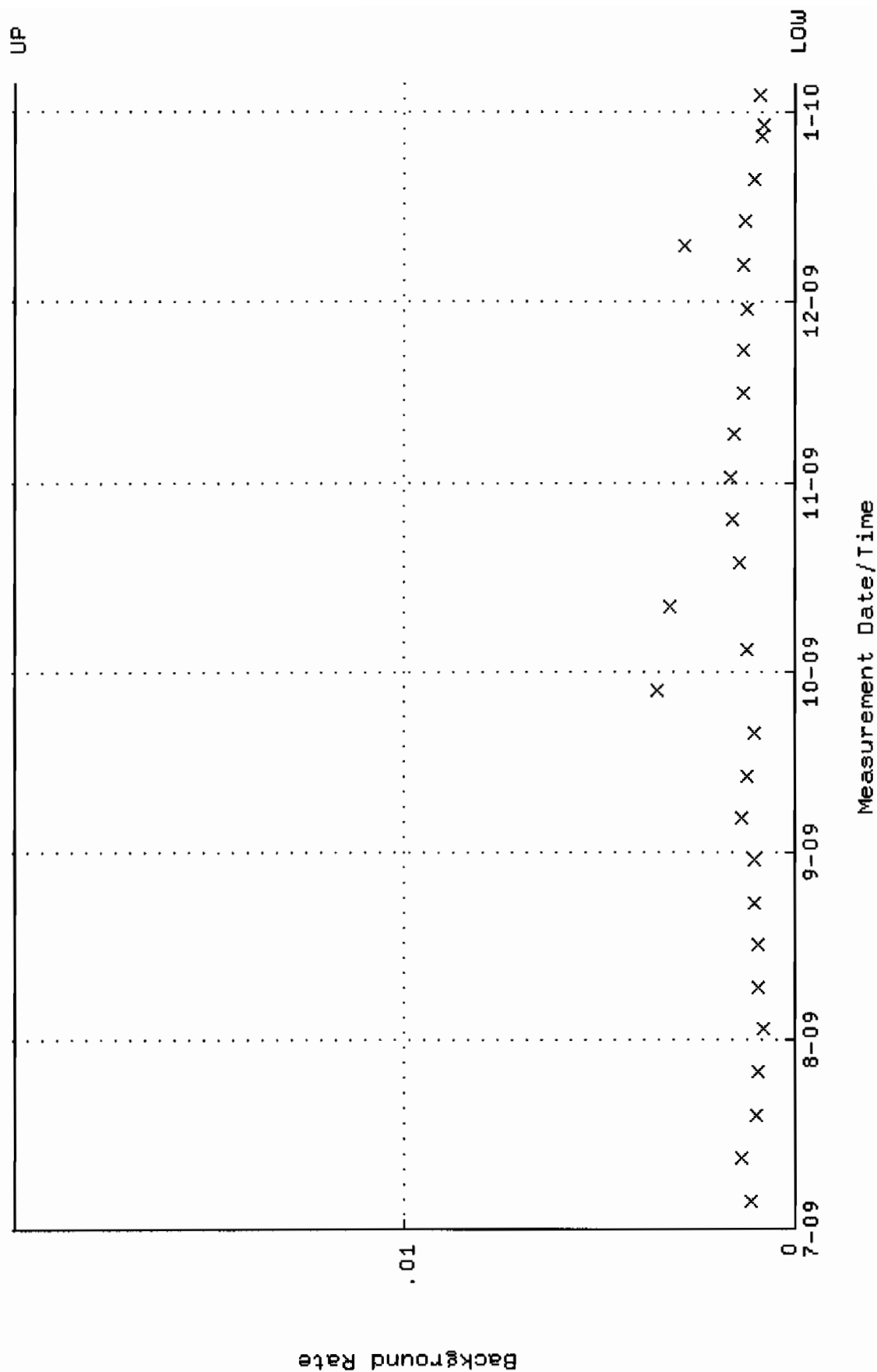
QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 6-JUL-2009 09:46:13 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.250000 through 0.450000



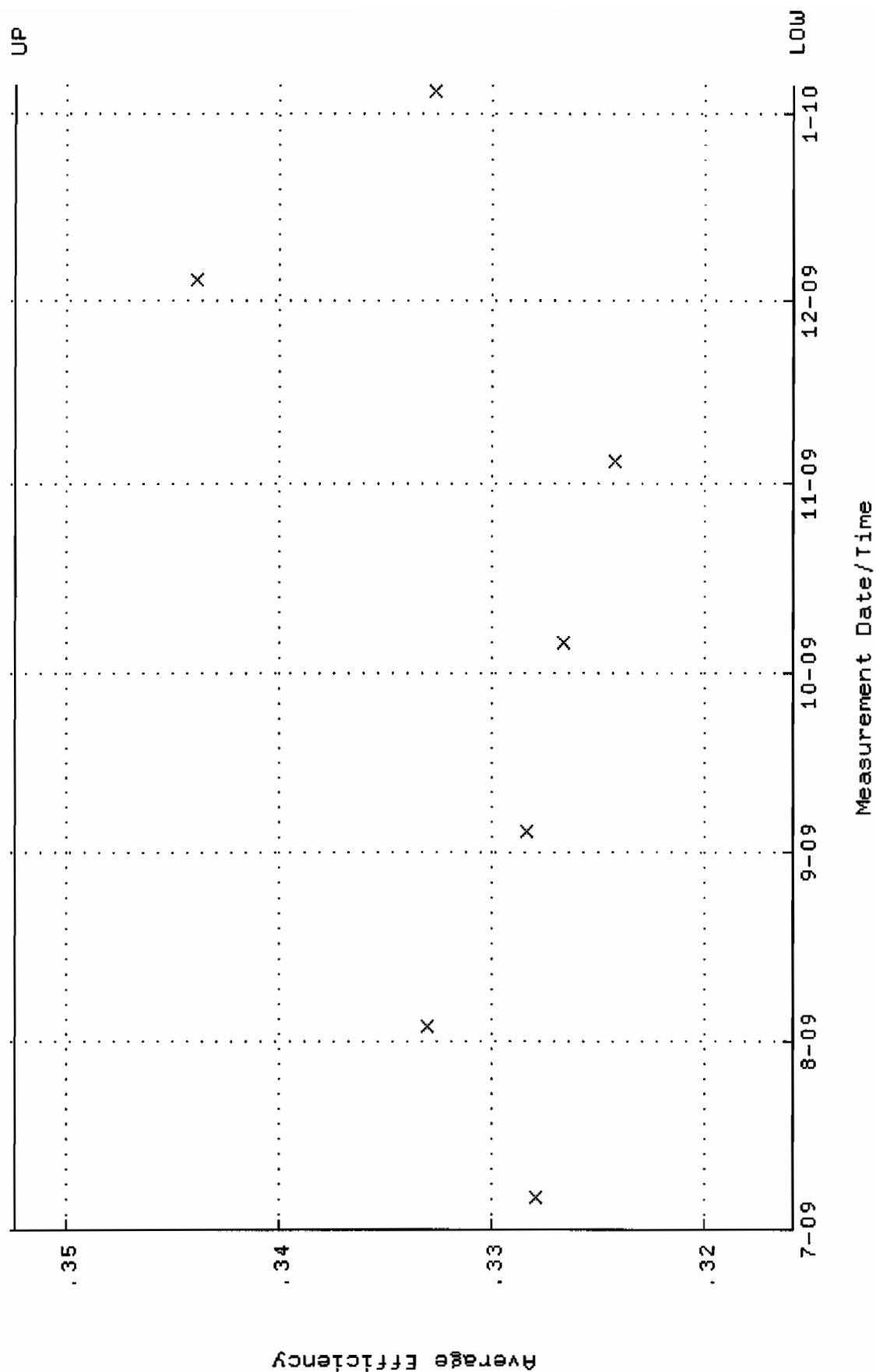
QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
 Parameter Name : NLACTVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 6-JUL-2009 09:46:13 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 60.0000 through 105.000



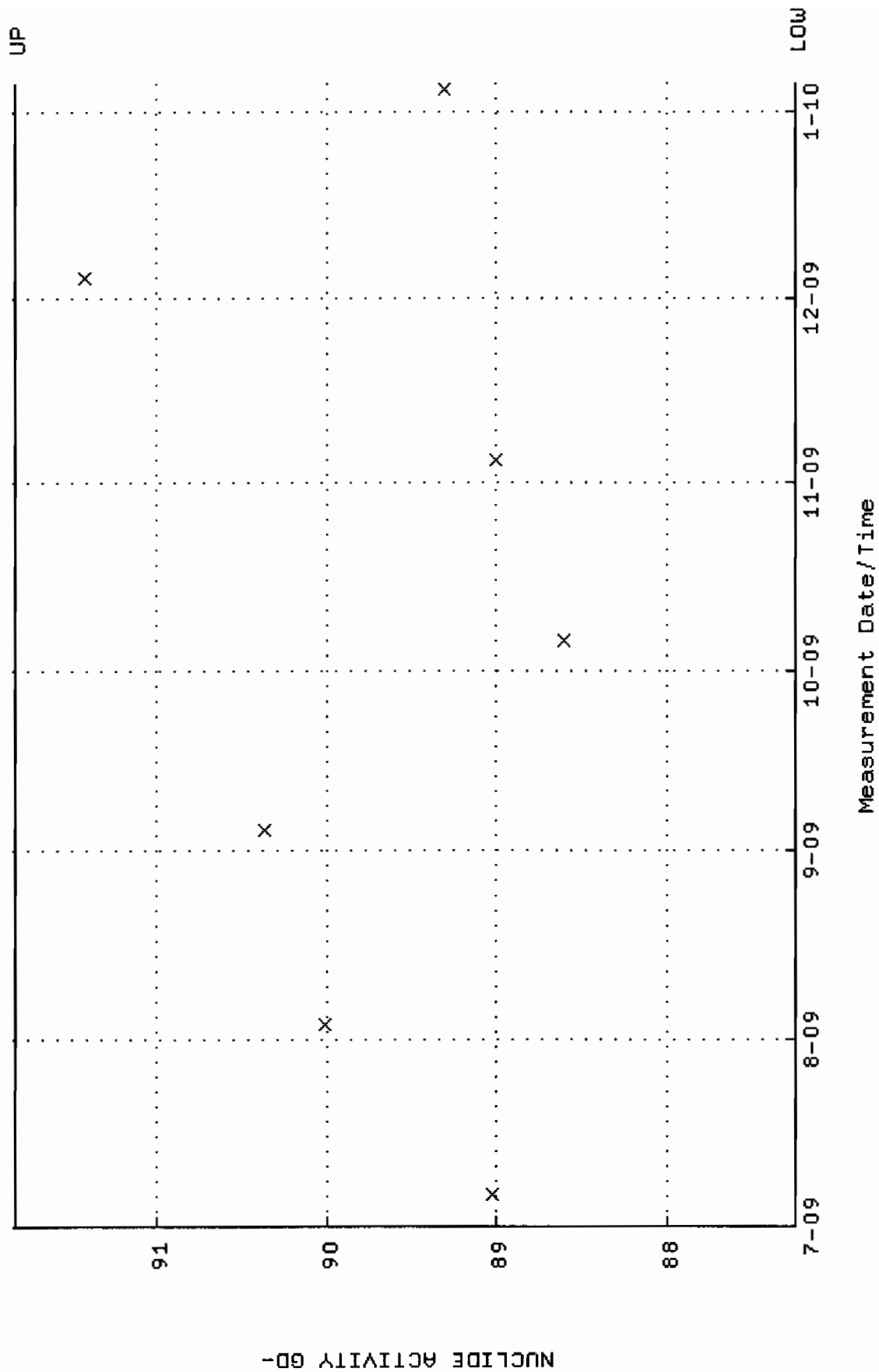
QA filename : DKA100:[ENV_ALPHA.QA.B]B023.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:11:57 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



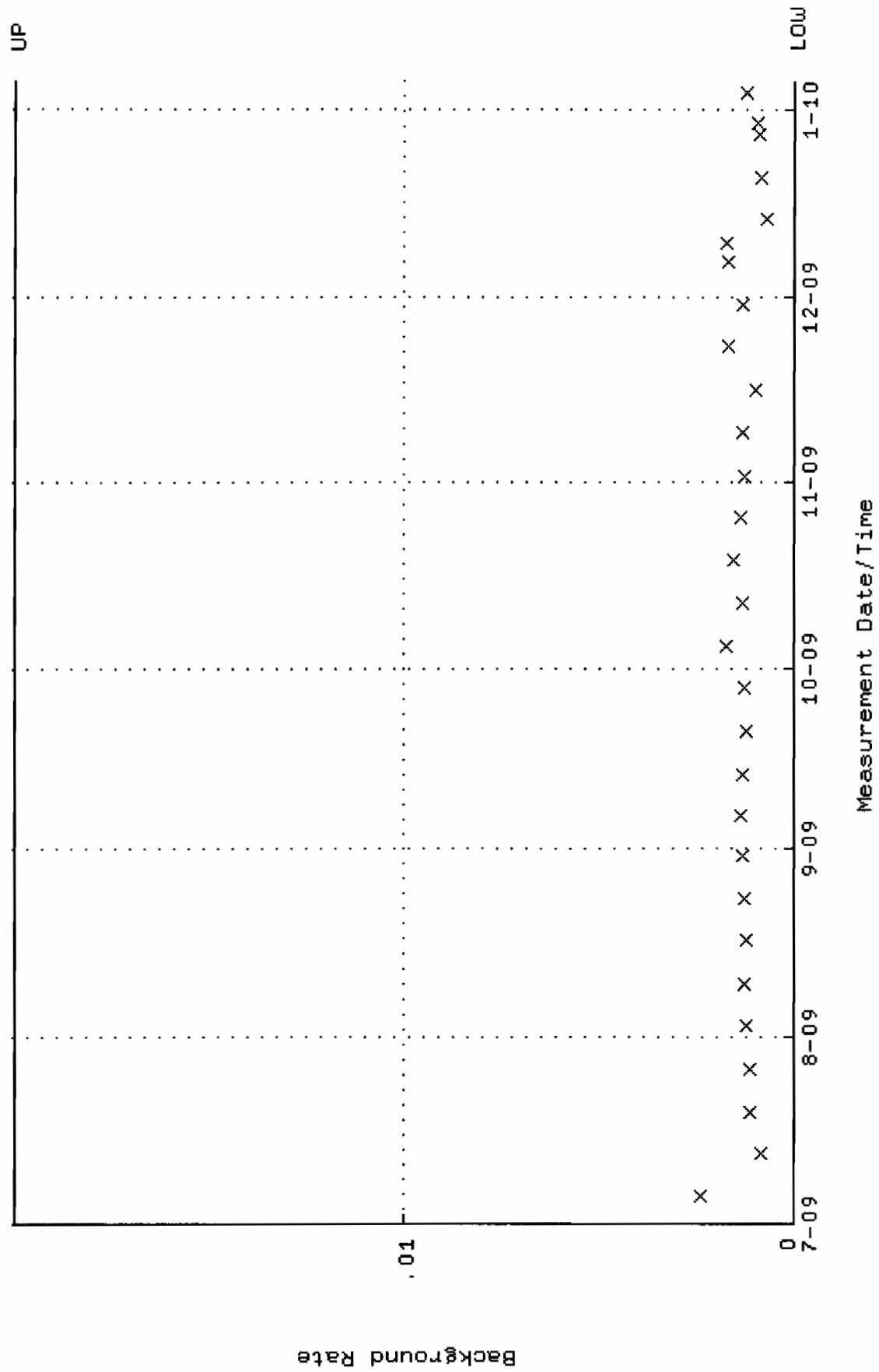
QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 6-JUL-2009 09:46:13 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.315820 through 0.352494



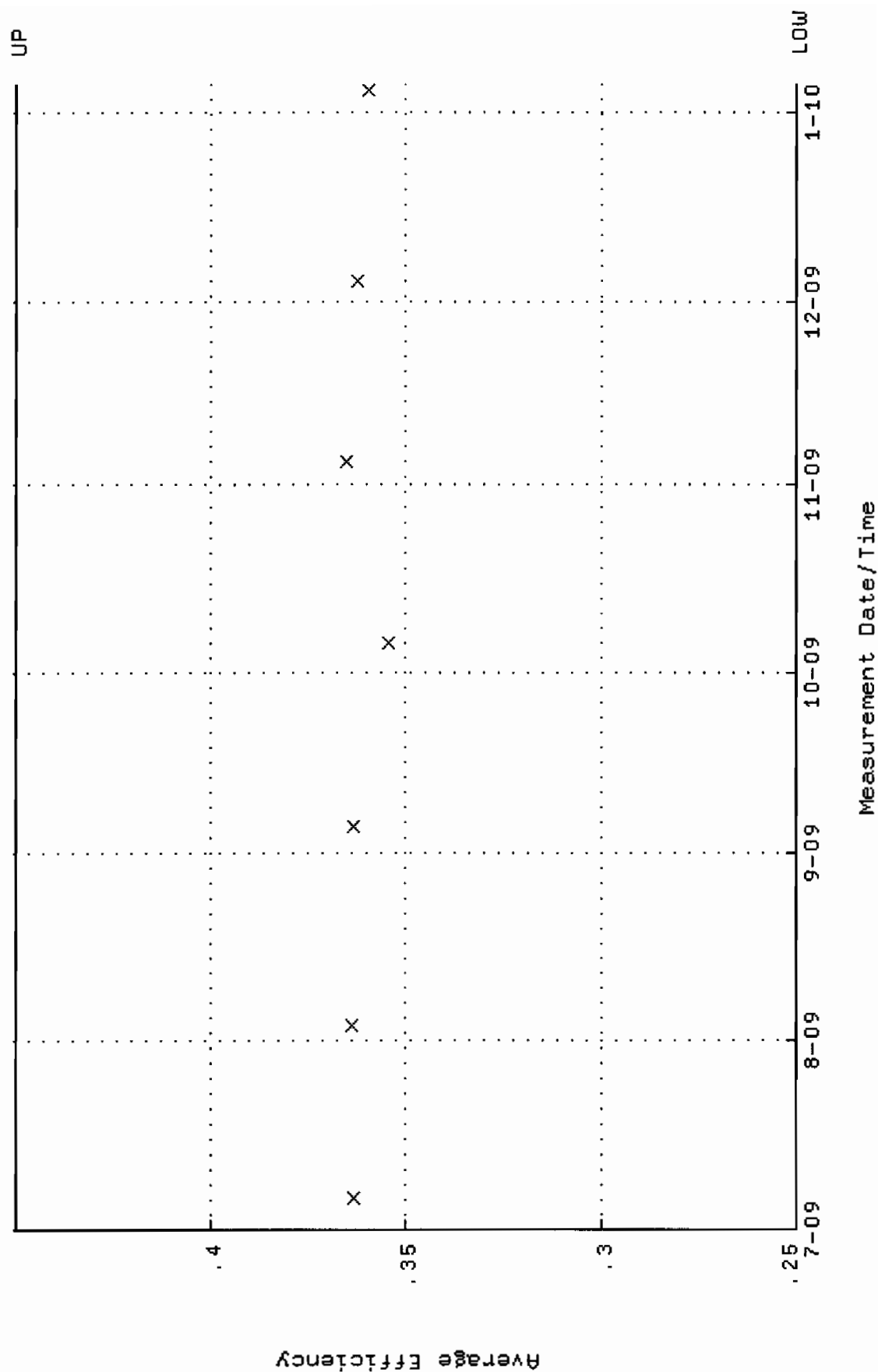
QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 6-JUL-2009 09:46:13 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 87.2434 through 91.8289



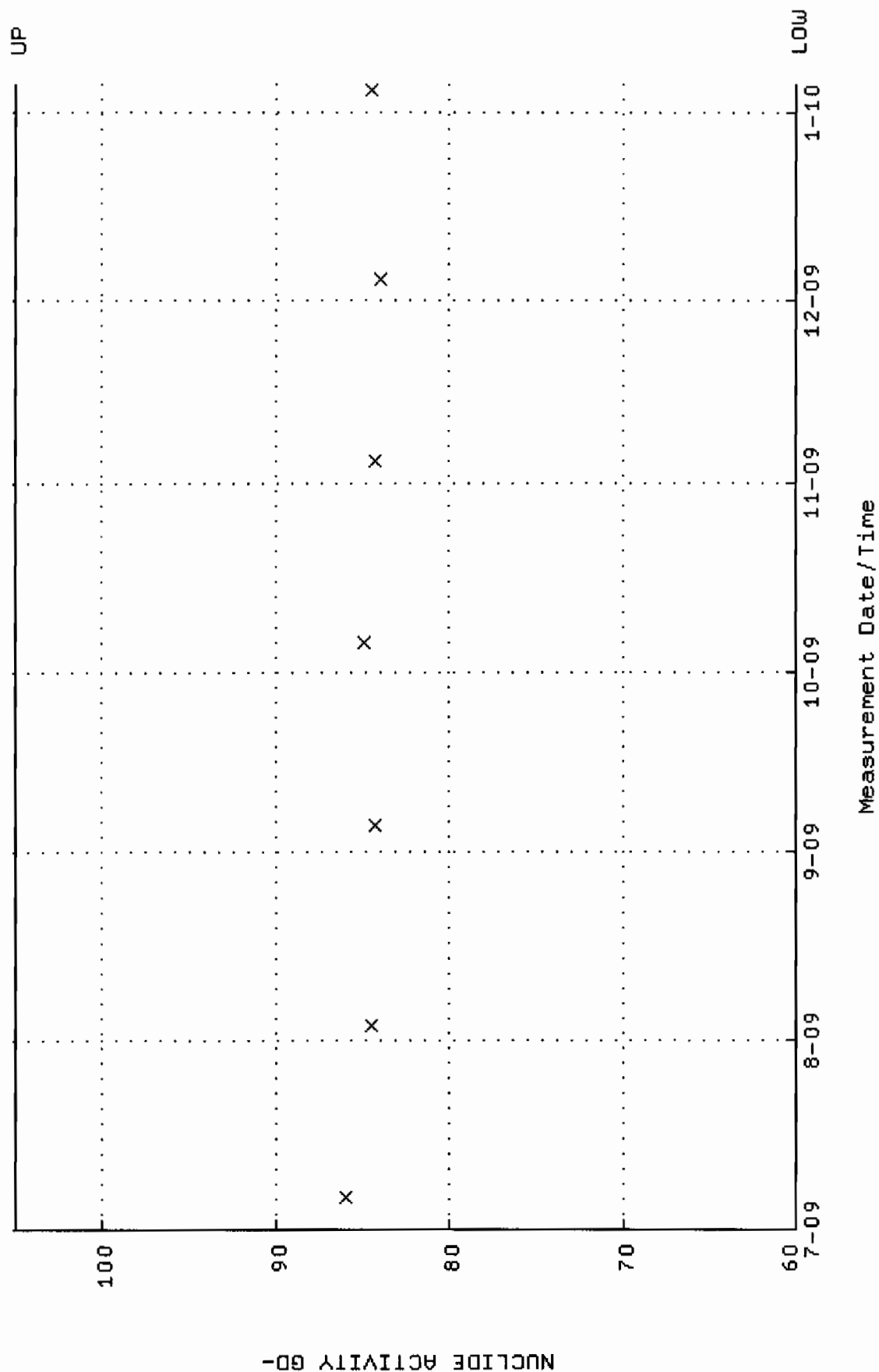
QA filename : DKA100:[ENV_ALPHA.QA.B]B024.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:11:57 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



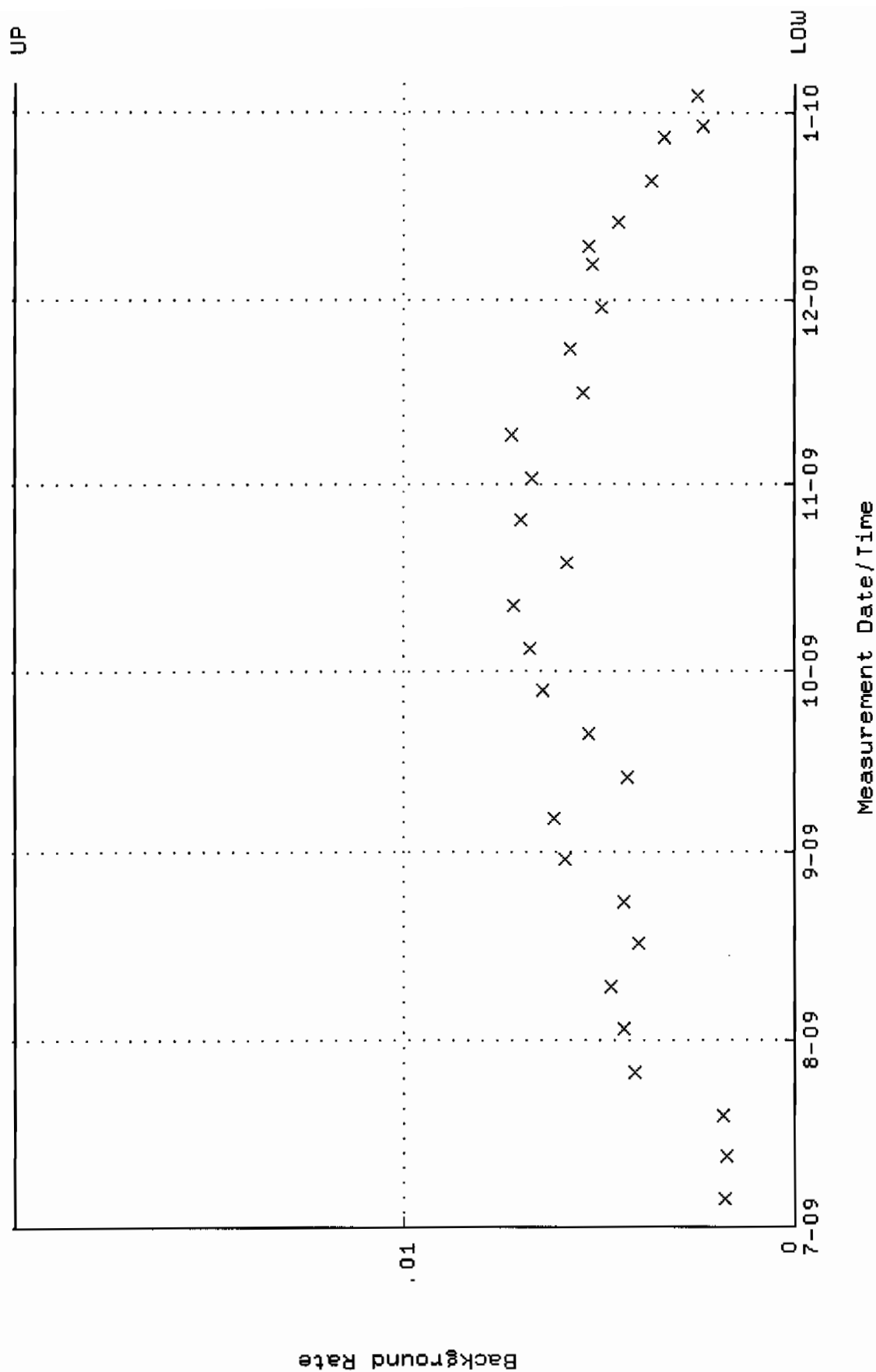
QA filename : DKA100:[ENV_ALPHA.QA.W]W039.QAF;3
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 6-JUL-2009 09:46:16 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.250000 through 0.450000



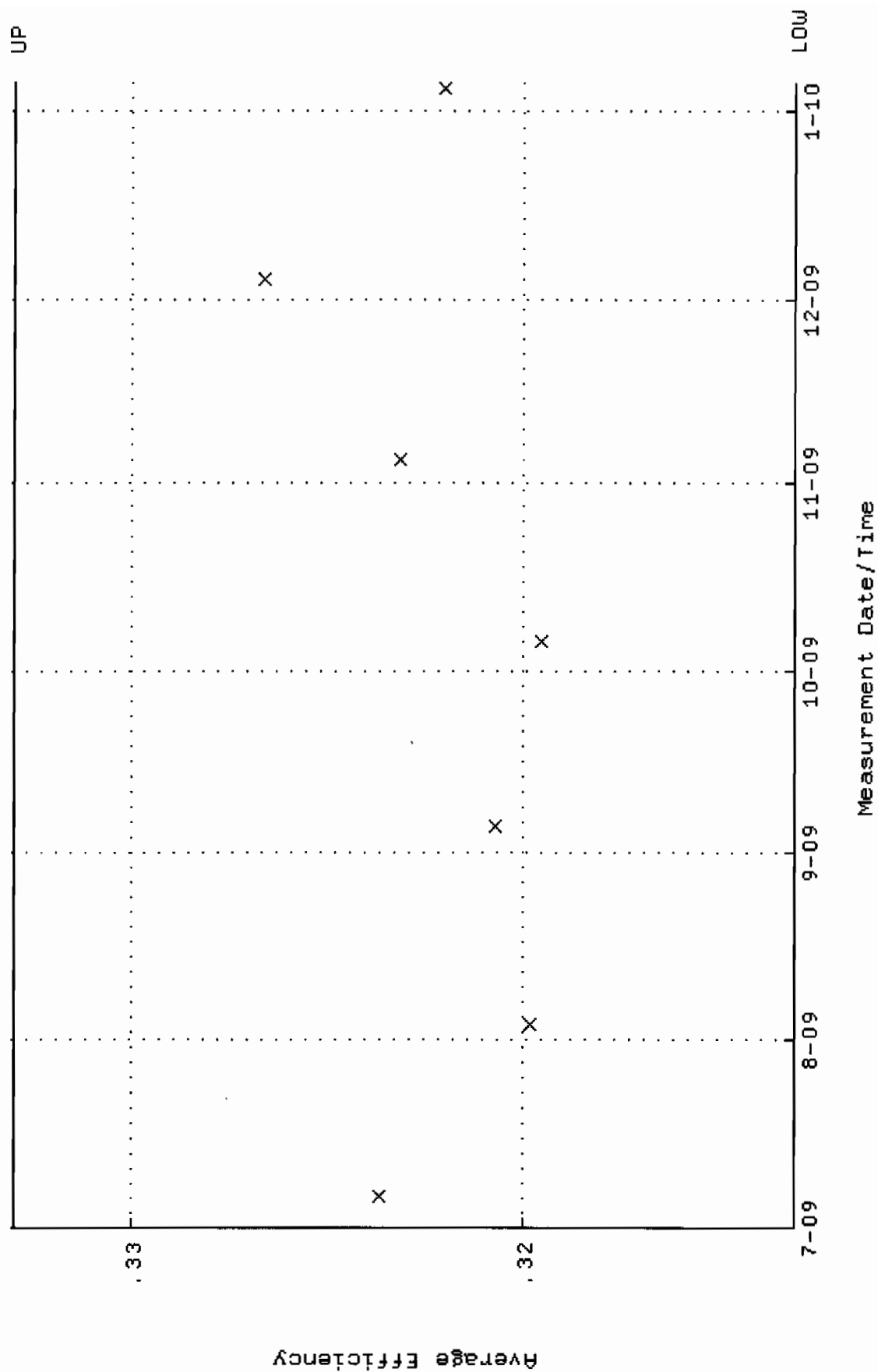
QA filename : DKA100:[ENV_ALPHA.QA.w]W039.QAF;3
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 6-JUL-2009 09:46:16 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 60.0000 through 105.000



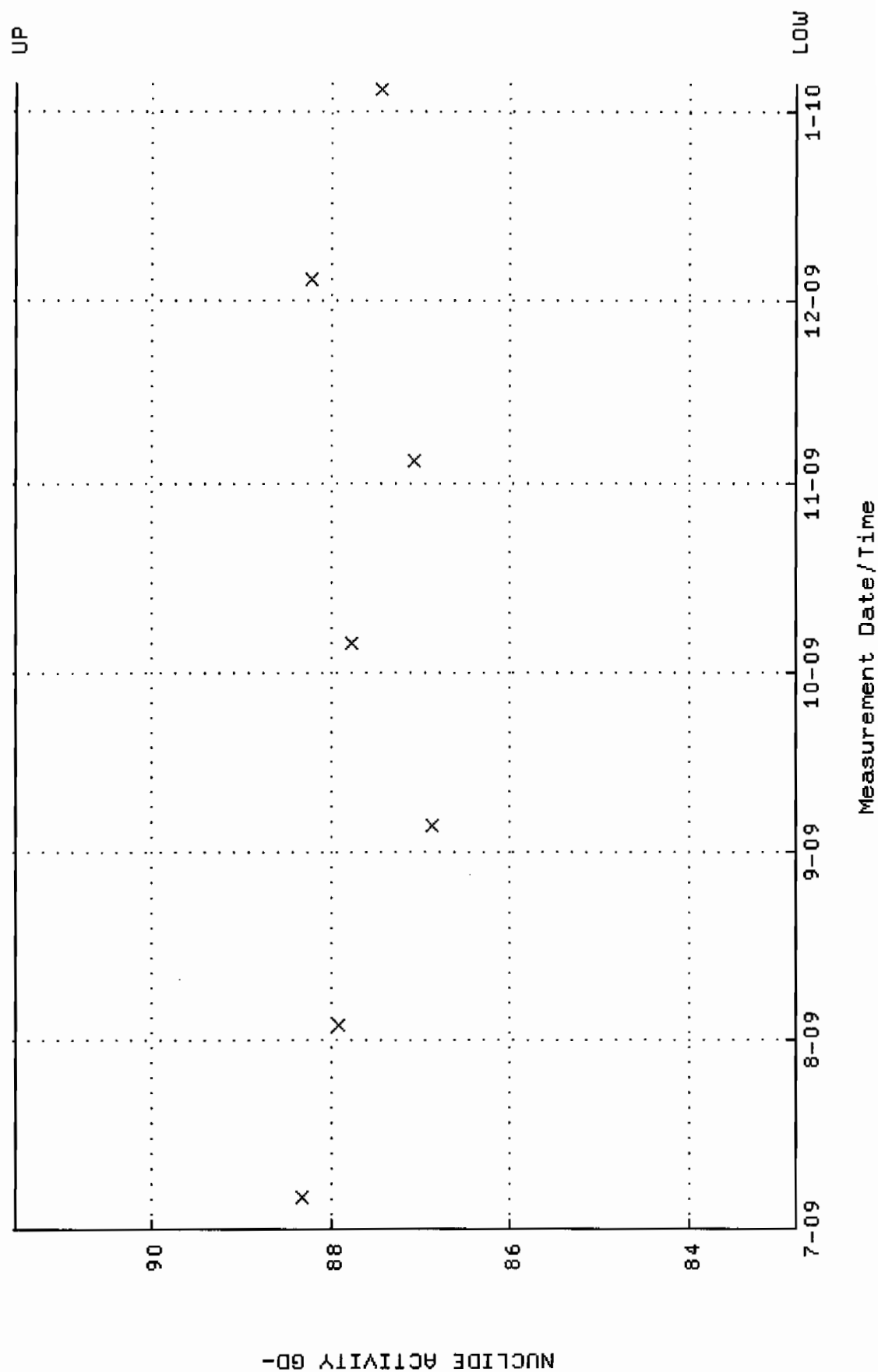
QA filename : DKA100:[ENV_ALPHA.QA.B]B039.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 5-JUL-2009 15:12:00 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



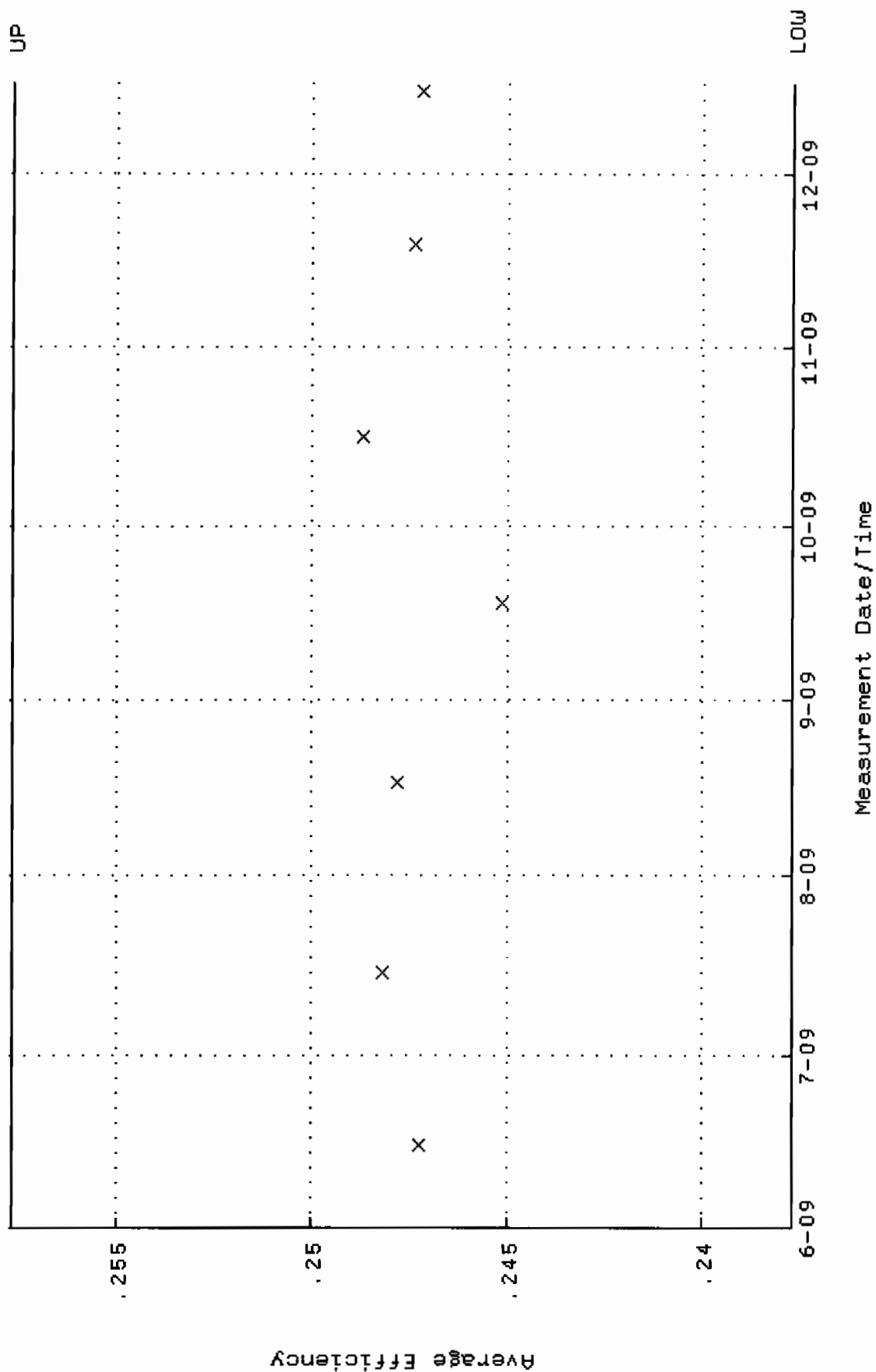
QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 6-JUL-2009 09:46:16 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 0.313016 through 0.333016



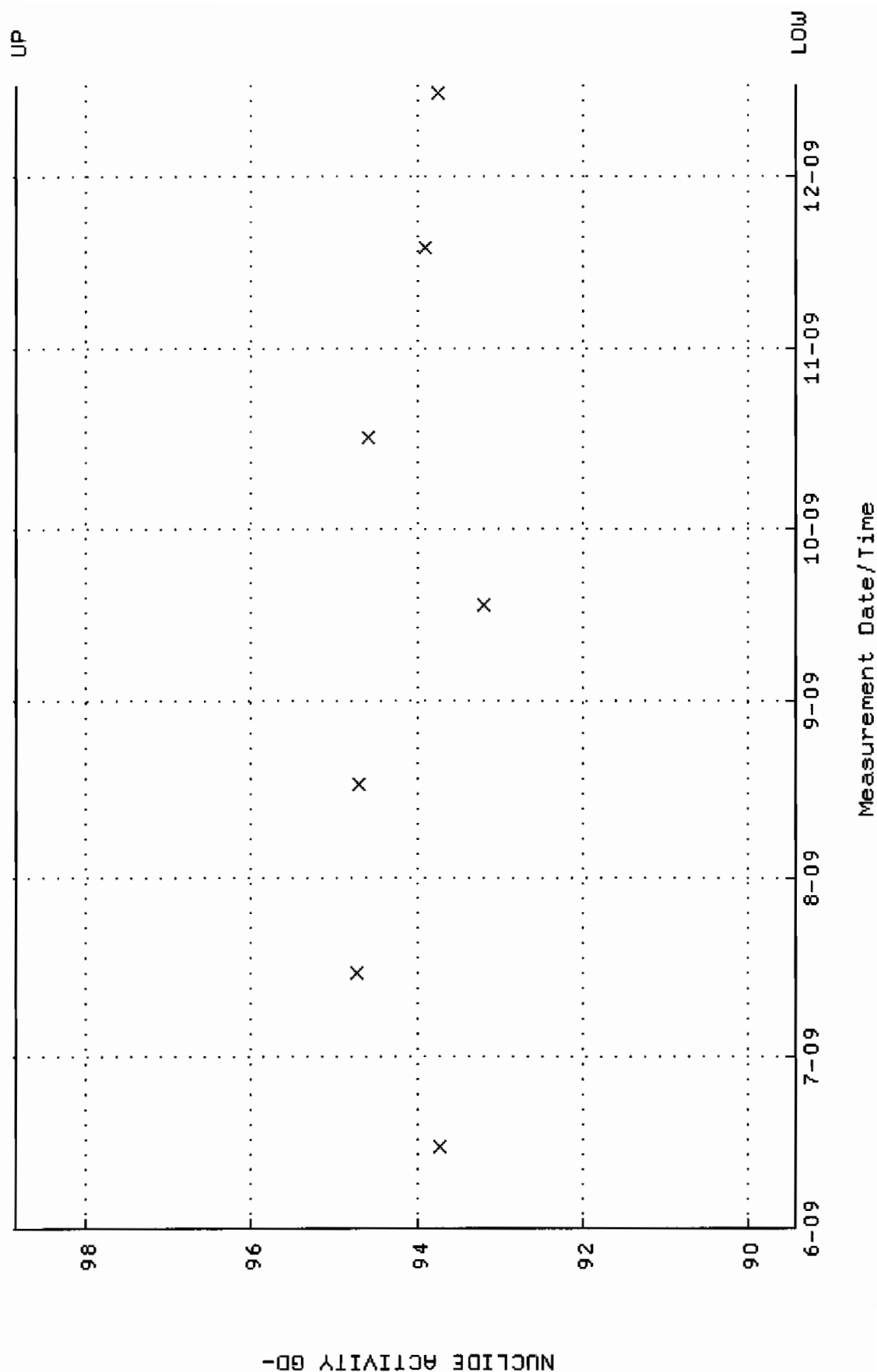
QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 6-JUL-2009 09:46:16 through 5-JAN-2010 12:00:00
 Lower/Upper Lmts: 82.8065 through 91.5229



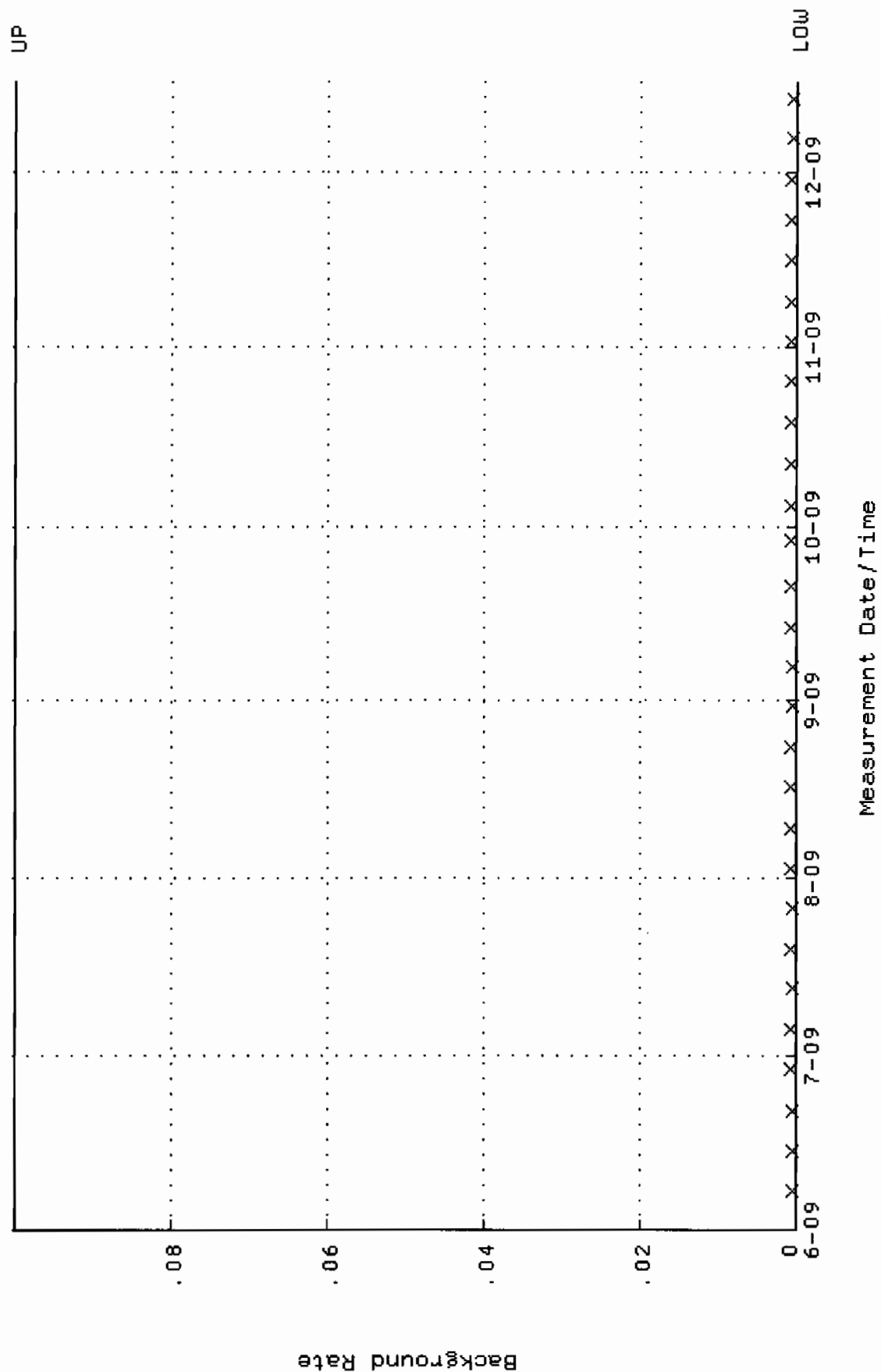
QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 15-JUN-2009 10:34:51 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.237686 through 0.257686



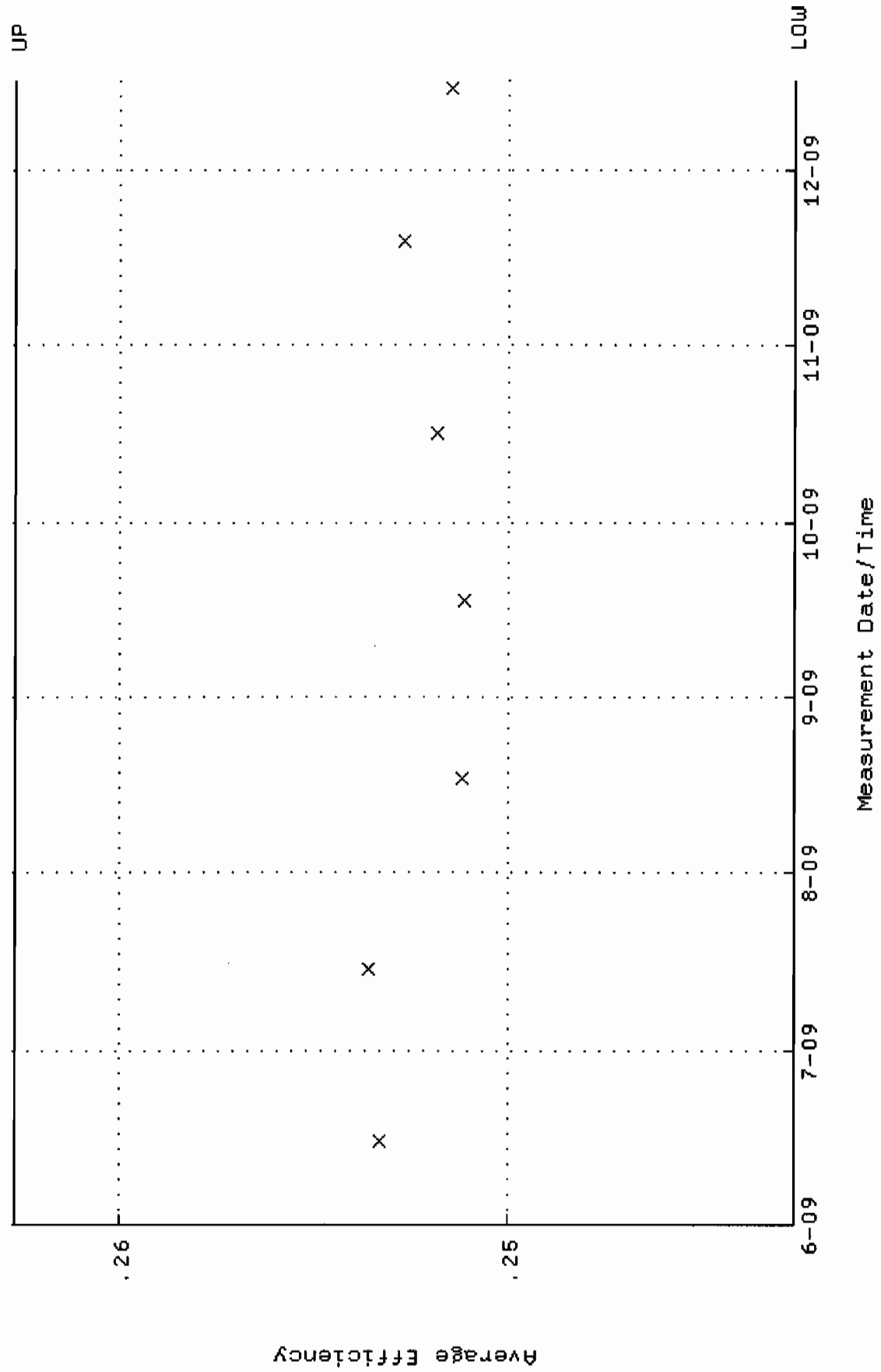
QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 15-JUN-2009 10:34:51 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 89.4263 through 98.8395



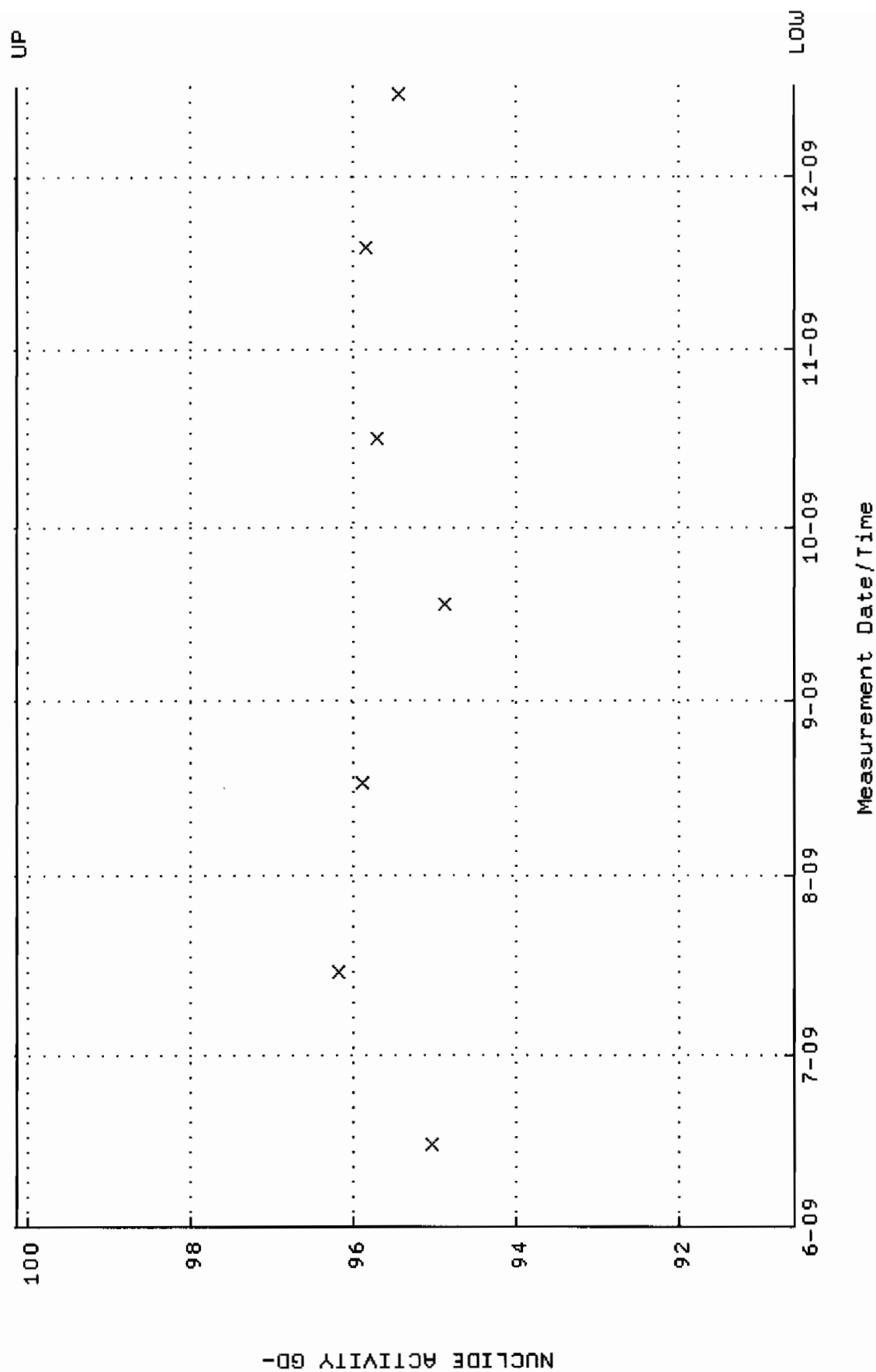
QA filename : DKA100:[ENV_ALPHA.QA.B]B121.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 7-JUN-2009 17:09:14 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



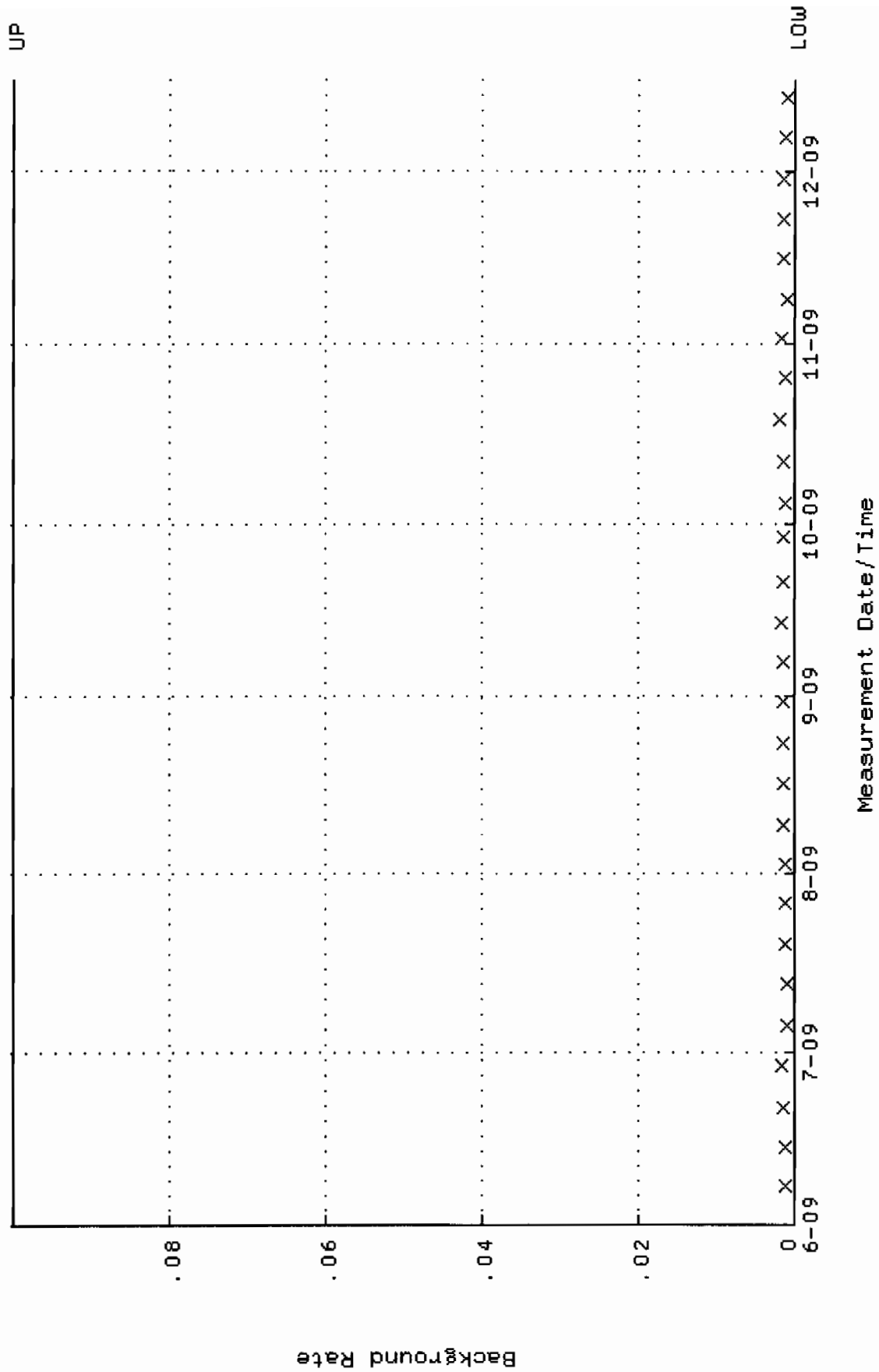
QA filename : DKA100:[ENV_ALPHA,QA.W]W122.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 15-JUN-2009 10:34:57 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.242659 through 0.262659



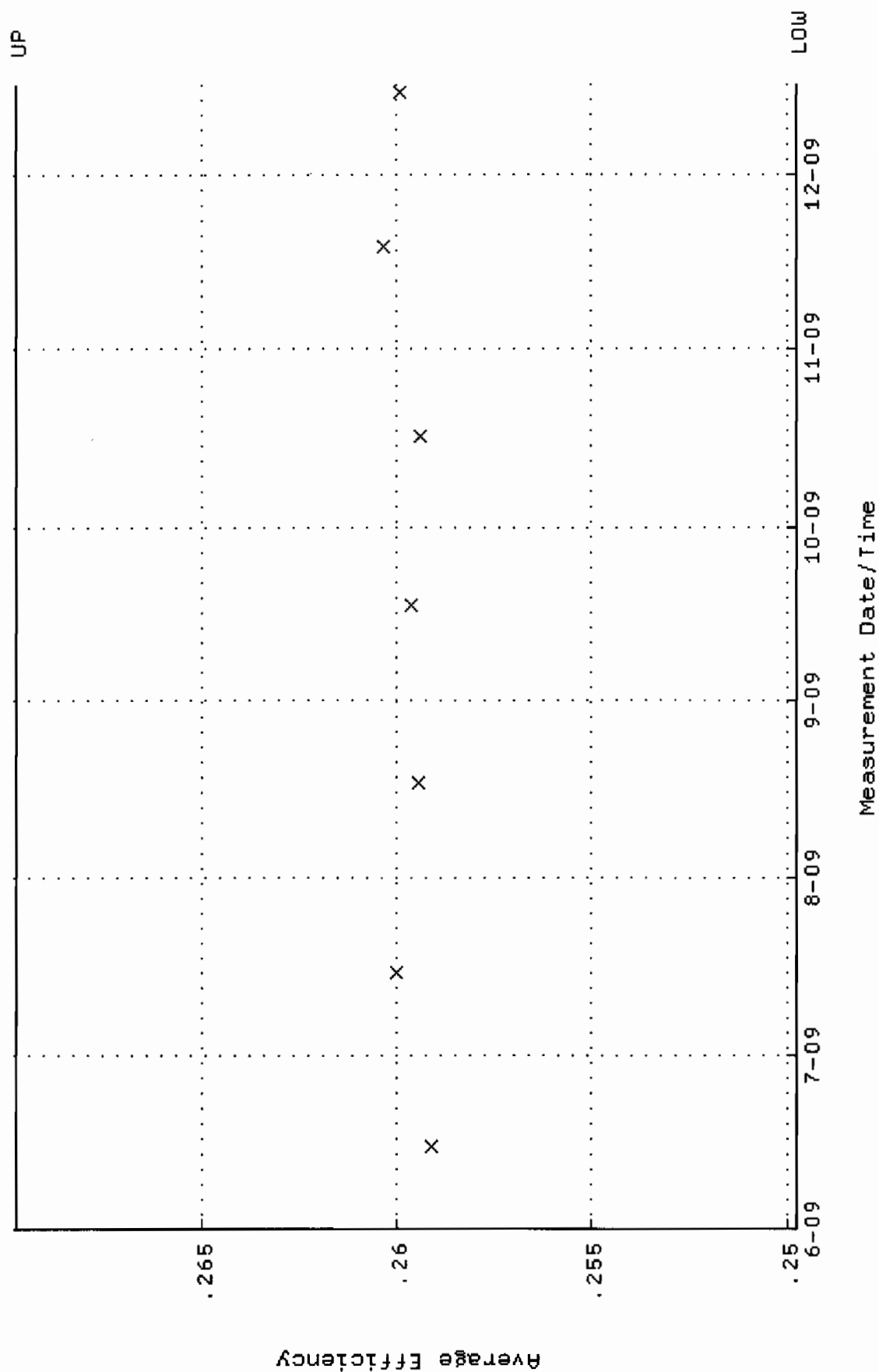
QA filename : DKA100:[ENV_ALPHA.QA.W]U122.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 15-JUN-2009 10:34:57 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 90.5949 through 100.131



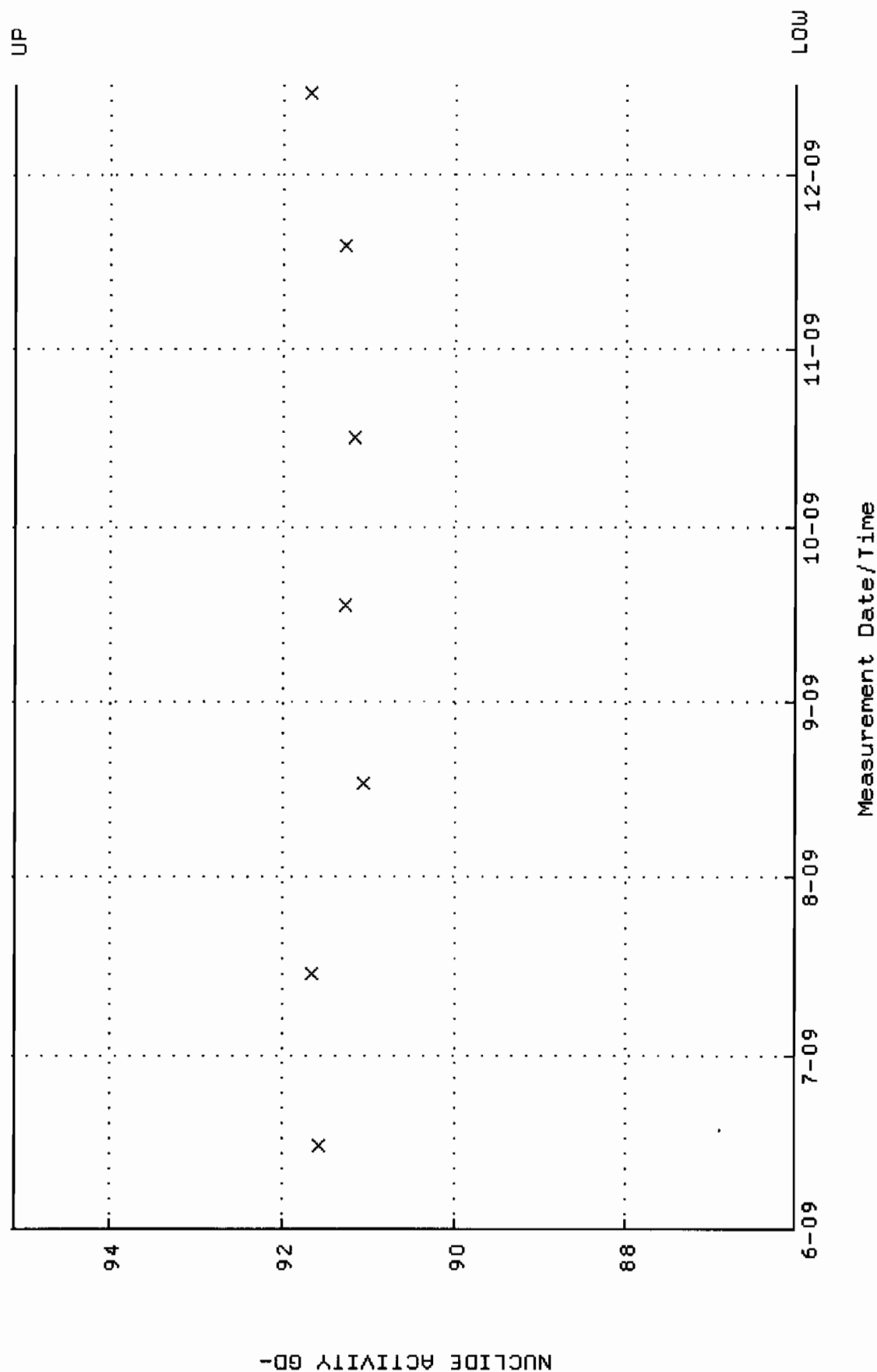
QA filename : DKA100:[ENV_ALPHA.QA.B]B122.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 7-JUN-2009 17:09:18 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



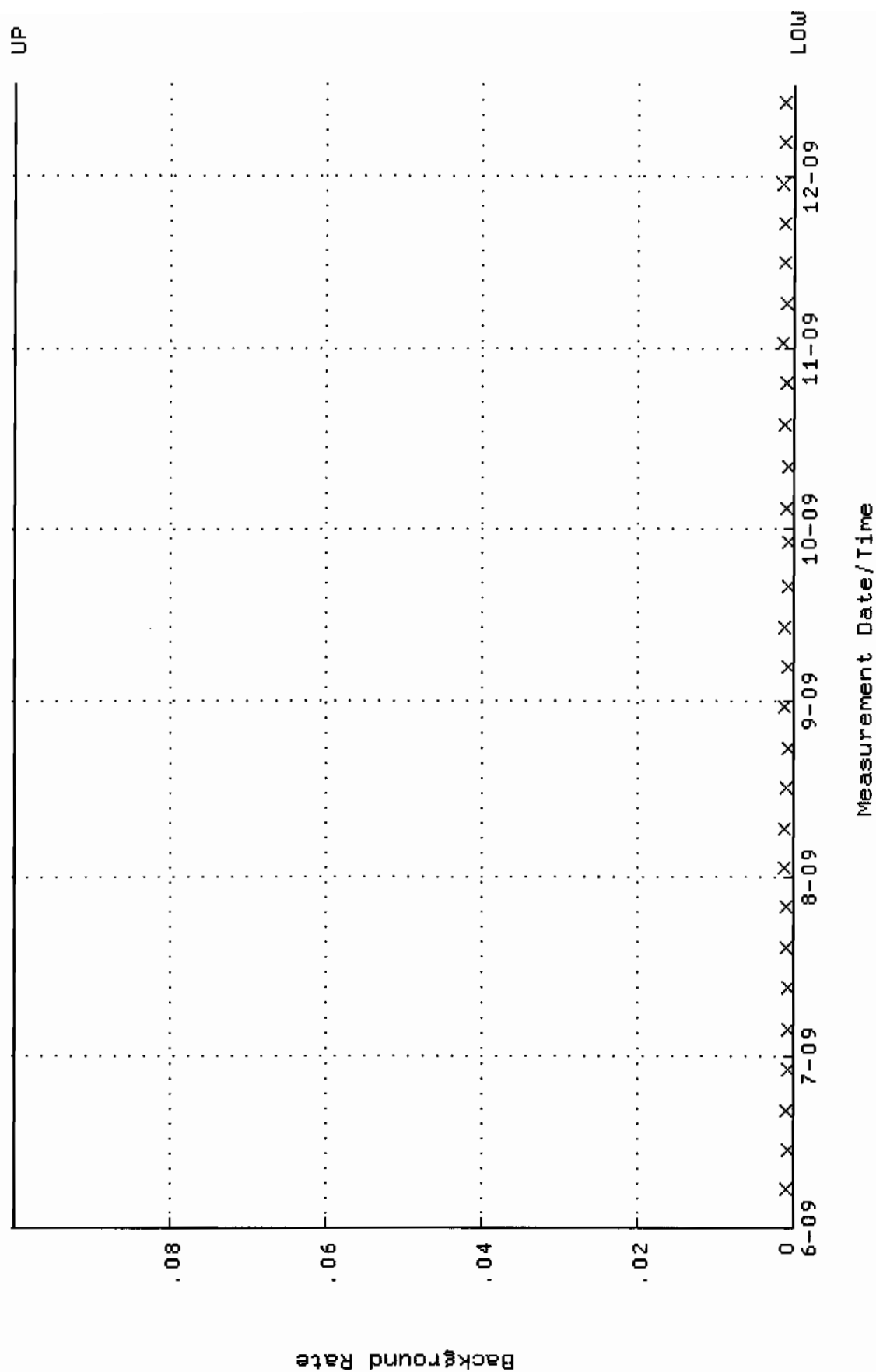
QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 15-JUN-2009 10:35:03 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.249752 through 0.269752



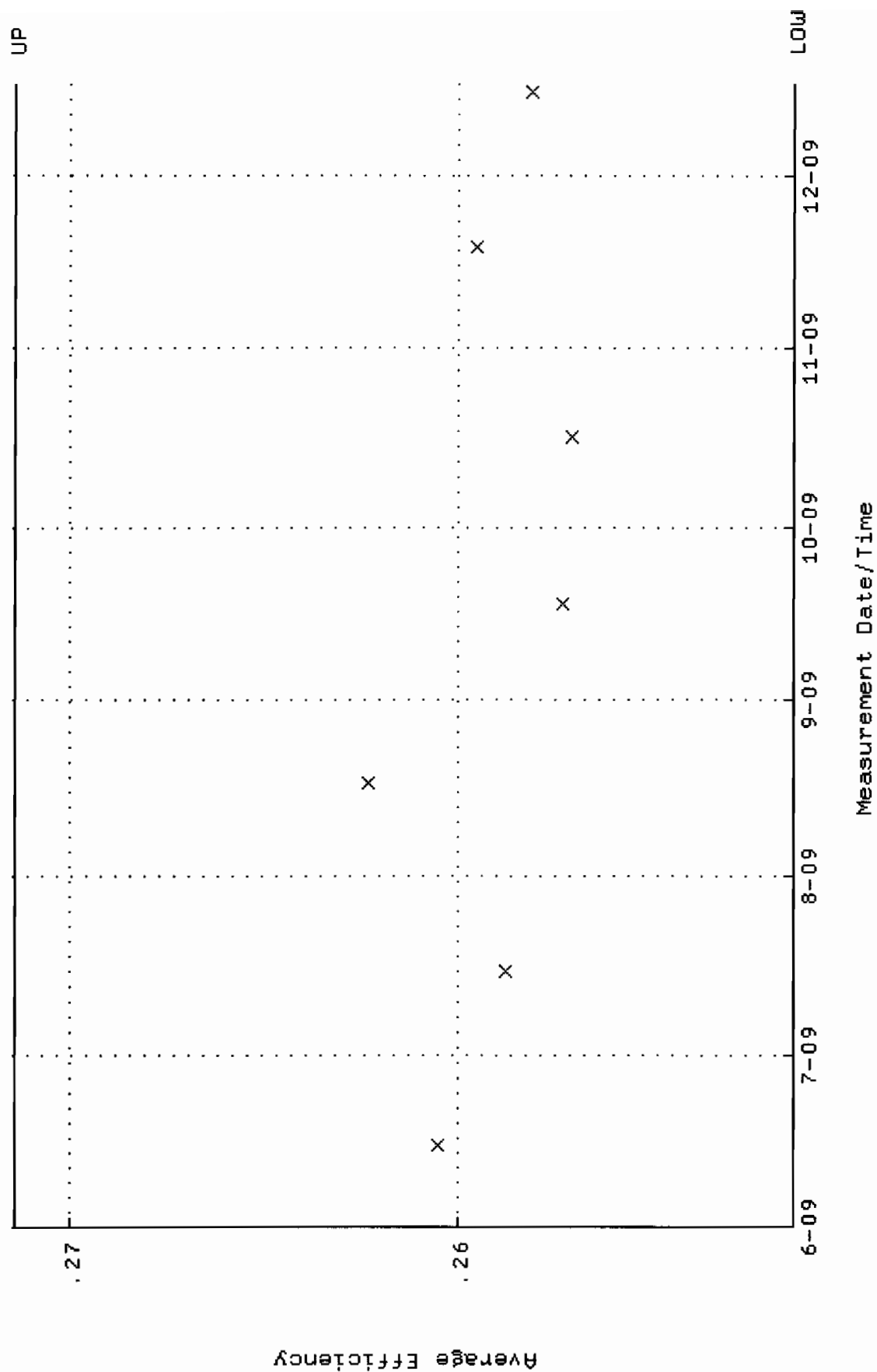
QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 15-JUN-2009 10:35:03 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 86.0496 through 95.1074



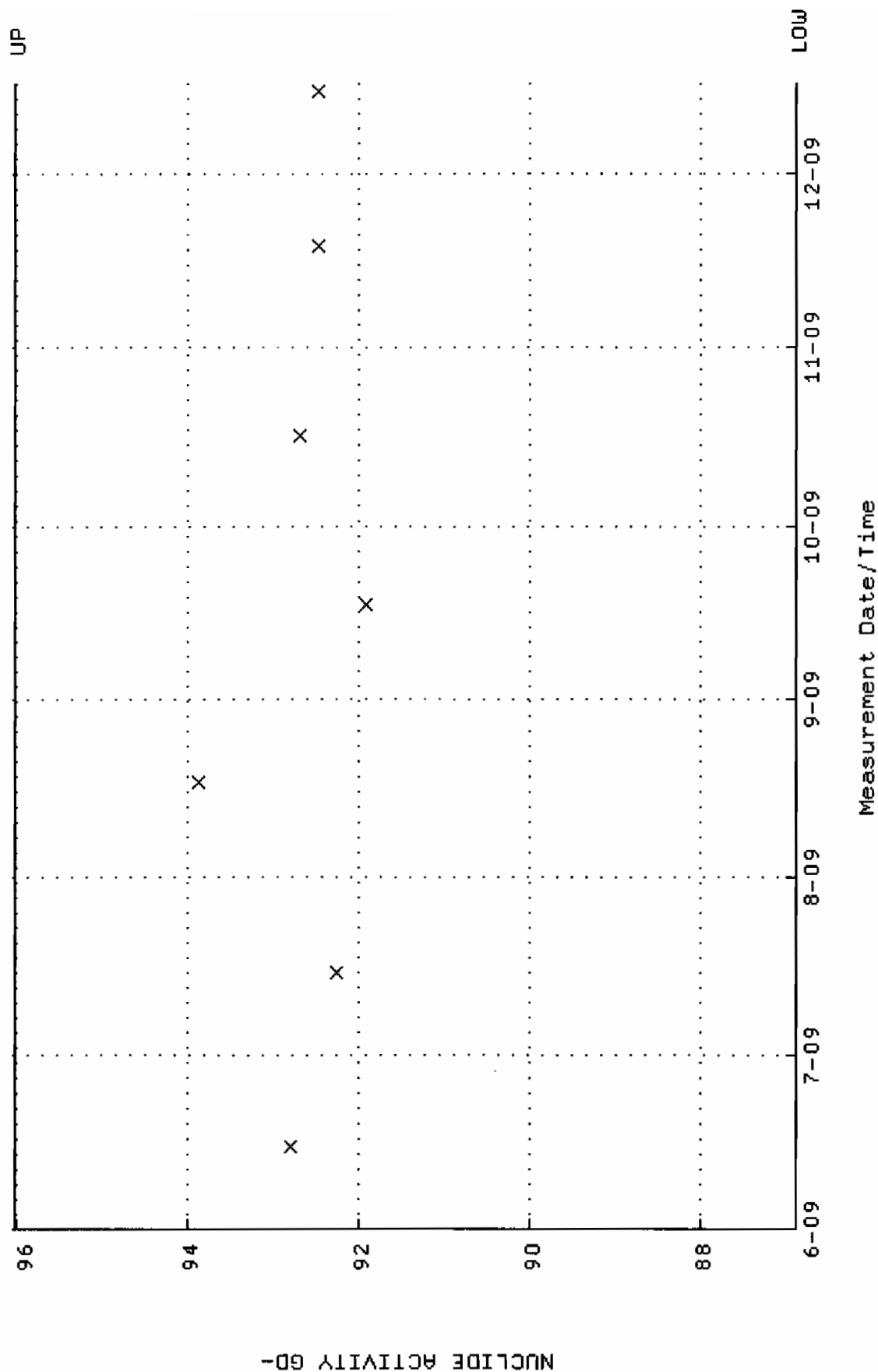
QA filename : DKA100:[ENV_ALPHA.QA.B]B123.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 7-JUN-2009 17:09:22 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



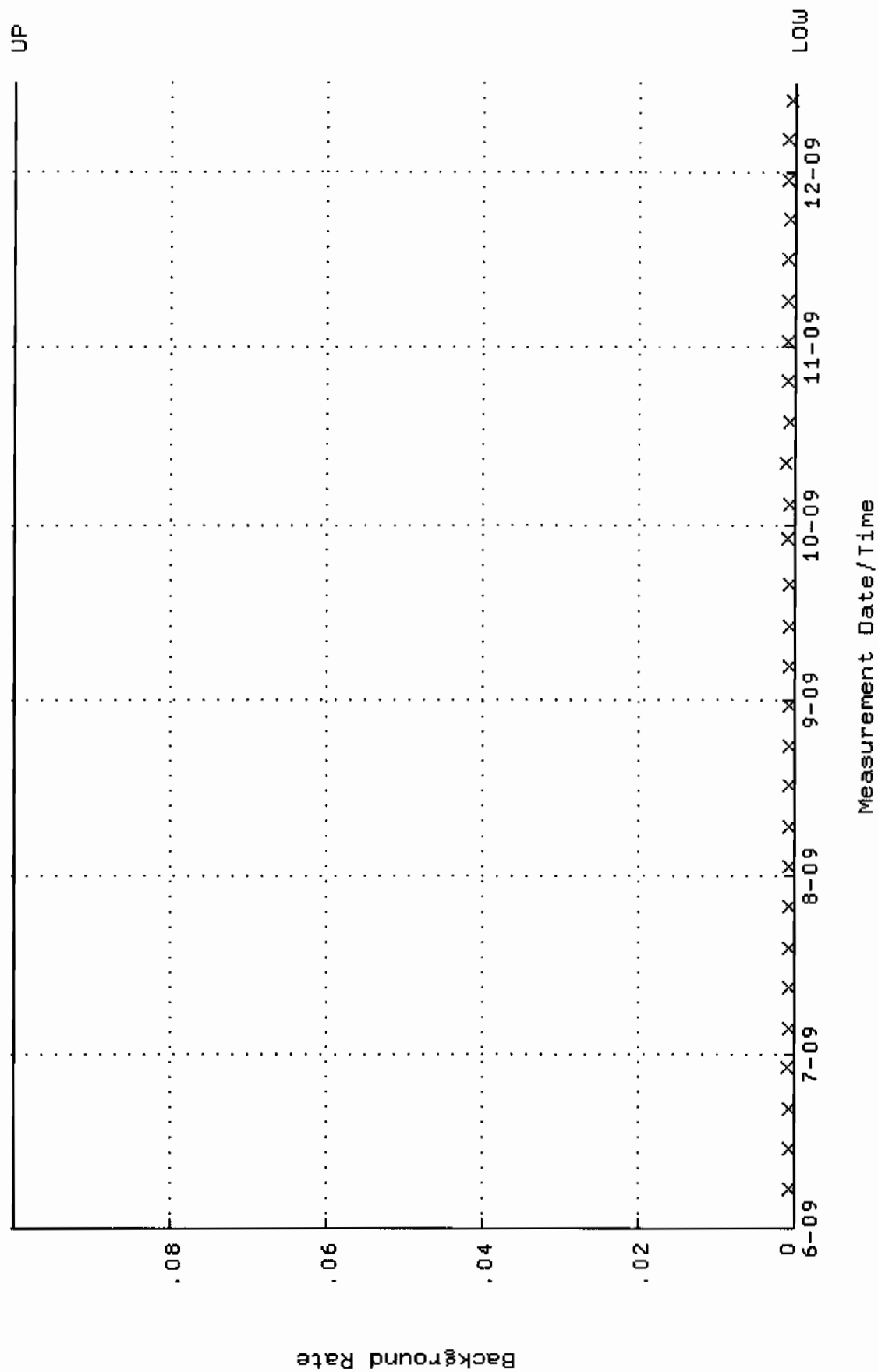
QA filename : DKA100:[ENV_ALPHA.QA.W]U124.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 15-JUN-2009 10:35:08 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.251398 through 0.271398



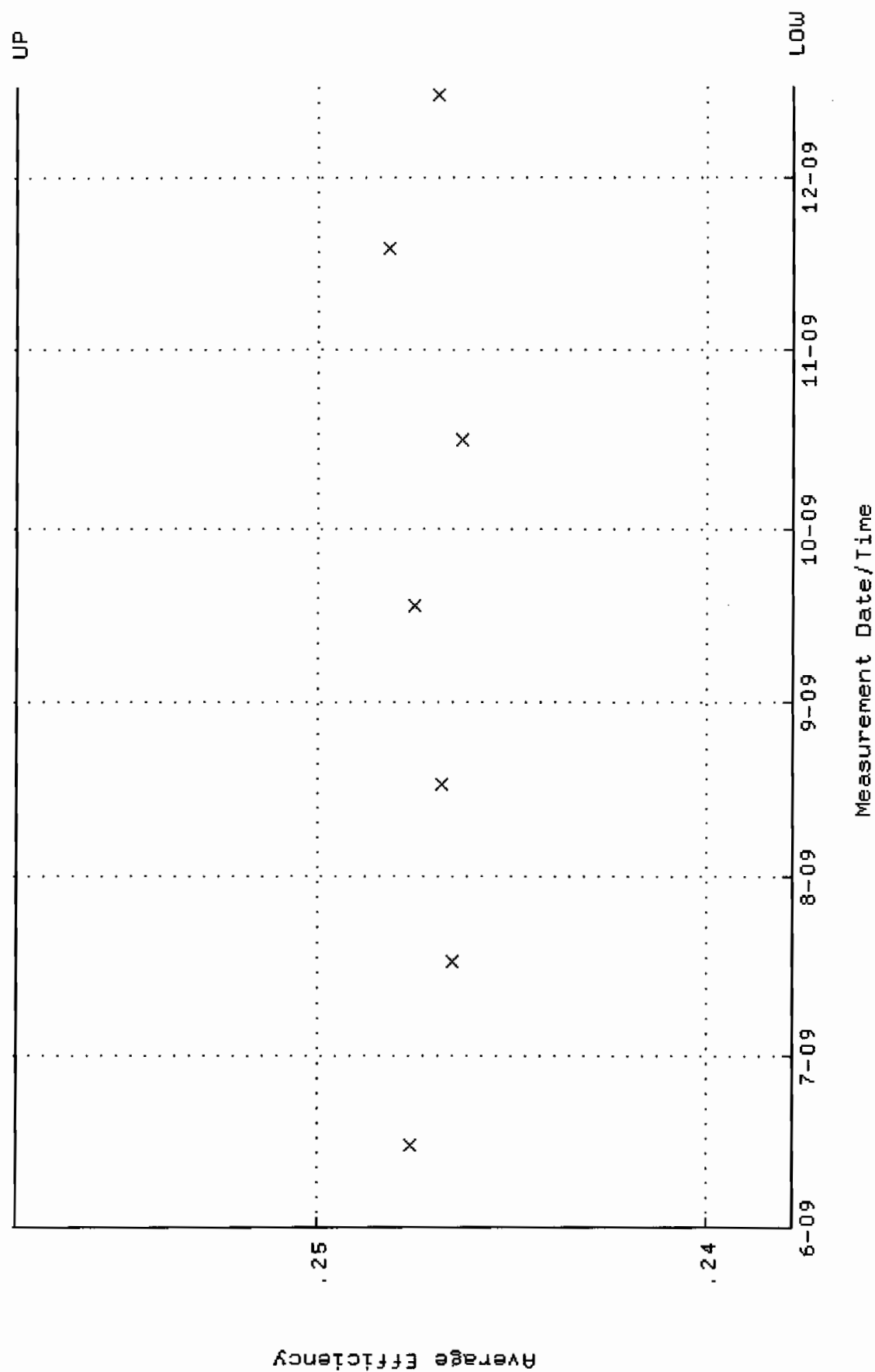
QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 15-JUN-2009 10:35:08 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 86.8862 through 96.0322



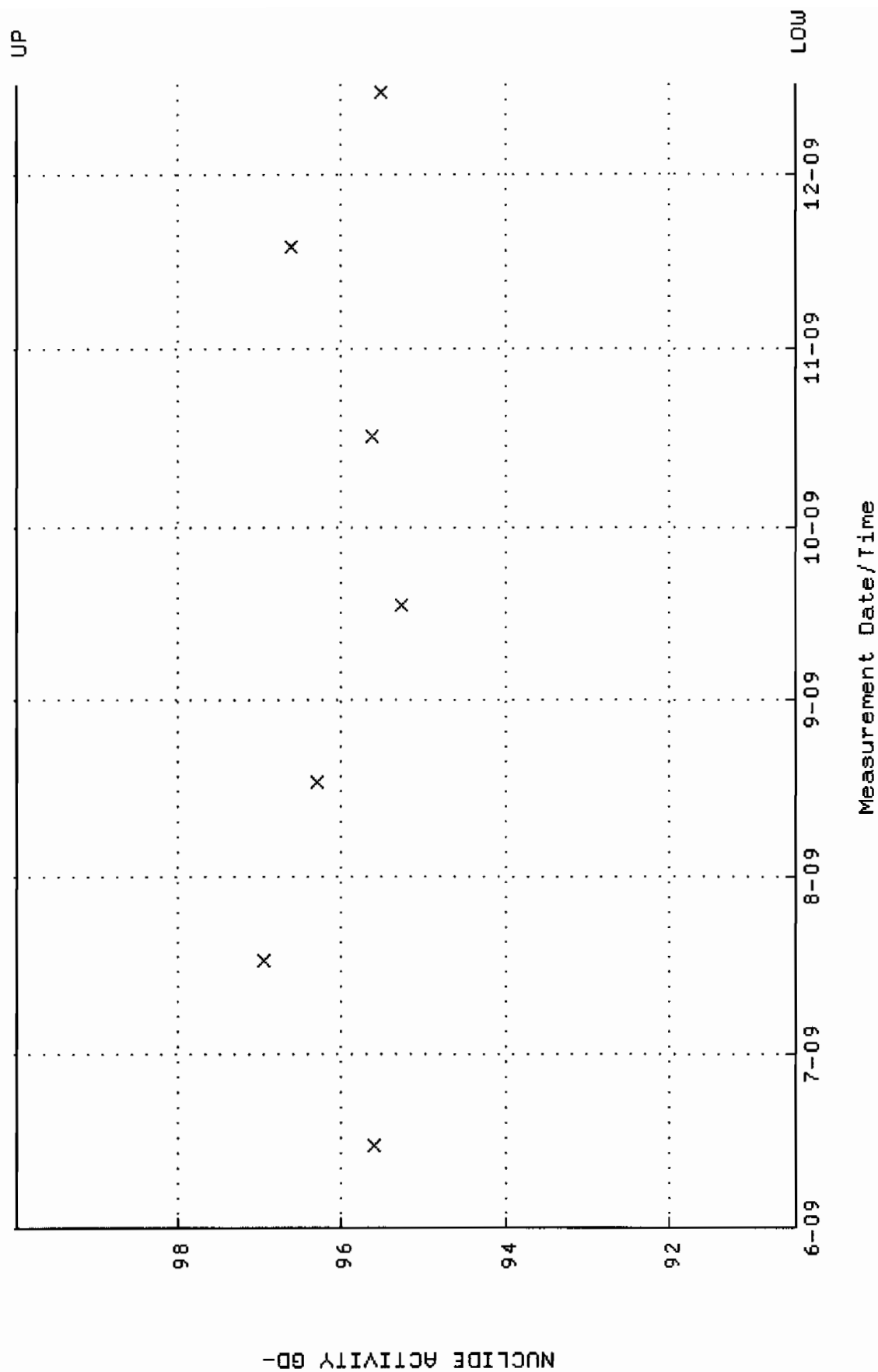
QA filename : DKA100:[ENV_ALPHA.QA.B]B124.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 7-JUN-2009 17:09:27 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



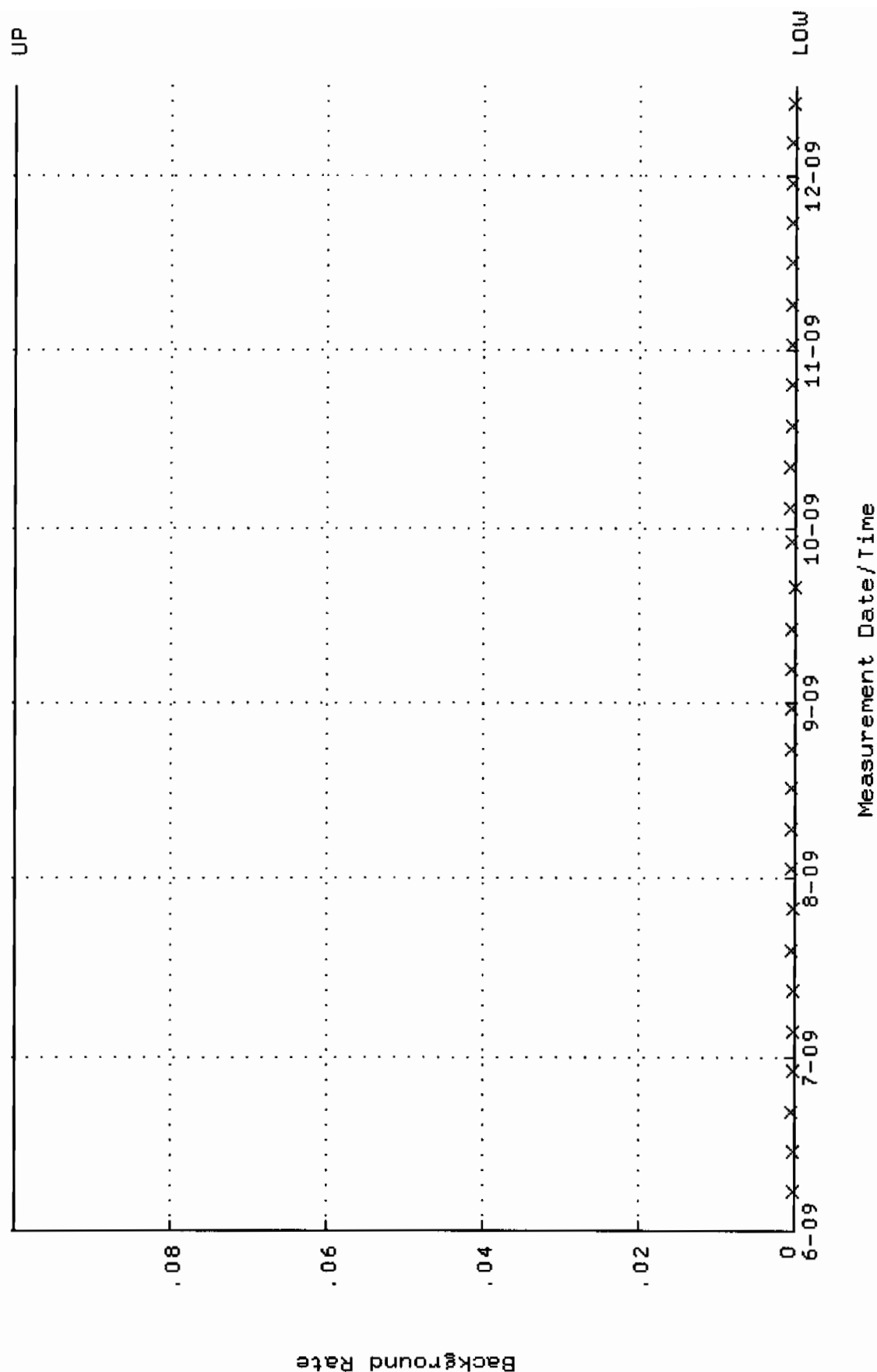
QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 15-JUN-2009 10:35:25 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.237773 through 0.257773



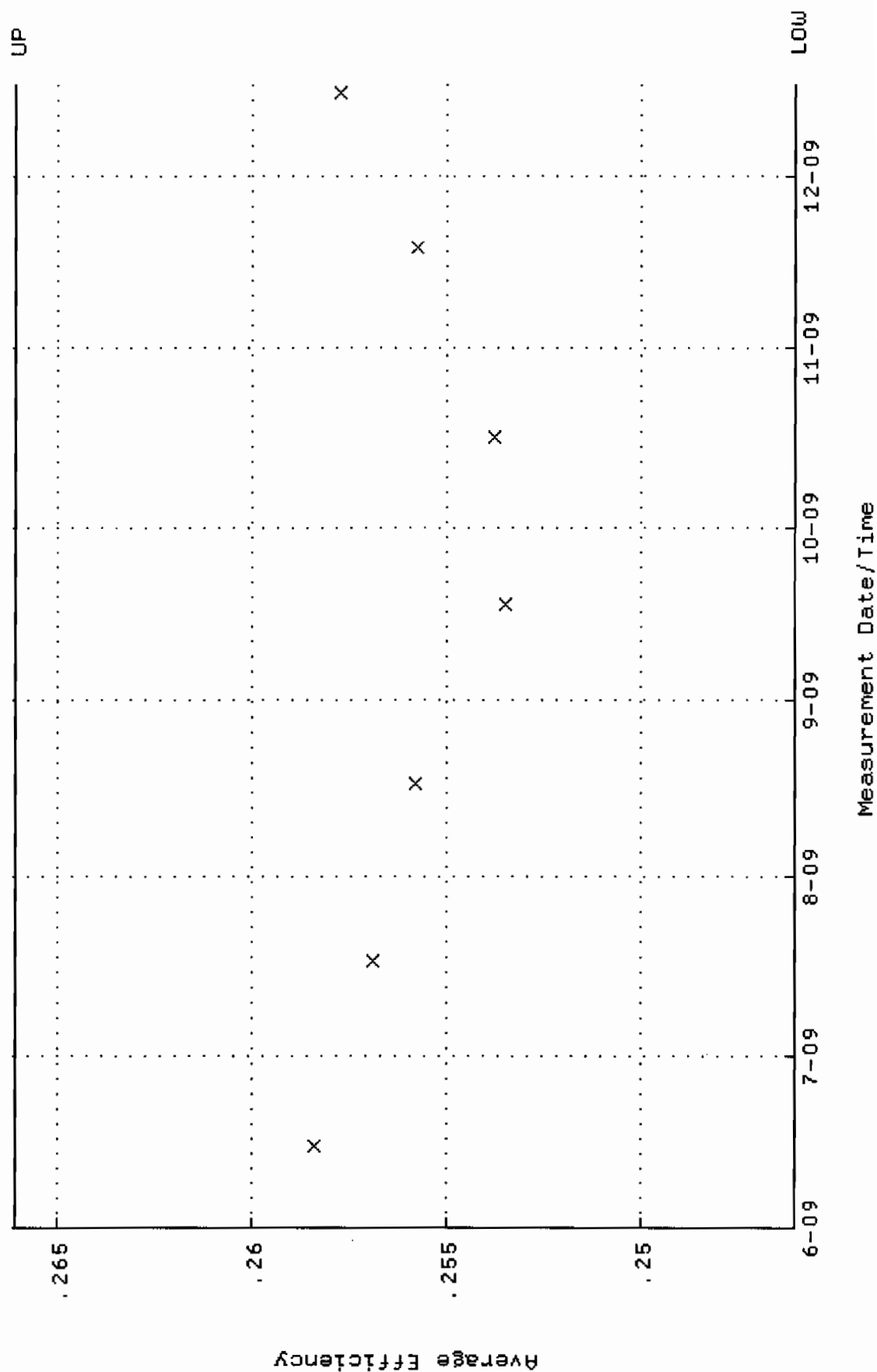
QA filename : OKA100:[ENV_ALPHA.QA.W]W127.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 15-JUN-2009 10:35:25 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 90.4503 through 99.9713



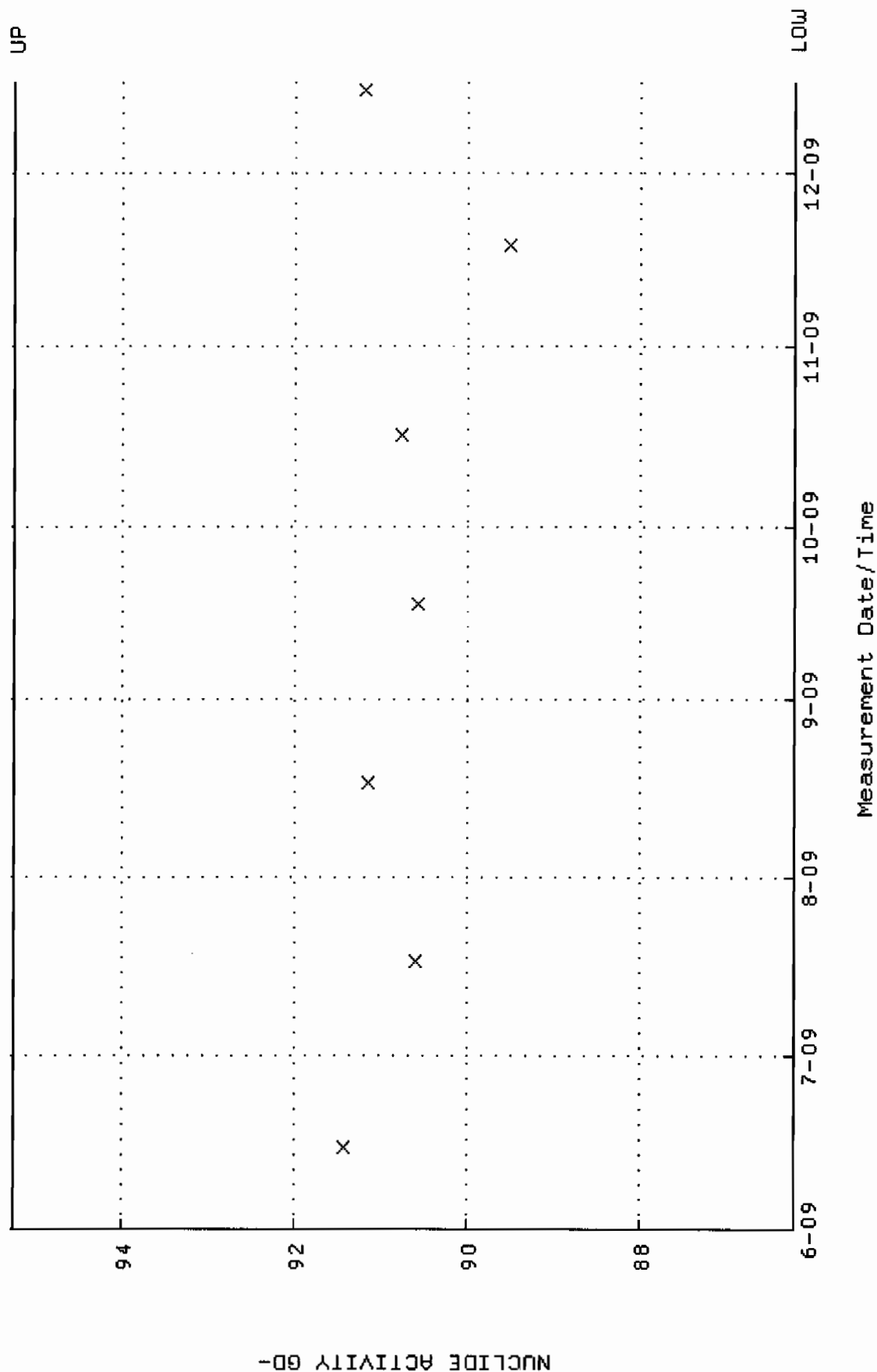
QA filename : DKA100:[ENV_ALPHA.QA.B]B127.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 7-JUN-2009 17:09:40 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



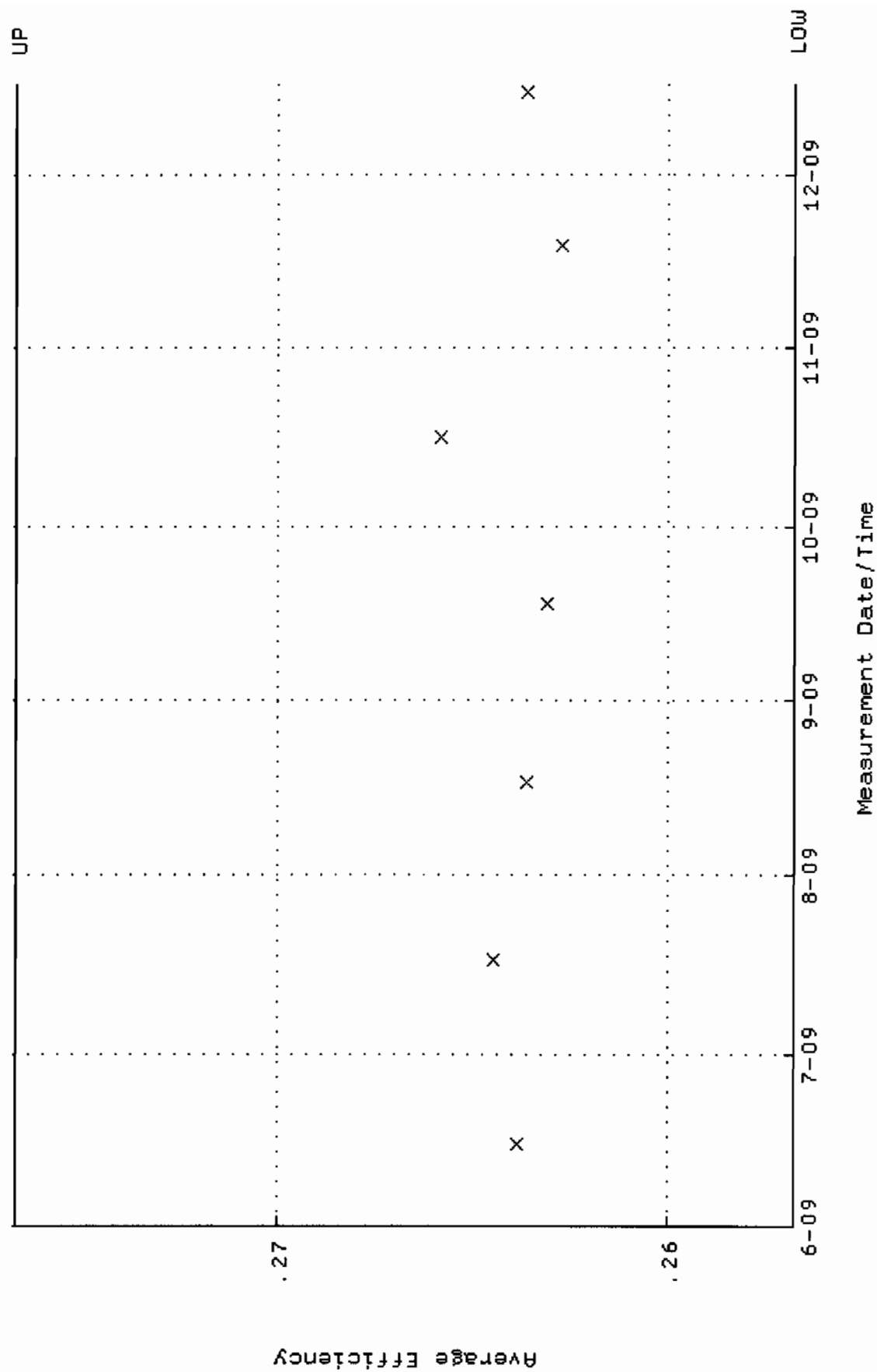
QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 15-JUN-2009 10:35:31 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.246062 through 0.266062



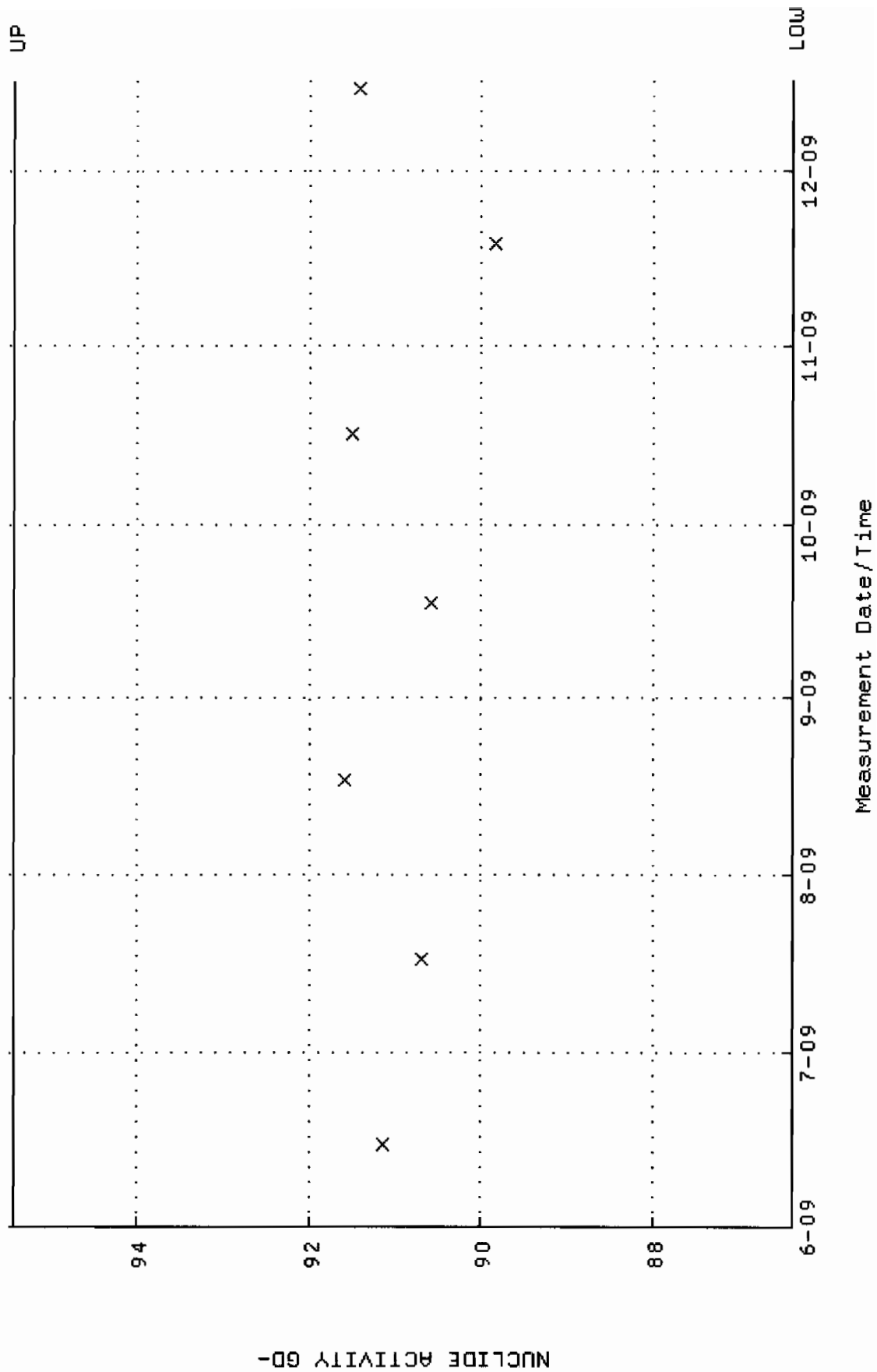
QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 15-JUN-2009 10:35:31 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 86.1964 through 95.2697



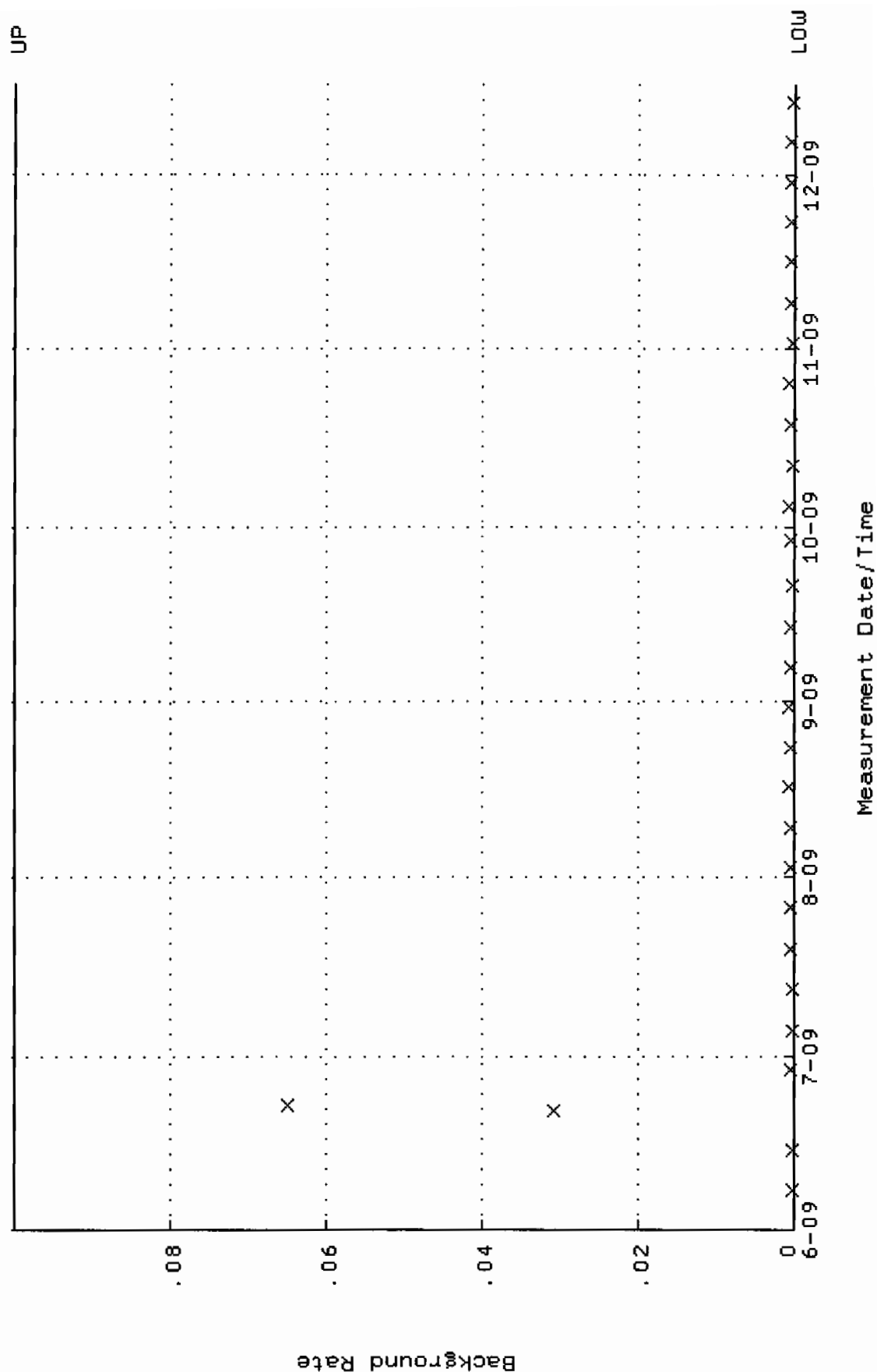
QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 15-JUN-2009 10:35:37 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.256741 through 0.276741



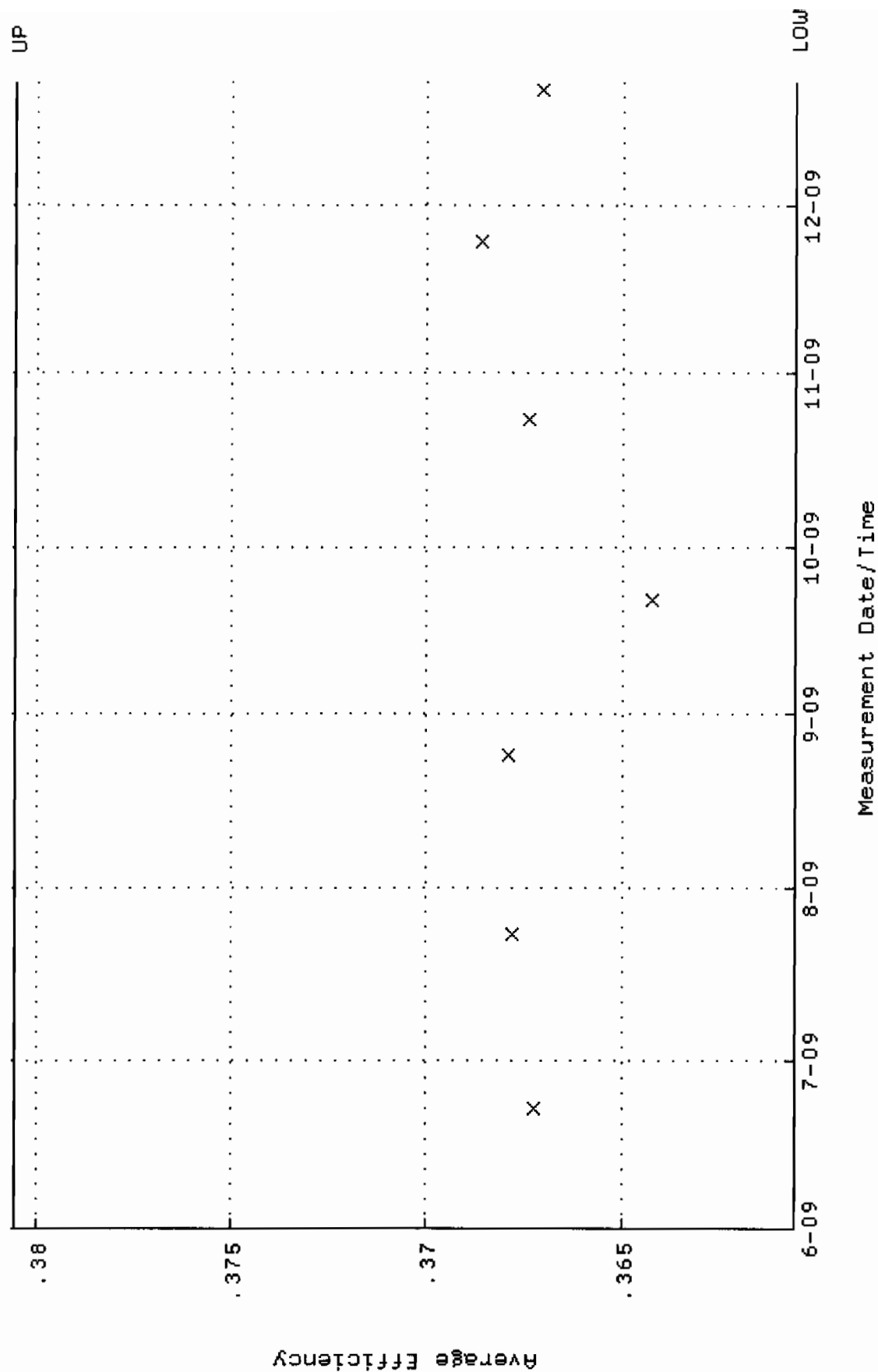
QA filename : DKA100:[ENV_ALPHA.QA.W]w129.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 15-JUN-2009 10:35:37 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 86.3646 through 95.4556



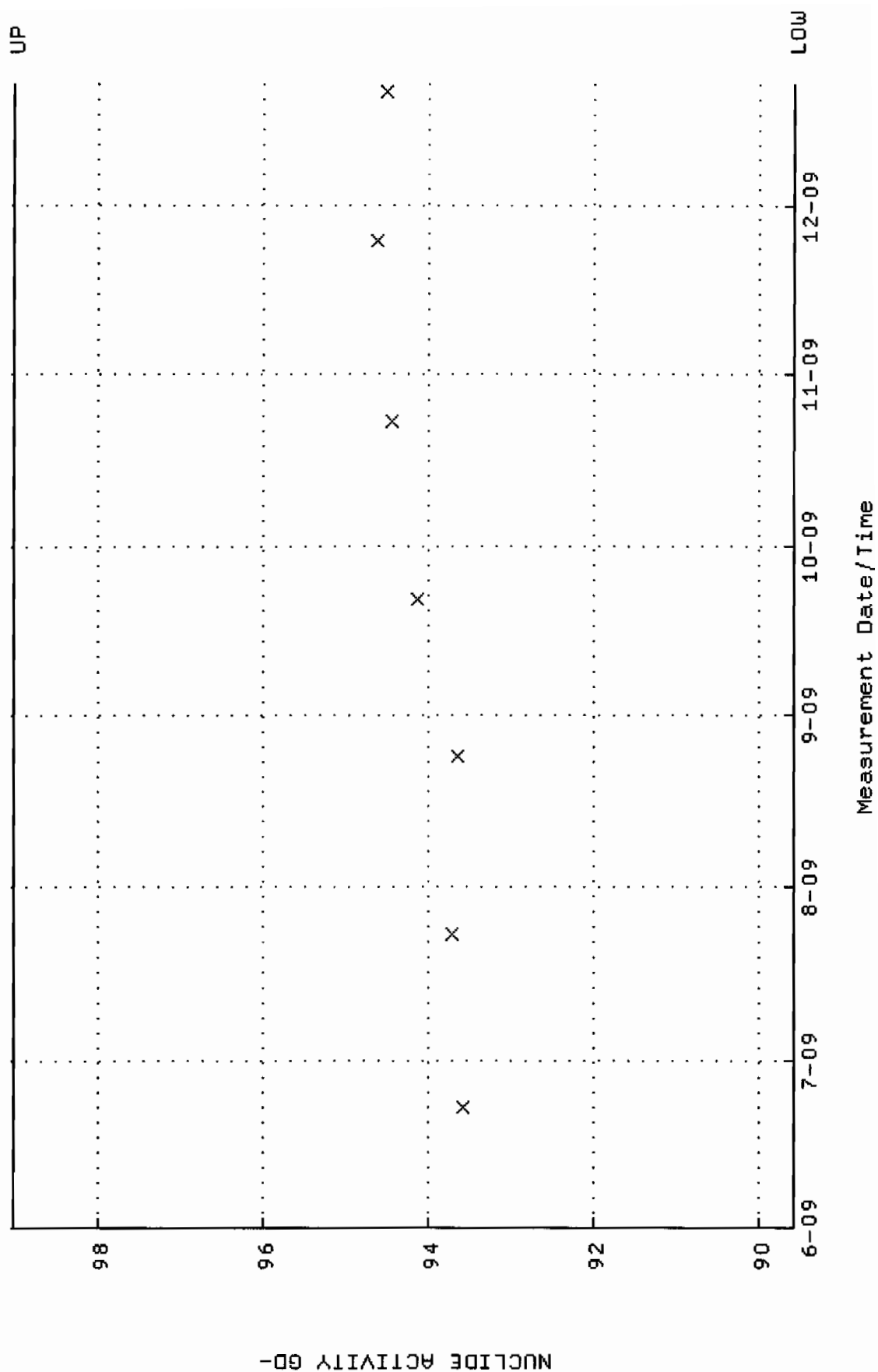
QA filename : DKA100:[ENV_ALPHA.QA.B]B129.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 7-JUN-2009 17:09:48 through 16-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



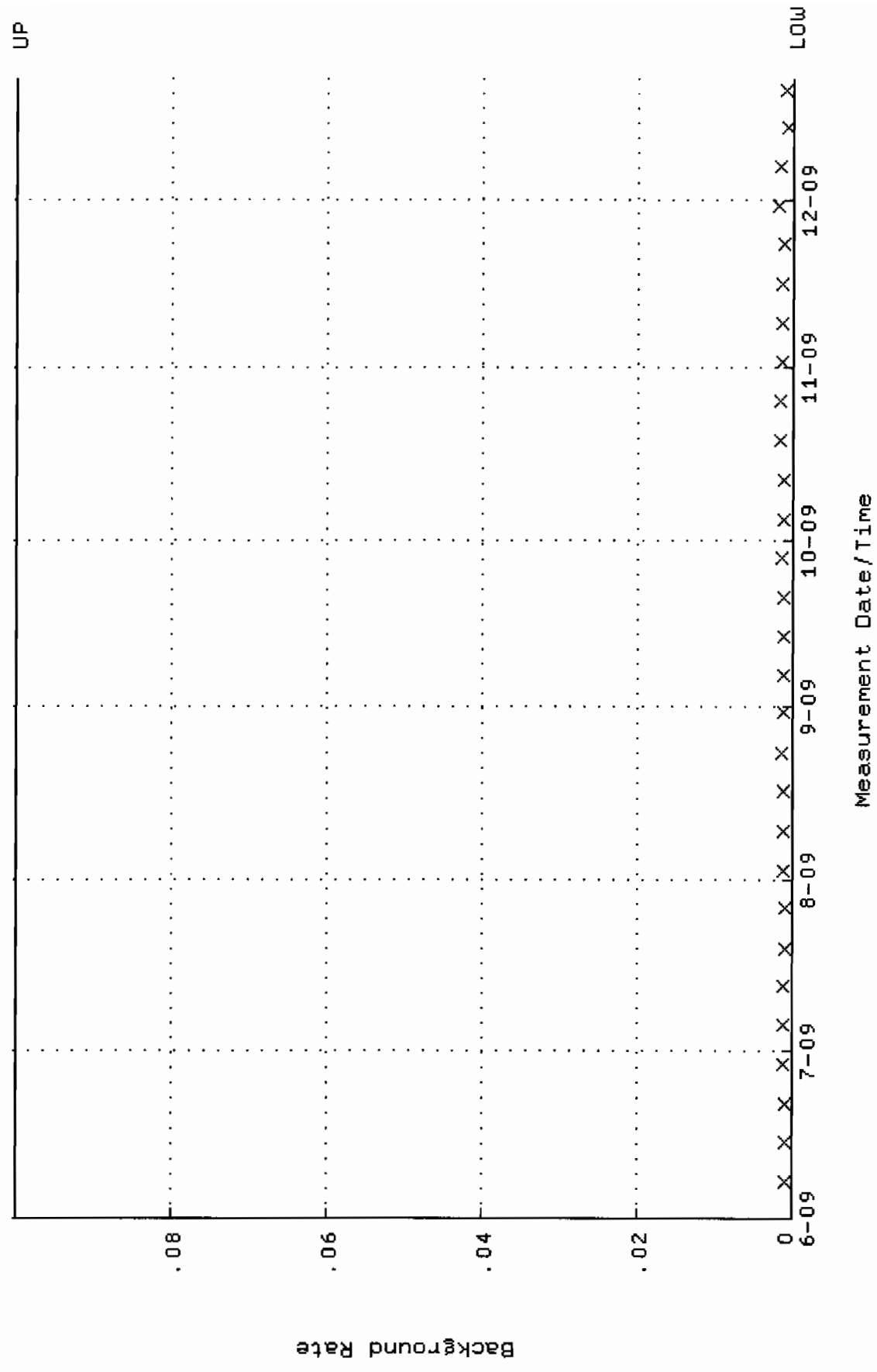
QA filename : DKA100:[ENV_ALPHA.QA.W]W170.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 22-JUN-2009 09:49:44 through 22-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.360563 through 0.380563



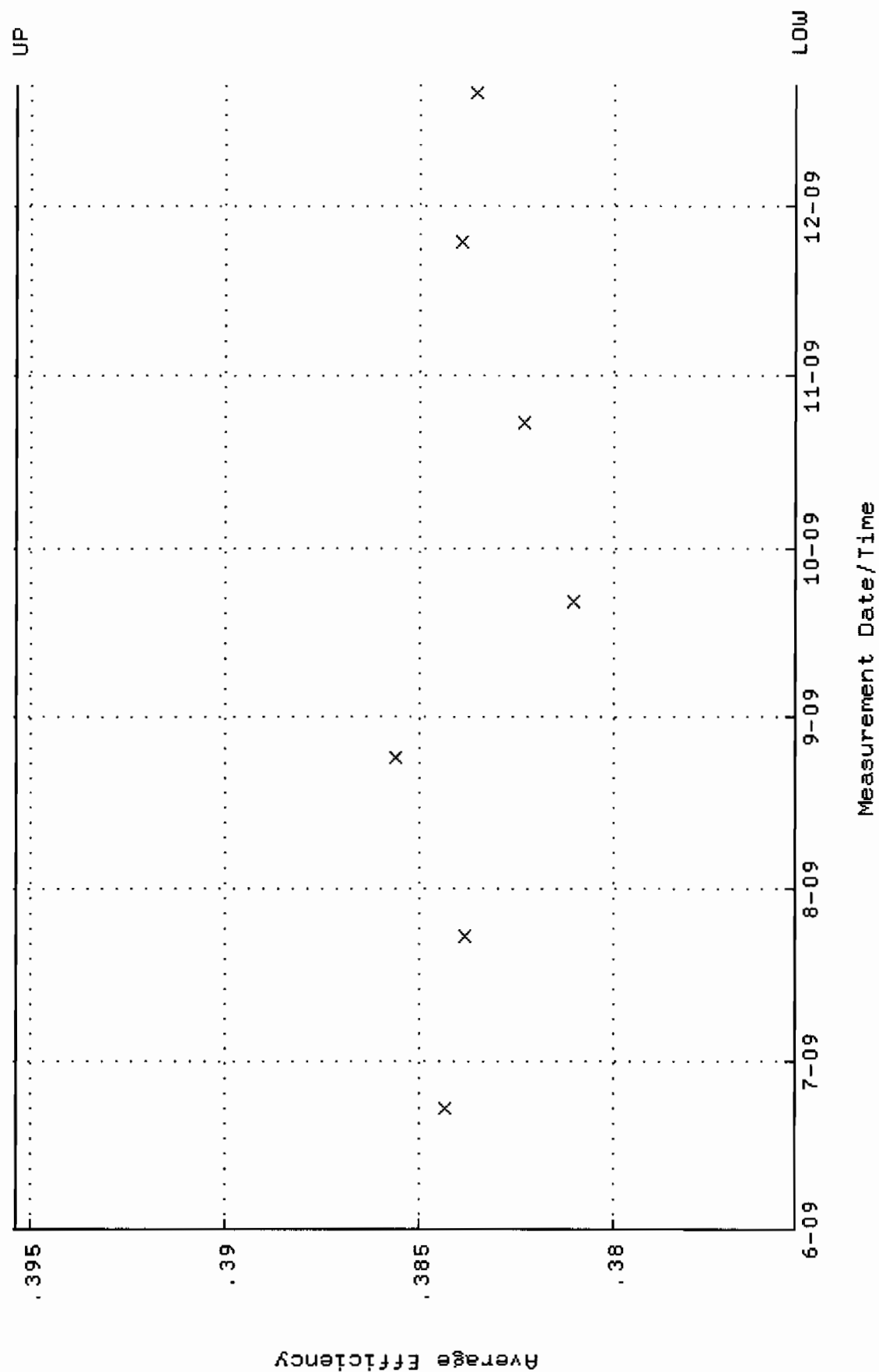
QA filename : DKA100:[ENV_ALPHA.QA.W]w170.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 22-JUN-2009 09:49:44 through 22-DEC-2009 12:00:00
 Lower/Upper Lmts: 89.5841 through 99.0139



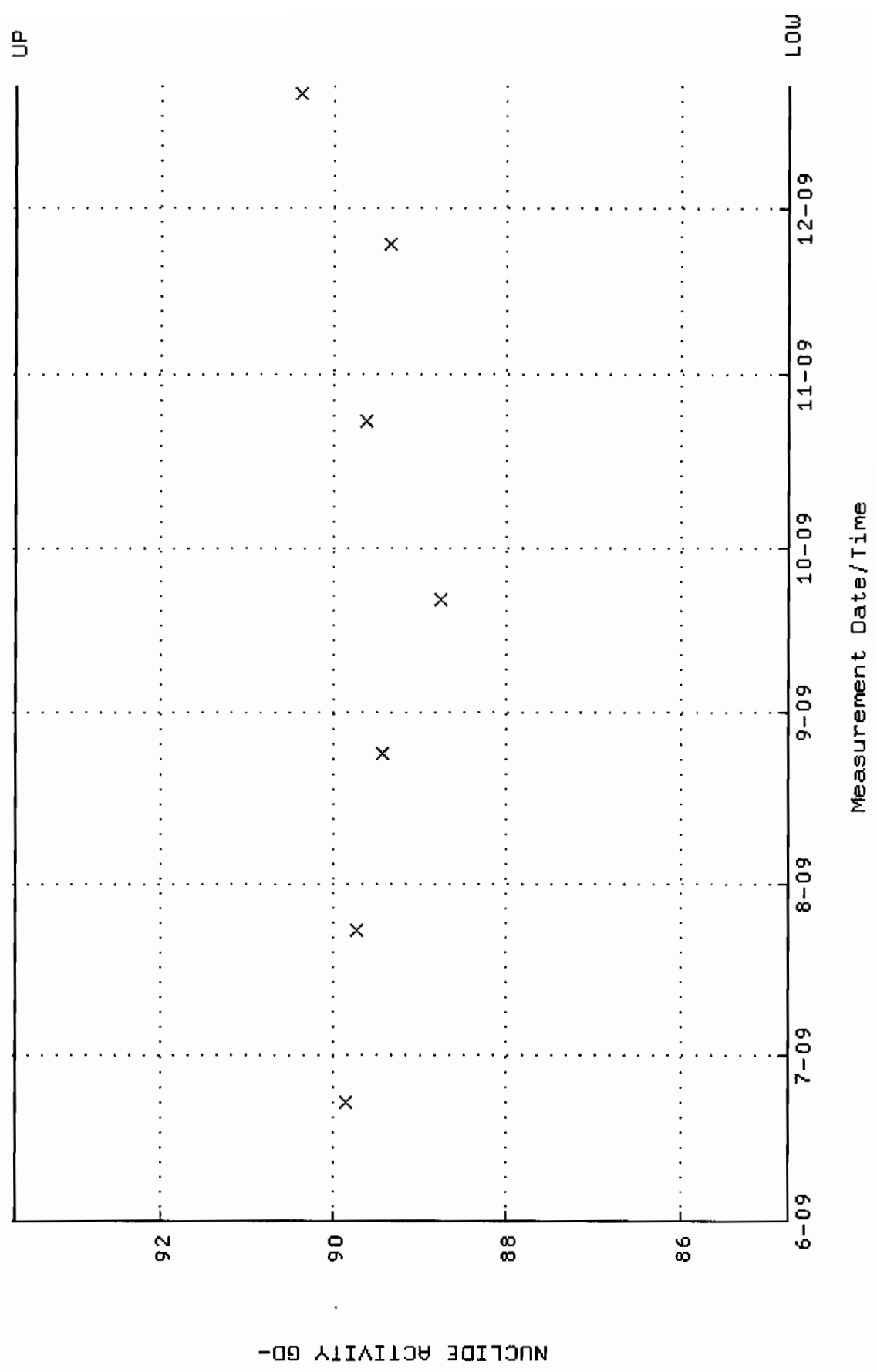
QA filename : DKA100:[ENV_ALPHA.QA.B]B170.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 7-JUN-2009 17:12:36 through 22-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



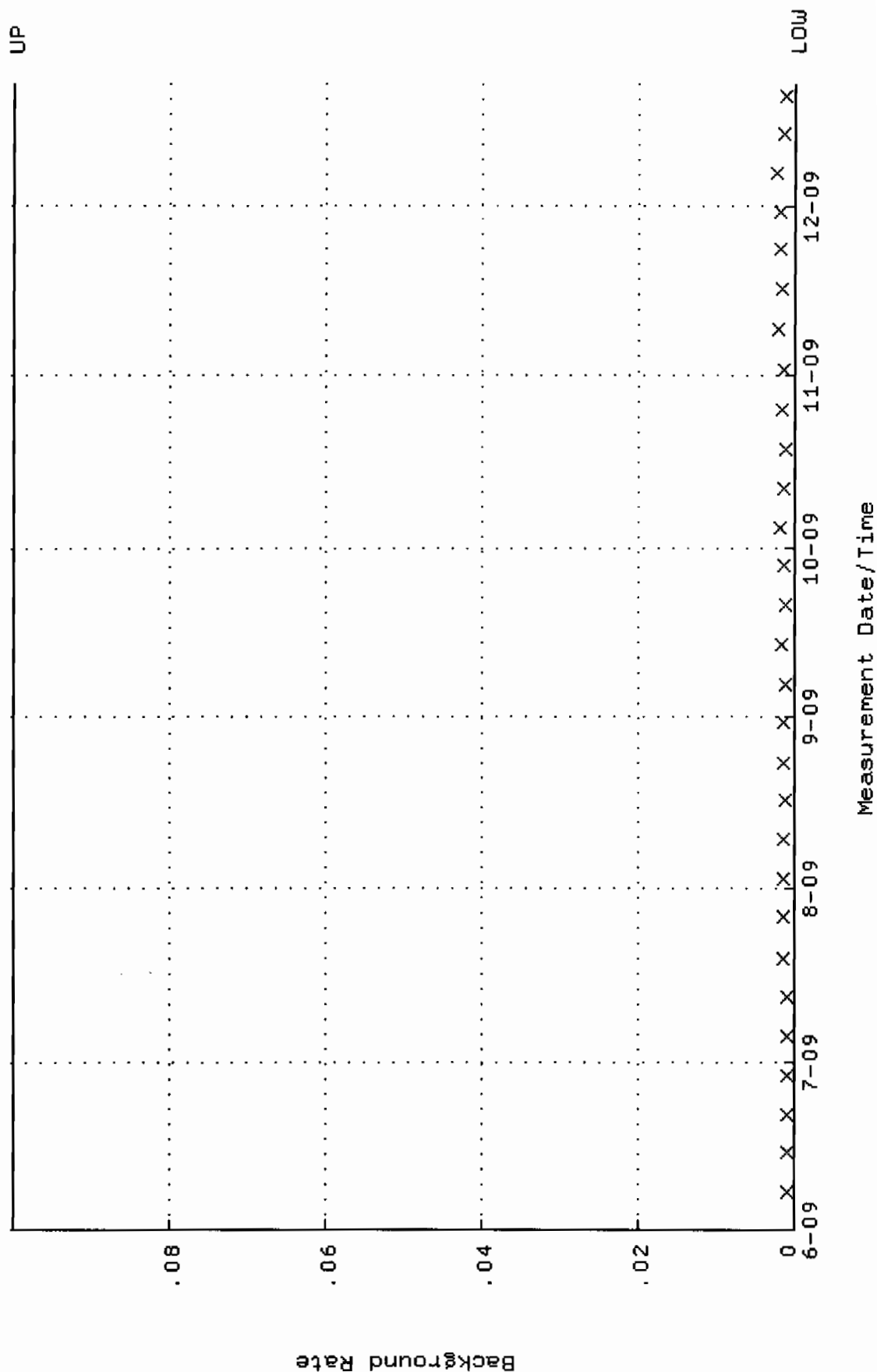
QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 22-JUN-2009 09:49:50 through 22-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.375364 through 0.395364



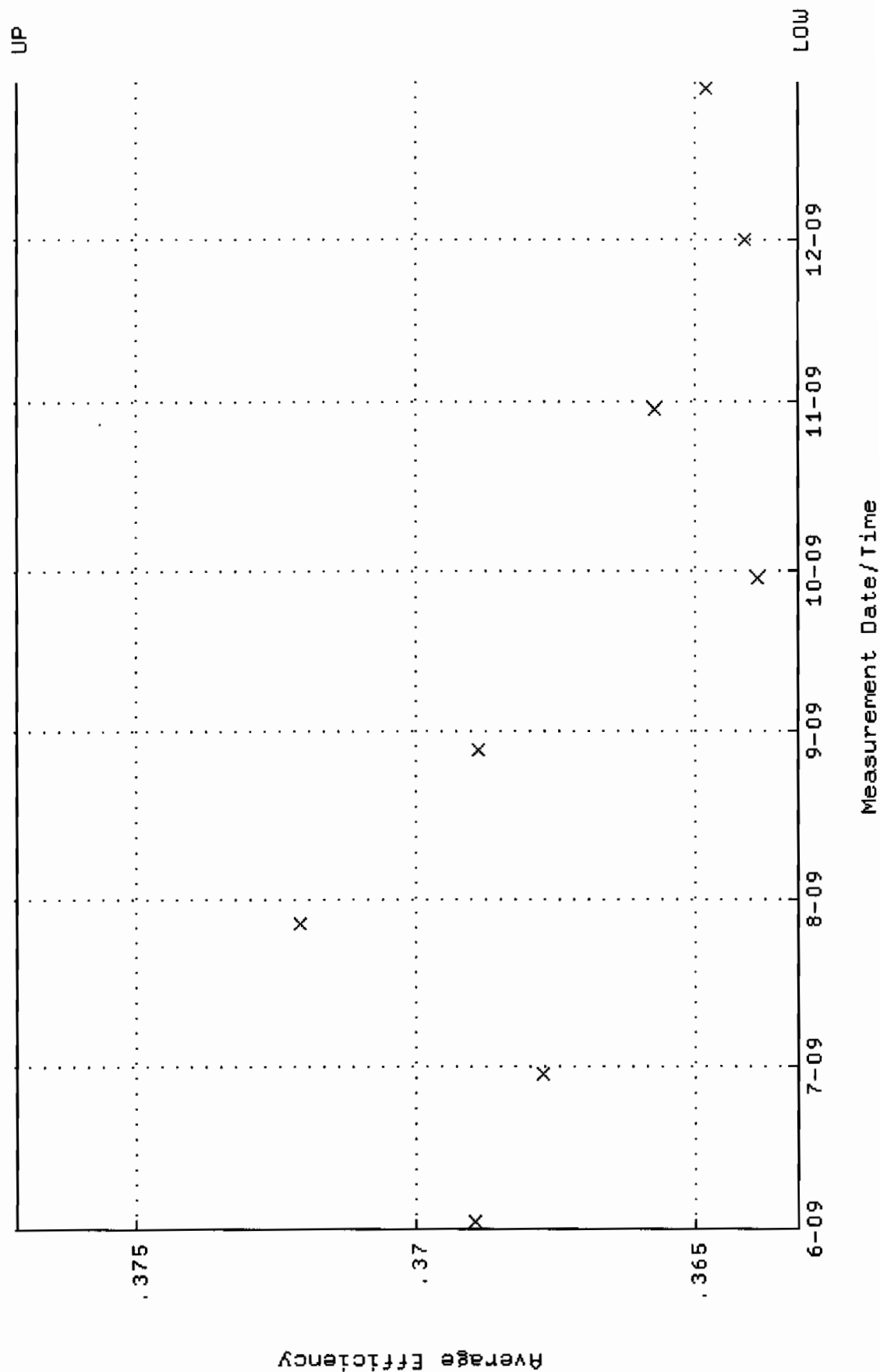
QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : NLACTVY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:50 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 84.7539 through 93.6753



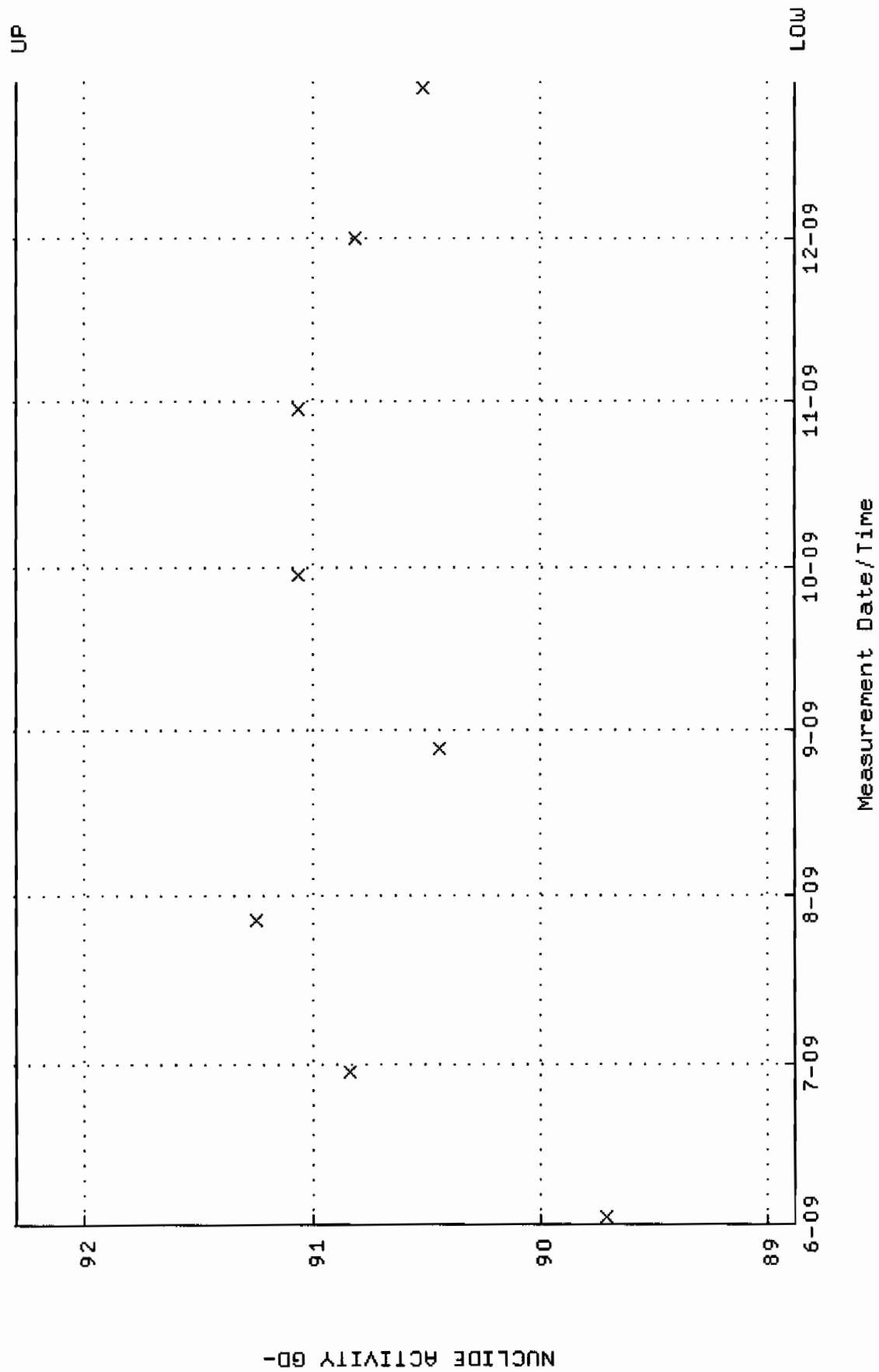
QA filename : DKA100:[ENV_ALPHA.QA.B]B171.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 7-JUN-2009 17:12:40 through 22-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



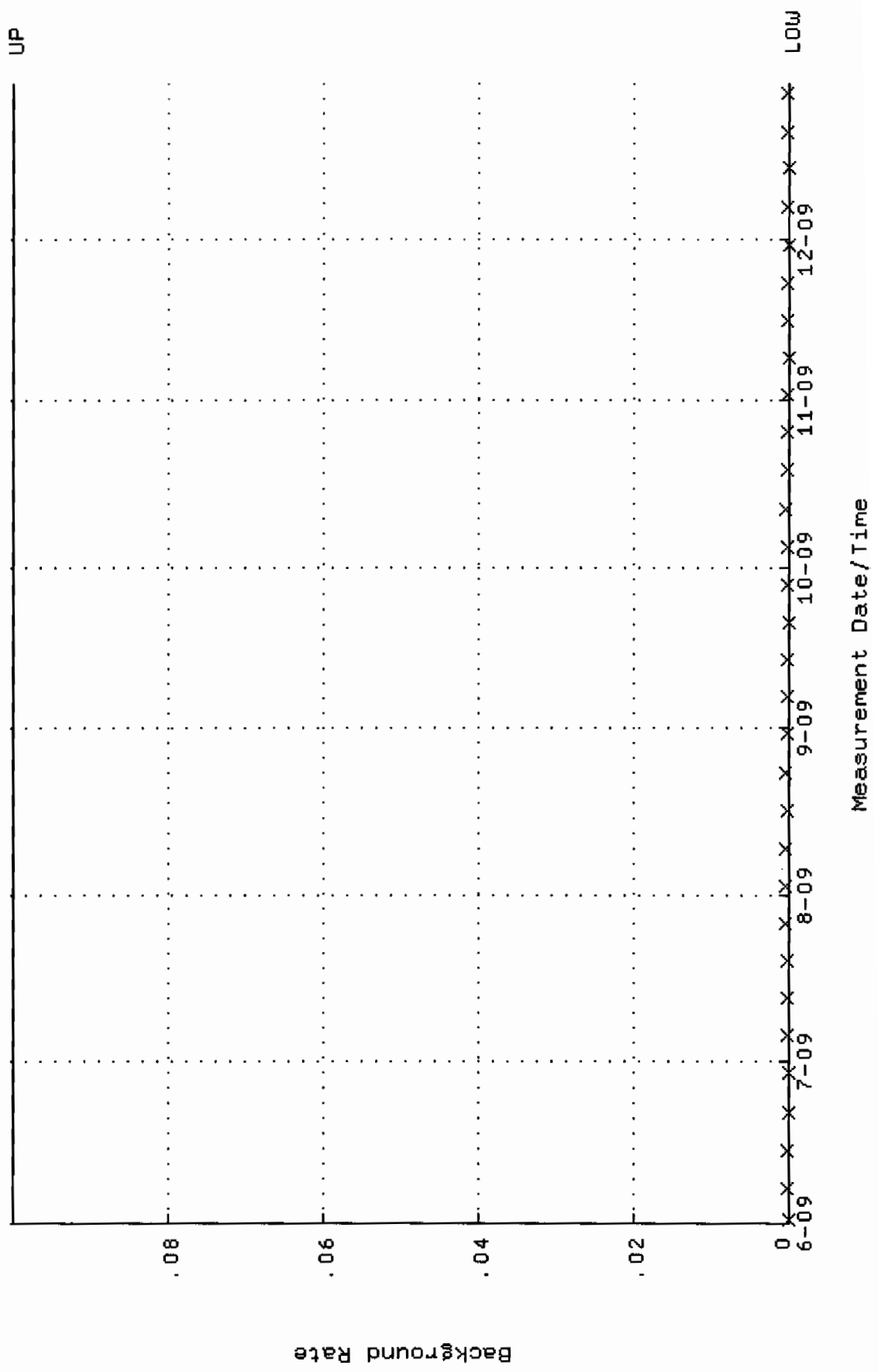
QA filename : DKA100:[ENV_ALPHA.QA.W]W209.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:17:06 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.363151 through 0.377133



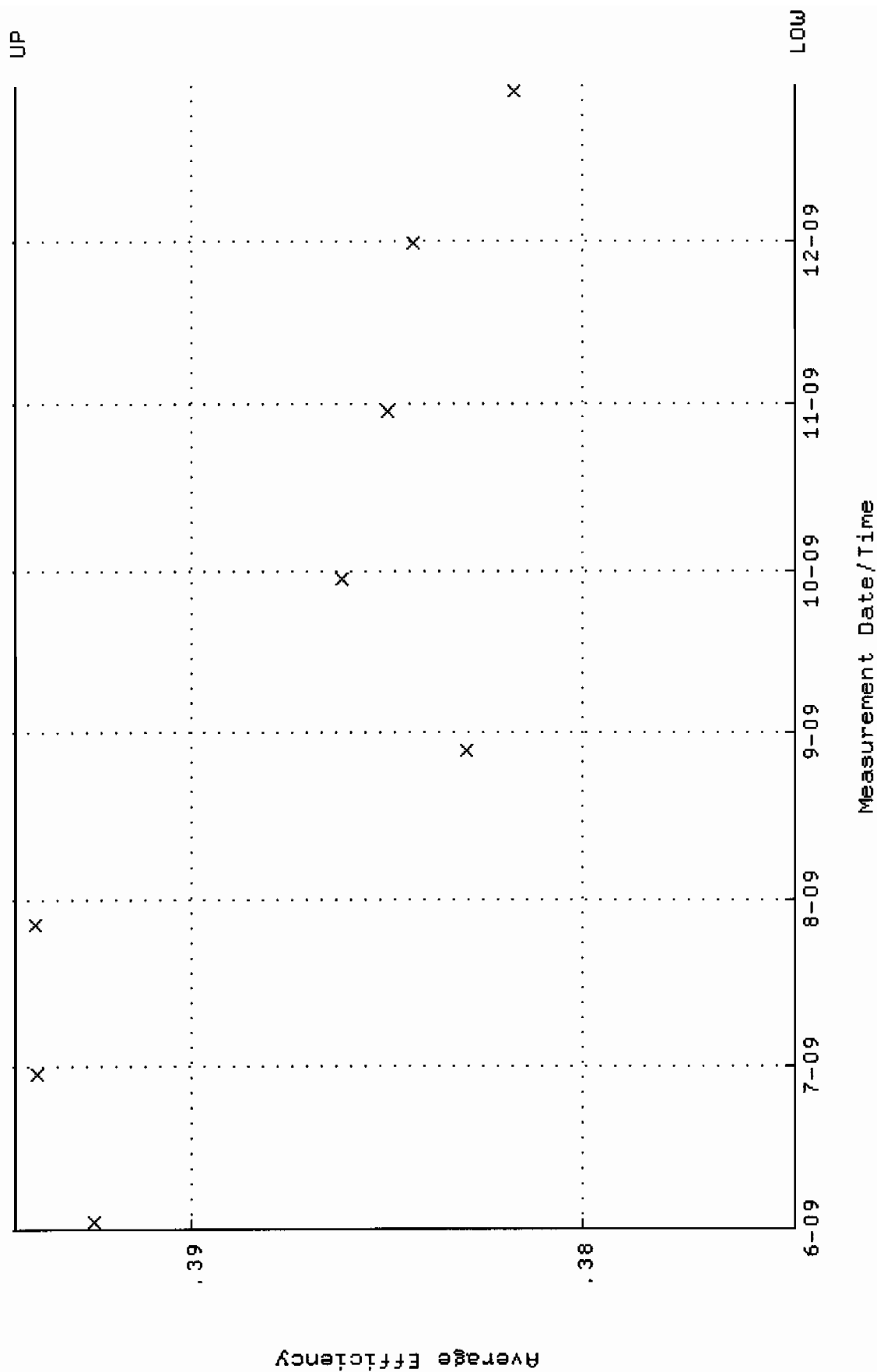
QA filename : DKA100:[ENV_ALPHA.QA.W]W209.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:17:06 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 88.8827 through 92.2979



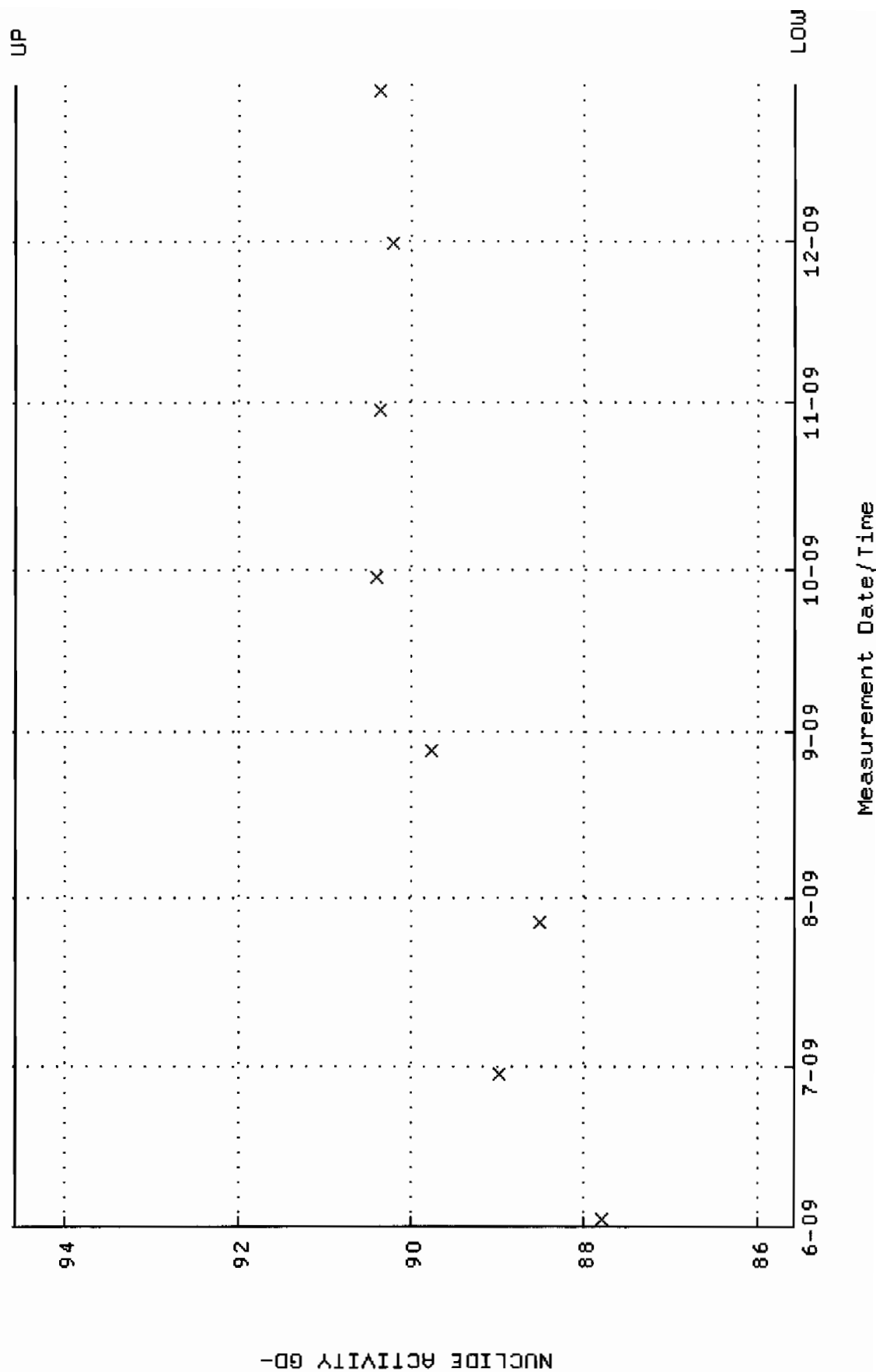
QA filename : DKA100:[ENV_ALPHA.QA.B]B209.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:43:30 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



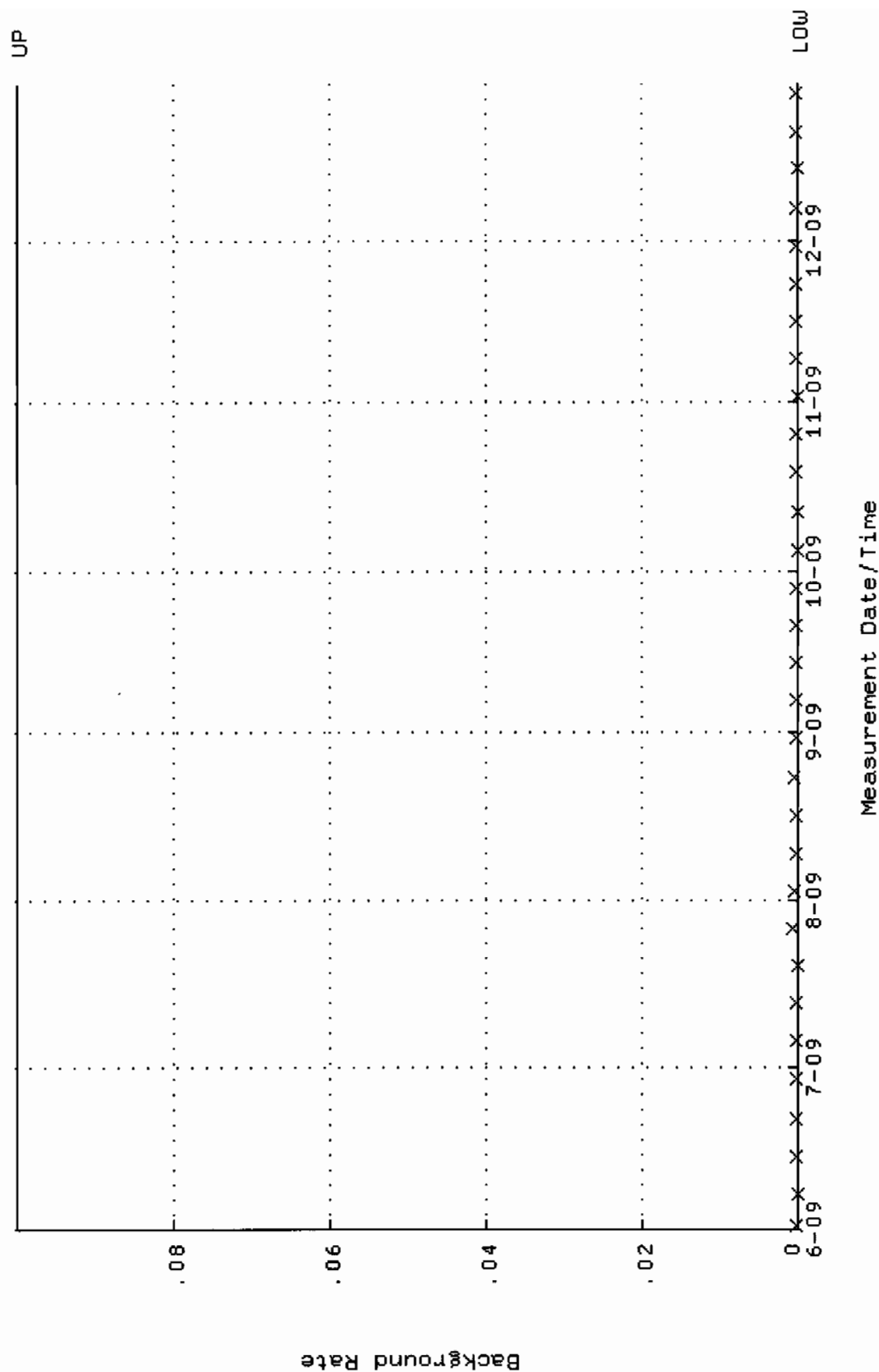
QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:17:12 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.374526 through 0.394526



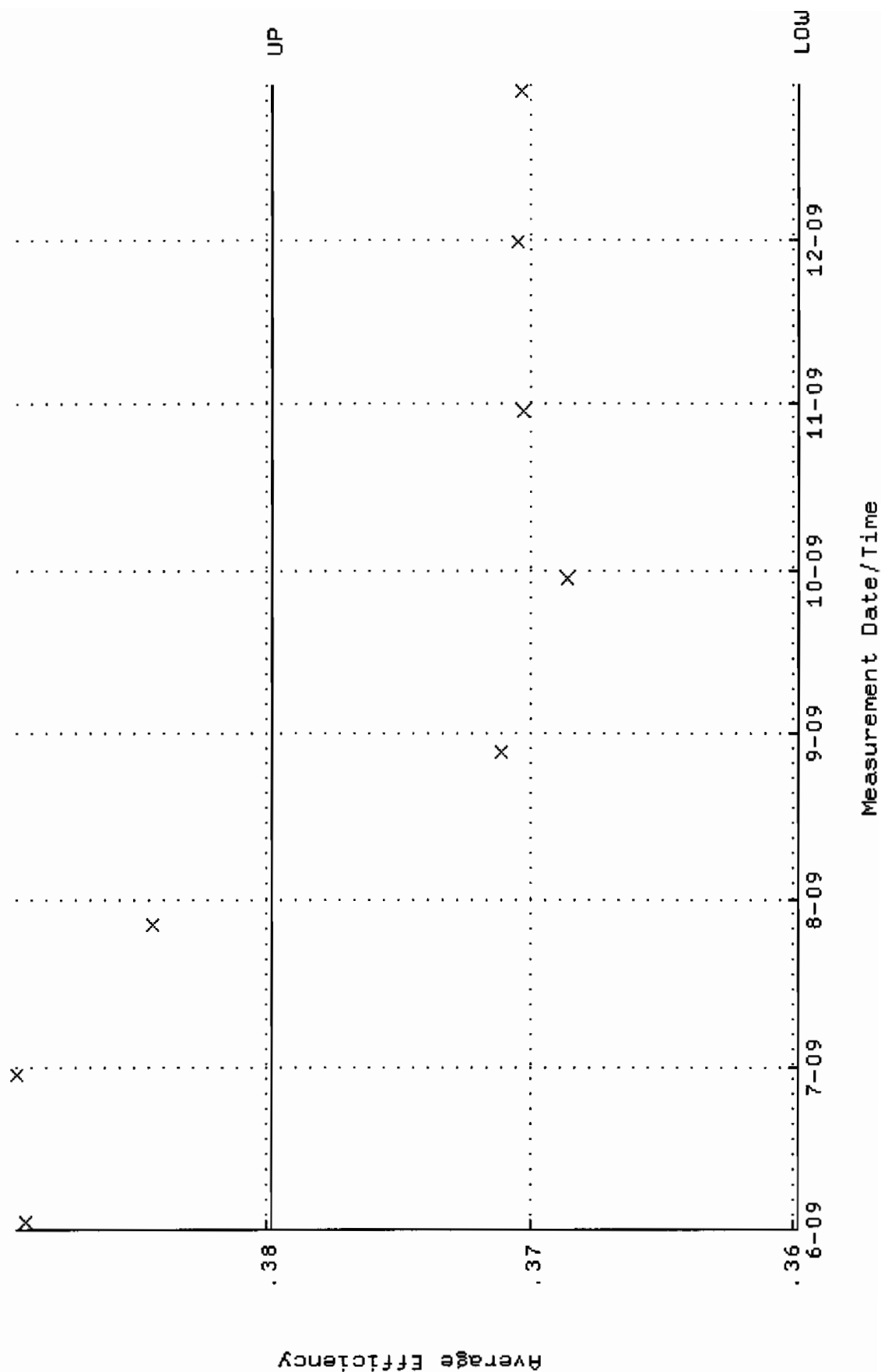
QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:17:12 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 85.5688 through 94.5760



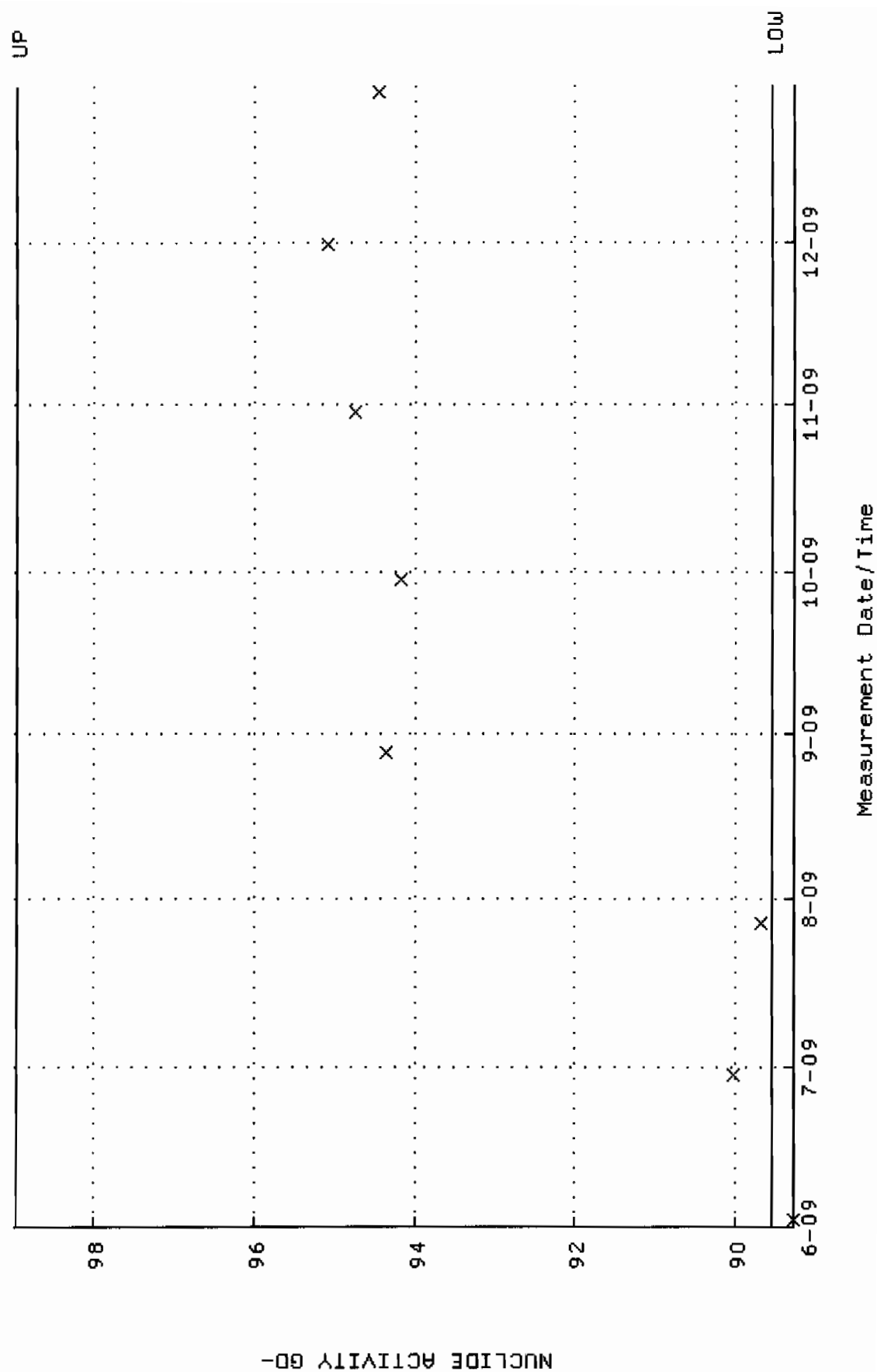
QA filename : DKA100:[ENV_ALPHA.QA.B]B210.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:43:35 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



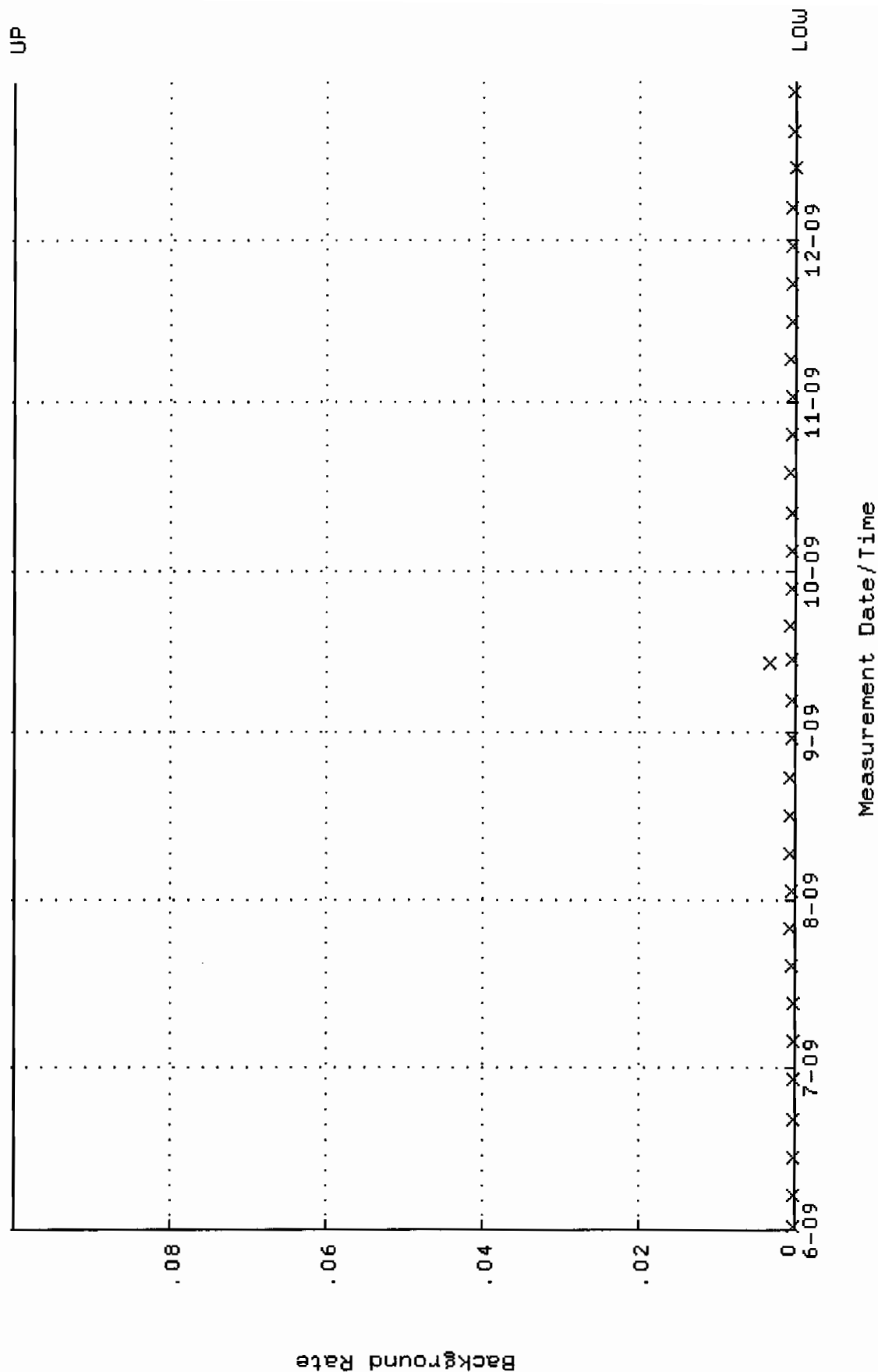
QA filename : DKA100:[ENV_ALPHA.QA.W]W223.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:18:20 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.359804 through 0.379804



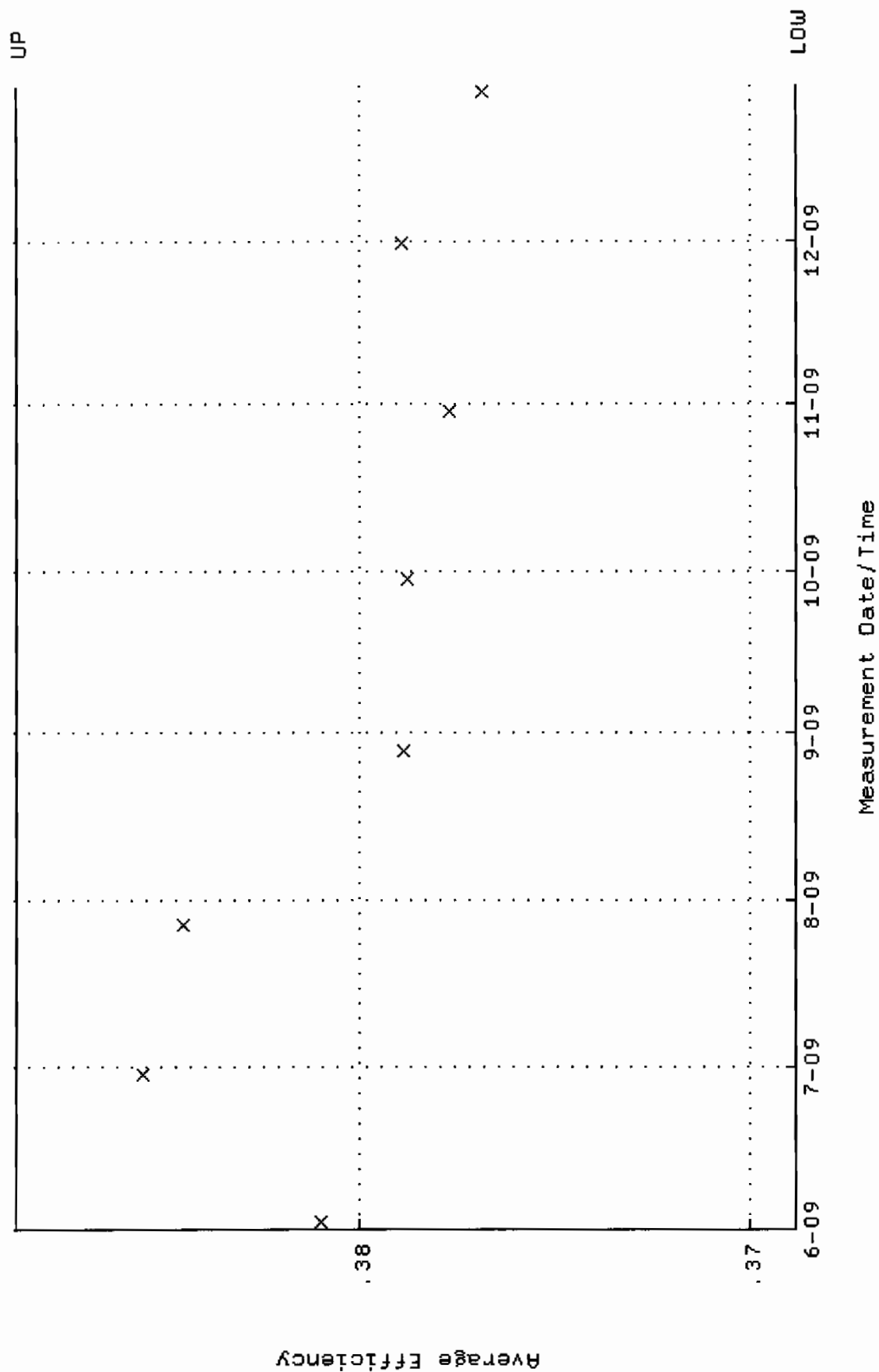
QA filename : DKA100:[ENV_ALPHA.QA.W]W223.QAF;1
 Parameter Name : NLACTVY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:18:20 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 89.5441 through 98.9697



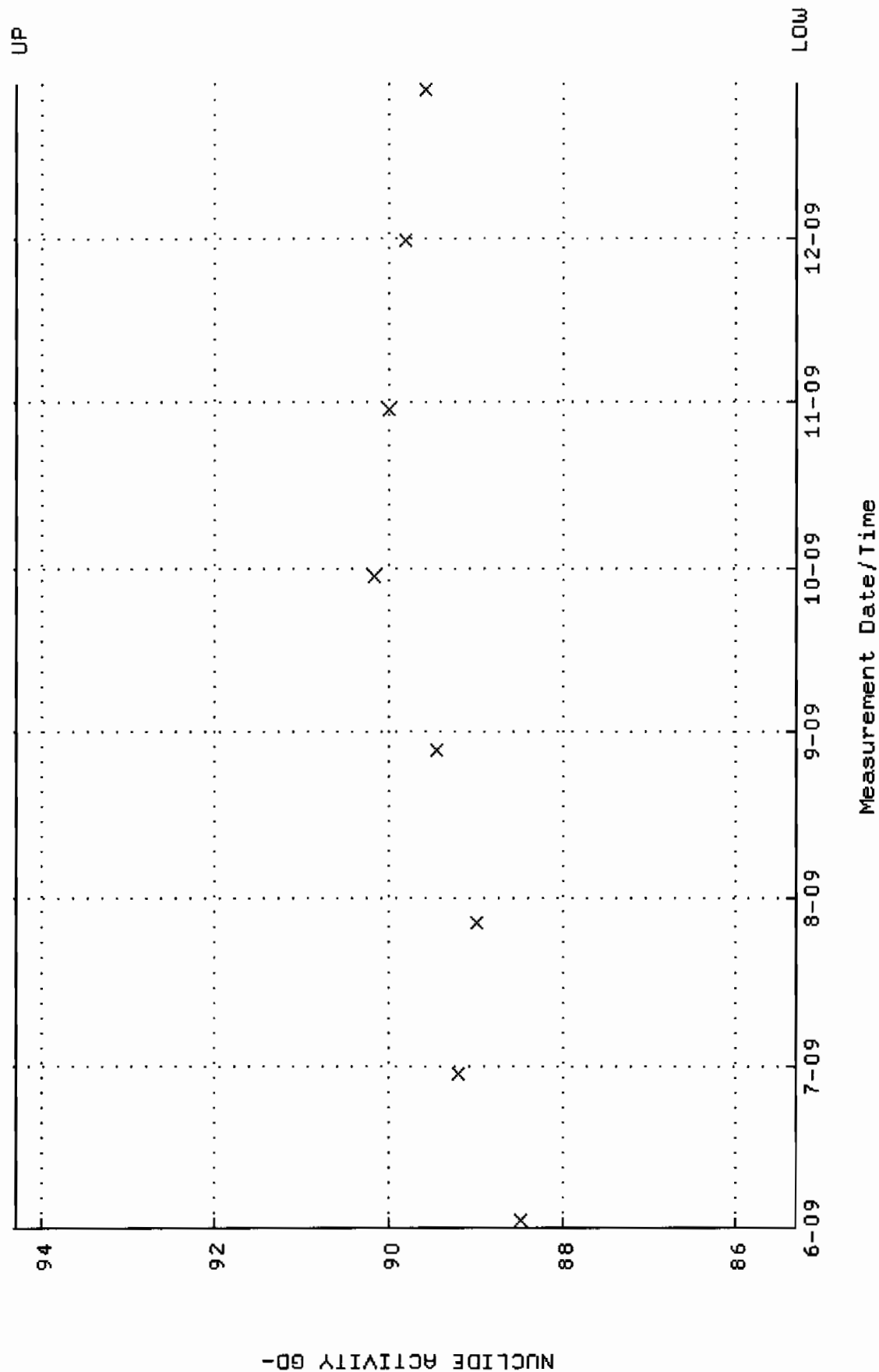
QA filename : DKA100:[ENV_ALPHA.QA.B]B223.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:44:34 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



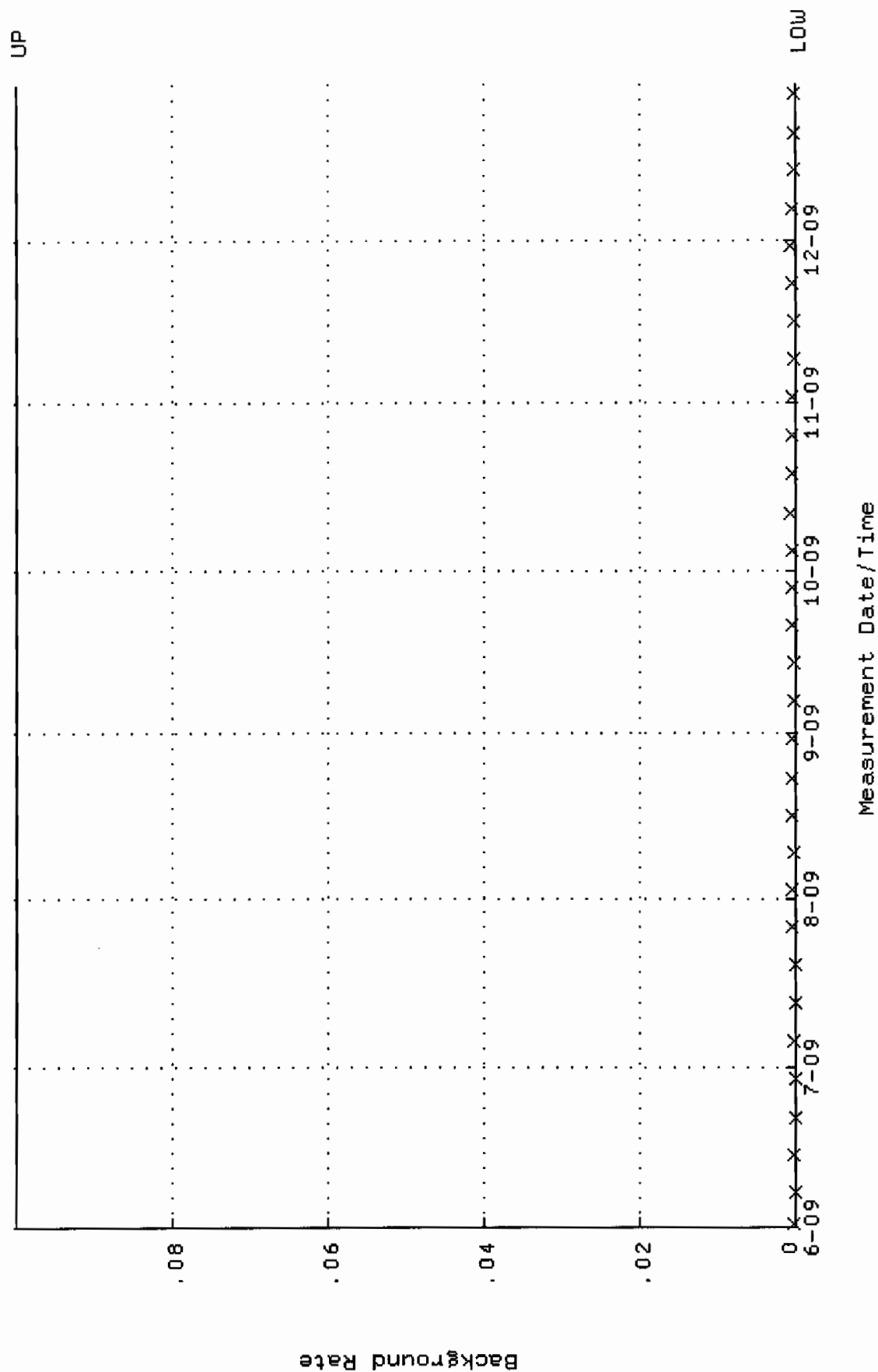
QA filename : DKA100:[ENV_ALPHA.QA.W]W224.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:18:26 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.368812 through 0.388812



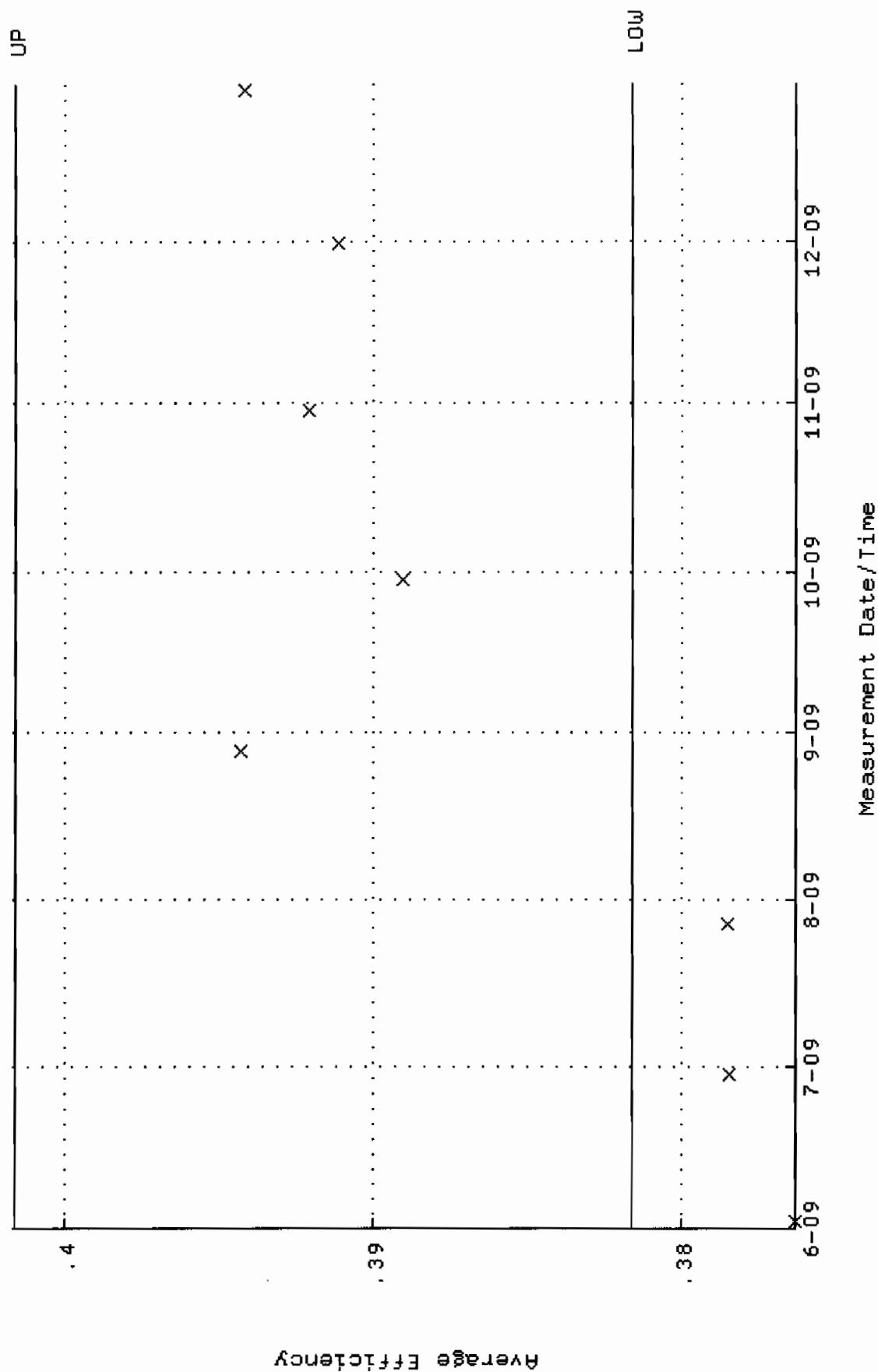
QA filename : DKA100:[ENV_ALPHA.QA.W]W224.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:18:26 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 85.3066 through 94.2862



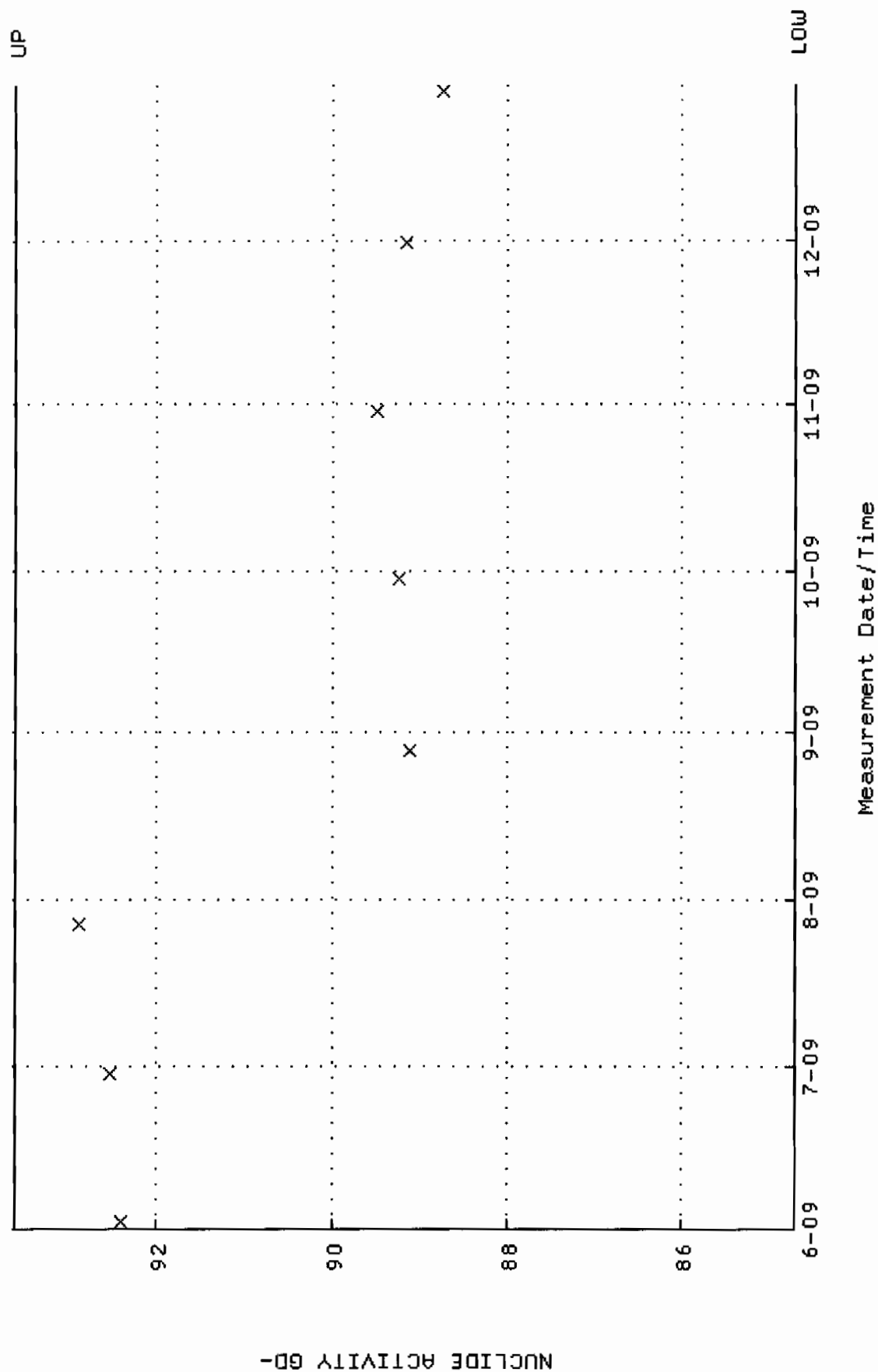
QA filename : DKA100:[ENV_ALPHA.QA.B]B224.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:44:39 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



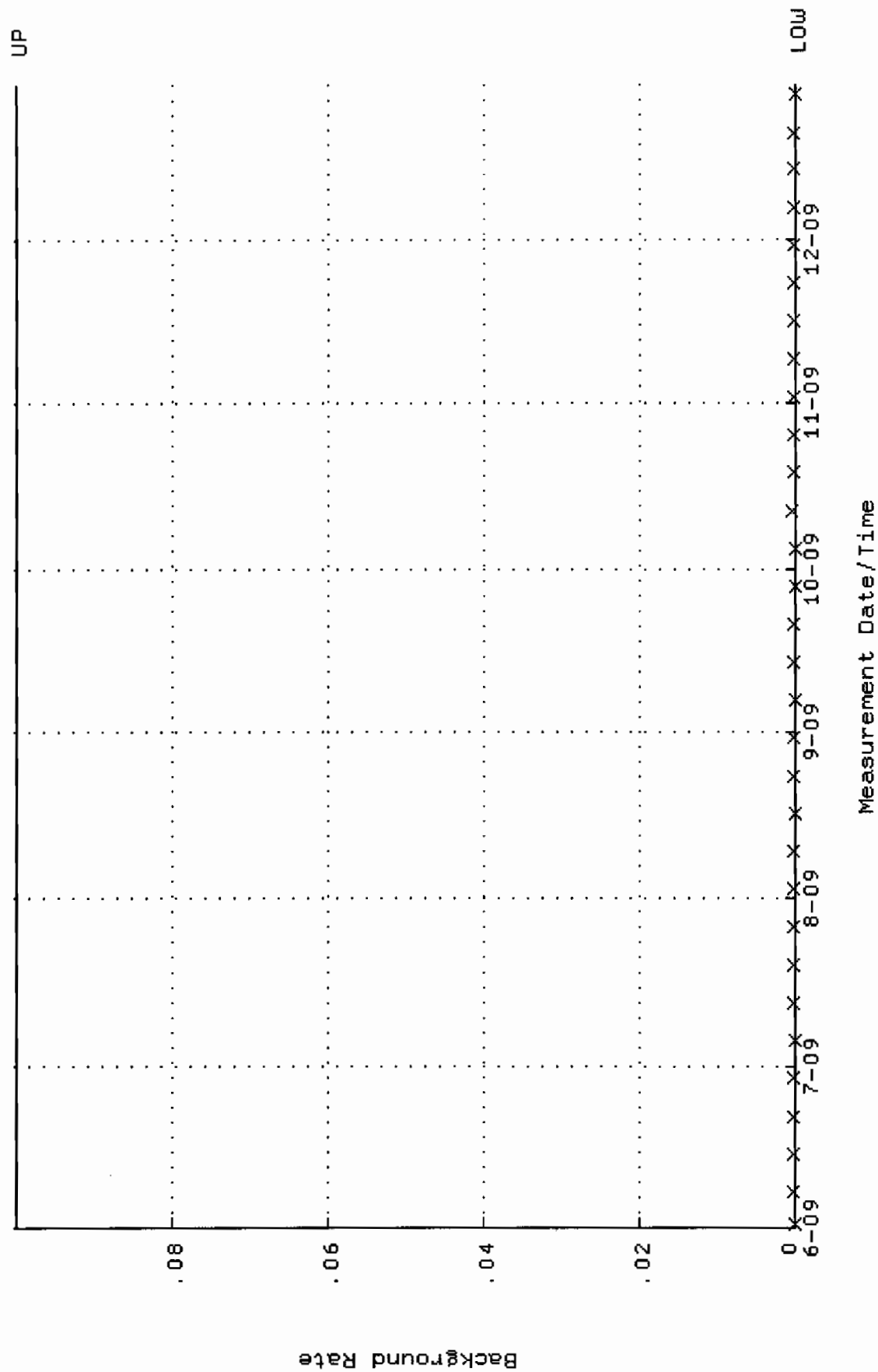
QA filename : DKA100:[ENV_ALPHA.QA.W]W225.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:18:31 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.381631 through 0.401631



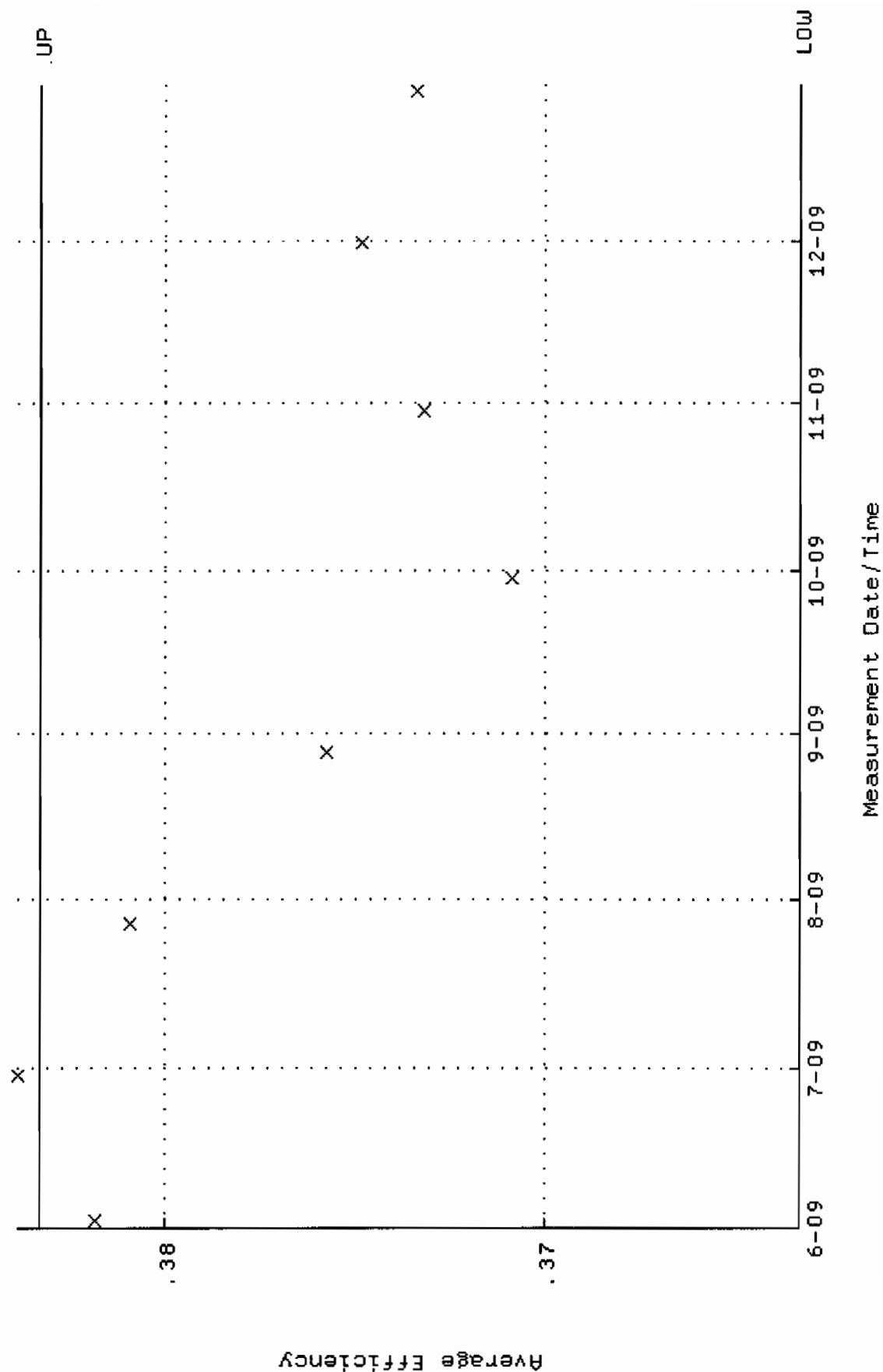
QA filename : DKA100:[ENV_ALPHA.QA.W]W225.QAF;1
 Parameter Name : NLACTVY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:18:31 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 84.7082 through 93.6248



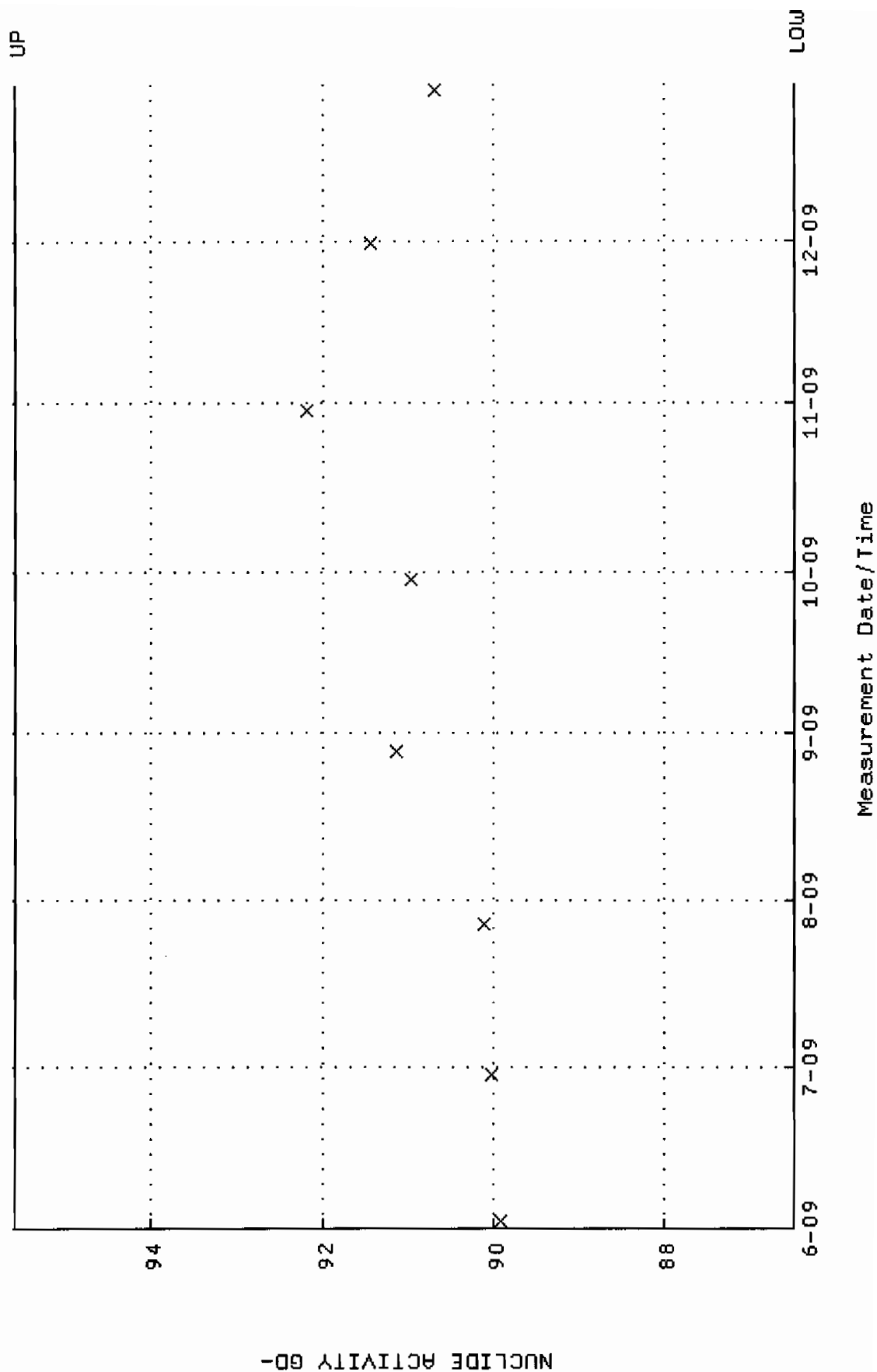
QA filename : DKA100:[ENV_ALPHA.QA.B]B225.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:44:43 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



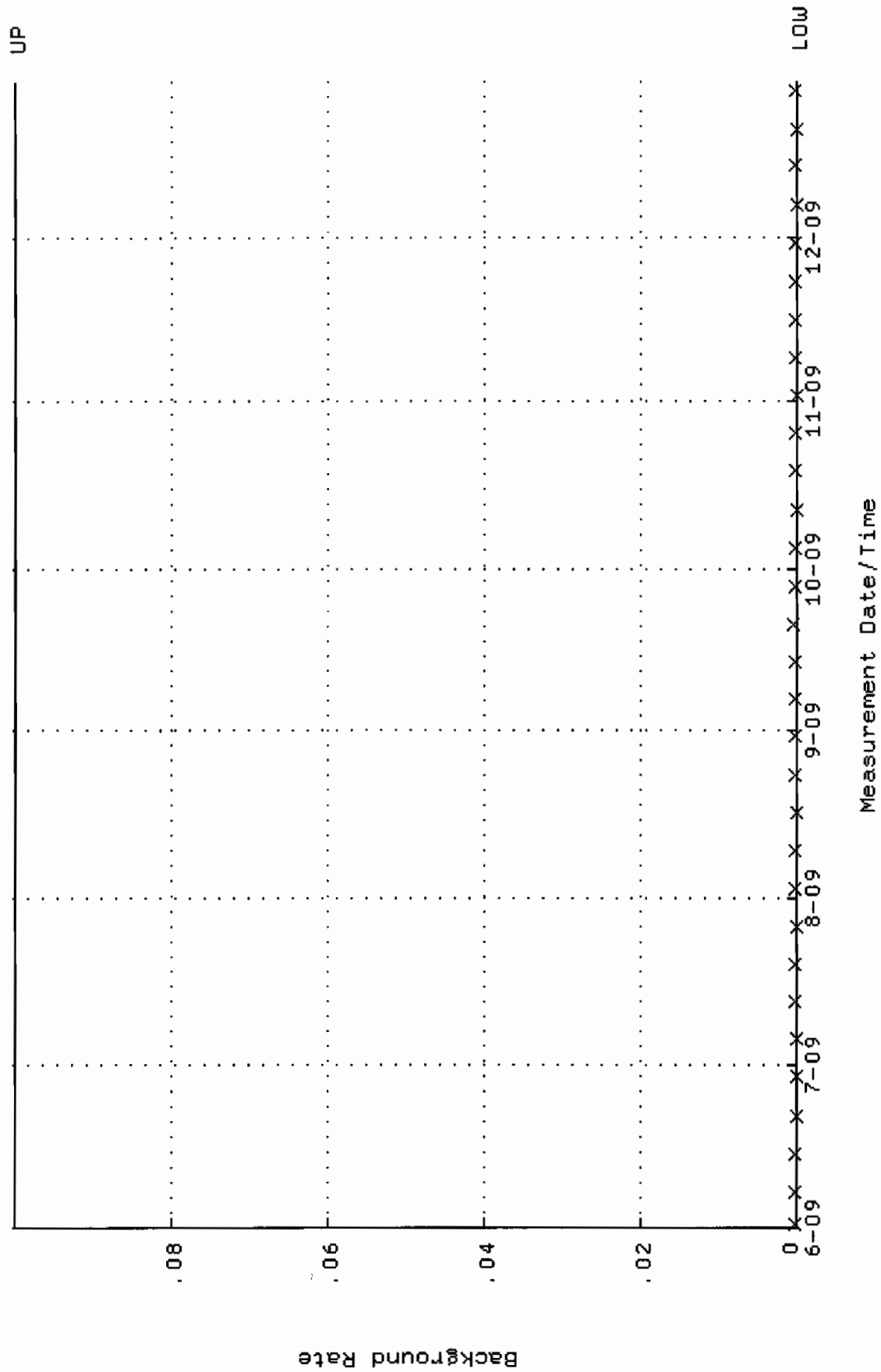
QA filename : DKA100:[ENV_ALPHA.QA.W]U226.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:18:36 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.363285 through 0.383285



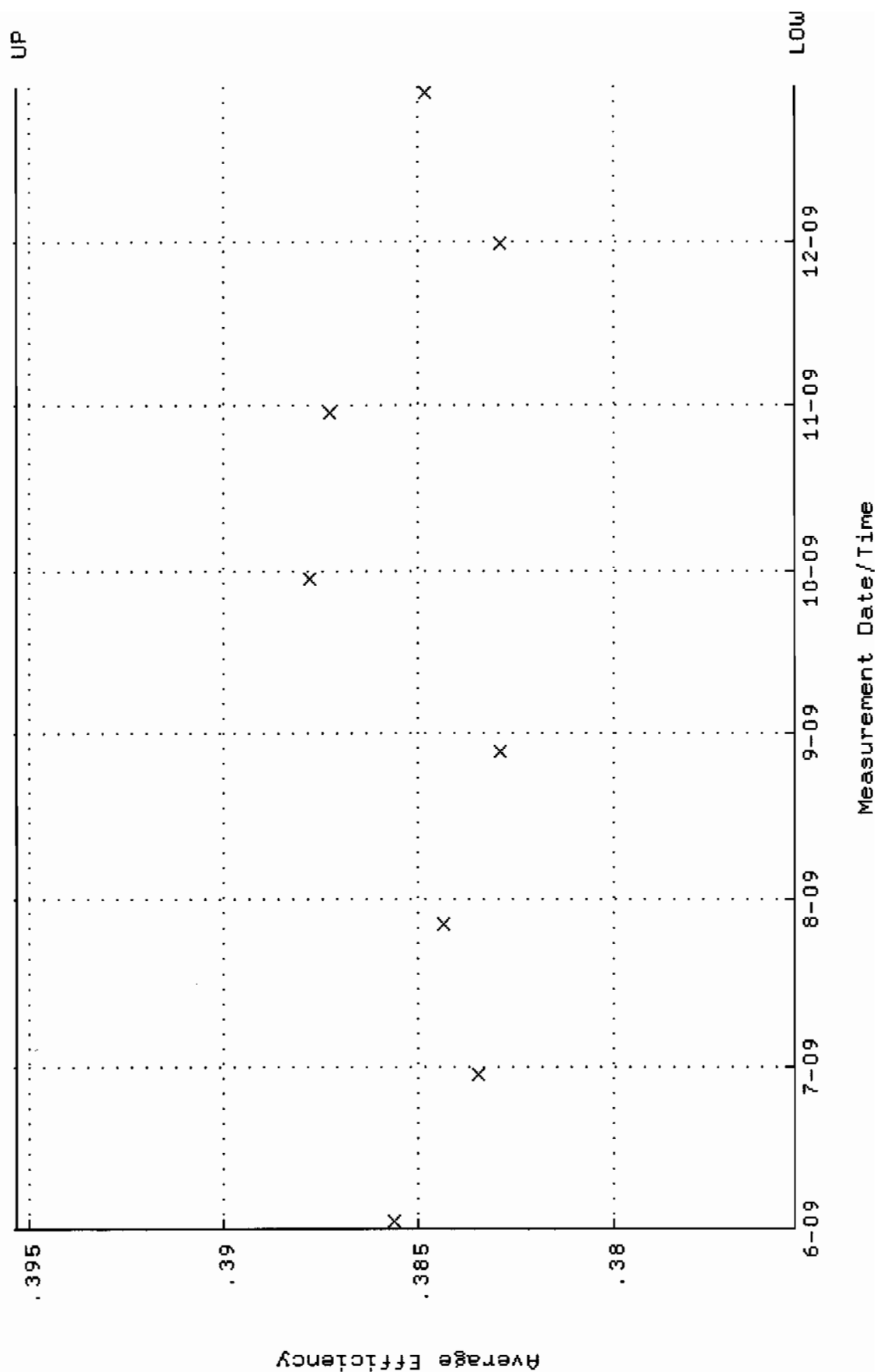
QA filename : DKA100:[ENV_ALPHA.QA.W]W2226.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:18:36 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 86.4888 through 95.5928



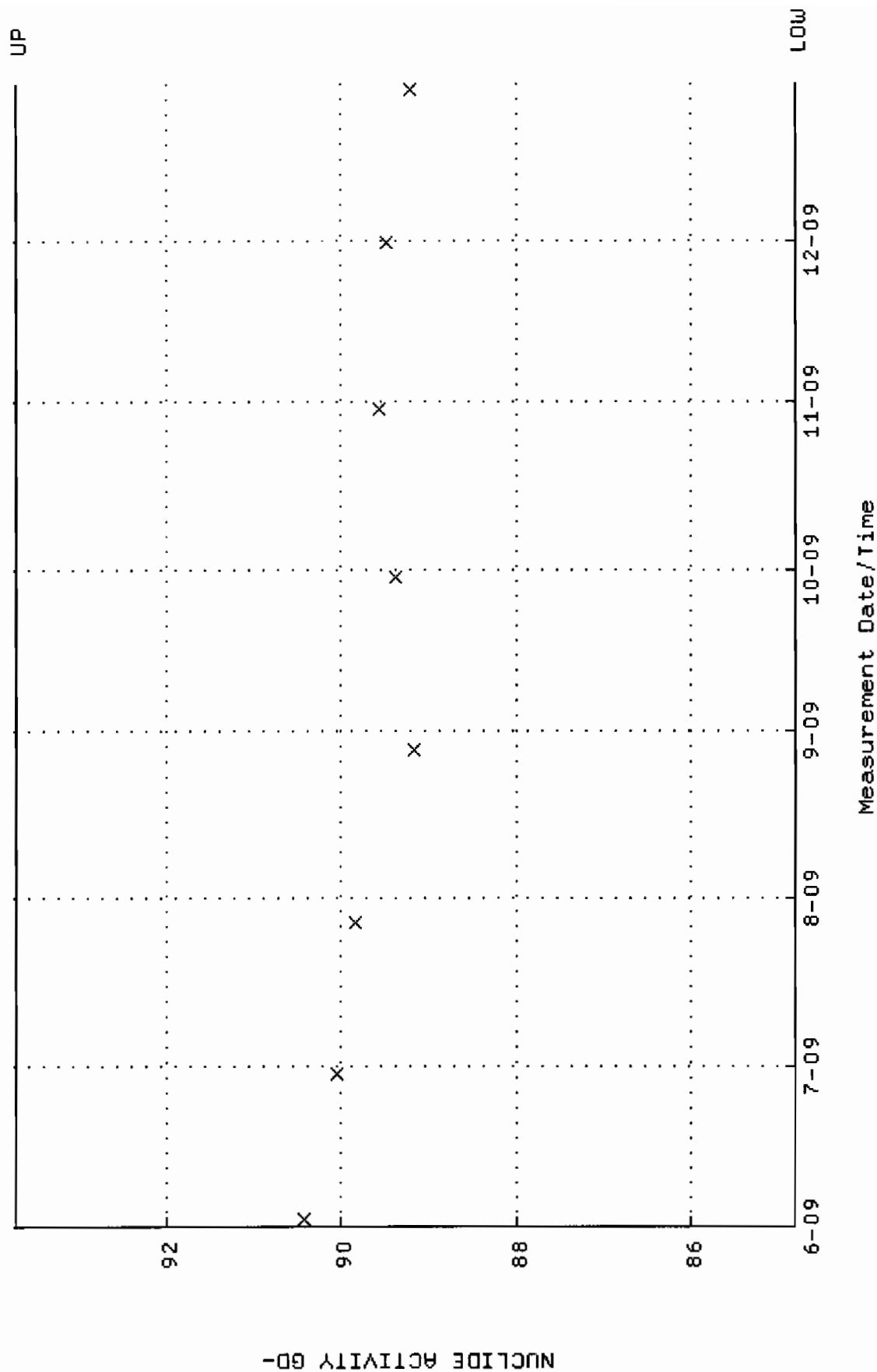
QA filename : DKA100:[ENV_ALPHA.QA.B]B2226.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:44:47 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



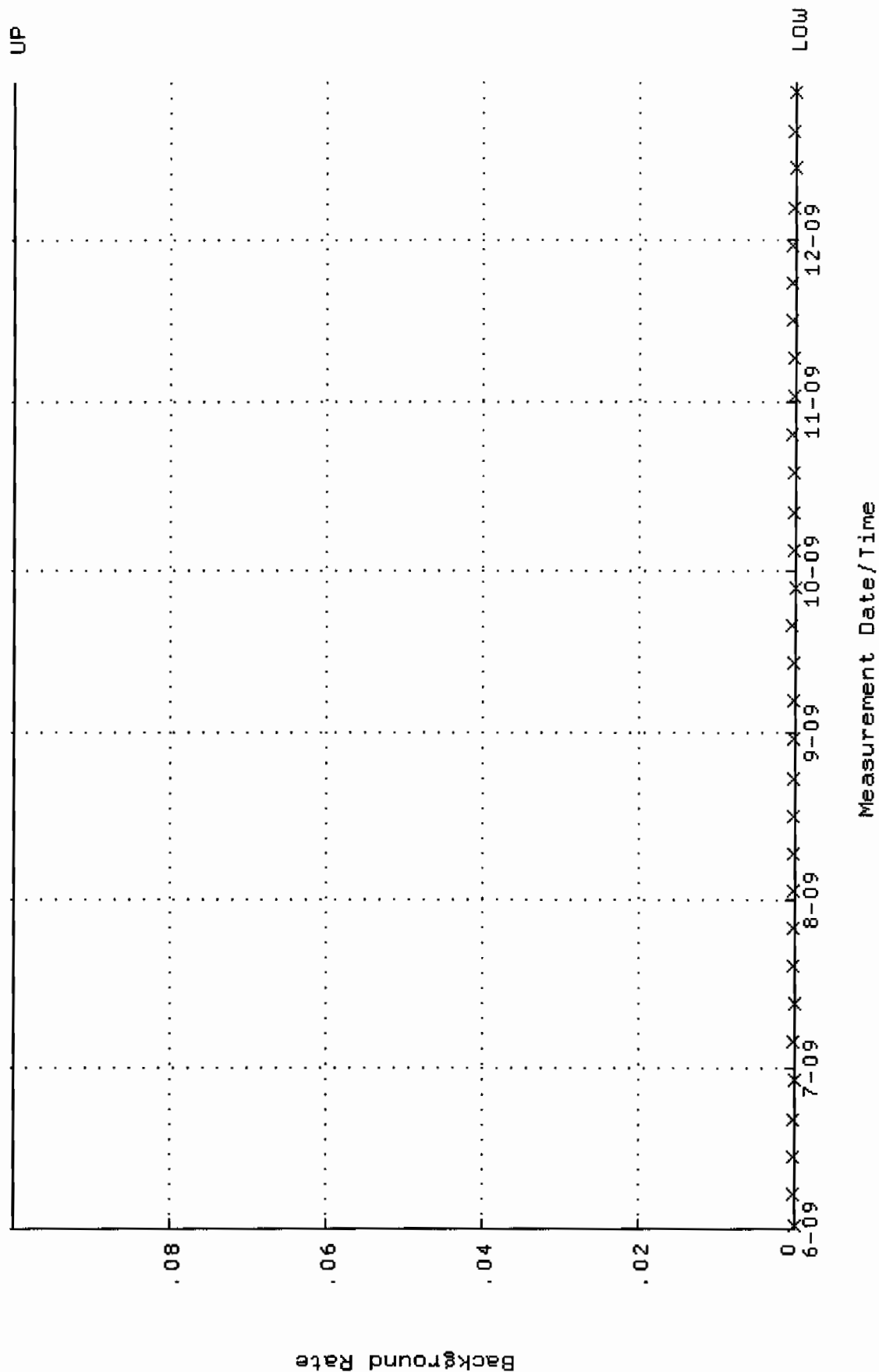
QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:18:41 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.375328 through 0.395328



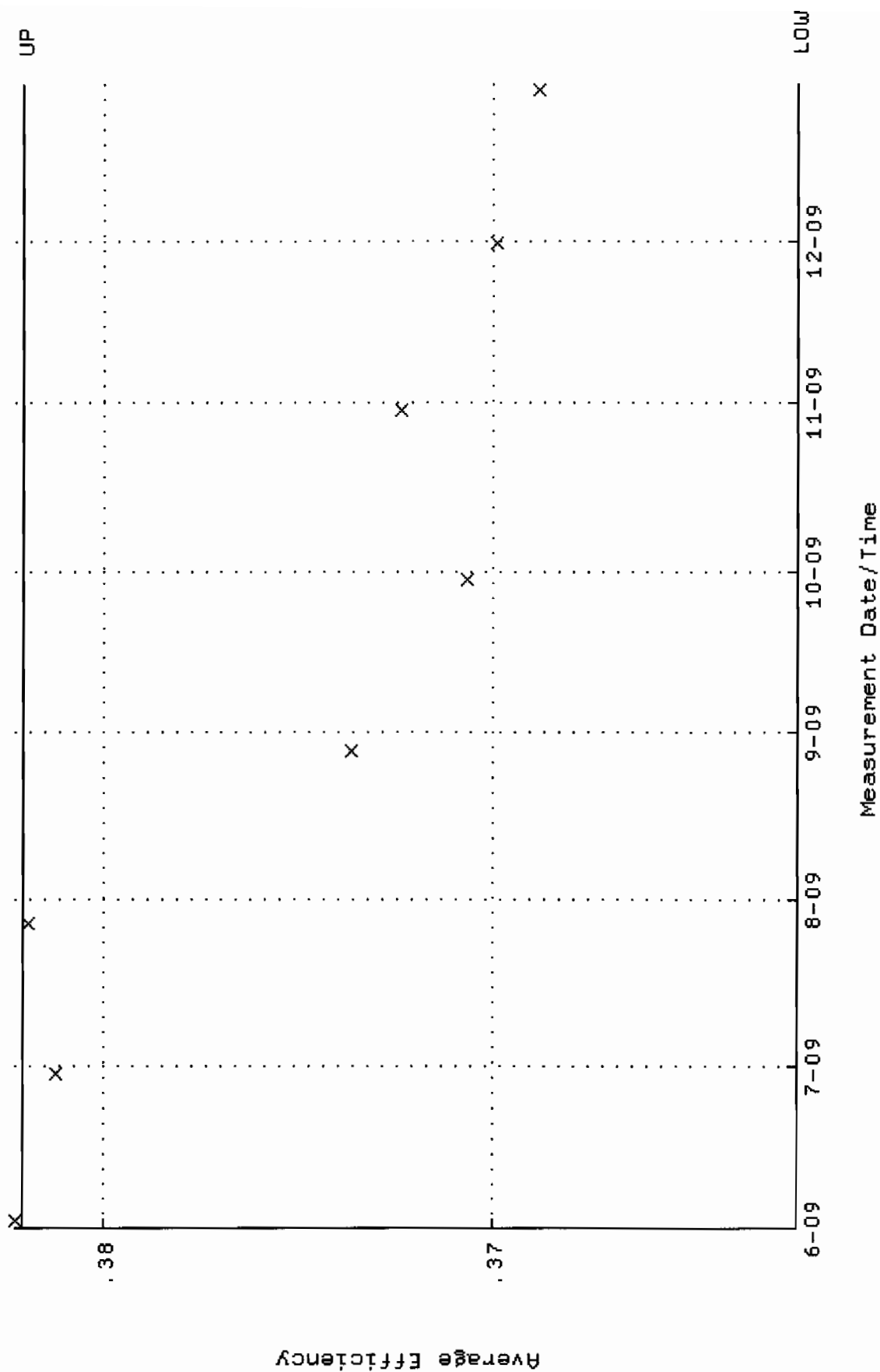
QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:18:41 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 84.8011 through 93.7275



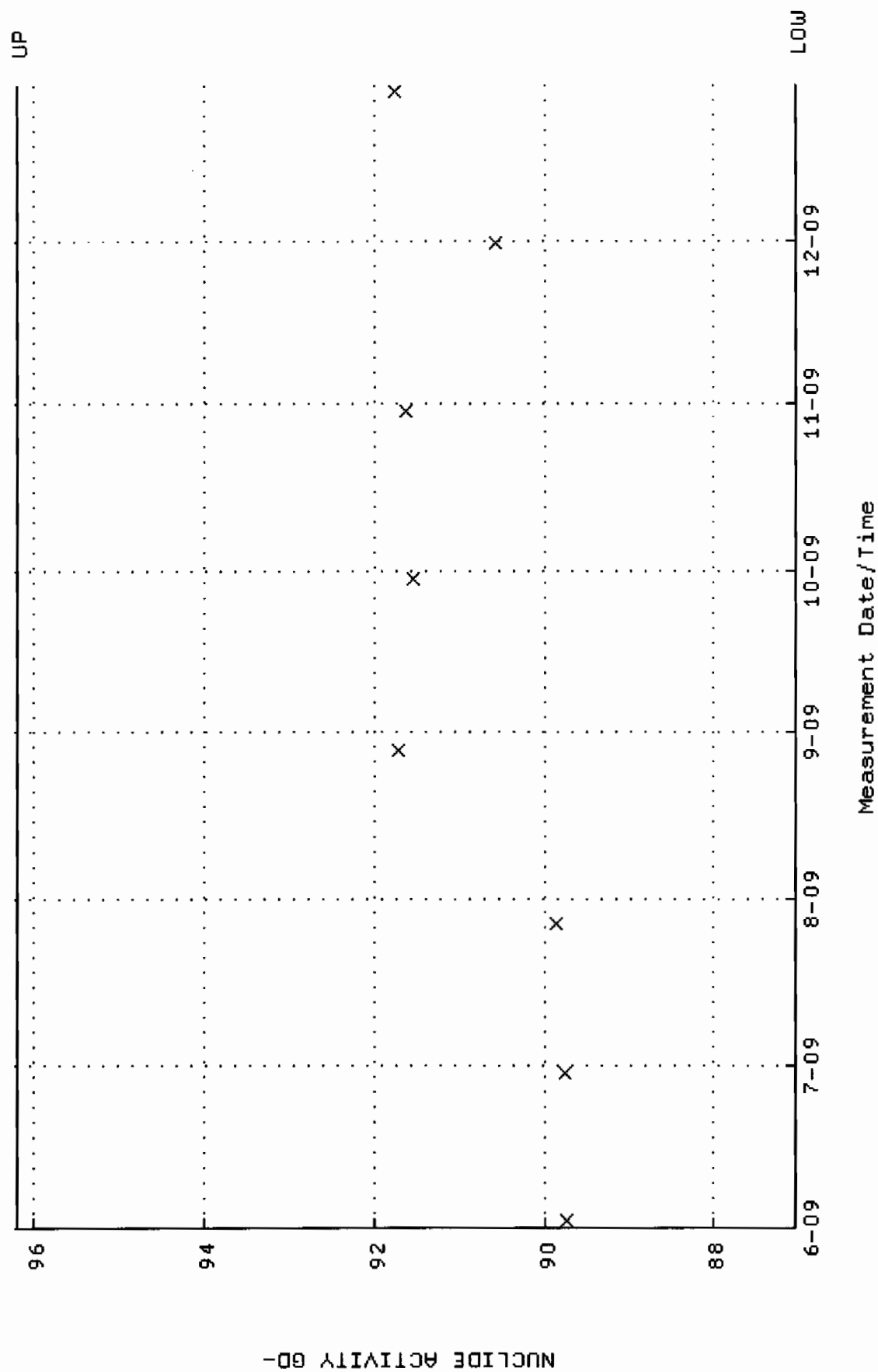
QA filename : DKA100:[ENV_ALPHA.QA.B]B227.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:44:52 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



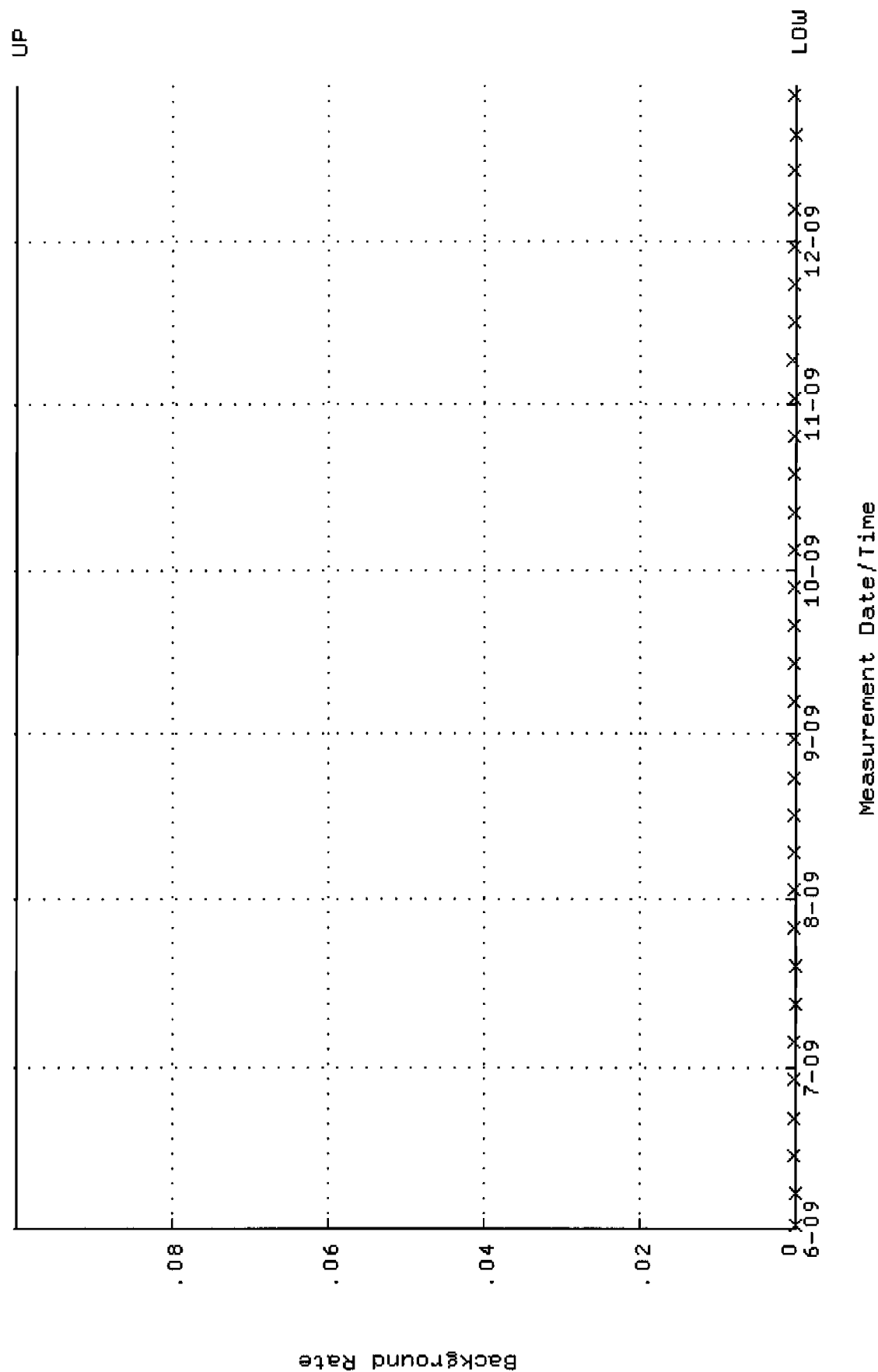
QA filename : DKA100:[ENV-ALPHA.QA.W]w228.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:18:47 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.362134 through 0.382134



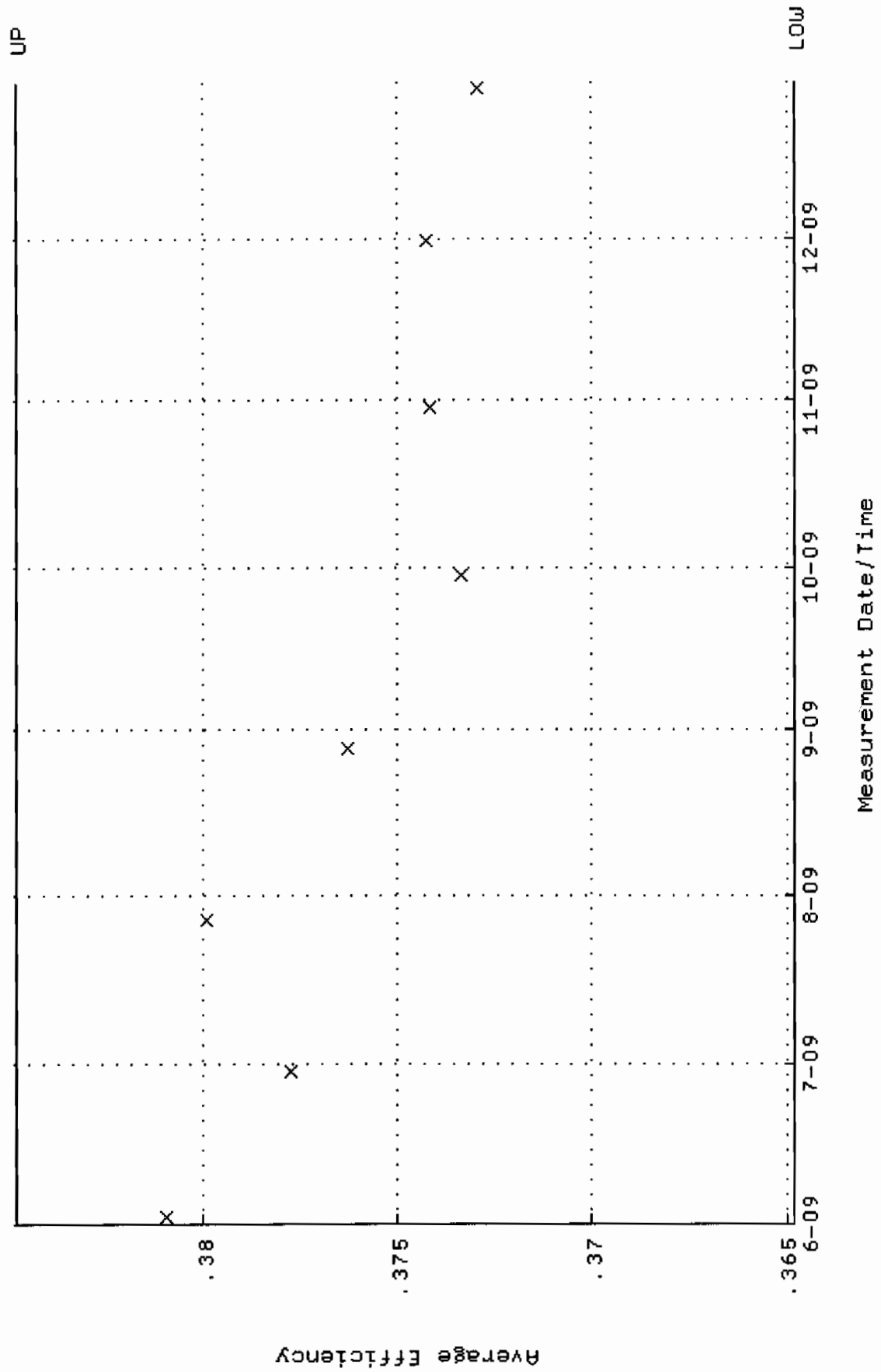
QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:18:47 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 87.0370 through 96.1988



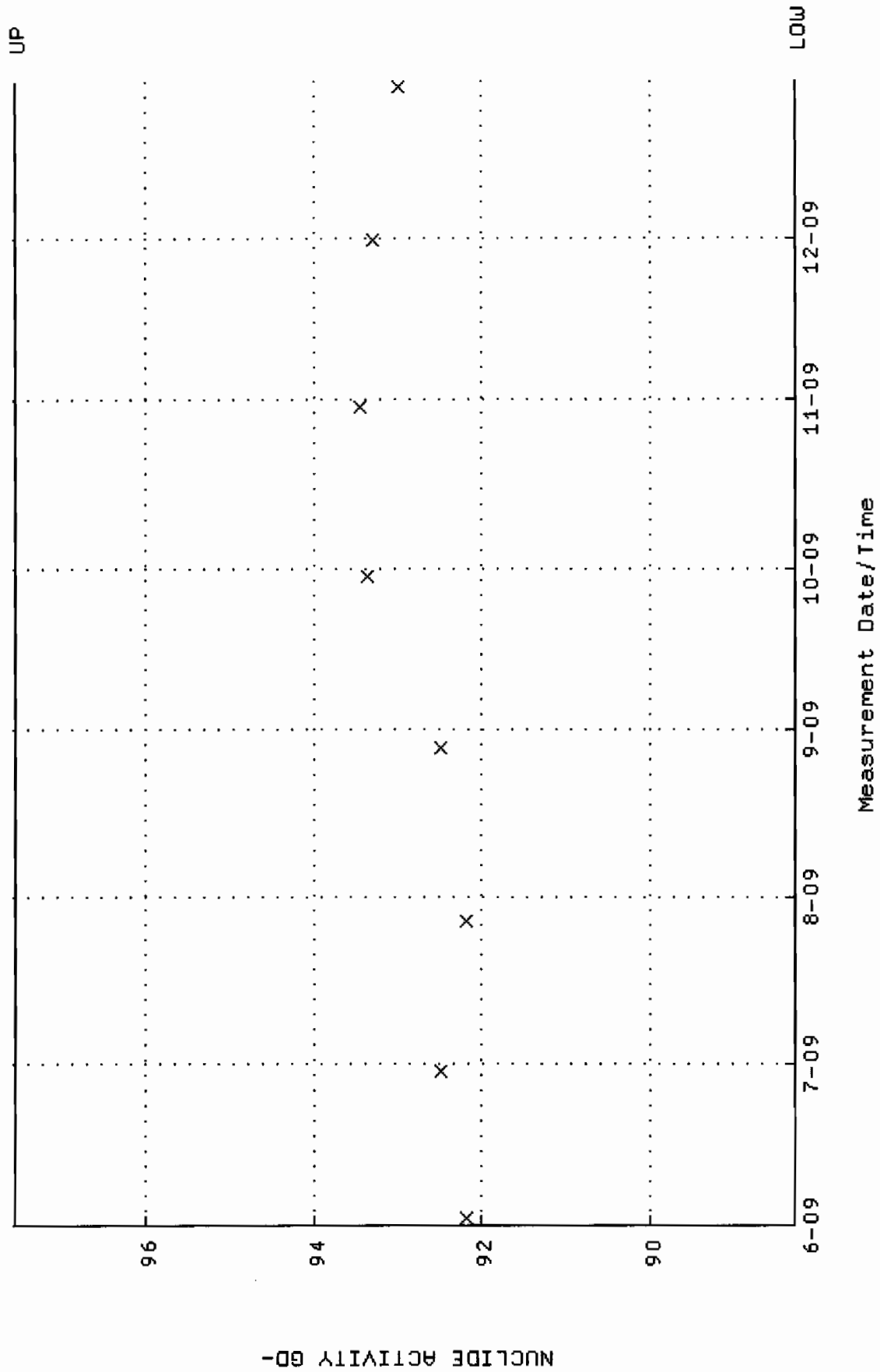
QA filename : DKA100:[ENV_ALPHA.QA.B]B228.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:44:57 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



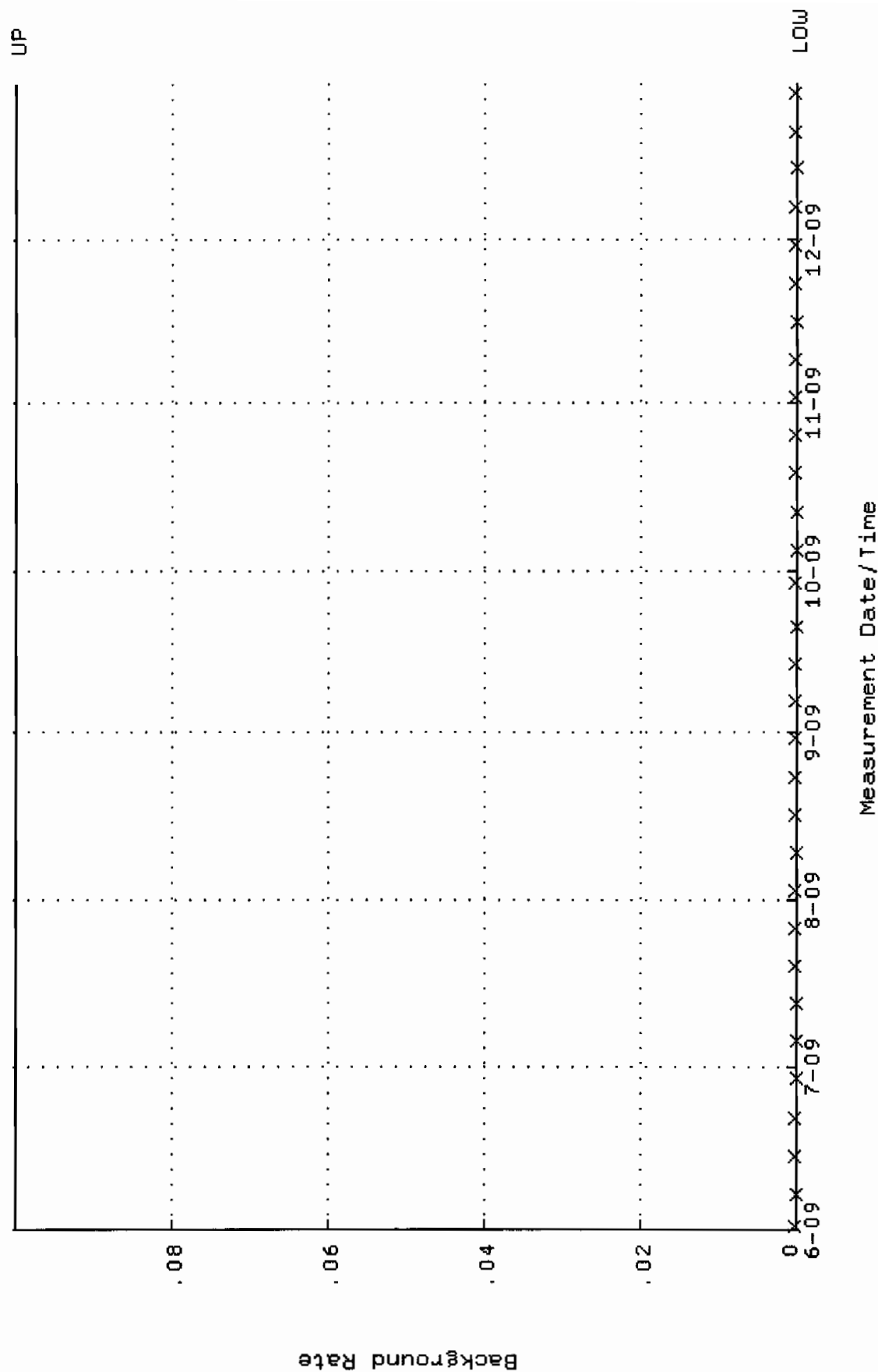
QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:18:53 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.364789 through 0.384789



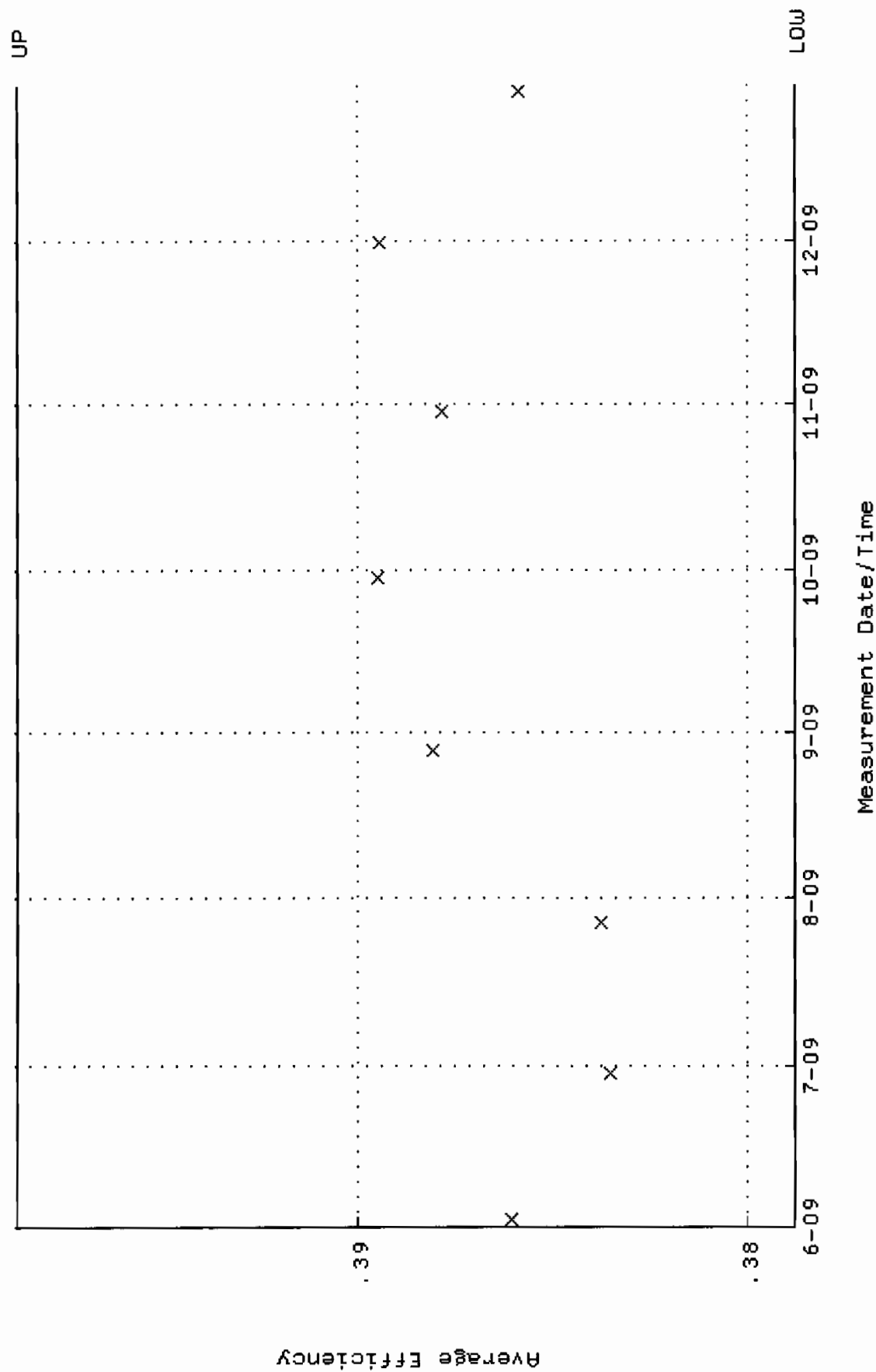
QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:18:53 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 88.2691 through 97.5605



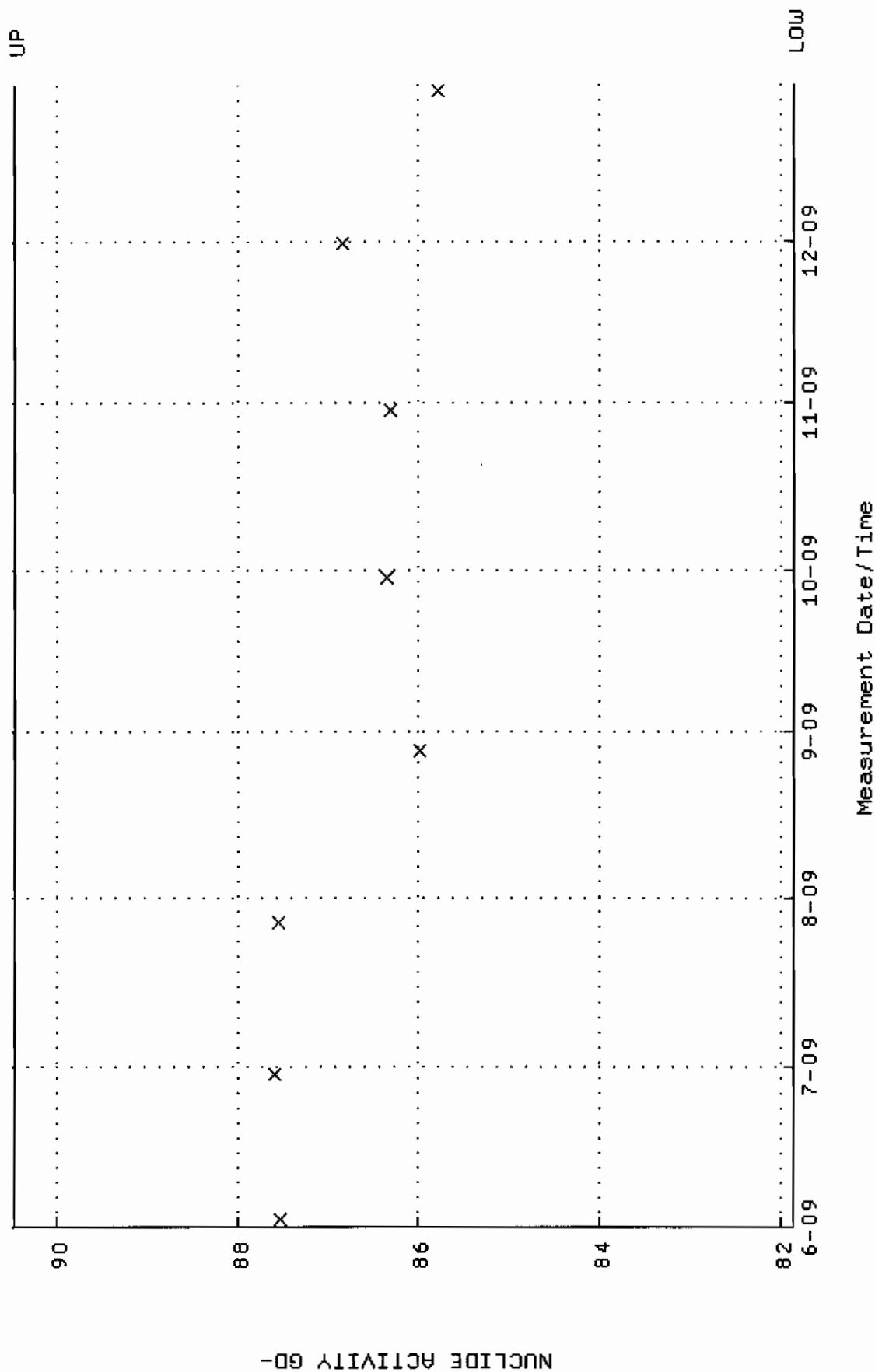
QA filename : DKA100:[ENV_ALPHA.QA.B]B229.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:45:01 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



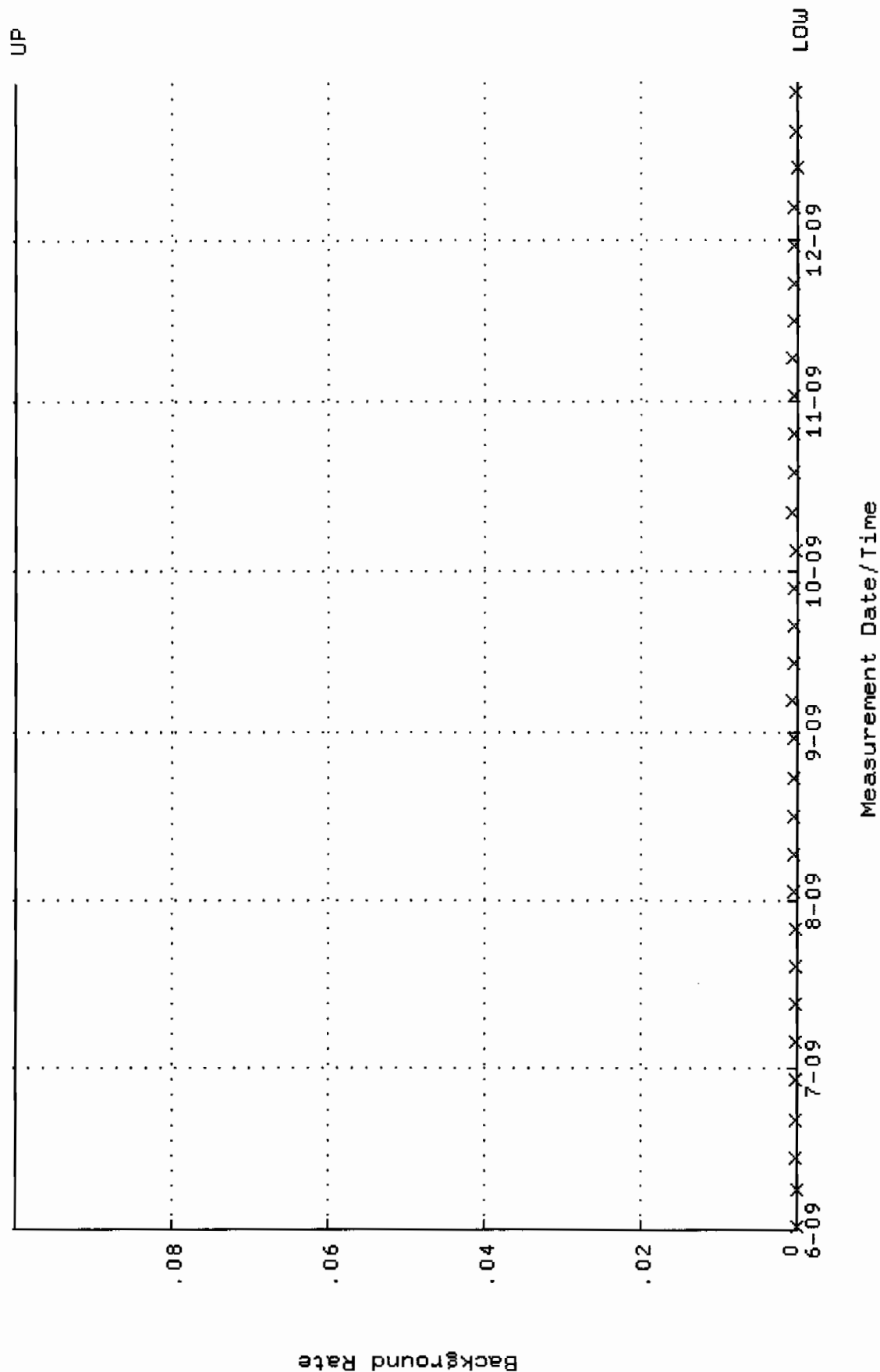
QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:19:29 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.378766 through 0.398766



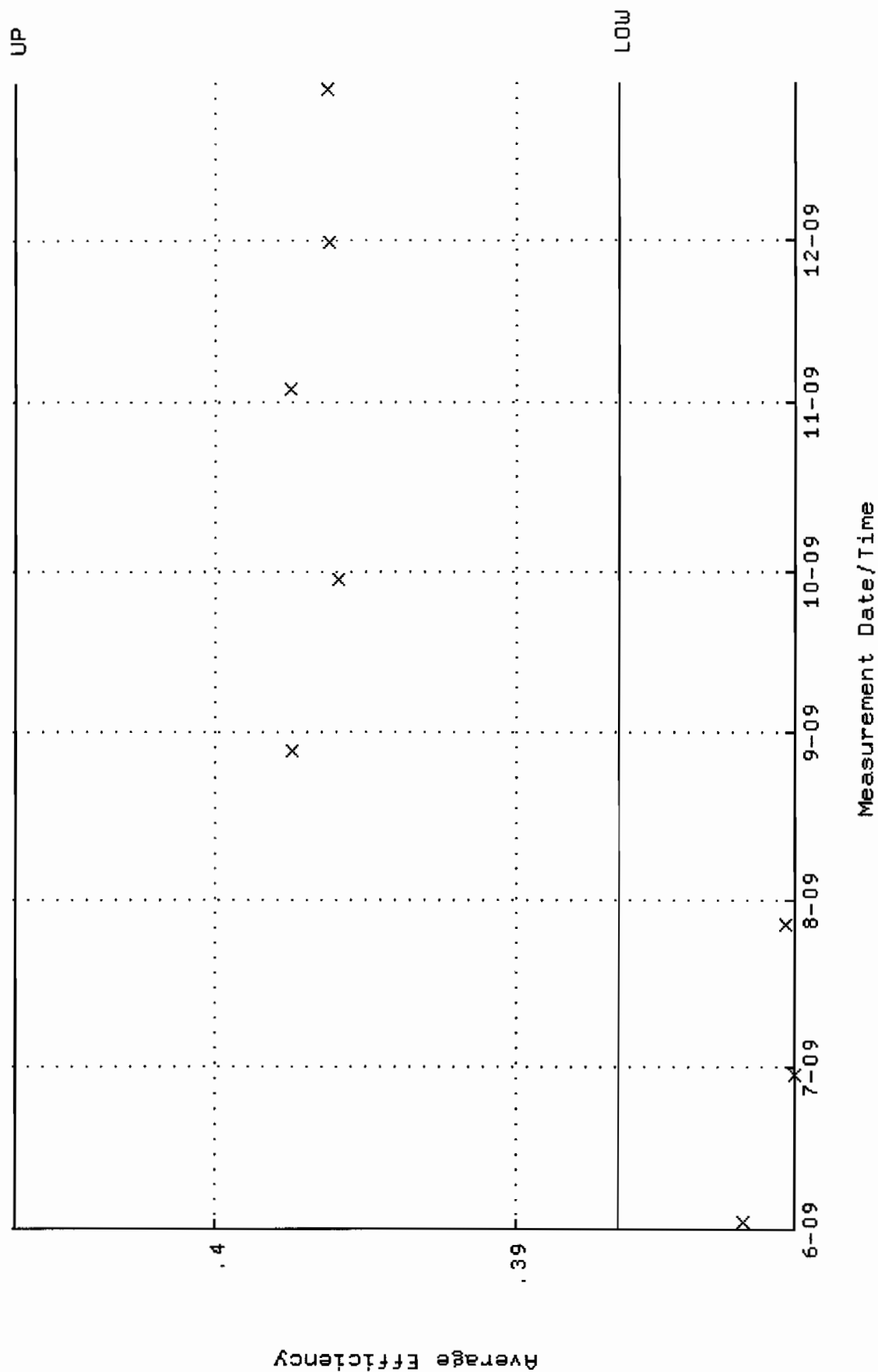
QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:19:29 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 81.8490 through 90.4646



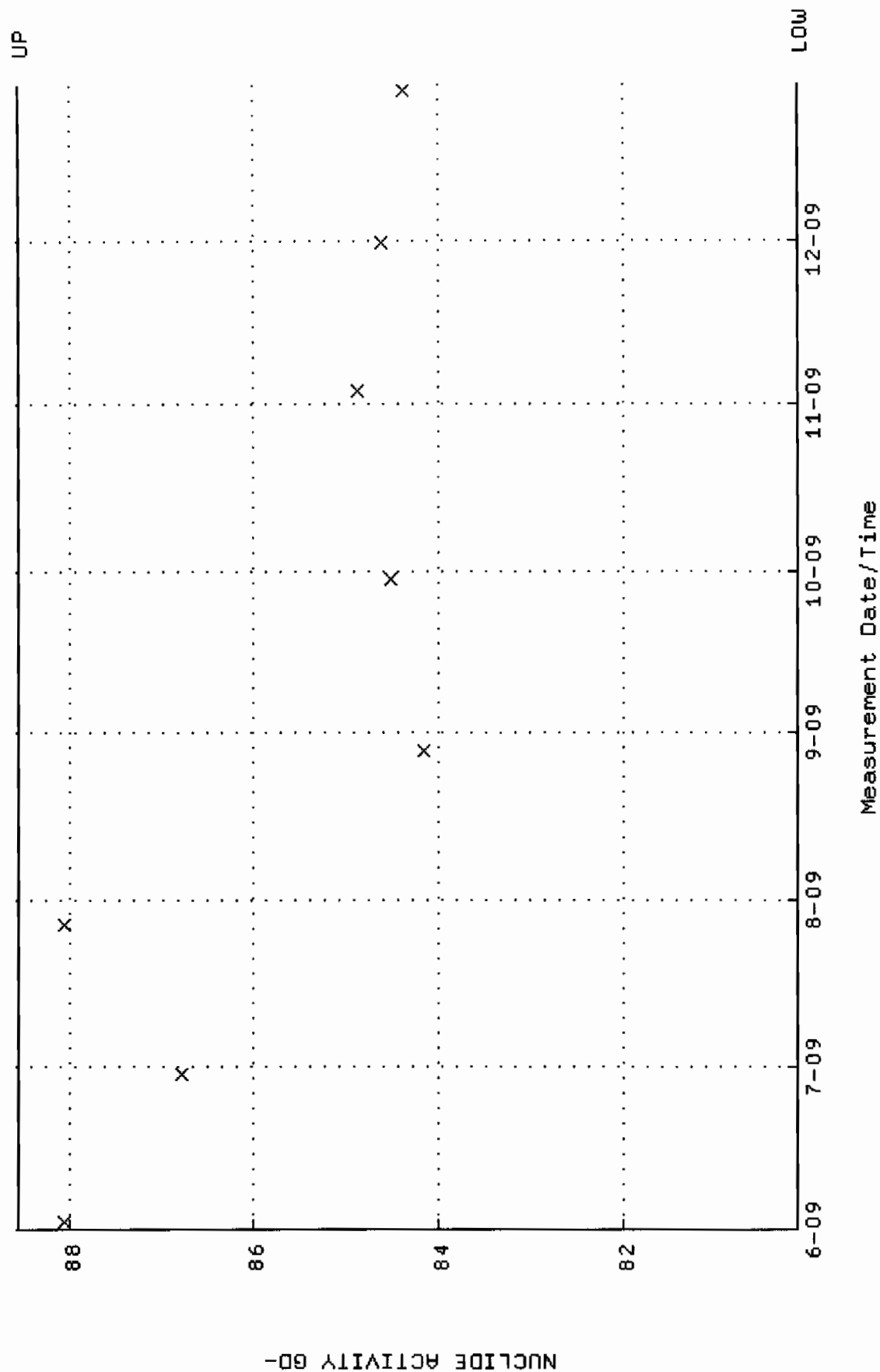
QA filename : OKA100:[ENV_ALPHA.QA.B]B236.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:45:52 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



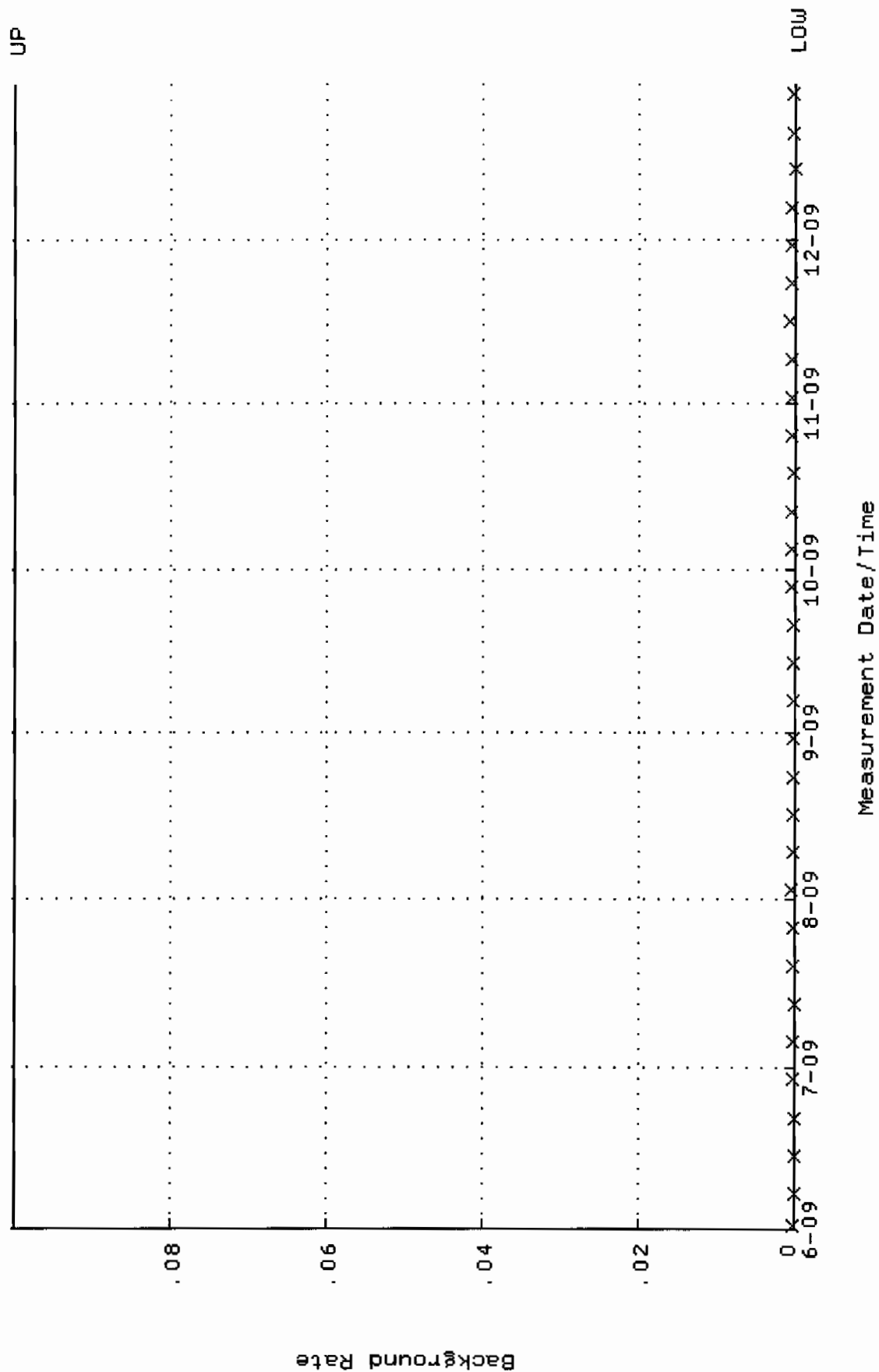
QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:19:38 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.386660 through 0.406660



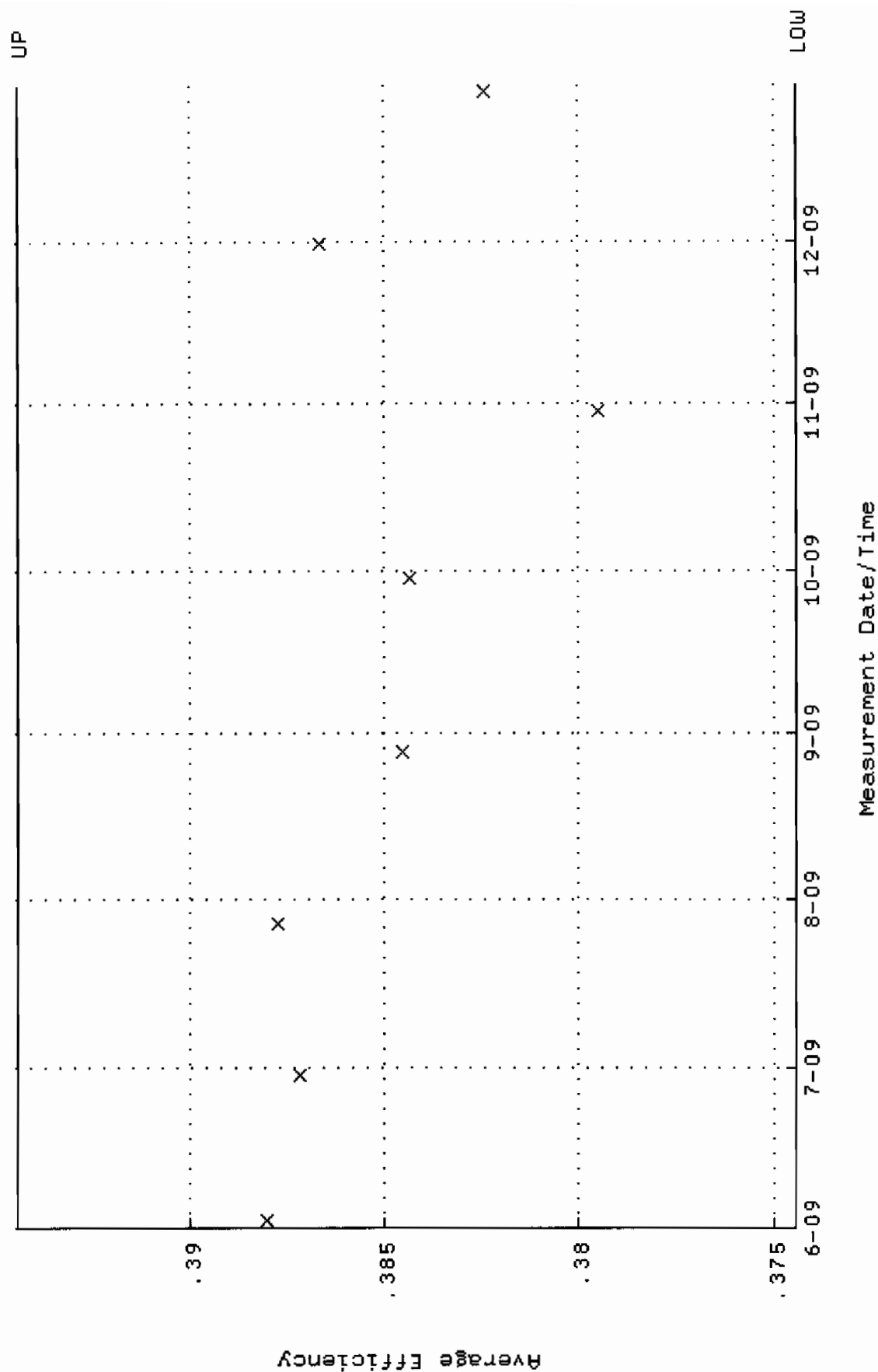
QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:19:38 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 80.1146 through 88.5478



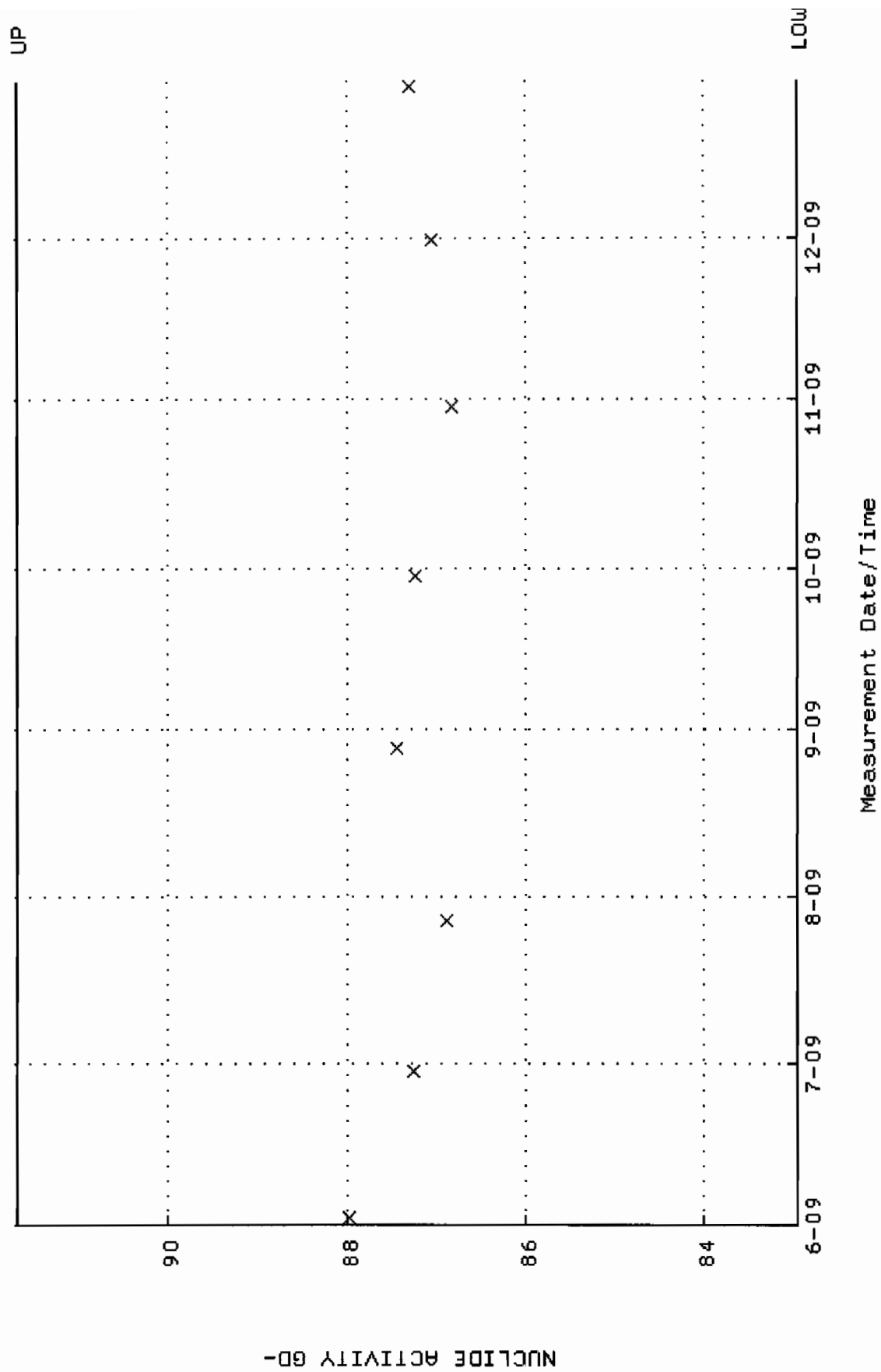
QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:46:10 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



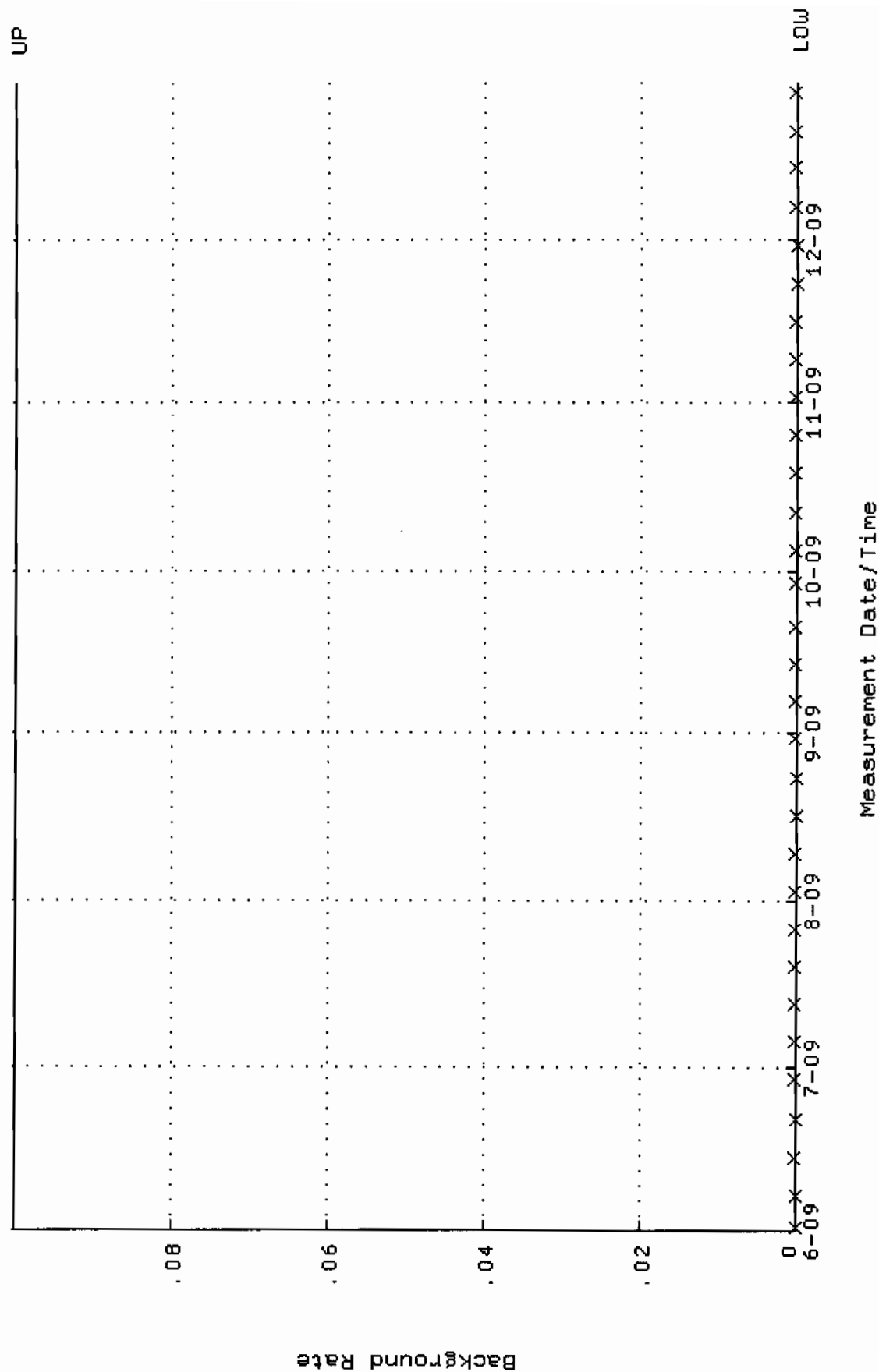
QA filename : DKA100:[ENV_ALPHA.QA.W]W245.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:20:11 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.374422 through 0.394422



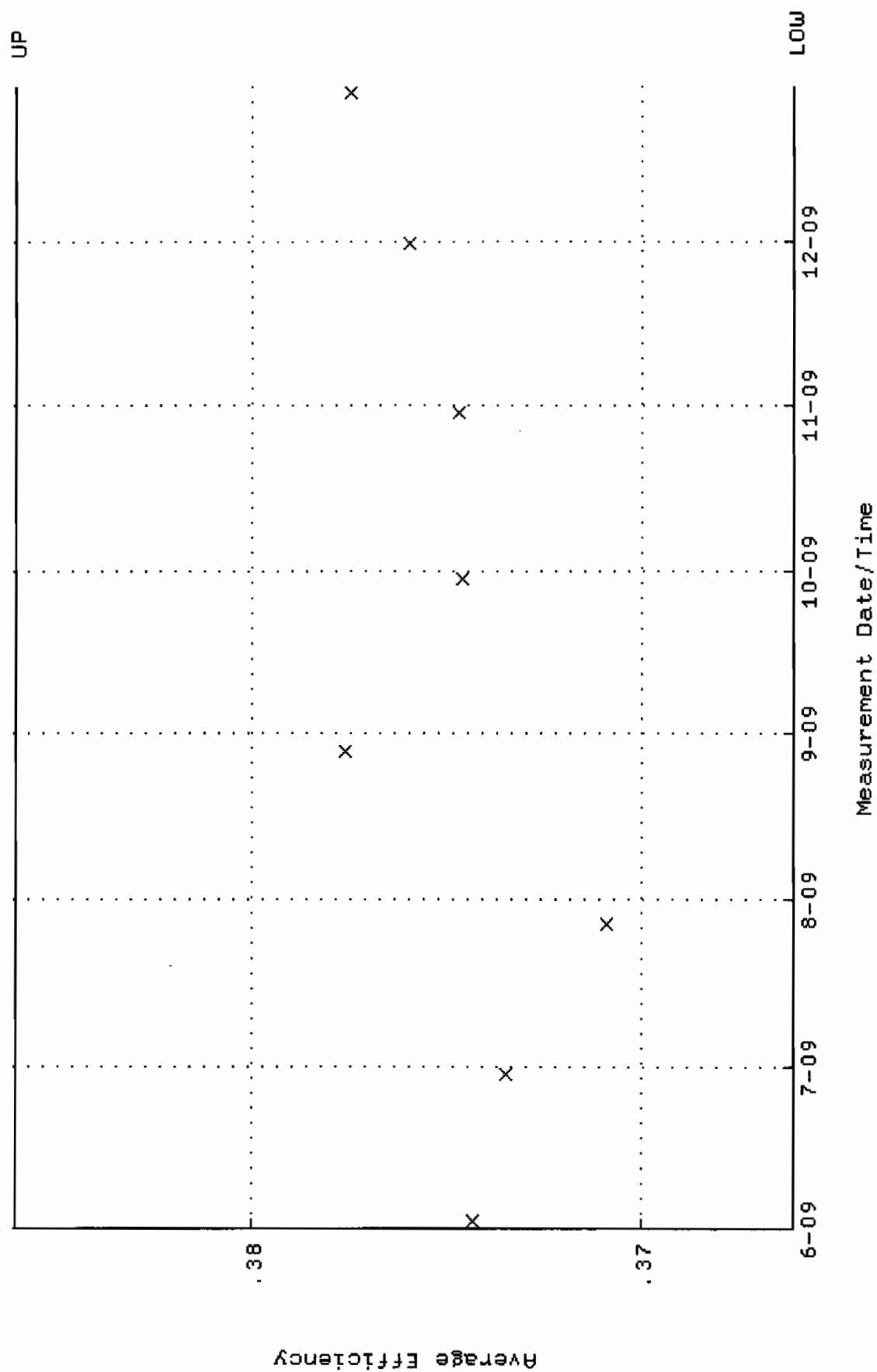
QA filename : DKA100:[ENV_ALPHA.QA.W]w245.QAF;1
 Parameter Name : NLACTVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:20:11 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 82.9600 through 91.6926



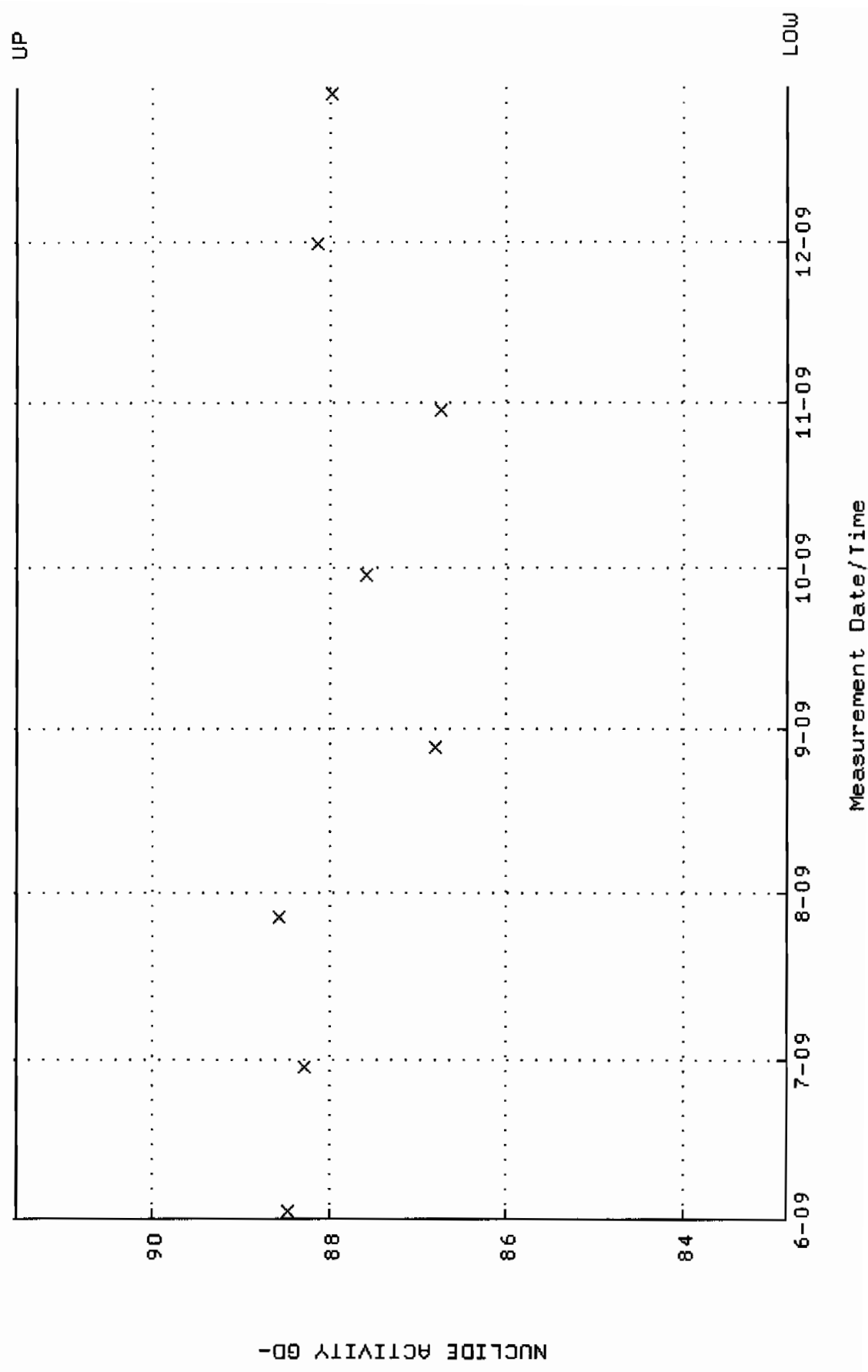
QA filename : DKA100:[ENV_ALPHA.QA.B]B245.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:46:50 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



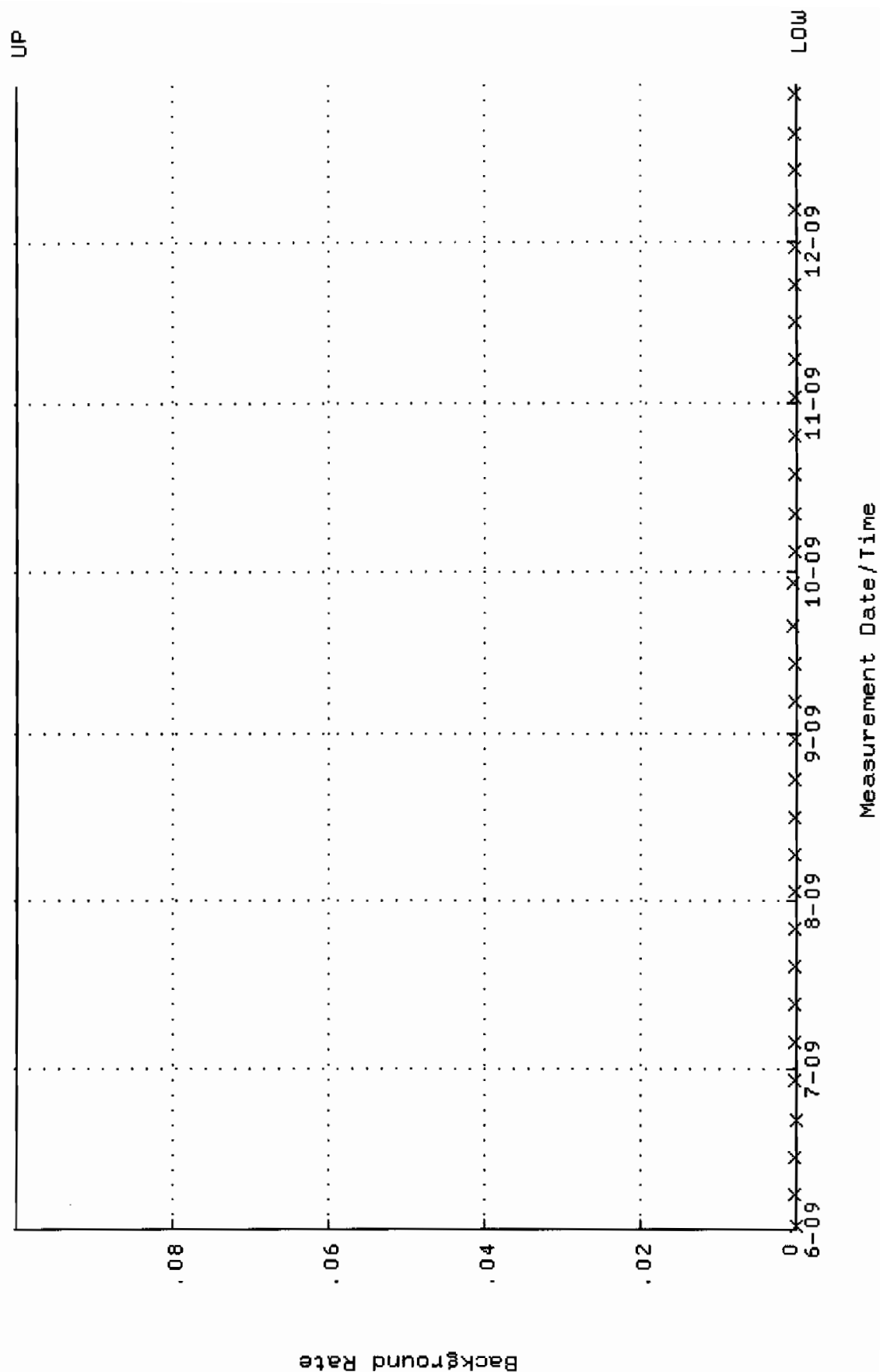
QA filename : DKA100:[ENV_ALPHA.QA.W]W246.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:20:15 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.366080 through 0.386080



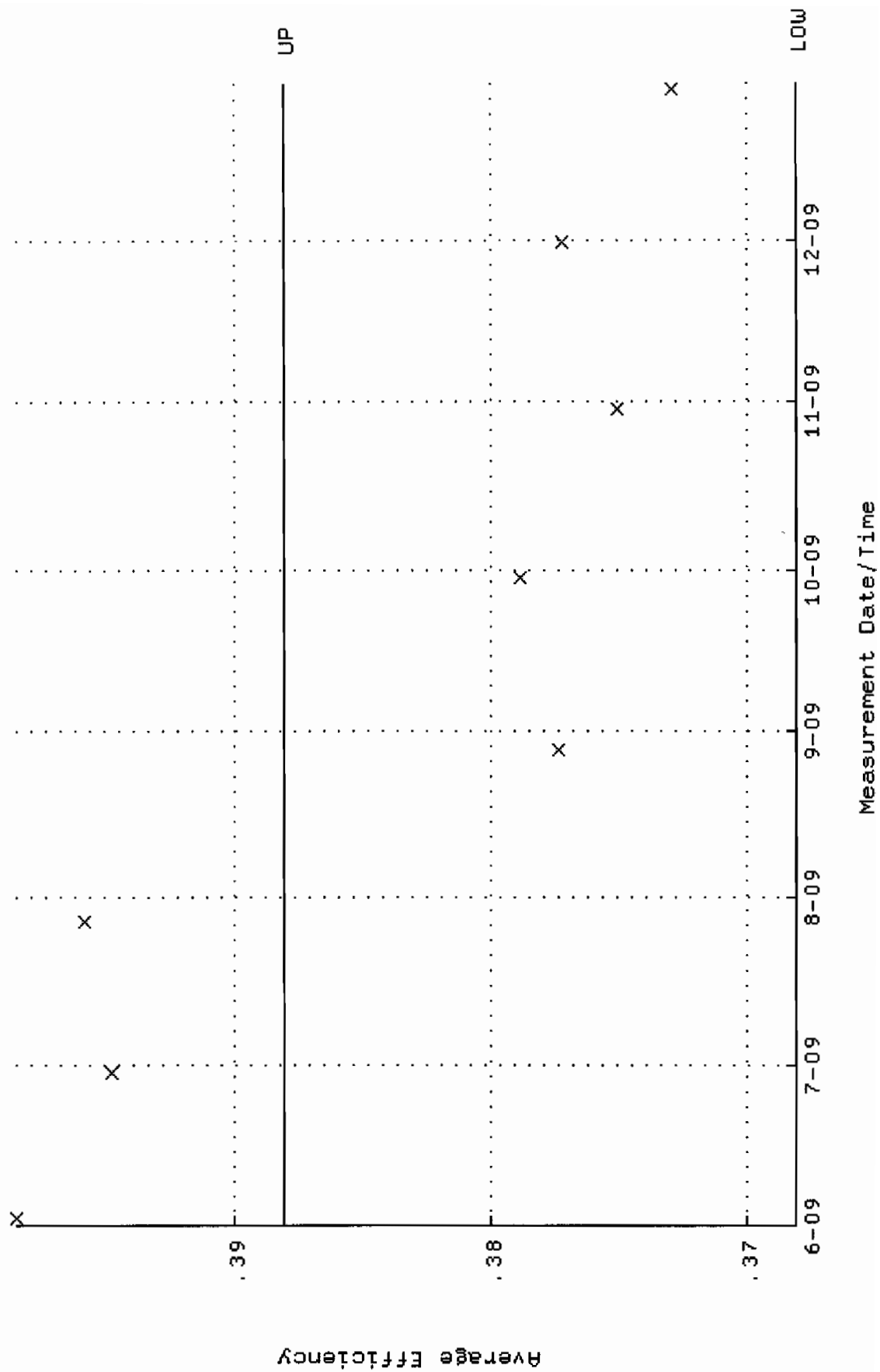
QA filename : DKA100:[ENV_ALPHA.QA.W]W246.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:20:15 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 82.8267 through 91.5453



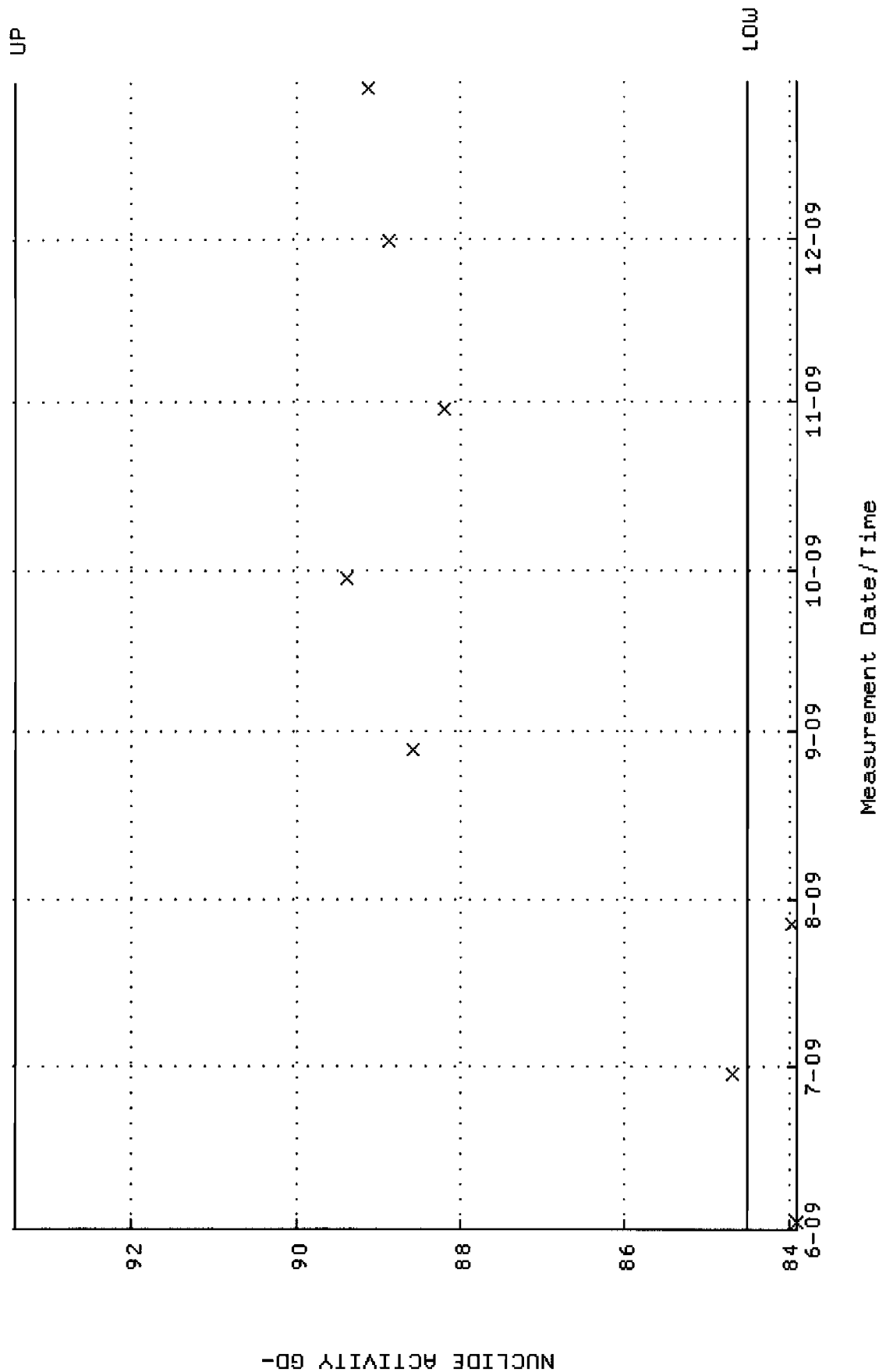
QA filename : DKA100:[ENV_ALPHA.QA.B]B246.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:46:56 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



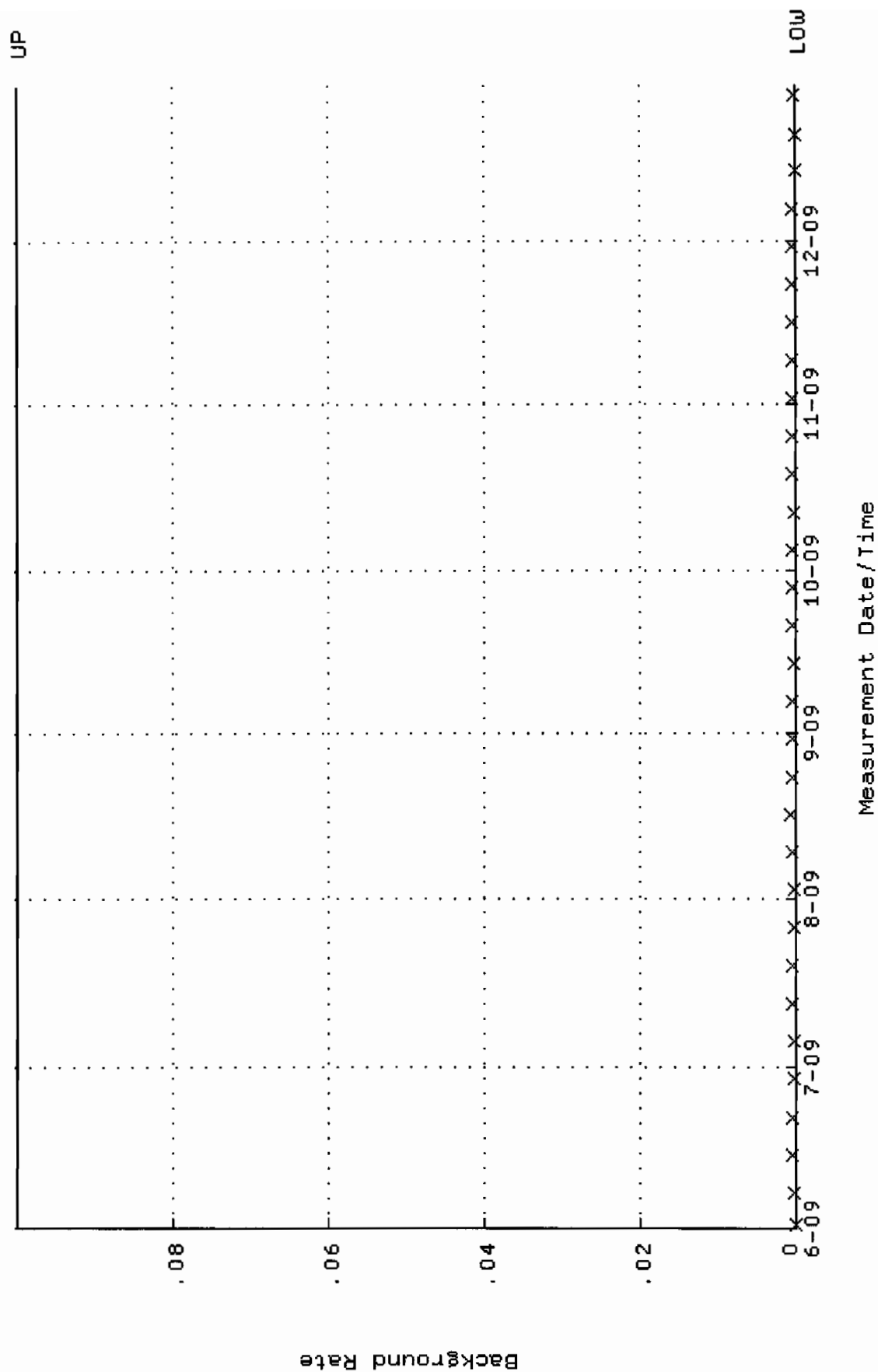
QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:20:20 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.368107 through 0.388107



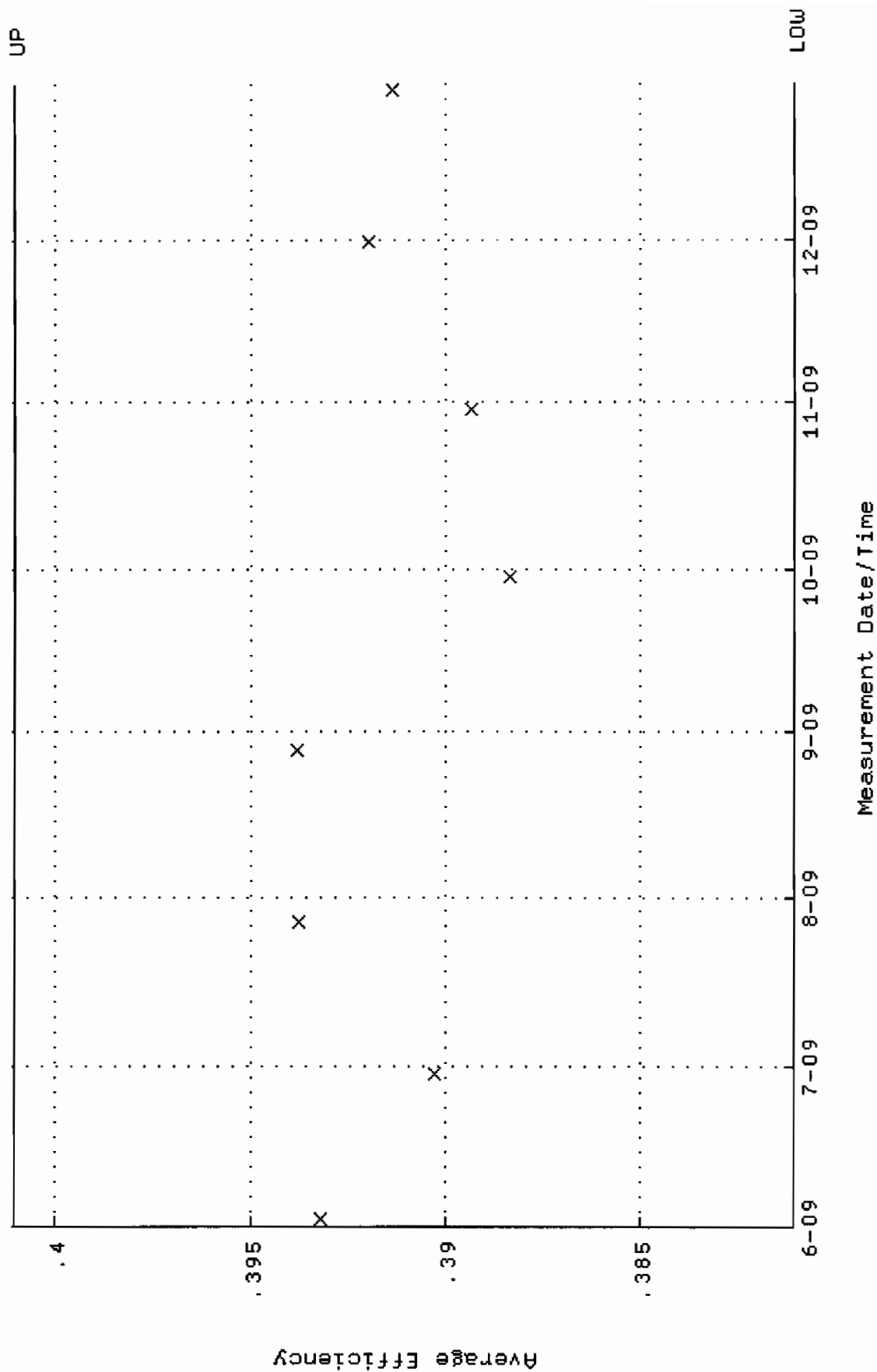
QA filename : DKA100:[ENV_ALPHA.QA.W]w247.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:20:20 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 84.5211 through 93.4181



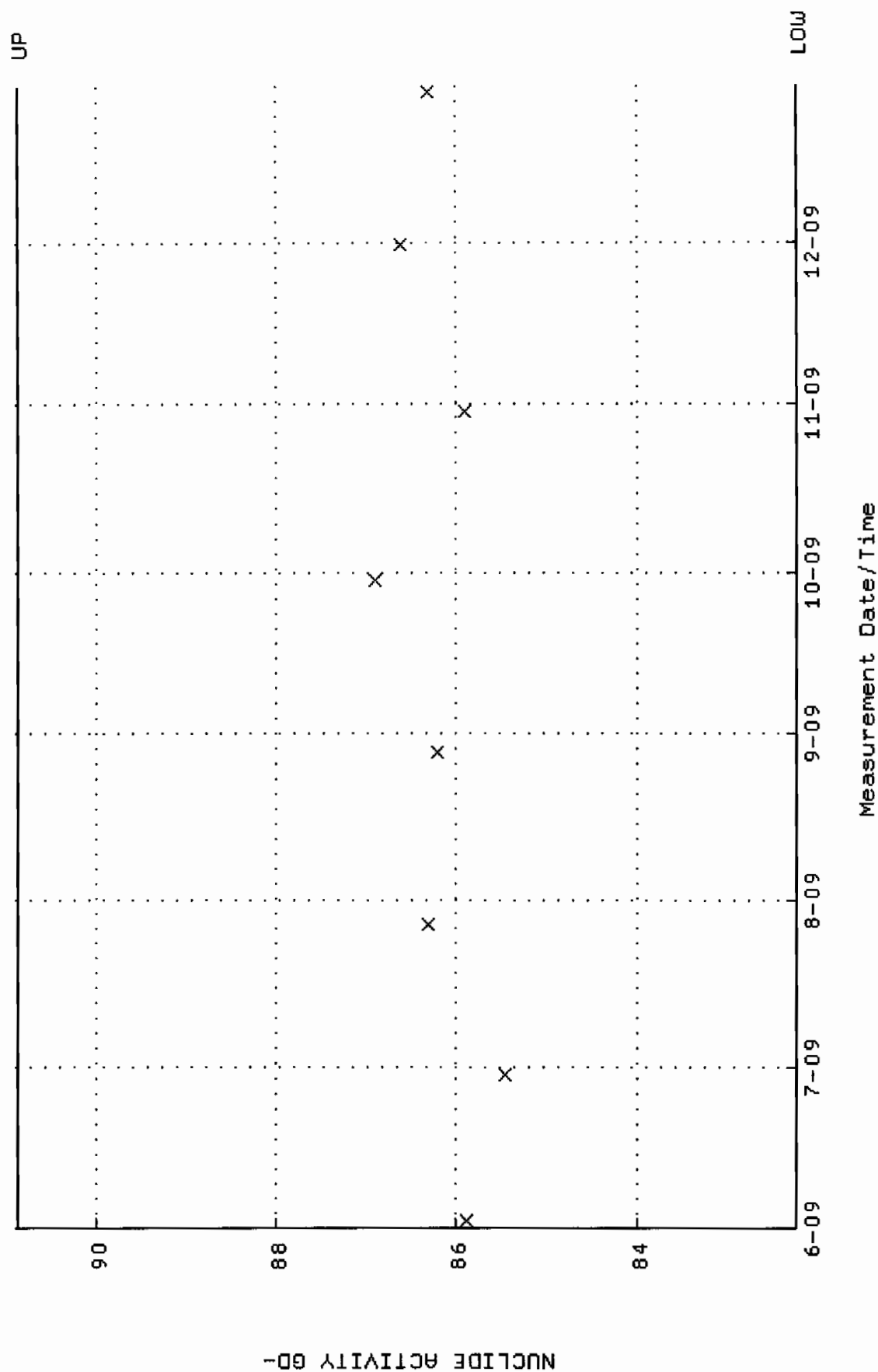
QA filename : DKA100:[ENV_ALPHA.QA.B]B247.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:47:02 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



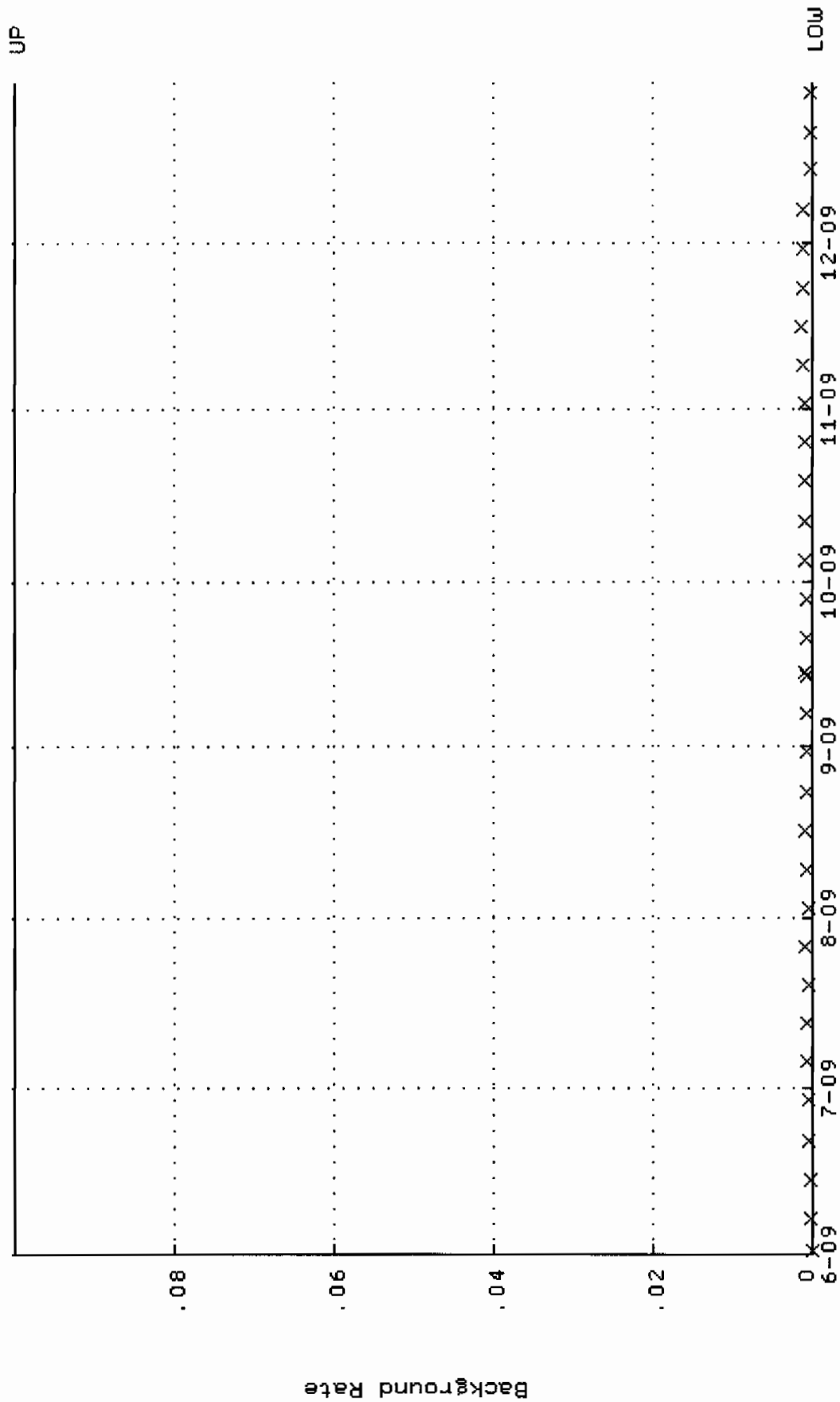
QA filename : DKA100:[ENV_ALPHA.QA.W]w248.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:20:24 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.381049 through 0.401049



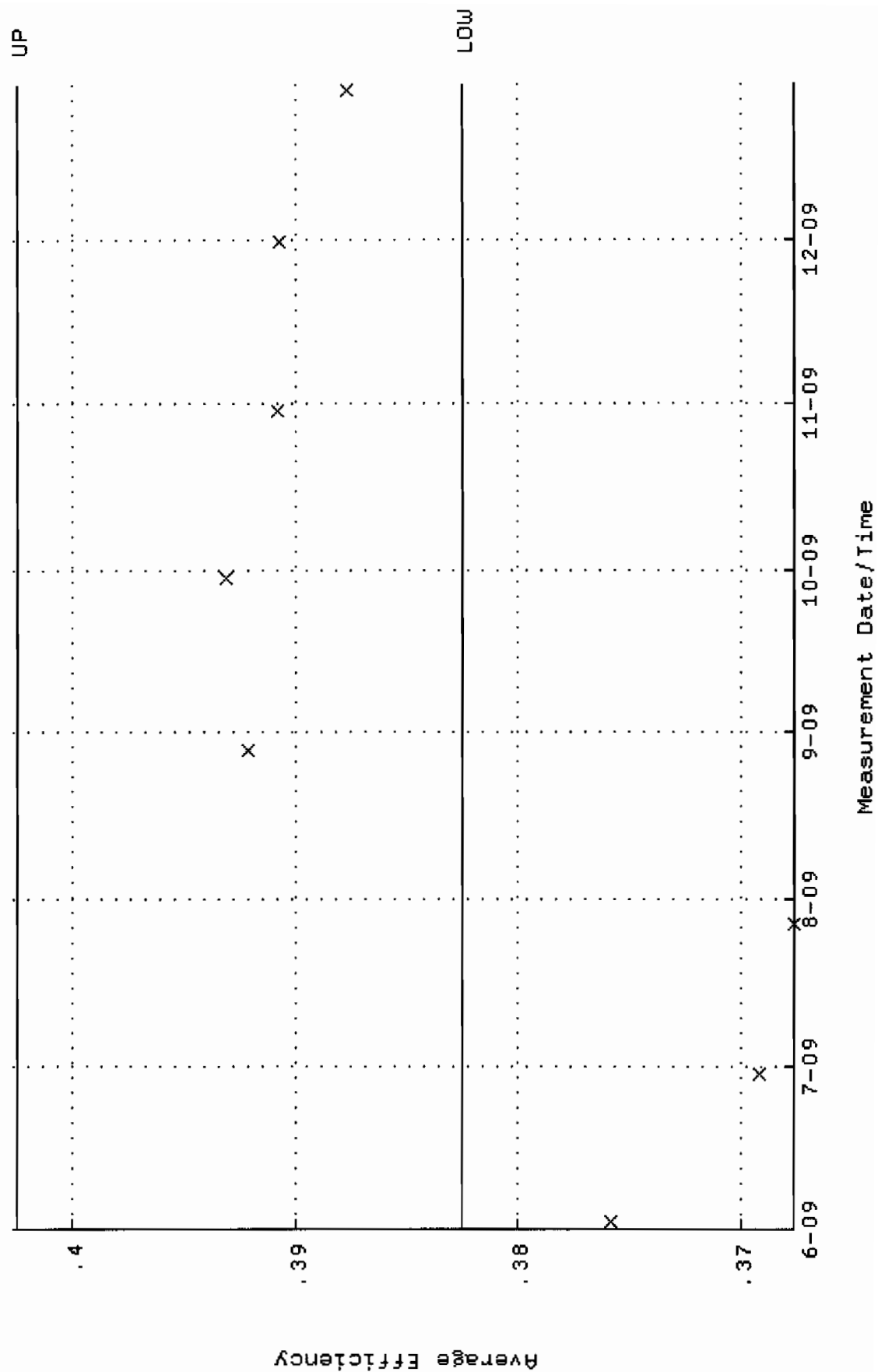
QA filename : DKA100:[ENV_ALPHA.QA.W]W248.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:20:24 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 82.2216 through 90.8766



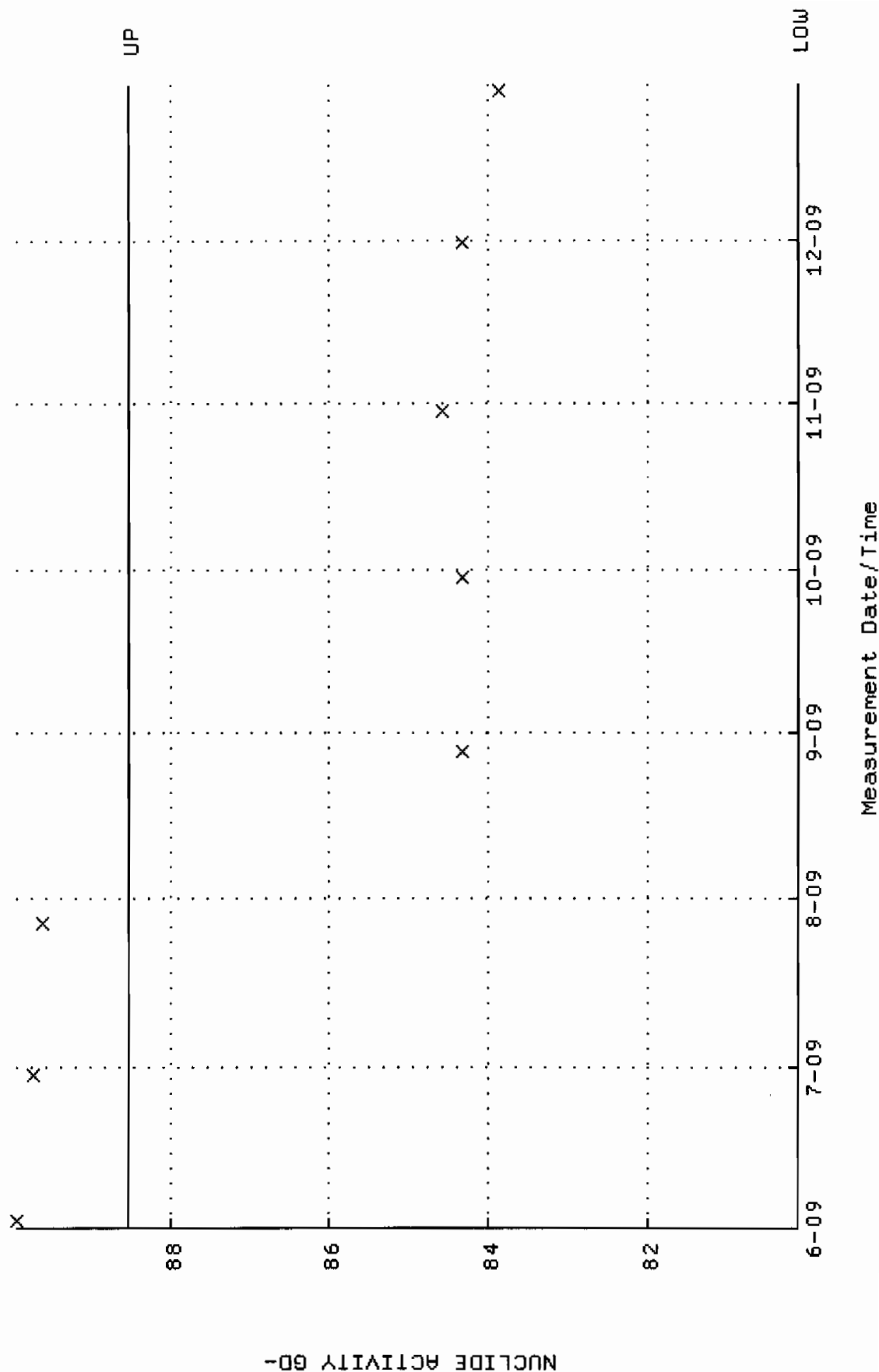
QA filename : DKA100:[ENV_ALPHA.QA.B]B248.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:47:08 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



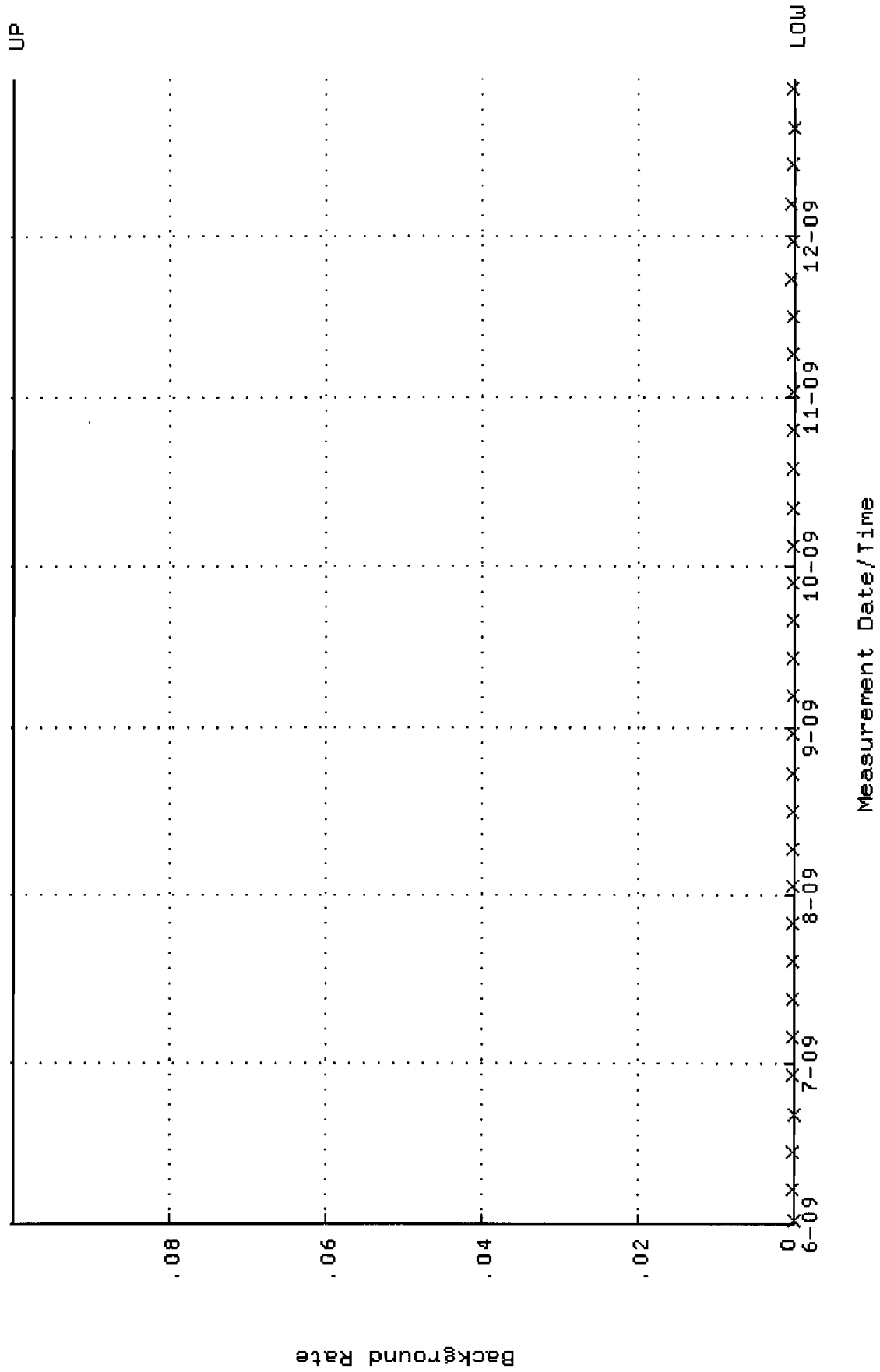
QA filename : DKA100:[ENV_ALPHA.QA.W]W249.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 2-JUN-2009 11:20:29 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.382546 through 0.402546



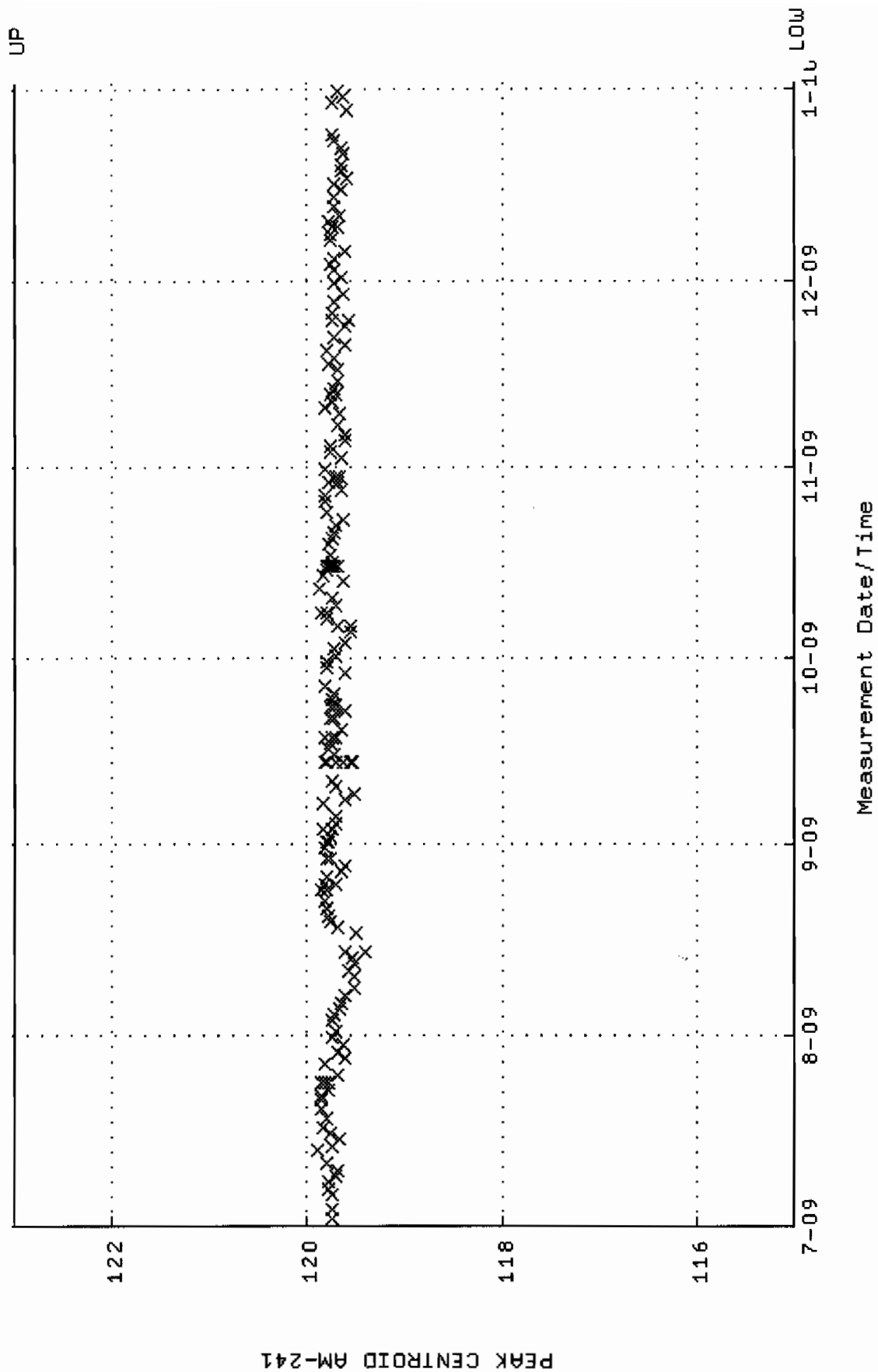
QA filename : DKA100:[ENV_ALPHA.QA.W]W249.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 2-JUN-2009 11:20:29 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 80.0964 through 88.5276



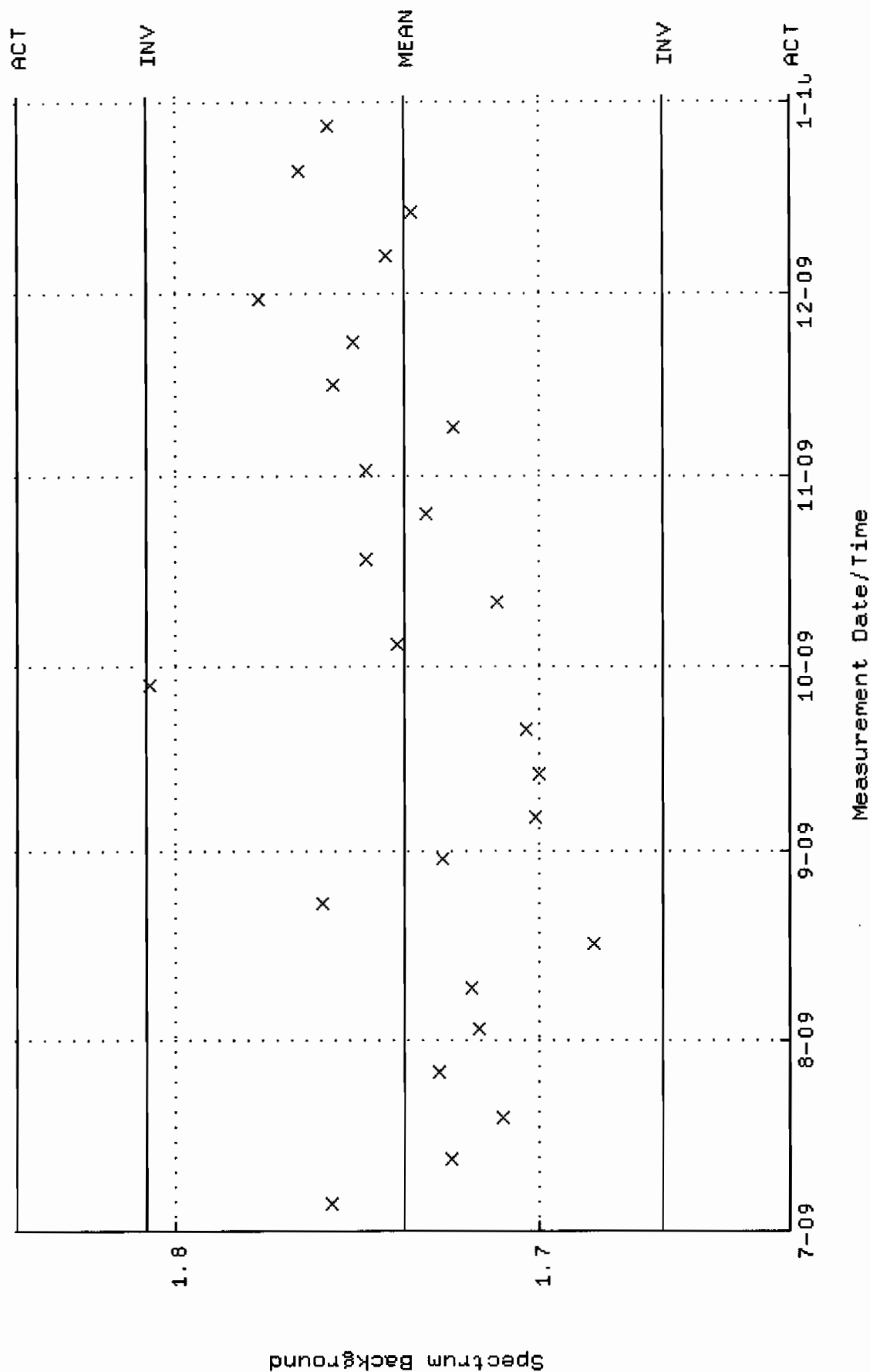
QA filename : DKA100:[ENV_ALPHA.QA.B]B249.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 1-JUN-2009 17:47:13 through 29-DEC-2009 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



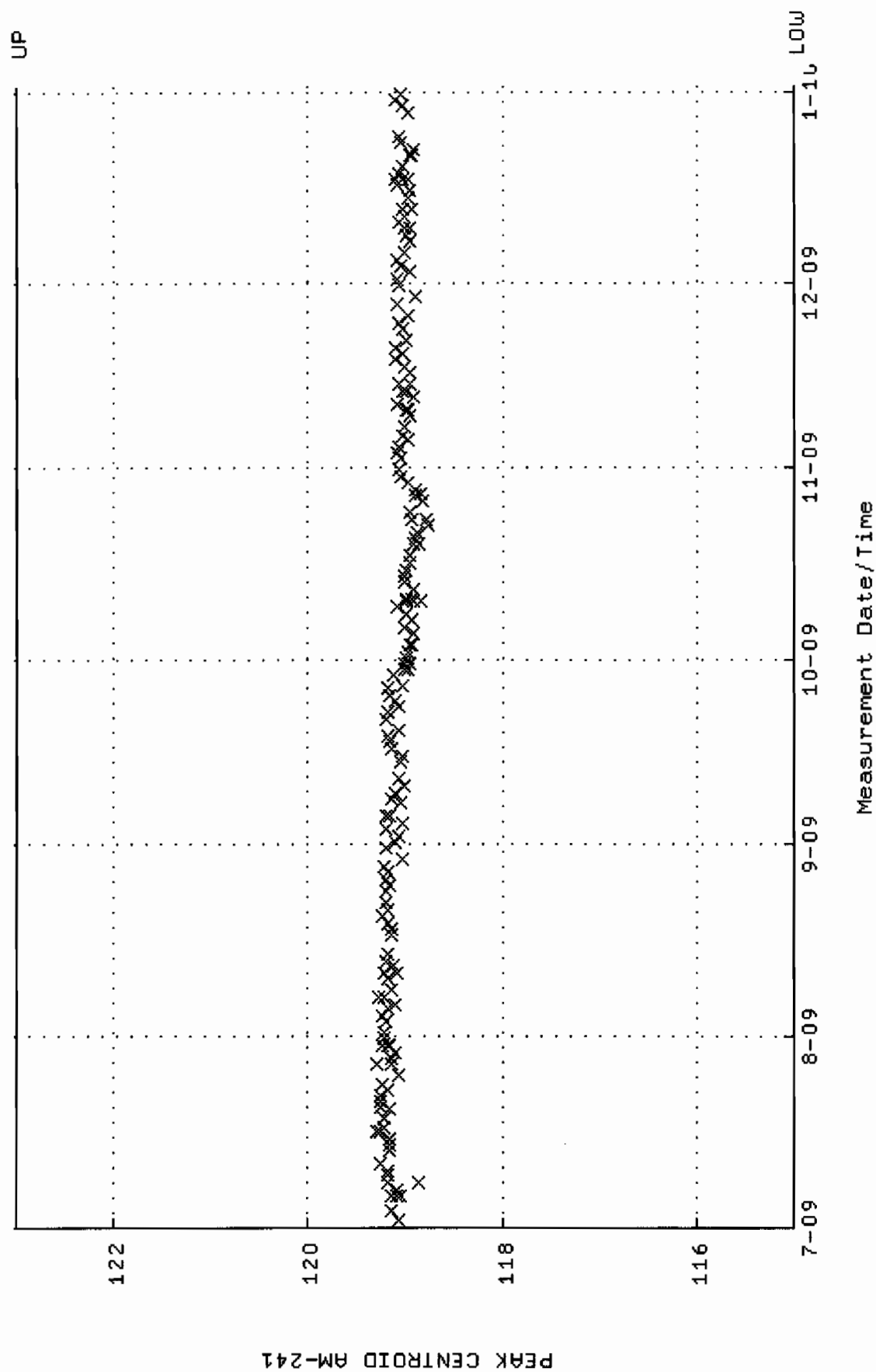
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-JUL-2009 04:58:53 through 1-JAN-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



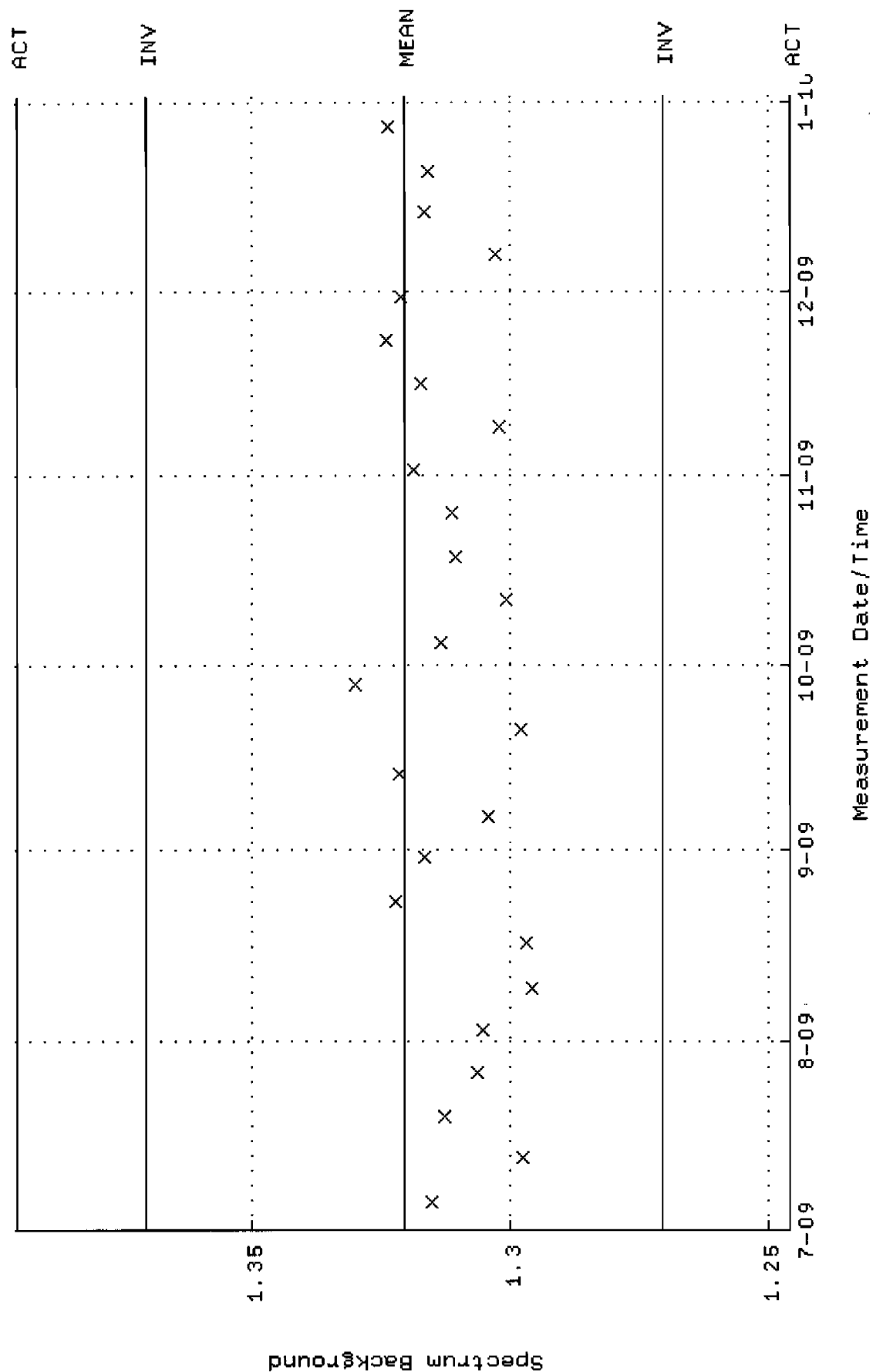
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 5-JUL-2009 13:49:24 through 1-JAN-2010 12:00:00
 Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)



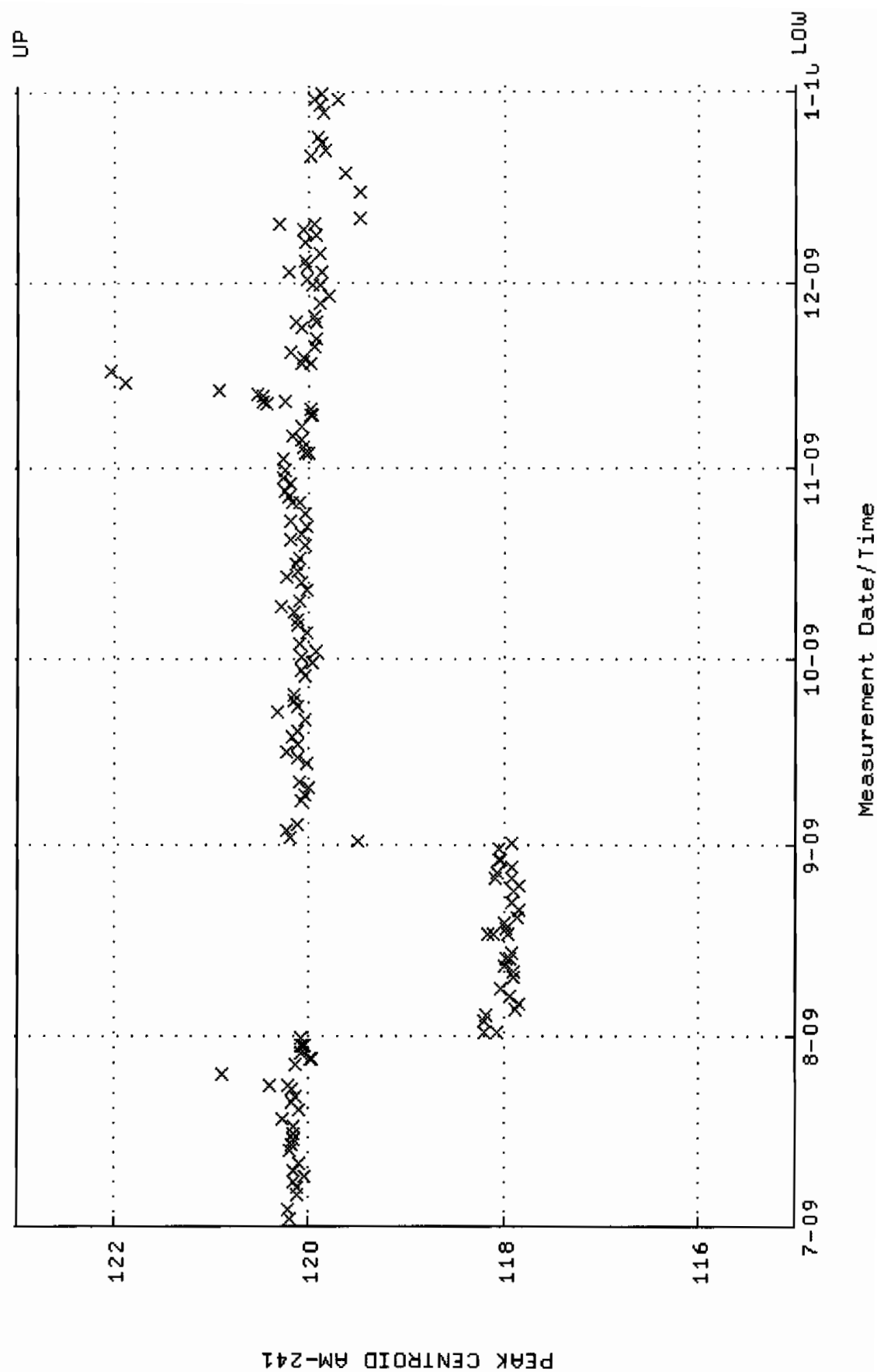
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM04-CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-JUL-2009 04:59:00 through 1-JAN-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



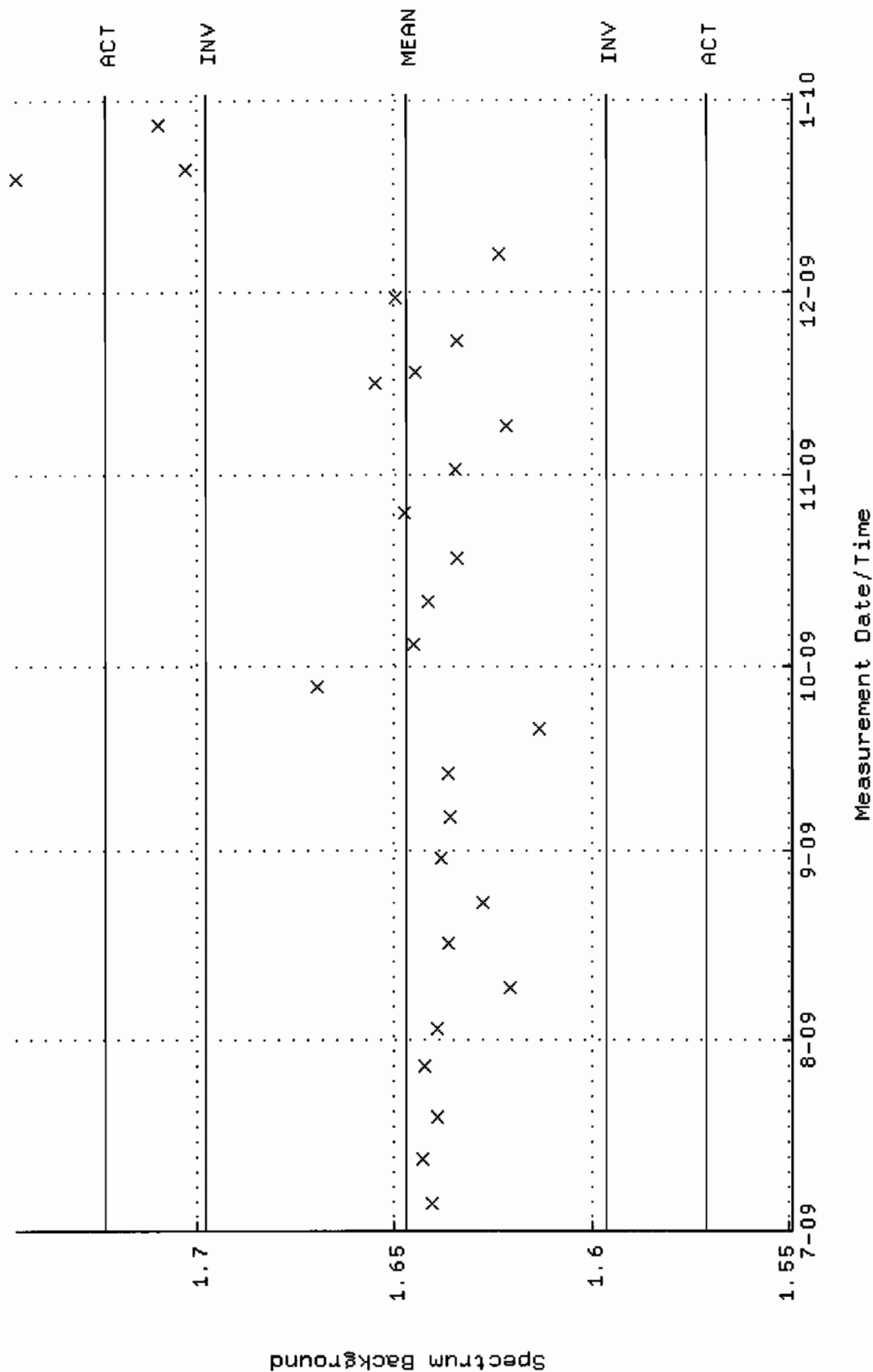
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 5-JUL-2009 13:49:51 through 1-JAN-2010 12:00:00
 Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)



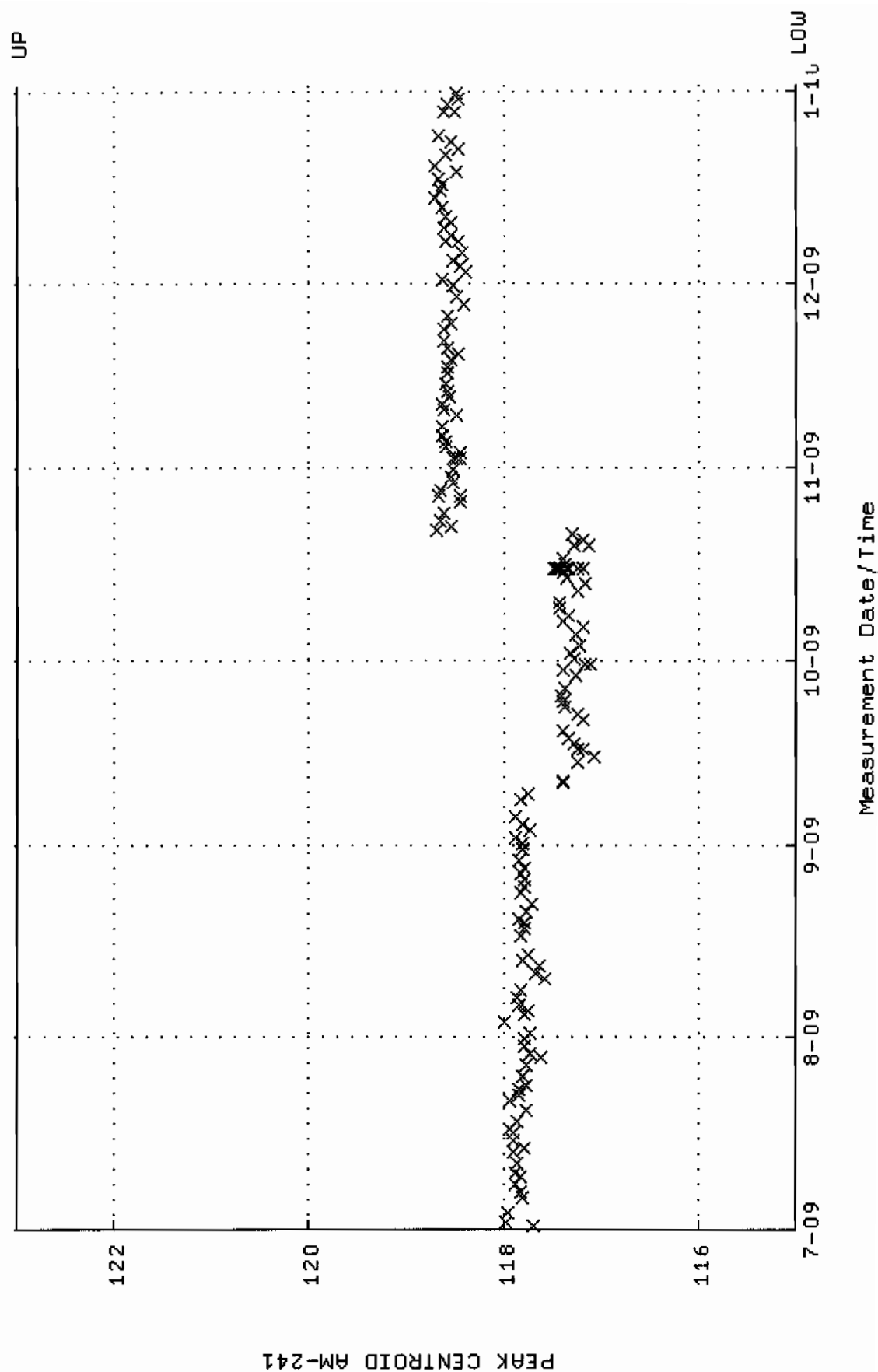
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM05_CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-JUL-2009 04:59:08 through 1-JAN-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



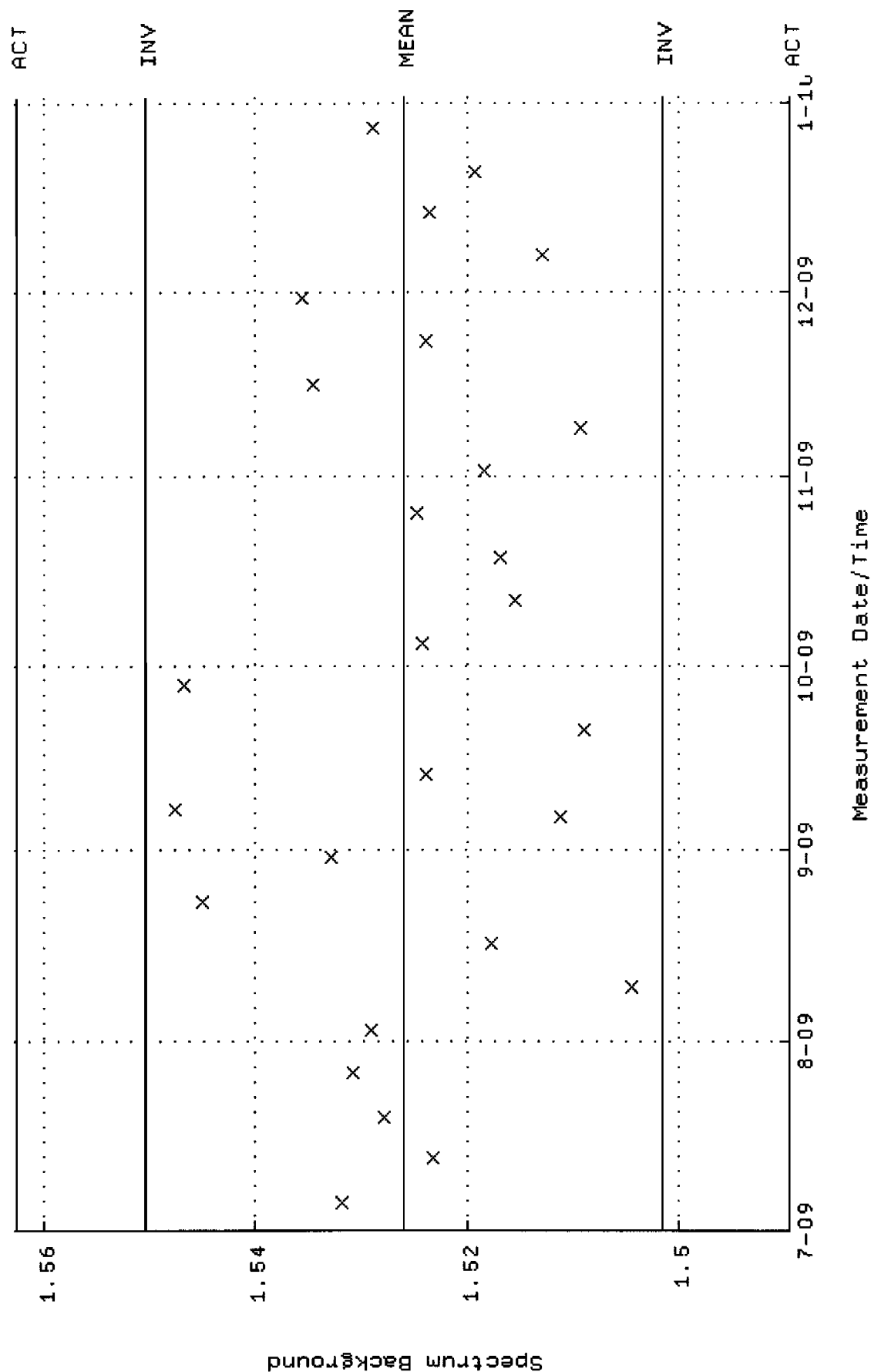
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM05.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 5-JUL-2009 13:50:04 through 1-JAN-2010 12:00:00
 Mean +- Std Dev : 1.64719 +- 2.547087E-02 (1.55 %)



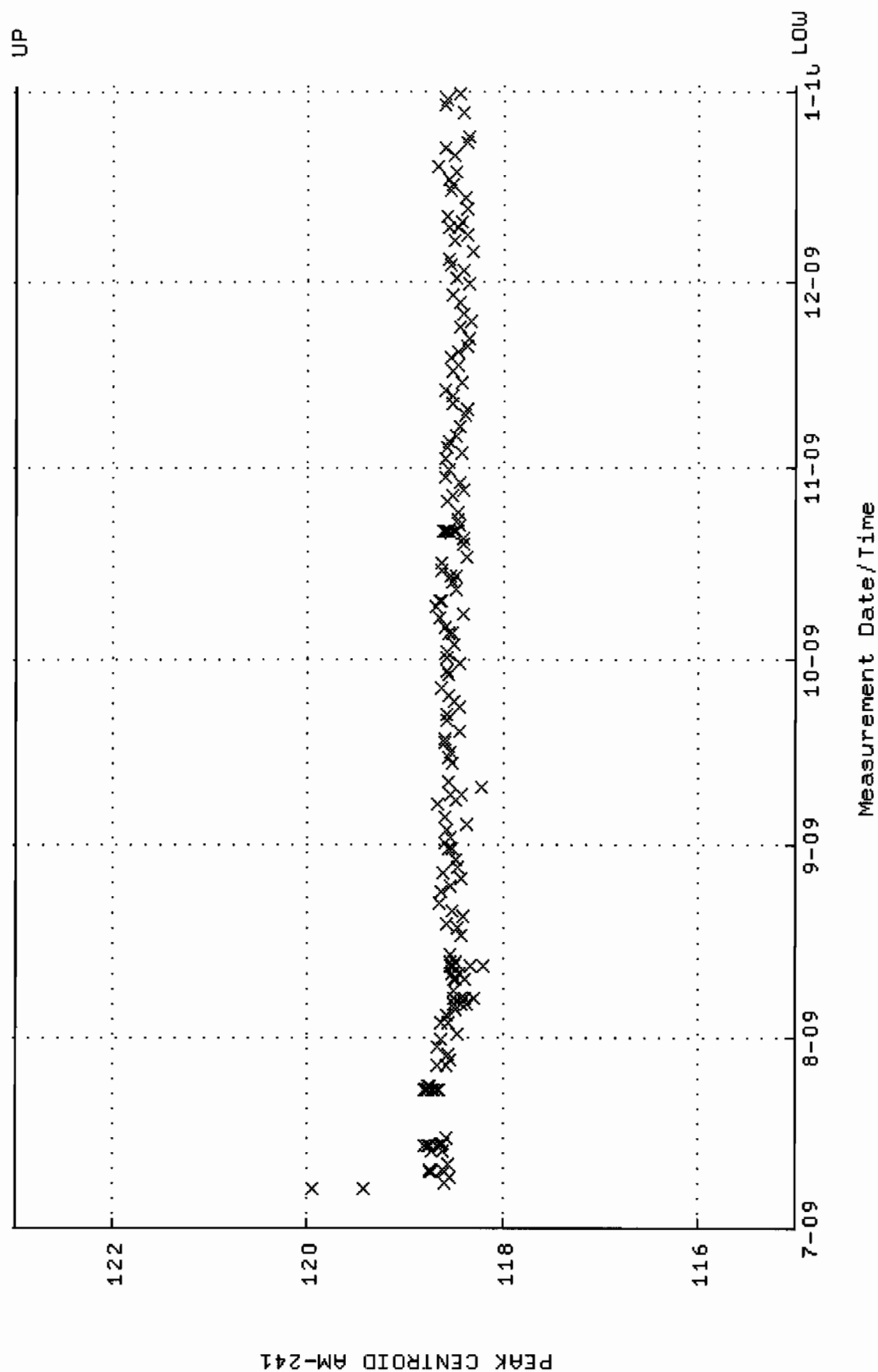
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM06_500MLMB.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 1-JUL-2009 14:30:59 through 1-JAN-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



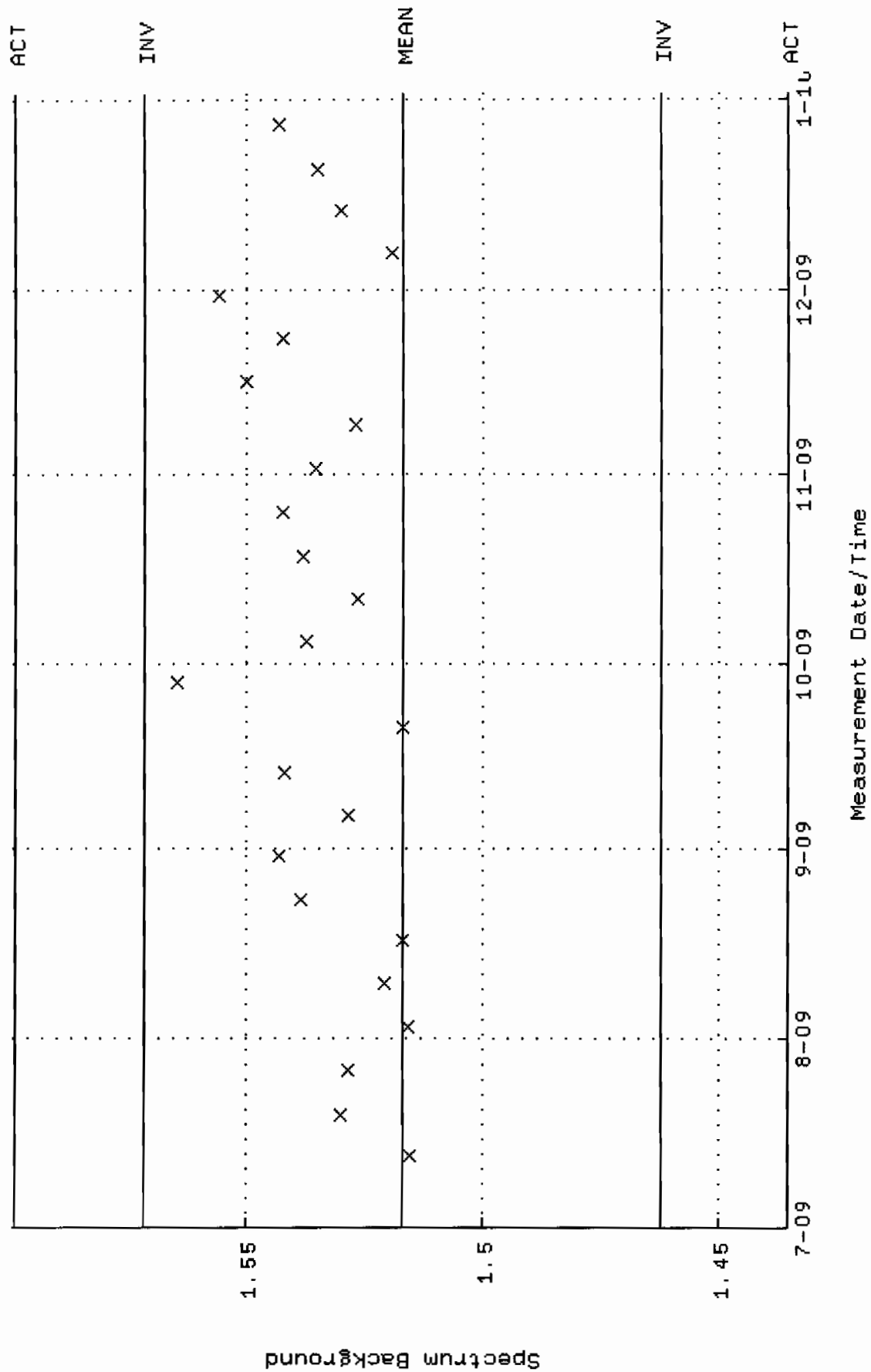
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 5-JUL-2009 13:50:15 through 1-JAN-2010 12:00:00
 Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)



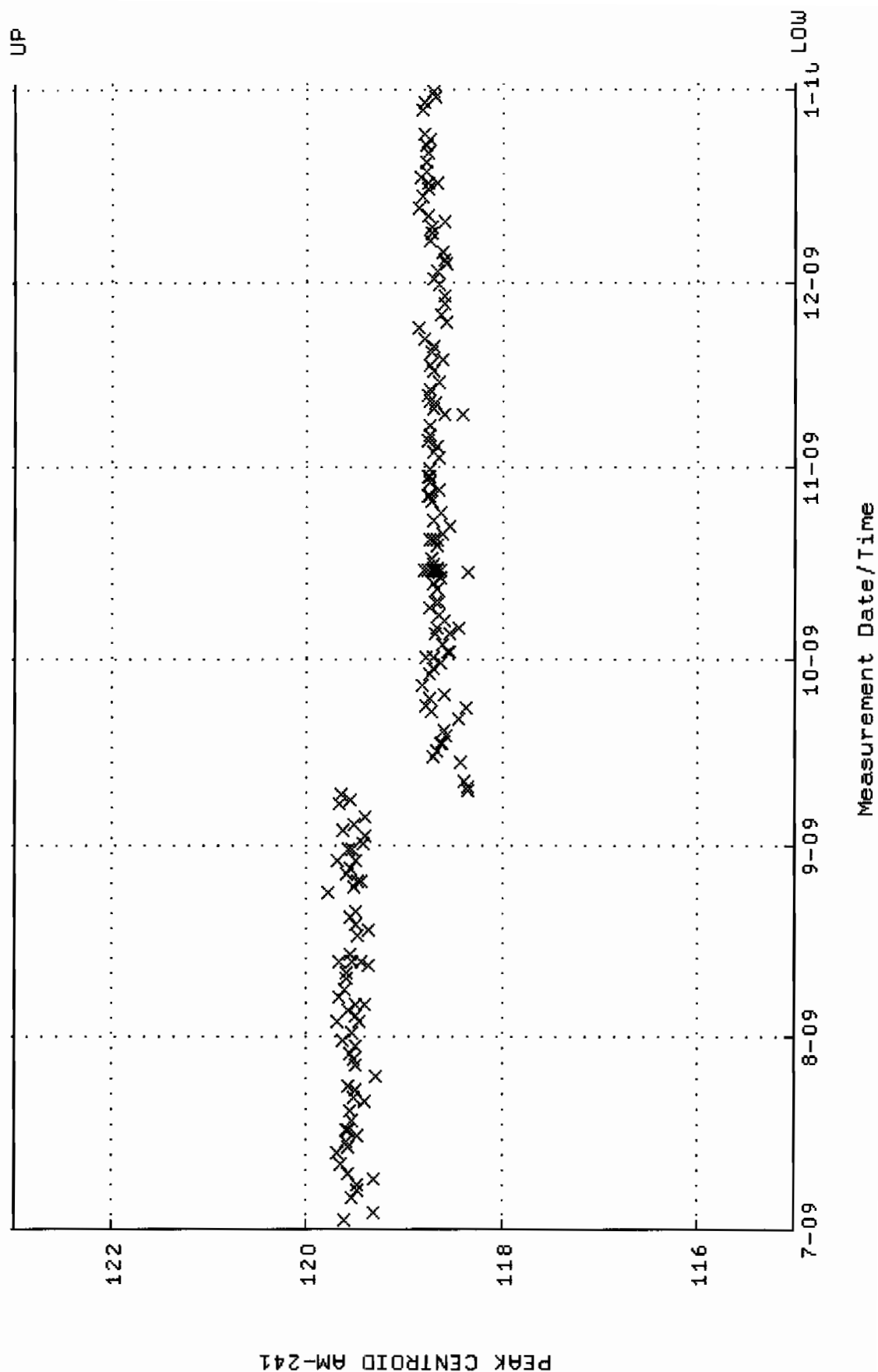
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 7-JUL-2009 09:02:00 through 1-JAN-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



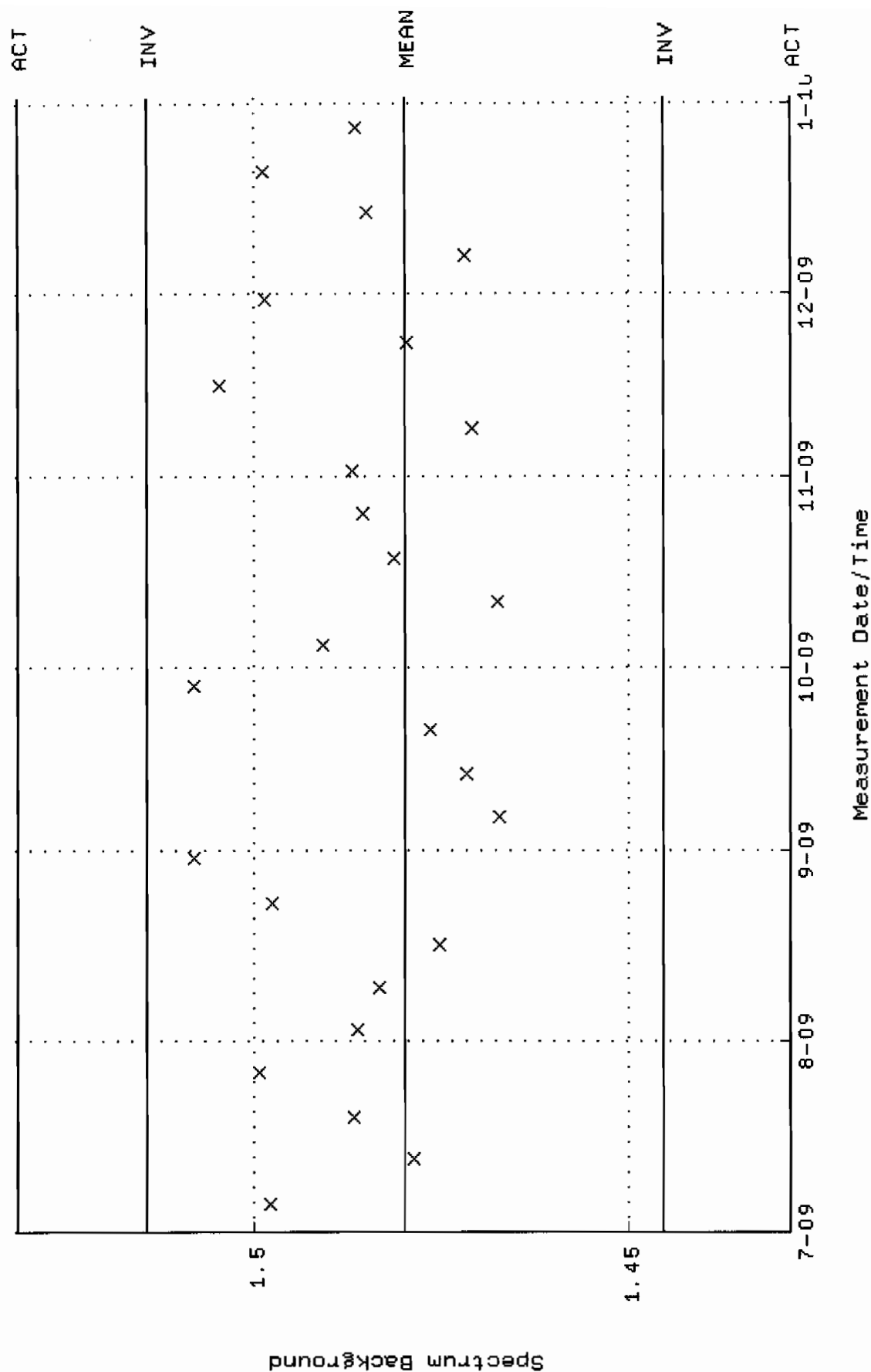
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 12-JUL-2009 17:17:31 through 1-JAN-2010 12:00:00
 Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)



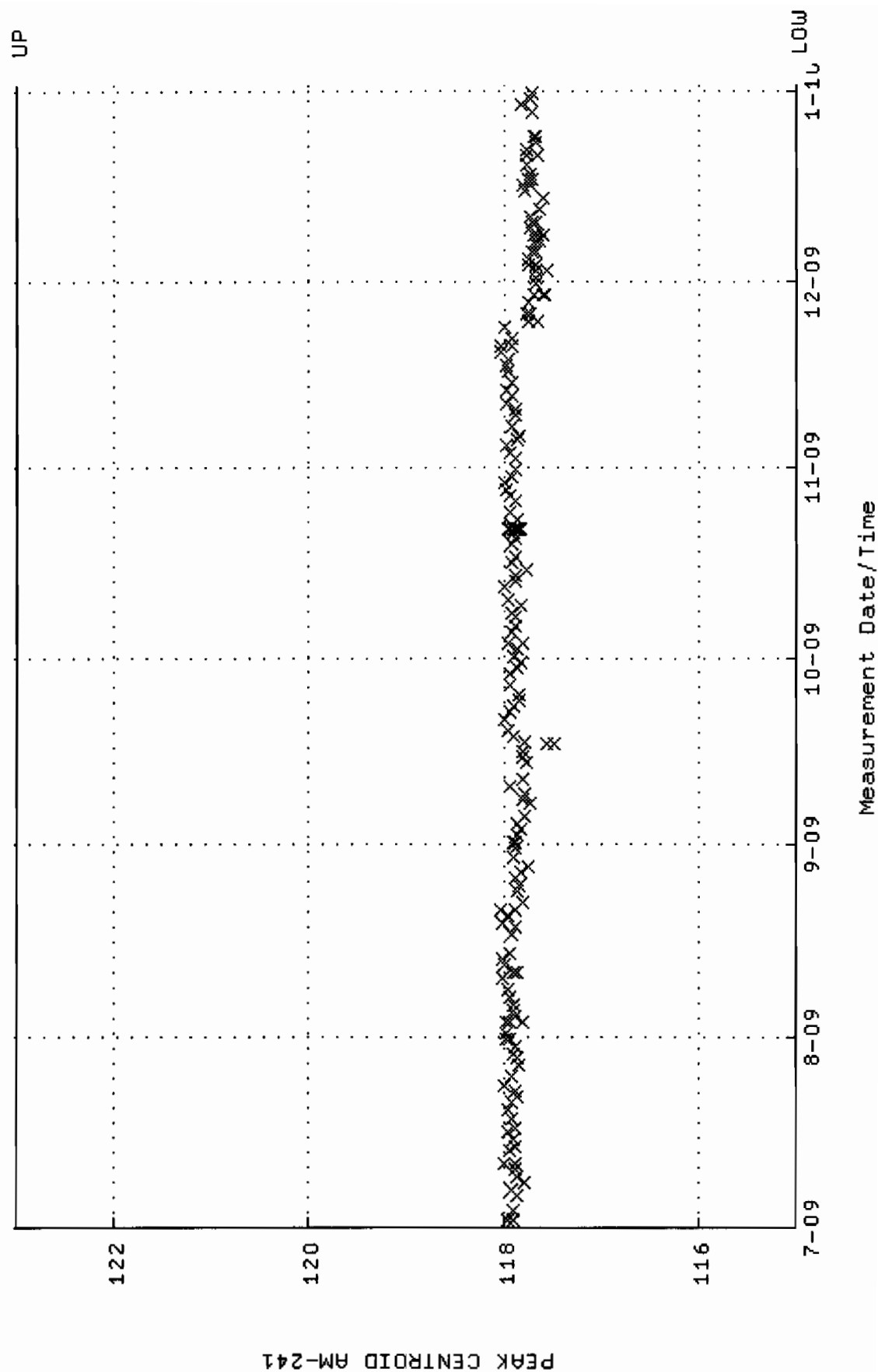
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM10-500MLMB.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-JUL-2009 10:47:17 through 1-JAN-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



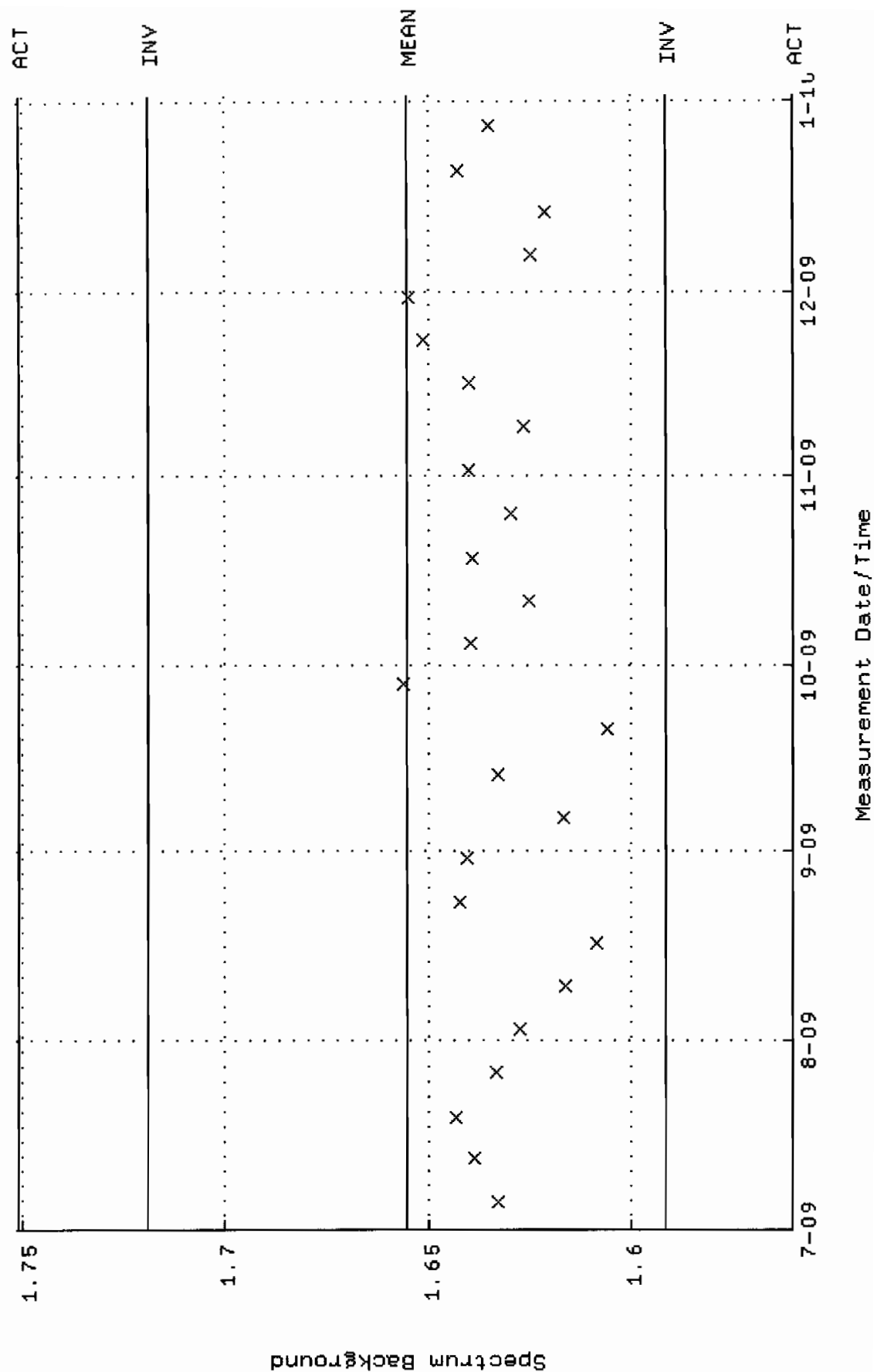
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 5-JUL-2009 13:51:14 through 1-JAN-2010 12:00:00
 Mean +- Std Dev : 1.48000 +- 1.723892E-02 (1.16 %)



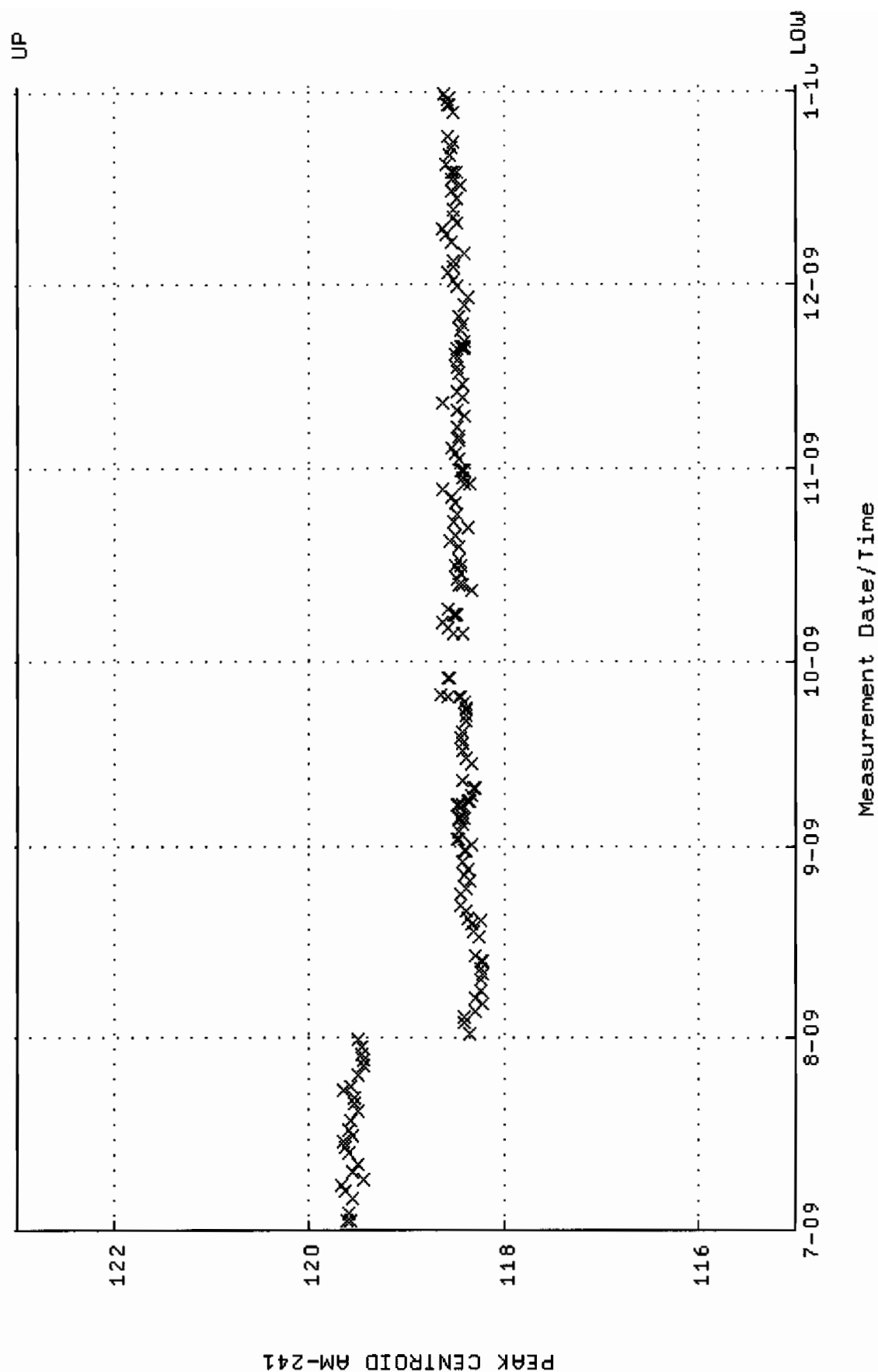
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11-JAR.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-JUL-2009 05:29:04 through 1-JAN-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



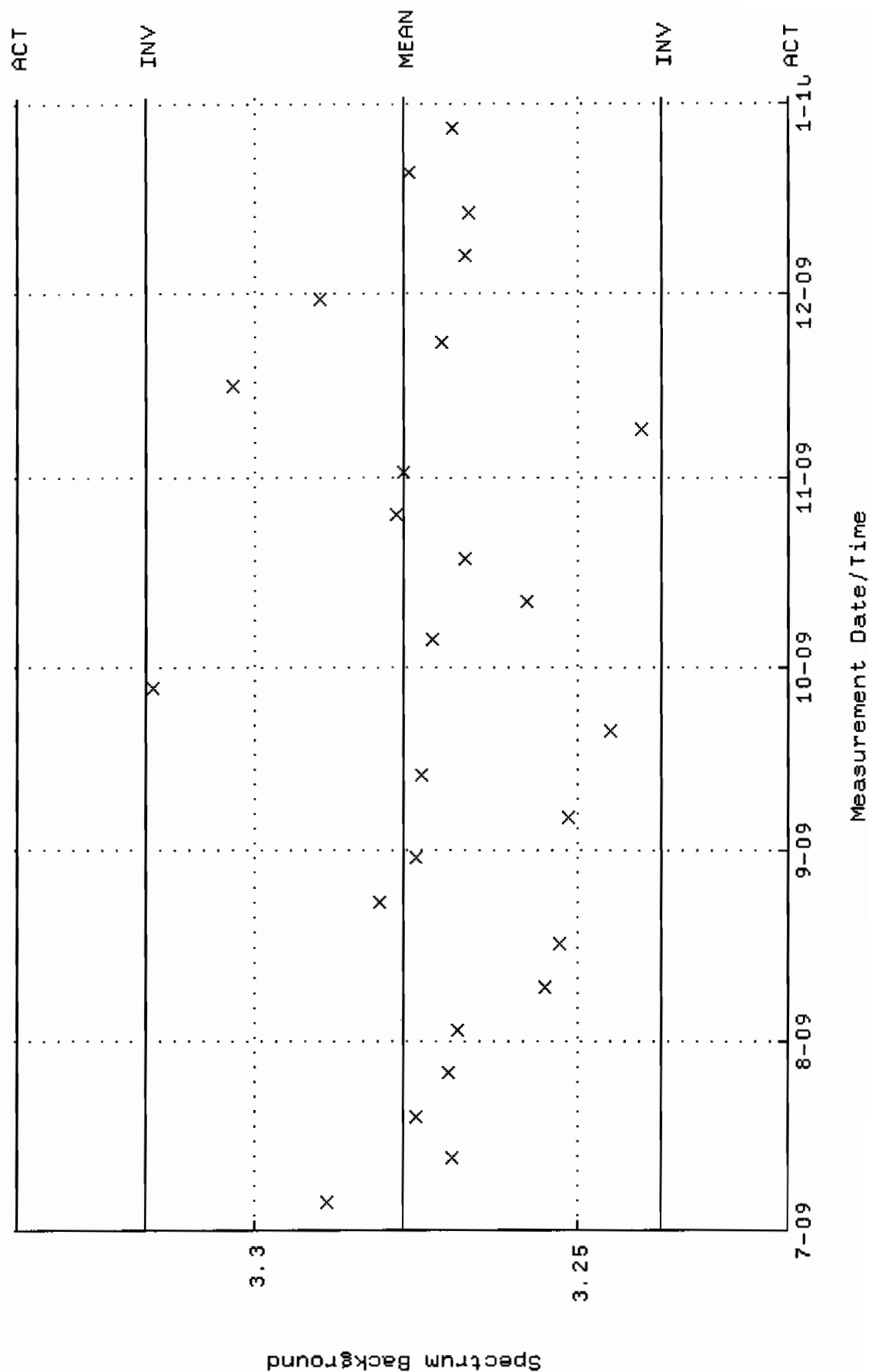
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM11.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 5-JUL-2009 13:51:39 through 1-JAN-2010 12:00:00
 Mean +- Std Dev : 1.65552 +- 3.175806E-02 (1.92 %)



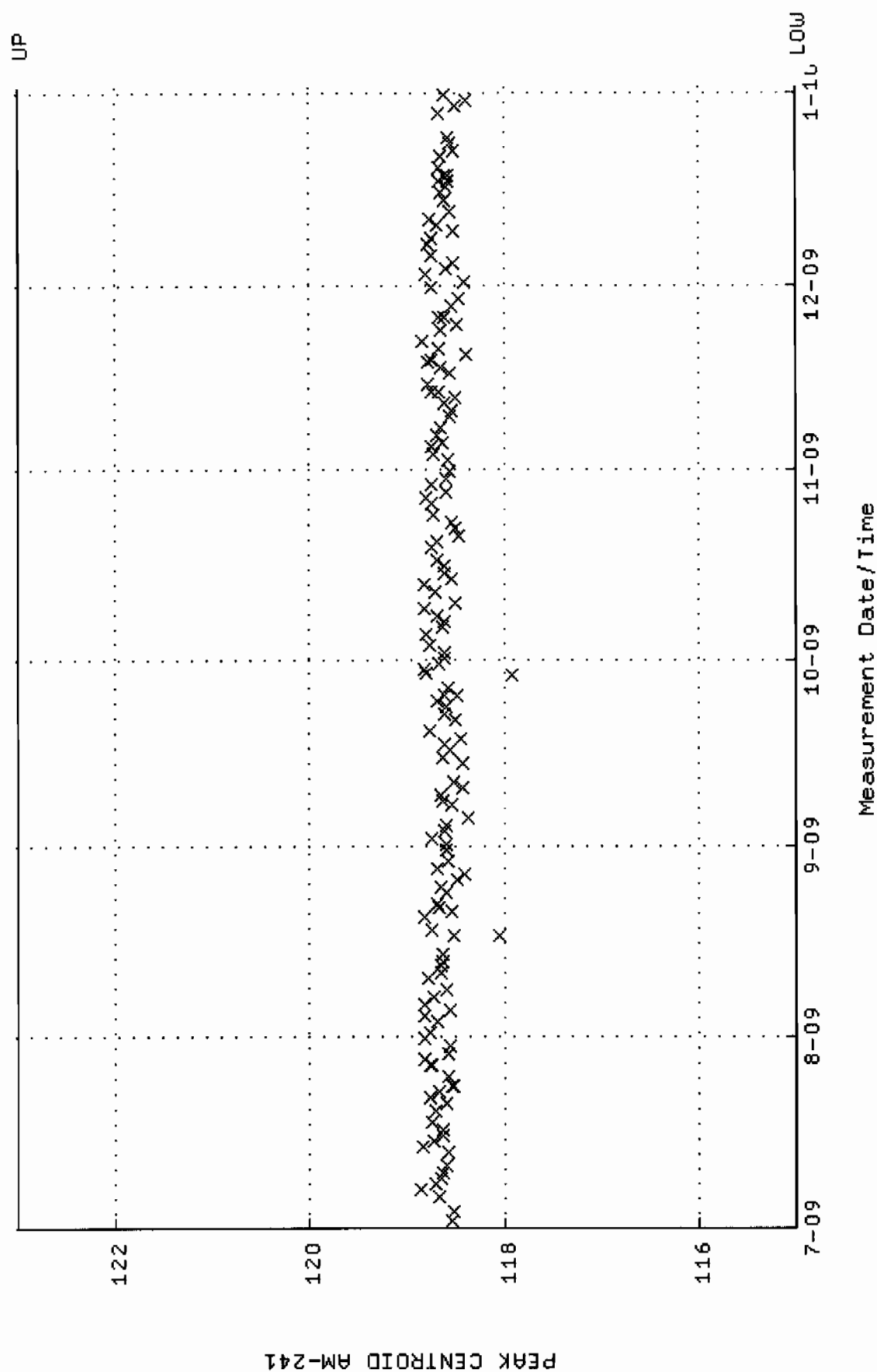
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM13_CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-JUL-2009 10:47:30 through 1-JAN-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



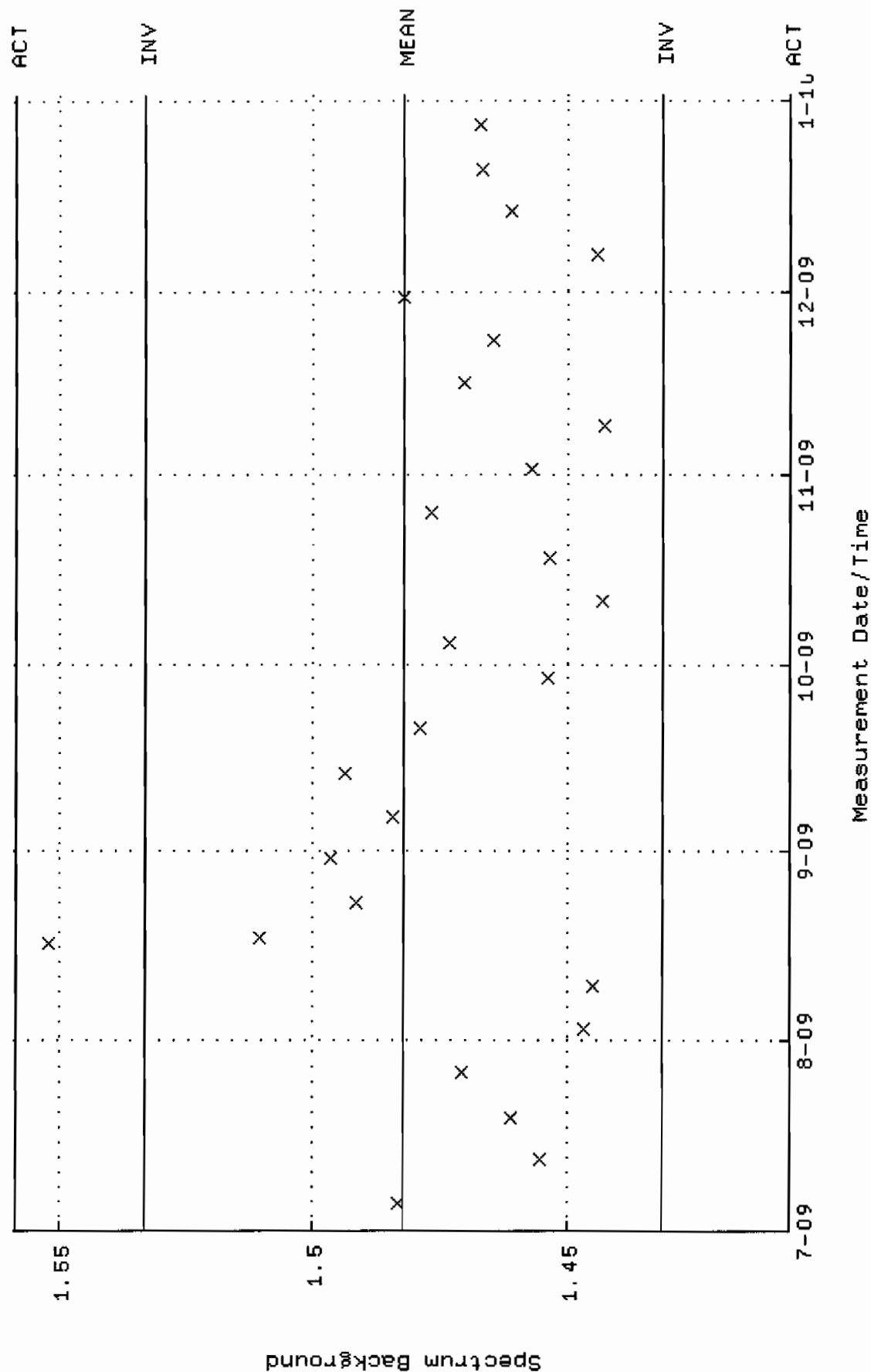
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC-GAM13.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 5-JUL-2009 13:52:16 through 1-JAN-2010 12:00:00
 Mean +- Std Dev : 3.27712 +- 1.999120E-02 (0.61 %)



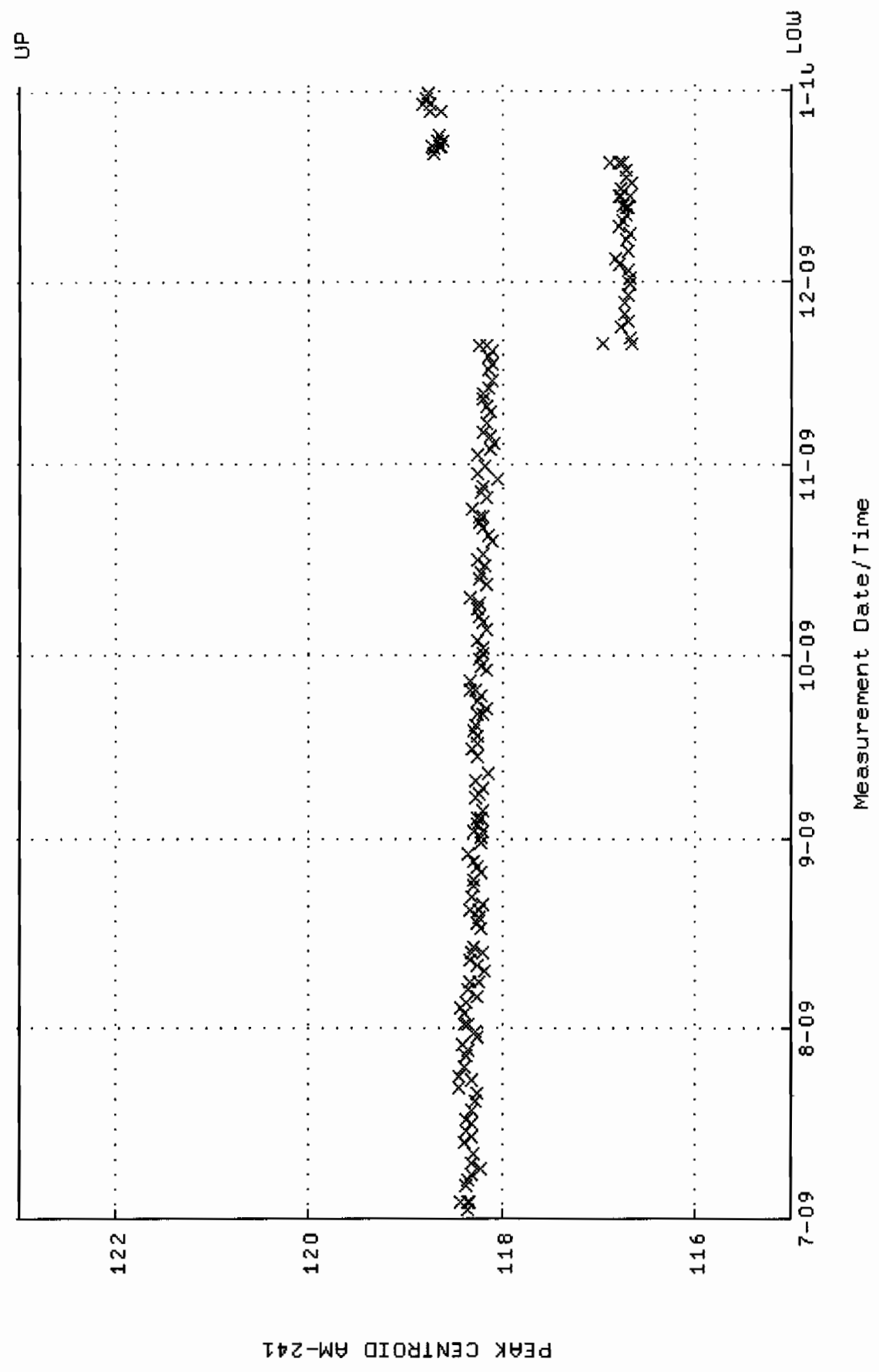
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-JUL-2009 04:59:23 through 1-JAN-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



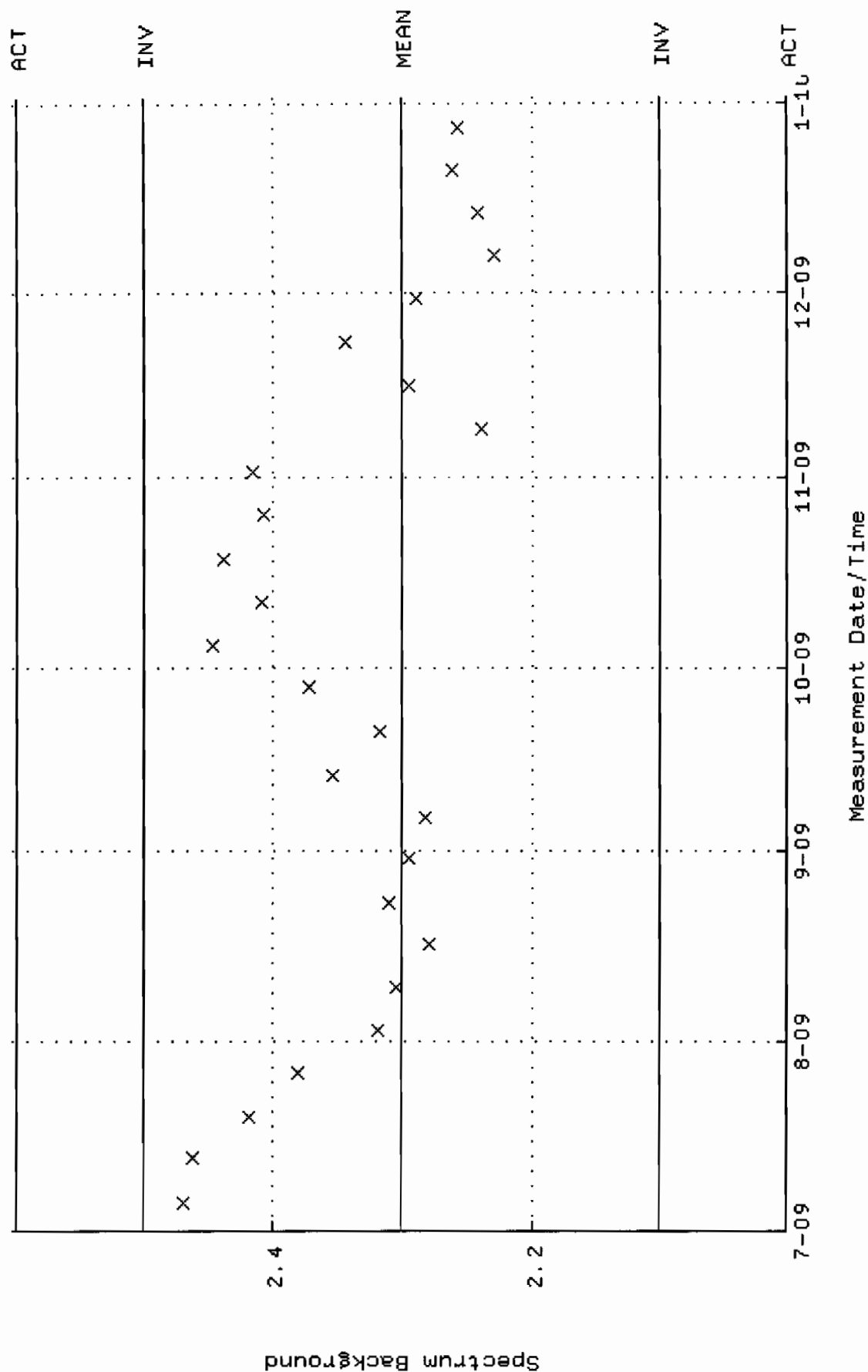
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC-GAM14.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 5-JUL-2009 13:52:31 through 1-JAN-2010 12:00:00
 Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)



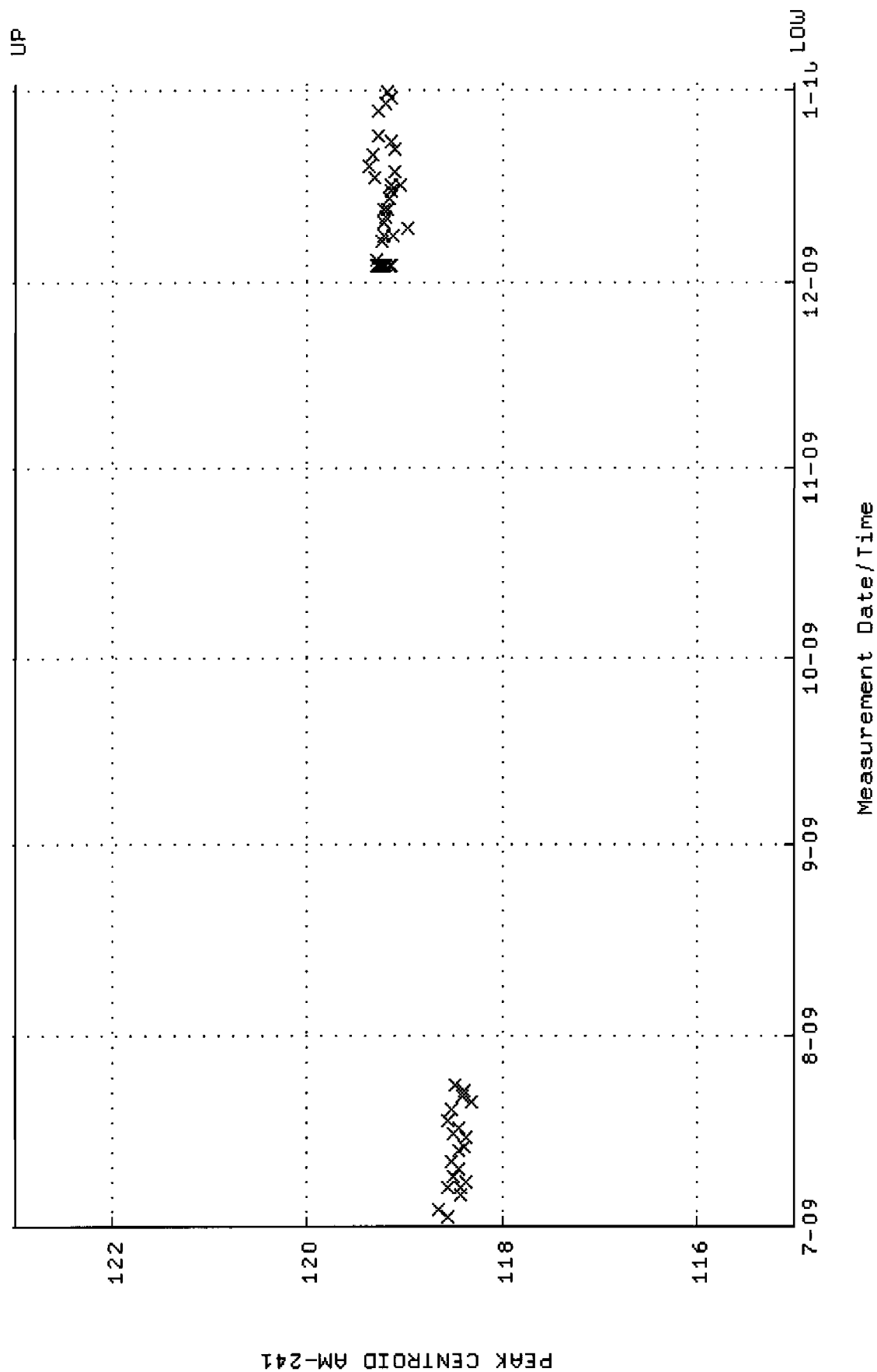
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 11:04:02 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



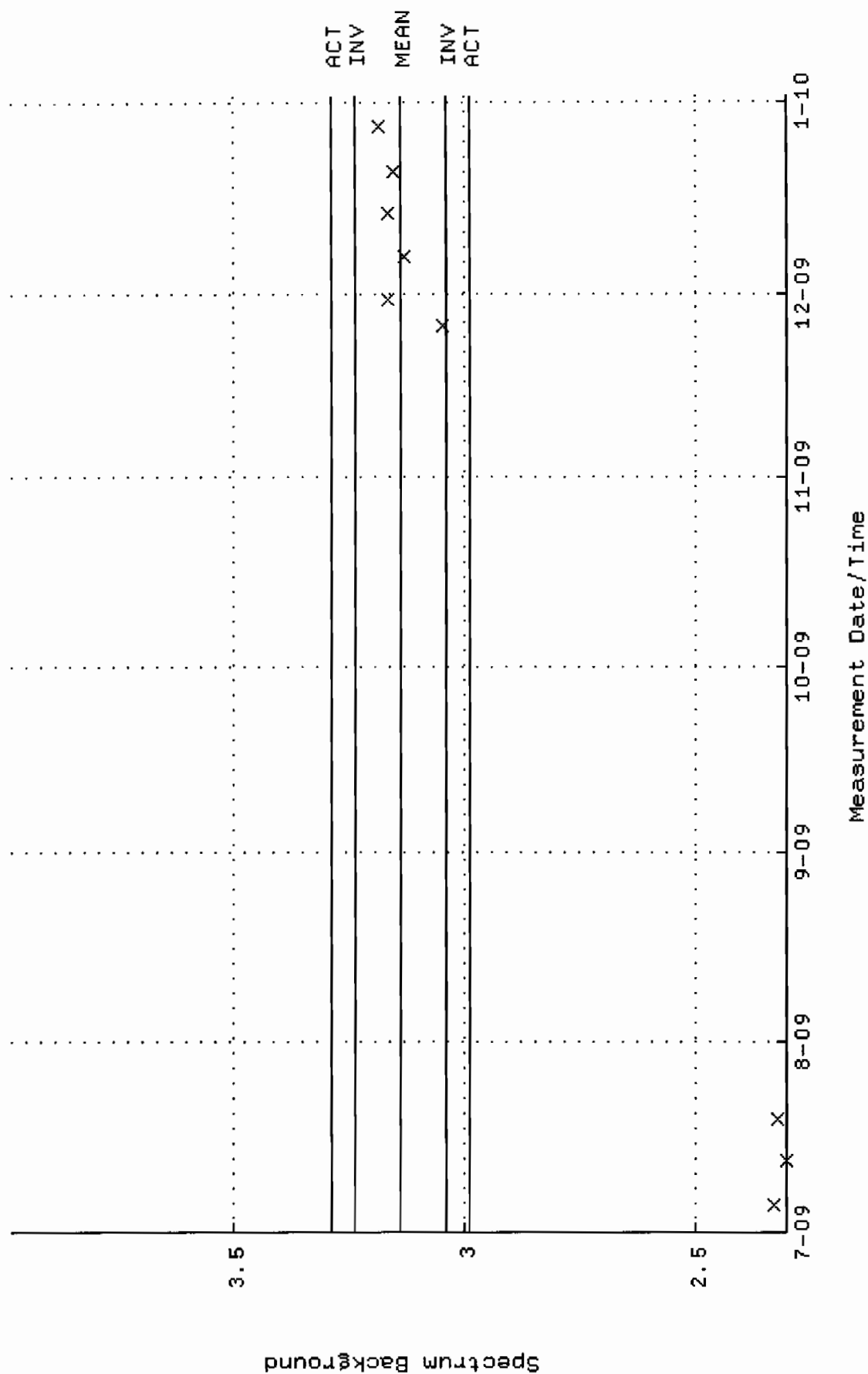
QA filename : DKA100:[CANBERRA,GAMMA,SCUSR.QA]LBC_GAM18.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 5-JUL-2009 13:53:23 through 1-JAN-2010 12:00:00
 Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)



QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-JUL-2009 10:47:50 through 1-JAN-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 : 5-JUL-2009 13:54:18 through 1-JAN-2010 12:00:00
 Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)



STANDARDS DATA

1032

 1380 Seaboard Industrial Blvd.
 Atlanta, Georgia 30318
 Tel 404-352-8677
 Fax 404-352-2837
 www.analytiscinc.com

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:

W.M. [Signature] 11-28-06

This standard will expire one year after the calibration date.

 rec'd 11/30/06
 RC-S-045-073-0

1380 Seaboard Industrial Blvd.
 Atlanta, Georgia 30318

Tel 404-352-8677

Fax 404-352-2837

www.analytiscinc.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 Uncertainty (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

Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)

HPGe (High Purity Germanium Gamma Ray Spectrometer)

IC (Gamma Ray Ionization Chamber)

²As 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

$(\text{Mass of parent(g)} * (\text{Parm Activity (dpm)}) * (\text{conversion dpm to dpm}) / (\text{Ampoule Mass(g)} * (\text{Dilution Vol})) = \text{Parent Activity (dpm/mL)}$

$(\text{Mass of parent(g)} * (\text{Parm Activity (dpm)}) * (\text{conversion dpm to dpm}) / \text{Density} / (\text{Ampoule Mass (g)} * (\text{Dilution Vol})) = \text{Parent Activity (dpm/g)}$

$(5.2579 \text{ g}) * (218817 \text{ dpm}) * (1 \text{ dpm/dpm}) / (5.31725 \text{ g} * 100 \text{ mL}) = 2163.7461 \text{ dpm/mL}$

$(5.2579 \text{ g}) * (218817 \text{ dpm}) * (1 \text{ dpm/dpm}) / (1.0611 \text{ g/mL}) / (5.31725 \text{ g} * 100 \text{ mL}) = 2039.2400 \text{ dpm/g}$

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	pCi/L - Var - Jar - 1
Mixed Gamma N1	2534	pCi/L
Mixed Gamma N2	2510	pCi/L
Mixed Gamma N3	2413	pCi/L

Mean Value (Counting) = 2485.67
Sidev = 64.065
Rule 3 (Pass/Fail)

Certificate Value = 2485.68018
Lower Limit = 2357.536524
Upper Limit = 2613.796809
Rule 1 (Pass/Fail)
Two sigma = 128.1301422
10 % of Mean = 248.5686667
Rule 2 (Pass/Fail)

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.

M. Stamps
12/2/09
independent
12/2/09

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137

Isotope	Result	PCi/L - Ver. Jar. 1
Mixed Gamma N1	854.2	PCi/L - Ver. Jar. 3
Mixed Gamma N2	907.6	PCi/L - Ver. Jar. 2
Mixed Gamma N3	898.9	

Mean Value (Counting) = 886.90
Stdev = 28.651
Rule 3 (Pass/Fail) Pass

Certificate Value = 933.44144
Lower Limit = 829.597644
Upper Limit = 944.202356
Rule 1 (Pass/Fail) Pass
Two sigma = 57.30235597
10 % of Mean = 88.69000000
Rule 2 (Pass/Fail) Pass

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.

Handwritten: 11.8% 12/2/09
Handwritten: 12/2/09

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)

Isotope	Result	pCi/L - Ver - Jan-5'
Mixed Gamma N1	1572	pCi/L - Ver - Jan-5'
Mixed Gamma N2	1495	pCi/L - Ver - Jan-5'
Mixed Gamma N3	1501	pCi/L - Ver - Jan-5'

Mean Value (Counting) =
Stdev =

98.50 Pass
Rule 3 (Pass/Fail)

Certificate Value =
Lower Limit =
Upper Limit =
Rule 1 (Pass/Fail)
Two sigma =
10 % of Mean =
Rule 2 (Pass/Fail)

1522.67
42.829
1545.8378
1437.008431
1608.324902
Pass
85.65823564
152.26666667
Pass

pCi/L
pCi/L
pCi/L

U.S. Stamp issued 12/2/09

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 *fit c held 12/1/04*

angela d. johnson 12/13/04

TRM

Invoice:

5 boxes of TRM-1
 10 " " TRM-2 and 3
 5 " each of TRM-1 through 6
 7 " baghouse dirt

Use 1/4 gm x 10 samples with 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	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0	

9911627-01-001

Internet Lab

Batch No.

SARWR No. N/A

Press F1 for instructions for each field.

Page 1 of 1

AR/COC-602945

[illegible]

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 DATA 4/14/2000

Amanda L. Lehe 4/30/04
lett & dated 5/1/04

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.

CERTIFICATE OF CALIBRATION

ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 \pm 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 μ Ci
		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(NO ₃) ₃ in 2N HNO ₃
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 μ Ci/g

Method of Calibration

Weighted 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:	$\pm 3.0\%$
b. Random uncertainty in assay:	$\pm 0.4\%$
c. Random uncertainty in weighing(s):	$\pm 0.0\%$
d. Total uncertainty at the 99% confidence level:	$\pm 3.0\%$

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).



ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

Anna H. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

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 $50 \pm 10^\circ \text{C}$ 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 $50 \pm 10^\circ \text{C}$ 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		A Solution Material Info	
Parent Code:	445-96-2	Isotope:	Americium-243
Prepared By:	Genie Bost	Prepared By:	Angela Johnson
Carrier Conc:	2M HNO3	Prep Date:	01/05/1994
Reference Date:	01/01/1994	Verification Date:	05/11/2009
Ampoule Mass (g):	5.3739 g	Expiration Date:	05/11/2010
Uncertainty:	+/- 3 %	Primary Code:	445-96-2-A
LogBook No:	RC S 005 032	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

$(\text{Mass of parent(g)}) * (\text{Parm Activity (uCi/g)}) * (\text{conversion dpm to uCi}) / (\text{Dilution Vol}) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parm Activity (uCi/g)}) * (\text{conversion dpm to uCi}) / \text{Density (g/mL)} / (\text{Dilution Vol}) = \text{Parent Activity (dpm/g)}$
$(5.3419 \text{ g}) * (18.84 \text{ uCi/g}) * (2220000 \text{ dpm/uCi}) / (100 \text{ mL}) = 2234238.9912 \text{ dpm/mL}$
$(5.3419 \text{ g}) * (18.84 \text{ uCi/g}) * (2220000 \text{ dpm/uCi}) / (1.0785 \text{ g/mL}) / (100 \text{ mL}) = 2071617.0528 \text{ dpm/g}$

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 5/15/2009	Isotope	Value	Uncertainty
	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 =	0.043588969	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-241 certified 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.

Henry G. Aders 5/15/09
Taheri
 07509



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
2005

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

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]*.

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	(16.5 ± 0.5) mm	
	Wall thickness	(0.60 ± 0.04) mm	
	Barium content	Less than 2.5%	
	Lead-oxide content	Less than 0.02%	
	Other heavy elements	Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration (mol·L ⁻¹)	Mass Fraction (g·g ⁻¹)
	H ₂ O	50	0.81
	HNO ₃	3.2	0.19
	²⁴² Pu ⁺⁶	8 × 10 ⁻⁷	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 4π α liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

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, $|\partial y/\partial x_i| \cdot$ (x_i/y) [m]	Relative Uncertainty Of Output Quantity, $u_c(y)/y$, (%) [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				<u>x 2</u>
Relative Expanded Uncertainty of the Output Quantity, U/y , (%)				0.72

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 ($\mu\text{Sv/h}$): <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 $y = f(x_1, x_2, x_3, \dots, x_n)$, 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 , $u_i(y) = |\partial y / \partial x_i| \cdot u(x_i)$, 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:
 $0.003 \text{ s}^{-1}\text{g}^{-1}$ for energies less than 3.1 MeV,
 $0.03 \text{ s}^{-1}\text{g}^{-1}$ for energies between 3.1 and 4.4 MeV, and
 $0.003 \text{ s}^{-1}\text{g}^{-1}$ 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:
 $5 \times 10^{-5} \text{ s}^{-1}\text{g}^{-1}$ for energies between 19 and 39 keV,
 $7 \times 10^{-5} \text{ s}^{-1}\text{g}^{-1}$ for energies between 49 and 92 keV,
 $2 \times 10^{-5} \text{ s}^{-1}\text{g}^{-1}$ for energies between 106 and 507 keV,
 $1 \times 10^{-5} \text{ s}^{-1}\text{g}^{-1}$ for energies between 515 and 1456 keV, and
 $5 \times 10^{-6} \text{ s}^{-1}\text{g}^{-1}$ 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 $u(y)/y = |\partial y / \partial x_i| \cdot u(x_i)/y = |\partial y / \partial x_i| \cdot (x_i / y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y / \partial x_i| \cdot (x_i / y)$, and $u(y)/y$, 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. $u(x_i) / x_i = 100\%$. $|\partial y / \partial x_i| \cdot (x_i / y) = \{(\text{response per Bq of impurity}) / (\text{response per Bq of Pu-242})\} \cdot \{(\text{Bq of impurity}) / (\text{Bq of Pu-242})\}$. Thus $u(y) / y$ 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:	1374
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-051-093

A Solution Material Info	
Isotope:	Phutonium-242
Prepared By:	Ashley Drochter
Prep Date:	12/02/2009
Verification Date:	12/08/2009
Expiration Date:	12/08/2010
Primary Code:	1374-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3616 g
Density(g/mL):	1.0136
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL/dpm/g

$(\text{Mass of parent(g)}) * (\text{Parm Activity (Bq/g)}) * (\text{conversion dpm to Bq}) / (\text{Dilution Vol}) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parm Activity (Bq/g)}) * (\text{conversion dpm to Bq}) / \text{Density (g/mL)} / (\text{Dilution Vol}) = \text{Parent Activity (dpm/g)}$
$(5.3616 \text{ g}) * (26.31 \text{ Bq/g}) * (60 \text{ dpm/Bq}) / (250 \text{ mL}) = 33.8553 \text{ dpm/mL}$
$(5.3616 \text{ g}) * (26.31 \text{ Bq/g}) * (60 \text{ dpm/Bq}) / (1.0136 \text{ g/mL}) / (250 \text{ mL}) = 33.4010 \text{ dpm/g}$

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
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GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1374-A

A.Drochter 12/8/2009	Isotope	Value	Uncertainty
	1374-A	1.610	0.2480
	1374-A	1.580	0.2510
	1374-A	1.530	0.2440
Mean Value (Counting) =	1.573	103.17	Pass
Stdev =	0.040414519	Rule 3 (Pass/Fail)	
Target =	1.52		
Lower Limit =	1.492504296		
Upper Limit =	1.654162371		
Rule 1 Pass/Fail	Pass		
Two sigma =	0.080829038		
10 % of Mean =	0.157333333		
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 1374-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu239 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.

Handwritten:
 JCT c. well
 12/8/09
 12/9/09
 12/9/09



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

78747-278

1283

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 HNO₃ solution.

Source Prepared By: WLS

W. Mao, Radiochemist

QA Approved: DM Montgomery

D. M. Montgomery, QA Manager

Date: 12-11-08

Standard Traceability Log Rad

Source Material Info		A Solution Material Info	
Parent Code:	1283	Isotope:	Uranium-232
Prepared By:	Daniel Roy	Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3	Prep Date:	12/16/2008
Reference Date:	12/09/2008	Verification Date:	12/30/2008
Ampoule Mass (g):	5.20453 g	Expiration Date:	12/30/2009
Uncertainty:	+/- 5 %	Primary Code:	1283-A
LogBook No:	RC-S-051-002	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

$(\text{Mass of parent(g)}) * (\text{Parm Activity (Bq)}) * (\text{conversion dpm to Bq}) / (\text{Ampoule Mass(g)} * (\text{Dilution Vol})) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parm Activity (Bq)}) * (\text{conversion dpm to Bq}) / \text{Density} / (\text{Ampoule Mass (g)} * (\text{Dilution Vol})) = \text{Parent Activity (dpm/g)}$
$(5.0245 \text{ g}) * (3754 \text{ Bq}) * (60 \text{ dpm/Bq}) / (5.20453 \text{ g} * 100 \text{ mL}) = 2174.4872 \text{ dpm/mL}$
$(5.0245 \text{ g}) * (3754 \text{ Bq}) * (60 \text{ dpm/Bq}) / (1.0285 \text{ g/mL}) / (5.20453 \text{ g} * 100 \text{ mL}) = 2114.1700 \text{ dpm/g}$

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	12/30/2008	12/30/2009
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	01/09/2009	12/30/2009
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

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.

A. Drochter
12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER

Batch ID:936978

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243546003	SAMPLE	MXA1	1013	06-JAN-10 18:09	DONE		
1202004936	MB	MXA1	1014	06-JAN-10 18:09	DONE		
1202004937	DUP	MXA1	1016	06-JAN-10 18:09	DONE		
1202004938	LCS	MXA1	1017	06-JAN-10 18:09	DONE		
243540001	SAMPLE	MXA1	1071	06-JAN-10 18:09	DONE		
243540002	SAMPLE	MXA1	1072	06-JAN-10 18:09	DONE		
243540003	SAMPLE	MXA1	1073	06-JAN-10 18:09	DONE		
243546001	SAMPLE	MXA1	1074	06-JAN-10 18:09	DONE		
243546002	SAMPLE	MXA1	1076	06-JAN-10 18:09	DONE		
243517008	SAMPLE	MXA1	1209	06-JAN-10 18:16	DONE		
243517009	SAMPLE	MXA1	1210	06-JAN-10 18:16	DONE		
243517003	SAMPLE	MXA1	1245	06-JAN-10 22:15	DONE		
243517004	SAMPLE	MXA1	1246	06-JAN-10 22:15	DONE		
243517005	SAMPLE	MXA1	1247	06-JAN-10 22:15	DONE		
243517006	SAMPLE	MXA1	1248	06-JAN-10 22:15	DONE		
243517007	SAMPLE	MXA1	1249	06-JAN-10 22:15	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER

Batch ID: 936982

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243517003	SAMPLE	MXA1	1223	05-JAN-10 20:08	DONE		
243517004	SAMPLE	MXA1	1224	05-JAN-10 20:08	DONE		
243517005	SAMPLE	MXA1	1225	05-JAN-10 20:08	DONE		
243517006	SAMPLE	MXA1	1226	05-JAN-10 20:08	DONE		
243517007	SAMPLE	MXA1	1227	05-JAN-10 20:08	DONE		
243517008	SAMPLE	MXA1	1228	05-JAN-10 20:08	DONE		
243517009	SAMPLE	MXA1	1229	05-JAN-10 20:08	DONE		
243540001	SAMPLE	MXA1	1230	05-JAN-10 20:09	DONE		
243540002	SAMPLE	MXA1	1231	05-JAN-10 20:09	DUSE		
243540003	SAMPLE	MXA1	1232	05-JAN-10 20:09	DUSE		
243546001	SAMPLE	MXA1	1233	05-JAN-10 20:09	DONE		
243546002	SAMPLE	MXA1	1234	05-JAN-10 20:09	DONE		
243546003	SAMPLE	MXA1	1235	05-JAN-10 20:09	DUSE		
1202004939	MB	MXA1	1236	05-JAN-10 20:09	DONE		
1202004940	DUP	MXA1	1237	05-JAN-10 20:09	DUSE		
1202004941	LCS	MXA1	1238	05-JAN-10 20:09	DONE		
243540002	SAMPLE	MXA1	1037	07-JAN-10 09:28	DONE		
243540003	SAMPLE	MXA1	1038	07-JAN-10 09:28	DONE		
243546003	SAMPLE	MXA1	1039	07-JAN-10 09:28	DONE		
1202004940	DUP	MXA1	1040	07-JAN-10 09:28	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER

Batch ID: 936984

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202004953	DUP	MXA1	1023	07-JAN-10 09:01	DONE		
1202004954	LCS	MXA1	1024	07-JAN-10 09:01	DONE		
243546002	SAMPLE	MXA1	1169	07-JAN-10 09:02	DONE		
243546003	SAMPLE	MXA1	1170	07-JAN-10 09:02	DONE		
1202004952	MB	MXA1	1171	07-JAN-10 09:02	DONE		
243517003	SAMPLE	MXA1	1121	07-JAN-10 17:57	DONE		
243517004	SAMPLE	MXA1	1122	07-JAN-10 17:57	DONE		
243517005	SAMPLE	MXA1	1123	07-JAN-10 17:57	DONE		
243517006	SAMPLE	MXA1	1124	07-JAN-10 17:57	DONE		
243517007	SAMPLE	MXA1	1127	07-JAN-10 17:57	DONE		
243517008	SAMPLE	MXA1	1128	07-JAN-10 17:57	DONE		
243517009	SAMPLE	MXA1	1129	07-JAN-10 17:57	DONE		
243540001	SAMPLE	MXA1	1130	07-JAN-10 17:57	DONE		
243540002	SAMPLE	MXA1	1132	07-JAN-10 17:57	DONE		
243540003	SAMPLE	MXA1	1135	07-JAN-10 17:57	DUSE		
243546001	SAMPLE	MXA1	1136	07-JAN-10 17:57	DONE		
243540003	SAMPLE	MXA1	1124	08-JAN-10 12:40	DONE		

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER

Batch ID: 937069

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243509001	SAMPLE	MXR1	GAM01	07-JAN-10 08:51	DONE	CAN	30-JAN-09 00:00
243509002	SAMPLE	MXR1	GAM02	07-JAN-10 08:52	DONE	CAN	29-OCT-09 00:00
243509003	SAMPLE	MXR1	GAM04	07-JAN-10 08:52	DONE	CAN	05-MAY-09 00:00
243517003	SAMPLE	MXR1	GAM05	07-JAN-10 08:52	DONE	CAN	11-JUN-09 00:00
243517004	SAMPLE	MXR1	GAM06	07-JAN-10 08:53	DONE	CAN	04-FEB-09 00:00
243517005	SAMPLE	MXR1	GAM07	07-JAN-10 08:53	DONE	CAN	20-JUL-09 00:00
243517006	SAMPLE	MXR1	GAM14	07-JAN-10 08:54	DONE	CAN	06-MAR-09 00:00
243517007	SAMPLE	MXR1	GAM22	07-JAN-10 08:58	DONE	CAN	02-DEC-09 00:00
243517008	SAMPLE	MXR1	GAM10	07-JAN-10 09:12	DONE	CAN	16-MAR-09 00:00
243517009	SAMPLE	MXR1	GAM11	07-JAN-10 09:13	DONE	CAN	18-NOV-09 00:00
243540001	SAMPLE	MXR1	GAM12	07-JAN-10 09:13	DONE	CAN	10-FEB-09 00:00
243540002	SAMPLE	MXR1	GAM16	07-JAN-10 09:14	DONE	CAN	16-NOV-09 00:00
243540003	SAMPLE	MXR1	GAM20	07-JAN-10 09:14	DONE	CAN	26-AUG-09 00:00
243543001	SAMPLE	MXR1	GAM25	07-JAN-10 09:15	DONE	CAN	07-OCT-09 00:00
243546001	SAMPLE	MXR1	GAM18	07-JAN-10 09:19	DONE	CAN	23-APR-09 00:00
243546002	SAMPLE	MXR1	GAM15	07-JAN-10 09:23	DONE	CAN	16-FEB-09 00:00
243546003	SAMPLE	MXR1	GAM19	07-JAN-10 09:24	DONE	CAN	12-MAR-09 00:00
1202005182	MB	MXR1	GAM13	07-JAN-10 09:31	DONE	CAN	02-FEB-09 00:00
1202005184	LCS	MXR1	GAM01	07-JAN-10 10:59	DONE	CAN	30-JAN-09 00:00
1202005183	DUP	MXR1	GAM04	07-JAN-10 13:06	DONE	CAN	05-MAY-09 00:00